INDIAN and
NORTHERN AFFAIRS

TRANSMITTAL FORM

M R File No.
S M R File No.
Date Fwd. 16/2/82

-OM. Mining Recorder at .... Mayo ....

O Supervising Mining Recorder at Whitehorse, Y.T.

OR ACTION ARE:

☐ NEW APPL'N for PLACER LEASE to PROSPECT: Name:

☐ RENEWAL APPL'N PLACER LEASE to PROSPECT: Name: Lease No. ....

☐ AFFIDAVIT of EXPENDITURE on PLACER LEASE. Name Lease No. ....

☐ ASSIGNMENT of PLACER LEASE No. ....
From: To:

☐ GROUPING APPL'N UNDER SEC. 52(2) PLACER MINING ACT.
Owner:

☑ DIAMOND DRILL LOGS
Claims. Jason & Ace Claim sheet no. 105-0-1

☐ QUARTZ ASSESSMENT REPORT
Claims: Claim sheet no.

Type of report: Submitted by: Pan Ocean Oil Ltd.

Cls. work performed on: $ Req. for ren. application

Jason 2'; 55; 57; 58; 155

27 Holes
11169.69 Metres

Signature

REPLY ACTION: Date Ret.

CC
Geology Section

fo

090986

Signature

INVOICE SUMMARY SHEET

Dec. 2, 1981

INVOICE NO.	PERIOD COVERED	AMOUNT
	Heath & Sherwood Ltd.	
8965	March - April	$ 28,019.40
9025	May 16-31	$ 68,471.25
9001	May 13-15	$ 61,230.20
9046	June 1-15	$166,087.91
9052	June 16-30	$176,067.79
9091	July 1-15	$125,642.68
9159	July 16-31	$127,141.15
9269	Aug 1-15	$108,270.67
9320	Aug 16-31	$164,296.10
9338	Sept 1-15	$204,458.05
9374	Sept 16-30	$195,584.84
9379	Oct 1-15	$160,498.66
9426	Oct 16-31	$147,925.73
?	Nov 1-	$117,000.00
	E. Caron Diamond Drilling Ltd.	
1071	Sept 3-15	$ 60,509.01
1082	Sept 16-Oct 8	$ 81,739.89
	TOTAL	$1,992,943.33

TOTAL METREAGE DRILLED 11,169.69

DIRECT COST PER METREAGE $178.42 (excluding Fuel, Mud, Assay, and overhead)

[redacted]

020986

RECEIVED
18 DEC 1981
MINING RECORDER
MAYO, Y.T.
I.A. & N.D.

SUMMARY OF APPLICATION FOR WORK - JASON PROPERTY 1981

Mineral Claim	Diamond Drill Hole	Metreage	Total Metreage	Direct Drilling Cost	Group No.	Work Period	Dollars Applied
Jason 21	69	1043.33	1043.33	$ 186,155.34	1	May 20-	$6,400.00
					2	Aug 14	6,000.00
					3		5,600.00
Jason 55	71	108.20					
	72	203.00					
	73	24.99					
	74	274.93					
	75	553.82	2154.01	$ 384,327.57	4	June 8-	$6,400.00
	77	298.09			5	Oct 5	6,000.00
	80	249.02			6		6,000.00
	81	109.73					
	83	332.23					
Jason 58	84	621.49	621.49	$ 110,888.88	7	Oct 3-	$6,400.00
					8	Nov 16	6,000.00
					9		6,000.00
Jason 57	68	971.39					
	68A	516.94					
	68B	129.23					
	68C	511.76					
	68D	690.37					
	68E	720.55					
	70	847.65	6426.71	$1,146,680.79	10	May 17-	$6,400.00
	70A	472.75			11	Nov 23	5,600.00
	76	168.25			12		4,800.00
	78	428.55					
	78A	52.73					
	78B	205.74					
	85	324.31					
	85A	386.49					
Jason 155	79	403.86	924.15	$ 164,890.75	13	Sept 4-Oct 4	$5,600.00
	82	520.29					
	TOTAL:		11,169.69	$1,992,943.33			$77,200.00

(Cost per metre = 178.424) Excess work not applied $1,915,743.33

telephone 416-364-7301 telex 06-22627

suite 908, 40 university avenue,

toronto, ontario, November 23rd,1981
M5J 1T1

to Cordilleran Engineering,
1418-355 Burrard Street,
Vancouver, B.C.

Invoice No. 9426
D.O. 378
Project No. 80-184

~~011200~~
090986

RECEIVED
NOV 27

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period					
	from	**to**	**footage completed**	**rate**		
	HQ,NQ,BQ diamond drilling northeast of Ross River, Yukon Territory - October 16th-31st,1981					
	Drill #1					
81-68E	90° NQ coring					
	566.93	600.00	33.07	113.75	3,761.71	
	600.00	673.92	73.92	119.60	8,840.83	
	673.92	677.88	3.96 S/O Wedge			
	677.88	750.00	72.12	119.60	8,625.55	
	750.00	900.00	150.00	126.45	18,967.50	
	900.00	908.92	8.92	134.35	1,198.40	41,393.99

Special Operations - Borehole Surveys

	Rig Hrs.	Man Hrs.
Oct. 16	3	6
17	1	2
18	2	4
19	1	2
20	2	4
21	2	4
22	2	4
23	1	2
24	1	2
25	1	2
26	1	2
27	3	6
28	1	2
29	2	4
30	1	2
31	1	2
	25	50

- Wedging

Oct. 20	15	30
21	3	6
	18	36

- Conditioning Hole

Oct. 24	3	6
25	1	2
26	1	2

CORDILLERAN ENGINEERING
Client Pamo
Project Jason
23
147,925.73
Extensions
Voucher No.
Approved
Date Paid

e. & o. e.

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suite 908, 40 university avenue,

toronto, ontario, November 23rd,1981

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Invoice No. 9426

to Page -2-

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period					
	from	to	footage completed	rate		
Oct. 27	1	2				
28	1	2				
29	1	2				
30	2	4				
31	4	8				
	14	28				
		- Change Core barrel				
Oct. 19	3	6				
	60	120				
	Rig Hours		60 only	49.00	2,940.00	
	Man Hours		120 only	19.25	2,310.00	5,250.00
	Materials					
Oct. 20	N. Clappison wedge assy. - used					185.00
	Drill #2					
81-85	90° NQ coring					
	137.47	140.51	3.04	99.95		
	140.51	145.39	4.88 S/O Wedge			
	145.39	150.00	4.61	99.95		
	150.00	156.36	6.36	104.05		
	156.36	159.72	3.36 S/O Wedge			
	159.72	174.65	14.93	104.05		
	174.65	179.22	4.57 S/O Wedge			
	179.22	192.94	13.72	104.05		
	192.94	197.51	4.57 S/O Wedge			
	197.51	211.23	13.72	104.05		
	211.23	212.45	1.22 S/O Wedge			
	206.05	207.88	1.83 S/O Wedge			
	207.88	235.61	27.73	104.05		
	235.61	238.66	3.05 S/O Wedge			
	238.66	253.90	15.24	104.05		
	253.90	255.43	1.53 S/O Wedge			
	255.43	300.00	44.57	104.05		
	300.00	324.31	24.31	108.55		
	282.55	288.34	5.79 S/O Wedge			

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toronto, ontario, November 23rd, 1981
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to Invoice No. 9426

Page -3-

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	from	to	footage completed		rate	
	288.34	300.00	11.66	104.05		
	300.00	301.15	1.15	108.55		
	301.15	305.72	4.57	S/O Wedge		
	305.72	320.04	14.32	108.55		
	320.04	324.62	4.58	S/O Wedge		
	324.62	351.44	26.82	108.55		
	351.44	352.96	1.52	S/O Wedge		
			263.65			
			7.65	99.95	764.62	
			147.93	104.05	15,392.12	
			66.60	108.55	7,229.43	
			41.47	S/O Wedge		23,386.17
			263.65			

Special Operations - Borehole Surveys

	Rig Hrs.	Man Hrs.
Oct. 16	1	2
17	1	2
18	1	2
19	2	4
20	3	6
21	1	2
22	1	2
23	2	4
24	1	2
25	4	8
26	2	4
27	1	2
29	1	2
31	2	4
	23	46

\- Wedging

	Rig Hrs.	Man Hrs.
Oct. 16	13	26
17	17	34
18	18	36
19	15	30
20	4	8
21	20	40

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November 23rd, 1981

to

Invoice No. 9426

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

to cover diamond drilling for the period

hole no.	from	to	footage completed		rate	
Oct. 22	16	32				
23	8	16				
24	18	36				
27	21	42				
28	16	32				
29	16	32				
30	5	10				
31	12	24				
	199	398				
	222	444				
	Rig Hours		222 only	49.00	10,878.00	
	Man Hours		444 only	19.25	8,547.00	19,425.00
	Materials					
	N Clappison wedge assy - used					
	Oct. 16,17,18,19,21 am, 23,24,					
	28 am, 29 pm, 31					
			10 only	185.00		1,850.00
	N Directional deflecting wedge assy					
	Oct. 21 pm, 28		2 only	605.00	1,210.00	
	Plus 14%				169.40	1,379.40
	Drill #3					
81-84	85° NQ coring					
	236.53	284.38	47.85	104.05	4,978.79	
81-84	85° BQ Coring					
	284.38	287.43	3.05	93.80	286.09	
	287.43	292.00	4.57 S/O Wedge			
	292.00	300.00	8.00	93.80	750.40	
	300.00	311.51	11.51	97.90	1,126.83	
	311.51	314.56	3.05 S/O Wedge			
	314.56	330.71	16.15	97.90	1,581.09	
	330.71	332.24	1.53 S/O Wedge			
	332.24	367.29	35.05	97.90	3,431.40	
	367.29	368.81	1.52 S/O Wedge			
	368.81	450.00	81.19	97.90	7,948.50	
	450.00	471.23	21.23	102.65	2,179.26	22,282.36

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November 23rd, 1981

to Page -5-

Invoice No. 9426

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period						
	from	to	footage completed		rate		
	Special Operations - Borehole Surveys						
	Rig Hrs.	Man Hrs.					
Oct. 16	1	2					
17	2	4					
18	1	2					
19	3	6					
20	1	2					
21	4	8					
22	1	2					
24	2	4					
26	1	2					
27	2	4					
28	1	2					
29	1	2					
31	4	8					
	24	48					
	Special Operations - Wedging						
	Rig Hrs.	Man Hrs.					
Oct. 16	2	4					
19	4	8					
20	11	22					
21	4	8					
22	11	22					
23	17	34					
25	19	38					
	68	136					
			- Conditioning Hole				
Oct. 31	4	8					
			- Reduce to BQ				
Oct. 19	10	20					
	106	212					
	Rig Hours		106 only		49.00	5,194.00	
	Man Hours		212 only		19.25	4,081.00	9,275.00
	Special Operations - Standby						
	Rig Hrs.	Man Hrs.					
Oct. 16	1	2					

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November 23rd,1981

to

Invoice No. 9426

in account with

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division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period					
	from	**to**	**footage completed**		**rate**	
Oct. 18	5	10				
20	1	2				
21	1	2				
	8	16				
	Rig Hours		8 only	42.35	338.80	
	Man Hours		16 only	19.25	308.00	646.80
	Materials					
	B Clappinson wedge assy		- used assy.			
	Oct. 20, 21, 23		3 only	375.00	1,125.00	
			- new assy.			
	Oct. 25		1 only		1,190.00	2,315.00
	Tractor Rental					
	Oct. 16-31		1/2 month	7000.00		3,500.00
	Tractor Driver					
	Oct. 17-31		1/2 month	5890.00/M		2,945.00
	Skidder Rental					
	Oct. 16-31		1/2 month	3320.00/M		1,660.00
	Skidder Driver					
	Oct. 16-31		186 hrs.	19.25/hr.		3,580.50

Cost Plus Diamond Tools

		31.00 cts.	26.00 cts.	20.00 cts.	Settings
1F-8928	NXC Shell			36.06	141.00
1F-8926	NXC Ball bit	55.43			159.70
1F-1478X	HW casing shoe				219.00
1F-3853	NX Shell			15.73	129.00
1G-2149	NXC Core bit		38.93		145.25
1G-1338	HWC Shell			27.76	210.00
1G-4951	BXC Concave bit	~~21.29~~	21.29		117.68
1G-3564	NQ bit	15.99			104.70
1G-3565	NQ bit	15.99			104.70
1G-4952	BXC Canve bit		21.29		117.68
1A-4181	NXC Shell			30.93	141.00
1F-8942	NXC Core bit			31.25	141.00
1G-3649	NXC core bit			29.97	141.00
		87.41	81.51	171.70	1,871.71

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November 23rd, 1981

to Page -7-

Invoice No. 9426

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

to cover diamond drilling for the period

hole no.	from / to	footage completed		rate	
	Diamonds	87.41 cts.	31.00	2,709.71	
		81.51 cts.	26.00	2,119.26	
		171.70 cts.	20.00	3,434.00	
	Settings			1,871.71	
				10,134.68	
	Plus 14%			1,418.86	11,553.54
	Cost Plus Diamond Tool Credit				
1F-8928	NXC Shell - lost down the hole				
1F-8926	NXC Ball bit - lost down the hole				
1F-1478X	HW casing shoe - lost down the hole				
1G-3587	NQ core bit	11.05 cts.			
1G-4048	BXC Concave bit	18.05			
1C-6880	NQ core bit	8.90*			
1G-4045	BXC Concave bit	12.65			
1G-3288	BQ core bit	6.30			
1F-1533	NQ Core bit	3.60			
1G-2149	NXC Core bit	28.90			
		89.45			
		80.55 cts.	26.00	2,094.30	
		8.90* cts.	31.00	275.90	
				2,370.20	
	Plus 14%			331.83	(2,702.03)
					$147,925.73

e. & o. e.

telephone 416-364-7301 telex 06-22627

suite 908, 40 university avenue,

toronto, ontario, October 26th,1981
M5J 1T1

to Cordilleran Engineering,
1418-355 Burrard Street,
Vancouver, B.C.

Invoice No. 9379
D.O. 378
Project No. 80-184

RECEIVED NOV - 3

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period					
	from	to	footage completed	rate		
	HQ,NQ,BQ diamond drilling northeast of Ross River, Yukon Territory - October 1st-15th,1981					
	Drill #1					
81-68D	90° NQ coring					
	704.71	748.90	44.19	119.60	5,285.12	
81-68E	90° NQ coring					
	262.74	265.79	3.05 S/O Wedge			
	265.79	300.00	34.21	104.05	3,559.55	
	300.00	450.00	150.00	108.55	16,282.50	
	450.00	470.01	20.01	113.75	2,276.14	
	470.01	474.58	4.57 S/O Wedge			
	474.58	502.01	27.43	113.75	3,120.16	
	502.01	506.58	4.57 S/O Wedge			
	506.58	566.93	60.35	113.75	6,864.81	37,388.28

Special Operations - Borehole Surveys

Oct. 1	1 rig hrs.	2 man hrs.
2	10	20
6	1	2
7	4	8
8	3	6
9	2	4
10	3	6
11	2	4
12	1	2
13	1	2
14	1	2
15	2	4
	31	62

\- Wedging

Oct. 4	18	36
5	24	48
11	8	16
12	14	28
13	18	36
	82	164

(213)

Parro
Jason
160498.66

Extensions
Voucher No.
Approved

Approved
OSH
Tel. [illegible]

e. & o. e.

telephone 416-364-7301 telex 06-22627

suite 908, 40 university avenue,

toronto, ontario, October 26th,1981
M5J 1T1

to

Invoice No. 9379

Page -2-

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

to cover diamond drilling for the period

hole no.	from	to	footage completed	rate		
		- Cementing				
Oct. 3	6	12				
4	4	8				
	10	20				
		- Change from W/L to Standard core barrel				
	3	6				
	126	252				
	Rig Hours		126 only	49.00	6,174.00	
	Man Hours		252 only	19.25	4,851.00	11,025.00
	Special Operations - Waiting for cement to set					
Oct. 3	12 rig hrs.	24 man hrs.				
4	2	4				
	14	28				
	Rig Hours		14 only	42.35	592.90	
	Man Hours		28 only	19.25	539.00	1,131.90
	Materials					
Oct. 5	N direction deflecting wedge assy				605.00	
	Chibougamau plug				38.50	
					643.50	
	Plus 14%				90.09	733.59
12	N Clappison wedge assy - new				985.00	
		- used			185.00	1,170.00
	Drill #2					
81-78B	83° NQ coring					
	335.59	376.74	41.15	108.55	4,466.83	
81-85	HQ coring					
	0	16.00	16.00 O/B	119.65	1,914.40	
	16.00	21.95	5.95 O/B	139.65	830.92	
	21.95	52.12	30.17	114.65	3,458.99	
	49.38	52.43	3.05 S/O Wedge			
	52.43	71.63	19.20	114.65	2,201.28	
	68.28	71.32	3.04 S/O Wedge			
	71.32	87.78	16.46	114.65	1,887.14	
	84.43	85.95	1.52 S/O Wedge			
	85.95	121.31	35.36	114.65	4,054.02	

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suite 908, 40 university avenue,
toronto, ontario, M5J 1T1

October 26th, 1981

to

Page -3-

Invoice No. 9379

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period					
	from	to	footage completed		rate	
	117.04	120.09	3.05 S/O Wedge			
	120.09	137.47	17.38	114.65	1,992.62	20,806.20
	Footage Premium re Triple tube coring					
81-78B	366.68	376.74	10.06	20.20		203.21
	Special Operations - Borehole Surveys					
Oct. 1	2 rig hrs.	4 man hrs.				
9	1	2				
10	3	6				
11	2	4				
12	1	2				
13	1	2				
15	3	6				
	13	26				
		- Wedging				
10	12	24				
11	4	8				
12	13	26				
13	12	24				
14	22	44				
15	3	6				
	66	132				
	79	158				
	Rig Hours	79 only		49.00	3,871.00	
	Man Hours	158 only		19.25	3,041.50	6,912.50
	Special Operations - Standby Rate					
Oct. 4	Move between holes	12 rig.hrs.	48 man hrs.			
5	"	12	36			
6	"	8	16			
11	Wait for surbeys	5	10			
		37	110			
	Rig Hours	37 only		42.35	1,566.95	
	Man Hours	110 only		19.25	2,117.50	3,684.45

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October 26th,1981

to

Invoice No. 9379

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period from	to	footage completed		rate		
	Materials						
Oct. 10	H Directional deflecting wedge assy					1,639.40	
11	"					1,639.40	
13	"					1,639.40	
14	"					1,639.40	
						6,557.60	
	Plus 14%					918.06	7,475.66
	Drill #3						
81-84	HQ Coring						
	0	16.00	16.00	O/B	119.65	1,914.40	
	16.00	28.35	12.35	O/B	139.65	1,724.68	
	28.35	82.60	54.25		114.65	6,219.76	
81-84	NQ Coring						
	82.60	119.48	36.88		99.95	3,686.16	
	119.48	124.06	4.58	S/O Wedge			
	124.06	150.00	25.94		99.95	2,592.70	
	150.00	231.65	81.65		104.05	8,495.68	
	231.65	236.53	4.88	S/O Wedge			24,633.38
	Special Operations - Borehole Surveys						
Oct. 6	1 rig hrs.	2 man hrs.					
8	1	2					
9	1	2					
10	1	2					
12	3	6					
13	2	4					
14	1	2					
	10	20					
		- Wedging					
11	11	22					
15	21	42					
	32	64					
	42	84					
	Rig Hours	42 only			49.00	2,058.00	
	Man Hours	84 only			19.25	1,617.00	3,675.00

e. & o. e

telephone 416-364-7301

telex 06-22627

suite 908, 40 university avenue,

toronto, ontario, M5J 1T1

October 26th, 1981

Invoice No. 9379

to

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period					
	from	to	footage completed	rate		
	Special Operations - Moving between holes					
Oct. 1	12 rig hrs.	24 man hrs.				
2	12	48				
3	12	36				
	36	108				
	Rig Hours		36 only	42.35	1,524.60	
	Man Hours		108 only	19.25	2,079.00	3,603.60
	Materials					
Oct. 11	N Clappison wedge - used assy.				185.00	
15	" - used assy.				185.00	370.00
	Drill #4					
81-83	HQ coring					
	236.83	300.00	63.17	119.15	7,526.71	
	300.00	332.24	32.24	124.20	4,004.21	11,530.92
	Special Operations - Borehole Surveys					
Oct. 1	1 rig hr.	2 Man hrs.				
2	1	2				
3	1	2				
5	8	16				
	11	22				
	Rig Hours		11 only	49.00	539.00	
	Man Hours		22 only	19.25	423.50	962.50
	Demobilization - Drill #4					
	- from drill site to staging area					
Oct. 6	12 rig hrs.	36 man hrs.				
7	12	12				
8	12	12				
	36	60				
	Rig Hours		36 only	42.35	1,524.60	
	Man Hours		60 only	19.25	1,155.00	2,679.60

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October 26th, 1981

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terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period					
	from / to	footage completed	rate			
	Tractor Rental					
	Oct. 1 - 15	12/ month	7000.00/M			3,500.00
	Tractor Driver					
	Oct. 1 - 13	13 days	5890.00/M			2,470.00
	Skidder Rental					
	Oct. 1 - 15	1/2 month	3320.00/M			1,660.00
	Skidder Driver					
	Oct. 1- 15	169 hrs.	19.25			3,253.25

Cost Plus Diamond Tools

hole no.		31.00 cts.	26.00 cts.	20.00 cts.	Setting
1G-3590	NQ core bit		13.00		98.25
1G-3614	"		18.31		105.61
1C-6880	"	13.19			100.00
1G-7585	NXC ball bit	41.46			158.60
1G-4045	BXC concave bit		21.21		123.28
1G-4052	"		21.21		123.28
1D-8036	AXC wedge bit		15.29		58.30
Z-2397	BXC ball bit		18.83		102.00
1G-3288	BQ core bit		9.55		70.00
1G-3594	NQ core bit		13.00		098.25
1G-3587	"		13.00		098.25
1G-1242	HWC cone bit		96.01		400.00
1G-4950	BXC concave bit		21.29		117.68
1G-3651	NXC reaming bit			29.97	141.00
1G-2148	NXC cone bit		38.93		145.25
1G-3553	NQ core bit	15.99			104.70
1G-4953	BXC concave bit		21.29		117.68
1G-3556	NQ core bit	15.99			104.70
1G-3554	"	15.99			104.70
1F-1533	BQ core bit		8.06		70.00
		102.62	328.98	29.97	2,441.53

	Diamonds	102.62 cts.	31.00	3,181.22	
		328.98 cts.	26.00	8,553.48	
		29.97	20.00	599.40	
	Settings			2,441.53	
Y-03863	NX Wedge bit	24.85 cts.	35.00	869.75	
	Setting			145.00	
				15,790.38	
	Plus 14%			2,210.65	18,001.03

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suite 908, 40 university avenue,

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October 26th,1981

to

Invoice No. 9379

in account with

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division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period from / to	footage completed		rate		
	Cost Plus Diamond Tool Credit					
1G-4046	BXC concave bit	16.82 cts.				
1G-4049	"	16.83				
1G-3648	NXC wedge bit	23.63				
1G-3652	"	23.63				
1F-7046	"	23.64				
1F-8927	NXC ball bit	45.20				
1D-6285	NQ core bit	10.65				
1D-6322	"	10.20				
4J-907	NQ concave bit	10.75				
1G-3590	NQ core bit	10.20				
1G-4614	"	14.43				
1G-3594	"	8.98				
		214.96 cts.	26.00	5,588.96		
	Plus 14%			782.45		(6,371.41)
						$160,498.66

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suite 908, 40 university avenue,
toronto, ontario, October 14th,1981
M5J 1T1

to Cordilleran Engineering,
1418-355 Burrard Street,
Vancouver, B.C.

Invoice No. 9374
D.O. 378
Project No. 80-184

OCT 21

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

to cover diamond drilling for the period

HQ.NQ, BQ diamond drilling, northeast of Ross River, Yukon Territory - September 16th-30th,1981

Drill #1

hole no.	from	to	footage completed	rate		
81-68-D	90° NQ Coring					
	212.75	230.43	17.68	104.05	1,839.60	
	230.43	231.96	1.53	S/O Wedge		
	231.96	249.63	17.67	104.05	1,838.56	
	249.63	251.16	1.53	S/O Wedge		
	251-16	276.46	25.30	104.05	2,632.47	
	276.46	277.98	1.52	S/O Wedge		
	277.98	300.00	22.02	104.05	2,291.18	
	300.00	376.43	76.43	108.55	8,296.48	
	376.43	377.96	1.53	S/O Wedge		
	377.96	450.00	72.04	108.55	7,819.94	
	450.00	600.00	150.00	113.75	17,062.50	
	600.00	704.71	104.71	119.60	12,523.32	54,304.05

Special Operations - Borehole Surveys

	Rig Hrs.	Man Hrs.
Sept 16	1	2
17	1	2
18	2	4
19	2	4
20	4	8
21	1	2
22 23	2 2	4 4
24	2	4
25	2-1/2	5
26	1	2
27	1-1/2	3
28	1	2
29	2	4
	25	50

CORDILLERAN ENGINEERING
Client Pam O
Project Susan
~~195,331.84~~
213
192,812.84
Extensions
Voucher No.
Approved
Date Paid

e. & o. e.

telephone 416-364-7301

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suite 908, 40 university avenue,

toronto, ontario, October 14th,1981
M5J 1T1

Invoice No. 9374

to

Page -2-

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

to cover diamond drilling for the period

hole no.	from	to	footage completed	rate		
		- Wedging				
Sept 16	1	2				
17	19	38				
18	15-1/2	31				
19	3	6				
21	14	28				
	52-1/2	105				
	77-1/2	155				
	Rig Hrs.		77-1/2 only	49.00	3,797.50	
	Man Hrs.		155 only	19.25	2,983.75	6,781.25
	Materials					
	N Clappison wedges - used assembly					
	Sept 17 am, pm, Sept 18 & 21 4 only			185.00		740.00
	Drill #2					
81-78	83° NQ coring					
	382.22	428.55	46.33	108.55	5,029.12	
81-78A	83° HQ coring					
	131.68	137.77	6.09	114.65	698.22	
81-78A	83° NQ coring					
	137.77	181.97	44.20	104.05	4,599.01	
	170-99	173.43	2.44 S/O Wedge			
	173.43	202.08	28.65	104.05	2,981.03	
	202.08	206.66	4.58 S/O Wedge			
	206.66	233.78	27.12	104.05	2,821.84	
	233.78	235.31	1.53 S/O Wedge			
	235.31	300.00	64.69	104.05	6,730.99	
	300.00	335.59	35.59	108.55	3,863.29	26,723.50
	Special Operations - Borehole Surveys					
	Rig Hrs.	Man Hrs.				
Sept 16	1	2				
17	10	20				
20	2	4				
21	2	4				
23	1	2				
24	1-1/2	3				

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October 14th,1981

Invoice No. 9374

to Page -3-

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period					
	from	to	footage completed	rate		
Sept 25	1	2				
- 27	1	2				
28	1	2				
29	2	4				
30	2	4				
	24-1/2	49				
		- Wedging				
Sept 19	12	24				
22	24	48				
23	11	22				
24	14-1/2	29				
25	1	2				
26	20	40				
	82-1/2	165				
		- Cement				
Sept 18	12	24				
		- Conditioning hole				
27	4	8				
	123	246				
	Rig Hours		123 only	49.00	6,027.00	
	Man Hours		246 only	19.25	4,735.50	10,762.50
	Special Operations - Wait for cement to set					
Sept 18			12 rig hrs.	42.35	508.20	
			24 man hrs.	19.25	462.00	970.20
	Materials					
Sept 17	N directional deflecting wedge assy				605.00	
	Chibougamau plug				38.50	
					643.50	
	Plus 14%				90.09	733.59
22	N Clappison wedge assy - new				985.00	
23	" - used				185.00	
24	" - new				985.00	
26	" - used				185.00	2,340.00

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October 14th,1981

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division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period: from	to	footage completed	rate		
	Drill #3					
81-70	80° NQ coring					
	712.02	733.66	21.64	119.60	2,588.14	
	733.66	738.23	4.57 S/O Wedge			
	738.23	750.00	11.77	119.60	1,407.69	
	750.00	754.08	4.08	126.45	515.92	
81-70	80° BQ coring					
	754.08	763.53	9.45	114.20	1,079.19	
	763.53	768.11	4.58 S/O Wedge			
	768.11	793.71	25.60	114.20	2,923.52	
	793.71	798.28	4.57 S/O Wedge			
	798.28	900.00	101.72	114.20	11,616.42	
	900.00	910.45	10.45	121.35	1,268.11	21,398.99

Special Operations - Borehole Surveys

	Rig Hrs.	Man Hrs.
Sept 19	2	4
20	3	6
30	13	26
	18	36

\- Wedging

	Rig Hrs.	Man Hrs.
Sept 16	9	18
17	24	48
18	8	16
20	9	18
21	19	38
22	9	18
23	18	36
	96	192

\- Reduce from NQ to BQ

	Rig Hrs.	Man Hrs.
19	12	24
	126	252

Rig Hours	126 only	49.00	6,174.00	
Man Hours	252 only	19.25	4,851.00	11,025.00

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suite 908, 40 university avenue,

toronto, ontario, October 14th,1981

M5J 1T1

Invoice No. 9374

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heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period						
	from	to	footage completed	rate			
	Materials						
	N Clappison Wedges						
Sept 16	1 Used assy					185.00	
	B. Clappison Wedges						
Sept 20,23	2 used assy				375.00	750.00	935.00
	Drill #4						
81-81	HQ coring						
	0	7.32	7.32 O/B		119.65	875.84	
	7.32	109.73	102.41		114.65	11,741.31	
81-83	HQ coring						
	0	9.75	9.75 O/B		119.65	1,166.59	
	9.75	150.00	140.25		114.65	16,079.66	
	150.00	236.83	86.83		119.15	10,345.79	40,209.19
	Footage premium re triple tube drilling						
81-81	93.57	109.73	16.16		28.35		458.14
	Special Operations - Borehole Surveys						
		Rig Hrs.	Man Hrs.				
Sept 19		2	4				
20		1	2				
22		4	8				
25		2	4				
26		3	6				
27		1-1/2	3				
28		2	4				
29		2	4				
30		2	4				
		19-1/2	39				
	- Reaming Casing						
Sept 16		2	4				
18		7	14				
19		8	16				
		17	34				
	- Wedging						
Sept 22		12	24				
23		11	22				
		23	46				

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terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period — from / to	footage completed	rate		
	- Pulling Casing				
Sept 23	4 / 8				
	63-1/2 / 127				
	Rig Hours	63-1/2 only	49.00	3,111.50	
	Man Hours	127 only	19.25	2,444.75	5,556.25
	Special Operations - Standby Rate				
	Rig Hrs. / Man Hrs.				
Sept 16	Moving between holes 5 / 10				
23	" 6 / 12				
24	" 12 / 24				
25	" 1 / 2				
22	Wait for Geologist 2 / 4				
	26 / 52				
	Rig Hrs.	26 only	42.35	1,101.10	
	Man Hrs.	52 only	19.25	1,001.00	2,102.10
	Materials				
Sept 22	10 ft. HWL rods	8 only	127.00	1,016.00	
23	2 ft. HW casing	54 only	51.85	2,799.90	
	HW casing shoe 1F1476X	1 only		219.00	
				4,034.90	
	Less 20% useage for rod & casing (not on shoe)			763.18	
				3,271.72	
	Plus 14%			458.04	3,729.76
	Tractor Rental				
	Sept 16-30	1/2 month	7000.00		3,500.00
	Tractor Driver				
	Sept 16-30	1/2 month	5890.00		2,945.00
	Skidder Rental				
	Sept 16-30	1/2 month	3320.00		1,660.00
	Skidder Driver				
	Sept 16-30	174 hrs.	19.25		3,349.50
	Extra Crew				
	K. Kelly Sept 16-27	144 hrs.	19.25		2,772.00

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hole no.	to cover diamond drilling for the period from	to	footage completed	rate		

Cost plus diamond tools

		Cts.	Settings			
1G-4048	BXC concave bit	21.21	123.28			
1A-4125	NQ-3 core bit	12.00	115.93			
1A-4132	NQ-3 core bit	12.00	115.93			
1A-4133	NQ-3 core bit	12.00	115.93			
1A-4134	NQ-3 core bit	12.00	115.93			
1A-4135	NQ-3 core bit	12.00	115.93			
1G-5052	NQ-3 core bit	19.31	111.68			
1G-4043	BXC concave bit	21.21	123.28			
		121.73	937.89			
	Diamonds		121.73 cts.	26.00	3,164.98	
	Settings				937.89	
					4,102.87	
	Plus 14%				574.40	4,677.27

Cost plus diamond tools Credit ~~Useable Recovery~~

1 only	NX BW 1E-8641	7.90 cts.			
5 only	BXC concave bits 1E-4524,1G-4044,1G-4047 1G-4050, 1G-4051	71.90			
1 only	NXC ball bit 1F-8925	40.35			
1 only	NQ core bit 1G-3592	8.75			
1 only	NQ core bit 1D-6283	9.20			
3 only	NX BW bit LE-8639,1E-8642 1E-8644	28.95			
1 only	NQ core bit 1D-6287	4.40			
1 only	NQ core bit 1G-3593	7.00			
*1 only	NXC ball bit 1A-8373	39.00			
5 only	NQ-3 core bits 1A-4125, 1A-4132, 1A-4133,1A-4134 1A-4135	44.90			
1 only	NQ-3 core bit 1G-5052	14.95			
1 only	BXC concave bit 1G-4043	15.85			
		293.15 cts.	26.00	7,621.90	
1 only	NXC reaming big 1E-9409	22.00			
2 only	NXC wedge bit 1G3647, 1G-3650	35.95			

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to

Invoice No. 9374

in account with

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division of challenger international services ltd.

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hole no.	to cover diamond drilling for the period					
	from / to	footage completed		rate		
2 only	NXC reaming shells					
	1A-4169, 1A-4170	48.20				
1 only	NXC reaming bit 1F-8941	25.40				
1 only	NXC Shell 1A-4165	17.55				
		149.10 cts.	20.00	2,982.00		
				10,603.90		
	Plus 14%			1,484.55		
				CREDIT	(12,088.45)	
					$195,584.84	
	Less Pg 6					
	Extra crew				2772.00	
					192812.84	

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suite 908, 40 university avenue,

toronto, ontario, M5J 1T1

September 29th,1981

to Cordilleran Engineering,
1418-355 Burrard Street,
Vancouver, B.C.

Invoice No. 9338
D.O. 378
Project No. 80-184

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	from	to	footage completed	rate		
	HQ. NQ, BQ diamond drilling, northeast of Ross River, Yukon Territory - September 1st-15th,1981					
	Drill #1					
81-68C	90° NQ coring					
	467.57	469.09	1.52	S/O wedge		
	469.09	600.00	130.91	113.75	14,891.01	
	600.00	726.35	126.35	119.60	15,111.46	
81-68D	90° NQ coring					
	60.66	63.70	3.04	S/O wedge		
	63.70	150.00	86.30	99.95	8,625.69	
	150.00	181.66	31.66	104.05	3,294.22	
	181.66	183.19	1.53	S/O wedge		
	183.19	200.26	17.07	104.05	1,776.13	
	200.26	204.83	4.57	S/O wedge		
	204.83	212.75	7.92	104.05	824.08	44,522.59

Special Operations - Borehole Surveys

	Rig Hrs.	Man Hrs.
Sept. 2	3	6
3	2	4
4	1	2
5	1	2
6	2	4
10	11	22
12	1	2
13	4	8
14	2	4
15	1	2
	28	56
		- Wedging
Sept. 1	18	36
12	12	24
14	11	22
15	11	22
	52	104
		- Cementing
Sept. 11	4	8
	84	168

213 202,740 95

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September 29th, 1981

to

Invoice No. 9338

in account with

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division of challenger international services ltd.

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hole no.	to cover diamond drilling for the period					
	from	**to**	**footage completed**	**rate**		
	Rig Hours		84 only	49.00	4,116.00	
	Man Hours		168 only	19.25	3,234.00	7,350.00
	Standby - Waiting for cement to set					
Sept 11			16 rig hrs.	42.35	677.60	
			32 man hrs.	19.25	616.00	1,293.60
	Materials					
	N Clappison wedges					
	Sept. 1 new assembly				985.00	
	Sept.14 used assembly				185.00	
	Sept.15 used assembly				185.00	1,355.00
	N directional deflecting wedge assembly					
	Sept. 12				605.00	
	Plus 14%				84.70	689.70
	Chibougamou plug				38.50	
	Plus 14%				5.39	43.89
	Drill #2					
81-78	83° HQ coring					
	92.36	150.00	57.64	114.65	6,608.43	
	150.00	300.00	150.00	119.15	17,872.50	
	300.00	338.94	38.94	124.20	4,836.35	
81-78	83° NQ coring					
	338.94	382.22	43.28	108.55	4,698.04	34,015.32

Special Operations - Borehole Surveys

	rig hrs.	man hrs.
Sept. 2	1-1/2	3
5	1	2
7	1	2
8	1	2
9	1	2
11	1	2
12	1-1/2	3
14	1	2
	9	18

- Reduce to N hole size

13	10	20
	19	38

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suite 908, 40 university avenue,
toronto, ontario, M5J 1T1

September 29th,1981

Invoice No. 9338

to

in account with

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terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period					
	from	to	footage completed	rate		
	Rig Hours		19 only	49.00	931.00	
	Man Hours		38 only	19.25	731.50	1,662.50
	Special Operations - Other					
	Sept 1 Tripod		11 rig hrs.	42.35	465.85	
			22 man hrs.	19.25	423.50	889.35
	Drill #3					
81-70	80° NQ coring					
	552.61	564.80	12.19	113.75	1,386.61	
	564.80	566.02	1.22 S/O wedging			
	566.02	600.00	33.98	113.75	3,865.23	
	600.00	604.73	4.73	119.60	565.71	
	604.73	606.25	1.52 S/O wedging			
	606.25	646.18	39.93	119.60	4,775.63	
	646.18	648.32	2.14 S/O wedging			
	648.32	673.31	24.99	119.60	2,988.80	
	673.31	674.84	1.53 S/O wedging			
	674.84	712.02	37.18	119.60	4,446.73	18,028.71

Special Operations - Borehole Surveys

	Rig Hrs.	Man Hrs.
Sept. 1	3	6
4	1	2
5	1	2
7	1	2
8	3	6
9	3	6
15	2	4
	14	28

- Wedging

	Rig Hrs.	Man Hrs.
Sept. 1	6	12
2	16	32
3	8	16
6	14	28
7	5	10
9	19	38
10	5	10
11	11	22
12	24	48
13	10	20
	118	236

e. & o. e.

telephone 416-364-7301

telex 06-22627

suite 908, 40 university avenue,

toronto, ontario, M5J 1T1

September 29th,1981

Invoice No. 9338

to

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period						
	from	to	footage completed	rate			
		132	264				
	Rig Hours		132 only	49.00	6,468.00		
	Man Hours		264 only	19.25	5,082.00	11,550.	00
	Materials Water line Righs		4 @ 42.35		169.40	323	40
	N. Clappison wedges Man hrs		8 @ 19.25		154.00		
	Sept 3 1 new assembly				985.00		
	Sept. 6, 9, 12 3 used assemblies			185.00	555.00	1,540.	00
	Drill #4						
81-77	83° NQ coring						
	182.27	185.32	3.05 S/O Wedge				
	185.32	202.08	16.76	104.05	1,743.88		
	202-08	203.61	1.53 S/O wedge				
	203.61	220.07	16.46	104.05	1,712.66		
	220.07	221.59	1.52 S/O wedge				
	221.59	298.10	76.51	104.05	7,960.87		
81-80	83° HQ coring						
	0	7.32	7.32 O/B	119.65	875.84		
	7.32	150.00	142.68	114.65	16,358.26		
	150.00	249.02	99.02	119.15	11,798.23	40,449.	74
	Footage Premium re Triple Tube drilling						
81-77	281.94	289.26	7.32 NQ	20.20	147.86		
81-80	217.93	249.02	31.09 HQ	28.35	881.40	1,029.	26
	Special Operations - Borehole Surveys						
		Rig Hrs.	Man Hrs.				
Sept. 1		3	6				
2		1	2				
4		3	6				
6		6	12				
8		1	2				
9		1	2				
10		2	4				
11		3	6				
12		2	4				
13		2	4				
15		8	16				

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suite 908, 40 university avenue,

toronto, ontario, September 29th,1981
M5J 1T1

Invoice No. 9338

to Page -5-

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period					
	from	to	footage completed	rate		
		- Wedging				
Sept. 1	9	18				
2	8	16				
3	20	40				
	37	74				
		- Reaming casing				
Sept. 8	9	18				
10	1	2				
	10	20				
	79	158				
	Rig Hours		79 only	49.00	3,871.00	
	Man Hours		158 only	19.25	3,041.50	6,912.50
	Special Operations - Standby Rate					
		- Wait for decison				
Sept. 2	1	2				
		- Moving between holes				
Sept. 7	10	20				
Sept. 15	4	8				
	14	28				
	15	30				
	Rig Hours		15 only	42.35	635.25	
	Man Hours		30 only	19.25	577.50	1,212.75
	Materials					
	N. Clappison wedges					
	Sept 1 am 1 new assembly				985.00	
	Sept 1 pm, 3, 2 used assemblies			185.00	370.00	
					1,355.00	
	Less 1 used assembly charged Aug. 31st				185.00	1,170.00
	2 ft. HW casing		10 only	51.85	518.50	
	Less 20% useage				103.70	
					414.80	
	HW casing shoe 1F1483X				219.00	
					633.80	
	Plus 14%				88.73	722.53

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telex 06-22627

suite 908, 40 university avenue,

toronto, ontario, September 29th, 1981
M5J 1T1

to

Invoice No. 9338

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period				
	from / to	footage completed		rate	
	Tractor Rental				
	Sept. 1 - 15	1/2 month		7,000.00	3,500.00
	Tractor Driver				
	Sept. 1 - 15	1/2 month		5,890.00	2,945.00
	Skidder Rental				
	Sept. 1 - 15	1/2 month		3,320.00	1,660.00
	Skidder Operator				
	Sept 1 - 15	56 hrs.		19.25	1,078.00
	Extra Crew				
	K. Kelly Sept 1 - 15	~~182 hrs.~~ 76		19.25	~~3,503.50~~ 1463.00
	Cost Plus Diamond Tools				
	Description	26.00 cts.	20.00 cts.	Setting	
4J907	NQ concave	21.05		108.00	
1E8639	NX bevelwall	13.79		59.00	
1E8642	NX Bevelwall	13.79		59.00	
1E8644	NX Bevelwall	13.79		59.00	
1D6287	NQ step	13.77		107.20	
1G3593	NQ core	13.00		98.25	
1G3647	NXC wedge		29.97	141.00	
1G3650	NXC wedge		29.97	141.00	
1A4169	NXC reaming shell		30.93	141.00	
1A4170	NXC reaming shell		30.93	141.00	
1E8641	NX Bevelwall	13.79		59.00	
1E4524	BXC concave	29.69		114.00	
1F8925	NXC ball bit	49.88		145.25	
1D6283	NQ core	13.77		107.20	
1F8941	NXC reaming bit		31.25	141.00	
1A4165	NXC reaming shell		30.93	141.00	
1G3648	NXC wedge		29.97	141.00	
1F7046	NXC wedge		29.21	141.00	
1G4049	BXC concave	21.21		123.28	
1F8927	NXC ball	55.43		145.25	
1D6285	NX core	13.77		107.20	
1D6322	NX core	14.05		102.25	
		300.78	243.16	2,521.88	

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suite 908, 40 university avenue,
toronto, ontario, M5J 1T1

September 29th, 1981

Invoice No. 9338

to

Page -7-

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period					
	from / to	footage completed	rate			
	Diamonds	300.78 cts.	26.00	7,820.28		
		243.16 cts.	20.00	4,863.20		
	Settings			2,521.88		
				15,205.36		
	Plus 14%			2,128.75	17,334.11	
					~~$204,458.05~~	
				4	202740.95	

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suite 908, 40 university avenue,

toronto, ontario, M5J 1T1

September 16th, 1981

to Cordilleran Engineering,
1418 - 355 Burrard Street,
Vancouver, B.C.

Invoice No. 9320
D.O. 378
Project No. 80-184

RECEIVED SEP 29

- C&H copy Sept 29/81

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period					
	from	**to**	**footage completed**	**rate**		
	HQ, NQ, BQ diamond drilling northeast of Ross River, Yukon Terriroty					
	August 16th-31st,1981					
	Drill #1					
81-68B	90° NQ coring					
	736.71	750.00	13.29	119.60	1,589.48	
	750.00	806.82	56.82	126.45	7,184.89	
81-68C	90° NQ coring					
	217.33	235.31				
	235.31	236.83	1.52 S/O wedge			
	236.83	255.12				
	255.12	256.64	1.52 S/O wedge			
	256.64	270.36				
	270.36	271.58	1.22 S/O wedge			
	271.58	288.65				
	288.65	289.87	1.22 S/O wedge			
	289.87	300.00				
	300.00	305.72				
	305.72	306.94	1.22 S/O wedge			
	306.94	328.88				
	328.88	330.10	1.22 S/O wedge			
	330.10	351.13				
	351.13	352.35	1.22 S/O wedge			
	352.35	413.92				
	413.92	415.45	1.53 S/O wedge			
	415.45	438.00				
	438.00	439.53	1.53 S/O wedge			
	439.53	450.00				
	450.00	467.57	17.57	113.75	1,998.59	
	217.33	300.00	82.67			
	Less Wedging footage		5.48			
			77.19	104.05	8,031.62	
	300.00	450.00	150.00			
	Less Wedging footage		6.72			
			143.28	108.55	15,553.04	34,357.62

(213)

~~[illegible]~~

159,907.10

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telex 06-22627

suite 908, 40 university avenue,

toronto, ontario, September 16th,1981
M5J 1T1

Invoice No. 9320

to Page -2-

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period					
	from / to	footage completed		rate		
	Special Operations - Borehole Surveys					
	Rig Hrs.	Man Hrs.				
Aug 18	10	20				
Aug 19	4	8				
Aug 20	1-1/2	3				
Aug 21	1	2				
Aug 23	1	2				
Aug 24	1	2				
Aug 25	3	6				
Aug 26	1	2				
Aug 28	2	4				
Aug 29	1	2				
Aug 30	1	2				
Aug 31	2	4				
	28-1/2	57				
	- Wedging					
Aug 20	14-1/2	29				
Aug 21	19	38				
Aug 22	21	42				
Aug 23	9	18				
Aug 24	19	38				
Aug 25	12	24				
Aug 26	12	24				
Aug 27	5	10				
Aug 29	18	36				
Aug 30	10	20				
Aug 31	6	12				
	145-1/2	291				
	- Cementing					
Aug 19	7	14				
Aug 20	2	4				
	9	18				
	183	366				
	Rig Hours	183 only	49.00	8,967.00		
	Man Hours	366 only	19.25	7,045.50		16,012.50

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September 16th, 1981

Invoice No. 9320

to Page -3-

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period — from	to	footage completed	rate		
	Standby - Waiting for cemtn to set					
Aug 19	Rig Hours.		5 only	42.35	211.75	
	Man Hours		10 only	19.25	192.50	404.25
	Materials					
	N Directional deflecting wedge ass. Aug 20				605.00	
	Plus 14%				84.70	689.70
	N Clappison wedges Aug 21 am , pm, 22 pm, Aug 23 pm, 24 pm, 25 pm, Aug 26 pm, 29pm, 30 pm		9 only	185.00		1,665.00
	Cost Plus Diamond Tools					
	BXC concave bit 1G-4050		21.21 cts.	26.00	551.46	
	Setting		1 only		123.28	
	NXC reaming bell bit 1G-3652		29.97 cts.	20.00	599.40	
	Setting		1 only		141.00	
	NQ bit 1G-3592		13.00 cts.	26.00	338.00	
	Setting		1 only		98.25	
	BXC concave bit 1G-4046		21.21 cts.	26.00	551.46	
	Setting		1 only		123.28	
	NQ bit 1G-3587		13.00 cts.	26.00	338.00	
	Setting		1 only		98.25	
					2,962.38	
	Plus 14%				414.73	3,377.11
	Drill #2					
81-76	60° HQ coring					
	19.20	150.00	130.80	123.15	16,108.02	
	150.00	168.25	18.25	128.15	2,338.74	
81-78	83° HQ coring					
	0	5.79	5.79 O/B	119.65	692.77	
	5.79	92.36	86.57	114.65	9,925.25	29,064.78
	Footage Preium re Triple tube drilling					
81-76	131.68	168.25	36.57	28.35		1,036.76

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suite 908, 40 university avenue,

toronto, ontario, M5J 1T1

September 16th,1981

Invoice No. 9320

to

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period						
	from	to	footage completed		rate		
	Special Operations - Borehole Surveys						
		Rig Hrs.	Man Hrs.				
81-76	Aug 18	1	2				
	Aug 20	1	2				
	Aug 25	8	16				
81-78	Aug 28	1	2				
	Aug 29	1	2				
	Aug 31	1	2				
		13	26				
			- Hole conditioning				
81-76	Aug 18	1	2				
		14	28				
	Rig Hours		14 only		49.00	686.00	
	Man Hours		28 only		19.25	539.00	1,225.00
	Special Operations - Moving between holes						
		Rig Hrs.	Man Hrs.				
Aug 26		2	4				
			- Tripod				
Aug 30		6	12				
		8	16				
	Rig Hours		8 only		42.35	338.80	
	Man Hours		16 only		19.25	308.00	646.80
	Drill #3						
81-70A	440.44	450.00	9.56		108.55	1,037.74	
	450.00	463.61	13.61		113.75	1,548.14	
	463.61	465.13	1.52	S/O Wedge			
	465.13	483.42	18.29		113.75	2,080.49	
	483.42	484.94	1.52	S/O Wedge			
	484.94	552.61	67.67		113.75	7,697.46	12,363.83
	Footage Premium re Mini-Deve						
	444.09	463.61	19.52				
	469.09	483.42	14.33				
	485.86	512.38	26.52				
			60.37	M	21.95		1,325.12

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suite 908, 40 university avenue,

toronto, ontario, M5J 1T1

September 16th,1981

to

Invoice No. 9320

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period						
	from	to	footage completed	rate			
	Special Operations - Borehole Surveys						
		Rig Hrs.	Man Hrs.				
81-70A	Aug 18	4	8				
	Aug 23	3	6				
	Aug 24	1	2				
	Aug 29	1	2				
	Aug 31	2	4				
		11	22				
			- Wedging				
	Aug 16	18	36				
	Aug 17	12	24				
	Aug 19	24	48				
	Aug 20	7	14				
	Aug 21	8	16				
	Aug 22	12	24				
		81	162				
			- Drilling Cement				
	Aug 16	6	12				
		98	196				
	Rig Hours		98 only	49.00	4,802.00		
	Man Hours		196 only	19.25	3,773.00	8,575	00
	Materials						
	N Clappison Wedges						
	Aug 19th and 22nd		2 only	185.00		370	00
	Cost Plus Diamond Tools						
	NXC belt bit 1A-8373		47.91 cts.	26.00	1,245.66		
	Setting		1 only		141.00		
	BXC concave bit 1G-4047		21.21 cts.	26.00	551.46		
	Setting				123.28		
					2,061.40		
	Plus 14%				288.60	2,350	00
	Drill #4						
81-75	80° NQ coring						
	499.57	553.83	54.26	113.75	6,172.08		

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suite 908, 40 university avenue,

toronto, ontario, M5J 1T1

September 16th,1981

Invoice NO. 9320

to Page -6-

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

to cover diamond drilling for the period

hole no.	from	to	footage completed	rate			
81-77	83° HQ coring						
	0	3.96	3.96 O/B	119.65	473.81		
	3.96	121.01	117.05	114.65	13,419.78		
81-77	83° NQ coring						
	121.01	150.00	28.99	99.95	2,897.55		
	150.00	180.75	30.75	104.05	3,199.54		
	180-75	182.27	1.52 S/O. Wedge			26,162	76
	Footage Premium re Triple tube drilling						
81-75	515.73	553.83	38.10	20.20		769	62
	Special Operations - Borehole Surveys						
		Rig Hrs.	Man Hrs.				
81-75	Aug 19	9	18				
81-77	Aug 22	1	2				
	Aug 23	2	4				
	Aug 24	1	2				
	Aug 25	1	2				
	Aug 26	2	4				
	Aug 27	2-1/2	5				
	Aug 29	2	4				
	Aug 30	3	6				
		23-1/2	47				
			- Wedging				
81-77	Aug 30	6-1/2	13				
	Aug 31	24	48				
		30-1/2	61				
			- Pulling casing				
81-75	Aug 20	24	48				
	Aug 21	1	2				
		25	50				
			- Reduce to N hole size				
81-77	Aug 27	6	12				
		85	170				
	Rig Hours		85 only	49.00	4,165.00		
	Man Hours		170 only	19.25	3,272.50	7,437	50

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suite 908, 40 university avenue,

toronto, ontario, September 16th,1981
M5J 1T1

to Page -7-

Invoice No. 9320

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.

to cover diamond drilling for the period

from	to	footage completed	rate		
Standby Rate					
Moving between holes					
	Rig Hrs.	Man Hrs.			
Aug 21	1	2			
Wait for Geologist decision					
Aug 27	1	2			
Aug 29	1	2			
	3	6			
Rig Hours		3 only	42.35	127.05	
Man Hours		6 only	19.25	115.50	242.55
Materials					
N Clappison wedge Aug 31		1 only			185.00
Cost Plus Diamond Tools					
BXC concabe bit 1G-4051		21.21 cts.	26.00	551.46	
Setting		1 only		123.28	
				674.74	
Plus 14%				94.46	769.20
Tractor Rental					
Aug 16-31		1/2 month	7,000.00/M		3,500.00
Tractor Driver					
Aug 16-31		1/2 month	5,890.00/M		2,945.00
Skidder Rental					
Aug 16-31		1/2 month	3,320.00/M		1,660.00
Skidder Operator					
Aug 16-31		144 hrs.	19.25		2,772.00
Extra Crew					
D. MacMillan					
Aug 18-20 incl. 3 days x 12 hrs.		36 man hrs.			
K. Kelly					
Aug 21-31 incl. 11 days x 12 hrs.		132			
Lalonde					
Aug 26-30 incl 5 days x 12 hrs.		60			
		228 hrs.	19.25	Less →	4,389.00
					$164,296.10

please provide backup

e. & o. e.

E. CARON DIAMOND DRILLING LTD. 7 Roundel Road Whitehorse Yukon Y1A 3H3 Phone (403) 668-2424 Telex 036-8-337

September 15, 1981

Invoice #-1071

8

CSH - Copy Sept 25/81

IN ACCOUNT WITH:

Cordilleran Enginerring,
1418 - 355 Burrard Street,
Vancouver, B. C.
V6C 2GH

Drilling Charges September 3 to 15, 1981: (MacPass)

Hole: 81-79/55					
Moving					
84 man hrs.	@ $23.00 per hr.	=		$ 1,932.00	
Drilling & Reducing					
10 man hrs.	@ $23.00 per hr.	=	$ 230.00		
5 machine hrs.	@ $13.50 per hr.	=	$ 67.50	$ 297.50	
Casing					
20 man hrs.	@ $23.00 per hr.	=	$ 460.00		
10 machine hrs.	@ $13.50 per hr.	=	$ 135.00	$ 595.00	
Reaming Cave					
10 man hrs.	@ $23.00 per hr.	=	$ 230.00		
5 machine hrs.	@ $13.50 per hr.	=	$ 67.50	$ 297.50	
Waterline					
8 man hrs.	@ $23.00 per hr.	=		$ 184.00	
Mud Time & Recovering Return					
36 man hrs.	@ $23.00 per hr.	=	$ 828.00		
18 machine hrs.	@ $13.50 per hr.	=	$ 243.00	$ 1,071.00	
Testing					
2 man hrs.	@ $23.00 per hr.	=	$ 46.00		
1 machine hrs.	@ $13.50 per hr.	=	$ 13.50	$ 59.50	
Casing					
0 - 3.28m	@ $137.80 per m.	=		$ 451.98	
Coring					
3.28 - 138.07 = 134.79 m	@ $132.05 per m.	=	$17,799.02		
138.07 - 150 = 11.93 m	@ $124.67 per m.	=	$ 1,487.31		
150 - 300 = 150 m.	@ $127.95 per m.	=	$19,192.50		
300 - 401.42 = 101.42 m	@ $135.00 per m.	=	$13,691.70	$52,170.53	$57,059.01
Mobilization Charge		=			$ 3,450.00
				Total Invoice	$60,509.01

Pan O
Jason
60 509.01

213

B

E. CARON DIAMOND DRILLING LTD. 7 Roundel Road Whitehorse, Yukon Y1A 3H3 Phone (403) 668-2424 Telex 036-8-337

Panducan
Gasson
213
$1.739.89

Sept. 30, 1981

Invoice #- 1082

IN ACCOUNT WITH:

Cordilleran Engineering,
1418 - 355 Burrard St.,
Vancouver, B.C.
V6C 2GH

Drilling Charges Sept. 16 to Oct. 8, 1981: (MacPass)

Hole 81-79/55/NQ				
Testing				
22 man hrs.	@ $ 23.00 per hr.	= $ 506.00		
11 mach. hrs.	@ $ 13.50 per hr.	= $ 148.50	$ 654.50	
Coring				
401.42 - 403.~~96~~ 84 =2.~~54~~ 4 m@$135.00 per m		=	~~$ 342.90~~ 327.40	~~$ 997.40~~ 983.90
Hole 81-82/75/HQ/NQ				
Moving				
197 ~~214~~ man hrs.	@ $ 23.00 per hr.	= $ ~~4,922.00~~ 4531.00		
8½ mach. hrs.	@ $ 13.50 per hr.	= $ 114.75	~~$ 5,036.75~~ 4645.75	
Drilling				
8 man hrs.	@ $ 23.00 per hr.	= $ 184.00		
4 mach. hrs.	@ $ 13.50 per hr.	= $ 54.00	$ 238.00	
Casing				
20 man hrs.	@ $ 23.00 per hr.	= $ 460.00		
10 mach. hrs.	@ $ 13.50 per hr.	= $ 135.00	$ 595.00	
Reaming Cave				
2 man hrs.	@ $ 23.00 per hr.	= $ 46.00		
1 mach. hr.	@ $ 13.50 per hr.	= $ 13.50	$ 59.50	
Mud Time				
6 man hrs.	@ $ 23.00 per hr.	= $ 138.00		
3 mach. hrs.	@ $ 13.50 per hr.	= $ 40.50	$ 178.50	
Testing				
52 man hrs.	@ $ 23.00 per hr.	= $ 1,196.00		
26 mach. hrs.	@ $ 13.50 per hr.	= $ 351.00	$ 1,547.00	

* Oct 5 D 18 hrs not 35

E. CARON DIAMOND DRILLING LTD. 7 Roundel Road Whitehorse, Yukon Y1A 3H3 Phone (403) 668-2424 Telex 036-8-337

Truck Loading					
8 truck hrs.	@ $ 45.00 per hr.	=		$ 360.00	
Standby					
6 man hrs.	@ $ 23.00 per hr.	=	$ 138.00		
3 mach. hrs.	@ $ 13.50 per hr.	=	$ 40.50	$ 178.50	
Casing					
0 - 4.87 = 4.87 m	@ $137.80 per m	=		$ 671.08	
Coring					
4.87 - 147.25 = 142.38 metres	@ $132.05 per m	=	$18,801.27		
147.25 - 150 = 2.75 m	@ $124.67 per m	=	$ 342.84		
150 -300 = 150 m	@ $127.95 per m	=	$19,192.50		
300 - 450 = 150 m	@ $135.00 per m	=	$20,250.00	68,778.66	77251.99
450 - 520.29 = 70.29 m	@ $145.00 per m	=	$10,~~210.90~~ 192.05	~~$68,797.51~~	~~$77,661.84~~
Demobilization					
demob	@ $ 1,150.00	=			$ 1,150.00
Items Consumed & Chargeable					
Hole 81-79/55/HQ/NQ					
17 HQ Rods	@ $ 150.55 X.80%	=	$ 2,047.48		
	+ 15%	=	$ 307.12		$ 2,354.60
				Total Invoice:	$82,163.84
					81,739.89

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August 13th,1981

to Cordilleran Engineering,
1418-355 Burrard Street,
Vancouver, B.C.
V6C 2G8

Invoice No. 9159
D.O. 378
Project No. 80-184

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period					
	from	**to**	**footage completed**	**rate**		
	HQ,NQ, BQ diamond drilling northeast of Ross River, Yukon Territory					
	July 16th-31st,1981					
81-68A	90° NQ coring - Drill #1					
	459.33	600.00	140.67M	113.75	16,001.21	
	600.00	694.65	94.65	119.60	11,320.14	27,321.35
	Special Operations - Borehole Surveys					
	Rig Hrs.	Man Hrs.				
July 16	1	2				
July 17	1	2				
July 18	1	2				
July 19	2	4				
July 20	1	2				
July 21	2	4				
July 22	1	2				
		- Wedging				
July 17	8	16				
July 18	7	14				
	24	48				
	Rig Hours		24 only	49.00	1,176.00	
	Man Hours		48 only	19.25	924.00	2,100.00
	Footage Premium re Triple Tube System					
	615.09	694.65	79.56 M	20.20		1,607.11
81-69	80° BQ Coring - Drill #2					
	776-32	900.00	123.68M	114.20	14,124.26	
	900.00	913.50	13.50	121.35	1,638.23	15,762.49
	Special Operations - Borehole Surveys					
	Rig Hrs.	Man Hrs.				
July 16	1	2				
July 19	1	2				
July 25	2	4				
July 26	1	2				
July 29	2	4				

27,141.15

313

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August 13th,1981

Invoice No. 9159

to

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

to cover diamond drilling for the period

hole no.	from	to	footage completed	rate		
		- Hole Conditioning				
July 16	2	4				
July 19	2	4				
July 20	4	8				
July 21	4	8				
July 22	2	4				
July 23	1	2				
July 28	1	2				
	23	46				
	Rig Hours		23 only	49.00	1,127.00	
	Man Hours		46 only	19.25	885.50	2,012.50
	Footage Premium re Triple Tube Systems					
	805.29	810.47	5.18			
	843.39	913.50	70.11			
			75.29M	17.70		1,332.63
81-70	80° NQ Coring - Drill #3					
	574.24	600.00	25.76	113.75	2,930.20	
	600.00	654.41	54.41	119.60	6,507.44	
	654.41	656.24	1.83 S/O Wedge			
	656.24	749.51	93.27	119.60	11,155.09	20,592.73
	Special Operations - Borehole Surveys					
	Rig Hrs.	Man Hrs.				
July 20	1	2				
July 21	1	2				
July 22	1	2				
July 23	1	2				
July 26	1	2				
July 27	1	2				
July 29	1	2				
July 31	3	6				
	10	20				
		- Wedging				
July 24	18	36				
July 25	23	46				
e. & o. e.	51	102				

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toronto, ontario, August 13th,1981
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Invoice No. 9159

to Page -3-

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heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period from	to	footage completed		rate	
	Rig Hours		51 only	49.00	2,499.00	
	Man Hours		102 only	19.25	1,963.50	4,462.50
	Special Operations - Work on Tripod					
	Rig Hrs.	Man Hrs.				
July 17	10	20				
July 18	12	24				
July 19	12	24				
	34	68				
	Rig Hours		34 only	42.35	1,439.90	
	Man Hours		68 only	19.25	1,309.00	2,748.90
	Footage Premium - 50 ft. Bit Control					
	644.35	655.02	10.67 M	2.10	22.41	
	- NQ Mini-Deve					
	644.35	655.02	10.67	19.50	208.07	230.48
	Material Used					
	N Clappison Wedge		1 only			185.00
81-75	80° HQ Coring - Drill #4					
	127.10	150.00	22.90	114.65	2,625.49	
	150.00	300.00	150.00	119.15	17,872.50	
	300.00	406.61	106.61	124.20	13,240.96	33,738.95
	Special Operations - Borehole Surveys					
	Rig Hrs.	Man Hrs.				
July 16	2	4				
July 17	3	6				
July 18	2	4				
July 19	1	2				
July 20	2-1/2	5				
July 21	1	2				
July 25	1	2				
July 26	1	2				
July 30	1-1/2	3				
	15	30				

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August 13th,1981

Invoice No. 9159

to

Page -4-

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period						
	from	to	footage completed	rate			
	Rig Hours		15 only	49.00	735.00		
	Man Hours		30 only	19.25	577.50	1,312	50
	Footage Premium - Triple Tube System						
81-74	179.53	274.92	95.39	28.35		2,704	31
	Cost Plus Diamonds						
	BXC Concave bit 1G-4044		1 only				
			21.21 cts.	26.00	551.46		
	Setting				123.28		
					674.74		
	Plus 14%				94.46	769	20
	Tractor Rental						
	July 16-31		1/2 month	7000.00/M		3,500	00
	Tractor Operator						
	July 16-31		1/2 month	5890.00/M		2,945	00
	Skidder Rental						
	July 16-31		1/2 month	3320.00/M		1,660	00
	July 1-15		1/2 month	3320.00/M	1,660.00		
	Less amount charged on invoice 9091				1,160.00	500	00
	Skidder Operator						
	July 16-31		86 hours	19.25		1,655	50
						$127,141	15

CORDILLERAN
ENGINEERING

Client Cam O
Project Jason
127,141.15

Extensions
Voucher No.
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M5J 1T1

August 27th,1981

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to Cordilleran Engineer,ing
1418-355 Burrard Street,
Vancouver, B.C.
V6C 2G8

Invoice No. 9269
D.O. 378
D.O. 80-184

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period					
	from	to	footage completed	rate		
	HQ, NQ, BQ diamond drilling northeast of Ross River Yukon Territory					
	August 1st-15th,1981					
	Drill #1					
81-68A	90° NQ coring					
	694.65	750.00	55.36M	119.60	6,619.86	
	750.00	862.90	112.90	126.45	14,276.21	
81-68B	90° NQ coring					
	680.02	736.71	56.69	119.60	6,780.12	27,676.19
	Special Operations - Borehole Surveys					
	Rig Hrs.	Man Hrs.				
Aug 1	2	4				
3	3-1/2	7				
9	11	22				
	16-12	33				
	- Cementing					
10	12	24				
12	20	36				
	32	60				
	- Wedging					
13	24	48				
14	10	20				
	34	68				
	82-1/2	161				
	Rig Hours		82-1/2	49.00	4,042.50	
	Man Hours		161	19.25	3,099.25	7,141.75
	Standby - Wait for cement to set					
Aug 10	12	24				
11	24	48				
12	4	8				
	40	80				
	Rig Hours		40 only	42.35	1,694.00	
	Man Hours		80 only	19.25	1,540.00	3,234.00

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suite 908, 40 university avenue,
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August 27th, 1981

Invoice No. 9269

to Page -2-

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period					
	from / to	footage completed	rate			
	Special Operations - Other					
July 24	Sand in water tank	10 rig hrs.	42.35	423.50		
		20 man hrs.	19.25	385.00		
				808.50		
	Less Contractor's share			404.25	404	25
	Materials					
Aug 13	N. Directional deflecting wedge assy	1 only		605.00		
	N. Grout plug	1 only		38.50		
				643.50		
	Plus 14%			90.09	733	59
	Footage Premium re Triple Tube System					
81-68A	694.65 716.29	21.64M	20.20		437	13
	Drill #2					
81-69	80° BQ coring					
	913.50 1043.34	129.84M	121.35	15,756.08		
81-76	60° HQ coring					
	0 3.05	3.05 O/B M	133.15	406.11		
	3.05 19.20	16.15	123.15	1,988.87	18,151	06
	Footage Premium re Mini-Deve					
81-69	1003.11 1043.34	40.23M	19.50		784	49

Special Operations - Borehole Surveys

		Rig Hrs.	Man Hrs.
81-69	Aug 1	1	2
	3	1	2
	5	1	2
	10	4	8
	12	1	2
	13	2	4
		10	20

- Hole Conditioning

81-69	Aug 2	1	2
	11	4	8
	5	1	2
		6	12

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August 27th,1981

Invoice No. 9269

to

Page -3-

in account with

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division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period from	to	footage completed	rate		
		- Reaming Mini-Deve				
81-69	Aug 7 8 / 24	16 / 48				
	Rig Hours		24 only	49.00	1,176.00	
	Man Hours		48 only	19.25	924.00	2,100.00
	Moving between holes - 81-69 to 81-76					
Aug 14			12 rig hrs.	42.35	508.20	
			24 man hrs.	19.25	462.00	970.20
	Special Operations - Other					
81-69	July 24 Cleaning mud tanks		2 rig hrs.	42.35	84.70	
			4 man hrs.	19.25	77.00	161.70
	Drill #3					
81-70	80° NQ coring					
	749.51	750.00	0.40 9	119.60	58.60	
	750.00	847.66	97.66	126.45	12,349.11	12,407.71
	Special Operations - Borehole Surveys					
	Rig Hrs.	Man Hrs.				
Aug. 3	3	6				
12	17	26				
	20	32				
		- Hole conditioning				
11	7	14				
		- Cementing				
13	14	28				
14	3	6				
15	18	36				
	35	70				
	62	116				
	Rig Hours		62 only	49.00	3,038.00	
	Man Hours		116 only	19.25	2,233.00	5,271.00

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suite 908, 40 university avenue,

toronto, ontario, August 27th,1981
M5J 1T1

Invoice No. 9296

to

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period					
	from	**to**	**footage completed**	**rate**		
	- Waiting on Cement to set					
Aug 13	10	20				
14	21	42				
15	6	12				
	37	74				
	Rig Hours		37 only	42.35	1,566.95	
	Man Hours		74 only	19.25	1,424.50	2,991.45
	Materials					
	N Directional deflecting wedge assembly		1 only		605.00	
	Chigougamau plus (Grout)		2 only	38.50	77.00	
					682.00	
	Plus 14%				95.48	777.48
	Drill #4					
81-75	80° HQ coring					
	406.61	450.00	43.39M	124.20	5,389.04	
	450.00	486.77	36.77	129.95	4,778.26	
	80° NQ coring					
	486.77	499.57	12.80	113.75	1,456.00	11,623.30
	Special Operations - Borehole Surveys					
	Rig Hrs.	Man Hrs.				
Aug. 2	1	2				
5	1-1/2	3				
	2-1/2	5				
	- Reduce to N hole size					
11	12	36				
12	12	36				
13	12	36				
	36	108				
	38-1/2	113				
	Rig Hours		38-1/2	49.00	1,886.50	
	Man Hours		113	19.25	2,175.25	4,061.75
	- Clean mud tanks resand					
July 21	3	6				

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telex 06-22627

suite 908, 40 university avenue,

toronto, ontario, M5J 1T1

August 27th, 1981

to

Invoice No. 9296

in account with

heath & sherwood drilling

division of challenger international services ltd.

CORDILLERAN ENGINEERING [redacted]

Client Pan O

Project Jason

(213)

Extensions

Voucher ~~No.~~

Approved

Date Paid

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period					
	from	to	footage completed	rate		
July 24	8	16				
25	3	6				
26	3	6				
27	3	6				
31	3	6				
	23 0	46 0				
	Rig Hours		23 only	42.35	847.00 ~~974.05~~	
	Man Hours		46 only	19.25	770 885.50	
					1617 1,859.55	
	Less Contractor's share (50%)				808.50 929.78	808.50 ~~929.77~~
	- Modify drill shack					
Aug 8			4 rig hrs.	42.35	169.40	
			8 man hrs.	19.25	154.00	
	Mechanic - J. Marchand		10 man hrs.	19.25	192.50	515.90
	Cost Plus diamonds cutout credits					
1 only	NXC reaming bit 1F-7047					
	Useable recovery		17.80 cts.	20.00	356.00	
2 only	BXC concave bits					
	1F-2743, 1F-2742					
	Useable recovery		40.95 cts.	26.00	1,064.70	
2 only	NX BW core bits					
	1E-8634, 1E-8638					
	Useable recovery		10.60 cts.	26.00	275.60	
					1,696.30	
	Plus 14%				237.48	(1,933.78)
	Tractor REntal					
Aug 1-15			1/2 month	7000.00/M		3,500.00
	Tractor Driver					
Aug 1-15			1/2 month	5890.00/M		2,945.00
	Skidder Rental					
Aug 1-15			1/2 month	3320.00/M		1,660.00
	Skidder Operator					
Aug 1-15			96 hrs.	19.25		1,848.00
						~~$108,391.94~~
						$108,270.67

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suite 908, 40 university avenue,

toronto, ontario, July 23, 1981
M5J 1T1

to Cordilleran Engineering,
1418-355 Burrad Street,
Vancouver, B.C.
V6C 2G8

Invoice No. 9091
D.O. 378
Project No. 80-184

Attn: O.S. Hairsine

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period						
	from	**to**	**footage completed**		**rate**		
	HQ, NQ, BQ diamond drilling northeast of Ross River, Yukon Territory - July 1st - 15th, 1981						
81-68(A)	90° NQ coring - Drill #1						
	348.69	364.84	16.15M	NQ	108.55	1,753.08	
	364.84	366.36	1.52	S/O Wedge			
	366.36	385.57	19.21		108.55	2,085.25	
	385.57	387.09	1.52	S/O Wedge			
	387.09	407.51	20.42		108.55	2,216.59	
	407.51	408.73	1.22	S/O Wedge			
	408.73	450.00	41.27		108.55	4,479.86	
	450.00	459.33	9.33		113.75	1,061.29	11,596.07

Special Operations

Date	Rig Hrs.	Man Hrs.
July 1	8	16
2	4	8
3	3	6
	15	30

\- Wedging

Date	Rig Hrs.	Man Hrs.
July 6	16	32
7	15	30
8	16	32
9	14	28
10	20	40
14	22	44
15	7	14
	110	220

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213 / 25,642.68

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to Page 2

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.

to cover diamond drilling for the period

from	to	footage completed		rate		
		- Hole Conditioning				
July 1	3	6				
		- Washing Cement				
July 1	5	10				
2	2	4				
3	7	14				
	14	28				
		- Borehole Surveys				
July 6	1	2				
7	2	4				
8	2	4				
9	1	2				
11	2	4				
12	1	2				
13	1	2				
14	2	4				
15	1	2				
	13	26				
	155	310				
Rig Hours		155 only	49.00	7,595.00		
Man Hours		310 only	19.25	5,967.50	13,562.50	
		- Waiting on Cement				
July 1	3	6				
2	18	36				
3	14	28				
4	24	48				
5	24	48				
6	5	10				
	88	176				
Rig Hours		88 only	42.35	3,726.80		
Man hours		176 only	19.25	3,388.00	7,114.80	

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to Page 3

in account with

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division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period						
	from	to	footage completed	rate			
	Materials Supplied						
2 only	5/8 X 95ft hoisting cables			148.65	297.30		
	Plus 14%				41.62		
1 only	BQ W/L Bit #1F-1937				320.00		
	Plus 14%				44.80		
					703.72		
	Less amount charged on Invoice No. 9052				620.00	83.	72
	N. Clappison Wedges - July 6,7,8,9,14		5 only	185.00		925.	00
2 only	"N" Grout plugs			38.50	77.00		
	Plus 14%				10.78	87.	78
	Drill #2						
81-69	80° BQ coring						
	623.31	750.00	126.69M	108.00	13,682.52		
	750.00	776.32	26.32	114.20	3.005.74	16,688.	26

Special Operations - Borehole Surveys

Date	Rig Hrs.	Man Hrs.
July 1	1	2
7	1	2
10	1 1/2	3
12	1	2
15	1	2
	5 1/2	11

- Hole Conditioning

Date	Rig Hrs.	Man Hrs.
July 1	7	14
2	7	14
4	2	4
5	4	8

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to Page 4

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	from	to	footage completed		rate			
	to cover diamond drilling for the period							
	July 7	4	8					
	8	2	4					
	13	1	2					
	14	3	6					
	15	2	4					
		32	64					
			- Reaming Hole					
	July 3	1	2					
		38 1/2	77					
	Rig hours		38 1/2 only		49.00	1,886.50		
	Man hours		77 only		19.25	1,482.25	3,368.	75
			- Work on set up (tower)					
	July 15		2 rig hrs		42.35	84.70		
			4 man hrs		19.25	77.00	161.	70
	Drill #3							
81-70	80° NQ Coring							
	403.56	421.84	18.28		108.55	1,984.29		
	421.84	423.06	1.22	S/O Wedge				
	423.06	442.26	19.20		108.55	2.084.16		
	442.26	444.09	1.83	S/O Wedge				
	444.09	450.00	5.91		108.55	641.53		
	450.00	461.16	11.16		113.75	1,269.45		
	461.16	462.39	1.23	S/O Wedge				
	462.39	483.41	21.02		113.75	2,391.03		
	483.41	484.63	1.22	S/O Wedge				
	484.63	574.24	89.61		113.75	10,193.14	18,563.	60

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toronto, ontario,
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to Page 5

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.

to cover diamond drilling for the period

from to footage completed rate

Special Operations

- Borehole Surveys

Date	Rig Hrs	Man Hrs
July 1	1	2
2	1	2
3	1	2
4	3	6
6	1	2
7	1	2
8	1	2
10	2	4
11	1	2
12	4	8
13	1	2
14	1	2
15	2	4
	20	40

- Wedging

July 2	19	38
3	12	24
4	8	16
5	23	46
6	11	22
7	21	42
9	23	46
	117	234

- Reaming Hole

July 3	3	6

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to Page 6

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division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period						
	from	**to**	**footage completed**	**rate**			
			- Hole Conditioning				
	July 8	1 141	2 282				
	Rig Hours		141 only	49.00	6,909.00		
	Man Hours		282 only	19.25	5,428.50	12,337.	50
	Footage Premium - 50'Bit Control						
	403.56	421.84	18.28				
	423.06	442.26	19.20				
	444.09	461.16	17.07				
	462.39	483.41	21.02				
			75.57	6.89		520.	68
	Materials Used						
	"N" Clappison Wedges						
	July 2,5,6,9,14	5 only		185.00		925.	00
	Drill #4						
81-74	80° HQ Coring						
	124.05	150.00	25.95	114.65	2,975.17		
	150.00	274.92	124.92	119.15	14,884.22		
81-75	80° HQ Coring						
	0	4.26	4.26 O/B	119.65	509.71		
	4.26	127.10	122.84	114.65	14,083.61	32,452.	71

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to Page 7

in account with

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division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.

to cover diamond drilling for the period

from to footage completed rate

Special Operations

- Borehole Surveys

Date	Rig Hrs	Man Hrs.
July 2	1	2
11	6	12
12	2	4
13	2	4
14	1 1/2	3
15	4	8
	16 1/2	33

- Install Grout Plug

	July 11	2	4			
		18 1/2	37			
	Rig Hours		18 1/2 only	49.00	906.50	
	Man Hours		37 only	19.25	712.25	1,618.75

- Waiting on Instructions

	July 11	3 rig hrs	42.35	127.05	
		6 man hrs	19.25	115.50	242.55

Materials Supplied

hole no.				
81-74	1 only H Grout plug		60.55	
	Plus 14%		8.48	69.03
81-74	6 only 2ft HW casing	51.85	311.10	
	1 only HW Casing shoe #1F-1471X		219.00	
	Plus 14%		530.10	
			74.21	604.31

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in account with

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terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period from / to	footage completed	rate			
	Cost Plus Diamonds					
1 only	BXC concave Bit #1F-2743					
		24.86cts	26.00	646.36		
	Settings			122.36		
				768.72		
	Plus 14%			107.62	876.	34
2 only	NX BW Bits #IE-8634, IE-8638					
	2 bits @ 13.79 cts.	27.58cts	26.00	717.08		
	Settings	2 only	59.00	118.00		
				835.08		
	Plus 14%			116.91	951.	99
1 only	NXC Reaming Bit #1F-7047	29.21cts	20.00	584.20		
	Setting			141.00		
				725.20		
	Plus 14%			101.52	826.	72
	Diamond Cutout Credits					
6 only	NX BW Bits					
	IE-8632, IE-8633					
	IE-8635 to IE-8637 incl					
	IE-8640					
	Useable recovery	57.90cts	26.00	1,505.40		
2 only	NXC Ball bits					
	1D-9716, 1F-8924					
	Useable recovery	95.05cts	26.00	2,471.30		
3 only	BXC Concave bits					
	IE-4519, IE-4520, IF-2744					
	Useable recovery	68.25cts	26.00	1,774.50		

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terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period — from / to	footage completed	rate			
3 only	NXC Reaming shells					
	IE-4175, IE-4180, IE-1161					
	Useable recovery	86.85cts	20.00	1,737.00		
1 only	NXC Reaming bit					
	IE-9410					
	Useable recovery	18.60cts	20.00	372.00		
				7,860.20		
	Plus 14%			1,100.43	(8,960.	63)
	Tractor Rental					
	July 1-15	1/2 month	7000.00/M		3,500.	00
	Tractor Operator					
	July 1-15	1/2 month	5890.00/M		2,945.	00
	Skidder Rental					
	July 1-15	1/2 month	2320.00/m		1,160.	00
	Skidder Operator					
	July 1-15	156 hrs	19.25/Hr		3,003.	00
	Labour charge re Mechanic - Grant Construction					
	July 3	4 hrs	39.75		159.	00
	Parts supplied - Dozer Corner bits					
	2 only @	113.40	226.80			
	Plus 14%		31.75		258.	55
					126,142.	68

adds to 125,642.68

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July 8th,1981

to Cordilleran Engineering,
1418-355 Burrard Street,
Vancouver, B.C.
V6C 2G8.

ttn: Mr. O.S. Hairsine

Invoice No. 9052
D.O. 378
Project No. 80-184

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in account with

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division of challenger international services ltd.

[redacted]

213 176,067.79

terms: net cash 15 days after date of invoice

to cover diamond drilling for the period

hole no.	from	to	footage completed	rate		
	HQ. NQ, BQ diamond drilling northeast of Ross River, Yukon Territory					
	June 16-30th,1981					
	90° NQ coring - Drill #1					
81-68	597.71	600.00	2.29 M.	113.75	260.49	
	600.00	750.00	150.00	119.60	17,940.00	
	750.00	900.00	150.00	126.45	18,967.50	
	900.00	971.39	71.39	134.35	9,591.25	46,759.24

Special Operations - Borehole Surveys

hole no.	Date	Rig Hrs.	Man Hrs.
81-68	June 17	1	2
	19	2	4
	24	1	2
	29	1	2
	30	8	16
		13	26

\- Hole Conditioning

Date	Rig Hrs.	Man Hrs.
June 18	3	6
19	18	36
20	5	10
	26	52

Rig Hours	39 only	49.00	1,911.00	
Man Hours	78 only	19.25	1,501.50	3,412.50

hole no.	from	to	footage completed	rate		
81-69	80° NQ/BQ coring - Drill #2					
	552.30	600.00	47.70 NQ	113.75	5,425.88	
	600.00	604.11	4.11 NQ	119.60	491.56	
	604.11	623.31	19.20 BQ	108.00	2,073.60	7,991.04

Special Operations - Borehole Surveys

Date	Rig Hrs.	Man Hrs.
June 16	1	2
18	1	2
	2	4

\- Reaming Hole

Date	Rig Hrs.	Man Hrs.
June 18	2	4
19	2	4
	4	8

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Invoice No. 9052

to

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in account with

heath & sherwood drilling

division of challenger international services ltd.

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hole no.

to cover diamond drilling for the period

from	to	footage completed	rate		
	- Cementing				
June 20	1	2			
28	1	2			
29	3	6			
	5	10			
	- Hole Conditioning				
June 18	2	4			
19	22	44			
26	6	12			
27	4	8			
28	7	14			
	41	82			
	- Drilling Cement				
June 21	24	48			
22	12	24			
23	12	24			
24	12	24			
25	12	24			
26	6	12			
30	12	24			
	90	180			
	- Washing Cement				
June 20	13	26			
	- Stuck Rods				
June 20	10	20			
28	4	8			
	14	28			
Rig Hours		169 only	49.00	8,281.00	
Man Hours		338 only	19.25	6,506.50	14,787.50
Special Operations - Waiting on Cement					
June 29		9 rig hrs.	42.35	381.15	
		18 man hrs.	19.25	346.50	727.65
Materials supplied					
5/8" x 95 ft. hoisting cable		2 only		300.00	
NQ impregnated core bit		1 only		320.00	620.00

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Invoice No. 9052

to

in account with

heath & sherwood drilling

division of challenger international services ltd.

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hole no.

to cover diamond drilling for the period

hole no.	from	to	footage completed		rate		
81-70	80° NQ coring - Drill #3						
	128.63	150.00	21.37	99.95	2,135.93		
	150.00	211.53	61.53	104.05	6,402.20		
	211.53	213.05	1.52 S/O Wedge				
	213.05	231.03	17.98	104.05	1,870.82		
	231.03	232.56	1.53 S/O Wedge				
	232.56	261.51	28.95	104.05	3,012.25		
	261.51	262.73	1.22 S/O Wedge				
	262.73	299.92	37.19	104.05	3,869.62		
	299.92	301.42	1.50 S/O Wedge				
	301.42	403.56	102.14	108.55	11,087.30	28,378	12
	Footage Premium - Mini-Deve						
	143.87	211.53	67.66				
	213.05	231.03	17.98				
	232.56	261.51	28.95				
	262.73	299.92	37.19				
	301.42	314.55	13.13				
			164.91 M	21.95	3,619.77		
	- 50 ft. Bit Control						
	143.87	211.53	67.66				
	213.05	231.03	17.98				
	232.56	261.51	28.95				
	262.73	299.92	37.19				
	301.42	403.56	102.14				
			253.92 M	6.89	1,749.51	5,369	28

Special Operations - Borehole Surveys

Date	Rig Hrs.	Man Hrs.
June 16	4	8
17	4	8
18	1	2
19	2	4
20	2	4
21	1-1/2	3
22	1	2
24	1-1/2	3
25	1	2

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July 8th, 1981

Invoice No. 9052

to

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period						
	from	**to**	**footage completed**		**rate**		
	June 26	1-1/2	3				
	27	1-1/2	3				
	28	2-1/2	5				
	29	1-1/2	3				
	30	1	2				
		26	52				
			- Wedging				
	June 16	1	2				
	19	17	34				
	20	11	22				
	21	22-1/2	45				
	22	2	4				
	23	22	44				
	24	6-1/2	13				
	25	18	36				
	26	6-1/2	13				
		106-1/2	213				
	Rig Hours		132-1/2	49.00	6,492.50		
	Man Hours		265	19.25	5,101.25	11,593.	75
	Materials Used						
June 19	N Clappison Wedge assy -Used		1 only		185.00		
20	"		1 only		185.00		
23	"		1 only		185.00		
25	"		1 only		185.00	740.	00
	Cost Plus Diamonds						
1 only	BXC Concave bit 1F2742		24.86 cts.	26.00	646.36		
	Setting				122.36		
					768.72		
	Plus 14%				107.62	876.	34

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Invoice No. 9052

to

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hole no.	to cover diamond drilling for the period					
	from	to	footage completed	rate		
81-72	80° HQ Coring - Drill #4					
	0	8.84	8.84 M O/B	119.65	1,057.71	
	8.84	150.00	141.16	114.65	16,183.99	
	150.00	202.99	52.99	119.15	6,313.76	
81-73	80° HQ Coring					
	0	3.66	3.66M O/B	119.65	437.92	
	3.66	24.99	21.33	114.65	2,445.48	
81-74	80° HQ Coring					
	0	3.66	3.66 O/B	119.65	437.92	
	3.66	124.05	120.39	114.65	13,802.71	40,679.49
	Moving between holes					
		Rig Hrs.	Man Hrs.			
	From 81-71 to 81-72					
	June 16	1	2			
	From 81-72 to 81-73					
	June 24 am	3	6			
	pm	4	8			
	From 81-73 to 81-74					
	June 26 am	2	4			
		10	20			
	Rig Hours		10 only	42.35	423.50	
	Man Hours		20 only	19.25	385.00	808.50
	Special Operations - Borehole Surveys					
	Date	Rig Hrs.	Man Hrs.			
81-72	June 20 am	2-1/2	5			
	24 am	9	18			
81-73	June 25	1	2			
81-74	June 27 am	1	2			
	pm	1	2			
	28 am	1	2			
		15-1/2	31			
		- Pulling Casing				
81-73	June 26 am	2	4			
	Rig Hours		17-1/2	49.00	857.50	
	Man Hours		35	19.25	673.75	1,531.25

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July 8th, 1981

to

Invoice No. 9052

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.

to cover diamond drilling for the period

from	to	footage completed	rate		
Company Delays					
June 23 pm		3 rig hrs.	42.35	127.05	
		6 man hrs.	19.25	115.50	242.55
Extra crew charges re Spare diller/Timberjack operator					
May 18th	10 man hrs.				
19th	8				
20th	5				
21st	12				
22nd	12				
23rd	12				
25th	12				
26th	12				
27th	12				
28th	12				
29th	12				
31st	12				
	131 man hrs.				
Less - Tractor Driver Hours					
May 24th	12				
25th	12				
	24				
	107 man hours		19.25		2,059.75
Materials Supplied					
Valaclay sausages		32 only	9.85	315.20	
Displacement plugs		24 only	10.70	256.80	
				572.00	
Plus 14%				80.08	652.08
Labour charges re Mechanic - Cordilleran					
May 13th	6				
19th	1				
25th	3				
	10 man hours		19.25		192.50

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hole no.

to cover diamond drilling for the period

from	to	footage completed	rate	
Labour charges re Mechanic - Grant Construction				
May 21st	5			
June 17th	3			
23rd	1			
27th	2			
	11 man hours		39.75	437.25
Tractor Rental				
June 16-30		1/2 month	7000.00/M	3,500.00
Tractor Operator				
June 16-30		12/30 month	5890.00/M	2,356.00
Skidder Rental				
June 16-30		1/2 month	3320.00/M	1,660.00
Skidder Operator				
June 16-30		36 hrs.	19.25	693.00
				$176,067.79

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June 30th,1981

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to Cordilleran Engineering,
1418-355 Burrard Street,
Vancouver, B.C.
V6C 2G8

Attn: O.S. Hairsine

Invoice No. 9046
D.O. 378
Project No. 80-184

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.

to cover diamond drilling for the period

CORDILLERAN ENGINEERING
Account
Project (213)
Extensions
Voucher
Approved

Pan Ocean
Jason
166.087.91
B

from	to	footage completed	rate		
HQ, NQ, BQ diamond drilling northeast of Ross River, Yukon Territory - June 1st-15th,1981					
Mobilization - from drill staging area to first drill sites Drills #3 and #4					

Date	Rig Hrs.	Man Hrs.
June 4	8	8
5		32
6	24	48
7	22	20
	54	108

Rig Hours		54 only	42.35	2,286.90	
Man Hours		108 only	19.25	2,079.00	4,365.90
81-68 90° NQ coring - Drill #1					
213.06	298.09	85.03M	104.05	8,847.37	
298.09	299.62	1.53	S/O Wedge		
299.62	300.00	.38	104.05	39.54	
300.00	325.22	25.22	108.55	2,737.63	
325.22	326.44	1.22	S/O Wedge		
326.44	359.05	32.61	108.55	3,539.82	
359.05	360.27	1.22	S/O Wedge		
360.27	412.69	52.42	108.55	5,690.19	
412-69	414.22	1.53	S/O Wedge		
414.22	432.21	17.99	108.55	1,952.81	
432.21	433.43	1.22	S/O Wedge		
433.43	447.45	14.02	108.55	1,521.87	
447.45	448.97	1.52	S/O Wedge		
448.97	450.00	1.03	108.55	111.81	
450.00	597.71	147.71	113.75	16,802.01	41,243.05
Footage Premium - Mini-Deve					
213.06	241.70	28.64			
303.89	308.76	4.87			
374.29	379.48	5.19			
		38.70	21.95	849.47	
- Bit Restriction (50 ft.)					
213.06	576.68	363.62	6.89	2,505.34	3,354.81

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June 30th, 1981

Invoice No. 9046

to

Page -2-

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period					
	from	to	footage completed	rate		
	Special Operations - Wedging					
	Date	Rig Hrs.	Man Hrs.			
81-68	June 3	14-1/2	29			
	4	7	14			
	5	9	18			
	6	15	30			
	7	3	6			
	8	18	36			
	9	18	36			
	10	17-1/2	35			
		102	204			
	- Borehole Surveys					
	June 1	2	4			
	2	2	4			
	3	3	6			
	4	1	2			
	5	3	6			
	6	1	2			
	7	1/2	1			
	8	2	4			
	9	1	2			
	10	1	2			
	11	2	4			
	12	2	4			
	13	2	4			
	14	2	4			
	15	1	2			
		25-1/2	51			
	Rig Hours		127-1/2 only	49.00	6,247.50 ✓	
	Man Hours		255 only	19.25	4,908.75 ✓	11,156.25
	Wedging materials used					
	1 only Clappison deflecting wedge					
	Date					
	June 3 New assembly				985.00	
	4 Used assembly				185.00	
	6 "				185.00	
	8 "				185.00	
	9 "				185.00	
	10 "				185.00 ✓	1,910.00

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June 30th,1981

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to

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in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	from	to	footage completed	rate		
	Company Delays					
	June 9		2 rig hrs.	42.35	84.70	
			4 man hrs.	19.25	77.00	161.70
	Wedging Materials Used					
	June 10 Used assembly				185.00	
	14 "				185.00	
	15 "				185.00	555.00
	50° HQ/NQ Coring - Drill #4					
81-71	0	12.80	12.80M O.B	133.15	1,704.32	
	12.80	108.20	95.40 HQ	123.15	11,748.51	13,452.83
	Special Operations - Borehole Surveys					
	Date	Rig Hrs.	Man Hrs.			
	June 12	1-1/2	3			
	15	3	6			
		4-1/2	9			
	Rig Hours		4-1/2 only	49.00	220.50	
	Man Hours		9 only	19.25	173.25	393.75
	Tractor Rentals					
	June 1-15		1/2 month	7000.00/M		3,500.00
	Tractor Operator					
	June 1-15		1/2 month	5890.00/M		2,945.00
	Skidder Rental					
	June 1-15		1/2 month	3320.00/M		1,660.00
	Skidder Operator					
	June 5-15		96 hrs.	19.25/hr		1,848.00
	Truck Rental					
	Billed 2 trucks		1/2 month	850.00/M	850.00	
	Plus 14%				119.00	
					969.00	
	Should have billed					
	2/31 month 2 trucks			850.00/M	54.84	
	Plus 14%				7.68	
					62.52	
	Net Credit					(906.48)

telephone 416-364-7301 telex 06-22627

suite 908, 40 university avenue,

toronto, ontario, June 30th,1981
M5J 1T1

Invoice No. 9046

to

Page -6-

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period from / to	footage completed	rate		
	Diamond used on cost plus operations				
2 only	NXC reaming bits				
	Tool No.s 1E-9409, 1E-9410				
	2 bits @ 30.17 cts.	60.34 cts.	20.00	1,206.80	
	Settings	2 only	141.00	282.00	1,488.80
3 only	NXC Reaming shells				
	Tool No.s 1A-4180, 1A-4175				
	2 shells @ 30.93 cts.	61.86 cts			
	Tool No. 1E-1161	54.51			
		116.37 cts.	20.00	2,327.40	
	Settings	3 only	141.00	423.00	2,750.40
2 only	NXC Ball bits				
	Tool No. 1D-9716	62.97 cts.			
	1F-8924	49.88			
		112.85 cts.	26.00	2,934.10	
	Settings	2 only	145.25	290.50	3,224.60
2 only	BXC concave bits				
	Tool Nos. 1E-4519, 1E-4520				
	2 bits @ 29.69 cts.	59.38 cts.	26.00	1,543.88	
	Settings	2 only	122.82	245.64	1,789.52
1 only	BXC Concave bit				
	Tool No. 1F-2744	24.86 cts.	26.00	646.36	
	Setting	1 only		122.36	768.72
6 only	NX BW bits				
	Tool Nos. 1E-8632, 1E-8633 1E-8635 to 1E-8637 incl. 1E-8640				
	6 bits @ 13.79 cts.	82.74 cts.	26.00	2,151.24	
	Settings	6 only	59.00	354.00	2,505.24
					12,527.28
	Plus 14%				1,753.82
					14,281.10
e. & o. e.	NOTE: Credit will be given upon receipt of cutouts			12	$166,087.91

telephone 416-364-7301 telex 06-22627

suite 908, 40 university avenue,
toronto, ontario, M5J 1T1

June 12th,1981

to Cordilleran Engineering,
1418-355 Burrard Street,
Vancouver, B.C.
V6C 2GH

Invoice No. 9025
D.O. 378
Project No. 80-184

Attn: Mr. O.S. Hairsine

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no. — to cover diamond drilling for the period

from — to — footage completed — rate

HQ,NQ,BQ diamond drilling northeast of Ross River, Yukon Territory
May 16th - 31st,1981

Mobilization - from drill staging area to frist drill sites

Date	Rig Hrs.	Man Hrs.			
May 16	24	108			
17	24	60			
18	2	8			
19		12			
20		7			
24		60			
25		24			
26		4			
28		4			
29		4			
	50	291			
	Rig Hours		50 only	42.35	2,117.50
	Man Hours		291 only	19.25	5,601.75

90° HQ Coring Drill #1

hole no.	from	to	footage completed	rate	
81-68	0	7.92 M	7.92 O/B	119.65	947.63
	7.92	150.0 HQ	142.08	114.65	16,289.47
	150.0	213.06 HQ	63.06	119.15	7,513.60

Special Operations - Overburden Reaming Casing

Date	Rig Hrs.	Man Hrs.			
May 18	7	14			
	Rig Hours		7 only	49.00	343.00
	Man Hours		14 only	19.25	269.50

213

68.471.25

Bore Hole Surveys

Date	Rig Hrs.	Man Hrs.
May 19	1	2
20	2	4
21	5	10
29	4-1/2	9
30	3	6
31	2	4
	17-1/2	35

e. & o. e.

telephone 416-364-7301 telex 06-22627

suite 908, 40 university avenue,

toronto, ontario, June 12th, 1981

M5J 1T1

Invoice No. 9025

to Page -2-

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period					
	from	to	footage completed		rate	
81-68	Rig Hours		17-1/2	49.00		857.50
	Man Hours		35	19.25		673.75
	Wedging					
	Rig Hrs.	Man Hrs.				
May 28	19-1/2	39				
	Rig Hours		19-1/2	49.00		955.50
	Man Hours		39	19.25		750.75
	Company Delays					
	Rig Hrs.	Man Hrs.				
May 21	2	4				
	Rig Hours		2	49.00		98.00
	Man Hours		4	19.25		77.00
	Bit Restrictions					
May 29	20 ft. control HQ 107.28 M to 113.38		= 6.10	44.62		272.18
May 29 to 31	50 ft. bit control HQ 113.38 to 213.05		= 99.67	11.81		1,177.10
	80° HQ Drilling - Drill #2					
81-69	0	12.19	12.19 O/B	119.65		1,458.53
	12.19	150.0 HQ	137.81	114.65		15,799.92
	150.0	171.90 HQ	21.90	119.15		2,609.38
	Special Operations - Overburden Ream casing					
	Rig Hrs.	Man Hrs.				
May 21	11	22				
29	3	6				
31	11-1/2	23				
	25-1/2	51				
	Rig Hours		25-1/2	49.00		1,249.50
	Man Hours		51	19.25		981.75

e. & o. e.

telephone 416-364-7301

telex 06-22627

suite 908, 40 university avenue,
toronto, ontario, M5J 1T1

June 12th,1981

to

Page -3-

Invoice No. 9025

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period				
	from / to	footage completed	rate		
	Bore Hole Surveys				
	Rig Hrs. / Man Hrs.				
May 23	1-1/2 / 3				
25	1 / 2				
26	1 / 2				
27	1 / 2				
28	1 / 2				
29	1 / 2				
	6-1/2 / 13				
	Rig Hours	6-1/2	49.00	318	50
	Man Hours	13	19.25	250	25
	Tractor Rental				
	May 16th-31st	1/2 month	7000.00/M	3,500	00
	Tractor Operator				
	May 16th-31st	1/2 month	5890.00	2,945	00
	Skidder Rental				
	May 30th and 31st	2/31/M	3320.00	214	19
	Skidder Operator				
	May 30th	12 hours	19.25	231	00
	Truck Rental —				
	May 16-31st (2 trucks)	1/2 month	850.00/M		
	Plus 14%		119.00	969	00
				$68,471	25

CK will come for Truck Rent next invoice

CORD... ENGINEERING
Client
Project
Extensions
Voucher No.
Approved

e. & o. e.

telephone 416-364-7301 telex 06-22627

suite 908, 40 university avenue,

toronto, ontario, June 3rd,1981
M5J 1T1

to Cordilleran Engineering,
1418-355 Burrard Street,
Vancouver, B.C.
V6C 2GH

Invoice No. 9001
D.O. 378
Project No. 80-184

Attn: Mr. O.S. Hairsine

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.

to cover diamond drilling for the period

from to footage completed rate

HQ, NQ, BQ diamond drilling north east of Roos River, Yukon Territory

Mobilization - to drill staging area - Lump Sum
75% of $62,540.00 — 46,905.00
- From drill staging area to first dirll sites
2 drills

Date	Rig Hrs.	Man Hrs.
May 13	24	108
14	24	108
15	24	108
	72	324

Rig Hours	72 hrs.	42.35	3,049.20
Man Hours	324 hrs.	19.25	6,237.00
Tractor Rental			
May 1st-15th	1/2 month	7000.00/M	3,500.00
Tractor Operator	3/31 month	5890.00/M	570.00
Truck Rental			
May 1st-15th	2 Trucks 1/2 month @ $850.00/M		
Plus 14%		119.00	969.00
			$61,230.20

CORDILLERAN
ENGINEERING
Client
Project
2/3
Extensions
Voucher No.
Approved

e. & o. e.

telephone 416-364-7301 telex 06-22627

suite 908, 40 university avenue,
toronto, ontario, May 5th,1981
M5J 1T1

to Cordilleran Engineering,
1418-355 Burrard Street,
Vancouver, B.C.
V6C 2G8

Invoice No. 8965
D.O. 378
Project No. 80-184

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.	to cover diamond drilling for the period				
	from	to	footage completed	rate	
	HQ, NQ, BQ diamond drilling Jason property northeast of Ross River, Yukon Territory.				
	Extra costs re early mobilization				
	Air fare - 4 men x 1820.00 ok				7,280.00 ✓
	Labour				
	March 25th	20 man hrs.			
	26th	32			
	27th	32			
	28th	32			
	29th	32			
	30th	32			
	31st	32			
	April 1st	32			
	2nd	32			
	3rd	32			
	4th	48			
	5th	32			
	6th	32			
	7th	32			
	8th	32			
		484 man hrs.	#19.25 ~~19.75~~		9,317.00 ~~9,559.00~~ ✓
	Tractor Rental				
	March 23rd-Apr 30,1981	1-9/31 months	7000.00/M		9,032.25 ✓
	Advance Truck Rentals (2)				
	March 25th-31st	2 x	198.31	396.62	
	April 1st-30th	2 x	850.00	1,700.00	
				2,096.62	
	Plus 14%		ok	293.53	2,390.15 ✓
					~~$28,261.40~~
		#2109 May 31/81		Pd	28.019.40

Pandean
Jason
213
28019.40

e. & o. e.

^DEVSYS>UDD>JASON>GEO404>PRLOG

GCOS6 MOD400-L2.0-12/10/0744

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Office of the Regional Manager Mi...
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Yukon Territ...

1982/02/05 1323:26.9 !LPT00 HONEYWELL BILLERICA

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RECEIVED
12 FEB 1982
MINING RECORDER
MAYO, Y.T.
I.A. & N.D.

090986

^DEVSYS>UDD>JASON>GEO404>PRLOG

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                         G E O L O G   E D I T   L I S T I N G                    SYSTEMS ENGINEERING BY
                                                                              INTERNATIONAL GEOSYSTEMS CORP.

                                  PAN OCEAN OIL LTD.
                           JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

                                  FORMAT VERSION : 6802

  DRILLHOLE/TRAVERSE :75-DH001        COLLAR ELEVATION:      1295.86        AZIMUTH( DEG ) :     0.00        GEOLOGGED BY :       +
  TOTAL DEPTH/LENGTH :     31.09      NORTHING(- IF S):  7002620.00        VERTICAL ANGLE :   -90.00        DATE (YY/MM/DD):         0
  CORE/HOLE DIAMETER :      60WL      EASTING (- IF W):   436462.69        CO-ORD SYSTEM  :    UTM          PROJECT NUMBER : J-MAIN

     F   - I N T E R V A L -     CORE  T- %       TYPI- OAL  TEX-  GRAIN        PGI    STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
  K  L (UNITS =    . DEC.PLACE)RECOV-  W M ROCK FYING MIN TURES CHARACS                            H  H  H  H  H ANY H  H  H ANY  ALT ORE
  E  A  (MI=METRIC FT=FOOTRIC)  ERY    G I      TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
  Y  G  F R O M - T O -  T O T (  . )  D X TYPE  1  2 OM1  1  2 F F C A        1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
  - --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
  K  F                          ROCK   FM     RT    TM OM2 TX TX S C O O CHT       T ID STK DIP MG MU CL SD QS HA PR MT SL HA
  E  L                          QUAL   AGE FM- Q LC- 3      3  4 O    /            2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
  Y  G                          DESIG      VIR   COL            R     C              STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2   2

  R SVY    0.00    0.00       NO DOWN HOLE SURVEYS.

  R ASY    0.00    0.00       NO ASSAY DATA FOR THIS HOLE.
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                                   G E O L O G   E D I T   L I S T I N G                        SYSTEMS ENGINEERING BY
                                                                                             INTERNATIONAL GEOSYSTEMS CORP.

                                                PAN OCEAN OIL LTD.
                                         JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

                                                FORMAT VERSION : 6802

 DRILLHOLE/TRAVERSE :75-0H002        COLLAR ELEVATION:      1295.86         AZIMUTH( DEG ) :     90.00        GEOLOGGED BY :       +
 TOTAL DEPTH/LENGTH :  117.35        NORTHING(- IF S):  7002620.00         VERTICAL ANGLE :    -50.00        DATE (YY/MM/DD):        0
 CORE/HOLE DIAMETER :     BQM        EASTING (- IF W):   436462.69         CO-ORD SYSTEM  :     UTM          PROJECT NUMBER : J-MAIN

   F    - I N T E R V A L -     CORE  T- %        TYPT- QAL  TEX-  GRAIN           PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
 K  L (UNITS =    . DEC.PLACE)RECOV-  M M ROCK FYING WTH TURES CHARACS                                H  H  H  H  H ANY H  H  H ANY  ALT ORE
 E  A  (MT=METRIC FT=FOOTRIC)  ERY    O T       TY TY MAT TX TX F C % M ARG   /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
 Y  G  F R O M - T O -  I N T (  . )  O X TYPE  1  2 OM1  1  2 F F C A            1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 - --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 K  F                         ROCK   FM     WT    TM OM2 TX TX S C O O CHT        T ID STK DIP MG MU CL SD QS HA PR MT SL HA
 E  L                         QUAL   AGE FM- O LC- 3       3  4 O     /           2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
 Y  G                         DESIG      VTR   COL            R       C             STRUCTUR-2 A  A  A  A  A  A  A  A  A  A     2   2

 R SVY     0.00     0.00       NO DOWN HOLE SURVEY DATA.

 R ASY     0.00     0.00       NO ASSAY DATA FOR THIS HOLE.
```

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G E O L O G   E D I T   L I S T I N G                          SYSTEMS ENGINEERING BY
                                                     INTERNATIONAL GEOSYSTEMS CORP.

                                   PAN OCEAN OIL LTD.
                           JASON PB-75-AG-PA STF DEPOSIT, Y.T.

                                  FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :75-DH003      COLLAR ELEVATION:      1295.86      AZIMUTH( DEG ) :  360.00      GEOLOGGED BY :      +
TOTAL DEPTH/LENGTH :    53.60     NORTHING(- IF S):  7062620.00      VERTICAL ANGLE :  -50.00      DATE (YY/MM/DD):        0
CORE/HOLE DIAMETER :    BQWL      EASTING (- IF W):   436462.69      CO-ORD SYSTEM  :   UTM        PROJECT NUMBER : J-MAIN

  F   - I N T E R V A L -    CORE  T- %      TYPI- SAL  TEX- GRAIN        PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =   . DEC.PLACE)RECOV-  N M ROCK FYING MIN TURES CHARACS                         H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MT=METRIC FT=FOOTRIC)  ERY    O I      TN IN MAT TX TX F C % M ARG  /RT T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  I N T (  . )  D X TYPE  1  2 UM1  1  2 F F C A           1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                          ROCK   FM     RT    IN GN2 TX TX S C O O CHT       T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                          QUAL   AGE EN- D LC- 3      3  4 O     /           2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y  G                          DESIG      VIR   COL             R     C              STRUCTUR-2 A  A  A  A  A  A  A  A  A  A   2   2

R SVY     0.00     0.00       NO DOWN HOLE SURVEY DATA.

R ASY     0.00     0.00       NO ASSAY DATA.
```

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6B02

```
DRILLHOLE/TRAVERSE :75-DH004      COLLAR ELEVATION :     1305.03   AZIMUTH( DEG ) :  180.00   GEOLOGGED BY : HJV +
TOTAL DEPTH/LENGTH :    67.67     NORTHING(- IF S):  7002697.00    VERTICAL ANGLE :  -50.00   DATE (YY/MM/DD): 810618
CORE/HOLE DIAMETER :     BQWL     EASTING (- IF W):   436466.50    CO-ORD SYSTEM  :   UTM     PROJECT NUMBER : J-MAIN

R HED                      ORIGINALLY LOGGED BY DR. K.I.LO.

   F    - I N T E R V A L -     CORE  T- %       TYPT- QAL  TEX-  GRAIN       PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =   .  DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                    H  H  H  H  H ANY H  H  H ANY ALT ORE
E  A  (MT=METRIC FT=FOOTRIC)  ERY    O T      TM TM MAT TX TX F C % M ARG    /RI T ID STK DIP A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  C N T  (  .  )  D X TYPE  1  2 OM1  1  2 F F ( A         1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                          ROCK   FM     RT    FM OM2 TX TX S C O O CHT       T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                          QUAL   AGE EN- Q LC- 3      3  4 O     /           2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y  G                          DESIG     VIR    COL             R     C           STRUCTUR-2 A  A  A  A  A  A  A  A  A  A   2   2

/ OVB    0.00   36.27  36.27             OVER                               P

K UM1   36.27   36.27   0.00

/ LSX   36.27   51.21  14.94             SULF BA         LM                 P                           L5    L)    L)    48
L                                             7A                                                                    L=

/       43.28   47.85   4.57           x SULF BA    GGX LM                  R                           L5    L)    L)    48
L                                             7A                                                                    L=

/       47.85   50.29   2.44           x LOST                               R

/       50.29   51.21   0.92           x SULF BA         LM                 R                 L(        L5    L)    L)    48
L                                             4A                                                                    L=

K LM1   51.21   51.21   0.00

/       51.21   53.95   2.74             ARGL CB    SI2         0 2 2 2     P                 V)   V)         L)
L                                             3A

/       53.95   67.67  13.72             BRHT       *SI BS DB          NO2  P                                 #1
L                                             5A       G; CO 2   1     MN6
R       53.95   67.67        BADHA SEQUENCES ARE :ABC,ABA
```

PAN OCEAN OIL LTD.

DRILLHOLE/TRAVERSE --- 75-DH004 --- (CONTINUED)

			SAMPLE	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A UNM												
A LAB			SERIAL	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	
A TYP			NUMBER	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	
A MTH				WA	WA	WA	WA	WA	WA	WA	WA	
R ASY	0.00	0.00	B.CLG = BOLDAR CLEGG, VANCOUVER; H-CORE = HALF CORE.									
R ASY	0.00	0.00	WA = WET ANALYSIS.									
R ASY	0.00	0.00	LESS THAN DETECTION LIMIT ENTERED AS -D.L. E.G. -0.01									
R ASY	0.00	0.00	NO ASSAY INFORMATION ENTERED AS -0.1									
A 001	36.27	37.19	092	1.16	3.54	49.10	-0.01	-0.1	-0.1	-0.1	0.01	53.52
A 001	37.19	38.40	121	0.59	3.78	44.13	0.03	-0.10	-0.1	-0.1	0.02	48.26
A 001	38.40	40.23	183	1.03	4.14	39.34	-0.01	-0.10	-0.1	-0.1	0.02	44.22
A 001	40.23	43.28	305	0.20	6.54	-0.1	0.12	-0.1	-0.1	-0.1	-0.1	6.36
A 001	43.28	47.85	457	4.88	13.15	2.92	1.00	-0.10	-0.1	-0.1	0.09	21.74
R ASY	40.28	47.85	SLUDGE SAMPLE ONLY.									
A 001	50.29	51.21	092	6.17	13.73	0.93	1.94	-0.10	-0.1	-0.1	0.08	22.55
A MAX	36.27	51.21		6.17	13.73	49.10	1.94	-0.10	-0.1	-0.1	0.09	70.73

A MIN					0.20	3.54	-0.1	-0.01	-0.10	-0.1	-0.1	0.01	3.34
A CMP	36.27	43.28	701		0.61	5.04	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	5.05
A CMP	43.28	47.65	457		4.88	13.15	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	17.43
R ASY	47.65	50.29		NO CORE.									
A CMP	50.29	51.21	092		6.17	13.73	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	19.30
R ASY	0.00	0.00		OLD LOGS SHOW ONLY COMBINED PB+ZN% FOR A CMP LOGS DO NOT SHOW									
R ASY	0.00	0.00		SEPARATED VALUES FOR PB AND ZN IN % COMBINED, SAMPLE NUMBERS									
R ASY	0.00	0.00		AND CORE RECOVERY.									

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                                        G E O L O G   E D I T   L I S T I N G                        SYSTEMS ENGINEERING BY
                                                                                                 INTERNATIONAL GEOSYSTEMS CORP.

                                                    PAN OCEAN OIL LTD.
                                             JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

                                                  FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :75-DH005         COLLAR ELEVATION:      1315.00          AZIMUTH( DEG ) :   180.00         GEOLOGGED BY : HJV +
TOTAL DEPTH/LENGTH :  140.82         NORTHING(- IF S):  7002748.00          VERTICAL ANGLE :   -50.00         DATE (YY/MM/DD): 810619
CORE/HOLE DIAMETER :     BQWL        EASTING (- IF W):   436466.56          CO-ORD SYSTEM  :    UTM           PROJECT NUMBER : J-MAIN

R HED                         ORIGINALLY LOGGED BY DR. K.I.LU, 1975.

   F   - I N T E R V A L -    CORE  T- %       TYPI- QAL  TEX-  GRAIN          PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =    .  DEC.PLACE)RECOV-  W W ROCK FYING MIN TURES CHARACS                            H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MT=METRIC FT=FOOTRIC)  ERY     O I       TM TG QAL TX TX F C % M ARG   /RT T ID STK DIP  A  A  A  A  A MIN A  A  A MIN  - - - -
Y  G  F R O M - T O -  L N T (  . )  D Y TYPE  1  2 QM1  1  2 F F C A              1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                          ROCK   FM     WT    TG QM2 TX TX S C G O CHT       T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                          QUAL   AGE FM- G LC- 3       3  4 O     /          2    AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
Y  G                          DESIG       VIR   COL              R     C            STRUCTUR-2  A  A  A  A  A  A  A  A  A  A    2   2


/ OVB     0.00    3.05   3.05            OVER                                P
R         0.00    3.05      CORE IS BADLY BROKEN. RECOVERY IS VERY POOR.

/         3.05   18.40  15.35            ARSH        SI2 LM BD 2 2 5 2       P   3 BD     D55                   L)
L                                           5          CL BD

/ FLT    18.40   19.80   1.40            ARSH        SI2 LM BD 2 2 5 2       P   3 BD     D55                   L)
L                                           5          CL BD

/ FLT    19.80   26.00   8.20            FAUL        *S/                     P
L                                                    *B2          1 9

/        26.00   88.39  60.39            ARGL CR SF  SM1 LM CD 1 1   1       P     BD      40 V*                L)
L                                           4        ST1 // CC

/        42.50   49.00   6.50          X ARSI        SD2 LM     1 4 2 4      R     BD      20 K)                V.
L                                           5          //

/        88.39   94.18   5.79            BRBT        BS DB           OP5     P
L                                           6        M:     2 2 2 C NO1
R        88.39   94.18      BS ARE ABC AND AD. FOUND FROM 88.39 TO 103.33

/        94.18   95.40   1.22            SAND               4 4   4          P  2                               D=
L                                           6

/        95.40   99.97   4.57            ARGL CR       LM   1 1   1          P     BD      30 L)                L=
L                                           4  SF ST1     CC

/        99.97  101.00   1.03            BRBT                        LO2     P
L                                           6          D6     7   6 O LM2
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                                                               PAN OCEAN OIL LTD.
G E O L O G                                           JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                          PAGE -  2
                                                 DRILLHOLE/TRAVERSE --- 75-DH005 --- (CONTINUED)

K  F  F R O M - T O -  I N T RECOV  RD % ROCK TK TH QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                                 R O D  AGE EV RO IC TM QM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/      101.00  103.32   2.32             SILT           LM    2 4 2 4       P    BD      40
L                                             6     SN2

K UM1  103.32  103.32   0.00

/ LSX  103.32  126.80  23.40             SOLF BA SF     LM                  P    BD      45 V)          L5    L)     L+    48
L                                             7            BD                   2 BD     38                              L1

/ FLT  117.20  118.60   1.60           X SOLF BA SF     LM                  R    BD      45 V)          L5    L)     L+    48
L                                             7            BD                   2 BD     38                              L1

/      125.27  126.80   1.53           5 ARGL SX    SI1 LM    1 1   1       R    BD      10 L)          L3    L)     L1    48
L                                             4                                                                      L1

K LM1  126.80  126.80   0.00

/      126.80  127.40   0.60             ARSI CR LM                         P    BD      34 V)                V*
L                                             3

/      127.40  128.15   0.75             BRPM       SI1 G;                  P
L                                             5               7   9 0 LN1

/      128.15  133.99   5.84             BRHI                        OQ2   P
L                                             4         OB    2   4 C MN3
R      128.15  133.99      ES FROM 140.82 TO 126.80; BS IS ABDF

/      133.99  140.82   6.83             BRPM           OB           OP8   P               <.                D.
L                                             6  CR           2     0 KL=
```

			SAMPLE	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A UMM			SERIAL									
A LAB				B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	
A TYP				H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	
A MTH				WA	WA	WA	WA	WA	WA	WA	WA	
R ASY	0.00	0.00	B.CLG = BONDAR CLEGG, VANCOUVER; H-CORE = HALF CORE.									
R ASY	0.00	0.00	WA = WET ANALYSIS.									
R ASY	0.00	0.00	LESS THAN DETECTION LIMIT ENTERED AS -D.L. E.G. -0.01									
R ASY	0.00	0.00	NO ASSAY INFORMATION ENTERED AS -0.1									
A 001	94.16	95.40	122	0.01	0.04	0.87	0.01	-0.10	-0.1	-0.1	0.01	0.64
A 001	103.33	105.46	213	1.05	5.22	39.08	-0.01	-0.10	-0.1	-0.1	0.01	45.05
A 001	105.46	106.98	152	0.75	5.66	41.71	-0.01	-0.10	-0.1	-0.1	0.01	47.82
A 001	106.98	108.51	153	0.75	4.26	46.60	-0.01	-0.10	-0.1	-0.1	0.01	51.31
A 001	108.51	110.03	152	0.90	4.08	46.84	-0.01	-0.10	-0.1	-0.1	0.01	51.52
A 001	110.03	111.56	153	1.18	3.96	46.14	-0.01	-0.10	-0.1	-0.1	0.01	50.98
A 001	111.56	113.04	148	1.08	3.18	47.82	-0.01	-0.10	-0.1	-0.1	0.01	51.78
A 001	113.04	114.60	152	1.03	4.20	44.85	0.03	-0.10	-0.1	-0.1	0.01	49.82
A 001	114.60	116.13	153	1.03	3.30	43.76	-0.01	-0.10	-0.1	-0.1	0.01	47.79
A 001	116.13	117.65	152	0.65	5.66	39.02	-0.01	-0.10	-0.1	-0.1	0.02	45.04
A 001	117.65	119.18	153	0.35	3.90	44.62	0.03	-0.10	-0.1	-0.1	0.02	49.12
A 001	119.18	120.70	152	3.45	4.74	42.80	0.03	-0.10	-0.1	-0.1	0.02	50.74
A 001	120.70	122.22	152	0.85	3.42	38.42	-0.01	-0.10	-0.1	-0.1	0.01	42.39
A 001	122.22	123.75	153	1.00	2.52	41.81	0.03	-0.10	-0.1	-0.1	0.01	45.37
A 001	123.75	125.27	152	1.13	3.42	41.28	-0.01	-0.10	-0.1	-0.1	0.02	45.54
A 001	125.27	126.80	153	6.39	5.77	8.10	0.15	-0.10	-0.1	-0.1	0.02	20.13
A MAX	94.16	126.80		6.39	5.77	47.82	0.15	-0.10	-0.1	-0.1	0.02	59.85

PAN OCEAN OIL LTD.

GEOLOG

JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

DRILLHOLE/TRAVERSE --- 75-DH005 --- (CONTINUED)

A	MIN				0.01	0.04	0.87	-0.01	-0.10	-0.1	-0.1	-0.01	0.80
A	CMP	103.53	119.18	1585	0.93	4.37	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	4.70
A	CMP	119.18	126.80	762	2.57	4.03	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	6.00

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                         G E O L O G   E D I T   L I S T I N G                         SYSTEMS ENGINEERING BY
                                                                                   INTERNATIONAL GEOSYSTEMS CORP.

                                          PAN OCEAN OIL LTD.
                                  JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

                                        FORMAT VERSION : 6B02

 DRILLHOLE/TRAVERSE :75-DH066        COLLAR ELEVATION:     1262.21     AZIMUTH( DEG ) :    45.00     GEOLOGGED BY :       +
 TOTAL DEPTH/LENGTH :  117.65        NORTHING(- IF S):  7002617.00     VERTICAL ANGLE :   -50.00     DATE (YY/MM/DD):         0
 CORE/HOLE DIAMETER :     BQWL       EASTING (- IF W):   436109.06     CO-ORD SYSTEM  :    UTM       PROJECT NUMBER : J-RECC

    F   - I N T E R V A L -    CORE  T- %      TYPI- UAL  TEX-  GRAIN          PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
 K  L  (UNITS =    . DEC.PLACE)RECOV-  F % ROCK FYING MIN TURES CHARACS                         H  H  H  H  H ANY H  H  H ANY  ALT ORE
 E  A   (MT=METRIC FT=FOOTRIC)  ERY     O I       TM TM MAT TX TX F C % M ARG   /RT T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
 Y  G  F R O M - T O -  I N T (  . )   D X TYPE  1  2 OM1  1  2 F F C A             1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 - --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 K  F                           ROCK    FM      RT     TM OM2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
 E  L                           QUAL   AGE EN- O LC- 3      3  4 O      /            2    AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
 Y  G                           DESIG      VIR    COL            R      C             STRUCTUR-2  A  A  A  A  A  A  A  A  A  A    2   2

 R SVY    0.00     0.00       NO DOWN HOLE SURVEY DATA.

 R ASY    0.00     0.00       NO SIGNIFICANT ASSAY DATA (I.E. NO SOLFIDE INTERSECTIONS).
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                          G E O L O G   E D I T   L I S T I N G                     SYSTEMS ENGINEERING BY
                                                                                 INTERNATIONAL GEOSYSTEMS CORP.

                                              PAN OCEAN OIL LTD.
                                        JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

                                             FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :75-DH007        COLLAR ELEVATION:      1271.44      AZIMUTH( DEG ) :  225.00      GEOLOGGED BY :      +
TOTAL DEPTH/LENGTH :  163.98        NORTHING(- IF S):  7002638.00      VERTICAL ANGLE :  -50.00      DATE (YY/MM/DD):        0
CORE/HOLE DIAMETER :    BQWL        EASTING (- IF W):   436162.00      CO-ORD SYSTEM  :   UTM        PROJECT NUMBER : J-S

   F   - I N T E R V A L -    CORE  I- %      TYPI- GAL  TEX-  GRAIN       PGT   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
 K  L (UNITS =   . DEC.PLACE)RECOV-  W W ROCK FYING DIS TURES CHARACS                      H  H  H  H  H ANY H  H  H ANY  ALT ORE
 E  A  (MT=METRIC FT=FOOTRIC)  ERY    H T       TN TN MAT TY TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
 Y  G  F R O M - T O -  I N T (  . )  D X TYPE  1  2 DM1  1  2 F F C A         1    AZM  RT GZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 - --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 K  F                               ROCK   FM     WT    TN DM2 TY TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
 E  L                               QUAL   AGE EN- U LC- 3       3  4 U     /         2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
 Y  G                               DESIG      VIP   COL               R     C          STRUCTUR-2  A  A  A  A  A  A  A  A  A  A   2   2

 R SVY     0.00      0.00       NO DOWN HOLE SURVEY DATA.

 R ASY     0.00      0.00       NO SIGNIFICANT ASSAY DATA (I.E. NO SULFIDE INTERSECTIONS).
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G E O L O G E D I T L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6B02

DRILLHOLE/TRAVERSE : 76-0[illegible]	COLLAR ELEVATION : 1211.40	AZIMUTH(DEG) : 0.00	GEOLOGGED BY : +
TOTAL DEPTH/LENGTH : 350.82	NORTHING(- IF S): 7003716.00	VERTICAL ANGLE : -90.00	DATE (YY/MM/DD): 0
CORE/HOLE DIAMETER : [illegible]	EASTING (- IF W): 438671.00	CO-ORD SYSTEM : UTM	PROJECT NUMBER : J-RECC

SER. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	121.92	0.00	-48.00
2	152.40	0.00	-42.50
3	182.88	0.00	-35.00
4	213.36	0.00	-31.00
5	243.84	0.00	-28.00
6	274.32	0.00	-24.50
7	304.80	0.00	-28.00
8	335.28	0.00	-25.50

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   F   - I N T E R V A L -    CORE  T- %       TYPI- CAL  TEX-  GRAIN        PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =    .  DEC.PLACE)RECOV-  M R ROCK FYING MIN TURES CHARACS                         H  H  H  H  H ANY H  H  H ANY  ALT ORE
F  A  (MT=METRIC FT=FOOTRIC)  ERY     O T       TM TM DAT TX TX F C % M ARG   /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN  - - - -
Y  G  F R O M - T O -  I O T ( . )   D X TYPE  1  2 OA1  1  2 F F C A            1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.--  -- - ---- -- -- --- -- -- - - - - ---- ---  - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                          ROCK   FM      RT    TM OA2 TX TX S C G O CHT       T ID STK DIP MG MU CL SD OS HA PR MT SL HA
F  L                          QUAL   AGE FM- O LC- 3       3  4 O      /          2    AZM  RT H  H  H  H  H  H  H  H  H  H   1  1
Y  G                          DESIG      VTR   COL                R    C            STRUCTUR-2 A  A  A  A  A  A  A  A  A  A   2  2
```

R SVY 0.00 0.00 DIP TESTS ONLY.

R ASY 0.00 0.00 NO ASSAY DATA FOR THIS HOLE.

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :76-08069   COLLAR ELEVATION: 1248.92   AZIMUTH(DEG) : 270.00   GEOLOGGED BY : +
TOTAL DEPTH/LENGTH : 18.29   NORTHING(- IF S): 7002373.00   VERTICAL ANGLE : -50.00   DATE (YY/MM/DD): 0
CORE/HOLE DIAMETER : NONE   EASTING (- IF W): 436509.75   CO-ORD SYSTEM : UTM   PROJECT NUMBER : J-RECC

R HED   HOLE LOST IN OVERBURDEN.

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  F   - I N T E R V A L -    CORE  I- %      TYPI- QAL  TEX-  GRAIN       PGT   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K L (UNITS =   . DEC.PLACE)RECOV-  N M ROCK FYING MIN TURES CHARACS                         H  H  H  H  H ANY H  H  H ANY  ALT ORE
F A  (MT=METRIC FT=FOOTRIC)  ERY    O I       TM IN MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y G  F R O M - T O -  I G T ( . )  D X TYPE  1  2 OR1  1  2 F F C A          1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K F                        ROCK   FM    RT    IM OR2 TX TX S C O O CHT        T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E L                        QUAL   AGE EN- U LC- 3     3  4 D     /            2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y G                        DESIG      VIR   COL           R      C              STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2   2
```

R SVY   0.00   0.00   NO DOWN HOLE SURVEY DATA.

R ASY   0.00   0.00   NO ASSAY DATA FOR THIS HOLE.

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                              G E O L O G   E D I T   L I S T I N G                    SYSTEMS ENGINEERING BY
                                                                                  INTERNATIONAL GEOSYSTEMS CORP.

                                          PAN OCEAN OIL LTD.
                                 JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

                                         FORMAT VERSION : 6802

 DRILLHOLE/TRAVERSE :76-DH010      COLLAR ELEVATION:     1246.54     AZIMUTH( DEG ) :    90.00     GEOLOGGED BY :      +
 TOTAL DEPTH/LENGTH :  133.20      NORTHING(- IF S):  7002368.00     VERTICAL ANGLE :   -50.00     DATE (YY/MM/DD):       0
 CORE/HOLE DIAMETER :    60MM      EASTING (- IF W):   436381.94     CO-ORD SYSTEM  :    UTM       PROJECT NUMBER : J-RECC

   F    - I N T E R V A L -     CORE  T- %       TYPI- OAL  TEX-  GRAIN         PGI    STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
 K  L (UNITS =    .  DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                             H  H  H  H  H ANY H  H  H ANY  ALT ORE
 E  A  (MT=METRIC FT=FOOTRIC)  ERY     G T      1M TM MAT TX TX F C % M ARG  /RI  T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
 Y  G  F R O M - T O -  I N T (  . )  D X TYPE  1  2 QM1  1  2 F F C A              1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 - --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- ---  - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 K  F                          ROCK    FN      RT    TM QM2 TX TX S C O O CHT        T ID STK DIP MG MU CL SD QS HA PR MT SL HA
 E  L                          QUAL   AGE FN- H LC- 3       3  4 O      /            2    AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
 Y  G                          FESIG      VIR   COL               R      C               STRUCTUR-2  A  A  A  A  A  A  A  A  A  A    2   2

 R SVY    0.00     0.00       NO DOWN HOLE SURVEY DATA.

 R ASY    0.00     0.00       NO ASSAY DATA THIS HOLE.
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G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :76-DH011	COLLAR ELEVATION: 1274.16	AZIMUTH(DEG) : 0.00	GEOLOGGED BY : BHO + JMM
TOTAL DEPTH/LENGTH : 141.73	NORTHING(- IF S): 7002524.00	VERTICAL ANGLE : -55.00	DATE (YY/MM/DD): 811023
CORE/HOLE DIAMETER : BQXL	EASTING (- IF W): 436652.00	CO-ORD SYSTEM : UTM	PROJECT NUMBER : J-MAIN

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	30.48	0.00	-53.00
2	60.96	0.00	-45.00
3	91.44	0.00	-35.00
4	121.92	0.00	-30.00

R HED ORIGINALLY LOGGED BY DR. K. I. LU, AUG. 1976.

R HED (1)TARGET: THE PURPOSE OF 76-DH011 WAS TO DETERMINE THE POSSIBLE

R HED EASTERN EXTENSION OF THE MAIN ZONE BEYOND OF

R HED 75-DH005.

R HED (2)RESULTS: THE ORE ZONE WAS INTERSECTED AT BENCH LEVEL, 1195

R HED METERS AND 168 METERS EAST OF 75-DH005. THE ORE ZONE

R HED EXTENDS FROM 122.83 M. TO 138.38 M., WITH AN

R HED APPARENT THICKNESS OF 15.55 METERS. THE TRUE

R HED THICKNESS IS 7.78 METERS. MINOR AMOUNTS OF PB, ZN

R HED AND AG OCCURS IN THE UNDERLYING BRECCIA. THE AVERAGE

R HED GRADE OF PB-ZN IN THE INTERVAL BETWEEN 122.83 TO

R HED 139.90 IS 1.65% PB AND 6.17% ZN. THE PERCENT CORE

R HED RECOVERY FROM 122.83 TO 138.38 IS 19.14%. DUE TO

R HED THIS LOW RECOVERY, OBSERVATIONS IN ORE ZONE ARE

```
R HED                          TENTATIVE.

R HED                  (3)MINERALIZATION: AVAILABLE CORE INDICATES THAT THE ZONE WAS

R HED                                  PREDOMINANTLY LMSX WITH LOCAL INTERVALS OF

R HED                                  FGSX. SLUDGE SAMPLES WERE TAKEN OVER THE

R HED                                  INTERVAL BETWEEN 127.10 AND 130.76 METERS

R HED                                  AND SAMPLE IS IN THE CORE BOX.

   F   - I N T E R V A L -    CORE  I- %       TYPI- UAL  TEX-  GRAIN         PGT   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =   . DEC.PLACE)RECOV-  N M ROCK FYING MIN TURES CHARACS                            H  H  H  H  H ANY H  H  H ANY  ALT ORE
F  A  (MI=METRIC FT=FOOTRIC)  ERY    O I       TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  I N T ( . )  O X TYPE  1  2 OM1  1  2 F F C A          1     AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                             ROCK    FM      RT     IM OM2 TX TX S C O O CHT       T ID STK DIP MG MU CL SD QS HA PR MT SL HA
F  L                             QUAL    AGE EN- N LC- 3       3  4 O      /           2     AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
Y  G                             DESIG       VIR   COL              R      C            STRUCTUR-2  A  A  A  A  A  A  A  A  A  A    2   2

R SVY     0.00     0.00      ACID DIP TESTS ONLY.

/ OVB     0.00     1.52    1.52              OVER                              P

/         1.52     6.14    4.62              BRHM         SI= SS R*          MQ8   P                                   C*
L                                                    3A   *C+ B*     3       KM+
R         1.52     6.14      PYRITE OCCURS WITH GRAPHITE ON MINOR SHEAR SURFACES.
R         1.52     6.14      CORE IS MODERATELY BROKEN AND RUBBLY.

/         6.14    40.60   34.46              ARSI         SI1 SS SC                P  2 BD       50 <)                     L)
L                                                    4A   SM+                                             <)
R         6.14    40.60      THE BEDDING ANGLE AVERAGES AROUND 50 DEGREES. PYRITE OCCURS
R         6.13    40.60      PREFFERENTIALLY IN SAND LAM.
R         6.14    40.60      THE INTERVAL IS MODERATELY FRACTURED. IT IS LOCALLY BRECCIATED
R         6.14    40.60      DUE TO SYN-TECTONIC DEFORMATION. THERE ARE NUMEROUS, MINOR
R         6.14    40.60      SHEAR ZONES.

/         6.14    12.50    6.36            X ARSI         SI1 SS SC                R  2 BD       70 <)                     L)
L

/        40.60    42.67    2.07              BRHT         *C* R* F*          LO8   P                  <*                   R)
L                                                    5A   *S=        3   =   JM1                              <-
R        40.60    42.67      THE MATRIX IS MUD AND SILT RICH, RANGING UP TO 10%.

/        41.60    42.67    1.07            X ARSI         SI1 SS SC                R  1 BD       40 <)                     R+
L                                                    3A   SM= R*                                          <)
R        41.60    42.67      THE UNIT HAS APPROX. 20% BRHT BANDS WHICH CONFORM WITH THE
R        41.60    42.67      BEDDING. SOME BANDS RANGE UP TO 3 CMS. THESE BANDS APPEAR TO BE
R        41.60    42.67      DEPOSITIONAL.

/        42.67    44.57    1.90              BRHT         SI= R* B*          LR5   P                  <*                   B)
L                                                    7A   *S= SS     3   =   JN4                              <-

/        44.57    45.37    0.80              SAND         SN8 RS MX 1 2 4 L        P  2 BD      U35 >+                     D)
L                                                    9A   SI1 BD FU 6     O                               <+
R        44.57    45.37      THIS INTERVAL CONTAINS SEVERAL DEPOSITIONAL EVENTS. IT IS A
R        44.57    45.37      BOUMA SEQUENCE WITH A AND B LAYERS. THE UNIT IS CUT BY TWO
R        44.57    45.37      QUARTZ VEINS, BOTH APPROX. 8 CMS.
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PAN OCEAN OIL LTD.

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G E O L O G                      JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                          PAGE - 3
                            DRILLHOLE/TRAVERSE --- 76-DH011 --- (CONTINUED)

K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM IM QO1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                           R O D  AGE EV RO LC TG QM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R      45.37   50.07      THE UNIT IS INTERMIXED WITH TWO BRECCIA EVENTS OF BRHT
R      45.37   50.07      COMPOSITION. THE INTERVAL GETS FINER TOWARDS THE TOP. IT
R      45.37   50.07      CONTAINS MAINLY THE A HORIZON IN THE BOUMA SEQUENCE.

/      45.37   45.93   0.56          X CGBR      *C3 F* R*         LO3   R                <)              D)
L                                          8A    *S1         3 ) 1   KN5                            D*
R      45.37   45.93      MATRIX IS SAND RICH.

/      46.60   47.24   0.64          X CGBR      *C3 F* R*         LO3   R                >=              R)
L                                          8A    *S=         3       LO6                            D-
R      46.60   47.24      MATRIX IS SAND RICH.

/      47.43   47.67   0.24          7 VEIN SF    S02 MX                 R                >7              D-
L                                          39                                                       D)

/      50.07   51.88   1.81              BRHT    SI= SS FU         MR8   P                                R)
L                                          4A    *C= F* R* 3   +   KN=
R      50.07   51.88      THERE IS APPROX. 2% TO 3% SANDSTONE CLASTS IN THE INTERVAL.
R      50.07   51.88      THERE APPEARS TO BE A GRADUAL FINING UPWARDS WITHIN THIS FLOW.

/      51.88   56.98   5.10              BRHT    *C1 F* R*         LR5   P            U                   D)
L                                          6A    *S= FU    2   =   JO4                              D-
R      51.88   56.98      THERE IS 5% SANDSTONE FRAGMENTS RANGING UP TO 2 CMS. THERE IS
R      51.88   56.98      A GRADUAL FINING UPWARDS OF THE FRAGMENTS. NEAR THE TOP OF
R      51.88   56.98      THE UNIT, THERE IS A THINLY LAMINATED UNIT OF BRSN.

/      51.88   52.50   0.62          X BRPM      SN2 BD FU 1 2 1 N KN6   R  2 BD     U35                  R*
L                                          4A     SI= F* R* 5     O JM1
R      51.88   52.50      THERE IS GRADUAL FINING UPWARDS. NEAR THE TOP, IT IS WELL BEDDED
R      51.88   52.50      AND THIS BEDDING SHOWS A FINING UPWARDS. IT REPRESENTS
R      51.88   52.50      A PERIOD OF QUIESCENCES AND SLOW DEPOSITION.

/      56.98   57.81   0.83              SAND    SN7 BD BS 1 5 3 M         P  2 BD     U40                  R)
L                                          8A     SI= FU R* 5                                       D*
R      56.98   57.81      THE INTERVAL IS VERY COARSE NEAR THE BASE WITH SUBROUNDED TO
R      56.98   57.81      SUBANGULAR CLASTS. IT BECOMES FINER AND BEDDED TOWARDS THE TOP.
R      56.98   57.81      POSSIBLE REPRESENTS A AB SEQUENCE IN A TURBIDITE. SIDERITE IS A
R      56.98   57.81      BROWNISH-YELLOW AND OCCURS INTERSTITIALLY.

/      57.81   63.38   5.57              BRHT    SN= R* F*         MR7   P                <-              R)
L                                          5A    *C1         4       KN1                            <)

/      63.38   66.00   2.62              BRHT    *C2 F* R*         LO4   P                V)              D)
L                                          8A    *S=         4       KN4                            V.

/ FRG  66.00   71.87   5.87              ARSI    SN1 BD SS               P  2 BD      30 <*
L                                          3A     = SC                                              <.
R      66.00   71.87      LOCALLY BRECCIATED DUE TO SLUMPING.

/      68.30   71.00   2.70          X ARSI      SN1 BD SS               R  2 BD      65 <*
L
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K  F   F R O M - T O -  1 N T RECOV  NL % ROCK TX TX  1 TX TX F C % M ARG   RI 1 IO AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                           R Q D  AGE FV RI LC TM GRP TX TX S C O O CHT      2 ID AZM DIP MG MU CI SD QS HA PR MT SL HA

/        71.00   71.87   0.87            X ARSI       SI1 BD SS              R  2 BD      40 <*
L

/        71.87   73.15   1.28              BRHT       SI= F* G*            LQ4  P                                   D*
L                                      7A     *C2 R*     3    +   J04                                 D*

/        73.15   76.80   3.65              BRBS       SN1 SS SC            MR8  P                                   R+
L                                      4A     SI=        4        LK+
R        73.15   76.80       THIS UNIT IS MAINLY AN ARST WHICH HAS BEEN HIGHLY BRECCIATED
R        73.15   76.80       DUE TO SLUMPING.

/        76.80   79.22   2.42              BRHT       SN= SS R*            LR6  P                                   R+
L                                      6A     *C= F*     4        K01                                 V*

/        79.22   85.80   6.58              SILT       SN= BD     0 1 6 G        P  1 BD      25 <)                  R)
L                                      2A CR SI7        7                                             <)
R        79.22   85.80       THE UNIT IS MODERATELY FRACTURED AND BROKEN UP. SLIPPAGE PLANES
R        79.22   85.80       ARE PARALLEL WITH BEDDING. IT IS LOCALLY CARBONACEOUS.

/ SHR    79.22   82.40   3.18            X SILT GR    SN= BD     0 1 6 G        R  1 BD      25 <)                  R)
L
R        79.22   82.40       THE CORE IS HIGHLY FRAGMENTED DUE TO SHEARING.

/        85.80   86.71   0.91              ARST       S* BD SS              P  2 BD     U25 <-                  R+
L                                      6A       = SC FU

/        86.71   88.20   1.49              ARSI        = LM                 P  1 L       40 <-                  R)
L                                      3A
R        86.71   88.20       THERE ARE A FEW BANDS OF CHERT AND GRIT RICH LAYERS WITHIN
R        86.71   88.20       THIS INTERVAL. THEY REPRESENT MINOR PULSES OF COARSER SEDIMENT
R        86.71   88.20       INFLUX DURING A MAINLY QUIET PERIOD.

/        88.20   88.99   0.79              CGPS         R* F* 0 5 2 N       P         U  <*                  R)
L                                      7A     * 3 TM G; 6   + 0                                      <.
R        88.20   88.99       THIS INTERVAL CONTAINS 20 - 30% MATRIX, WHICH IS MAINLY MUD AND
R        88.20   88.99       GRIT. THE PEBBLES ARE SUBROUNDED TO SUBANGULAR. THERE ARE
R        88.20   88.99       SEVERAL MINOR SHEAR ZONES. SANDSTONE FRAGMENTS RANGE UP TO 2.5%.

/        88.99   91.45   2.46              BRHT      *C2 R* F*             MR5  P              <)                  R+
L                                      6A PY * =       3   =   L03                                  <(

/        91.45   93.88   2.43              SAND       3 // BS 0 4 3 M       P         U  <-                  D)
L                                      8A       FU SS 7                                             D-
R        91.45   93.88       THIS UNIT CONTAINS SEVERAL TC CYCLES OF A BOUMA SEQUENCE.
R        91.45   93.88       SOME SHEARING HAS TAKEN PLACE ALONG BEDDING PLANES.

/        93.88   98.06   0.18              CGBP       S R* F*             LR4  P              <)          C.      R)
L                                      9A     * F G; // 4   +    K05                                 <)
R        93.88   98.06       GRADES TO SMALL PEBBLES SIZE RANGE -2 TAD CYCLES -END OF 1ST
R        93.88   98.06       CYCLE AT 95.3 M. SHARP PLANAR CONTACT AT BASE OF CYCLE.
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K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM      TX TX F C % M ARG    RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                         R Q D  AGE EV RO LC TM MOD TX TX S C O O CMT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/       98.06  112.30  14.24          ARSI PY     SI1 BD SS              P  2 BD     U30 V)         C-    R=
L                                          4A     SO2 FU BS                                       V)
R       98.06  112.30      THIS UNIT IS MAINLY AN ARSI, BUT CONTAINS SEVERAL METERS OF
R       98.06  112.30      SANDSTONE. IT REPRESENTS ABD LAYERS OF A BOUMA SEQUENCE.
R       96.06  112.30      PYRITE APPEARS TO BE A REPLACEMENT FEATURE, ASSOCIATED WITH THE
R       96.06  112.30      SAND AND SILT BANDS. THE CORE IS MODERATELY FRAGMENTED
R       96.06  112.30      DUE TO SLIPPAGE ALONG BEDDING PLANES.

/      101.38  101.61   0.23        X SAND PY     SN8 BD BS 0 3 5 H      R  1 BD      35 V)               R=
L                                          9A     SN1        8                                    V)

/      101.75  101.91   0.16        X VEIN SD         MX                 R                 <=             D)
L                                          PY                                                     >9

/      105.12  105.57   0.45        X SAND        SN8 FU BS 0 3 2 K      R  1 BD     U50            C.    R)
L                                          8A     SI1 BD     8                                    D+

/      106.60  107.47   0.87        X SAND        SN6 FU BS 0 4 2 M      R  2 BD     U30            C.    D)
L                                          8A         BD SS 7                                     D)
R      106.60  107.47      THIS UNIT REPRESENTS A ABD INTERVAL OF A BOUMA SEQUENCE.
R      106.60  107.47      SHEARING HAS TAKEN PLACE ALONG BEDDING PLANES AND ARE GRAPHITIC.

/      112.30  115.43   3.13          BRNT        SN1 R* F*         LR6  P                 <-             C.    R)
L                                          6A     *C2        3      LN3
R      112.30  115.43      THE UNIT IS LOCALLY VUGGY. IT HAS A MATRIX OF SAND AND GRIT,
R      112.30  115.43      MAKING UP 10%.

/      115.43  120.83   5.40          SILT CF     SI7 //     0 2 4 F     P  2 BD      35 <(         C.    D*
L                                          3A     SN2        8

/ SHR  115.43  120.83   5.40        X SILT CF     SI7 //     0 2 4 F     R  2 BD      35 <(         C.    D*
L                                          3A     SN2        8

/      120.83  121.61   0.78          BRPT        SN1 SS F* 0 3 2 0 LO5  P                 <)             C.    D)
L                                          5A     SN1 R*     5    0 KN1                           D)

/      121.61  122.83   1.22          SILT        SI7 MX                 P  2 BD      40 <)         C.    R)
L                                          3A     SN1

K UM1  122.83  122.83   0.00
R      122.83  122.83      THE FOLLOWING DESCRIPTION OF THE MAIN ZONE INTERSECTION IS
R      122.83  122.83      HIGHLY TENTATIVE AND SKETCHY BECAUSE OF EXTREMELY POOR RECOVERY
R      122.83  122.83      OVER THE ENTIRE INTERVAL.

/ LSX  122.83  124.05   1.22          LMSX SX SF 0 5 LM                  P  1 LM      40            L(    L2    L)
L                                          8A                                                                 L=

/      122.83  124.05   1.22        3 ARGL SF         LM                 R                        D*    L=
L                                          3A

/ LSX  124.05  125.83   1.78          LMSX SF SX 0 3 LM                  P  1              V1       D*    L=    L)
L                                          8A                                                     D)        L) L+
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G E O L O G

K  F   F R O M - T O -   I N T RECOV  MD % ROCK TA TM GM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                         R Q D  AGE FV RU LC TM GM2 TX TX S C O O CHT        2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R       124.05  125.83       RECOVERY IS EXTREMELY POOR.

/       124.05  125.83   1.78             4 ARGL SF          LM                  R
L                                              3A

/ LSX   125.83  130.76   4.93               LMSX SF  SX CH2 LM                   P               V2          D-    L=    L+
L                                              7A                                                         D)          L) L=
R       127.10  130.76       SLUDGE SAMPLES HAVE BEEN COLLECTED OVER THIS INTERVAL AND
R       127.10  130.76       ARE AVAILABLE IN CORE BOX.

/ LSX   130.76  139.90   9.14               LMSX SX SF CH= LM                    P               <)          D)    L3    L)
L                                              AY                                                         D)          L2 L=
R       130.76  139.90       THE ORE IS LOCALLY FRAGMENTED. CANNOT PICK CONTACTS DUE TO
R       130.76  139.90       POOR RECOVERY.

K LM1   139.90  139.90   0.00

/       139.90  141.73   1.83               BRHT SF     SP1 B* B*        L03     P               <)          C.    R+    D(
L                                              7A     *C3       4   +    KN4                                            D+
R       139.90  141.73       THE CORE IS HIGHLY FRAGMENTED WITH POOR RECOVERY. IT IS VERY
R       139.90  141.73       VUGGY DUE TO LEACHING.
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			SAMPLE	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A UMM			SAMPLE	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A LAB			SERIAL	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	
A TYP			NUMBER	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	
A MTH				WA	WA	WA	WA	WA	WA	WA	WA	
R ASY	0.00	0.00	B.CLG = BONDAR CLEGG, VANCOUVER; H-CORE = HALF CORE.									
R ASY	0.00	0.00	WA = WET ANALYSIS.									
R ASY	0.00	0.00	NO ASSAY INFORMATION ENTERED AS -0.1									
A 001	122.83	124.35	7951	1.34	6.25	-0.1	0.07	-0.1	-0.1	-0.1	-0.1	7.16
A 001	124.35	125.88	7952	1.64	5.64	-0.1	0.04	-0.1	-0.1	-0.1	-0.1	4.82
A 001	125.88	128.02	7953	5.66	11.[illegible]	-0.1	0.06	-0.1	-0.1	-0.1	-0.1	15.90
A 001	128.02	130.76	7954	1.70	6.31	-0.1	0.02	-0.1	-0.1	-0.1	-0.1	7.53
A 001	130.76	132.28	7955	1.34	3.56	-0.1	0.05	-0.1	-0.1	-0.1	-0.1	4.45
A 001	132.28	133.81	7956	1.30	3.55	-0.1	0.05	-0.1	-0.1	-0.1	-0.1	4.70
A 001	133.81	135.33	7957	0.41	6.61	-0.1	0.06	-0.1	-0.1	-0.1	-0.1	6.58
A 001	135.33	136.86	7958	0.58	7.30	-0.1	0.06	-0.1	-0.1	-0.1	-0.1	7.44
A 001	136.86	138.38	7959	0.76	8.40	-0.1	0.07	-0.1	-0.1	-0.1	-0.1	8.73
A 001	138.38	139.90	7960	0.10	3.13	-0.1	0.05	-0.1	-0.1	-0.1	-0.1	2.78
A CMP	122.83	139.90		1.65	6.17	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	7.22

A MIN			0.10	3.13	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	2.63
A MAX	122.63	139.90	5.66	10.68	-0.1	0.07	-0.1	-0.1	-0.1	-0.1	15.91

```
A UMM                                        RQD            SP.GR.
A TYP                                        CM                 SG
A MTH                                        B-B             WEIGH
A LAB                                        FLD               FLD
R ASY    0.00    0.00    RCOV=RECOVERY(C17-20) IS MEASURED IN CM BLOCK TO BLOCK(B-B)
R ASY    0.00    0.00    RQD=ROCK QUALITY DESIGNATOR(C27-32)MEASURED IN CM BLOCK TO BLOCK
R ASY    0.00    0.00        RQD IS THE TOTAL LENGTH (BETWEEN BLOCKS) OF PIECES OF CORE
R ASY    0.00    0.00        AT LEAST 2-1/2 TIMES DIAMETER OF CORE TO NEAREST CM, DIVIDED
R ASY    0.00    0.00        BY LENGTH OF INTERVAL = BLOCK(TO) MINUS BLOCK(FROM)TIMES 100
R ASY    0.00    0.00    CM INDICATES THAT MEASUREMENTS ARE IN CM'S WHICH ARE TO BE RIGHT
R ASY    0.00    0.00        JUSTIFIED AGAINST THE DOUBLE VERTICAL LINE AT RIGHT MARGIN
R ASY    0.00    0.00        OF EACH FIELD.
R ASY    0.00    0.00    B-B=BLOCK-TO-BLOCK (DRILLERS BLOCKS). ENTER METRAGE OF ONE BLOCK
R ASY    0.00    0.00        AS THE TO OF ANY INTERVAL AND THE METRAGE OF THE NEXT BLOCK.
R ASY    0.00    0.00        ADDITIONAL POINTS (FROM-TO'S) CAN BE ESTABLISHED BETWEEN
R ASY    0.00    0.00        BLOCKS TO BRACKET SPECIFIC INTERVALS OF LOCALIZED POOR
R ASY    0.00    0.00        RECOVERY. B-B IS ENTERED RIGHT JUSTIFIED IN EACH FIELD IN
R ASY    0.00    0.00        THE AMTH HEADER.
R ASY    0.00    0.00    THE FIRST INTERVAL, THROUGH THE OVERBURDEN, WITH ZERO RECOVERY,
R ASY    0.00    0.00        SHOULD BE ENTERED FIRST -- SEE BELOW.
A 100    0.00    1.83    00                  00
R ASY    0.00    1.83     OVERBURDEN
A 100    1.83    3.35    55                  00
A 100    3.35    3.96    30                  00
A 100    3.96    5.49    15                  00
A 100    5.49    6.09    55                  00
A 100    6.09    7.01    46                  00
A 100    7.01    7.92    91                  09
A 100    7.92    8.23    15                  00
A 100    8.23    8.84    61                  00
A 100    8.84    9.75    91                  18
A 100    9.75   10.67    61                  09
A 100   10.67   12.19   152                  19
A 100   12.19   13.12    91                  22
A 100   13.12   14.32   104                  10
A 100   14.32   15.24    70                  25
A 100   15.24   15.85    24                  00
A 100   15.65   17.07    21                  00
A 100   17.07   17.98    67                  00
A 100   17.98   19.81    73                  00
A 100   19.81   20.43    49                  00
A 100   20.43   21.34    85                  11
A 100   21.34   21.95    49                  10
A 100   21.95   22.56    55                  00
A 100   22.56   22.86    30                  00
A 100   22.86   23.47    61                  00
A 100   23.47   24.38    55                  10
A 100   24.38   24.69    31                  00
A 100   24.69   24.99    30                  00
A 100   24.99   25.60    37                  00
A 100   25.60   25.91    31                  00
A 100   25.91   26.21    30                  12
A 100   26.21   26.52    15                  00
A 100   25.52   27.74    40                  18
A 100   27.74   29.87    21                  41
```

A UMB				RQD	SP.GR.
A TYP				CM	SG
A MTH				6-8	WEIGH
A LAB				FLD	FLD
A 100	29.87	31.09	37	09	
A 100	31.09	33.53	24	91	
A 100	33.53	35.05	152	70	
A 100	35.05	37.19	116	09	
A 100	37.19	39.01	73	58	
A 100	39.01	39.93	82	20	
A 100	39.93	41.15	97	00	
A 100	41.15	42.67	146	15	
A 100	42.67	44.19	149	21	
A 100	44.19	47.24	305	67	
A 100	47.24	50.59	306	114	
A 100	50.59	51.51	88	00	
A 100	51.51	52.43	76	17	
A 100	52.43	53.64	110	10	
A 100	53.64	55.17	153	34	
A 100	55.17	56.08	88	09	
A 100	56.08	57.61	152	29	
A 100	57.61	58.52	79	00	
A 100	58.52	64.62	582	141	
A 100	64.62	67.67	305	170	
A 100	67.67	71.93	347	91	
A 100	71.93	73.46	152	33	
A 100	73.46	76.20	247	38	
A 100	76.20	77.72	152	54	
A 100	77.72	84.43	591	45	
A 100	84.43	85.95	149	23	
A 100	85.95	87.48	152	36	
A 100	87.48	90.53	305	234	
A 100	90.53	92.05	146	60	
A 100	92.05	93.88	137	06	
A 100	93.88	95.71	94	00	
A 100	95.71	96.93	98	38	
A 100	96.93	97.54	52	25	
A 100	97.54	99.06	64	36	
A 100	99.06	99.97	64	00	
A 100	99.97	102.41	88	20	
A 100	102.41	103.33	70	00	
A 100	103.33	104.24	64	00	
A 100	104.24	104.55	12	00	
A 100	104.55	105.77	88	25	
A 100	105.77	107.29	134	21	
A 100	107.29	108.20	67	00	
A 100	108.20	109.42	61	00	
A 100	109.42	111.56	122	00	
A 100	111.56	112.17	46	00	
A 100	112.17	113.69	113	16	
A 100	113.69	116.43	177	11	
A 100	116.43	117.96	104	00	
A 100	117.96	119.48	98	00	
A 100	119.48	120.79	122	09	
A 100	120.79	122.22	152	56	

A UMN				PPB	SP.GR.
A TYP				CM	SG
A MTH				B-6	WEIGH
A LAB				FLD	FLD
A 100	122.22	123.44	85	00	
A 100	123.44	124.05	61	00	
A 100	124.05	126.19	61	00	
A 100	126.19	128.02	06	00	
A 100	128.02	129.54	00	00	
A 100	129.54	130.76	00	00	
A 100	130.76	131.67	21	00	
A 100	131.67	132.57	79	00	
A 100	132.57	133.19	15	00	
A 100	133.19	134.42	21	00	
A 100	134.42	135.94	30	00	
A 100	135.94	136.86	06	00	
A 100	136.86	138.28	91	00	
A 100	138.28	138.99	52	00	
A 100	138.99	139.90	91	00	

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                                      G E O L O G   E D I T   L I S T I N G                          SYSTEMS ENGINEERING BY
                                                                                                   INTERNATIONAL GEOSYSTEMS CORP.

                                               PAN OCEAN OIL LTD.
                                          JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

                                                FORMAT VERSION : 6B02

DRILLHOLE/TRAVERSE :76-DH912      COLLAR ELEVATION:     1315.91       AZIMUTH( DEG ) :  180.00      GEOLOGGED BY : HJV +
TOTAL DEPTH/LENGTH :  139.96      NORTHING(- IF S):  7002815.00       VERTICAL ANGLE :  -55.00      DATE (YY/MM/DD): 810622
CORE/HOLE DIAMETER :      60      EASTING (- IF W):   436328.37       CO-ORD SYSTEM  :   UTM        PROJECT NUMBER : J-MAIN

                              SEQ. NO OF     LENGTH FROM COLLAR      AZIMUTH     VERT. ANGLE
                              SURVEY DATA     TO SURVEY POINT        ( DEG )       ( DEG )

                                   1                30.48             180.00        -54.00
                                   2                60.96             180.00        -47.00
                                   3                91.44             180.00        -43.00
                                   4               121.92             180.00        -38.00

R HED                        ORIGINALLY LOGGED BY DR. K.I.LU; AUG, 1976.

  F   - I N T E R V A L -    CORE  I- %      TYPI- QAL  TEX-  GRAIN        PGT   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =    . DEC.PLACE)RECOV-  M N ROCK FYING MIN TURES CHARACS                   H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MT=METRIC FT=FOOTRIC)  ERY    O I      TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  I N T (  . )  D X TYPE  1  2 MN1  1  2 F F C A         1    AZM  RT OZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                          ROCK   FM    RT    TM MM2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                          QUAL   AGE FN- O LC- 3     3  4 O     /          2    AZM  RT H  H  H  H  H  H  H  H  H  H   1  1
Y  G                          DESIG      VIR  COL            R     C             STRUCTUR-2  A  A  A  A  A  A  A  A  A  A   2  2

/ OVB    0.00    3.65    3.65             OVER                             P

/        3.65   16.76   13.11             ARGL        S4+ CL               P  2 BD     D48
L                                            5             BM

/       16.76   23.32    6.56             BRPM                        MP2  P                 V)                 B.
L                                            6  SF        DB 2 2 5 O MP1                                  D.

/       23.32   49.58   26.26             BRBT              DB        NR3  P                 V*                 B.
L                                            5               2   5 C NO1                                  V.

/       49.58   59.14    9.56             SAND            4 4    4         P  4 BD     D42 V1            V-     V-
L                                            7        BO FU                                               D.

/       52.90   54.60    1.70           Y SAND            4 4    4         R  4 BD     D42 V8            V-     V-
L                                            7        BD FU                                               D.

/       54.60   59.14    4.54           3 ARSI        LM                   R
L                                            6        CL CF

/       59.14   61.21    2.07             BRBM        S3 BS G;        NO3  P                             V(     V(
L                                            4           FU 2     O MN2
R       59.14   61.21      BAUMA SEQUENCES FROM 16.76 TO 63.39 ARE ABC,ABCE AND AB.

/       61.21   63.39    2.18             SAND        MX   4 4    4        P                 V6                 V(
L                                            *           FU                                               V(
```

```
K  F   F R O M - T O -  T O T RECOV  MD % ROCK TM TM QM1 TX TX F C % M ARG   RT 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                             R Q D  AGE EV RH LC TM QM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/       63.39  107.89  44.50              ARGL    SF SN2 LR LM 1 1   1       P    BD      30 V(                D)
L                                              4     SI1 (L BN                                           V=

/       70.94   71.31   0.37            2 FAUL       GGS                    R
L                                                 SF

/       87.70   89.00   1.30            8 FAUL                              R

/      107.89  125.88  17.99              BRHT          BS           OR5    P                V(                V(
L                                              5              2     C MN2
R      111.21  112.61        RADIA SEQUENCES ARE AGED, AB, A.

/        0.00    0.00   0.00            X SAND                 G; 4 4   4      R
L                                              6

/      112.61  114.87   2.26            X ARGL CS        LM     1 1   1      R    BD      22 V)           L)   L(
I                                              4     SI1

/      121.40  121.60   0.26            X SAND                  4 4   4      R    BD      37
L                                              6

K DM1  125.88  125.88   0.00

/ LSX  125.88  145.69  19.81              SULF     BA      LM     2 2   2      P  0 BD     D66 L1           L5   L=    L)    48
L                                              7   SF SI1                        1                                 L=

/      141.52  144.26   2.74            X BRPH     BA      DR           OP1    R                V)                D.
L                                              5      SI1     2     O MO6

K LM1  145.69  145.69   0.00

/      145.69  149.96   4.27              BRHT        SN2               OP3    P
L                                              5   SF            2   5 C MN2
```

				SAMPLE	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CO	HASH
A UNM													
A LAB				SERIAL	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	
A TYP					H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	
A MTH					WA	WA	WA	WA	WA	WA	WA	WA	

R ASY 0.00 0.00 B.CLG = BONDAR CLEGG, VANCOUVER; H-CORE = HALF CORE.

R ASY 0.00 0.00 WA = WET ANALYSIS.

R ASY 0.00 0.00 LESS THAN DETECTION LIMIT ENTERED AS -D.L. E.G. -0.01

R ASY 0.00 0.00 NO ASSAY INFORMATION ENTERED AS -0.1

A 001	124.35	125.88	153	4554	0.01	0.04	4.20	0.04	-0.1	-0.1	-0.1	-0.1	3.89
A 001	125.88	126.49	061	4555	0.76	6.28	38.10	0.08	-0.1	-0.1	-0.1	-0.1	44.82
A 001	126.49	128.02	153	4556	0.33	7.16	38.81	0.02	-0.1	-0.1	-0.1	-0.1	45.92
A 001	128.02	129.54	152	4557	0.22	5.66	46.84	-0.01	-0.1	-0.1	-0.1	-0.1	52.31
A 001	129.54	131.06	152	4558	0.68	3.20	48.30	-0.01	-0.1	-0.1	-0.1	-0.1	51.77
A 001	131.06	132.59	153	4559	1.10	3.22	44.22	-0.01	-0.1	-0.1	-0.1	-0.1	48.13
A 001	132.59	134.11	152	4560	0.81	4.36	44.70	-0.01	-0.1	-0.1	-0.1	-0.1	49.46
A 001	134.11	135.64	153	4561	0.77	2.80	45.80	-0.01	-0.1	-0.1	-0.1	-0.1	48.96
A 001	135.64	137.16	152	4562	0.83	3.12	46.16	-0.01	-0.1	-0.1	-0.1	-0.1	49.70
A 001	137.16	138.68	152	4563	0.76	3.06	38.60	-0.01	-0.1	-0.1	-0.1	-0.1	42.01
A 001	138.68	140.21	153	4564	1.12	3.80	40.00	0.01	-0.1	-0.1	-0.1	-0.1	44.53
A 001	140.21	141.73	152	4565	0.29	3.90	42.50	0.02	-0.1	-0.1	-0.1	-0.1	46.31
A 001	141.73	143.26	153	4566	0.07	0.12	0.56	0.02	-0.1	-0.1	-0.1	-0.1	0.37
A 001	143.26	144.78	152	4567	1.56	4.76	18.69	0.05	-0.1	-0.1	-0.1	-0.1	24.86
A 001	144.78	145.69	091	4568	3.50	7.08	11.40	0.12	-0.1	-0.1	-0.1	-0.1	21.70
A 001	145.69	147.22	153	4569	0.25	1.02	0.58	0.02	-0.1	-0.1	-0.1	-0.1	1.47
A 001	147.22	148.74	152	4570	0.22	1.72	2.59	0.03	-0.1	-0.1	-0.1	-0.1	4.16
A MAX	124.35	148.74			3.50	7.16	48.30	0.01	-0.1	-0.1	-0.1	-0.1	58.57

A BLN				0.01	0.04	0.56	-0.01	-0.1	-0.1	-0.1	-0.1	0.20
A CMP	125.88	128.02	214	5.45	6.91	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	6.76
A CMP	128.02	143.26	1524	0.07	3.92	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	3.39
A CMP	143.26	145.69	243	2.29	5.63	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	7.32
A CMP	145.69	148.74	305	0.24	1.37	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	1.01

1 G C

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STE DEPOSIT, Y.T.

FORMAT VERSION : 6802

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DRILLHOLE/TRAVERSE :76-00013        COLLAR ELEVATION :      1201.10      AZIMUTH( DEG ) :     0.00      GEOLOGGED BY :      +
TOTAL DEPTH/LENGTH :    17.68       NORTHING(- IF S):  7002518.00      VERTICAL ANGLE :   -50.00      DATE (YY/MM/DD):      0
CORE/HOLE DIAMETER :     00         EASTING (- IF W):   436913.50      CO-ORD SYSTEM  :    UTM        PROJECT NUMBER : J-MAIN

   F    - I N T E R V A L -    CORE  T- %      TYPE- QAL  TEX-  GRAIN        PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
 K  L (UNITS =   .  DEC.PLACE)RECOV-  F O ROCK FYING MIN TURES CHARACS                        H  H  H  H  H ANY H  H  H ANY  ALT ORE
 E  A   (MT=METRIC FT=FOOTRIC)  ERY    O I      TA TM MAT TX TX F C % M ARG   /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
 Y  G  F R O M - T O -  I N T (  . )  G X TYPE  1  2 QM1  1  2 F F C A          1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 - --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 K  F                           ROCK   FA      RT    TA OR2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
 E  L                           QUAL   AGE EN- 0 LC- 3      3  4 U    /           2    AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
 Y  G                           DESIG     VIR  COL              P     C              STRUCTUR-2  A  A  A  A  A  A  A  A  A  A    2   2

 R SVY     0.00      0.00       NO DOWN HOLE SURVEY DATA.

 R ASY     0.00      0.00       NO ASSAY DATA THIS HOLE.
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PHOTO. BY ABF

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :76-0H014	COLLAR ELEVATION: 1194.05	AZIMUTH(DEG) : 0.00	GEOLOGGED BY : +
TOTAL DEPTH/LENGTH : 102.11	NORTHING(- IF S): 7002474.00	VERTICAL ANGLE : -53.00	DATE (YY/MM/DD): 0
CORE/HOLE DIAMETER : 90	EASTING (- IF W): 436914.56	CO-ORD SYSTEM : UTM	PROJECT NUMBER : J-MAIN

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	30.48	0.00	-47.00
2	60.96	0.00	-42.50
3	91.44	0.00	-39.50

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  F   - I N T E R V A L -    CORE  T- %        TYPI- QAL  TEX-  GRAIN          PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K L (UNITS =   . DEC.PLACE)RECOV-  M W ROCK FYING MIN TURES CHARACS                             H  H  H  H  H ANY H  H  H ANY  ALT ORE
E A  (MT=METRIC FT=FOOTRIC)  ERY    O T       TM TM QAT TX TX F C % M ARG   /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y G  F R O M - T O -  I N T (  . )  D X TYPE  1  2 QM1  1  2 F F C A          1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K F                              ROCK   FM     RT    TG QM2 TX TX S C O O CHT     T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E L                              IDAL   AGE EN- O LC- 3      3  4 O     /        2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y G                              DESIG     VIR  COL             R     C            STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2   2
```

```
R SVY    0.00    0.00      DIP TESTS ONLY.

/        0.00   71.63  71.63           MISS                      P

K UM1   71.65   71.65   0.00

/       71.65   81.99  10.36           MISS                      P

K LM1   81.99   81.99   0.00

/       81.99  102.11  20.12           MISS                      P
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PAN OCEAN OIL LTD.

G E O L O G

JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

DRILLHOLE/TRAVERSE --- 76-DH014 --- (CONTINUED)

A UNM				SAMPLE	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A LAB				SERIAL	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	
A TYP				NUMBER	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	
A MTH					WA	WA	WA	WA	WA	WA	WA	WA	
R ASY	0.00	0.00	B.CLG = BONDAR CLEGG, VANCOUVER; H-CORE = HALF CORE.										
R ASY	0.00	0.00	WA = WET ANALYSIS.										
R ASY	0.00	0.00	LESS THAN DETECTION LIMIT ENTERED AS -D.L. E.G. -0.01, -0.05										
R ASY	0.00	0.00	NO ASSAY INFORMATION ENTERED AS -0.1										
A 001	71.63	73.13	05	4571S	2.22	9.52	0.34	0.10	-0.1	-0.1	-0.1	0.02	11.90
R ASY	71.63	73.13	4571S IS A SLUDGE SAMPLE ASSAY.										
A 001	73.13	74.68	24	4572	0.67	4.24	0.18	0.08	-0.1	-0.1	-0.1	0.01	4.88
A 001	74.68	76.20	12	4575	0.26	1.83	0.11	0.10	-0.1	-0.1	-0.1	-0.01	1.99
A 001	76.20	77.72	116	10534	5.36	8.64	0.09	0.09	-0.1	-0.1	-0.1	0.01	11.89
A 001	77.72	78.94	85	10535	2.46	8.16	0.14	0.13	-0.1	-0.1	-0.1	0.01	10.60
A 001	78.94	80.48	107	10536	0.35	3.34	0.18	0.06	-0.1	-0.1	-0.1	-0.01	3.62
A 001	80.48	81.99	122	10537	0.17	6.16	0.28	0.06	-0.1	-0.1	-0.1	0.01	6.38
A 001	81.99	83.51	61	19325	0.05	0.37	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.18
A 001	83.51	85.03	43	19326	-0.05	-0.05	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.70
A CMP	71.63	81.99			1.32	7.03	-0.1	0.10	-0.1	-0.1	-0.1	-0.1	7.95
R ASY	71.63	81.99	COMPOSITE USES WEIGHTED CORE + SLUDGE VALUES.										

A MIN			-0.05	-0.05	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.70
A MAX	71.63	85.03	3.36	8.64	0.28	0.13	-0.1	-0.1	-0.1	0.01	12.21

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PE-79-AG-6A STF DEPOSIT, Y.T.

FORMAT VERSION : 6B02

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DRILLHOLE/TRAVERSE :76-08015     COLLAR ELEVATION:     1158.09     AZIMUTH( DEG ) :     0.00     GEOLOGGED BY :      +
TOTAL DEPTH/LENGTH :  157.28     NORTHING(- IF S):  7002393.00     VERTICAL ANGLE :   -50.00     DATE (YY/MM/DD):     0
CORE/HOLE DIAMETER :     00      EASTING (- IF W):   437109.00     CO-ORD SYSTEM  :    UTM       PROJECT NUMBER : J-MAIN
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SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	30.48	0.00	-51.00
2	60.96	0.00	-41.00
3	91.44	0.00	-33.50
4	121.92	0.00	-31.50
5	152.40	0.00	-27.00

```
  F    - I N T E R V A L -    CORE  1- %      TYPI- QAL  TEX-  GRAIN          PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L  (UNITS =    . DEC.PLACE)RECOV-  6 N ROCK FYING MIN TURES CHARACS                           H  H  H  H  H ANY H  H  H ANY  ALT ORE
F  A   (MT=METRIC FT=FOOTRIC)  ERY    0 T       IM TM MAT TX TX F C % M ARG   /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G   F R O M - T O -  I N T (  . )  D X TYPE  1  2 OR1  1  2 F F C A            1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- ---  - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                          ROCK    FG      RT    IM SM2 TX TX S C Q D CHT        T ID STK DIP MG MU CL SD OS HA PR MT SL HA
E  L                          QUAL    AGE EN- Q LC- 3      3  4 D     /             2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y  G                          DESIG       VTR   COL              R      C             STRUCTUR-2  A  A  A  A  A  A  A  A  A  A    2   2
```

```
R SVY     0.00     0.00     ACID DIP TESTS ONLY.

/         0.00  130.61 130.61          MISS                                      P

K DM1   130.61   130.61    0.00

/       130.61   131.98    1.37        MISS                                      P

K LM1   131.98   131.98    0.00

/       131.98   157.28   25.30        MISS                                      P
```

				SAMPLE	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A UMM				SERIAL	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	
A LAB				NUMBER	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	
A TYP					WA	WA	WA	WA	WA	WA	WA	WA	
A MTH													
R ASY	0.00	0.00	B.CLG = BONDAR CLEGG, VANCOUVER; H-CORE = HALF CORE.										
R ASY	0.00	0.00	WA = WET ANALYSIS.										
R ASY	0.00	0.00	LESS THAN DETECTION LIMIT ENTERED AS -D.L. E.G. -0.05										
R ASY	0.00	0.00	NO ASSAY INFORMATION ENTERED AS -0.1										
A 001	128.02	130.61	149	10544	0.05	-0.05	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.60
A 001	130.61	130.91	15	10545	-0.05	2.45	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	1.80
A 001	130.91	131.52	31	10546	0.06	0.35	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.19
A 001	131.52	131.93	23	10547	0.05	5.70	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	5.15
A 001	131.93	133.50	36	10548	0.05	0.65	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.10
A 001	133.50	135.03	61	10549	0.05	0.65	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.10
A 001	135.03	136.55	0	10550	0.23	1.50	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	1.13
R ASY	135.03	136.55	SLUDGE ASSAY ONLY.										
A 001	136.55	137.46	78	19301	0.29	1.23	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.92
A 001	137.46	139.90	125	19302	0.16	1.78	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	1.34
A 001	139.90	142.65	168	19303	0.10	1.00	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.50

A MIN			-0.05	-0.05	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.70
A MAX	126.02	142.65	0.29	5.70	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	5.39

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

```
DRILLHOLE/TRAVERSE :76-DH016      COLLAR ELEVATION:      1160.86     AZIMUTH( DEG ) :     0.00    GEOLOGGED BY :        +
TOTAL DEPTH/LENGTH :  122.22      NORTHING(- IF S):   7002476.00     VERTICAL ANGLE :   -52.00    DATE (YY/MM/DD):      0
CORE/HOLE DIAMETER :     .00      EASTING (- IF W):    437110.06     CO-ORD SYSTEM  :   UTM       PROJECT NUMBER : J-MAIN
```

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	30.48	0.00	-46.00
2	91.44	0.00	-36.00
3	121.92	0.00	-28.00

```
  F   - I N T E R V A L -    CORE  I- %      TYPI- QAL  TEX-  GRAIN      PGI  STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K L (UNITS =   . DEC.PLACE)RECOV- M N ROCK FYING MIN TURES CHARACS                          H  H  H  H  H ANY H  H  H ANY  ALT ORE
E A  (MI=METRIC FT=FOOTRIC)  ERY    O 1      TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN  - - - -
Y G  F R O M - T O -  L N 1 (  . )  D X TYPE  1  2 NM1  1  2 F F C A          1     AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K F                         ROCK   FM    RT    TM RMP TX TX S C O O CHT     T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E L                         COAL   AGE EN- N LC- 3     3  4 O     /         2     AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y G                         DESIG    VIR  COL               R     C           STRUCTUR-2  A  A  A  A  A  A  A  A  A  A   2   2

/       0.00   49.99  49.99           MISS                         P

K UM1  49.99   49.99   0.00

/      49.99   54.56   4.57           MISS                         P

K LM1  54.56   54.56   0.00

/      54.56  122.22  67.66           MISS                         P
```

				SAMPLE	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A UMM				SAMPLE	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A LAB				SERIAL	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	
A TYP				NUMBER	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	
A MTH					WA	WA	WA	WA	WA	WA	WA	WA	
R ASY	0.00	0.00	B.CLG = BONDAR CLEGG, VANCOUVER; H-CORE = HALF CORE.										
R ASY	0.00	0.00	WA = WET ANALYSIS.										
R ASY	0.00	0.19	LESS THAN DETECTION LIMIT ENTERED AS -D.L. E.G. -0.05										
R ASY	0.00	0.00	NO ASSAY INFORMATION ENTERED AS -0.1										
A 001	45.11	48.45	183	19304	0.05	1.73	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	1.18
A 001	48.46	49.99	167	19305	0.05	0.85	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.30
A 001	49.99	51.51	82	19306	0.06	3.10	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	2.56
A 001	51.51	53.34	113	19307	0.05	1.60	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	1.05
A 001	53.34	54.56	101	19308	0.05	1.45	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.90
A 001	54.56	57.61	235	19309	0.04	0.70	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.14
A 001	57.61	60.66	231	19310	0.05	0.54	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.01
A 001	60.66	62.79	167	19311	-0.05	0.05	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.60
A CMP	49.99	54.56	296		0.05	2.06	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	1.51

A MIN			-0.05	0.05	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.61
A MAX	45.11	62.79	0.06	3.10	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	2.56

GEOLOG EDIT LISTING

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

```
DRILLHOLE/TRAVERSE :76-DH017     COLLAR ELEVATION:     1159.77     AZIMUTH( DEG ) :     0.00    GEOLOGGED BY :        +
TOTAL DEPTH/LENGTH :  482.80     NORTHING(- IF S):  7003898.00     VERTICAL ANGLE :   -90.00    DATE (YY/MM/DD):      0
CORE/HOLE DIAMETER :     NQ      EASTING (- IF W):   438542.50     CO-ORD SYSTEM  :    UTM      PROJECT NUMBER : J-RECC
```

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	30.50	0.00	-89.00
2	62.50	0.00	-89.00
3	91.40	0.00	-81.00
4	121.90	0.00	-77.00
5	152.40	0.00	-67.00
6	182.90	0.00	-60.00
7	213.40	0.00	-56.50
8	228.60	0.00	-55.50
9	243.80	0.00	-53.50
10	259.10	0.00	-51.00
11	274.30	0.00	-51.00
12	289.60	0.00	-49.00
13	306.30	0.00	-46.00
14	320.00	0.00	-42.50
15	335.60	0.00	-39.50
16	352.30	0.00	-41.50
17	367.90	0.00	-41.00
18	383.10	0.00	-37.50
19	398.40	0.00	-35.50
20	412.70	0.00	-33.50
21	428.20	0.00	-32.50
22	443.20	0.00	-29.00
23	458.70	0.00	-29.00
24	477.00	0.00	-27.00
25	482.80	0.00	-27.00

```
   F   - I N T E R V A L -    CORE  T- %      TYPI- DAL  TEX-  GRAIN        PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
 K  L  (UNITS =   .  DEC.PLACE)RECOV-  H M ROCK FYING MIN TURES CHARACS                       H  H  H  H  H ANY H  H  H ANY  ALT ORE
 E  A  (MI=METRIC FI=FOOTRIC)  ERY     O I      TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
 Y  G  F R O M - T O -  I N T (  . )  D X TYPE  1  2 UM1  1  2 F F C A           1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 - --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 K  F                          ROCK   FM     RT    IM UM2 TX TX S C O U CHT      T ID STK DIP MG MU CL SD OS HA PR MT SL HA
 E  L                          QUAL   AGE FM- N IC- 3      3  4 O     /          2    AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
 Y  G                          DESIG      VIR   COL               R     C          STRUCTUR-2 A  A  A  A  A  A  A  A  A  A     2   2

 R SVY    0.00     0.00       DIP TESTS ONLY.

 R ASY    0.00     0.00       NO ASSAYS FROM THIS HOLE.
```

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

```
DRILLHOLE/TRAVERSE :76-DH01B       COLLAR ELEVATION:      1389.28      AZIMUTH( DEG ) :  180.00      GEOLOGGED BY :      +
TOTAL DEPTH/LENGTH :     56.69     NORTHING(- IF S):  7003448.00      VERTICAL ANGLE :  -50.00      DATE (YY/MM/DD):        0
CORE/HOLE DIAMETER :      ND       EASTING (- IF W):   436403.25      CO-ORD SYSTEM  :   UTM        PROJECT NUMBER : J-RECC

  F    - I N T E R V A L -     CORE  T- %      TYPI- NAL  TEX-  GRAIN        PGI    STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K L (UNITS =    .  DEC.PLACE)RECOV-  M G ROCK FYING MIN TURES CHARACS                         H  H  H  H  H ANY H  H  H ANY  ALT ORE
E A  (MT=METRIC FT=FOOTRIC)  ERY     O T         IM TH MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y G  F R O M - T O -  I N T (  . )  D X TYPE  1  2 (U) 1  2 F F C A            1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K F                          ROCK   FM    RT    TH UMP TX TX S C U O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E L                          COAL   AGE FM- O LC- 3     3  4 O     /          2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y G                          DESIG     VTR   COL              R     C            STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2   2

R SVY    0.00     0.50       NO DRILL HOLE DIP TESTS TAKEN.

R ASY    0.00     0.00       NO CORE ASSAYS TAKEN; SLUDGE ASSAY ALL <0.05 PB AND ZN.
```

G E O L O G E D I T L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :76-DH019	COLLAR ELEVATION: 1388.38	AZIMUTH(DEG) : 0.00	GEOLOGGED BY : +
TOTAL DEPTH/LENGTH : 130.45	NORTHING(- IF S): 7003327.00	VERTICAL ANGLE : -50.00	DATE (YY/MM/DD): 0
CORE/HOLE DIAMETER : NQ	EASTING (- IF W): 436368.25	CO-ORD SYSTEM : UTM	PROJECT NUMBER : J-RECC

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	60.96	0.00	-39.50
2	91.44	0.00	-32.50
3	130.45	0.00	-27.00

```
    F   - I N T E R V A L -    CORE  I- %       TYPI- QAL  TEX-  GRAIN          PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K   L (UNITS =    . DEC.PLACE)RECOV-  % % ROCK FYING MIN TURES CHARACS                          H  H  H  H  H ANY H  H  H ANY  ALT ORE
E   A  (MT=METRIC FT=FOOTRIC)  ERY    O I      TP IN MAT TX TX F C % M ARG     /RI  T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y   G  F R O M - T O -  F O T (  . )  0 X TYPE  1  2 MN1  1  2 F F C A              1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - - ---- ---  - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K   F                          ROCK     FM      RT     TX GM2 TX TX S C O O CHT        T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E   L                          QUAL    AGE FM- O LC- 3      3  4 O     /               2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y   G                          DESIG       VIR   COL             R     C                  STRUCTUR-2 A  A  A  A  A  A  A  A  A  A   2   2

R SVY    0.00    0.00      DIP TESTS ONLY.

R ASY    0.00    0.00      NO SIGNIFICANT ASSAYS IN THIS HOLE.
```

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :76-08020	COLLAR ELEVATION: 1253.13	AZIMUTH(DEG) : 0.00	GEOLOGGED BY : +
TOTAL DEPTH/LENGTH : 121.92	NORTHING(- IF S): 7002399.00	VERTICAL ANGLE : -49.50	DATE (YY/MM/DD): 0
CORE/HOLE DIAMETER : BQ	EASTING (- IF W): 436452.00	CO-ORD SYSTEM : UTM	PROJECT NUMBER : J-MAIN

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	31.70	0.00	-46.00
2	64.00	0.00	-45.00
3	91.40	0.00	-42.50
4	121.92	0.00	-40.00

```
   F    - I N T E R V A L -     CORE  T- %        TYPI- QAL  TEX-  GRAIN         PGT   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
 K  L (UNITS =    .  DEC.PLACE)RECOV-   A M ROCK FYING MIN TURES CHARACS                         H  H  H  H  H ANY H  H  H ANY  ALT ORE
 E  A   (MT=METRIC FT=FOOTRIC)  ERY     G I      TM TM MAT TX TX F C % M ARG   /RT T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
 Y  G  F R O M - T O -  T O T ( . )   D X TYPE  1  2 OM1  1  2 F F C A          1     AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 - --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 K  F                          ROCK    FM     RT    TM OM2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
 E  L                          QUAL    AGE FM- O LC- 3     3  4 G    /            2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
 Y  G                          DESIG      VIR   COL          R    C             STRUCTUR-2  A  A  A  A  A  A  A  A  A  A   2   2
```

R SVY   0.00   0.00   DIP TESTS ONLY.

A UMM				SAMPLE	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A LAB				SERIAL	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	
A TYP				NUMBER	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	
A MTH					WA	WA	WA	WA	WA	WA	WA	WA	
R ASY	0.00	0.00	B.CLG = BONDAR CLEGG, VANCOUVER; H-CORE = HALF CORE.										
R ASY	0.00	0.00	WA = WET ANALYSIS.										
R ASY	0.00	0.00	LESS THAN DETECTION LIMIT ENTERED AS -D.L. E.G. -0.05										
R ASY	0.00	0.00	NO ASSAY INFORMATION ENTERED AS -0.1										
A 001	29.00	30.00	96	19347	0.06	0.12	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.42
A 001	30.00	31.00	96	19348	0.07	0.09	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.44
A 001	31.00	32.00	96	19349	0.11	0.05	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.44
A 001	32.00	33.00	96	19350	0.10	0.05	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.45
A 001	33.00	34.00	96	19351	4.50	-0.05	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	3.85
A 001	34.00	35.00	96	19352	0.35	0.05	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.20

A MIN			0.06	-0.05	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.59
A MAX	29.00	35.00	4.50	0.12	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	4.02

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                                     G E O L O G   E D I T   L I S T I N G                          SYSTEMS ENGINEERING BY
                                                                                                INTERNATIONAL GEOSYSTEMS CORP.

                                               PAN OCEAN OIL LTD.
                                     JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

                                              FORMAT VERSION : 6802

 DRILLHOLE/TRAVERSE :76ADH009       COLLAR ELEVATION:      1248.92       AZIMUTH( DEG ) :  270.00        GEOLOGGED BY :       +
 TOTAL DEPTH/LENGTH :    85.34      NORTHING(- IF S):  7002373.00       VERTICAL ANGLE :  -50.00        DATE (YY/MM/DD):        0
 CORE/HOLE DIAMETER :     BQWL      EASTING (- IF W):   436509.75       CO-ORD SYSTEM  :   UTM          PROJECT NUMBER : J-RECC

    F    - I N T E R V A L -     CORE  T- %       TYPI- QAL  TEX-  GRAIN          PGI    STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
 K  L (UNITS =    . DEC.PLACE)RECOV-  W % ROCK FYING MIN TURES CHARACS                              H  H  H  H  H ANY H  H  H ANY  ALT ORE
 E  A  (MT=METRIC FT=FOOTRIC)  ERY     O T        TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
 Y  G  F R O M - T O -  I N T (  . )  D X TYPE  1  2 OM1  1  2 F F C A            1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 - --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 K  F                          ROCK    FM     RT    TM OM2 TX TX S C O O CHT       T ID STK DIP MG MU CL SD QS HA PR MT SL HA
 E  L                          QUAL    AGE EN- O LC- 3      3  4 O     /           2    AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
 Y  G                          DESIG      VIR   COL              R      C            STRUCTUR-2  A  A  A  A  A  A  A  A  A  A     2   2

 R SVY     0.00     0.00       NO DOWN HOLE SURVEY DATA.

 R ASY     0.00     0.00       NO ASSAY DATA FOR THIS HOLE.
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G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

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DRILLHOLE/TRAVERSE :75A08013      COLLAR ELEVATION:      1201.10    AZIMUTH( DEG ) :     0.00    GEOLOGGED BY :        +
TOTAL DEPTH/LENGTH :    90.53     NORTHING(- IF S):  7002518.00    VERTICAL ANGLE :   -50.00    DATE (YY/MM/DD):       0
CORE/HOLE DIAMETER :      BQ      EASTING (- IF W):   436913.50    CO-ORD SYSTEM  :   UTM       PROJECT NUMBER : J-MAIN
```

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	30.48	0.00	-51.00
2	60.96	0.00	-50.00

```
  F   - I N T E R V A L -     CORE  T- %      TYPI- GAL  TEX-  GRAIN       PGT   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K L (UNITS =    . DEC.PLACE)RECOV-  M   ROCK FYING MIN TURES CHARACS                          H  H  H  H  H ANY H  H  H ANY ALT ORE
E A  (MT=METRIC FT=FOOTRIC)  ERY    O 1      TM TM MAT TX TX F C % M ARG  /RT T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y G  F R O M - T O -  [ N T ( . )  U X TYPE  1  2 GM1  1  2 F F C A           1     AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- -- - - - -
K F                          ROCK   FN     RT    FM GM2 TX TX S C U O CHT     T ID STK DIP MG MU CL SD QS HA PR MT SL HA
F L                          QUAL   AGE FN- O LC- 3     3  4 O     /          2     AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
Y G                          DESIG      VIR   COL          R       C            STRUCTUR-2  A  A  A  A  A  A  A  A  A  A    2   2

R SVY    0.00     0.00      CO-ORDS ENTERED ON LOGGING SHEET ARE WRONG. SURVEY TABLE USED.

/         0.00    17.68   17.68            MISS                     P

K UM1    17.68    17.68    0.00

/        17.68    22.25    4.57            MISS                     P

K LM1    22.25    22.25    0.00

/        22.25    90.53   68.28            MISS                     P
```

PAN OCEAN OIL LTD.

DRILLHOLE/TRAVERSE --- 76ADH013 --- (CONTINUED)

				SAMPLE	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A UNM				SAMPLE	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A LAB				SERIAL	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	
A TYP				NUMBER	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	
A MTH					WA	WA	WA	WA	WA	WA	WA	WA	
R ASY	0.00	0.00	B.CLG = BONDAR CLEGG, VANCOUVER; H-CORE = HALF CORE.										
R ASY	0.00	0.00	WA = WET ANALYSIS.										
R ASY	0.00	0.00	LESS THAN DETECTION LIMIT ENTERED AS -D.L. E.G. -0.05										
R ASY	0.00	0.00	NO ASSAY INFORMATION ENTERED AS -0.1										
A 001	17.68	20.42	21	19327	0.22	6.45	0.71	0.02	-0.1	-0.1	-0.1	0.01	7.11
A 001	20.42	21.64	31	19328	0.58	8.05	1.75	0.04	-0.1	-0.1	-0.1	0.01	10.13
A 001	21.64	22.25	03	19329	0.14	5.50	0.36	0.04	-0.1	-0.1	-0.1	0.01	5.75
A 001	22.25	23.77	03	19330	-0.05	0.18	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.47
R ASY	0.00	0.00	SLUDGE ASSAYS NOT ENTERED.										
A CMP	17.68	22.25	55		0.31	6.75	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	6.46

A MIN			-0.05	0.18	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.47
A MAX	17.68	23.77	0.58	8.05	1.75	0.04	-0.1	-0.1	-0.1	0.01	10.13

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PR-7N-AG-8A STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

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DRILLHOLE/TRAVERSE :77-DH021      COLLAR ELEVATION:      1193.10      AZIMUTH( DEG ) :     1.00     GEOLOGGED BY :      +
TOTAL DEPTH/LENGTH :  171.91      NORTHING(- IF S):  7002455.00      VERTICAL ANGLE :   -71.00     DATE (YY/MM/DD):          0
CORE/HOLE DIAMETER :     HQ       EASTING (- IF W):   436916.44      CO-ORD SYSTEM  :     UTM      PROJECT NUMBER : J-MAIN
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SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	15.24	10.25	-70.50
2	30.48	10.25	-69.50
3	60.96	16.25	-68.00
4	76.20	19.25	-67.50
5	91.44	19.25	-67.00
6	106.86	22.00	-65.50
7	121.92	24.75	-64.50
8	137.16	25.25	-64.50
9	152.40	26.75	-64.50
10	167.64	27.25	-64.00

```
   F   - I N T E R V A L -    CORE  T- %       TYPI- QAL  TEX-  GRAIN         PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  I (UNITS =   .  DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                        H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MT=METRIC FT=FOOTRIC)  ERY    U T       IN TM MAT TX TY F C % M ARG    /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  L G T ( . )  D X TYPE  1  2 QM1  1  2 F F C A             1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  ---  - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                          ROCK   FM     RT    TM QM2 TX TX S C G O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                          QUAL   AGE FM- U LC- 3       3  4 U    /          2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y  G                          DESIG     VTH   COL             R      C              STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2   2

R SVY    0.00    0.00      ALL SPERRY SUN SURVEY DATA.

/        0.00  125.36 125.36         MISS                             P

K UM1  125.36  125.36   0.00

/      125.36  147.83  22.47         MISS                             P

K LM1  147.83  147.83   0.00

/      147.83  171.91  24.08         MISS                             P
```

PAN OCEAN OIL LTD.

G E O L O G — JASON PB-ZN-AG-BA STF DEPOSIT, Y.T. — PAGE - 2

DRILLHOLE/TRAVERSE --- 77-UH021 --- (CONTINUED)

				SAMPLE	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A UMA				SERIAL	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	
A LAB				NUMBER	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	
A MTH					WA	WA	WA	WA	WA	WA	WA	WA	
R ASY	0.00	0.00	B.CLG = BONDAR CLEGG, VANCOUVER; H-CORE = HALF CORE.										
R ASY	0.00	0.00	WA = WET ANALYSIS.										
R ASY	0.00	0.00	LESS THAN DETECTION LIMIT ENTERED AS -D.L. E.G. -0.01										
R ASY	0.00	0.00	NO ASSAY INFORMATION ENTERED AS -0.1										
A 001	122.32	125.36	207	6002	0.02	0.07	1.12	0.03	-0.1	-0.1	-0.1	-0.01	0.93
A 001	125.36	125.91	33	6003	1.18	4.13	0.03	0.09	-0.1	-0.1	-0.1	0.01	5.14
A 001	125.91	126.34	16	6004	1.75	7.15	0.02	0.09	-0.1	-0.1	-0.1	0.02	8.73
A 001	126.34	127.53	46	6005	0.30	3.50	0.10	0.03	-0.1	-0.1	-0.1	0.01	3.64
A 001	127.53	128.47	71	6006	1.50	6.65	0.02	0.06	-0.1	-0.1	-0.1	0.02	8.15
A 001	128.47	128.93	24	6007	0.02	0.86	0.02	0.04	-0.1	-0.1	-0.1	-0.01	0.65
A 001	128.93	129.42	26	6008	1.98	6.45	0.02	0.10	-0.1	-0.1	-0.1	0.02	8.27
A 001	129.42	129.84	17	6009	1.23	7.45	-0.01	0.08	-0.1	-0.1	-0.1	0.02	8.47
A 001	129.84	130.15	9	6010	0.46	4.55	-0.01	0.05	-0.1	-0.1	-0.1	0.01	4.76
A 001	130.15	130.97	25	6011	2.80	9.10	-0.01	0.07	-0.1	-0.1	-0.1	0.02	11.68
A 001	130.97	131.92	54	6012	4.80	16.80	-0.01	0.14	-0.1	-0.1	-0.1	0.04	21.47
A 001	131.92	132.28	26	6013	2.90	10.10	-0.01	0.08	-0.1	-0.1	-0.1	0.02	12.79
A 001	132.28	133.81	124	6014	2.47	11.80	0.01	0.02	-0.1	-0.1	-0.1	0.02	14.02
A 001	133.81	135.58	155	6015	2.26	12.70	0.02	0.04	-0.1	-0.1	-0.1	0.02	14.74
A 001	135.58	136.40	72	6016	3.23	18.10	0.01	0.06	-0.1	-0.1	-0.1	0.03	21.13
A 001	136.40	137.59	105	6017	2.25	11.00	0.03	0.03	-0.1	-0.1	-0.1	0.02	13.03
A 001	137.59	138.38	71	6018	1.92	7.21	-0.01	0.04	-0.1	-0.1	-0.1	0.01	8.87
A 001	138.38	139.39	95	6019	1.75	7.65	-0.01	0.04	-0.1	-0.1	-0.1	0.01	9.14
A 001	139.39	139.75	36	6020	2.15	6.10	0.02	0.04	-0.1	-0.1	-0.1	0.01	8.02
A 001	139.75	140.51	76	6021	0.93	5.34	-0.01	0.02	-0.1	-0.1	-0.1	0.01	5.99
A 001	140.51	140.90	39	6022	0.47	4.38	0.01	0.04	-0.1	-0.1	-0.1	0.01	4.61
A 001	140.90	142.04	114	6023	3.38	13.90	0.03	0.06	-0.1	-0.1	-0.1	0.01	17.08
A 001	142.04	142.52	48	6024	2.40	13.70	0.01	0.09	-0.1	-0.1	-0.1	0.01	15.91
A 001	142.52	143.16	64	6025	2.05	8.80	8.36	0.03	-0.1	-0.1	-0.1	0.01	18.95
A 001	143.16	143.96	80	6026	1.53	5.20	42.80	0.03	-0.1	-0.1	-0.1	0.01	49.27
A 001	143.96	145.48	136	6027	2.10	13.40	0.86	0.07	-0.1	-0.1	-0.1	0.01	16.14
A 001	145.48	146.04	32	6028	0.61	6.40	4.08	0.08	-0.1	-0.1	-0.1	-0.01	10.86
A 001	146.04	147.22	56	6029	0.54	9.30	0.03	0.08	-0.1	-0.1	-0.1	0.01	9.66
A 001	147.22	147.83	34	6030	0.11	3.09	2.87	0.06	-0.1	-0.1	-0.1	-0.01	5.82
R ASY	125.36	147.83	MAIN ORE ZONE INTERVAL.										
A 001	147.83	150.68	277	6031	0.05	1.28	2.42	0.06	-0.1	-0.1	-0.1	-0.01	3.50
A 001	150.68	153.47	225	6032	0.08	2.65	0.32	0.05	-0.1	-0.1	-0.1	-0.01	2.79
A 001	153.47	154.08	56	6033	0.27	8.00	0.43	0.10	-0.1	-0.1	-0.1	-0.01	8.49
A 001	154.08	154.53	41	6034	0.04	0.62	0.43	0.06	-0.1	-0.1	-0.1	-0.01	0.84
A 001	154.53	154.84	30	6035	0.31	5.10	0.60	0.15	-0.1	-0.1	-0.1	0.01	5.87
A 001	154.84	157.87	290	6036	0.04	0.85	1.00	0.11	-0.1	-0.1	-0.1	-0.01	1.69

A MIN			0.02	0.07	-0.01	0.02	-0.1	-0.1	-0.1	-0.01	-0.21
A MAX	122.32	157.87	4.80	18.10	42.80	0.15	-0.1	-0.1	-0.1	0.04	65.59

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

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DRILLHOLE/TRAVERSE :77-DH022     COLLAR ELEVATION:      1275.69     AZIMUTH( DEG ) :      0.00     GEOLOGGED BY : HDG +
TOTAL DEPTH/LENGTH :  263.96     NORTHING(- IF S):   7002545.00     VERTICAL ANGLE :    -72.00     DATE (YY/MM/DD): 810726
CORE/HOLE DIAMETER :     HQ      EASTING (- IF W):    436651.62     CO-ORD SYSTEM  :     UTM       PROJECT NUMBER : J-MAIN
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SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	15.24	358.75	-75.00
2	30.48	359.25	-75.00
3	45.72	359.25	-72.00
4	76.20	5.25	-71.00
5	106.68	12.25	-69.75
6	137.16	17.25	-68.25
7	167.64	18.25	-67.00
8	198.12	21.75	-66.00

```
   F   - I N T E R V A L -     CORE  I- %        TYPI- QAL  TEX-  GRAIN         PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =    . DEC.PLACE)RECOV-  N M ROCK FYING MIN TURES CHARACS                              H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MT=METRIC FT=FOOTRIC)  ERY    D T      TN TN MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  I N T ( . )  D X TYPE  1  2 QM1  1  2 F F C A         1     AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                          ROCK   FM     RT    TN QM2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
F  L                          QUAL   AGE EN- G LC- 3     3  4 O    /            2    AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
Y  G                          DESIG      VIR   COL             R   C              STRUCTUR-2 A  A  A  A  A  A  A  A  A  A     2   2

R SVY     0.00     0.00      ALL SURVEYS WERE DONE WITH SPERRY-SUN EQUIPMENT.

/ OVB     0.00     4.33    4.33           OVER                               P
L

/ CON     4.33    20.60   16.27           ARST         SC LM 1 3 = 3         P  I LM      57                  L*
L                                            3             8
R         4.33    20.60        SAND BANDS ARE PYRITIC, INCREASING TO 10% NEAR THE BASE OF THE
R         4.33    20.60        UNIT.

/ CON    20.60    25.90    5.30           ARHT                          L07  P
L                                            3             3            KN1                                   **
R        20.60    25.90        PYRITE IS PRIMARILY FOUND AS A REPLACEMENT MINERAL IN CHERT
R        20.60    25.90        FRAGMENTS.

/ CON    25.90    29.18    3.28           ARHT                          LP4  P                                D*
L                                            3             3            LM2

/ CON    29.18    34.45    5.27           CGAR       SN2 G;             MQ2  P               V)               D*
L                                            6             5         C  L04
R        29.18    34.45        SMALL SAND SIZED ANGULAR CHERT FRAGMENTS, OCCUR INTERSTITIALLY
R        29.18    34.45        TO LARGER CHERT AND ARGILLITE FRAGMENTS.

/        29.18    30.78    1.60        7 SAND          G; BD 1 3 7 5         R  2 BD     U52 >=               D*
L                                            7             8     C
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```
K  F   F R O M - T O -  I N T RECOV  RC % ROCK TY TX GM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                        R Q D  AGE EV RQ LC TN GM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/ CON   34.45   38.10   3.65            SAND         G; BD 1 3 8 5      P  2 BD     U50 V+                D*
L                                          7            8

/       35.38   36.32   0.94          8 CGBR      SN3 G;            KN=    R             V)                 D.
L                                          6            4      C KO6

/       37.30   37.50   0.20          9 CGBR      SN3               KO2    R                                D.
L                                          6            4      C KN4

/ CON   38.10   41.15   3.05            BRHT         * S)           LP5    P                                **
L                                          2            2    )  KP1

/ CON   41.15   48.07   6.92            BRHT                        MS5    P                                D)
L                                          4            2           KN4

/       41.15   41.90   0.75          8 ARSN      SN4 LM  1 3 4 4          R  1 LM       59                 D.
L                                          4      SI1     7

K M/D   48.07   48.07   0.00

/       48.07   49.80   1.73            SAND         G; BD 1 3 8 5      P  3 BD      70                 D*
L                                          6          )  7

/ CON   49.80   63.38  13.58            BRHT         G;                MS7    P                                *)
L                                          3            2           KP2

/ CON   63.38   71.92   8.54            BRHM                           LR7    P                                *(
L                                          2            2           JM=

/ CON   71.92   76.31   4.39            BRHT         ND                LR6    P                                *+
L                                          3            2           KN2

/       72.77   72.95   0.18          X BRHT PY      ND                LR6    R                                #4
L                                          3            2           KN2

/ CON   76.31   80.77   4.46            CGBR      SN4                  KP2    P                                *)
L                                          5            5      C KO4

/ CON   80.77   85.65   4.88            BRHT                           LP4    P                                *)
L                                          4            2           LN2
R       80.77   85.65       PYRITE OCCURS AS A REPLACEMENT MINERAL IN CHERT FRAGMENTS. MANY
R       80.77   85.65       OF THE CHERT FRAGMENTS APPEAR TO HAVE A LIGHT SILICIOUS LAYER
R       80.77   85.65       ON THEIR OUTSIDE BORDER.

/ CON   85.65   90.22   4.57            BRHM                           MS9    P                                *+
L                                          3            3           JL)
R       85.65   90.22       PYRITE OCCURS IN THE SANDSTONE LAMINATIONS WITHIN THE ARST
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K  F   F R O M - T O -  T N T RECOV  MD % ROCK TX TN NM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                      R Q D  AGE EV NN LC IN QM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/        99.22   99.82   0.60          2 BRBT                          LM2  R                                          *+
L                                          3               3           KN2
R        99.22   99.82        THE PYRITE OCCURS AS A REPLACEMENT MINERAL IN BOTH THE CHERT
R        99.22   99.82        AND ARST FRAGMENTS. THE BRBT IS FOUND IN .5 - 10 CM PACKAGES
R        99.22   99.82        BETWEEN THE ARGL UNITS.

/ FLT    99.82  102.61   2.79             ARGL CR GP     BR LM 1 3 * 3        P    SH       65 <)          <*      L)
L                                          2               8

/ CON   102.61  104.75   2.14             ARGL CR         MX    1 2 * 2        P  0 LM       58                     L*
L                                          1            LM 9

/ CON   104.75  106.98   2.23             ARGL CR        LM     1 3 * 3        P  1                                 L*
L                                          2               9

K M/C   104.95  104.95   0.00

/       104.95  105.69   0.74          8 SAND       SN8 G; BD 1 3 6 4        R  2 BD      065                    *=
L                                          5       S11 LC    6
R       104.95  105.69        PYRITE REPLACES THE SMALL SAND SIZED CHERT CLASTS.

/       106.68  106.98   0.30          5 SAND       SN5 G; BD 1 3 7 5        R  2                                  *=
L                                          5       S11       8

/ CON   106.98  111.56   4.58             ARGL CR         MX    1 3 * 3        P  1                                 L)
L                                          1            LM 9

/       106.98  109.93   2.95          + BRBT                          KL2  R                                          *)
L                                          3               4           JL3
R       106.98  109.93        THE BRBT IS FOUND AS 1-2 CM, INTERBEDS BETWEEN THE ARGL.

/       109.93  111.56   1.63          9 BRBT                          KL2  R
L                                          3               4           KM3                                            **+
R       109.93  111.56        PYRITE OCCURS PREDOMINANTLY AS A REPLACEMENT MINERAL WITHIN
R       109.93  111.56        CHERT CLASTS.

/ CON   111.56  119.23   7.67             CGBR        *S*              LO1  P                                          *)
L                                          6               5     * C KP6
R       111.56  119.23        PYRITE OCCURS AS A REPLACEMENT MINERAL IN CHERT.

K M/B   119.23  119.23   0.00

/       119.23  123.35   4.12             SAND       SN9 G; SC 1 3 9 6        P                                        D)
L                                          7       SI=       8
R       119.23  123.35        TWO DISTINCT CYCLES OF CHERT FRAGMENTS GRADING INTO SAND SIZED
R       119.23  123.35        PARTICLES OCCUR WITHIN THIS INTERVAL. ARGILLITE FRAGMENTS OF
R       119.23  123.35        3 CMS IN SIZE ARE ALSO PRESENT WITH THE LARGER CHERT FRAGMENTS.

/       123.35  126.15   2.80             BRBT                          MP4  P                                          *)
L                                          4               3           LN2
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G E O L O G                                  JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                  PAGE -  4
                                       DRILLHOLE/TRAVERSE --- 77-DH022 --- (CONTINUED)

K  F  F R O M - T O -  L N T RECOV  MD % ROCK TH TK GM1 TX TX F C % M ARG    RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R Q D  AGE EV RQ LC TM GM2 TX TX S C O O CHT        2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R      123.35  126.15     PYRITE OCCURS AS A REPLACEMENT MINERAL IN CHERT FRAGMENTS.

/ CON  126.15  128.35   2.20            SAND           G;    1 3 6 8       P    BD      55                   *)
L                                            7            BD 8
R      126.15  128.35     THERE ARE TWO CYCLES OF NORMAL GRADING, IN WHICH A BRHT INTERVAL
R      126.15  128.35     GRADES INTO A SANDSTONE.

/      126.64  127.51   0.87          7 BRHT                         LQ6   R                                  *)
L                                            4               3       KM2

/      127.51  128.35   0.84          X SAND SD        G;    1 3 8 8       R    BD      55                   *)
L                                                                                                C1
R      127.51  128.35     THE COATING ARQUND THE SAND SIZED CHERT FRAGMENTS IS PROBABLY
R      127.51  128.35     SIDERITE OR QUARTZ SIDERITE.

/ CON  128.35  143.86  15.51            CGBR        *S)               LR2   P                                  *+
L                                            5               5   ) C KO4                         C)

/ CON  143.86  145.89   2.03            ARGL CR        MX    1 )   1       P                                  D)
L                                            1               9

K M/A  145.89  145.89   0.00

/      145.89  147.89   2.00            SAND           G; BD 1 3 8 5       P  2 BD     U55                  D+
L                                            6               8

/      147.07  147.89   0.82          8 CGBR        *S*               LP1   R                                  *)
L                                            6               2   * C LN6                         C+

/ CON  147.89  152.82   4.93            BRHT        *S*               LQ7   P     FO     U55                  *)
L                                                            2   *   LP2
R      147.89  152.82     PYRITE OCCURS AS A REPLACEMENT MINERAL IN CHERT FRAGMENTS.

/ CON  152.82  159.15   6.33            ARSI CR     SI2 G; BD 1 3 2 5       P  2 BD     U56                  L+
L                                            3     SN1       8

/ CON  159.15  161.04   1.89            CGBR                            LP3   P                                  *)
L                                            6               5     C KN4
R      159.15  161.04     PYRITE OCCURS AS A REPLACEMENT MINERAL IN CHERT FRAGMENTS.

/ CON  161.04  169.94   8.90            ARGL        SI+ LM G; 6 3 + 5       P     LM     U50                  L*
L                                                  SN)       6

/ CON  169.94  181.30  11.36            BRHT           G;                NS5   P                                  D+
L                                            3               3       LO3
R      169.94  181.30     CHERT FRAGMENTS GRADE NORMALLY INTO SANDSTONE BEDS WITHIN THE
R      169.94  181.30     BRHT UNIT.

K M/O  175.71  175.71   0.00

/      175.71  175.92   0.21          X SAND      SN6 G; BD 1 3 6 4       R  2 BD     U50                  L=
L                                            5     SI2       7
```

```
K  F   F R O M - T O -  I N T RECOV  RD % ROCK TM TM UM1 TX TX F C % M ARG    RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                              R Q D  AGE EV RO LC TM UM2 TX TX S C O O CHT     2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

K M/O  179.83  179.83   0.00

/      179.83  180.10   0.27       A SAND      SM6 BD   1 3 6 3       R  2 BD     55                L+
L                                      5       SI3        7
R      179.83  180.10      SMALL DISSEMINATED PYRITIC EUHEDRAL CRYSTALS CONCENTRATE IN
R      179.83  180.10      SANDSTONE BEDS.

/ COB  181.30  184.74   3.44         SILT CR       BD // 1 2 7 5      P  2 BD     57                L+
L                                      3                  8

/      181.30  182.29   0.99       B SAND          BD G:              R  2 BD    U60           <)   D+
L                                                    LC

/ COB  184.74  190.20   5.46         BRHT CR                   L06    P                             B+
L                                      3              3        KM1
R      184.74  190.20      THE ARGILLIC CLASSIFICATION FOR BRECCIA SIZE AND PERCENT IS
R      184.74  190.20      USED TO DESCRIBE THE SILTSTONE CLASTS.

/ COB  190.20  194.10   3.90         SILT CR       MX   1 2 8 4       P          U53 <)        <)   D+
L                                      2                  8                                    <)

/ COB  194.10  201.76   7.66         BRHT CR       SK          KM1    P    FO     53 <)
L                                      6                       KM2                                     <)
R      194.10  201.76      THIS UNIT IS POORLY CONSOLIDATED INDICATING THE POSSIBILITY OF
R      194.10  201.76      A FAULT. QUARTZ AND SPHALERITE STOCKWORK VEINING IS PREVALENT.

/ COB  201.76  202.39   0.63         BRHT          BR          JM2    P                        #(   D=    B)
L                                    CY 7             3        KL1                                     B=
R      201.76  202.39      THIS IS A TRANSITIONAL ZONE BEFORE THE ORE ZONE WHICH CONTAINS
R      201.76  202.39      SILICIFIED FRAGMENTS IN A CLAY MATRIX.

K UM1  201.76  201.73   0.00

/ FSX  202.39  203.91   1.52         FGSX SF    CH4                   P              M4        #)         #+
L                                      8                                                               #=

/ LSX  203.91  204.52   0.61         LMSX SF       LC LM              P  1 LM     54           L(   L=    L=
L                                      9                                                               L2

/ LSX  204.52  206.04   1.52         LMSX SF       LC LM              P  1 LM     54 L6        L(   *1    L1
L                                      7              BR                                               L3
R      204.52  206.04      THIS INTERVAL CONTAINS BRECCIATED, SILICIFIED ARGILLIC FRAGMENTS

/ LSX  206.04  207.36   1.32         LMSX SF       LC LM              P  1           L4                   L1
L                                      6  CR                                                        L3 L3
R      206.04  207.36      A HIGHLY DISTORTED INTERVAL WHICH CONTAINS SILICIFIED,
R      206.04  207.36      BRECCIATED, ARGILLIC FRAGMENTS.

/ LSX  207.36  209.70   2.34         LMSX SF       LC LM              P  1 LM     65 L6        L(   B2    L=
L                                      8              MD                                               L2
```

```
K  F   F R O M - T O -   T N T RECOV  MD % ROCK TN IM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                            R Q D  AGE EV RN LC IM OM2 TX TX S C O D CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/        208.79  209.70   0.91          X LMSX SF        LC LM                 P  1 LM      65 L6           L(    B2     L=
L                                         8                 9D                                                             L2

/ CON    209.70  215.04   5.34            SILT       STS LM     1 2 5 2        P  3 LM      60 L2                 L1     L+
L                                         4                 LC                                                             L2
R        209.70  215.04       SILTSTONE BEDS RANGE FROM 0.2 CM TO 10 CM IN THICKNESS.

/        210.52  213.36   2.84          X SILT       STS LM     1 2 5 2        R  3 LM      64 L2                 L1     L+
L

/        213.36  215.04   1.68          X STLT       STS LM     1 2 5 2        R  3 LM      59 L2                 L1     L+
L

/ LSX    215.04  216.10   1.06            LMSX SF        LC LM                 P  1 LM      60 L5                 L1     L)
L                                         8                 BR                                                             L3
R        215.04  216.10       TWO LAYERS OF ARGILLITE OF 3 CM THICK ARE PRESENT. MILD
R        215.04  215.10       BRECCIATION OF THESE LAYERS IS STILL OBSERVED.

/ LSX    216.10  218.02   1.92            LMSX SF        LC LM                 P  1 LM      68 L5           L(    B1     L1
L                                         8                                                                                L4

/        216.65  217.02   0.37          X LMSX SF        LC LM                 R  1 LM      68 L5           L(    B1     L1
L                                         8                                                                             Q2 L2
R        216.65  217.02       BEDS ARE HIGHLY CONTORTED WITH PATCHES OF MARCASITE AND
R        216.65  217.02       SILTSTONE INTERMIXED.

/        217.02  218.02   1.00          X LMSX SF        XB LM                 R  1 LM      68 L5           L(    L1     L1
L                                                                                                                          L4
R        217.02  218.02       END OF ORE ZONE.

K LM1    218.02  218.02   0.06

/ CON    218.02  220.80   2.78            ARGL CR        MX     0 1 1 1        P  2 FO      66                    B+
L                                         3                     9

/ CON    220.80  233.90  13.10            CGBR                          MP2    P               V+                 D+
L                                         5                     4    C LO4
R        220.80  233.90       THIS INTERVAL CONTAINS A PYRITIC BOULDER WITH QUARTZ VEINING.

/        228.71  229.10   0.39          X CGBR PY                       MP2    R               V=                 #=
L
R        228.71  229.10       A HIGHLY PYRITIZED MATRIX IS PROBABLY ASSOCIATED WITH AN
R        228.71  229.10       INCREASE IN QUARTZ VEINING.

/ CON    233.10  233.90   0.80          9 SAND PY    SN7        1 3 7 5        R                                  B+
L                                         4                     8
R        233.10  233.90       RIP-UP CLASTS ARE FOUND WITHIN THE SANDSTONE BEDS.

/ CON    233.90  263.96  30.06            ARGL CR    SN+ BD // 0 3 + 3        P  1         63                    L=
L                                         2
```

```
K  F   F R O M - T O -  I N T RECOV  MD % ROCK  IG  TN  QM1 TX TX F C % M ARG    RT 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R Q D  AGE EV RG LC  TN QM2 TX TX S C U O CHT        2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/       238.21  252.01  13.80              X ARGL CR     SN+ BR LC 0 3 + 3        R  1           63 <+           <)    V=
L                                            SK 2           ED
R       238.21  252.01       BRECCIATION WITHIN THIS UNIT IS DUE TO QUARTZ AND PYRITIC
R       238.21  252.01       VEINING.

/ FLT   256.64  257.42   0.78              X ARGL CR     GG3 RD // 0 3 + 3        R  1           63 <)                 <1
L                                            SK

/       260.03  260.13   0.10              X ARGL CR     PY3 RD // 0 3 + 3        R  1           63                    M3
L
R       260.03  260.13       PYRITIC RINGS OCCUR WITHIN THE ARGILLITE.
```

					SAMPLE SERIAL NUMBER	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A	UMM													
A	LAB					B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	
A	TYP					H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	
A	MTH					WA	WA	WA	WA	WA	WA	WA	WA	

R ASY 0.00 0.00 B.CLG = BONDAR CLEGG, VANCOUVER; H-CORE = HALF CORE.

R ASY 0.00 0.00 WA = WET ANALYSIS.

R ASY 0.00 0.00 NO ASSAY INFORMATION ENTERED AS -0.1

A	001	168.55	170.08	107	6128	0.02	0.06	0.68	-0.1	-0.1	-0.1	-0.1	-0.1	0.26
A	001	170.08	170.99	73	6129	0.01	0.04	0.46	-0.1	-0.1	-0.1	-0.1	-0.1	0.01
A	001	170.99	172.52	140	6130	0.02	0.03	0.95	-0.1	-0.1	-0.1	-0.1	-0.1	0.50
A	001	186.98	190.50	152	6037	0.04	0.80	0.02	-0.1	-0.1	-0.1	-0.1	-0.1	0.36
A	001	190.50	192.02	119	6038	0.06	0.90	0.06	-0.1	-0.1	-0.1	-0.1	-0.1	0.52
A	001	192.02	193.55	142	6039	0.06	0.28	0.07	-0.1	-0.1	-0.1	-0.1	-0.1	-0.09
A	001	193.55	195.07	152	6040	0.48	3.15	0.01	-0.1	-0.1	-0.1	-0.1	-0.1	3.14
A	001	195.07	196.60	153	6041	0.40	2.23	0.03	-0.1	-0.1	-0.1	-0.1	-0.1	2.16
A	001	196.60	198.12	152	6042	0.11	0.74	0.01	-0.1	-0.1	-0.1	-0.1	-0.1	0.36
A	001	198.12	199.64	152	6043	0.23	1.55	0.01	-0.1	-0.1	-0.1	-0.1	-0.1	1.29
A	001	199.64	201.17	153	6044	0.28	2.40	0.01	-0.1	-0.1	-0.1	-0.1	-0.1	2.19
A	001	201.17	201.78	61	6045	0.16	1.25	0.03	-0.1	-0.1	-0.1	-0.1	-0.1	0.94
A	001	201.78	202.39	61	6046	0.84	3.10	0.05	-0.1	-0.1	-0.1	-0.1	-0.1	3.49
A	001	202.39	203.91	152	6047	1.05	2.30	0.05	-0.1	-0.1	-0.1	-0.1	-0.1	2.90
A	001	203.91	204.52	61	6048	3.00	17.50	0.05	0.11	-0.1	-0.1	-0.1	-0.1	20.26
A	001	204.52	206.04	152	6049	5.10	19.30	0.03	0.99	-0.1	-0.1	-0.1	-0.1	25.02
A	001	206.04	207.36	103	6050	4.10	14.40	0.04	0.29	-0.1	-0.1	0.01	-0.1	18.54
A	001	207.36	208.79	134	6051	2.10	8.50	0.02	0.04	-0.1	-0.1	-0.1	-0.1	10.26
A	001	208.79	209.70	91	6152	0.98	13.40	0.10	-0.1	-0.1	-0.1	-0.1	-0.1	13.98
A	001	209.70	211.53	183	6053	0.76	10.00	0.09	-0.1	-0.1	-0.1	-0.1	-0.1	10.35
A	001	211.53	213.36	183	6054	0.42	5.00	0.07	-0.1	-0.1	-0.1	-0.1	-0.1	4.99
A	001	213.36	215.04	145	6055	0.25	8.00	0.08	-0.1	-0.1	-0.1	-0.1	-0.1	7.83
A	001	215.04	216.10	106	6056	0.62	15.15	0.07	-0.1	-0.1	-0.1	-0.1	-0.1	15.34
A	001	216.10	216.65	55	6057	0.82	20.40	0.04	-0.1	-0.1	-0.1	-0.1	-0.1	20.76
A	001	216.65	217.02	37	6058	0.82	10.30	0.04	-0.1	-0.1	-0.1	-0.1	-0.1	10.66
A	001	217.02	218.02	98	6059	0.67	16.80	0.03	-0.1	-0.1	-0.1	-0.1	-0.1	19.00
A	001	218.02	219.46	138	6060	0.06	0.51	0.03	-0.1	-0.1	-0.1	-0.1	-0.1	0.10
A	001	224.94	225.86	88	6061	0.02	0.10	0.15	-0.1	-0.1	-0.1	-0.1	-0.1	-0.23
A	001	225.86	226.77	84	6062	0.02	0.04	0.25	-0.1	-0.1	-0.1	-0.1	-0.1	-0.19
A	001	226.77	227.69	90	6063	0.02	0.08	0.26	-0.1	-0.1	-0.1	-0.1	-0.1	-0.14
A	001	235.61	237.23	147	6131	0.02	0.03	0.78	-0.1	-0.1	-0.1	-0.1	-0.1	0.33
A	001	237.23	238.05	49	6132	0.02	0.03	0.62	-0.1	-0.1	-0.1	-0.1	-0.1	0.17
A	001	238.05	238.20	15	6133	1.08	5.95	0.22	-0.1	-0.1	-0.1	-0.1	-0.1	6.75
A	001	238.20	239.73	138	6134	0.02	0.05	0.75	-0.1	-0.1	-0.1	-0.1	-0.1	0.32
A	CMP	203.91	218.02	1350		1.67	12.35	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	13.42

A MIN			0.01	0.03	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.56
A MAX	168.55	239.73	5.10	20.40	0.78	0.99	-0.1	-0.1	-0.1	-0.1	26.87

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                                   G E O L O G   E D I T   L I S T I N G                    SYSTEMS ENGINEERING BY
                                                                                       INTERNATIONAL GEOSYSTEMS CORP.

                                                  PAN OCEAN OIL LTD.
                                          JASON PB-ZN-AG-BA STF DEPOSIT YUKON

                                                   FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :77-DH023       COLLAR ELEVATION:      1290.15       AZIMUTH( DEG ) :  185.00      GEOLOGGED BY : HJV +
TOTAL DEPTH/LENGTH :  126.02       NORTHING(- IF S):  7002778.00        VERTICAL ANGLE :  -70.00      DATE (YY/MM/DD): 810624
CORE/HOLE DIAMETER :       BQ      EASTING (- IF W):   436185.44        CO-ORD SYSTEM  :   UTM        PROJECT NUMBER : J-MAIN


                               SEQ. NO OF      LENGTH FROM COLLAR      AZIMUTH      VERT. ANGLE
                              SURVEY DATA       TO SURVEY POINT        ( DEG )        ( DEG )

                                    1                15.24             186.25         -69.00
                                    2                30.48             186.25         -68.75
                                    3                45.72             185.75         -68.50
                                    4                60.96             185.75         -68.25
                                    5                91.44             185.25         -66.25
                                    6               121.92             185.25         -66.00

R HED                           ORIGINALLY LOGGED BY K. WELLS IN SEP,1977

   F    - I N T E R V A L -     CORE  T- %       TYPI- NAL  TEX-  GRAIN        PGT   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =    .  DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                           H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (M)=METRIC FT=FOOTRIC)   ERY    G I       IM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  I N T (  . )  O X TYPE  1  2 OM1  1  2 F F C A          1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                           ROCK   FM     RT    IM OM2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                           QUAL   AGE EN- Q LC- 3      3  4 O    /          2    AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
Y  G                           DESIG      VIR   COL            R    C            STRUCTUR-2 A  A  A  A  A  A  A  A  A  A     2   2

/ OVB     0.00    4.88   4.88                OVER                                  P

/         4.83   13.70   8.62                SAND    SF            4 4   4         P                V*           LI
L                                                  7A    *81       2                                             D-

/ FLT    13.70   15.54   1.84                SAND    SF            0 3 2 3         P                V*           LI
L                                                  7A    *81       2                                             D-

/        15.54   41.76  26.22                ARST        SM2   BN                  P  2 BD      59 V)           LI L-
L                                                  5A CR     LM                       1                          L-
R LIT    15.54   41.76        SAND BANDS ARE YELLOWISH COLORED THROUGHOUT.

/        41.76   58.22  16.46                BRPT                        NP2   P
L                                                  4A        DB 2        MO1
R        41.76   58.22        FROM 56.08 TO 58.22 LARGE BOULDER OF ARGL VERY DARK GRAY COLORED

/        58.22   82.97  24.75                BRHT              FO        PR2   P                V*           D*
L                                                  7A      SC BS 2       NO1      FO       57

/        81.40   81.70   0.30             X SAND        SI2        4 4   4         R    BD      073
L                                                  5A
R        81.40   81.70        BOUMA SEQUENCE IS AB,A

/ LSX    82.97  119.73  36.76                SULF     BA     LM LC 2 2   2         P  1 BD      68 L1         L5    L)    L)    48
L                                                  6A SF     ND                       2                                     L=
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PAN OCEAN OIL LTD.

DRILLHOLE/TRAVERSE --- 77-DH023 --- (CONTINUED)

```
K  F  F R O M - T O -  T O T RECOV  RD % ROCK IM TM QM1 TX TX F C % M ARG  RI  1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R O D  AGE EV RG LC TM QM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD OS HA PR MT SL HA

/       82.97   87.73   4.81           4 ARGL BA        LM LC 0 0   0      R     BD      71 L1         L3           L)   47
L                                             5A SF     MD CL                  1                                    L+

K LM1   84.12   84.12   0.00
--------------------------------------------------------------------------------------------------------------------------------
K UM1  119.73  119.73   0.00

/      119.73  122.53   2.80             BRPM BA                      NP2  P                V(                      B*
L                                             5A              2       MN1                                           B*
--------------------------------------------------------------------------------------------------------------------------------
/ LSX  122.53  122.83   0.30             SULF    BA     LM LC 2 2   2      P     BD      44 L1         L2           L(   47
L                                             6A                                                                    L)

/      122.83  128.02   5.19             BRBT       SM1               OQ2  P                V)               D)
L                                             6A BA     BS    2       NO1                                           B.
R      122.83  128.02     BOUMA SEQUENCE ABA
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DRILLHOLE/TRAVERSE --- 77-DH023 --- (CONTINUED)

A UNM				SAMPLE	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A LAB				SERIAL	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	
A TYP					H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	
A MTH					WA	WA	WA	WA	WA	WA	WA	WA	
R ASY	0.00	0.00		B.CLG = BONDAR CLEGG, VANCOUVER; H-CORE = HALF CORE.									
R ASY	0.00	0.00		WA = WET ANALYSIS.									
R ASY	0.00	0.00		NO ASSAY INFORMATION ENTERED AS -0.1									
A 001	82.30	82.91	061	6064	0.04	0.20	3.15	-0.1	-0.1	-0.1	-0.1	-0.1	2.89
A 001	82.91	84.12	121	6065	0.08	0.18	7.53	-0.1	-0.1	-0.1	-0.1	-0.1	7.29
A 001	84.12	85.34	122	6066	0.24	7.15	14.74	-0.1	-0.1	-0.1	-0.1	-0.1	21.63
A 001	85.34	86.25	090	6067	0.26	10.00	21.48	-0.1	-0.1	-0.1	-0.1	-0.1	31.26
A 001	86.25	87.78	152	6068	0.19	7.80	18.10	-0.1	-0.1	-0.1	-0.1	-0.1	25.59
A 001	87.78	88.39	061	6069	0.30	7.30	39.57	-0.1	-0.1	-0.1	-0.1	-0.1	46.67
A 001	88.39	89.92	153	6070	0.37	3.93	46.62	-0.1	-0.1	-0.1	-0.1	-0.1	50.42
A 001	89.92	91.44	124	6071	0.25	3.95	47.17	-0.1	-0.1	-0.1	-0.1	-0.1	50.87
A 001	91.44	92.95	147	6072	0.73	2.75	47.08	-0.1	-0.1	-0.1	-0.1	-0.1	50.06
A 001	92.95	94.49	151	6073	1.00	3.65	46.92	-0.1	-0.1	-0.1	-0.1	-0.1	51.07
A 001	94.49	96.01	149	6074	1.25	2.50	48.77	-0.1	-0.1	-0.1	-0.1	-0.1	52.02
A 001	96.01	97.54	148	6075	0.92	3.30	45.99	-0.1	-0.1	-0.1	-0.1	-0.1	49.71
A 001	97.54	99.06	152	6076	0.82	3.67	47.02	-0.1	-0.1	-0.1	-0.1	-0.1	51.01
A 001	99.06	100.58	150	6077	0.54	2.83	48.27	-0.1	-0.1	-0.1	-0.1	-0.1	51.14
A 001	100.58	102.11	145	6078	0.40	6.40	44.00	-0.1	-0.1	-0.1	-0.1	-0.1	50.30
A 001	102.11	103.63	144	6079	0.50	3.80	47.72	-0.1	-0.1	-0.1	-0.1	-0.1	51.52
A 001	103.63	105.40	154	6080	0.66	2.60	44.80	-0.1	-0.1	-0.1	-0.1	-0.1	47.56
A 001	105.40	106.68	108	6081	0.98	4.27	38.92	-0.1	-0.1	-0.1	-0.1	-0.1	43.67
A 001	106.68	108.20	141	6082	0.46	2.85	45.06	-0.1	-0.1	-0.1	-0.1	-0.1	47.87
A 001	108.20	109.58	128	6083	1.04	2.65	44.63	-0.1	-0.1	-0.1	-0.1	-0.1	47.22
A 001	109.58	111.25	152	6084	1.10	2.10	45.64	-0.1	-0.1	-0.1	-0.1	-0.1	47.74
A 001	111.25	112.78	125	6085	0.26	0.21	27.07	-0.1	-0.1	-0.1	-0.1	-0.1	27.04
A 001	112.78	114.30	140	6086	1.22	3.23	45.67	-0.1	-0.1	-0.1	-0.1	-0.1	49.62
A 001	114.30	116.13	150	6087	0.39	3.25	40.03	-0.1	-0.1	-0.1	-0.1	-0.1	43.17
A 001	116.13	117.35	100	6088	0.55	3.25	26.85	-0.1	-0.1	-0.1	-0.1	-0.1	30.15
A 001	117.35	118.87	134	6089	0.43	4.51	35.29	-0.1	-0.1	-0.1	-0.1	-0.1	39.73
A 001	118.87	119.73	086	6090	0.74	5.10	42.28	-0.1	-0.1	-0.1	-0.1	-0.1	47.62
A 001	119.73	121.01	123	6091	0.36	1.20	2.73	-0.1	-0.1	-0.1	-0.1	-0.1	3.79
A 001	121.01	121.61	058	6092	0.17	0.24	3.06	-0.1	-0.1	-0.1	-0.1	-0.1	2.97
A 001	121.61	122.53	068	6093	0.82	2.75	5.94	-0.1	-0.1	-0.1	-0.1	-0.1	9.01
A 001	122.53	122.83	029	6094	1.45	4.85	2.40	-0.1	-0.1	-0.1	-0.1	-0.1	8.20
A 001	122.83	123.44	058	6095	0.15	0.42	2.54	-0.1	-0.1	-0.1	-0.1	-0.1	2.61
A 001	123.44	124.97	153	6096	0.22	2.40	5.59	-0.1	-0.1	-0.1	-0.1	-0.1	7.71
A MAX	82.30	124.97			1.45	10.00	48.27	-0.1	-0.1	-0.1	-0.1	-0.1	59.22

A	MIN				0.04	0.18	2.40	-0.1	-0.1	-0.1	-0.1	-0.1	2.12
A	CMP	64.12	88.39	427	0.24	8.00	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	7.64
A	CMP	88.39	119.73	2889	0.69	3.29	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	3.38
A	CMP	119.73	124.97	512	0.41	1.84	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	1.65
A	CMP	84.12	119.73	3316	0.63	3.90	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	3.93

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT YUKON

FORMAT VERSION : 6802

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DRILLHOLE/TRAVERSE :77-DH020     COLLAR ELEVATION:      1293.40    AZIMUTH( DEG ) :  358.00    GEOLOGGED BY : BHO +
TOTAL DEPTH/LENGTH :  294.13     NORTHING(- IF S):   7002576.00    VERTICAL ANGLE :  -70.00    DATE (YY/MM/DD): 811101
CORE/HOLE DIAMETER :      HQ     EASTING (- IF W):    436462.37    CO-ORD SYSTEM  :   UTM      PROJECT NUMBER : J-MAIN
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SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	15.24	356.25	-72.50
2	30.48	1.25	-72.50
3	45.72	4.75	-72.00
4	60.96	6.25	-71.00
5	91.44	11.25	-69.00
6	121.92	15.25	-68.00
7	152.40	17.25	-67.50
8	182.88	25.25	-67.25
9	213.36	29.25	-67.50
10	243.84	31.25	-67.00
11	274.32	37.25	-67.00
12	294.13	37.25	-66.50

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R HED                       ORIGINALLY LOGGED BY K.I.LU IN OCT. 77, THEN RELOGGED BY HJV IN

R HED                       JUN OF 81, FROM PHOTOS.

   F   - I N T E R V A L -     CORE  I- %        TYPI- NAL  TEX-  GRAIN        PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =   .  DEC.PLACE)RECOV-   M N ROCK FYING MIN TURES CHARACS                          H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MI=METRIC FI=FOOTRIC)  ERY     O T        TM TM MAT TX TX F C % M ARG   /RT T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  I N T ( . )    D X TYPE   1  2 NM1  1  2 F F C A          1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                          ROCK    FM     RT     TM QM2 TX TX S C O O CHT       T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                          QUAL    AGE FO- Q LC- 3       3  4 O     /           2    AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
Y  G                          DESTG       VIR   COL              R     C           STRUCTUR-2  A  A  A  A  A  A  A  A  A  A    2   2


/ OVB     0.00     6.01    6.01             OVER                               P
L

/         6.01     9.91    3.90             ARSI        SM1 LM BD              P  1 BD      U65
L                                                  4A       SS SC

/ SHR     6.01     9.91    3.90           x ARST GR     SN= LM BD              R  1 BD      U65
L                                                  4A       SS SC
R         6.01     9.91       THE INTERVAL IS HIGHLY TO MODERATELY SHEARED.  THE CORE IS VERY
R         6.01     9.91       RUBBLY IN PLACES.  IT IS LOCALLY BRECCIATED DUG TO SLUMPING.
R         6.01     9.91       TOPS WERE PICKED UP THE HOLE IN THE OLD LOGS FROM LINING UPWARDS
R         6.01     9.91       IN THE SAND BEDS.

/         9.91    23.62   13.71             BRHT        *C= F* B*        NS6   P                                       HE L(
L                                                  5A   *S=        2 = =  M02                                          C.
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K  F    F R O M  - T O -  T O T RECOV  MD % ROCK TN TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                            R Q D  AGE EV RO LC TN QM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R        9.91   23.62      THIS UNIT IS ALSO FRIABLE AND RUBBLY DUE SHEARING AND FAULTING.

/ FLT   19.80   23.62   3.82          X BRBT GR    GG1 F* B*         NS6   R                                          HE L(
L
R       19.80   23.62      THE INTERVAL IS MODERATELY OXIDIZED.

/       23.62   25.01   1.39            CGPS       SM3 F* B* 0 6 5 0       P                                          D-
L                                          7A      *C1      5   0
R       23.62   25.01      THE UNIT CONTAINS 10% ROUNDED ARGL FRAGMENTS AND CLOSE TO 50%
R       23.62   25.01      CHERT.

/       25.01   42.56  17.55            BRBM       SN= SS            NT6   P                                          D*
L                                          4A      SI=        1  +   KO=
R       25.01   42.56      THE INTERVAL CONTAINS SEVERAL LARGE ARSI FRAGMENTS AND SEVERAL
R       25.01   42.56      LARGE BRPM FRAGMENTS.  THERE IS ALSO ONE SAND STONE FRAGMENT.
R       25.01   42.56      STARTING AT 29.13 TO 29.39M.  MOST OF THE SHEARING HAS TAKEN
R       25.01   42.56      PLACE ALONG BEDDING PLATES IN THE ARSI FRAGMENTS.

/       33.43   34.48   1.05          X BRPM       SN= SS TM         LO3   R                                          D-
L                                          4A      SI=        5    0 JL=

/       42.56   46.20   3.64            BRBM       SN+ SS SC         NR7   P    SC      60                            R*
L                                          3A      *C) 10 R* 3       JM+
R       42.56   46.20      THE INTERVAL SHOWS CRUDE BEDDING.  THE FRAGMENTS ARE LENTICULAR
R       42.56   46.20      AND ELONGATED IN A 60 DEGREE ORIENTATION.  PYRITE IS A
R       42.56   46.20      REPLACEMENT FEATURE IN THE CHERT AND ALSO OCCURS IN THE POROUS
R       42.56   46.20      SAND BANDS AND FRAGMENTS.

/       46.20   60.96  14.76            BRBT       *C  F* R*         MR6   P                   <(           C.    L)
L                                          5A      SN=        3 * )  KP2                           <-

/ FLT   58.10   59.74   1.64          X BRBT GR    GG1                     R                   <*                 D)
L                                          5A CR                                                   <-
R       58.10   59.74      CORE IS LIGHLY FRIABLE AND RUBBLY.

/       60.96   65.52   4.56            BRBT       *C1 SS RU         MQ3   P                   V*                 D-
L                                          6A      *S=        2  =   LO3                           V.
R       60.96   65.52      THE INTERVAL BETWEEN 60.94 TO 63.40M. ISCORRELATED WITH DH-75-2
R       60.96   65.52      FROM 74.27 TO 76.10M.  THIS PORTION CONTAINS LARGE RIP UP CLAST
R       60.96   65.52      OF ARGL.  FROM 63.40 TO 65.52, THERE ARE TWO SMALL UNITS OF
R       60.96   65.52      DIFFERENT COMPOSITIONS BUT TO SMALL TO PGT.  THIS INTERVAL IS
R       60.96   65.52      ALSO CUT BY A FAULT.

/ FLT   64.00   64.92   0.92          X BRBT       GG1 SS RU         MQ3   R                   V*                 D-
L                                          5A

K M/D   65.52   65.52   0.00

/       65.52   66.22   0.70            SAND       SN5 G: BD 1 5 1         P  2 BD     U65 <*                 D-
L                                          6A      SI1 LC BS 5     0                           <-
R       65.52   66.22      THE UNIT IS MAINLY A SAND BUT LOCALLY IS A BRECCIA, CONTAINING
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K  F   F R O M - T O -  I N T RECOV  MD % ROCK TN TM NM1 TX TX F C % M ARG   RT 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                            R Q D  AGE EV RO LC TM NM2 TX TX S C U O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R        65.52   66.22      PEBBLE SIZE ANGULAR FRAGMENTS.

/        66.22   67.82   1.60           BRHT        *C=                 MOS   P                <.                D-
L                                              5A   SI=          3      LN3

/        67.82   99.06  31.24           BRHM        SN= SS SC           MU7   P                <-                L*
L                                              4A   *C* F*              KO+                              <.

/        67.82   99.06  31.24         1 BRHT        SN= F* B*           MOS   R                                  R(
L                                              6A   *C= R*              KO2
R        67.82   99.06      THE INTERVAL CONTAINS SEVERAL LARGE ARSI FRAGMENTS RANGING UP TO
R        67.82   99.06      2.5 METERS.  BEDDING IN THESE FRAGMENT VARIES FROM 30 TO 90%.
R        67.82   99.06      THE UNIT ALSO CONTAINS SEVERAL FRAGMENTS OF BRHT.

/        99.06  101.31   2.25           BRHT        SN= R* F*           LP4   P                             <-   R)
L                                              5A   *C1 H* SS 3    +    KO2

/ SHR    99.06   99.80   0.74         X BRHT GR CR SN= R* F*           LP4   R                             <-   R)
L                                              4A   *C1 H* SS 3    +    KO2
R        99.06  101.31      THERE IS APPROX 2.5% SAND FRAGMENTS

/       101.31  104.85   3.54           SAND        SN5 BS BD 0 4 2 D         P  2 BD      U45 <(           C*   D*
L                                              6A   SI1 SS FU 5                                          D-
R       101.31  104.85      THE INTERVAL IS LOCALLY A BRPM.

/ FAL   104.45  104.35   0.40         X SAND GR CR GGS                        R                             C)
L                                              3A

K M/C   104.85  104.85   0.00

/       104.85  106.53   1.68           SAND        SN7 BS BD 0 4 1 N         P  2 BD      U70 V)           L-   D)
L                                              6A   SI1 SS FU 5                                          D)
R       104.85  106.53      THIS MARKER BED WAS PICKED BY K.L.LU. AT 106.37 METERS.  WE FIND
R       104.85  106.53      PYRO-BITUMEN IN BRECCIA FILLING.  THERE IS HEMATITE COATINGS ON
R       104.85  106.53      FRACTURE/SHEAR SURFACES.

/       106.53  110.00   3.47           ARSI CN     SN+ BD CU                 P  3 BD       55 <*           C-   R(
L                                              3A   SI=

/ SHR   105.53  107.95   1.42         X ARSI GN SF SN+ BD CU                  R  3 BD       55 <*           C-   R(
L                                              3A CR SI=
R       106.53  110.00      THE ARSI CONTAINS SEVERAL BANDS OF COARSE SAND RANGING UP TO 8
R       106.53  110.00      CMS.  THESE BANDS SHOW COARSING UPWARD WHICH POSSIBLE INDICATES
R       106.53  110.00      A LARGE FRAGMENT.  THE UNIT IS SOMEWHAT SILICIFIED TOWARDS THE
R       106.53  110.00      TOP AND CARBONECOUS TOWARDS THE BASE.

/       110.00  110.85   0.85           SAND SD     SN8 BS BD 0 4 1 L         P  2 BD       45 <-                D)
L                                              7A   SI1 FU      6                                        D+
R       110.00  110.85      POSSIBLE FRAGMENT.

/       110.60  110.85   0.25         X ARSI        SI= BD                    R  2 BD       45
L                                              3A   SN+
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K  F  F R O M - T O -  I N T RECOV  RQ % ROCK TR TR QM1 TX TX F C % M ARG   RT 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R Q D  AGE EV RC LC TM QM2 TX TX S C Q Q CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R      110.60  110.85      POSSIBLE FRAGMENT.

/      110.65  127.50  16.65             BRHT       SN= F* R*         MU5   P               V*          C. HE R)
L                                             5A    *C= G; R* 2 ) +   L03                         C. D)    C.

/ SHR  120.10  121.20  1.10            x ARSI GR    SN1 RD SS               R 2 BD       85 <-                D*
L                                             4A    SI= SC                                                 D)
R      120.10  121.20      LARGE FRAGMENT.

/ M/B  127.50  132.85  5.35              SAND SD    SN6 // RD 0 5 4 0       P 2 BD      U65             C. HE D)
L                                             7A    SN1 FU (L 5                                            D)    C.
R      127.50  132.85      THIS UNIT REPRESENTS SEVERAL AB AND ABD CYCLES OF A BOUMA
R      127.50  132.85      SEQUENCE.  IT IS VERY COARSE AT THE BASE AND FINES UPWARDS.
R      127.50  132.85      CORRELATION OF THIS MARKER BED STARTS AT 131.22M.  THIS
R      127.50  132.85      REPRESENTS THE BASE OF THE RIP UP UNIT, WHICH IS CORRELATED WITH
R      127.50  132.85      OTHER HOLES.  BELOW 131.22 THE UNIT HERE IS NOT SEEN IN OTHER
R      127.50  132.85      SECTIONS.  THE INTERVAL HAS TWO LARGE ARGL FRAGMENTS WHICH MEANS
R      127.50  132.85      THAT WE ARE CLOSE TO A FAULT SCARP.  LOAD CASTING CAN BE SEEN AT
R      127.50  132.85      131.96M.

/ FRG  132.56  132.85  0.29            x ARST CR    SI= SS                  R
L                                             5A    SN)

/      132.85  133.93  1.08              SAND       SN3 HS FU 0 1 3 M       P                                 D*
L                                             7A    SI1       5                                            D)
R      132.85  133.93      REPRESENT MAINLY THE ACYCLE OF A BOUMA SEQUENCE.  SAND CONTENT
R      132.85  133.93      INCREASES TOWARDS THE TOP.

/      133.93  138.00  4.07              BRHT       SI1 SS F*         MR6   P                           C. HE D)
L                                             5A    *C= R*    3   )   K01                          <-    C.       R.
R      133.93  138.00      SMALL VEIN OF PYRO-BITUMEN AT 138.23M.

/      138.06  146.52  8.52              BRBM       SI= SS SC         MR7   P               L)          C-    R)
L                                             4A    SN+ R* F* 3       J0+                          <-

/ SHR  141.80  144.03  2.23            x BRBM GR    SI= SS SC         MR7   R               L)          C-    R)
L                                             4A    SN+ R* F* 3       J0+                          <-

/      146.52  160.90  14.38             BRHT       SN1 F* R*         LS6   P                           C. HE R)
L                                             5A    *C=       3       J02                          D-    C.
R      146.52  160.90      THE INTERVAL IS LOCALLY A BRSN.  THE UNIT IS CUT BY TWO.  SHEAR
R      146.52  160.90      ZONES.

/ SHR  149.00  149.66  0.66            x BRHT GR    SN1 F* R*         LS6   R                           C. HE R)
L

/      152.12  153.30  1.16            x BRSN       SN2 F* R* 0 2 3 0 MO3   R                                 R*
L                                             5A    SI1       4     0 DN2                          D*

/ SHR  154.20  156.67  1.87            x BRHT GR    SN1 F* R*         LS6   R                           C. HE R)
L
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G E O L O G                              JASON PB-ZN-AG-BA STF DEPOSIT YUKON                                    PAGE -  5
                                  DRILLHOLE/TRAVERSE --- 77-DH024 --- (CONTINUED)

K  F   F R O M - T O -  I N T RECOV  MD % ROCK TX TM GM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                               S G B  AGE EV RN LC TM GM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/       159.72  160.40   0.68           X BRSN        SN3 F* R* 0 2 3 P LP2   R                                          R*
L                                              6A     SI1 SS    5     O KN3                                   D-
R       159.72  160.40        SMALL VEIN OF PYRO-BITUMEN AT 160.02M.

K N/A   160.90  160.90   0.00

/       160.90  168.70   7.80              SAND SC    SN7 RS G; 0 1 1 0       P  2 BD      U85                      HE D*
L                                              7A     SI1 FG 90 6                                             D+    C.
R       160.90  168.70        APPEARS TO HAVE SEVERAL AB CYCLES.  BEDDING IS ALMOST PARALLEL
R       160.90  168.70        TO CORE AXIS.  THE UNIT CONTAINS 2 LARGE AGRL FRAGMENT.  THESE
R       160.90  168.70        FRAGMENTS DO NOT APPEAR IN 81-76 OR 81-78.  MARKER BED A.

/ FRG   162.60  163.19   0.50           X ARSI        SI+ SS SC               R
L                                              3A     SN+ LM

/ FRG   164.08  164.69   0.61           X ARSI        SN= SS SC               R
L                                              3A     SI= LM
R       164.08  164.69        ONE POSSIBILITY FOR THESE FRAGMENTS IS THAT THEY ACCIDENTLY
R       164.08  164.69        ROUNDED INTO THE TURBIDITE DURING DEPOSITON.

/       168.70  191.26  22.56              BRHT       SN= F* R*         MU6   P                                         HE R)
L                                              5A     *C= SS    2   +   LO2                                   D)    R.

/       191.26  200.98   9.72              ARSI       SN= SS SC               P  1 BD       85                         L)
L                                              3A     SI+ BD

/ SHR   191.26  194.00   2.74           X ARSI GR     SN= SS SC               R  1 BD       85                         L)
L                                              3A     SI+ BD
R       191.26  200.98        THIS COULD BE A FRAGMENT.

/ SHR   196.40  198.42   2.02           X ARSI GR     SN= SS SC               R  1 BD       85                         L)
L
R       200.98  206.70        THE BRECCIA GETS MORE FRIABLE TOWARDS THE BASE AND MORE
R       200.98  206.70        SILICEOUS.

/       200.98  249.42  48.44              BRHT       *C= G; F*         NU5   P            U   V-          C.    D*
L                                              5A     SN= R*    3   +   MP2                                   D.

/ SHR   200.98  206.70   5.72           X BRHT GR     *C= G; F*         NU5   R            U   V-          C.    D*
L                                              5A     SN= R*    3   +   MP2                                   D.
R       200.98  249.42        THERE IS APPROX 2 TO 3% SANDSTONE FRAGMENTS.

/       246.89  249.42   2.53           X BRHT SF     *C= F* B*         MO3   R                V)          D*          D*
L                                              5A               2       KM3                                            D)
R       246.89  249.42        THE CORE IS FRIABLE AND BEACHED.

/       249.42  249.98   0.56              LMSX SX BA CH3 LM                  P  1 LM       55                 L)    L)    L)
L                                              7A SF      LC                                                           L)
R       249.42  249.98        THE UNIT ALSO CONTAIN APPROX 40% LAMINATED ARGL WHICH IS VERY
R       249.42  249.98        SILICEOUS.
```

```
 K  F  F R O M - T O -  T N T RECOV  RD % ROCK TM TM UM1 FX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
 E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
 Y  G                        R Q D  AGE EV RQ LC TM UM2 TX TX S C O O CHT        2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

 /       249.98  250.55   0.57           BRBT SF     SN1 B* F*        L06   P              V)           D)     D)     B(
 L                                            SA     *C=              KN2                                              B(
 R       249.98  250.55        SPHALERITE OCCURS AS COARSE BLEBS IN QUARTZ VEINS AND THROUGHOUT
 R       249.98  250.55        THE UNIT.

 K UM1   250.55  250.55   0.00

 / LSX   250.55  275.91  25.36           LOSX BA SX    LM LC             P  1 LM       65           L5     L)     L)
 L                                            BA SF                                                                L+
 R       250.55  275.91        THE ZONE APPEARS TO BE CONSISTENT THROUGHOUT, BOTH IN TEXTURE
 R       250.55  275.91        AND MINERALOGY.  BEDDING VARIES, FROM 60 TO 70' AND IN SOME
 R       250.55  275.91        PLACES LOCALLY CONTORTED.  SPHALERITE OCCURS AS VERY FINE
 R       250.55  275.91        GRAINED MATRIX, MOSTLY WITHIN BARITE LAMINATIONS.  THIS GIVES A
 R       250.55  275.91        YELLOW TO CREAMY BROWN COLOUR.  GALENA OCCURS AS FINE GRAINED
 R       250.55  275.91        LAMINATION AND OCCASIONALLY SHOWS COARSE EUHEDRAL CRYSTALS.
 R       250.55  275.91        ARGL BANDS RANGE UP TO 2CMS AND ARE SILICEOUS.  THE MAKE UP
 R       250.55  275.91        APPROX 2 TO 3% AT THE TOTAL COMPOSITION.  BARITE RICH BANDS
 R       250.55  275.91        GRADE UP TO 70% BA.

 / LSX   255.25  255.65   0.40         X LOSX BA SX    LC                R                          L6     D-     L*
 L                                            AC                                                                   L+
 R       255.25  255.65        THE BEDDING IS DISTRUBED DUE TO SOFT SEDIMENT DEFORMATION.

 /       275.91  282.40   6.49           ARGL SF SX    LM LC             P  1 BD       65 <)        L+     L+     L-
 L                                            4A BA    BD                                       <.                 L)
 R       275.91  282.40        SIDERITE OCCURS WITH BARITE, BOTH MEDIUM GRAIN SIZE, IN VEIN
 R       275.91  282.40        FILLINGS AT 281.50M.  THE UNIT IS MODERATELY FRACTURED.

 / LSX   282.40  283.16   0.76           LMSX BA SX    LM LC             P  1 LM       60           L=     L+     L-
 L                                            BA SF                                                                L-

 /       282.40  283.16   0.76         4 ARGL SF       LM LC 0 0   0     R    LM       60
 L                                            3A
 R       282.40  283.16        THIS INTERVAL POSSIBLY REPRESENTS A MINOR AND LOCALIZED EVENT IN
 R       282.40  283.16        MINERAL DEPOSITION.  THE UNIT IS VERY THIN AND CAN BE CORRELATED
 R       282.40  283.16        WITH DDH-21, 22, 26, 27 AND 28.  UPPER HALF OF INTV CONTAINS
 R       282.40  283.16        APPROX. 40% ARGL INTLAMS.

 / LSX   283.16  284.84   1.68           LMSX SX BA    LM LC             P  1 LM       50           L+     L=     L*
 L                                            BA SF                                                         L- L+

 /       283.16  284.84   1.68         4 ARGL SF 3A    LM LC             R  1 LM       50           L+     D-     L*
 L                                            3A SF                                                         L- L+

 K LM1   284.84  284.84   0.00

 / SHR   284.84  286.97   2.13           ARGL BA CR    LM                P  1 LM       55           B(     L)
 L                                            3A
 R       284.84  286.97        BARITE OCCURS AS NODULES IN DISTINCT BEDS UP TO 1CM (SPOTTED BA)
 R       284.84  286.97        THE UNIT IS MODERATELY BROKEN UP.
```

```
K  F   F R O M - T O -  I N T RECOV  RD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                          R Q D  AGE EV RN LC TM OM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/      286.97  288.65   1.68            MKHT       *C= F* R*          MO3   P                 <(         C-    R)
L                                            6A    SI= B*    4        LM4

/      288.65  289.10   0.45            SAND PY    SN7 BD BS 0 4 4 K        P  1 BD      U40            C.    D+
L                                            4A    SI1 FU // 6     O
R      288.65  289.10      THE INTERVAL SHOWS A BD CYCLE AF THE BOUMA SEQUENCE.

/      289.10  294.13   5.03            ARSI CK    SI= NX BD                P  1 BD       60            <-    L)
L                                            3A
R      289.10  294.13      BARITE ALSO OCCURS INTERSITITIALLY WITH THE PYRITE BANDS.  THE
R      289.10  294.13      PYRITE BANDS RANGE UP TO 10CM.  THERE IS A 15CM BAND OF CHERT
R      289.10  294.13      NODULES AT 293.07M.  PYRITE REPLACING THE OUTER EDGE AND ALSO
R      289.10  294.13      DESSIMATED.
```

PAN OCEAN OIL LTD.

JASON PB-ZN-AG-BA STF DEPOSIT YUKON

DRILLHOLE/TRAVERSE --- 77-DH024 --- (CONTINUED)

				SAMPLE	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A UMM				SERIAL									
A LAB					B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	
A TYP					H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	
A MTH					WA	WA	WA	WA	WA	WA	WA	WA	

R ASY 0.00 0.00 B.CLG = BONDAR CLEGG, VANCOUVER; H-CORE = HALF CORE.

R ASY 0.00 0.00 WA = WET ANALYSIS.

R ASY 0.00 0.00 NO ASSAY INFORMATION ENTERED AS -0.1

A 001	246.89	248.41	152	6097	0.16	0.95	3.38	-0.1	-0.1	-0.1	-0.1	-0.1	3.99
A 001	248.41	249.42	101	6098	0.26	1.30	2.37	-0.1	-0.1	-0.1	-0.1	-0.1	3.43
A 001	249.42	250.55	109	6099	1.50	3.75	1.74	-0.1	-0.1	-0.1	-0.1	-0.1	6.49
A 001	250.55	251.46	089	6100	1.50	3.67	49.05	-0.1	-0.1	-0.1	-0.1	-0.1	53.72
A 001	251.46	252.65	109	6101	0.55	3.71	45.23	-0.1	-0.1	-0.1	-0.1	-0.1	48.99
A 001	252.65	254.51	149	6102	0.92	4.40	47.47	-0.1	-0.1	-0.1	-0.1	-0.1	52.29
A 001	254.51	255.73	121	6103	1.32	3.08	53.00	-0.1	-0.1	-0.1	-0.1	-0.1	56.90
A 001	255.73	257.56	181	6104	0.95	3.40	51.93	-0.1	-0.1	-0.1	-0.1	-0.1	55.78
A 001	257.56	259.03	150	6105	0.74	2.40	51.11	-0.1	-0.1	-0.1	-0.1	-0.1	53.75
A 001	259.03	260.60	149	6106	0.50	2.00	48.40	-0.1	-0.1	-0.1	-0.1	-0.1	50.40
A 001	260.60	262.13	151	6107	0.51	2.40	41.30	-0.1	-0.1	-0.1	-0.1	-0.1	43.71
A 001	262.13	263.65	152	6108	0.44	3.85	46.53	-0.1	-0.1	-0.1	-0.1	-0.1	50.32
A 001	263.65	265.18	138	6109	0.55	2.33	50.48	-0.1	-0.1	-0.1	-0.1	-0.1	52.86
A 001	265.18	266.70	119	6110	0.64	2.60	49.74	-0.1	-0.1	-0.1	-0.1	-0.1	52.48
A 001	266.70	268.22	140	6111	0.40	2.90	45.27	-0.1	-0.1	-0.1	-0.1	-0.1	48.07
A 001	268.22	269.75	135	6112	0.54	2.75	52.38	-0.1	-0.1	-0.1	-0.1	-0.1	55.17
A 001	269.75	271.27	131	6113	0.57	2.63	50.15	-0.1	-0.1	-0.1	-0.1	-0.1	53.05
A 001	271.27	272.80	129	6114	0.60	3.05	50.72	-0.1	-0.1	-0.1	-0.1	-0.1	53.87
A 001	272.80	274.32	140	6115	0.98	2.72	48.74	-0.1	-0.1	-0.1	-0.1	-0.1	51.94
A 001	274.32	275.91	159	6116	0.43	4.03	45.00	-0.1	-0.1	-0.1	-0.1	-0.1	48.96
A 001	275.91	277.28	137	6117	0.43	7.86	3.91	-0.1	-0.1	-0.1	-0.1	-0.1	11.64
A 001	277.28	278.28	100	6118	0.22	8.80	3.34	-0.1	-0.1	-0.1	-0.1	-0.1	11.86
A 001	278.28	279.59	131	6119	0.10	4.70	5.93	-0.1	-0.1	-0.1	-0.1	-0.1	10.23
A 001	279.59	280.87	124	6120	0.08	2.05	5.32	-0.1	-0.1	-0.1	-0.1	-0.1	6.95
A 001	280.87	282.18	131	6121	0.19	3.83	3.68	-0.1	-0.1	-0.1	-0.1	-0.1	7.20
A 001	282.18	283.16	098	6122	0.80	12.60	8.17	-0.1	-0.1	-0.1	-0.1	-0.1	21.07
A 001	283.16	284.84	137	6123	0.57	9.80	2.61	-0.1	-0.1	-0.1	-0.1	-0.1	12.48
A 001	284.84	286.97	195	6124	0.04	0.20	1.19	-0.1	-0.1	-0.1	-0.1	-0.1	0.93
A 001	286.97	288.04	107	6125	0.03	0.16	1.08	-0.1	-0.1	-0.1	-0.1	-0.1	0.77
A 001	288.04	289.09	079	6126	0.02	0.05	0.62	-0.1	-0.1	-0.1	-0.1	-0.1	0.19
A MAX	246.89	289.09			1.50	12.60	53.00	-0.1	-0.1	-0.1	-0.1	-0.1	66.60

A	MIN				0.02	0.05	0.62	-0.1	-0.1	-0.1	-0.1	-0.1	0.19
A	CMP	249.42	275.91	2447	0.73	3.09	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	3.22
A	CMP	275.91	284.84	875	0.34	6.94	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	6.68
A	CMP	282.18	283.16	098	0.80	12.60	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	12.80
A	CMP	249.42	284.87	3325	0.63	4.07	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	4.10

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

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DRILLHOLE/TRAVERSE :77-DH025      COLLAR ELEVATION:      1316.49      AZIMUTH( DEG ) :   174.25      GEOLOGGED BY : HDG +
TOTAL DEPTH/LENGTH :  263.65      NORTHING(- IF S):   7002827.00      VERTICAL ANGLE :   -71.00      DATE (YY/MM/DD): 810815
CORE/HOLE DIAMETER :      HQ      EASTING (- IF W):    436326.87      CO-ORD SYSTEM  :    UTM        PROJECT NUMBER : J-MAIN
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SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	15.24	182.25	-66.50
2	30.48	181.25	-65.00
3	45.72	179.25	-63.00
4	60.96	179.25	-62.00
5	91.44	177.25	-59.75
6	121.92	174.25	-56.00
7	152.40	172.25	-56.00
8	182.88	171.25	-51.00
9	209.70	171.25	-47.00
10	243.84	171.25	-45.00
11	263.65	171.25	-43.75

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R HED                              ORIGINALLY LOGGED BY R. WELLS ON OCT.7, 1977.

   F    - I N T E R V A L -    CORE  T- %      TYPT- QAL  TEX-  GRAIN        PGT   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =   .  DEC.PLACE)RECOV-  M W ROCK FYING MIN TURES CHARACS                         H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MT=METRIC FT=FOOTRIC)  ERY    O I      TM TM MAT TX TX F C % M ARG   /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  I N T (  . )  D X TYPE  1  2 QM1  1  2 F F C A           1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- -- - - - -
K  F                          ROCK   FM     RT    TM QM2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                          QUAL   AGE EN- V LC- 3      3  4 O   /            2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y  G                          DESIG      VIR   COL            R    C              STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2   2

/ OVB    0.00    3.66    3.66              OVER                         P

/        3.66   50.10   46.44              ARSI      SN2 BD SS 0 3 2 3          P  2 BD       55                    L+
L                                              3A            LC 7                                        <+
R        3.66   50.10        THE PYRITE APPEARS AS VERY FINE GRAINS IN THE ARGILLITE, AND AS
R        3.66   50.10        FINE GRAINED LAMINATIONS IN THE SANDSTONE LAYERS.
R SPC    3.65   50.10        SAMPLE O.G. 255 TAKEN AT 30.2 METERS.

/       18.02   22.56    4.54            X ARSI      SN2 BD SS 0 3 2 3          R  4 BD       50 V+                 L+
L                                                                                                                   D(     <
R       18.02   22.56        LARGE DISSEMINATED PATCHES OF PYRITE OCCUR IN CONFORMABLE
R       18.02   22.56        5 CM. BEDS. FREQUENTLY MINOR AMOUNTS OF PYRRHOTITE ARE DETECTED
R       18.02   22.56        WITHIN THESE BEDS. SPHALERITE IS FOUND IN VEINS AMOUNTING TO
R       18.02   22.56        LESS THAN 1% BY VOLUME.

/       27.49   27.78    0.29            X ARSI      SN2 BD SS 0 3 2 3          R  2 BD       45                    D+
L                                                                                                       V1

/       28.25   31.50    3.25            X ARST      SN2 BD SS 0 3 2 3          R  3 BD       50                    L+
L                                                                                                                   D(
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K  F  F R O M - T O -  I N T RECOV  MD % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R O D  AGE EV RG LC TM QM2 TX TX S C O D CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R       26.25   31.50      SAME REMARK AS IN REPEAT INTERVAL 18.02 TO 22.56 METERS.

/       35.30   36.41   1.11           X ARSI       SM2 BD SS O 3 2 3       R  2 BD    50                   L+
L                                                          BR                                            V=
R       35.30   36.41      THIS INTERVAL IS A MILDLY BRECCIATED, QUARTZ-SIDERITE STOCKWORK
R       35.30   36.41      VEINED, SILTY ARGILLITE.

/       37.49   38.01   0.52           7 BRBM           SS             KN9    R                                 L+
L                                             3A              3

/       38.05   40.18   2.13           X ARSI       SM2 BD SS O 3 2 3       R  1 BD    59 <+                <(
L                                                                                                        <*

/       42.37   50.10   7.73           X ARSI       SM2 BD SS O 3 2 3       R  2 BD    55                   B+
L
R       42.37   50.10      LARGE SUB-EUHEDRAL PYRITE CRYSTALS OCCUR WITHIN SANDSTONE
R       42.37   50.10      LAMINATIONS.
R SPC   42.37   50.10      SAMPLE D.G. 256 TAKEN AT 47.25 M.

/       50.10   64.02  13.92            BRBM        *C=    F*          KN1    P                                 R+
L                                             5A         G; B* 3     O MO2                >+
R       50.10   64.02      THE PEBBLY MUDSTONE CONTAINS A SANDSTONE MATRIX. NORMAL GRADING
R       50.10   64.02      INDICATES THAT STRATIGRAPHIC TOPS ARE DOWNHOLE.

/       55.40   56.20   0.80           7 BRBM CR                       KQ5    R                                 D+    D.
L                                             2A              2        JM1                               <+          <(
R       55.40   56.20      THIS PEBBLY MUDSTONE CONTAINS A MUDSTONE MATRIX.

/       56.20   57.10   0.90           9 BRBM CR        SS             LP9    R                                 D=
L                                             2A              3                                          V1
R       56.20   57.10      THE BOTTOM OF THE REPEAT INTERVAL IS VERY PYRITIC, AND CONTAINS
R       56.20   57.10      QUARTZ-SIDERITE STOCKWORK VEINING.

/       57.60   58.33   0.73           8 SAND          MX     F I 7 J         R               V=                R+
L                                             8A              8                                          <+

/       60.10   61.30   1.70           8 BRBM CR    *C=    F*          JO1    R               <+                R+
L                                             2A         B*     2    O JM2
R       60.10   61.80      THE MATRIX IS A COMBINATION OF SAND AND CARBONACEOUS ARGILLITE.

/       64.02   70.41   6.39             SAND          MX     A I 7 6         P               V=                D+    <.
L                                             8A            LC 8
R       64.02   70.41      THIS MASSIVE SANDSTONE CONTAINS A NUMBER OF THIN, CONVOLUTED
R       64.02   70.41      ARGILLIC BEDS. GALENA IS PRESENT IN SMALL QUARTZ-FILLED
R       64.02   70.41      FRACTURES AND VEINS.

/       70.41   76.20   5.79             CGBR       *C=    F*          LO2    P               V=                B+    B+
L                                             6A         B*     3    C KO3
R       70.41   76.20      GALENA OCCURS IN SMALL BLEB AND FRACTURES WITHIN THE
R       70.41   76.20      CHERT PEBBLE MATRIX.
R SPC   70.41   76.20      SAMPLE D.G. 257 TAKEN AT 74.98 M.
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                                                       PAN OCEAN OIL LTD.
G E O L O G                                     JASON PB-70-AG-BA STF DEPOSIT, Y.T.                                         PAGE - 3
                                          DRILLHOLE/TRAVERSE --- 77-DH025 --- (CONTINUED)

K  F   F R O M - T O -  I N T RECOV  RD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                               R Q D  AGE EV RU LC TM OM2 TX TX S C U O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/        76.20  109.22  33.02             BRPB              TM          LT3   P    FO       52 V=                    <+    <.
L                                             4A        B*   1     O LP2                           V(
R        76.20  109.22        THE MATRIX SUPPORTED, PEBBLY SANDSTONE CONTAINS LARGE SILTY
R        76.20  109.22        ARGILLITE CLASTS, PYRITE OCCURS AS A REPLACEMENT MINERAL IN
R        76.20  109.22        SANDY ARGILLIC LAYERS AND WITHIN CHERT FRAGMENTS. A SMALL
R        76.20  109.22        VEINLET AT 105.25 METERS.

/        95.51   99.12   3.61          9 BRO1        *C)     R*         OT7   R                                       R+
L                                             3A        B* F* 2         KO1
R        95.51   99.12        THE MATRIX IS A PEBBLY MUDSTONE TYPE. CHERT FRAGMENTS ARE
R        95.51   99.12        MODERATELY ROUND, AND HAVE UNDERGONE PARTIAL REPLACEMENT BY
R        95.51   99.12        PYRITE.

/ SHR   109.22  122.53  13.31             BRBT       *C)     R*         MS7   P                <)                    R+
L                                             3A        B* F* 2         KM1
R       109.22  122.53        THE MATRIX IS A PEBBLY MUDSTONE TYPE. THE SHEARING AND
R       109.22  122.53        SLICKENSIDE SURFACES INDICATES THE ROCK IS WITHIN A ZONE OF
R       109.22  122.53        FAULTING.

/       109.22  109.90   0.68          8 SAND             MX     1 3 7 3       R  0 LM      50 <)                    D+
L                                             6A          LM 8                                     <*
R       109.22  109.90        CONVOLUTED ARGILLIC LAMINATIONS OCCUR IN THE SANDSTONE.

/       121.26  122.53   1.27          7 SAND             MX     1 3 7 4       R                                       D+
L                                             6A                 8

/ SHR   122.53  135.65  13.12             ARS1       SN= BD // 0 3 = 3       P  2 BD      52                       L+
L                                             3A          LC 7
R       122.53  135.65        THIS ZONE IS HIGHLY SHEARED AND BROKEN. OVERALL CORE RECOVERY
R       122.53  135.65        IS POOR, WITH ZERO RECOVERY FROM 122.53 TO 123.75 AND 125.43
R       122.53  135.65        TO 125.73 METERS.

/       135.65  162.81  27.16             ARSI CR    SN= BD // 0 3 = 3       P  2 BD      60 V*                    L+
L                                             2A        XB SC 7

/       147.68  147.80   0.12          X ARSI CR     SN= BD // 0 3 = 3       R  2 BD      58 V*                    L+
L                                             2A        XB SC 7                                                   V1
R SPC   147.68  147.80        SAMPLE O.G. 258 TAKEN AT 147.88 M.

/       150.43  150.52   0.09          X ARSI CR     SN= BD // 0 3 = 3       R  2 BD      54 V*                    L+
L                                                                                                                 V1
R       150.43  150.52        OVER THE ENTIRE P.G.I., PYRITE OCCURS AS LAMINATIONS IN
R       150.43  150.52        SANDSTONE-RICH LAYERS, AND AS DISSEMINATED GRAINS IN LENSOIDAL
R       150.43  150.52        STRUCTURES, THAT AVERAGE 10 CM. IN WIDTH.

/       162.81  202.29  39.48             ARGL CR    SI+ BD // 0 1 + 3       P  2 BD      50
L                                             2A        SN*      8                                 V+

/ SHR   165.66  166.42   0.76          X ARGL CR     GGB BD // 0 1 + 3       R  2 BD      50
L                                             2A        SN*      8                                 V+
```

```
K   F   F R O M  - T O -  I N T RECOV  MD % ROCK TM TM GM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E  -L-  ----.--  ----.--  ---.--  ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y   G                              R Q D  AGE EV RG LC TM GM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/ FLT  173.13  176.17   3.04              X ARGL CR    GG7 BD // 0 1 + 3       R  2 BD       50
L                                                2A    SN*         8                                   V+

/ FLT  193.70  196.70   3.00              X ARGL CR    GG9 BD // 0 1 + 3       R  2 BD       50
L                                                2A    SN*         8                                          D=
R      193.70  196.70      AN ARGILLIC GOUGE GRADES INTO A DARK GREENISH-YELLOW GOUGE OF           V+
R      193.70  196.70      UNKNOWN COMPOSITION, HOWEVER IT IS PROBABLY RELATED TO
R      193.70  196.70      WEATHERING OF FE-SULPHIDES.

/      200.41  202.18   1.77              X ARGL CR    GG9 BD // 0 1 + 3       R  2 BD       50
L                                                                                                             D=
R      200.41  202.18      THE SAME DARK GREENISH-YELLOW MATERIAL APPEARS IN THE GOUGE.

/      202.29  209.70   7.41                ARGL CR    SI+ MX     0 2 + 3      P  0 LM       50
L                                                1A    SN+ // LM 8                                            L+

/      202.29  204.59   2.30              8 BRHT CR    SI+ G;     0 2 + 3 MN8  R  0 LM       50 <+
L                                                4A    SN+ // LM 3        KM2                                 D=
R      202.29  204.59      THE HETEROGENEOUS BRECCIA GRADES INTO SANDSTONE, TWICE IN THIS
R      202.29  204.59      REPEAT INTERVAL, INDICATING STRATIGRAPHIC TOPS ARE DOWNHOLE.
R SPC  202.29  204.59      SAMPLE D.G. 259 TAKEN AT 202.40 M.

/      209.70  213.69   3.99                CGBR SF    *C1 G; B*          LO2  P    FO     D45
L                                                6A        F*      3    C LO4                                 R*

/      213.69  216.40   2.71                BRHT SF    *C= G; R*          LO2  P                   V+
L                                                4A    GG= R* F*        O LN2                                 R+
R      213.69  216.40      THE MATRIX IS SIMILAR TO A PEBBLY MUDSTONE TYPE.

/      216.40  218.39   1.99                BRHT SF    *C= G; R*          LO2  P                   V+
L                                                                                                             R+
R SPC  216.40  218.39      SAMPLE D.G. 260 TAKEN AT 216.80 METERS.

/ LSX  218.39  218.69   0.30                LMSX 8A        LC LM               P  0 LM             L4       L2   L=   L*
L                                                8D                                                                  L)
R      218.39  218.69      THIS INTERVAL CONTAINS LAMINATED SULPHATES INTERCALATED WITH
R      218.39  218.69      SILICIFIED ARGILLITE FRAGMENTS, OR BEDS, THAT AVERAGE 0.7 CMS.
R      218.39  218.69      IN THICKNESS, AND 40% TOTAL VOLUME.

K LM1  218.69  218.69   0.00

/      218.69  219.76   1.07                LMSX 8A        LC LM               P  0 LM       40 L4          L)   <1   L+
L                                                8D                                                                  L2
R      218.69  219.76      THE INTERCALATED ARGILLITE BED AVERAGE 10 CM. IN THICKNESS,
R      218.69  219.76      HOWEVER, THEY ONLY REPRESENT 20% OF THE TOTAL INTERVAL VOLUME.
R SPC  218.69  219.76      SAMPLE D.G. 261 TAKEN AT 219.50 M.

/      219.76  220.31   0.55                LMSX 8A        LC LM               P  0 LM       31 L3          L5   L1   L+
L                                                                                                                    L2

/      220.31  220.98   0.67                LMSX 8A        LC LM               P  0 LM       47 L4          L2   L1   L)
L                                                                                                                    L2
```

```
K  F   F R O M - T O -  I N T RECOV  MD % ROCK IN IM OM1 TX TX F C % M ARG   RT 1 ID AZM DIP OZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                              R Q D  AGE FV RO LC TM OM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R       220.31  220.98       SILICEOUS BEDS OF 2-4 CM. THICKNESS ALTERNATE WITH PYRITE-
R       220.31  220.98       BARITE-SPHALERITE LAMINATED BEDS.
R SPC   220.31  220.98       SAMPLE D.G. 262 TAKEN AT 220.98 M.

/       220.98  222.50  1.52             LMSX BA       LM //               P  0 LM      45 L=         L7   L)   L)
L                                                                                                           L2
R SPC   220.98  222.50       SAMPLE D.G. 263 TAKEN AT 221.80 M.

/       222.50  223.42  0.92             LMSX BA       LC LM               P  0 LM      40 L4         L)   <1   L*
L
R       222.50  223.42       SILICIFIED ARGILLITE BEDS ARE 1-2 CM. IN THICKNESS AND AMOUNT
R       222.50  223.42       TO 5% OF THE TOTAL INTERVAL VOLUME.

/       223.42  224.70  1.26             LMSX BA       LM //               P  0 LM      40 L4         L)   D*   L)
L                                             6A       LC                                                   L1
R SPC   223.42  224.70       SAMPLE D.G. 264 TAKEN AT 225.40 M. AND D.G. 265 TAKEN AT
R SPC   223.42  224.70       225.60 M.

/       224.70  225.80  1.10             LMSX BA       LC LM               P  0 LM      40 L4         L)   <1   L+
L                                             5A

/       225.80  226.77  0.97             LMSX BA       LC LM               P  0 LM      45 L4         L)   <1   L+
L                                             8A

/       226.77  227.50  0.73             LMSX BA       LC LM               P  0 LM      40 L4         L)   <1   L)
L                                                                                                           L=

/       227.50  228.11  0.61             LMSX BA       LC LM               P  0 LM      47 L4         L)   <1   L+
L

/       228.11  229.51  1.40             LMSX BA       LM BR               P  0 LM      40 L4         L)   <1   L+
L                                                      LC
R       228.11  229.51       THE INTERVAL CONTAINS BLACK, SILICIFIED ARGILLITE BED THAT
R       228.11  229.51       AVERAGE 1 CM. IN THICKNESS. MINOR BRECCIATION HAS CAUSED THE
R       228.11  229.51       ROTATION OF LAMINATED SULPHIDE FRAGMENTS. EVENTS RESPONSIBLE
R       228.11  229.51       FOR ORE BRECCIATION, PROBABLY RESULTED IN THE FORMATION OF
R       228.11  229.51       LARGE BARITE CRYSTALS AT BRECCIA JUNCTIONS.

/       229.51  230.12  0.61             LMSX BA       LM LC               P  0 LM      42 L4         L)   <1   L+
L

/       230.12  231.65  1.53             LMSX BA       LC LM               P  0 LM      40 L4         L)   L1   L+
L                                                                                                           L1
R SPC   230.12  231.65       SAMPLE D.G. 266 TAKEN AT 230.8 M.

/       231.65  232.14  0.49             FGSX             BR               P               V1         V+   M3   B1
L                                             5A                                                            B2
R       231.65  232.14       THE MATRIX OF THIS BRECCIATED SULPHIDE IS A HIGHLY WEATHERED,
R       231.65  232.14       LIGHT GREY, SILICEOUS ARGILLITE.
R SPC   231.65  232.14       SAMPLE D.G. 267 TAKEN AT 231.95 M.

/       232.14  232.32  0.16             FGSX             BR               P               V1         V+   M3   B1
L
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PAN OCEAN OIL LTD.

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G E O L O G                          JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                      PAGE -  6
                                DRILLHOLE/TRAVERSE --- 77-DH025 --- (CONTINUED)

K  F   F R O M - T O -  T H T RECOV  FO % ROCK TM TM RM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                           R Q D  AGE EV RU LC TM RM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

K UM1  232.32  232.32   0.00

/      232.32  253.00  20.60            ARGL      SN+ LM    1 3 + 3      P  0 LM      40                      L+
L                                           3A        LC BR 8                                          <+    L+

/      232.32  232.55   0.23          X ARGL      SN+ BR    1 3 + 3      R  0 LM      40                      <+
L                                           3A        LC BR 8                                          <=    L+    <+

/      253.00  263.65  10.65            ARST CR   SN1 LO LC 1 3 1 3      P    LM      38                         L+
L                                           3A           CC 8
R SPC  253.00  263.65       SAMPLE D.G. 268 TAKEN AT 255.13 M.
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PAN OCEAN OIL LTD.

DRILLHOLE/TRAVERSE --- 77-DH025 --- (CONTINUED)

A	UMM				SAMPLE	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A	LAB				SERIAL	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	
A	TYP					H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	
A	MTH					WA	WA	WA	WA	WA	WA	WA	WA	
R	ASY	0.00	0.00	B.CLG = BONDAR CLEGG, VANCOUVER; H-CORE = HALF CORE.										
R	ASY	0.00	0.00	WA = WET ANALYSIS.										
R	ASY	0.00	0.00	NO ASSAY INFORMATION ENTERED AS -0.1										
A	001	216.40	218.59	190	6135	0.01	0.05	4.43	-0.1	-0.1	-0.1	-0.1	-0.1	3.99
A	001	218.59	218.69	030	6136	0.03	0.53	8.71	-0.1	-0.1	-0.1	-0.1	-0.1	8.77
A	001	218.69	219.61	092	6137	1.80	10.20	0.42	-0.1	-0.1	-0.1	-0.1	-0.1	11.92
A	001	219.61	220.31	070	6138	0.83	7.15	29.45	-0.1	-0.1	-0.1	-0.1	-0.1	36.93
A	001	220.31	220.98	067	6139	0.59	9.10	8.92	-0.1	-0.1	-0.1	-0.1	-0.1	18.11
A	001	220.98	222.50	146	6140	0.48	7.45	42.43	-0.1	-0.1	-0.1	-0.1	-0.1	49.86
A	001	222.50	223.42	092	6141	0.20	6.65	42.49	-0.1	-0.1	-0.1	-0.1	-0.1	48.84
A	001	223.42	224.70	128	6142	0.41	4.62	46.59	-0.1	-0.1	-0.1	-0.1	-0.1	51.12
A	001	224.70	225.80	106	6143	0.69	4.45	48.33	-0.1	-0.1	-0.1	-0.1	-0.1	52.97
A	001	225.80	226.77	087	6144	0.54	3.65	49.72	-0.1	-0.1	-0.1	-0.1	-0.1	53.41
A	001	226.77	227.50	066	6145	0.51	2.75	40.87	-0.1	-0.1	-0.1	-0.1	-0.1	43.63
A	001	227.50	228.11	056	6146	0.85	3.08	45.43	-0.1	-0.1	-0.1	-0.1	-0.1	48.86
A	001	228.11	229.51	129	6147	0.48	2.85	46.28	-0.1	-0.1	-0.1	-0.1	-0.1	49.11
A	001	229.51	230.12	061	6148	1.00	2.80	43.00	-0.1	-0.1	-0.1	-0.1	-0.1	46.30
A	001	230.12	231.65	153	6149	1.15	6.00	38.90	-0.1	-0.1	-0.1	-0.1	-0.1	45.55
A	001	231.65	232.14	049	6150	4.00	11.10	1.18	1.39	-0.1	-0.1	-0.1	-0.1	17.27
A	001	232.14	232.32	018	6151	3.60	11.50	2.04	1.34	-0.1	-0.1	-0.1	-0.1	18.08
A	001	232.32	232.56	024	6152	0.52	0.15	2.03	-0.1	-0.1	-0.1	-0.1	-0.1	2.20
A	001	232.56	234.07	151	6153	0.03	0.52	4.72	-0.1	-0.1	-0.1	-0.1	-0.1	4.77
A	MAX	216.40	234.07			4.00	11.50	49.72	1.39	-0.1	-0.1	-0.1	-0.1	66.21

A	MTH				0.01	0.05	0.42	1.34	-0.1	-0.1	-0.1	-0.1	1.42
A	CMP	218.69	223.42	471	0.75	8.02	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	8.17
A	CMP	223.42	230.12	637	0.58	3.54	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	3.52
A	CMP	230.12	232.32	220	1.99	7.59	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	8.98

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :77-DH026	COLLAR ELEVATION: 1168.21	AZIMUTH(DEG) : 342.00	GEOLOGGED BY : +
TOTAL DEPTH/LENGTH : 283.16	NORTHING(- IF S): 7002397.00	VERTICAL ANGLE : -77.00	DATE (YY/MM/DD): 0
CORE/HOLE DIAMETER : HQ	EASTING (- IF W): 437029.62	CO-ORD SYSTEM : UTM	PROJECT NUMBER : J-MAIN

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	18.29	333.25	-72.00
2	30.78	333.25	-72.00
3	45.72	336.25	-72.00
4	61.26	341.25	-71.00
5	97.84	350.25	-70.00
6	122.22	355.25	-69.00
7	152.70	3.25	-67.50
8	182.88	6.25	-65.50
9	213.36	13.25	-62.00
10	241.09	17.25	-57.00
11	280.42	19.25	-55.00

```
  F   - I N T E R V A L -    CORE  T- %      TYPI- QAL  TEX-  GRAIN        PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K L (UNITS =   .  DEC.PLACE)RECOV-  Q M ROCK FYING MIN TURES CHARACS                        H  H  H  H  H ANY H  H  H ANY  ALT ORE
E A  (MT=METRIC FT=FOOTRIC)  ERY    0 I      TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y G  F R O M - T O -  I N T ( . )   D X TYPE  1  2 QM1  1  2 F F C A          1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K F                         ROCK   FM    RT    TM QM2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E L                         QUAL   AGE EN- Q LC- 3     3  4 O     /          2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y G                         DESIG      VIR   COL            R     C            STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2   2
```

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R SVY    0.00     0.00      SPERRY SUN TESTS.

/        0.00  247.95 247.95          MISS                      P

K UM1  247.95  247.95   0.00

/      247.95  257.25   9.30          MISS                      P

K LM1  257.25  257.25   0.00

/      257.25  283.16  25.91          MISS                      P
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PAN OCEAN OIL LTD.

G E O L O G | JASON PB-ZN-AG-BA STF DEPOSIT, Y.T. | PAGE - 2

DRILLHOLE/TRAVERSE --- 77-DH026 --- (CONTINUED)

A	UMM				SAMPLE	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A	LAB				SERIAL	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	
A	TYP				NUMBER	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	
A	MTH					WA	WA	WA	WA	WA	WA	WA	WA	
R	ASY	0.00	0.00	B.CLG = BONDAR CLEGG, VANCOUVER; H-CORE = HALF CORE.										
R	ASY	0.00	0.00	WA = WET ANALYSIS.										
R	ASY	0.00	0.00	NO ASSAY INFORMATION ENTERED AS -0.1										
A	001	235.31	236.83	53	6159	0.05	0.10	1.22	-0.1	-0.1	-0.1	-0.1	-0.1	0.87
A	001	236.83	237.13	30	6160	0.09	2.27	0.65	-0.1	-0.1	-0.1	-0.1	-0.1	2.51
A	001	237.13	238.96	141	6161	1.34	7.00	0.22	-0.1	-0.1	-0.1	-0.1	-0.1	8.06
A	001	238.96	240.79	110	6162	1.46	6.70	0.09	-0.1	-0.1	-0.1	-0.1	-0.1	7.75
A	001	240.79	241.55	53	6163	0.64	5.12	2.65	-0.1	-0.1	-0.1	-0.1	-0.1	7.91
A	001	241.55	243.05	153	6164	0.05	0.43	11.02	-0.1	-0.1	-0.1	-0.1	-0.1	11.00
A	001	247.00	247.95	84	6165	0.06	0.23	7.83	-0.1	-0.1	-0.1	-0.1	-0.1	7.62
A	001	247.95	248.41	46	6166	1.95	7.70	1.24	-0.1	-0.1	-0.1	-0.1	-0.1	10.39
A	001	248.41	249.60	98	6167	1.02	7.05	1.02	-0.1	-0.1	-0.1	-0.1	-0.1	8.59
A	001	249.60	251.25	156	6168	1.85	9.70	0.07	-0.1	-0.1	-0.1	-0.1	-0.1	11.12
A	001	251.25	252.68	110	6169	1.70	9.70	0.04	-0.1	-0.1	-0.1	-0.1	-0.1	10.94
A	001	252.68	253.47	41	6170	2.30	19.80	0.09	0.05	-0.1	-0.1	-0.1	-0.1	21.84
A	001	253.47	254.51	96	6171	1.95	14.40	0.09	0.06	-0.1	-0.1	-0.1	-0.1	16.10
R	ASY	254.51	255.30	INTERVAL MISSING.										
A	001	255.30	257.25	82	6173	1.28	9.05	0.04	-0.1	-0.1	-0.1	-0.1	-0.1	9.87
A	001	257.25	259.08	128	6174	0.38	2.93	1.46	-0.1	-0.1	-0.1	-0.1	-0.1	4.27
A	001	259.08	260.60	122	6175	0.15	1.55	1.94	-0.1	-0.1	-0.1	-0.1	-0.1	3.14
A	001	260.60	262.13	138	6176	0.10	1.02	4.53	-0.1	-0.1	-0.1	-0.1	-0.1	5.15
A	001	262.13	263.19	93	6177	0.08	1.25	5.32	-0.1	-0.1	-0.1	-0.1	-0.1	6.15
A	001	263.19	264.41	92	6178	0.19	2.05	3.08	-0.1	-0.1	-0.1	-0.1	-0.1	4.82
A	001	264.41	265.02	44	6179	1.90	5.10	0.52	-0.1	-0.1	-0.1	-0.1	-0.1	7.02
A	001	265.02	266.55	151	6180	0.09	0.58	6.27	-0.1	-0.1	-0.1	-0.1	-0.1	6.44
A	CMP	237.13	241.55	308		1.27	6.55	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	7.22
A	CMP	247.95	257.25	674		1.68	10.72	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	11.80

A MIN			0.05	0.10	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.45
A MAX	255.31	266.55	2.30	19.80	11.02	-0.1	-0.1	-0.1	-0.1	-0.1	32.62

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :78-DH027	COLLAR ELEVATION: 1213.26	AZIMUTH(DEG) : 360.00	GEOLOGGED BY : +
TOTAL DEPTH/LENGTH : 221.28	NORTHING(- IF S): 7062476.00	VERTICAL ANGLE : -70.00	DATE (YY/MM/DD): 0
CORE/HOLE DIAMETER : BQ	EASTING (- IF W): 436828.69	CO-ORD SYSTEM : UTM	PROJECT NUMBER : J-MAIN

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	9.15	356.00	-70.00
2	21.94	355.00	-69.50
3	59.44	359.00	-69.00
4	91.46	15.00	-68.00
5	121.95	22.00	-64.00
6	152.44	24.00	-62.00
7	182.93	23.00	-59.50
8	213.41	27.00	-59.50

```
    F    - I N T E R V A L -     CORE   T- %       TYPI- QAL  TEX-  GRAIN         PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K   L (UNITS =    .  DEC.PLACE)RECOV-   R R ROCK FYING MIN TURES CHARACS                            H  H  H  H  H ANY H  H  H ANY  ALT ORE
E   A   (MI=METRIC FI=FOOTRIC)  ERY     O I       FM TM MAT TX TX F C % M ARG   /RT T ID STK DIP  A  A  A  A  A MIN A  A  A MIN  - - - -
Y   G  F R O M - T O -  I N T (   . )   D X TYPE  1  2 QM1  1  2 F F C A              1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K   F                            ROCK    FM     RT    TM QM2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E   L                            QUAL   AGE EN- O LC- 3       3  4 O    /           2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y   G                            DESIG      VIR   COL              R    C             STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2   2

R SVY     0.00     0.00       SPERRY SUN TESTS.

/         0.00   195.24 195.24           MISS                           P

K UM1   195.24   195.24   0.00

/       195.24   209.95  14.71           MISS                           P

K LM1   209.95   209.95   0.00

/       209.95   221.28  11.33           MISS                           P
```

A	OMM				SAMPLE	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A	LAB				SERIAL	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	
A	TYP				NUMBER	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	
A	MTH					WA	WA	WA	WA	WA	WA	WA	WA	
R	ASY	0.00	0.00		B.CLG = BONDAR CLEGG, VANCOUVER; H-CORE = HALF CORE.									
R	ASY	0.00	0.00		WA = WET ANALYSIS.									
R	ASY	0.00	0.00		NO ASSAY INFORMATION ENTERED AS -0.1									
A	001	193.24	195.24	200	12276	0.05	0.88	3.92	-0.1	-0.1	-0.1	-0.1	-0.1	4.35
A	001	195.24	197.00	156	12277	1.40	6.40	37.80	-0.1	-0.1	-0.1	-0.1	-0.1	45.10
A	001	197.00	198.40	135	12278	0.74	4.00	47.10	-0.1	-0.1	-0.1	-0.1	-0.1	51.34
A	001	198.40	199.80	140	12279	0.73	3.03	47.80	-0.1	-0.1	-0.1	-0.1	-0.1	51.06
A	001	199.80	201.00	105	12280	0.67	6.13	38.50	-0.1	-0.1	-0.1	-0.1	-0.1	44.80
R	ASY	199.80	201.00		SPECIFIC GRAVITY OF ORE IS 3.60.									
A	001	201.00	202.20	110	12281	0.71	4.25	47.00	-0.1	-0.1	-0.1	-0.1	-0.1	51.46
A	001	202.20	203.80	140	12282	0.86	3.05	52.20	-0.1	-0.1	-0.1	-0.1	-0.1	55.61
A	001	203.80	205.20	124	12283	0.80	2.30	51.60	-0.1	-0.1	-0.1	-0.1	-0.1	54.20
A	001	205.20	206.70	146	12284	1.02	2.70	51.60	-0.1	-0.1	-0.1	-0.1	-0.1	54.82
A	001	206.70	208.60	180	12285	0.48	2.32	48.80	-0.1	-0.1	-0.1	-0.1	-0.1	51.10
R	ASY	206.70	208.60		SPECIFIC GRAVITY OF ORE IS 3.95									
A	001	208.60	209.45	80	12286	2.92	11.60	2.07	0.28	-0.1	-0.1	-0.1	-0.1	16.47
A	001	209.45	209.95	46	12287	2.80	13.40	1.35	0.18	-0.1	-0.1	-0.1	-0.1	17.33
A	001	209.95	211.60	120	12288	0.65	3.52	2.35	-0.1	-0.1	-0.1	-0.1	-0.1	6.02
A	001	211.60	214.00	204	12293	0.06	1.72	8.83	-0.1	-0.1	-0.1	-0.1	-0.1	10.11
A	001	214.00	215.00	83	12289	0.11	3.25	6.47	-0.1	-0.1	-0.1	-0.1	-0.1	9.33
A	001	215.00	216.15	75	12290	0.18	6.75	0.63	-0.1	-0.1	-0.1	-0.1	-0.1	7.06
A	001	216.15	217.07	85	12291	0.10	4.10	0.76	-0.1	-0.1	-0.1	-0.1	-0.1	4.46
A	001	217.07	218.00	93	12292	0.03	0.11	1.05	-0.1	-0.1	-0.1	-0.1	-0.1	0.69
A	CMP	195.24	217.07	1992		0.76	4.18	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	4.34

A MIN			0.05	0.11	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.44
A MAX	193.24	218.00	2.92	13.40	52.20	-0.1	-0.1	-0.1	-0.1	-0.1	68.02

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6B02

DRILLHOLE/TRAVERSE :	78-DH028	COLLAR ELEVATION:	1155.67	AZIMUTH(DEG) :	350.00	GEOLOGGED BY :	+
TOTAL DEPTH/LENGTH :	367.26	NORTHING(- IF S):	7002337.00	VERTICAL ANGLE :	-72.00	DATE (YY/MM/DD):	0
CORE/HOLE DIAMETER :	HQ	EASTING (- IF W):	437109.81	CO-ORD SYSTEM :	UTM	PROJECT NUMBER :	J-MAIN

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	15.24	359.00	-69.50
2	30.48	2.00	-70.50
3	45.72	360.00	-70.50
4	60.96	359.00	-70.00
5	91.44	10.00	-68.00
6	121.92	16.00	-66.50
7	152.40	26.00	-65.00
8	182.88	33.50	-62.00
9	213.36	35.50	-59.00
10	243.84	40.00	-57.00
11	274.32	42.00	-53.00
12	306.80	40.00	-49.00
13	365.76	45.00	-39.50

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   F   - I N T E R V A L -     CORE  T- %       TYP1- QAL  TEX-  GRAIN       PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L  (UNITS =    . DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                       H  H  H  H  H ANY H  H  H ANY  ALT ORE
F  A   (MT=METRIC FT=FOOTRIC)  ERY     O I      IM TM MAT TX TX F C % M ARG  /RI T ID STK DIP A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  I N T (  . )  D X TYPE  1  2 UM1  1  2 F F C A          1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                          ROCK   FM     RT    IM UM2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                          QUAL   AGE FM- N LC- 3     3  4 O    /            2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y  G                          DESIG      VTR   COL          R      C              STRUCTUR-2 A  A  A  A  A  A  A  A  A  A     2   2

R SVY    0.00    0.00      SPERRY SUN TESTS.

/        0.00  307.00 307.00          MISS                              P

K UM1  307.00  307.00   0.00

/      307.00  312.30   5.30          MISS                              P

K LM1  312.30  312.30   0.00

/      312.30  367.26  54.96          MISS                              P
```

A UMM				SAMPLE	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A LAB				SERIAL	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	
A TYP				NUMBER	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	
A MTH					WA	WA	WA	WA	WA	WA	WA	WA	
R ASY	0.00	0.00	B.CLG = BONDAR CLEGG, VANCOUVER; H-CORE = HALF CORE.										
R ASY	0.00	0.00	WA = WET ANALYSIS.										
R ASY	0.00	0.00	NO ASSAY INFORMATION ENTERED AS -0.1										
A 001	306.60	307.00	34	12294	0.07	1.23	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.70
A 001	307.00	309.10	210	12295	0.28	5.95	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	5.63
A 001	309.10	310.00	80	12296	0.11	1.00	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.51
A 001	310.00	312.30	230	12297	0.29	4.45	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	4.14
A 001	312.30	313.30	60	12342	0.06	1.59	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.96
R ASY	312.30	313.30	GEOCHEM ANALYSIS.										
A CMP	306.60	313.30	622		0.22	3.82	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	3.44

A MIN			0.06	1.23	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.69
A MAX	306.60	313.30	0.28	5.95	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	5.63

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :78-DH029	COLLAR ELEVATION: 1286.88	AZIMUTH(DEG) : 180.00	GEOLOGGED BY : +
TOTAL DEPTH/LENGTH : 91.14	NORTHING(- IF S): 7002528.00	VERTICAL ANGLE : -50.00	DATE (YY/MM/DD): 0
CORE/HOLE DIAMETER : BQ	EASTING (- IF W): 436463.19	CO-ORD SYSTEM : UTM	PROJECT NUMBER : J-S

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	91.14	174.00	-42.00

```
  F   - I N T E R V A L -    CORE  I- %      TYP1- QAL  TEX-  GRAIN        PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K L (UNITS =   . DEC.PLACE)RECOV-  R M ROCK FYING MIN TURES CHARACS                         H  H  H  H  H ANY H  H  H ANY  ALT ORE
E A   (MT=METRIC FT=FOOTRIC)  ERY    O L      TM TM MAT TX TX F C % M ARG   /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y G  F R O M - T O -  I N T (  . )  D X TYPE  1  2 RM1  1  2 F F C A          1     AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K F                          ROCK   FM     RT    TM OM2 TX TX S C O O CHT       T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E L                          QUAL   AGE EN- N LC- 3       3  4 O     /          2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y G                          DESIG     VIR   COL               R     C            STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2   2
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R SVY    0.00    0.00      SPERRY-SUN TESTS.
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R ASY    0.00    0.00      NO ASSAY RESULTS FOR THIS HOLE.
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GEOLOG EDIT LISTING

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT YUKON

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :78-DH030	COLLAR ELEVATION: 1261.76	AZIMUTH(DEG) : 177.00	GEOLOGGED BY : PCH +
TOTAL DEPTH/LENGTH : 257.56	NORTHING(- IF S): 7002417.00	VERTICAL ANGLE : -51.00	DATE (YY/MM/DD): 811031
CORE/HOLE DIAMETER : 40	EASTING (- IF W): 436480.56	CO-ORD SYSTEM : UTM	PROJECT NUMBER : J-S1

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	15.24	166.00	-50.00
2	30.48	166.00	-49.50
3	60.96	169.00	-48.50
4	91.44	168.00	-48.00
5	121.92	166.50	-47.00
6	152.40	170.00	-44.17
7	192.88	172.00	-42.75
8	213.36	169.00	-41.17
9	257.56	170.00	-40.00

R HED ORIGINALLY LOGGED BY DR K.I.LU - J.D ROWE IN JUNE 1978

R HED 78-DH030 SOUTH ZONE DISCOVERY HOLE!

R HED

R HED TARGET: THE TARGET WAS SELECTED ON THE BASIS OF GEOLOGICAL AND

R HED GEOCHEMICAL INTERPRETATION, EVIDENCE OF MULTIPLE

R HED SULPHIDE DEPOSITIONAL EVENTS WAS OBSERVED IN 77-DH020

R HED GALENA FRG'S WERE NOTED IN SLUMP BRECCIAS, ANOMALOUS BA/

R HED PB GEOCHEM VALUES FROM BECKER OVERBURDEN PROFILES ALSO

R HED INDICATED A SECOND SOURCE OTHER THAN THE MAIN ZONE

R HED HORIZON, THESE RESULTS INFLUENCED THE PLANNING OF THE

R HED 1978 EXPLORATORY DRILLING PROGRAM, SUCCESSFULLY PROVING

R HED THE EXISTENCE OF A NEW ZONE(COMMUNICATIONS WITH DR.K.LU)

R HED RESULTS: THE MINERALIZED ZONE WAS ENCOUNTERED FROM 183.93 M TO
R HED 186.05M
R HED TRUE THICKNESS: 1.8M
R HED WEIGHTED AVERAGES: 3.75% PB
R HED 21.26% ZN
R HED 1.70 OZ/T AG
R HED AVERAGE CORE RECOVERY= 94.6%
R HED
R HED MINERALIZATION:
R HED
R HED THE ORE ZONE CONSISTS OF MASSIVE SPHALERITE, PYRITE + GALENA
R HED WITH RICHEST CONCENTRATIONS IN THE UPPER PART OF THE ZONE. THE
R HED LOWER PART OF THE ZONE IS MORE LAMINATED WITH A HIGHER CHERT,
R HED ARGILLITE CONTENT. THE ENTIRE ZONE IS CHARACTERIZED BY SOFT
R HED SEDIMENT DEFORMATION FEATURES
R HED
R HED GEOLOGICAL CORRELATIONS:
R HED
R HED A DEBRIS FLOW MEGASEQUENCE (DF) HAS BEEN IDENTIFIED FROM 57.25
R HED TO 132.36M THESE MASS FAILURE DEPOSITS APPEAR TO BE THE RESULT
R HED OF EPISODIC SEISMIC SHOCKS REACTIVATING THE SCARP MARGIN, IN
R HED CONTRAST TO THE QUIESCENT SULFIDE POOLING ENVIRONMENT IN PLACE
R HED BEFORE DISTURBANCE
R HED
R HED THE FOLLOWING CORRELATIONS IN FOOTWALL ALTERATION STRATIGRAPHY
R HED BETWEEN DDH 30 & 41 ARE OVSERVED

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R HED

R HED                    DDH 30                 DDH 41

R HED                 195.90-199.35M         123.30-126.40M

R HED                 199.35-203.50M         118.87-123.30M

R HED

R HED                 203.50-224.90M          82.30-118.87M

   F    - I N T E R V A L -    CORE  T- %       TYPI- GAL  TEX-  GRAIN          PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =    . DEC.PLACE)RECOV- R M ROCK FYING MIN TURES CHARACS                         H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MT=METRIC FT=FOOTRIC)  ERY    O I      TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  I N T ( . )  D X TYPE  1  2 QM1  1  2 F F C A            1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- ---  - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                           ROCK   FM     RT    TM QM2 TX TX S C O O CHT       T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                           DUAL   AGE EN- N LC- 3     3  4 O     /            2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y  G                           DESIG      VIR   COL            R     C              STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2   2

R SVY    0.00    0.00     ALL SPERRY SUN SURVEY DATA.

/ OVB    0.00   16.50  16.50        OVER                            P
L

/       16.50   24.38   7.88        BRHT                      NS8   P
L                                        5A                  C M01

/ FRG   20.50   23.40   2.90      X ARSU        SN2                 R  1 LM
L                                                                      4 BD

/       24.38   28.35   3.97        BRHM                      M09   P
L                                        5A           2       LN=

/       28.35   39.60  11.25        ARSI        SI1 LM              P  1 LM
L

/       30.00   30.00   0.00      X ARSI        SI1 LM              R  1 BD      37

/       30.40   33.25   2.85      X BRHM                      MN9   R                              N)
L                                                            C LM+

/ SHR   33.25   33.50   0.25      X ARSI        GG1 LM              R  1 LM          <.            D.
L                                        5B

/       34.60   34.60   0.00      X ARSI        SI1 LM              R  1 BD     U32

/       37.90   37.90   0.00      X ARSI        SI1 LM              R  1 BD      38

/       39.60   50.90  11.30        BRH4                      N09   P
L                                        5A                  C LL+
R       39.60   50.90     STRONG CLEAVAGE; HIGHLY SHEARED

/ CON   50.90   57.25   6.35        ARSI        SS1 LM              P  1 LM      47                LI D+
L                                                                                                  D+
R       50.90   57.25     LOCAL DISTURBED BEDDING FEATURES

/       52.60   52.60   0.00      X ARSI        SS1 LM              R  1 BD      38                LI D+

/       [illegible]               X ARSI        SS1 LM              R  1 BD      [illegible]       LI D+
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 G E O L O G                                  JASON PB-ZN-AG-BA STF DEPOSIT YUKON                                       PAGE -  4
                                         DRILLHOLE/TRAVERSE --- 78-DH030 --- (CONTINUED)

 K  F   F R O M - T O -  I N T RECOV  RD % ROCK TO TN RM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 Y  G                         R Q D  AGE EV RO LC TN RM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

 /       56.40   56.40   0.00          X ARSI       SS1 LM                 R  1 BD      40                LI D+

 K UDF   57.25   57.25   0.00

 /       57.25   62.75   5.50            BRBT       *S+              OP8   P
 L                                                               +   LN2

 /       62.75   67.75   5.00            BRHM                        NS9   P
 L                                                                     0

 / SHR   64.70   66.00   1.30          X BRBT       GG3              MO8   R
 L                                            3A                     LN2

 /       67.50   67.75   0.25          X VEIN       GG2                    R                 V8
 L

 /       67.75   70.00   2.25            CGSN PY    SN3 FU BS H L 6 0      P                                  C+
 L                                                     DB // 6     C   8
 R       67.75   70.00          COMPLETE BOUMA SEQUENCE TAE FU CYCLE SHOWING DISORGANIZED
 R       67.75   70.00          BEDDING TO COARSE PEBBLES AT BASE TO PLANAR LAM SANDS NEAR TOP

 /       70.00   73.65   3.65            CGSN       SN2 MX     H L 8 N     P
 L                                                             5     C   9
 R       70.00   73.65          BOUMA SEQUENCE TAB CYCLE

 /       73.65   76.60   2.95            CGPS       SN6 RU G; H L 3 0      P
 L                                                     M:     5     C
 R HLT   73.65   76.60          CHARACTERIZED BY WELL ROUNDED ARG CLASTS + WISPY IRREGULAR RIPUP
 R       73.65   76.60          CLASTS COARSENING UPWARD NEAR UPPER PART OF CYCLE

 /       76.60   86.20   9.60            BRHT       *S1              OS7   P                 <+
 L                                                          1 1      MO3

 / FRG   79.35   80.10   0.75          X CGXX       SN3        H L 6 M     R
 L                                                             6     0

 /       86.20   98.20  12.00            BRHM                        PT9   P
 L                                            5N               2     C MM)

 / FRG   90.70   92.20   1.50          X ARSI                              R
 L

 / FRG   94.40   95.50   1.10          X ARSI                              R
 L

 /       98.20  106.10   7.90            BRHM                        OP9   P                                  L*
 L                                                             2     LN=

 /      106.10  110.20   4.10            BRPM                        OQ6   P
 L                                            7N               3     0 LN3
```

PAN OCEAN OIL LTD.

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G E O L O G                       JASON PB-ZN-AG-BA STF DEPOSIT YUKON                                          PAGE -  5
                              DRILLHOLE/TRAVERSE --- 78-DH030 --- (CONTINUED)

K  F  F R O M - T O -  T & T RECOV  RD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                                R Q D  AGE EV RQ LC TM OM2 TX TX S C O O CHT        2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/        110.00  110.20   0.20          X VEIN         ST           006  R    CN      68 >9
L                                            7A                 3      0 LN3

/        110.20  124.20  14.00            BRHT       *S1            NS7  P                                      #)
L                                            4A                    C MN2                             <)

/        118.65  118.95   0.30          X VEIN       *S1            NS7  R                                      D)
L                                            4A                    C MN2                             K3

/        124.20  126.30   2.10            CGPS       SN3 G:    H L 6 N   P                                      D=
L                                                              6   0                               <)

/ CON    126.30  128.50   2.20            BRHM                          PR9  P    BD      35
L                                                             +     NO=

/        128.50  132.36   3.86            CGCP       SN3       L M 4 0   P                                      D+
L                                                              4   0                               B1
R        128.50  132.36      SAND GRIT MATRIX WITH ABUNDANT SIDERITE MTX FILLING

/ CON    132.36  140.95   8.59            ARSI       SN1                 P    BD      50                        L=
L                                            5A                           2 LM

/        140.95  143.13   2.18            BRHM                      OP9  P                                      D(
L                                            5A                     LN+

/        143.13  164.75  21.62            ARSI       SI1 LC              P  2 LM                                <)
L                                            5A      PY+                                            <(

/        150.00  150.00   0.00          X ARSI       SI1 LC              R  2 BD     U51                        <)

/        154.50  154.50   0.00          X ARSI       SI1 LC              R  2 BD      54                        <)

/        160.00  160.00   0.00          X ARSI       SI1 LC              R  2 BD      54                        <)

/ CON    164.75  179.20  14.45            ARSI PY    SN2                 P    BD      52
L                                            5A                           2 LM

/        171.55  172.12   0.57          X BRHT       *S=                 NO4  R
L                                                            = =    LM3                             <)

/        173.00  173.20   0.20          X VEIN PY    SN2                 R    BD      52                            D.
L                                            5A                           2 LM                >9                D.

/        179.20  181.93   2.73            BRHT       *S+            OO7  P
L                                                               +   MN2                             <=

/ FLT    181.50  181.93   0.43          X BRHT       GG3            OO7  R                V1
L                                                               +   MN2                             <=
R        181.50  181.93      BADLY BROKEN AT LOWER PART OF INTERVAL

K US1    181.93  181.93   0.00
```

```
K  F  F R O M - T O -  T O T RECOV  MO % ROCK TX TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                        R Q D  AGE EV RG LC TM QM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/      181.93  185.32   3.39           MSSX         LM SS           P                                  M3    M1
L                                                                                                              M4
R      181.93  185.32     FINELY LAM CL RICHER IN UPPER PART, THIN LAM'S IN LOWER PART
R      181.93  185.32     TWO 5 CM ARCL BANDS SLIGHTLY CONTORTED

/      185.32  185.81   0.49           LMSX      CH3 LC BN          P                                  L2    L1
L                                                                                                            L3
R      185.32  185.81     HIGHLY CONTORTED, INTERLAMINATED SL-PY-CL CHERT-PY BANDS

/      185.81  186.05   0.24           BNSX SF   CH7    BN          P                                  L1    L+
L                                                                                                            L1

K LS1  186.05  186.05   0.00

/      186.05  188.00   1.95           BRBR SF PY               N09 P             <=                   L+
L                                                               MN+

K FLT  188.00  188.00   0.00

/      188.00  191.80   3.80           ARSI SF   SD=       2 2 - 2  P             <)                   D) B-
L                                                                                       <=

/      191.80  195.90   4.10           BRBR SF                  NPX P
L                                                               ---                       <+
R      191.80  195.90     CHARACTERIZED BY SILIC. ARGL FRG'S IN CARB MUD MTX

/      193.85  195.00   1.15        4 VEIN SF                   NPX R             V7                     D(
L                                  4 V                                                  C) V3 <2
R      193.85  195.00     MASSIVE QZ VEIN WITH CROSSCUTTING VEINLETS OF QZ/SD

/ CON  195.90  199.35   3.45           ARGL SF      ST GR           P   SH     63                      D* D* D*
L                                         6A    SD) BR                                  <=                 D*
R      195.90  199.35     HIGHLY FRACTURED - CORRELATES WITH 78-41 INTERVAL 123.30-126.40M

/      199.35  203.50   4.15           SAND SD      //              P   BD     52                      B* B* B*
L                                         6A                                  <*                           B*
R      199.35  203.50     STRONGLY ALTERED AT BASE-QZ/SD/MU MICRO-VEINS TEXTURES DESTROYED
R      199.35  203.50     CORRELATES WITH 78-41 INTERVAL 118.87-123.30M

/      203.50  224.90  21.40           ARGL SF      ST GR           P             <)                   D* D*
L                                         5A        BR                                  <= <)
R      203.50  224.90     CORRELATES WITH 78-41 INTERVAL 82.30-118.87M
R      203.50  224.90     STRONGLY FRACTURED, LOCALLY BRECCIATED

/      212.00  212.00   0.00        X ARGL SF       ST GR           R 2 BD     67 <)                   D* D*

/      215.00  215.00   0.00        X ARGL SF       ST GR           R 2 BD     58 <)                   D* D*

/      216.00  224.90   8.90        X ARGL SF       ST GR           R             <+                   B* B*
L                                                                                                          D.
```

```
K  F   F R O M - T O -  I N T RECOV  RD % ROCK TX TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
F -I- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R Q D  AGE EV RN LC TX QM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R        216.00  224.90      MODERATELY FRACTURED-LOCAL CONCENTRATIONS OF DISS PY(10%)+CP(2-3
R        216.00  224.90      %) FROM 221.50-223.00

/        217.60  217.60  0.00        X ARGL SF      ST GR                R  2 BD     59 <)             D* D*

/        221.00  221.00  0.00        X ARGL SF      ST GR                R  2 BD     68 <)             D* D*

/        224.90  228.40  3.50         MISS                               P
R EDT    224.90  228.40      DISCONTINUOUS RQI -- ENTERED AS MISSING (22490-22840)

/        228.40  237.10  8.70         SILT CR SF          2 2 - 2        P                             D)
L                                          4A PY
R        228.40  237.10      DISTURBED BEDDING

/        231.65  234.40  2.75        X BRAM     *S+            NP9  R               C*
L                                                              MN=
R        231.65  234.40      FINE NETWORK OF QZ + 50 FT WHITE MINERAL (CLAY-SERICITE?)

/        237.10  240.90  3.80         BRHT SF   S*1            OS7  P
L                                                           2  MO1
R        237.10  240.90      CHAOTIC ASSORTMENT OF CARB SLST & SIF ARGL CLASTS

/        240.90  252.65 11.75         SILT SD SF          2 2 - 2        P    BD     45 <)             D(
L                                          BR                                           <)

/ FLT    246.60  246.70  0.10        X FAUL     GG3                      R               <=
L                                               *S2

/        252.65  255.10  2.45         BRHT CR SF *S2            OS7  P               <(
L                                                              MO1
R        252.65  255.10      LARGEST CLASTS CONSIST OF CARB ARGL(STRONGLY SIF)

/ CON    255.10  257.56  2.46         SAND // SF GG=      4 4 - 4        P    SH         <)             D=
L                                                                      4 BD    030
R        255.10  257.56      A FEW BANDS OF NON-SIF ARGL CLASTS, UP TO 10CM TH WITH INTERLAM
R        255.10  257.56      PY 3 TO 5% RD CLASTS IN SS
```

				SAMPLE SERIAL	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A UMM													
A LAB					B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	
A TYP					H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	
A MTH					WA	WA	WA	WA	WA	WA	WA	WA	

R ASY 0.00 0.00 B.CLG = BONDAR CLEGG, VANCOUVER; H-CORE = HALF CORE.

R ASY 0.00 0.00 WA = WET ANALYSIS.

R ASY 0.00 0.00 NO ASSAY INFORMATION ENTERED AS -0.1

A 001	181.50	183.93	111	12332	0.30	0.31	-0.1	0.14	-0.1	-0.1	-0.1	-0.1	0.25
A 001	183.93	185.32	125	12333	3.80	26.05	-0.1	1.88	-0.1	-0.1	-0.1	-0.1	31.23
A 001	185.32	185.81	049	12334	4.80	15.20	-0.1	1.69	-0.1	-0.1	-0.1	-0.1	21.19
A 001	185.81	186.05	024	12335	1.29	5.93	-0.1	0.72	-0.1	-0.1	-0.1	-0.1	7.44
A 001	186.05	187.91	165	12336	0.06	0.06	-0.1	0.07	-0.1	-0.1	-0.1	-0.1	-0.31
A MAX	181.50	187.91	474		4.80	26.05	-0.1	1.88	-0.1	-0.1	-0.1	-0.1	32.13

A MIN				0.06	0.06	-0.1	0.07	-0.1	-0.1	-0.1	-0.1	-0.21
A CMP	183.93	186.05	198	3.75	21.26	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	24.41

G E O L O G E D I T L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6B02

DRILLHOLE/TRAVERSE :78-08031	COLLAR ELEVATION: 1186.89	AZIMUTH(DEG) : 4.00	GEOLOGGED BY : +
TOTAL DEPTH/LENGTH : 619.35	NORTHING(- IF S): 7002298.00	VERTICAL ANGLE : -70.00	DATE (YY/MM/DD): 0
CORE/HOLE DIAMETER : HQNQ	EASTING (- IF W): 436849.19	CO-ORD SYSTEM : UTM	PROJECT NUMBER : J-MAIN

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	15.24	4.00	-72.00
2	30.48	4.00	-70.00
3	45.72	360.00	-70.00
4	60.96	8.00	-70.00
5	76.20	13.00	-69.75
6	91.44	14.00	-69.50
7	106.68	10.00	-70.00
8	121.92	14.00	-69.75
9	137.15	21.00	-71.00
10	152.40	27.00	-71.25
11	167.64	30.00	-71.00
12	182.88	34.00	-72.00
13	213.36	38.00	-70.00
14	243.84	47.00	-68.00
15	274.32	46.00	-66.00
16	304.80	49.00	-66.00
17	335.28	53.00	-65.00
18	365.75	54.00	-62.00
19	396.24	55.00	-56.00
20	426.72	52.00	-53.00
21	457.20	54.00	-52.00
22	487.68	55.00	-50.00
23	518.16	54.50	-49.00
24	548.64	53.00	-44.00
25	579.12	54.00	-45.00
26	619.35	52.00	-43.00

R HED HQ CORE FROM 0-537.6M; NQ CORE FROM 537.6-619.35M.

```
  F   - I N T E R V A L -    CORE  T- %       TYPI- QAL  TEX-  GRAIN          PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K L (UNITS =   . DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                            H  H  H  H  H ANY H  H  H ANY  ALT ORE
E A  (MT=METRIC FT=FOOTRIC)  ERY   O T       TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y G F R O M - T O -  I N T (  . )  D X TYPE  1  2 QM1  1  2 F F C A          1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K F                         ROCK    FM     RT    TM QM2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E L                         QUAL   AGE EN- Q LC- 3       3  4 O     /         2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y G                         DESIG      VIR    COL            R      C          STRUCTUR-2 A  A  A  A  A  A  A  A  A  A   2   2
```

R SVY 0.00 0.00 ALL TESTS DONE WITH SPERRY SUN.

R ASY 0.00 0.00 NO ASSAYED "ORE" HORIZON IN THIS HOLE.

G E O L O G E D I T L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :	78-DH032	COLLAR ELEVATION:	1240.15	AZIMUTH(DEG) :	180.00	GEOLOGGED BY :	+
TOTAL DEPTH/LENGTH :	121.92	NORTHING(- IF S):	7002334.00	VERTICAL ANGLE :	-50.00	DATE (YY/MM/DD):	0
CORE/HOLE DIAMETER :	HQ	EASTING (- IF W):	436489.19	CO-ORD SYSTEM :	UTM	PROJECT NUMBER :	J-S

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	30.48	177.00	-52.00
2	60.96	173.00	-49.00
3	91.44	170.00	-44.00
4	121.92	170.00	-44.00

```
  F   - I N T E R V A L -     CORE  T- %       TYPI- QAL  TEX-  GRAIN         PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K L (UNITS =   .  DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                            H  H  H  H  H ANY H  H  H ANY  ALT ORE
E A  (MT=METRIC FT=FOOTRIC)  ERY    O I       TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y G  F R O M - T O -  I N T (  . )  D X TYPE  1  2 OR1  1  2 F F C A          1     AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K F                          ROCK    FM    RT    TM QM2 TX TX S C O O CHT       T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E L                          QUAL   AGE EN- N LC- 3      3  4 O    /            2     AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y G                          DESIG      VIR   COL              K    C             STRUCTUR-2  A  A  A  A  A  A  A  A  A  A    2   2

R SVY    0.00     0.00      ALL TESTS DONE WITH SPERRY SUN.

R ASY    0.00     0.00      NO ASSAYS OF "ORE" ZONE IN THIS HOLE.
```

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :78-04033	COLLAR ELEVATION: 1246.31	AZIMUTH(DEG) : 180.00	GEOLOGGED BY : +
TOTAL DEPTH/LENGTH : 154.53	NORTHING(- IF S): 7002368.00	VERTICAL ANGLE : -62.00	DATE (YY/MM/DD): 0
CORE/HOLE DIAMETER : BQ	EASTING (- IF W): 436380.75	CO-ORD SYSTEM : UTM	PROJECT NUMBER : J-S

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	30.48	172.00	-64.00
2	60.96	176.00	-63.00
3	91.44	179.00	-62.00
4	121.92	179.00	-62.00
5	152.40	179.00	-61.00

```
  F   - I N T E R V A L -    CORE  T- %       TYPI- QAL  TEX-  GRAIN         PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K L (UNITS =   .  DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                        H  H  H  H  H ANY H  H  H ANY  ALT ORE
E A  (MT=METRIC FT=FOOTRIC)  ERY   O I      TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y G  F R O M - T O -  I N T (  . )  D X TYPE  1  2 QM1  1  2 F F C A          1    AZM  RT QZ FL CY CA BA XX PY CP GL YY A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- -- - - - -
K F                         ROCK   FM    RT    TM QM2 TX TX S C O O CHT        T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E L                         QUAL   AGE EN- N LC- 3     3  4 O    /             2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y G                         DESIG      VTR   COL              R    C              STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2   2
```

R SVY   0.00   0.00   SPERRY SUN TESTS.

R ASY   0.00   0.00   NO ASSAYS FOR THIS HOLE.

```
                              G E O L O G   E D I T   L I S T I N G                    SYSTEMS ENGINEERING BY
                                                                                 INTERNATIONAL GEOSYSTEMS CORP.

                                          PAN OCEAN OIL LTD.
                                   JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

                                          FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :78-04034      COLLAR ELEVATION:      1202.97      AZIMUTH( DEG ) :      0.00      GEOLOGGED BY : BHO +
TOTAL DEPTH/LENGTH :   154.22     NORTHING(- IF S):   7002168.00      VERTICAL ANGLE :    -55.00      DATE (YY/MM/DD): 811014
CORE/HOLE DIAMETER :      HQ      EASTING (- IF W):    436587.19      CO-ORD SYSTEM  :     UTM        PROJECT NUMBER : J-MAIN

                           SEQ. NO OF     LENGTH FROM COLLAR      AZIMUTH     VERT. ANGLE
                          SURVEY DATA      TO SURVEY POINT        ( DEG )      ( DEG )

                                1               30.48               6.00        -56.00
                                2               60.96               9.00        -56.00
                                3               91.44              12.00        -54.00
                                4              121.92              13.00        -53.00
                                5              152.40              16.00        -52.00

R HED                     ORIGINALLY LOGGED BY J.D. ROWE, JULY, 1978.

  F    - I N T E R V A L -     CORE  T- %       TYPI- QAL  TEX-  GRAIN        PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =    .  DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                        H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MI=METRIC FT=FOOTRIC)  ERY    O I       TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  I N T (  . )  D X TYPE  1  2 QM1  1  2 F F C A          1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- -- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                          ROCK    FM     RT    TM QM2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                          QUAL   AGE EN- O LC- 3      3  4 O    /           2    AZM  RT H  H  H  H  H  H  H  H  H  H   1  1
Y  G                          DESIG      VIR   COL             R    C             STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2  2

R SVY     0.00     0.00       SPERRY SUN TEST RESULTS.

/ OVB     0.00    24.38   24.38             OVER                             P
L

/        24.38    69.76   45.38             ARGL      SI+ LM    0 1 + 1      P  1 LM       65 <-            C.    L+ <. <.
L                                                3A CR                          CV        30          <*                <.
R        24.38    69.76       SIDERITE, QUARTE-SIDERITE VEINS RANGE UP TO 1CM.  THEY CONTAIN
R        24.38    69.76       TRACES OF THE ABOVE MINERALS.  THESE VEINS OCCUR BETWEEN 27.00
R        24.33    69.76       TO 32.00 METERS, 39.00 TO 41.00 METERS AND 68.00 TO 69.00
R        24.38    69.76       PYRITE LAMINATIONS AVERAGE A WIDTH OF 1 TO 2MM. CARBONEOUS
R        24.38    69.76       LOCALLY.

/ SHR    33.53    69.75   36.23         X ARGL GR CR SI+ LM     0 1 + 1      R  1 LM       65 <-            C.    L+ <. <.
L
R        33.53    69.76       THE WHOLE INTERVAL APPEARS TO BE SHEARED AND FRACTURED.  THE
R        33.53    69.76       ZONE BETWEEN 40.15 AND 59.59 METERS IS BROKEN UP THE MOST.  IN
R        33.53    69.76       PLACES THE CORE IS BROKEN UP TO A RUBBLE, PEBBLE SIZE FRAGMENTS.
R        33.53    69.76       AXIAL PLANE CLEVAGE IS WILL DEFINED THROUGHOUT THE INTERVAL.

/        69.76    78.14    8.38             ARSI      SI= LM    0 2 = J      P  2 BD       60 <.            C.    L)    <.
L                                                3A   SN)   SS                                        <*                <.
R        69.75    78.14       THE SOFT SEDIMENT DEFORMATION FEATURE OCCURS WEAR THE BASE OF
R        69.76    78.14       THE INTERVAL.  THE BEDDING ANGLE VARIES FROM 50' TO 70'.
R        69.76    78.14       POSSIBLE DUE TO MINOR SLUMPING.
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G E O L O G                                         JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                 PAGE - 2
                                                  DRILLHOLE/TRAVERSE --- 78-DH034 --- (CONTINUED)

K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM QM1 TX TX F C % M ARG    RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                              R Q D  AGE EV RJ LC TM QM2 TX TX S C O O CHT        2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/ FLT   72.70   72.95   0.25           X ARSI CR GR GG9                      R                                D)
L

/ FSX   78.14   78.78   0.64             BRHM       *S2 SS             MO6   P                  <.          L-          L*
L                                                           4   2                                      L-                 L*
R       78.14   78.78      THIS INTERVAL IS AN ARST WHICH AS BEEN BRECCIATED DUE TO SOFT
R       78.14   78.78      DETERMINATION SULPHIDES ARE CONCENTRATED NEAR THE BASE.  IT IS
R       78.14   78.78      LAMINATED AND SOMEWHAT CONFORMABLE WITH THE ORIGINAL BEDDING.
R       78.14   78.78      THESE SULPHIDES OCCUR IN LENTICULAR FRAGMENTS DUE TO
R       78.14   78.78      SYN-TECTONIC DEFORMATION.

/       78.78   80.30   1.52             SAND       SN7 MS   0 3 4 L         P                  V+          C-    D)    B+
L                                     8A    SI1    BS                                          V+                 L)
R       78.78   80.30      THE UNIT APPEARS TO GET COARSE GRAINED TOWARDS THE TOP GALENA IS
R       78.78   80.30      COARSE GRAINED IN VUGS.

K UM1   79.20   79.20   0.00

/       80.30   81.90   1.60             BRHM       SM2 SS LM          NS7   P  1 LM        75              C.    D)    L)
L                                     4A CR *S=    LC 4   = 0                                      L-                 L+
R       80.30   81.90      THE BEDDING IS DEFINED AT THE TOP BUT IT BECOMES PROGRESSIVELY
R       80.30   81.90      MORE DISTRUBED TOWARDS THE BASE.  THE UNIT IS A ARSI THAT HAS
R       80.30   81.90      BEEN BRECCIATED DUE TO SLUMPING.  BARITE APPEARS TO COAT THE
R       80.30   81.90      SPHALERITE.

/       81.90   84.53   2.63             SAND SF    SN7 SS MX 0 3 5 0        P                  >1          C.    D)    D+
L                                     8A    SI1                                                <)                 D*
R       81.90   84.53      TIS SANDSTONE IS LOCAALY BRECCIATED.  QUARTZS VEINS RANGE UP TO
R       81.90   84.53      10CMS.  SANDSTONE CONTAINS DISSEMATED GRAINS OF GALENA, PYRITE
R       81.90   84.53      AND MINOR SPHALERITE.  GALENA RANGES FROM A FINE DISSEMINATION
R       81.90   84.53      TO COARSE GRAINED CRYSTALS.  THRE IS ALSO A MINOR SHEAR IN THIS
R       81.90   84.53      UNIT.

/ FLT   84.43   84.53   0.10           X SAND GR CR GG6                      R                  <-                D)    D.
L                                                                                                                 D.

K LM1   84.53   84.53   0.00

/       84.53   87.17   2.64             BRHM SF    SM3 SS SC          MR5   P    BD        75              C.          D.
L                                     5A CR *S= LC    4   = 0 LM+                                                 D.
R       84.53   87.17      THIS UNIT IS MAINLY A ARSN BUT IS LOCALLY BRECCIATED DUE TO SOFT
R       84.53   87.17      SEDIMENT DEFORMATION.  TH BOTTOM 2 METERS IS LESS DISTURBED THAN
R       84.53   87.17      THE UPPER PART.  THERE IS ONE CPCG FRAGMENT AT 85.45 METERS.

/       87.17   89.60   2.43             ARSI       SI1 SS SC 0 1 1 E        P  1 LM        70              D.    D*    D.
L                                     4A         LM                                            L-
                                                                          
/ SHR   88.85   89.60   0.75           X ARSI GR    SI1 SS SC 0 1 1 E        R  1 LM        70              D.    D*    D.
L                                     4A CR      LM                                            L-
R       88.85   89.60      THIS INTERVAL IS MODERATELY SHEARED AND THE CORE IS RUBBY.
```

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K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                       R Q D  AGE EV RQ LC IM QM2 TX TX S C U O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA


/       89.60  100.10  10.50             BRHT       SN2 SS SC          LR6   P                 <-          C.    D)
L                                      4A   *S= R* B* 1   = 0 KN1                               D)
R       89.60  100.10       SIDERITE OCCURS AS MICRO VEINLETS AND ALSO INTERSTIALLY.  IT
R       89.60  100.10       OCCURS IN THE MATRIX WITH ARGL.  THE SLUMP FEATURES ARE MAINLY
R       89.60  100.10       SEEN IN THE ARGL FRAGMENTS.

/       91.57   91.95   0.38           X BRPM       SN1 F* R*          041   R    LN 2                           D*
L                                           SI=                        4          JN 5                  D)
R       91.57   91.95       MOST CLAST ARE ANGULAR TO SUBANGULAR.

/       95.15   95.50   0.35           X BRPM       SN1                041   R    LN 3         <-                D*
L                                           SI=                        4          KO 4                  D*

/      100.10  101.80   1.70             CGSN    SF SN3 F* B* 3 8 5 0 LO1   P              U    <1                D*
L                                      8A   *S= IM G; 3   = 0 JN5                               D*
R      100.10  101.80       THERE APPEARS TO BE SEVERAL DEPOSITIONAL SEQUENCES ALTERNATING
R      100.10  101.80       FROM A PEBBLE RICH LAYER TO A SAND RICH LAYER.  THE UNITS GRADE
R      100.10  101.80       INTO EACH OTHER.  THERE ARE SEVERAL MINOR SHEAR ZONES WITH
R      100.10  101.80       PYRITE AND GRAPHITE.  LOCALLY VUGGY.

/      101.80  105.79   3.99             BRHT       SN3 F* B*          LS5   P                 >1                R)
L                                      6A   *S=         2 + =   JN1                             D)

/ SHR  101.80  105.79   3.99           X BRHT       SN3 F* B*          LS5   R                 >1                R)
L                                      6A   *S=         2 + =   JN1                             D)
R      101.80  105.79       THE OTHER FRAGMENTS ARE MAINLY SANDSTONE WHICH RANGE UP TO 5%.
R      101.80  105.79       A 2CM QUARTZ VEIN OCCURS AT 105.10M.  IT IS VUGGY AND CONTAINS
R      101.80  105.79       SIDERITE.  SIDERITE ALSO CONCENTRATES IN THE SAND RICH LAYERS.
R      101.80  105.79       THE SHEARS OCCUR THROUGHOUT THE INTERVAL.  SOME MORE GRAPHITIC
R      101.80  105.79       THAT OTHERS.

/      105.79  111.85   6.06             CGBR       SN3 F* B* 0 8 6 R KR3   P                 V)                R)
L                                      6A SF *S=        3   = 0 KO4                             D)
R      105.79  111.85       THE INTERVAL CONTAINS BOTH ROUNDED AND ANGULAR FRAGMENTS.  THERE
R      105.79  111.85       ARE SEVERAL MINOR SHEARS THROUGHOUT THE UNIT.  ARGL FRAGEMENTS
R      105.79  111.85       ARE LEACHED AND VUGGY.

/      111.65  114.55   2.70             BRPM       SN1 SS F*          LO2   P                                   D)
L                                      4A   SI= B* H* 4 + +   KO5                               D*
R      111.65  114.55       INTV INCLUDES 2.5% SNDST FRAGS.

/      114.55  116.96   2.41             CGBR    SF SN1 F* B* 0 3 1 0 MS3   P                 >+                D)
L                                      8A   SI= H*    4   = 0 KO7                               D)
R      114.55  116.96       UNIT CONTAINS BOTH ROUNDED AND ANGULAR FRAGMENTS.  IT IS LOCALLY
R      114.55  116.96       VUGGY DUE TO LEACHING.  SANDSTONE CLAST RANGE UP TO 7CMS AND
R      114.55  116.96       THERE IS APROX. 5% OF THESE CLASTS.

/      114.90  115.25   0.35           7 VEIN SF    SN=                MN+   R                 >7                D)
L                                      AW                              KO2

/ FRG  116.33  116.96   0.63           X ARSI       SI= SS SC                R  1 LM      80                     D)
L                                      3A GR SN+
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K  F   F R O M - T O -  I N T RECOV  MD % ROCK TN TM ON1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                            R Q D  AGE EV RW LC TM NM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R        116.33  116.96       THIS LARGE ARSI FRAGMENT IS LIGHLY SHEARED AND FRAGMENTED.

/        116.96  120.54   3.58              SAND    SF SN7 MX    0 4 5 I        P                <*                  D+
L                                              9A      SI2         7                                           D-

/        117.65  118.05   0.40          X BRPM         SN1 F* H*           LO3  R                                     D)
L                                              6A      *C1          3       KO5

/        120.54  142.70  22.16              BRHT       SN1 F* H*           KO4  P                >1                  D)
L                                              6A      *S= SS       4       KO4                               D-
R        120.54  142.70       THIS PGI IS LIGHLY SHEARED AND FAULTED WITH NUMEROUS QUARTZS
R        120.54  142.70       VEINS.  IT CONTAIN POSSIBLE FRAGMENTS OF SAND AND ARSN.  DUE TO
R        120.54  142.70       THE HIGHLY DISRUPTED NATURE OF THE UNIT, IT IS VERY DIFFICULT TO
R        120.54  142.70       TELL IF THEY ARE DEPOSITIONAL OR NOT.

/        122.60  126.30   3.70          7 VEIN SF      *C1 F* H*           LO1  R                >7                  D)
L                                              AW                           KO1                     B+         D*
R        122.60  126.30       THIS LARGE QUARTZ VEIN HAS APPROX. 30% BRHT INCORPORATED INTO
R        122.60  126.30       IT.  SERICITE OCCURS AS BLEBS OR PATCHES WITHIN THE VEIN.

/ FAL    133.25  136.55   3.30          X BRHT         GG5 F* H*           KO4  R                >1                  D)
L

/ FRG    136.55  139.20   2.65          X ARSN         SN3 SS SC           O33  R                >+                  B)
L                                              5A      SI=                                                 D)
R        136.55  139.20       SIDERITE OCCURS INTERSTITIALLY WITHIN THE SAND RICH LAYERS.
R        136.55  139.20       BEDDING ANGLE CHANGES DRAMATICALLY.

/        142.70  146.70   4.00              ARSI       SI1 SS SC                P  2 BD     45 V)                 D)
L                                              3A      SN=                                                 D*
R        142.70  146.70       THE BEDDING IS LOCALLY DISRUPTED DUE TO SLUMPING.  THE BEDDING
R        142.70  146.70       ANGLE VARIES FROM 40' TO 50'.  THERE IS A 30CM THICK SAND UNIT
R        142.70  146.70       STARTING AT 145.70M.  IT SHOWS NORMAL GRADING AND IS POSSIBLY A
R        142.70  146.70       FRAGMENT.

/        146.70  152.30   5.60              BRHT       SN1 SS F*           LR4  P                >+                  D)
L                                              5A      *C1 H*       3       KO3                               D*

/        152.30  154.22   1.92              ARSI       SI1 SS                   P  2 LM     75 <-                  D)
L                                              3A                                    CV     50          <.
R        152.30  154.22       THE FIRST METER IS FOLDED AND HAS A STRONG AXIAL PLANE CLEAVAGE.
R        152.30  154.22       THE UNIT IS MODERATELY BROKEN UP AS A RESULT.  THERE ARE SEVERAL
R        152.30  154.22       MINOR SHEAR ZONES.
```

PAN OCEAN OIL LTD.

DRILLHOLE/TRAVERSE --- 78-DH034 --- (CONTINUED)

A UMM				SAMPLE	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A LAB				SERIAL	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	
A TYP				NUMBER	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	
A MTH					WA	WA	WA	WA	WA	WA	WA	WA	

R ASY 0.00 0.00 B.CLG = BONDAR CLEGG, VANCOUVER; H-CORE = HALF CORE.

R ASY 0.00 0.00 WA = WET ANALYSIS.

R ASY 0.00 0.00 NO ASSAY INFORMATION ENTERED AS -0.1

A 001	77.20	78.20	92	12379	0.22	0.04	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.34
A 001	78.20	79.20	100	12380	0.34	0.56	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.30
A 001	79.20	80.20	97	12381	2.50	1.65	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	3.55
A 001	80.20	81.20	72	12382	0.26	0.15	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.19
A 001	81.20	82.20	100	12383	0.16	4.28	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	3.84
A 001	82.20	83.20	86	12384	2.25	0.53	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	2.18
A 001	83.20	84.20	96	12385	2.20	0.15	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	1.75
A CMP	79.20	84.20	447		1.47	1.35	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	2.22

A MIN			0.16	0.04	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.40
A MAX	77.20	84.20	2.50	4.28	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	6.18

G E O L O G E D I T L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :78-DH035
TOTAL DEPTH/LENGTH : 133.20
CORE/HOLE DIAMETER : HQ

COLLAR ELEVATION: 1171.55
NORTHING(- IF S): 7002646.00
EASTING (- IF W): 437132.37

AZIMUTH(DEG) : 272.00
VERTICAL ANGLE : -51.00
CO-ORD SYSTEM : UTM

GEOLOGGED BY : +
DATE (YY/MM/DD): 0
PROJECT NUMBER : J-MAIN

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	30.48	288.00	-52.00
2	60.96	290.00	-50.00
3	91.44	288.00	-48.00
4	121.92	285.50	-47.00

```
  F   - I N T E R V A L -    CORE  T- %      TYPI- QAL  TEX-  GRAIN       PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K L (UNITS =    .  DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                        H  H  H  H  H ANY H  H  H ANY  ALT ORE
F A  (MT=METRIC FT=FOOTRIC)  ERY    O I       TM TM MAI TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y G F R O M - T O - I N T (  . )    D X TYPE  1  2 QM1  1  2 F F C A           1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K F                          ROCK  FM    RT    TM QM2 TX TX S C U O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
F L                          QUAL  AGE EN- Q LC- 3     3  4 O      /         2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y G                          DESIG     VIR   COL          R      C            STRUCTUR-2  A  A  A  A  A  A  A  A  A  A    2   2
```

R SVY 0.00 0.00 SPERRY SUN SURVEY TESTS.

R ASY 0.00 0.00 NO ASSAYS THIS HOLE.

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :78-DH036	COLLAR ELEVATION: 1157.45	AZIMUTH(DEG) : 269.00	GEOLOGGED BY : *
TOTAL DEPTH/LENGTH : 230.13	NORTHING(- IF S): 7002644.00	VERTICAL ANGLE : -51.00	DATE (YY/MM/DD): 0
CORE/HOLE DIAMETER : HQ	EASTING (- IF W): 437263.06	CO-ORD SYSTEM : UTM	PROJECT NUMBER : J-MAIN

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	30.48	284.00	-46.50
2	60.96	286.00	-42.00
3	91.44	284.00	-39.00
4	121.92	287.00	-36.50
5	152.40	286.00	-35.00
6	182.88	285.50	-32.50
7	213.36	282.00	-32.00
8	230.13	281.00	-31.50

```
  F   - I N T E R V A L -   CORE  T- %       TYPI- GAL  TEX-  GRAIN       PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K L (UNITS =   .  DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                        H  H  H  H  H ANY H  H  H ANY  ALT ORE
E A  (MT=METRIC FT=FOOTRIC)  ERY    0 1      TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y G  F R O M - T O -  I N T (  . )  U X TYPE  1  2 OM1  1  2 F F C A          1     AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K F                         ROCK  FN     RT    TM GM2 TX TX S C G O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E L                         QUAL  AGE EQ- U LC- 3      3  4 O     /          2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y G                         DESIG    VTR   COL            R      C             STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2   2
```

R SVY   0.00   0.00   SPERRY SUN TEST RESULTS

R ASY   0.00   0.00   NO ASSAY RESULTS FOR THIS HOLE.

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :78-DH037 COLLAR ELEVATION: 1158.98 AZIMUTH(DEG) : 90.00 GEOLOGGED BY : +
TOTAL DEPTH/LENGTH : 54.86 NORTHING(- IF S): 7002644.00 VERTICAL ANGLE : -50.00 DATE (YY/MM/DD): 0
CORE/HOLE DIAMETER : HQ EASTING (- IF W): 437249.31 CO-ORD SYSTEM : UTM PROJECT NUMBER : J-MAIN

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	30.48	89.00	-48.00
2	54.86	84.00	-46.00

```
   F    - I N T E R V A L -    CORE  I- %      TYPI- QAL  TEX-  GRAIN         PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =    .  DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                         H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MT=METRIC FT=FOOTRIC)  ERY     G I       TO  IN MAT TX  TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  I N T ( . )    D X TYPE  1   2 QM1  1   2 F F C A           1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                          ROCK    FM     RT    TM QM2 TX TX S C O O CHT        T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                          QUAL    AGE FM- 0 LC- 3      3  4 0     /            2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y  G                          DESIG      VIR   COL              R     C              STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2   2

R SVY     0.00     0.00      SPERRY SUN TEST RESULTS.

R ASY     0.00     0.00      NO ASSAY RESULTS FROM THIS HOLE.
```

I G C

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6B02

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DRILLHOLE/TRAVERSE :78-DH036      COLLAR ELEVATION:     1155.26    AZIMUTH( DEG ) :   344.00    GEOLOGGED BY :        *
TOTAL DEPTH/LENGTH :    30.40     NORTHING(- IF S):  7002540.00    VERTICAL ANGLE :   -55.00    DATE (YY/MM/DD):       0
CORE/HOLE DIAMETER :     HQ       EASTING (- IF W):   437185.37    CO-ORD SYSTEM  :    UTM      PROJECT NUMBER : J-MAIN

    F   - I N T E R V A L -    CORE  T- %    TYPI- QAL  TEX-  GRAIN      PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K   L (UNITS =   . DEC.PLACE)RECOV-  F M ROCK FYING MIN TURES CHARACS                      H  H  H  H  H ANY H  H  H ANY ALT ORE
F   A  (MT=METRIC FT=FOOTRIC)  ERY    O I      TM TM MAT TX TX F C % M ARG  /RT T ID STK DIP A  A  A  A  A MIN A  A  A MIN - - - -
Y   G  F R O M - T O -  I N T (  . )  O X TYPE  1  2 001  1  2 F F C A         1    AZM  RT QZ FL CY CA BA XX PY CP GL YY A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- -- - - - -
K   F                         ROCK   FM     RT    TM OMP TX TX S C O O CHT
E   L                         QUAL   AGE FO- Q LC- 3      3  4 0    /        T ID STK DIP MG MU CL SD QS HA PR MT SL HA
Y   G                         DESIG      VTR   COL            R     C        2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
                                                                               STRUCTUR-2 A  A  A  A  A  A  A  A  A  A   2   2

R SVY     0.00     0.00       NO DOWN HOLE SURVEY.

R ASY     0.00     0.00       NO ASSAY RESULTS FOR THIS HOLE.
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G E O L O G E D I T L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-76-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

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DRILLHOLE/TRAVERSE :78-04139        COLLAR ELEVATION:     1156.61     AZIMUTH( DEG ) :   164.00     GEOLOGGED BY :      +
TOTAL DEPTH/LENGTH :    68.58       NORTHING(- IF S):  7002563.06     VERTICAL ANGLE :   -45.00     DATE (YY/MM/DD):      0
CORE/HOLE DIAMETER :    00          EASTING (- IF W):   437179.81     CO-ORD SYSTEM  :    UTM       PROJECT NUMBER : J-MAIN
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SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	30.48	159.00	-42.00
2	45.72	156.00	-42.00
3	68.58	156.00	-41.00

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  F    - I N T E R V A L -     CORE  I- %        TYPI- QAL  TEX-  GRAIN        PGI  STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K L (UNITS =    .  DEC.PLACE)RECOV-  M M ROCK FYTNG MIN TURES CHARACS                         H  H  H  H  H ANY H  H  H ANY  ALT ORE
E A  (MT=METRIC FT=FOOTRIC)   ERY    O I        T4 TM MAT TX TX F C % M ARG   /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN  - - - -
Y G  F R O M - T O -  I N T (  . )   D X TYPE  1  2 QM1  1  2 F F C A               1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K F                          ROCK   FM     RT    TM QM2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E L                          QUAL   AGE EN- Q IC- 3      3  4 O      /          2    AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
Y G                          DESIG      VIR   COL            R      C            STRUCTUR-2  A  A  A  A  A  A  A  A  A  A    2   2
```

R SVY 0.00 0.00 SPERRY SUN TEST RESULTS.

				SAMPLE	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A UMM				SAMPLE	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A LAB				SERIAL	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	
A TYP				NUMBER	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	
A MTH					WA	WA	WA	WA	WA	WA	WA	WA	
R ASY	0.00	0.00	B.CLG = BONDAR CLEGG, VANCOUVER; H-CORE = HALF CORE.										
R ASY	0.00	0.00	WA = WET ANALYSIS.										
R ASY	0.00	0.00	NO ASSAY INFORMATION ENTERED AS -0.1										
A 001	29.50	30.50	53	12483	0.02	0.23	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.35
A 001	30.50	31.85	117	12484	0.02	0.10	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.48
A 001	31.85	32.98	92	12485	0.04	9.51	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.05
A 001	32.98	33.95	69	12486	0.03	4.30	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	3.73
A 001	33.95	34.59	49	12487	0.13	4.15	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	3.68
A 001	34.59	35.66	94	12488	0.05	5.70	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	5.15
A 001	35.66	36.74	89	12489	0.04	4.70	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	4.14
A 001	36.74	37.45	54	12490	0.12	8.28	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	7.80
A 001	37.45	39.05	80	12491	0.11	4.20	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	3.71
A 001	39.05	40.00	52	12492	0.38	4.51	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	4.29
A 001	40.00	41.22	84	12493	0.36	4.95	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	4.71
A 001	41.22	42.78	141	12494	0.12	0.50	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.02
A 001	42.78	44.10	102	12495	0.45	3.68	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	3.53
A 001	44.10	44.30	14	12496	0.15	1.54	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	1.09
A 001	44.30	45.52	97	12497	0.17	3.17	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	2.74
A 001	45.52	46.33	59	12498	0.06	0.83	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.29
A 001	46.33	47.75	121	12499	0.14	1.52	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	1.06
A CMP	32.98	45.52	934		0.18	4.05	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	3.63

A MIN			0.02	0.10	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.48
A MAX	29.50	47.75	0.45	8.28	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	8.13

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :	78-DH040	COLLAR ELEVATION:	1155.87	AZIMUTH(DEG) :	56.00	GEOLOGGED BY :	+
TOTAL DEPTH/LENGTH :	97.50	NORTHING(- IF S):	7002489.00	VERTICAL ANGLE :	-55.00	DATE (YY/MM/DD):	0
CORE/HOLE DIAMETER :	HQ	EASTING (- IF W):	437168.31	CO-ORD SYSTEM :	UTM	PROJECT NUMBER :	J-MAIN

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	30.48	55.00	-54.00
2	60.96	54.00	-51.00
3	96.01	51.00	-48.00

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   F    - I N T E R V A L -    CORE  I- %       TYPI- QAL  TEX-  GRAIN          PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS ⊡    .  DEC.PLACE)RECOV-  N M ROCK FYING MIN TURES CHARACS                          H   H   H   H   H ANY H   H   H ANY  ALT ORE
E  A  (MT=METRIC FT=FOOTRIC)  ERY     O I       TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A   A   A   A   A MIN A   A   A MIN - - - -
Y  G  F R O M - T O -  I N T (  .  )  D X TYPE  1  2 OM1  1  2 F F C A           1     AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                         ROCK   FO     RT    TM OM2 TX TX S C O O CHT       T ID STK DIP MG MU CL SO QS HA PR MT SL HA
E  L                         QUAL   AGE EN- O LC- 3      3  4 O     /           2     AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
Y  G                         DESIG      VTR   COL             R     C             STRUCTUR-2  A  A  A  A  A  A  A  A  A  A     2   2
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R SVY 0.00 0.00 SPERRY SUN TESTS.

A UMM A LAB A TYP A MTH				SAMPLE SERIAL NUMBER	% PB B.CLG H-CORE WA	% ZN B.CLG H-CORE WA	% BA B.CLG H-CORE WA	OZ AG B.CLG H-CORE WA	% CU B.CLG H-CORE WA	% FE B.CLG H-CORE WA	OZ AU B.CLG H-CORE WA	% CD B.CLG H-CORE WA	HASH
R ASY	0.00	0.00		B.CLG = BONDAR CLEGG, VANCOUVER; H-CORE = HALF CORE.									
R ASY	0.00	0.00		WA = WET ANALYSIS.									
R ASY	0.00	0.00		NO ASSAY INFORMATION ENTERED AS -0.1									
A 001	81.20	82.65	79	12520	0.04	1.16	0.56	-0.1	-0.1	-0.1	-0.1	-0.1	1.28
A 001	82.65	83.00	21	12521	0.23	1.28	0.67	-0.1	-0.1	-0.1	-0.1	-0.1	1.68
A 001	83.00	84.84	136	12522	0.12	-0.1	0.47	-0.1	-0.1	-0.1	-0.1	-0.1	-0.01
A 001	84.84	84.98	11	12523	0.07	0.40	0.47	-0.1	-0.1	-0.1	-0.1	-0.1	0.44
A 001	84.98	86.10	78	12524	0.12	1.19	0.61	-0.1	-0.1	-0.1	-0.1	-0.1	1.42
A 001	86.10	87.17	73	12525	0.16	1.80	0.64	-0.1	-0.1	-0.1	-0.1	-0.1	2.10
A 001	87.17	89.61	51	12526	0.05	1.52	0.74	-0.1	-0.1	-0.1	-0.1	-0.1	1.81
A 001	89.61	90.53	6	12527	0.07	1.56	0.49	0.09	-0.1	-0.1	-0.1	-0.1	1.81
A 001	90.53	90.70	14	12529	0.03	3.52	0.03	0.44	-0.1	-0.1	-0.1	-0.1	3.62
R ASY	89.61	90.53		ASSAYS 12527 AND 12526 AVERAGED.									
A 001	90.70	91.70	78	12530	0.03	0.55	0.53	-0.1	-0.1	-0.1	-0.1	-0.1	0.61
A 001	91.70	93.00	105	12531	0.01	0.48	1.05	-0.1	-0.1	-0.1	-0.1	-0.1	1.04
A 001	93.00	94.00	83	12532	0.02	0.61	1.01	-0.1	-0.1	-0.1	-0.1	-0.1	1.34
A 001	94.00	95.00	81	12533	0.02	0.23	1.01	-0.1	-0.1	-0.1	-0.1	-0.1	0.76

A MIN			0.01	-0.1	0.03	-0.1	-0.1	-0.1	-0.1	-0.1	-0.56
A MAX	81.20	95.00	0.23	3.52	1.05	0.44	-0.1	-0.1	-0.1	-0.1	4.84

GEOLOG EDIT LISTING

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT YUKON

FORMAT VERSION : 6B02

DRILLHOLE/TRAVERSE :78-DH041 COLLAR ELEVATION: 1209.67 AZIMUTH(DEG) : 45.00 GEOLOGGED BY : HJV +
TOTAL DEPTH/LENGTH : 144.78 NORTHING(- IF S): 7002206.00 VERTICAL ANGLE : -55.00 DATE (YY/MM/DD): 810702
CORE/HOLE DIAMETER : 60 EASTING (- IF W): 436465.25 CO-ORD SYSTEM : UTM PROJECT NUMBER : J-S

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	36.58	49.00	-56.00
2	60.96	47.00	-57.00
3	91.44	46.00	-55.50
4	143.26	46.00	-53.00

R HED ORIGINALLY LOGGED BY J.D. ROWE, SEPT. 1978.

R HED TARGET: SOUTH ZONE, BENCH LEVEL 1100M TO 1080M AT 436520E

R HED 7002260N. TO DETERMINE THE EASTERN EXTENSION OF DDH 78-30

R HED MINERALIZED INTERSECTION.

R HED RESULTS: ORE GRADE MINERALIZATION WAS INTERSECTED FROM

R HED 7002259.75N 436523E BENCH LEVEL 1100M TO 7002261.5N 436524.75E

R HED BENCH LEVEL 1096M. MINERALIZATION WAS INTERSECTED FROM 133.70M

R HED TO 136.60M WITH A TRUE WIDTH OF 1.9M. WEIGHTED AVERAGES: 11.72%

R HED PB, 28.96% ZN, 3.77 OZ/TON AG. CORE RECOVERY WAS GOOD (90.37%)

R HED MINERALIZATION: MINERALIZATION APPEARS BANDED AND CONSISTS OF

R HED ZONES RICH IN SPHALERITE AND ZONES RICH IN GALENA. EXTENSIVE

R HED HANDLING OF THE CORE HAS RESULTED IN SHUFFLING OF THE PIECES,

R HED NOT ALLOWING DETERMINATION OF THE LOCATION OF THE ZONES WITH

R HED RESPECT TO ANOTHER. J.D. ROWE LOGGED A LAMINATED GALENA RICH

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R HED    ZONE FROM 133.70M TO 135.10M FOLLOWED BY A SPHALERITE RICH ZONE
R HED    FROM 135.10M TO 135.60M.  THE SULPHIDES ARE INTERBEDDED WITH
R HED    SILICIFIED ARGILLITE AND AN OXIDIZED POWDERY MATERIAL THAT
R HED    RESPONDS LIGHTLY TO ZINC ZAP.  A BRECCIATED SULFIDE ZONE OCCURS
R HED    FROM 135.60M TO 136.60M CONTAINING BLEACHED CHERT FRAGS.  THE
R HED    HIGHEST ASSAYS:  23.35% PB, 37.09% ZN OCCURRED IN THE GALENA
R HED    RICH ZONE FROM 134.40M TO 135.10M.  PY OCCURS THROUGHOUT AS
R HED    LAMS IN THE LAMINATED ZONE AND AS DISSEMINATIONS AND BLEBS
R HED    ELSEWHERE.  QTZ OCCURS AS MICROVEINS AND BLEBS.  THE CORE IS
R HED    POROUS DUE TO LEACHING.  THE ORE ZONE IS TRUNCATED BY AN
R HED    EROSIONAL EVENT WHICH DEPOSITED THE HETEROLITHIC BRECCIA (BRHT)
R HED    STRATIGRAPHICALLY ABOVE IT.  THIS EVENT WAS PROBABLY
R HED    RESPONSIBLE FOR THE BRECCIATION IN THE UPPER PART OF THE ZONE
R HED    AND POSSIBLY FOR THE TOTAL EROSION OF THE 2 OTHER SULFIDE UNITS
R HED    USUALLY FOUND IN THE SOUTH ZONE.  THE CORE IS FRIABLE MAINLY
R HED    DUE TO THE HIGH POROSITY CAUSED BY LEACHING.
R HED    CANOL FORMATION:  THE BEDS DIP VERTICALLY (70 TO 90 DEGREES)
R HED    WITH TOPS DOWNHOLE IE TO THE NORTHEAST.  22.86M OF OVERBURDEN
R HED    PRECEEDS A SANDSTONE WITH INTERBEDDED SILTY ARGILLITES THAT
R HED    CONTINUES TO 28.00M.  THIS IS FOLLOWED BY AN ARGILLITE AND AN
R HED    ARSI DOWN TO 56.39M.  A FEW MINOR FAULTS AND SHEARS CUT THROUGH
R HED    THE ABOVE UNITS.  A STRONGLY CARBONACEOUS SILT SHEARED LOCALLY
R HED    BEETWEEN 69.60M TO 75.80M OCCURS FROM 56.39M TO 83.00M.  THIS
R HED    SHEAR CAN BE CORRELATED TO A SURFACE FAULT STRIKING 130 DEGREES
R HED    AND DIPPING VERTICALLY.  WHEN SHEARED, THIS UNIT TURNS TO A
R HED    FINE GRAINED MATERIAL SIMILAR TO UNLITHIFIED SILT.  MAJOR
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R HED          PRIMARY TEXTURES ARE OFTEN PRESERVED EVEN THOUGH SHEARING HAS
R HED          REDUCED THE ROCK TO POWDER.  STRATIGRAPHICALLY UPSECTION, A
R HED          SILICIFIED ARGILLITE WITH UNSILICIFIED CARBONACEOUS STYLOLITES
R HED          CONTINUES DOWN TO 118.87M.  IT IS NOTEWORTHY THAT SIDERITE AS
R HED          MICROVEINS AND DISSEMINATIONS INCREASES DRAMATICALLY IN
R HED          COINCIDENCE WITH SILICIFICATION.  AN INTERESTING ALTERATION
R HED          ZONE OCCURS FROM 118.87M TO 123.30M.  IT CONSISTS OF
R HED          LAMINATED CHERT (SIF ARGL?)  INTERBEDDED WITH HEAVILY
R HED          SIDERITIZED LIGHTLY CARBONACEOUS ARGILLITE OVERLAIN BY THE SAME
R HED          ARGILLITE CONTAINING BRECCIATED FRAGMENTS OF SILICIFIED
R HED          ARGILLITE.  THE MAJORITY OF THESE CLASTS ARE CONCENTRATED FROM
R HED          121.25M TO 122.05M AND HAVE BEEN REBRECCIATED BY SIDERITE,
R HED          PYRITE AND GALENA (2 %).  THE CARBONACEOUS ARGILLITE MATRIX
R HED          MATERIAL APPEARS TO BE RESISTANT TO SILICIFICATION.  THIS MAY
R HED          COMPRISE A FEEDER PIPE.  DOWNHOLE, FROM 123.30M TO 133.70M.
R HED          THERE IS A SILICIFIED LAMINATED ARGILLITE AND A BRHM FOLLOWED
R HED          BY THE ORE ZONE DESCRIBED ABOVE.  THE ORE ZONE APPEARS TO HAVE
R HED          BEEN ERODED BY A GRAVITY FLOW THAT DEPOSITED THE BRHT
R HED          UPSECTION.
R HED          CONCLUSION:  THE HOLE WAS SUCCESSFUL BECAUSE IT EXTENDED THE
R HED          ORE BODY TO DEPTH BY 25M AND TO THE SOUTHEAST BY 65M AND
R HED          CONFIRMED THE FINDINGS OF DDH 78-30.

   F   - I N T E R V A L -    CORE  I- %       TYPI- GAL  TEX-  GRAIN         PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =   .  DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                            H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MI=METRIC FT=FOOTRIC)  ERY    O I      TO TO MAT TX TX F C % M ARG   /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - I O -  T O T (  . )  D X TYPE  1  2 OM1  1  2 F F C A         1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                         ROCK   FM    RT    TM OM2 TX TX S C U O CHT       T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                         QUAL   AGE FM- 4 LC- 3      3  4 O     /          2    AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
Y  G                         DESIG      VTR   COL            R      C            STRUCTUR-2 A  A  A  A  A  A  A  A  A  A     2   2

R SVY    0.00    0.00      ALL SPERRY-SUN SURVEY DATA.

/        0.00   22.86  22.86          OVER                    P
L

/       22.86   28.00   5.14          SAND      3I/ MX IB A H 5 J         P  4 BD       70 <*                        D)
L                                         6A              8                                                          8*
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PAN OCEAN OIL LTD.

G E O L O G — JASON PB-ZN-AG-BA STF DEPOSIT YUKON — PAGE - 4

DRILLHOLE/TRAVERSE --- 78-DH041 --- (CONTINUED)

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K  F  F R O M - T O -  I N T RECOV MD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                        R Q D  AGE EV RU LC TM OM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R       22.86   28.00      SILICEOUS MATRIX.  INTERBEDDED WITH FAINTLY CARBONACEOUS ARGL
R       22.86   28.00      UNITS REPEATED BELOW.  ARST CORE BROKEN UP.

/       23.20   24.08   0.88           X ARST CR   SI)       A D + H       R  1 LM      70
L                                             2P   SN+
R       23.20   24.08      CORE BROKEN UP

/ SHR   25.40   25.41   0.01           X OVER                              R
L

/       26.20   26.35   0.15           X ARST CR   SN= MX LM A G = G       R  1            <*
L                                             2A                                                                <=
R       26.20   26.35      CONVOLUTED MARCASITE VEINLETS 1MM THICK.

/       26.60   26.80   0.20           X ARGL          MX    A A   A       R
L                                             2A                                                                B)

/       27.13   27.43   0.30           X ARST      SI) LM    A G = G       R  2 LM      65
L                                             2A   SN=                                                          <+

/       28.00   45.00  17.00             ARST CR   SI1 BD    A G = H       P  3 BD      65 <.                D(
L                                             2A   SN=                                                          <)
R       28.00   45.00      SAND BEDS CONTAIN FINELY DISS PY.  SOME BEDS CONTAIN CROSS LAM.
R       28.00   45.00      MAJOR BEDS DESCRIBED BELOW.  FROM 28.00M TO 56.39M CORRELATES
R       28.00   45.00      WITH DDH 78-33, 152.53M TO 142.55M % MT < DECREASES DOWNHOLE.

/ SHR   33.20   33.24   0.04           X SHER                              R
L

/       33.20   33.60   0.40           X SAND          MX    A F 5 H       R               <*                D(
L                                             6A
R       33.20   33.60      SILICEOUS MATRIX.

/ FLT   37.30   37.37   0.07           X FAUL      GG9                     R
L

/       41.34   41.52   0.18           X SAND          LM FU A F 3 T       R  0 LM      58
L                                             5A
R       41.34   41.52      SILICEOUS MATRIX.  ARGL LAMS.

/       45.00   56.39  11.39             ARGL      SI) MX LM A D + E       P
L                                             2A   SN)
R HLT   45.00   56.39      LESS SI SN THAN ABOVE PGT.  FROM 45.00M TO 56.39M CORRELATABLE
R       45.00   56.39      WITH DDH 78-33, 143.55M TO 123.75M.

/       48.30   48.55   0.25           X ARGL      MT2       A D 2 D       R               <)
L                                             4A                                                                D2

/ SHR   48.30   48.55   0.25           X SHER                              R
L
R       48.30   48.55      CORE BROKEN UP.  EXACT HABIT OF MT NOT DETERMINED.  BLEBS OR
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K  F   F R O M - T O -  I N T RECOV  RD % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                          R N D  AGE EV RO LC TM QM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R         48.30   48.55      DISS OR VEIN.

/         52.10   52.30   0.20          X ARGL      MT2      A D 2 L       R
L                                            4A                                                     B2
R         52.10   52.30      MT AS GLOBULES AND VEINLETS.
R         56.39   57.60      PROBABLY A FAULT.

/         56.39   83.00  26.61            SILT      CR1 LM   A D 5 G       R  0 LM     40                       D)
L                                            2A     SN)

/ FAL     56.39   57.60   1.21          X LOST                             R
L
R HLT     56.39   83.00      57.60M TO 82.30M CORRELATES TO DDH 78.30, 228.4M TO 237.10M AND
R         56.39   83.00      240.40M TO 252.65M. OCCASIONAL FAINT LAMS.  STRONGLY
R         56.39   83.00      CARBONACEOUS.

/ SHR     56.40   61.90   5.50          X SILT      CR1      A D 5 G       R
L                                            2A     SN)
R         56.40   61.90      HAS A CONSISTENCY SLIGHTLY COARSER THAN GOUGE.  APPEARS
R         56.40   61.90      DELITHIFIED BUT NOT DISRUPTED.

/ FLT     69.60   69.90   0.30          X FAUL      GG4                    R
L

/ SHR     73.10   74.00   0.90          X SHER      GG1                    R            <=
L

/ SHR     74.67   75.09   0.42          X SHER      GG3                    R            <1
L

/ SHR     75.66   75.80   0.14          X SHER      GG6                    R
L

/         75.80   76.54   0.74          X SILT      CR1 LM   A D 5 G       R  0 LM     65 <1                    D)
L

/ SHR     78.84   78.99   0.15          X SHER                             R
L

/         82.30   83.00   0.70          X LOST                             R
L

/         83.00  118.87  35.87            ARGL      GR+ LM ST A A   A      R  0 LM     37 <=                    D* D.
L                                            3A     SI/    VG                                <)                 B.
R         83.00  118.87      GRAPHITE OCCURS AS STYLOLITES PREDOMINANTLY PARALLEL TO BEDDING.
R         83.00  118.87      STRONGLY SILICIFIED THROUGHOUT.  UNIT CORRELATES WITH DDH 78.30
R         83.00  118.87      224.90M TO 203.55M.

/         86.96   87.12   0.16          X ARGL      GR+ MX ST A I 7 K      R  0 LM     37 <= D)                 D* D.
L                                                                                          D7
R         86.96   87.12      VERY HIGH SIDERITE %.
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 K  F   F R O M - T O -  I N T RECOV  RD % ROCK TM TM QM1 TX TX F C % M ARG    RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 Y  G                           R Q D  AGE EV RN LC TM QM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

 /       91.90   92.05   0.15          8 VEIN QZ        MX BR            R                 >9
 L
 R       91.90   92.05       CONTAINS ARGL FRAGS.  VEIN CUTS BEDDING PLANE STYLOLITES.

 / HLT   92.33   92.49   0.16          X ARGL        GR2 BD LM A 2 7 K      R   BD       65 <)                   D1
 L                                          3A        ST                                         D1
 R       92.33   92.49       1.5CM THICK BEDDING PLANE STYLOLITE CONTAINING DISSEMINATED SD
 R       92.33   92.49       1MM XL AND PY.  PY MAY BE ASSOCIATED WITH LATER QZ < AS IT
 R       92.33   92.49       OCCURS IN THE QZ < CORES.

 /       92.76   92.89   0.13          7 VEIN QZ        MX VG            R                 >9
 L
 R       92.76   92.89       CONTAINS ARGL CLASTS AND GRAPHITE CLASTS.

 /       96.40   98.00   1.60          X ARGL        GR+ LM ST A A   A      R  0 LM       90 <=                   D* D.
 L

 /      100.70  101.03   0.33          X ARGL        GR+ LM BR A A   A      R  0 LM       37 <=                   D* D.
 L                                                                                              #1
 R      100.70  101.03       LIGHTLY CRACKLE BRECCIATED BY SIDERITE.

 /      102.20  102.60   0.40          X ARGL SD     GR+ LM ST A A   A      R  0 LM       60 <=                   D2 B.
 L                                          4A                                                   D4

 /      102.74  102.85   0.11          5 VEIN PY QZ     BR               R                 #1                     #3 D.
 L                                          3T
 R      102.74  102.85       PY QZ BRECCIATING ARGL.  PORE SPACE DUE TO LEACHING.

 /      106.05  106.30   0.25          X VEIN QZ        MX               R                 >X
 L
 R      106.05  106.30       ARGL UPHOLE MODERATELY CRACKLE BRECCIATED WITH SIDERITE.  QZ <
 R      106.05  106.30       CUT SIDERITE.  QZ VEIN LATER THAN STYLOLITES.  STYLOLITE FRAGS
 R      106.05  106.30       IN QZ >.

 /      106.30  118.80  12.50          X ARGL        GR+ LM ST A A   A      R  0 LM       55 <=                   D* D.
 L                                                                                              <+
 R      106.30  118.80       SD OCCURRING AS < AND AS MATRIX IN OCCASIONAL CRACKLE BRECCIAS.
 R      113.50  113.50       THIN COATING OF NATIVE COPPER ON FRACTURE SURFACE NOTED BY
 R      113.50  113.50       PREVIOUS LOGGER - J.D. ROWE.

 /      118.80  118.87   0.07          X ARGL        SIF BR    A L 2 M      R
 L                                          5A       SD3                                         D3
 R      118.80  118.87       SD OCCURS AS BRECCIA MATRIX.
 R      118.87  119.20       GRAPHITIC ARGL WITH POORLY BEDDED BLEACHED CHERT THAT IS
 R      118.87  119.20       SOMETIMES BRECCIATED BY PYRITE.  SIDERITE CONTAINS 15%
 R      118.87  119.20       SILICIFIED ARGL FRAGS.  118.87M TO 123.30M CORRELATES TO
 R      118.87  119.20       DDH 78.30, 203.55M TO 199.35M.

 /      118.87  119.78   0.91            CHAR SF     SIF BD FR A A   A      P  4 BD       30                      D+
 L                                          4A       CH/ VG                                      D2
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K  F  F R O M - T O -  I N T RECOV  MD % ROCK  IN IN QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                           R Q D  AGE EV RO LC IN QM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/      118.87  119.20   0.33            X ARGL      GR+ MX BR A A   A      R                                   D=
L                                         3A      CH3    LM                                        D+
R      118.87  119.78       INTERBEDDED CHERT AND LIGHTLY CARBONACEOUS SILICIFIED ARGL
R      118.87  119.78       BRECCIATED BY SIDERITE PYRITE.  CHERT IS OCCASIONALLY POROUS
R      118.87  119.78       DUE TO LEACHING OF SIDERITE.

/      119.78  123.30   3.52              ARGL      GR+ MX BR A N 2 O      P                 <-                D* D. D-
L                                         3A      SI/    SS                                        D1            D.
R      119.78  123.30       LIGHTLY GRAPHITIC ARGL CONTAINING BRECCIATED SILICIFIED ARGL -
R      119.78  123.30       ZONE REPEATED BELOW.  ARGL AND BRECCIA MATRIX ARE SIDERITIZED
R      119.78  123.30       TOUGH NOTABLY UNSILICIFIED UNLIKE THE FRAGMENTS.

/      121.25  122.05   0.80            X BRXX      SO1 BR    A N 5 O      R                                   #1 #* B+
L                                         3A      PY1 SS                                           D1
R      121.25  122.05       SS TEXTURES IN FRAGS INDICATE SLUMPING PRECEEDED SI PY BREC.

/      123.30  126.40   3.10              ARGL      SI/ LM ST A A   A      P  O LM      58 <-                  <+
L                                         4A      PY     BR                                        <)
R HLT  123.30  126.40       UNIT CORRELATES WITH DDH 78-30, 199.35M TO 195.75M. MINOR SD
R      123.30  126.40       BREC.

/      126.40  129.90   3.50              BRHM      SD= BR             NO4   P                                 3+
L                                         3A      *S*           *    KL-                               <=
R      126.40  129.90       ARGL FRAGS IN A SLIGHTLY DARKER, LIGHTLY GRAPHITIC ARGL MATRIX.
R      126.40  129.90       NEITHER ARE SIF.  SD OCCURS PREDOMINANTLY IN UPHOLE HALF OF UNIT
R      126.40  129.90       AS < REBRECCIATING EVERYTHING.  PY OCCURS MAINLY DISS IN FRAGS.
R      126.40  129.90       FRAG % DECREASES CONSIDERABLY IN DOWNHOLE 1/3 OF UNIT.

/      129.90  132.95   3.05              BRHM      *S) BR SS          MO9   P    CL        50                 B-
L                                         3A         CL         )

/      132.32  132.43   0.11            X BRHM      *S) BR SS          MO9   R    CL        50   <=            B-
L                                         3A         CL         )                                  D3 <+

/      132.95  133.70   0.75              BRHM      GR) BR SS          MO8   P                     <-          B*
L                                         2A      SI/                LM+                               D+ <-          B(
R      132.95  133.70       UNIT ARTIFICIALLY TRUNCATED DUE TO ASSAY SAMPLE INTERVAL.  UNIT
R      132.95  133.70       ACTUALLY CONTINUES DOWN TO 133.97.  MATRIX LIGHTLY GRAPHITIC.
R      132.95  133.70       LOCALLY LIGHTLY SILICIFIED - BOTH MATRIX AND FRAGS.

K US1  133.70  133.70   0.00

/      133.70  135.60   1.90              LMSX GL SL      LM PR C F X I     P  1 LM      45 <*                  L1       L1
L                                         4A         VG                                            M1                L3
R      133.70  135.60       BEDDING ANGLE TEEPENS DOWNHOLE.  MINOR LOCAL BRECCIATION ESP
R      133.70  135.60       NEAR LOWER CONTACT.  HIGH POROSITY ABOUT 15%.

/      135.60  136.60   1.00              SXFG      SIF BR LM          MN2   P    LM        70                 D=       L+
L                                         4A                         LM3                               D1                B1
R      135.60  136.60       CORE MISSING 20%.  LIGHTLY SILICIFIED.  ORE BRECCIATED AND
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G E O L O G                                          JASON PB-ZN-AG-BA STF DEPOSIT YUKON                                      PAGE -  8
                                                 DRILLHOLE/TRAVERSE --- 78-DH041 --- (CONTINUED)

K  F  F R O M - T O -  T N T RECOV  OD % ROCK TM TM QM1 TX TX F C % M ARG  RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R Q D  AGE EV RN LC TM QMP TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R      135.60  136.60     PROBABLY ERODED BY GRAVITY FLOW.  GALENA RICH FROM 133.70 TO
R      135.60  136.60     135.10M AND SPHALERITE RICH FROM 135.10 TO 135.60M.

K IS1  136.60  136.60   0.00

/      136.60  139.40   2.80             BRGT       *S) BR            NQ8   P               <-                B+
L                                             3A                + )   LM=                                           B(
R      136.60  139.40     MATRIX SIMILAR DOWN TO T.D.  PROBABLY ONE SLUMP EVENT.

/ FRG  139.40  139.90   0.50             CGSM       SIF BR F* G M 6 L       P               <=
L                                             3A           H*   7                                    D*

/      139.90  141.15   1.25             BRPM       SIF BR            NO1   P                                 B-
L                                             3A                      KN2                            B-
R      139.90  141.15     SAND GRIT MATRIX.

/      141.15  143.74   2.59             BRHM           BR SS         OR9   P                                 D.
L                                             2A                -     IL+
R      141.15  143.74     LIGHTLY CARBONACEOUS MATRIX.

/ FRG  142.70  143.30   0.60           X ARGL           SS    A A   A       R    CL      30
L                                             2A
R      142.70  143.30     CLEAVAGE MAY BE A SLUMP CLEAVAGE.

/      143.74  144.58   0.84             BRPM           BR ST         LN1   P                                 D(
L                                             3A        H*            KN2                            D)
R      143.74  144.58     SIMILAR TO 139.90 TO 141.15M.

/      144.58  144.78   0.20             BRHM           BR SS         PRX   P                                 D(
L                                             2A                                                        <(
R      144.58  144.78     PROBABLY ANOTHER SLUMPED ARSI FRAGMENT SIMILAR TO 142.70 TO
R      144.58  144.78     143.30M.
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A UMM			SAMPLE	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A LAB			SERIAL	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	
A TYP				H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	
A MTH				WA	WA	WA	WA	WA	WA	WA	WA	

R ASY 0.00 0.00 B.CLG = BONDAR CLEGG, VANCOUVER; H-CORE = HALF CORE.

R ASY 0.00 0.00 WA = WET ANALYSIS.

R ASY 0.00 0.00 NO ASSAY INFORMATION ENTERED AS -0.1

A 001	133.70	134.40	064	17.80	29.25	-0.1	6.08	-0.1	-0.1	-0.1	-0.1	52.63
A 001	134.40	135.10	060	23.35	37.09	-0.1	5.68	-0.1	-0.1	-0.1	-0.1	65.62
A 001	135.10	136.00	081	4.10	34.26	-0.1	2.26	-0.1	-0.1	-0.1	-0.1	40.12
A 001	136.00	136.60	057	2.48	11.20	-0.1	1.12	-0.1	-0.1	-0.1	-0.1	14.30
A 001	136.60	137.35	072	0.05	1.65	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	1.10
A 001	137.35	138.35	097	0.04	1.90	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	1.34
A MAX	133.70	138.35	431	23.35	37.09	-0.1	6.08	-0.1	-0.1	-0.1	-0.1	66.02

A MIN				0.04	1.65	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	1.09
A CMP	133.70	136.60	262	11.72	28.96	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	40.08

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                                G E O L O G   E D I T   L I S T I N G                    SYSTEMS ENGINEERING BY
                                                                                     INTERNATIONAL GEOSYSTEMS CORP.

                                               PAN OCEAN OIL LTD.
                                        JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

                                               FORMAT VERSION : 6802

 DRILLHOLE/TRAVERSE :78-DH042      COLLAR ELEVATION:     1204.17        AZIMUTH( DEG ) :    45.00       GEOLOGGED BY : GEC + DWB
 TOTAL DEPTH/LENGTH :  143.26      NORTHING(- IF S):  7002168.00        VERTICAL ANGLE :   -55.00       DATE (YY/MM/DD): 811012
 CORE/HOLE DIAMETER :     HQ       EASTING (- IF W):   436511.00        CO-ORD SYSTEM  :    UTM         PROJECT NUMBER : JASON


                            SEQ. NO OF      LENGTH FROM COLLAR      AZIMUTH     VERT. ANGLE
                           SURVEY DATA       TO SURVEY POINT       ( DEG )       ( DEG )

                                 1                 45.72            45.00         -60.00
                                 2                 76.20            44.00         -59.00
                                 3                100.58            47.00         -56.00
                                 4                140.21            44.00         -55.00

 R HED                       CORE ORIGINALLY LOGGED BY J.D. ROWE - SEPTEMBER, 1978.

   F    - I N T E R V A L -     CORE   T- %        TYPI- DAL  TEX-  GRAIN          PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
 K  L (UNITS =    .  DEC.PLACE)RECOV-   M N ROCK FYING MIN TURES CHARACS                           H  H  H  H  H ANY H  H  H ANY  ALT ORE
 E  A  (MT=METRIC FT=FOOTRIC)  ERY     O I      TM TM MAT TX TX F C % M ARG   /RI  T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
 Y  G  F R O M - T O -  I N T (  . )  D X TYPE  1  2 QM1  1  2 F F C A             1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 - --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- ---  - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 K  F                          ROCK   FM     RT     TM QM2 TX TX S C O O CHT       T ID STK DIP MG MU CL SD QS HA PR MT SL HA
 E  L                          QUAL   AGE EN- Q LC- 3       3  4 O    /            2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
 Y  G                          DESIG      VIR   COL              R    C              STRUCTUR-2  A  A  A  A  A  A  A  A  A  A    2   2

 R SVY     0.00     0.00      ALL SURVEY BY SPERRY-SUN.

 /         0.00    24.38  24.38              OVER                               P
 L
 R         0.00    24.38      FROM 22.86 TO 24.38 METERS-LOOSELY CONSOLIDATED GRAVELS AND MUD

 /        24.38    43.59  19.21              ARGL PY         LM BD 0 3 2 3      P  2            40                       <.
 L                                               4A

 /        43.59    53.34   9.75              LOST                               P
 L

 /        53.34    59.54   6.20              ARGL CR         BD    0 1 ) 1      P  2            45
 L                                               2A
 R        53.34    59.54      INTERVAL IS EXTREMELY FRIABLE AND IT IS UNCLEAR WHETHER IT IS
 R        53.34    59.54      GOUGY OR NOT.

 /        59.54    62.00   2.46              BRHT PY    ST2               QS7   P                                        R)
 L                                               3A             3         LO1

 /        62.00    73.15  11.15              ARGL PY         MX    0 3 2 3      P                  <(                    D-
 L                                               3A
 R        62.00    73.15      INTERVAL IS RUBBLY + EXHIBITS MINOR LOCAL SHEAWS (GRAPHITIC)
 R        62.00    73.15      LOCAL BRECCIATION + INFILLING WITH QTZ VNS.  SILICIFICATION IS
 R        62.00    73.15      ASSOCIATED WITH QTZ VNG (EG. 68.20 - 68.30M).

 /        73.15    81.00   7.85              ARSI     PY *S- LM    D 3 3 3      P  1            40                       <(
 L                                               3A
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K  F  F R O M - T O -  I N T RECOV  MD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                         R O D  AGE FV RU LC TM HM2 TX TX S C O U CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/       81.00   82.00  1.00             ARGL SD SL     MX    0 3 1 3       P                                 <,    <,
L                                             3A                                                     <-
R       81.00   82.00      INTERVAL IS MASSIVE ARGL WITH OCCASIONAL CARB (SID?) VNS.
R       81.00   82.00      CONTAINING MINOR GL AND PYR.

/       82.00   83.50  1.50             FGSX PY SD                         P                                 #+    #+
L                                             3A                                                     #=
R       82.00   83.50      SULPHIDES ARE PRESENT AS FILLINGS ALONG FRACTURE SURFACES IN
R       82.00   83.50      ARGL

/       83.50   84.50  1.00             ARGL PY        MX    1 3 1 3       P                                 #+    <,
L                                             3A                                                        <(
R       83.50   84.50      INTERVAL IS ONLY SLIGHTLY MINERALIZED

/       84.50  109.30 24.80             ARGL PY QZ     MX    1 3 1 3       P                                 <+    <(
L                                             3A                                                        <+
R       84.50  109.30      VEINING INCREASES DOWN HOLE-ARG. IS LOCALLY DISTRUBED NEAR
R       84.50  109.30      BOTTOM OF HOLE BUT NOT SUFFICIENTLY TO BE A BRHM.

/      109.30  110.30  1.00             ARGL PY SD                         P                                 <+    <-
L                                             3A                                                        <*
R      109.30  110.30      FROM 109.30 TO 122.0M HAS BEEN ASSAYED AS IT CONTAINS MINOR
R      109.30  110.30      AMOUNTS OF GL, SL + PY IN QTZ-SID VEINS AND BRECCIA FILLINGS.

/      110.30  111.45  1.15             ARGL PY SD                         P                                 #+    #)
L                                             3A                                                     #+ #*
R      110.30  111.45      HOST IS ARGL.

/      111.45  112.45  1.00             ARGL PY SD                         P                                 #)    #*
L                                             3                                                      #+ #*
R      111.45  112.45      HOST IS ARGL.

/      112.45  113.45  1.00             ARGL PY SD                         P                        <+ <*    D)    #*
L
R      112.45  113.45      HOST IS ARGL.

/      113.45  114.45  1.00             ARGL PY QS                         P                                 D+ <- <*
L                                             3A                                                        <=
R      113.45  114.45      HOST ROCK IS ARGL.

/      114.45  115.45  1.00             ARGL PY QS                         P                           <)    <)    <-
L                                             3A
R      114.45  115.45      MINERALIZATION IS DISSEMINATED THROUGH QS - PY VEINS IN ARGL.

/      115.45  116.45  1.00             ARGL PY QS                         P                           <)    <+    <-
L                                             3A
R      115.45  116.45      MINERALIZATION IS DISSEMINATED THROUGH QS-PY VEINS IN ARGL.

/      116.45  117.45  1.00             ARGL PY QS                         P                           <+    <) <, <-
L                                             3A
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                                                         PAN OCEAN OIL LTD.
G E O L O G                                      JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                       PAGE - 3
                                         DRILLHOLE/TRAVERSE --- 78-DH042 --- (CONTINUED)

K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R Q D  AGE EV RQ LC TM QM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R      116.45  117.45      MINERALIZATION IS DISSEMINATED THROUGH QS-PY VEINS IN ARGL

/      117.45  118.55   1.10             ARGL PY                            P               <)          <.    D* <. <.
L                                             3A
R      117.45  118.55      MINERALIZATION IS IN NARROW QTZ VEINS - PY IS DISSIMINATED IN
R      117.45  118.55      HOST ARGL.

/      118.55  119.70   1.15             ARGL PY QS                         P                           <+    D)    <*
L                                             3A
R      118.55  119.70      MIN IS ASSOC. WITH EXTENSIVE QS VEINING IN ARGL - LOWER PART OF
R      118.55  119.70      INTERVAL IS RUBBLY.

/      119.70  121.00   1.30             ARGL QS PY                         P                           V+    <+    V-
L                                             3A
R      119.70  121.00      MINERALIZATION IS DISS IN QS VEINS ALSO DISSEM. IN HOST ARGL
R      119.70  121.00      ASSOCIATED WITH PYRITE-INTERVAL IS RUBBLY.

/      121.00  122.00   1.00             BRPM PY    *S-               PQ8   P                                 D*
L                                             4A              4   -   MN2
R      121.00  122.00      INTERVAL IS RUBBLY.

/      122.00  126.49   4.49             BRHT       *S2 F*            NQ3   P
L                                             4A    *C-       3   2   MO4
R      122.00  126.49      INTERVAL IS LOCALLY RUBBLY.

/      126.49  131.94   5.45             BRHT       *S= *F            PR8   P                                 R+
L                                             4A    *C-       3 = =   LN+

/      131.94  137.85   5.92             BRHM       SU=               OS9   P                                 D*
L                                             4A              3       MO)

/      137.86  143.26   5.40             BRHT       *S+ F*            OS7   P                                 R+
L                                             4A    *C(       3 + +   MP2
R      137.86  143.26      INTERVAL IS LOCALLY RUBBLY.
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                                   G E O L O G   E D I T   L I S T I N G                        SYSTEMS ENGINEERING BY
                                                                                        INTERNATIONAL GEOSYSTEMS CORP.

                                              PAN OCEAN OIL LTD.
                                        JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

                                              FORMAT VERSION : 6802

 DRILLHOLE/TRAVERSE :78-DH043        COLLAR ELEVATION:      1196.74      AZIMUTH( DEG ) :    45.00     GEOLOGGED BY : WJJ + DWB
 TOTAL DEPTH/LENGTH :  192.02        NORTHING(- IF S):   7002103.00      VERTICAL ANGLE :   -55.00     DATE (YY/MM/DD): 811012
 CORE/HOLE DIAMETER :      HQ        EASTING (- IF W):    436581.00      CO-ORD SYSTEM  :    UTM       PROJECT NUMBER : JASON


                               SEQ. NO OF       LENGTH FROM COLLAR       AZIMUTH    VERT. ANGLE
                              SURVEY DATA        TO SURVEY POINT         ( DEG )      ( DEG )

                                  1                  39.62                47.00        -53.00
                                  2                  97.54                50.00        -50.00
                                  3                 143.62                49.00        -48.00
                                  4                 188.98                46.00        -46.00

   F    - I N T E R V A L -    CORE  T- %      TYPI- QAL  TEX-  GRAIN       PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
 K  L (UNITS =   . DEC.PLACE)RECOV-  N M ROCK FYING MIN TURES CHARACS                        H  H  H  H  H ANY H  H  H ANY  ALT ORE
 F  A  (MT=METRIC FT=FOOTRIC)  ERY    O I      TR TG MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
 Y  G  F R O M - T O -  I N T ( . )  D X TYPE  1  2 OM1  1  2 F F C A         1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 - --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 K  F                        ROCK    FM      RT    TM OM2 TX TX S C O O CHT      1 ID STK DIP MG MU CL SD QS HA PR MT SL HA
 F  L                        QUAL   AGE EN- O LC- 3      3  4 O    /           2    AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
 Y  G                        DESIG      VIR   COL            R    C              STRUCTUR-2  A  A  A  A  A  A  A  A  A  A    2   2

 R SVY     0.00     0.00      SPERRY SUN SURVEY DATA.

 /         0.00    24.38  24.38          OVER                                  P
 L

 /        24.38    25.20   0.82          SAND          LM    A F 7 I           P  0 LM      75 <*                 D(
 L                                             5A
 R        24.38    25.20      POROUS SANDSTONE WITH ARGL LAMS CONTAINING DISS PY.

 /        25.20    31.30   6.10          ARGL       SI( LM MX A H 1 G          P  0 LM      70 <(                 D(
 L                                             2A    SN=                                                            D.
 R        25.20    31.30      CORE HIGHLY BROKEN UP.

 /        31.30    32.90   1.60          SAND          LM    A F 6 H           P  0 LM      70 <*                 D-
 L                                             5A    SS
 R        31.30    32.90      ARGL LAMS.  MINOR DISRUPTION DUE TO SS AT BOTTOM OF UNIT.

 /        32.90    54.31  21.41          ARSI       SI1 BD LM A D 2 F          P "4 LM      60                    D( D.
 L                                             3A    SN=                                              <.          D.
 R        32.90    54.31      SAND BEDS CONTAIN ARGL LAMS.  SAND BEDS DESCRIBED BELOW.
 R        35.18    35.50      SAND BED.
 R        36.45    36.58      SAND BED.
 R        39.01    39.15      SAND BED.
 R        41.50    41.80      SAND BED.  UPPER HALF OF BED CONSISTS OF QZ GRIT CONTAINING ARGL
 R        41.50    41.80      FRAGS 2% UP TO 3CM, AVG SIZE 1MM.  SHARP CONTACT BETWEEN SN-GRIT
 R        44.47    44.60      SAND BED.
 R        46.40    46.74      SAND BED.
 R        48.95    49.15      SAND BED.
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K  F    F R O M - T O -  I N T RECOV  MD % ROCK TF TM OR1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L-  ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                      R Q D  AGE EV RQ LC TM OR2 TX TX S C O O CHT        2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/        54.31   58.28   3.97              ARGL       SI) LM    A D + G        P  0 LM      60                          D(
L                                               2A    SN+
R        54.31   58.28        PYRITE DISS MAINLY IN SAND SILT LAMS.

/        58.28   76.03  17.75              ARSI       SI= LM BD A D 1 F        P  1 LM      55
L                                               3A    SN=                                                              6(

/        60.86   63.07   2.21            X ARSI       SI= BD LM A F 2 H        R  2 BD      60
L                                               3A    SN2                                                              <.
R        60.86   63.07        SAND BEDS LAMINATED WITH ARGL, HAVE BROWN BANDS WHERE SULPHIDES
R        60.86   63.07        OXIDIZED OUT AND ARE POROUS PROBABLY DUE TO LEACHING OF SOLUBLE
R        60.86   63.07        MINERALS.  SAND BEDS UP TO 10CMS THICK.

/        63.07   76.03  12.96            X ARSI       SI= LM BD A D 1 F        R  1 LM      55                          6*
L                                                                                                                      6*

/ FLT    65.40   65.42   0.02            X FAUL AR    GGX                      R
L

/        76.03   88.39  12.36              CGBR       *S1 CG B* A M 0 8 MM+    P                                       R*
L                                                     *C2 H* R* 4   1 C M07
R        76.03   88.39        SLIGHT COARSENING DOWNHOLE.

/        88.39   89.78   1.39              ARGL CR    SI= MX BD A D 1 G        P  3 BD      40                      D)
L                                                M
R        88.39   89.78        SILT DISSEMINATED THROUGHOUT, OCCASIONALLY CONCENTRATING TO FORM
R        88.39   89.78        BEDS.  CORE BROKEN UP.

/ DYK    89.78   92.96   3.18              DYKE SE    MU) PP    A I + I        P
L                                                M    QZ)
R        89.78   92.96        HIGHLY SERICITIZED QUARTZ MUSCOVITE PORPHYRY DYKE.

/ FAL    91.25   92.96   1.71            X FAUL       GGX                      R
L

/        92.96  103.63  10.67              ARGL CR    SI= MX    A D 1 G        P               <)                     D)
L                                                M

/ FAL    92.96  100.58   7.62            X FAUL       GG7                      R
L
R        92.96  103.63        QZ < DISRUPTED.  SILT IS DISSEMINATED THROUGHOUT.

/       103.63  118.90  15.27              ARGL       SI+ LM BD A E + F        P  1 LM      43 <.                  D) <.
L                                               2A              SS                                                     8. <-
R       103.63  118.90        OCCASIONAL DISRUPTED ZONES DUE TO SOFT SEDIMENT SLUMPING.

/       118.90  127.52   8.62              BRBM AR    SI) BR SS         N08    P                     <*
L                                               2A    SN*       4     C                                                   <-
R       118.90  127.52        QZ SD < APPEAR TO BE DEFORMED BY SOFT SEDIMENT SLUMPING.  ZN <
R       118.90  127.52        IS A LATER STAGE EVENT, NOT SS DEFORMED.
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G E O L O G                                       JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                      PAGE -  3
                                               DRILLHOLE/TRAVERSE --- 78-DH043 --- (CONTINUED)

K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM NM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                             R Q D  AGE EV RQ LC TM QM2 TX TX S C O D CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/ FLT  124.40  127.52    3.12           X FAUL AR    GG5                     R
L
R      124.40  127.52      WHERE GOT GOUGE, CORE IS VERY BROKEN UP.

/      127.52  141.90   14.38             ARST       SI= BD    A D = F       P  2 BD       55                         D-    <.
L                                              2A    SN*                                                  <)                <.
R      127.52  141.90      PY DISS MAINLY IN SILT SAND BEDS.

K US1  131.30  131.30    0.00

/ FLT  135.30  141.90    6.60           X FAUL AR    GG7                     R                                          D. D(
L                                                    SN1
R      135.30  141.90      WHERE GOT GOUGE, CORE IS VERY BROKEN.  SOME SN FRAGS FOUND.
R      135.30  141.90      42% RECOVERY.

K US1  137.10  137.10    0.00

/      141.90  150.00    8.10             ARSN       SI1 LM BD A D 3 H       P  2 LM       62                         D.
L                                              4A    SN2 SS                                            J= <-        D* <(
R      141.90  150.00      SS HAS CAUSED STRETCHING AND SOME FRAGMENTATION OF LAMS AND
R      141.90  150.00      BEDS ESP FROM 148.20 TO 150.00.  SD ACTS AS MATRIX IN SN BEDS.

/      150.00  151.10    1.10             BRPM      *SI BR              MN2  P
L                                              3A              3   1    LM*                            J) <-
R      150.00  151.10      FO DUE TO SY USED SLIPPAGE PARALLELS BEDDING.
R      151.10  152.30      SS CAUSED DISRUPTION OF BEDS AND LAMS.

/      151.10  153.30    2.70             ARSI       SI= LM BD A D 2 G       P  2 LM       72                         B-
L                                              4A    SN1 LR                                            J+

/      151.10  152.30    1.20           X ARST       SI= SS LM A D 2 H       R                                        D*
L                                              3A    SN1 BD                                            J+
R      151.10  153.80      RIPPLES OCCUR IN SANDSTONE BEDS.  SIDERITE OCCURS AS MATRIX IN
R      151.10  153.80      SN.

/      153.80  171.70   17.90             ARST       SI+ LM BD A D 2 H       P  1 LM       40                         D- D.
L                                              3A    SN1 SS LR
R      153.80  171.70      ONLY MINOR DISRUPTION OF BD LM DUE TO SS.  PY CP DISS MAINLY IN
R      153.80  171.70      SN SI.  SOME PY CONCRETIONS.

/      171.70  177.40    5.70             ARST       SI+ LM BD A D 2 H       P  1 LM       42                         D-
L                                              4A    SN2 LR                                            J* <-
R      171.70  177.40      PY DISS MAINLY IN SN.  SD ACTS AS MATRIX FOR SN.

/      176.10  176.20    0.10           X SAND       SI2 LM LR F G 8 H       R    LM       35 <=
L                                                    SN8
R      176.10  176.20      BOUMA SEQUENCE UNITS B C.

/ FLT  176.84  176.90    0.06           X FAUL       GGX                     R
L
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 K  F   F R O M - T O -  I N T RECOV  MD % ROCK IN TN GM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 Y  G                            R Q D  AGE FV RD LC TM GM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA


 /       177.40  178.31   0.91               ARSI           BD    A F 1 F        P
 L                                              2A
 R       177.40  178.31       CORE IS VERY BROKEN UP.

 /       178.31  179.77   1.46               CGBR CR        BR    K N 7 O NO3    P                 <1                      D*
 L                                              4A          ST      5   C NO4                                  #2
 R       178.31  179.77       CHERT AND ARGL FRAGS (SOME SILICIFIED) IN A MATRIX OF QZ SD.
 R       178.31  179.77       GRAPHITE FILLED FRACTURES AND LATER QZ SD MICROVEIN.

 / FLT   179.57  179.77   0.20            X FAUL        GGX                      R
 L

 /       179.77  180.95   1.18               ARGL           LM    A D ) D        P    LM      60                           <.
 L                                              2A                                                              <-

 /       180.60  180.76   0.16            X SILT            MX    B E 3 F        R
 L                                              60
 R       180.60  180.76       BITUMEN AS FRACTURE FILL .5%

 /       180.95  183.40   2.45               BRHT       *S1 BR SS         MN6    P                                         D*
 L                                              3A             3    1     LM3                                   <*
 R       180.95  183.40       CHERT AND ARSI SLUMPED TOGETHER INTO A CHAOTIC MIXTURE.  BRHT
 R       180.95  183.40       ZONES OCCASIONALLY POROUS 1%.  PY DISS MAINLY IN BRHT MATRIX.

 / FLT   183.20  183.40   0.20            X FAUL        GGX                      R
 L

 /       183.40  191.55   8.15               BRHM       SI1 SS LM         ST)    P    LM      45                           L-
 L                                              2A      SN= RD LR 4     O LN9                                   <.
 R       183.40  191.55       AN ARSI DISRUPTED BY SS.  OCCASIONAL CHERT CLAST IN SN BEDS.
 R       183.40  191.55       SOME ZONES 5% APPEAR UNDISRUPTED.

 /       188.30  188.48   0.18            5 BRPM            BR B* A I 2 J JM2    R                                         B(
 L                                              4A          F*    4     O JM=
 R       188.30  188.48       BIMODAL CLAST DISTRIBUTION I TO J SIZE AND L TO M SIZE.  MOST
 R       188.30  188.43       ARGL CLASTS ARE BLEACHED.

 /       191.55  192.02   0.47               BRPM           BR B*         KN4    P                             8+          D-
 L                                                          F*    2     O NR                                                     B-
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A UMM			RQD	SP.GR.
A TYP			CM	SG
A MTH			B-B	WEIGH
A LAB			FLD	FLD

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R ASY    0.00    0.00    RCOV=RECOVERY(C17-20) IS MEASURED IN CM BLOCK TO BLOCK(B-B)
R ASY    0.00    0.00    RQD=ROCK QUALITY DESIGNATOR(C27-32)MEASURED IN CM BLOCK TO BLOCK
R ASY    0.00    0.00        RQD IS THE TOTAL LENGTH (BETWEEN BLOCKS) OF PIECES OF CORE
R ASY    0.00    0.00        AT LEAST 2-1/2 TIMES DIAMETER OF CORE TO NEAREST CM, DIVIDED
R ASY    0.00    0.00        BY LENGTH OF INTERVAL = BLOCK(TO) MINUS BLOCK(FROM)TIMES 100
R ASY    0.00    0.00    CM INDICATES THAT MEASUREMENTS ARE IN CM'S WHICH ARE TO BE RIGHT
R ASY    0.00    0.00        JUSTIFIED AGAINST THE DOUBLE VERTICAL LINE AT RIGHT MARGIN
R ASY    0.00    0.00        OF EACH FIELD.
R ASY    0.00    0.00    B-B=BLOCK-TO-BLOCK (DRILLERS BLOCKS). ENTER METRAGE OF ONE BLOCK
R ASY    0.00    0.00        AS THE TO OF ANY INTERVAL AND THE METRAGE OF THE NEXT BLOCK.
R ASY    0.00    0.00        ADDITIONAL POINTS (FROM-TO'S) CAN BE ESTABLISHED BETWEEN
R ASY    0.00    0.00        BLOCKS TO BRACKET SPECIFIC INTERVALS OF LOCALIZED POOR
R ASY    0.00    0.00        RECOVERY. B-B IS ENTERED RIGHT JUSTIFIED IN EACH FIELD IN
R ASY    0.00    0.00        THE AMTH HEADER.
R ASY    0.00    0.00    THE FIRST INTERVAL, THROUGH THE OVERBURDEN, WITH ZERO RECOVERY,
R ASY    0.00    0.00        SHOULD BE ENTERED FIRST -- SEE BELOW.
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A 100	0.00	24.38	00	00
R ASY	0.00	24.38	OVERBURDEN	
A 100	24.38	25.30	39	00
A 100	25.30	27.43	100	00
A 100	27.43	28.96	93	00
A 100	28.96	29.87	47	00
A 100	29.87	31.09	75	17
A 100	31.09	32.00	38	23
A 100	32.00	32.92	71	17
A 100	32.92	34.14	75	00
A 100	34.14	35.66	120	00
A 100	35.66	36.58	76	00
A 100	36.58	39.01	37	00
A 100	39.01	39.92	60	00
A 100	39.92	42.37	120	00
A 100	42.37	43.23	48	00
A 100	43.23	44.20	81	00
A 100	44.20	45.70	108	00

A UMM A TYP A MTH A LAB				RQD CM R-R FLU	SP.GR. SG WEIGH FLU
A 100	45.79	46.92	120	45	
A 100	46.92	47.85	93	22	
A 100	47.85	48.77	92	00	
A 100	48.77	49.68	61	00	
A 100	49.68	51.21	152	19	
A 100	51.21	53.34	98	00	
A 100	53.34	54.86	18	00	
A 100	54.86	56.39	118	00	
A 100	56.39	57.91	147	43	
A 100	57.91	58.83	92	00	
A 100	58.83	60.05	101	34	
A 100	60.05	60.96	85	18	
A 100	60.96	62.48	120	17	
A 100	62.48	64.01	148	00	
A 100	64.01	65.53	120	00	
A 100	65.53	66.14	61	00	
A 100	66.14	67.06	92	00	
A 100	67.06	68.20	72	00	
A 100	68.29	69.79	150	00	
A 100	69.79	71.32	136	21	
A 100	71.32	72.85	100	18	
A 100	72.85	74.07	104	00	
A 100	74.07	74.98	55	00	
A 100	74.98	76.20	68	00	
A 100	76.20	77.11	47	00	
A 100	77.11	78.03	23	00	
A 100	78.03	79.25	100	00	
A 100	79.25	79.55	10	00	
A 100	79.55	81.08	114	00	
A 100	81.08	82.29	79	46	
A 100	82.29	83.32	50	00	
A 100	83.34	85.34	43	00	
A 100	85.34	86.87	78	21	
A 100	86.87	88.39	10	00	
A 100	88.39	89.92	87	00	
A 100	89.92	91.44	147	00	
A 100	91.44	92.92	147	00	
A 100	92.92	94.49	50	00	
A 100	94.49	96.01	62	00	
A 100	96.01	97.54	104	00	
A 100	97.54	99.06	76	00	
A 100	99.06	100.58	91	00	
A 100	100.58	102.11	128	00	
A 100	102.11	103.63	73	00	
A 100	103.63	104.55	88	00	
A 100	104.55	105.77	60	00	
A 100	105.77	106.68	76	00	
A 100	106.68	107.59	40	00	
A 100	107.59	108.20	36	00	
A 100	108.20	109.73	102	00	
A 100	109.73	110.95	62	00	

GEOLOG

PAN OCEAN OIL LTD.

JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

DRILL-HOLE/TRAVERSE --- 78-DH043 --- (CONTINUED)

A UMM A TYP A MTH A LAB				RQD CM R-B FLD	SP.GR. SG WEIGH FLD
A 100	110.95	111.86	63	00	
A 100	111.86	112.78	49	00	
A 100	112.78	113.69	79	00	
A 100	113.69	114.30	61	00	
A 100	114.30	115.82	152	00	
A 100	115.82	118.26	92	00	
A 100	118.26	119.18	74	00	
A 100	119.18	120.40	122	00	
A 100	120.40	122.22	138	89	
A 100	122.22	123.44	95	20	
A 100	123.44	124.97	58	00	
A 100	124.97	126.49	55	00	
A 100	126.49	128.02	55	00	
A 100	128.02	129.24	66	00	
A 100	129.24	130.15	91	00	
A 100	130.15	131.06	91	00	
A 100	131.06	131.93	72	00	
A 100	131.94	133.20	76	00	
A 100	133.20	134.11	76	00	
A 100	134.11	135.32	64	00	
A 100	135.32	136.24	33	00	
A 100	136.24	137.50	40	00	
A 100	137.50	138.41	29	00	
A 100	138.41	139.59	65	00	
A 100	139.59	140.20	46	00	
A 100	140.20	141.92	26	00	
A 100	141.92	143.26	134	00	
A 100	143.26	144.78	138	00	
A 100	144.78	146.30	146	20	
A 100	146.30	147.83	153	19	
A 100	147.83	149.35	139	00	
A 100	149.35	150.88	105	00	
A 100	150.88	151.79	91	00	
A 100	151.79	153.31	141	24	
A 100	153.31	153.92	39	00	
A 100	153.92	155.45	91	21	
A 100	155.45	156.97	144	00	
A 100	156.97	158.50	118	00	
A 100	158.50	160.02	101	19	
A 100	160.02	161.54	151	23	
A 100	161.54	163.07	125	00	
A 100	163.07	164.59	134	37	
A 100	164.59	165.81	81	00	
A 100	165.81	167.03	115	00	
A 100	167.03	167.33	28	00	
A 100	167.33	168.96	127	00	
A 100	168.86	170.08	114	22	
A 100	170.08	171.60	147	25	
A 100	171.60	173.13	117	40	
A 100	173.13	174.65	137	00	
A 100	174.65	175.87	100	00	

A UMM A TYP A MTH A LAB				RQD CM B-B FLD	SP.GR. SG WEIGH FLD
A 100	175.87	176.78	91	00	
A 100	176.78	177.39	36	00	
A 100	177.39	178.31	30	00	
A 100	178.31	179.83	97	00	
A 100	179.83	181.05	105	00	
A 100	181.05	182.27	106	00	
A 100	182.27	182.88	54	00	
A 100	182.88	184.10	76	00	
A 100	184.10	185.32	21	00	
A 100	185.32	185.93	49	00	
A 100	185.93	187.45	136	00	
A 100	187.45	188.98	112	00	
A 100	188.98	190.50	134	00	
A 100	190.50	192.02	130	32	

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :	79-DH044	COLLAR ELEVATION:	1234.20	AZIMUTH(DEG) :	45.00	GEOLOGGED BY :	+
TOTAL DEPTH/LENGTH :	60.35	NORTHING(- IF S):	7002307.00	VERTICAL ANGLE :	-50.00	DATE (YY/MM/DD):	0
CORE/HOLE DIAMETER :	NQ	EASTING (- IF W):	436400.25	CO-ORD SYSTEM :	UTM	PROJECT NUMBER :	J-S

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	36.58	45.00	-49.00
2	60.35	45.00	-49.00

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    F    - I N T E R V A L -     CORE   I- %       TYPI- QAL  TEX-  GRAIN         PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
 K  L  (UNITS =     .  DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                            H   H   H   H   H ANY H   H   H ANY  ALT ORE
 E  A   (MT=METRIC FT=FOOTRIC)   ERY     O T      TM TO MAT TX  TX F C % M ARG   /RT T ID STK DIP  A   A   A   A   A MIN A   A   A MIN - - - -
 Y  G  F R O M - T O -  I N T (  .  )    D X TYPE  1  2 OM1  1  2 F F C A             1    AZM  RT QZ FL  CY  CA  BA  XX  PY  CP  GL  YY  A 1 A 2
 - --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 K  F                            ROCK    FM     RT    TM OM2 TX  TX S C O O CHT      T ID STK DIP MG  MU  CL  SD  QS  HA  PR  MT  SL  HA
 E  L                            QUAL    AGE EN- 2 LC- 3      3  4 O    /            2    AZM  RT H   H   H   H   H   H   H   H   H   H    1   1
 Y  G                            DESIG      VTR   COL              R    C              STRUCTUR-2  A   A   A   A   A   A   A   A   A   A    2   2
```

R SVY	0.00	0.00	SPERRY SUN TEST.
R ASY	0.00	0.00	NO ASSAYS FOR THIS HOLE.

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6B02

DRILLHOLE/TRAVERSE :79-DH045	COLLAR ELEVATION: 1242.30	AZIMUTH(DEG) : 45.00	GEOLOGGED BY : +
TOTAL DEPTH/LENGTH : 149.05	NORTHING(- IF S): 7002405.00	VERTICAL ANGLE : -50.00	DATE (YY/MM/DD): 0
CORE/HOLE DIAMETER : NQ	EASTING (- IF W): 436247.00	CO-ORD SYSTEM : UTM	PROJECT NUMBER : J-S

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	30.48	45.00	-47.00
2	45.72	42.00	-47.50
3	76.20	44.17	-45.00
4	144.78	43.25	-41.50

```
  F   - I N T E R V A L -    CORE  I- %      TYPI- QAL  TEX-  GRAIN        PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =   .  DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                        H  H  H  H  H ANY H  H  H ANY  ALT ORE
F  A  (MT=METRIC FT=FOOTRIC)  ERY    O I      TM TM MAT TX TX F C % M ARG   /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  I N T ( . )  D X TYPE  1  2 OM1  1  2 F F C A           1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                         ROCK   FM    RT    TM QM2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                         QUAL   AGE EN- O LC- 3     3  4 O     /          2    AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
Y  G                         DESIG      VIR    COL             R     C          STRUCTUR-2  A  A  A  A  A  A  A  A  A  A    2   2
```

R SVY 0.00 0.00 SPERRY SUN TEST DOWN THE HOLE.

R ASY 0.00 0.00 NO ASSAYS FOR THIS HOLE.

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6B02

```
DRILLHOLE/TRAVERSE :79-05046       COLLAR ELEVATION:      1203.10       AZIMUTH( DEG ) :  270.00       GEOLOGGED BY :       +
TOTAL DEPTH/LENGTH :  277.06       NORTHING(- IF S):  7000399.00        VERTICAL ANGLE :  -60.00       DATE (YY/MM/DD):        0
CORE/HOLE DIAMETER :               EASTING (- IF W):   437509.44        CO-ORD SYSTEM  :   UTM         PROJECT NUMBER : J-RECC
```

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	76.20	270.00	-59.00
2	106.68	280.00	-48.00
3	137.16	276.00	-36.00
4	167.64	273.00	-30.00
5	198.12	271.00	-26.00
6	227.08	265.00	-18.00
7	277.06	260.00	-22.00

```
  F   - I N T E R V A L -    CORE  T- %       TYPI- QAL  TEX-  GRAIN        PGT   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K L (UNITS =   .  DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                          H  H  H  H  H ANY H  H  H ANY  ALT ORE
E A  (MI=METRIC FI=FOOTRIC)  ERY    O I       TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y G  F R O M - T O -  I N T (  . )  D X TYPE  1  2 OMI  1  2 F F C A           1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K F                          ROCK   FM    RT    IM OM2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD OS HA PR MT SL HA
E L                          QUAL   AGE EQ- O LC- 3     3  4 O     /          2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y G                          DESIG     VTR   COL           R     C              STRUCTUR-2 A  A  A  A  A  A  A  A  A  A   2   2
```

```
R SVY    0.00    0.00     AZM AT 227.08 AND 277.06 ARBITRARILY DEFINED BY APPARENT TREND.
R SVY    0.00    0.00     SPERRY SUN TESTS.

R ASY    0.00    0.00     NO ASSAYS DATA FOR THIS HOLE.
```

I G C

GEOLOG EDIT LISTING

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON P8-79-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :79-DH047 | COLLAR ELEVATION: 1259.40 | AZIMUTH(DEG) : 223.00 | GEOLOGGED BY : +
TOTAL DEPTH/LENGTH : 166.12 | NORTHING(- IF S): 7002540.00 | VERTICAL ANGLE : -50.00 | DATE (YY/MM/DD): 0
CORE/HOLE DIAMETER : 00 | EASTING (- IF W): 436186.31 | CO-ORD SYSTEM : UTM | PROJECT NUMBER : J-S

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	73.15	224.00	-51.00
2	103.63	224.00	-52.00
3	164.59	224.00	-51.50

```
   F  - I N T E R V A L -     CORE  T- %       TYPI- QAL  TEX-  GRAIN          PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =   .  DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                          H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MT=METRIC FT=FOOTRIC)  ERY    O T      TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN  - - - -
Y  G  F R O M - T O -  I N T ( . )  O X TYPE  1  2 OM1  1  2 F F C A          1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                         ROCK    FM     RT    TM QM2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                         QUAL   AGE EN- O LC- 3      3  4 O    /            2    AZM  RT H  H  H  H  H  H  H  H  H  H   1  1
Y  G                         DESIG      VIR   COL           R      C              STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2  2
```

R SVY 0.00 0.00 SPERRY SUN TESTS.

R ASY 0.00 0.00 NO ASSAYS OF CORE FOR THIS HOLE.

G E O L O G E D I T L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

```
DRILLHOLE/TRAVERSE :79-JH048        COLLAR ELEVATION:      1310.00     AZIMUTH( DEG ) :  225.00      GEOLOGGED BY :        +
TOTAL DEPTH/LENGTH :    87.48       NORTHING(- IF S):   7003183.00     VERTICAL ANGLE :  -55.00      DATE (YY/MM/DD):        0
CORE/HOLE DIAMETER :     NQ         EASTING (- IF W):    434828.00     CO-ORD SYSTEM  :   UTM        PROJECT NUMBER : J-RECC
```

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	45.72	232.00	-55.00
2	87.48	217.00	-54.00

```
    F    - I N T E R V A L -    CORE  I- %      TYPI- QAL  TEX-  GRAIN          PGT   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K   L  (UNITS =   .  DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                          H  H  H  H  H ANY H  H  H ANY  ALT ORE
E   A   (MT=METRIC FT=FOOTRIC)  ERY     O T      TM TM MAT TX TX F C % M ARG   /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y   G  F R O M - T O -  I N T (  . )  O X TYPE  1  2 OM1  1  2 F F C A             1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K   F                          ROCK    FM     RT     TM QM2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E   L                          QUAL   AGE EM- 0 LC- 3     3  4 0     /             2    AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
Y   G                          DESTG      VIR   COL           R      C               STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2   2
```

```
R SVY    0.00     0.00      SPERRY SUN TEST DATA.

R ASY    0.00     0.00      NO ASSAYS VALUES FOR THIS HOLE.
```

G E O L O G E D I T L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :79-08049	COLLAR ELEVATION: 1283.50	AZIMUTH(DEG) : 200.00	GEOLOGGED BY : +
TOTAL DEPTH/LENGTH : 281.94	NORTHING(- IF S): 7002830.00	VERTICAL ANGLE : -57.00	DATE (YY/MM/DD): 0
CORE/HOLE DIAMETER : HQ	EASTING (- IF W): 436113.00	CO-ORD SYSTEM : UTM	PROJECT NUMBER : J-MAIN

SER. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	57.91	197.00	-58.00
2	76.20	196.00	-59.00
3	106.68	197.00	-56.00
4	137.16	192.00	-52.00
5	198.12	187.00	-42.50
6	274.32	189.00	-49.00

```
  F   - I N T E R V A L -    CORE  T- %       TYPI- QAL  TEX-  GRAIN        PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =   .  DEC.PLACE)RECOV-  R M ROCK FYTGG MIN TURES CHARACS                         H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MT=METRIC FT=FOOTRIC)  ERY    G I      TG TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN  - - - -
Y  G  F R O M - T O - I N T ( . )    D X TYPE  1  2 QM1  1  2 F F C A           1     AZM RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                          ROCK   FM    RT    TM QM2 TX TX S C O O CHT     T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                          QUAL   AGE FM- Q LC- 3     3  4 O    /          2    AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
Y  G                          DESIG      VIR   COL            R    C            STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2   2
```

R SVY 0.00 0.00 SPERRY SUN TESTS.

R ASY 0.00 0.00 NO ASSAYS VALUES FOR THIS HOLE.

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :	79-DH050	COLLAR ELEVATION:	1336.90	AZIMUTH(DEG) :	45.00	GEOLOGGED BY :	+
TOTAL DEPTH/LENGTH :	397.76	NORTHING(- IF S):	7003019.00	VERTICAL ANGLE :	-55.00	DATE (YY/MM/DD):	0
CORE/HOLE DIAMETER :	NQ	EASTING (- IF W):	434733.50	CO-ORD SYSTEM :	UTM	PROJECT NUMBER :	J-RECC

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	60.96	42.00	-50.50
2	152.40	42.00	-46.50
3	213.36	42.00	-42.50
4	304.80	29.50	-29.50
5	397.76	28.50	-23.00

```
  F    - I N T E R V A L -    CORE  I- %      TYPI- QAL  TEX-  GRAIN        PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K L (UNITS =   . DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                           H  H  H  H  H ANY H  H  H ANY  ALT ORE
E A  (MT=METRIC FT=FOOTRIC)  ERY    O I       TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y G  F R O M - T O -  I N T (  . )  D X TYPE  1  2 OM1  1  2 F F C A          1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K F                          ROCK   FM     RT    TM QM2 TX TX S C O O CHT       T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E L                          QUAL   AGE FO- O LC- 3      3  4 O    /            2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y G                          DESIG      VIR   COL             R    C              STRUCTUR-2  A  A  A  A  A  A  A  A  A  A   2   2
```

R SVY   0.00   0.00   SPERRY SUN TESTS.

PAN OCEAN OIL LTD.

G E O L O G

JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

DRILLHOLE/TRAVERSE --- 79-DH050 --- (CONTINUED)

				SAMPLE	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A UMM				SERIAL	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	
A LAB				NUMBER	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	
A TYP													
A MTH					WA	WA	WA	WA	WA	WA	WA	WA	

R ASY 0.00 0.00 B.CLG = BONDAR CLEGG, VANCOUVER; H-CORE = HALF CORE.

R ASY 0.00 0.00 WA = WET ANALYSIS.

R ASY 0.00 0.00 NO ASSAY INFORMATION ENTERED AS -0.1

A 001	39.55	40.55	91	18776	0.12	5.40	-0.1	-0.1	0.03	-0.1	-0.1	-0.1	5.05
A 001	40.55	41.45	84	18777	0.38	3.62	-0.1	-0.1	0.01	-0.1	-0.1	-0.1	3.51
A CMP	39.55	41.45	175		0.24	4.53	-0.1	-0.1	0.02	-0.1	-0.1	-0.1	4.29

A MIN			0.12	3.62	-0.1	-0.1	0.01	-0.1	-0.1	-0.1	3.25
A MAX	39.55	41.45	0.38	5.40	-0.1	-0.1	0.03	-0.1	-0.1	-0.1	5.31

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6B02

```
DRILLHOLE/TRAVERSE :79-DH051        COLLAR ELEVATION:      1198.10        AZIMUTH( DEG ) :    32.00       GEOLOGGED BY :       +
TOTAL DEPTH/LENGTH :      3.96      NORTHING(- IF S):  7002146.00        VERTICAL ANGLE :   -60.00       DATE (YY/MM/DD):        0
CORE/HOLE DIAMETER :      HQ        EASTING (- IF W):   436572.00        CO-ORD SYSTEM  :    UTM         PROJECT NUMBER : J-S

R HED                    THIS HOLE WAS ABANDONED.

   F   - I N T E R V A L -    CORE  I- %      TYPI- MAL  TEX-  GRAIN         PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =    . DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                         H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MT=METRIC FT=FOOTRIC)  ERY    O T       TM TM DAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  T O T (  . )  U X TYPE  1  2 UM1  1  2 F F C A           1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                          ROCK    FM     RT    TM OM2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                          QUAL   AGE EN- Q LC- 3       3  4 O    /           2    AZM  RT H  H  H  H  H  H  H  H  H  H    1  1
Y  G                          DESIG      VIR   COL              R     C             STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2  2

R SVY     0.00     0.00      EASTING IS APPARENTLY DIFFERENT FROM EASTING FOR 79ADH051.

R ASY     0.00     0.00      NO ASSAY DATA FOR THIS HOLE.
```

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :79-DH052	COLLAR ELEVATION: 1374.00	AZIMUTH(DEG) : 45.00	GEOLOGGED BY : *
TOTAL DEPTH/LENGTH : 209.39	NORTHING(- IF S): 7003590.00	VERTICAL ANGLE : -50.00	DATE (YY/MM/DD): 0
CORE/HOLE DIAMETER : NQ	EASTING (- IF W): 435322.00	CO-ORD SYSTEM : UTM	PROJECT NUMBER : J-RECC

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	121.92	45.00	-45.75
2	206.65	42.00	-37.00

```
  F   - I N T E R V A L -    CORE  T- %      TYPI- QAL  TEX-  GRAIN         PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K L (UNITS =   .  DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                          H  H  H  H  H ANY H  H  H ANY  ALT ORE
E A  (MI=METRIC FT=FOOTRIC)  ERY    O I       TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y G  F R O M - T O -  I N T (  . )  D X TYPE  1  2 QM1  1  2 F F C A          1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K F                         ROCK   FM    RT    TM OM2 TX TX S C O O CHT       T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E L                         QUAL   AGE EM- N LC- 3     3  4 U     /           2    AZM  RT H  H  H  H  H  H  H  H  H  H    1    1
Y G                         DESIG      VIR   COL              R     C           STRUCTUR-2  A  A  A  A  A  A  A  A  A  A    2    2
```

R SVY   0.00   0.00   SPERRY SUN TESTS.

R ASY   0.00   0.00   NO ASSAYS FROM THIS HOLE.

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6B02

```
DRILLHOLE/TRAVERSE :79ADH051     COLLAR ELEVATION:      1198.10     AZIMUTH( DEG ) :    32.00    GEOLOGGED BY : HJV +
TOTAL DEPTH/LENGTH :   305.41    NORTHING(- IF S):  7002146.00     VERTICAL ANGLE :   -60.00    DATE (YY/MM/DD): 810615
CORE/HOLE DIAMETER :     HOHO    EASTING (- IF W):   436430.00     CO-ORD SYSTEM  :    UTM      PROJECT NUMBER : J-S

                      SEQ. NO OF      LENGTH FROM COLLAR     AZIMUTH     VERT. ANGLE
                     SURVEY DATA       TO SURVEY POINT       ( DEG )       ( DEG )

                          1                143.26            36.00        -58.00
                          2                251.46            29.00        -48.50
                          3                305.41            26.00        -44.00

R HED                ORIGINALLY LOGGED BY DR. GOOD AND DR. K.I.LU ON OCT 8, 1979.

   F    - I N T E R V A L -    CORE  I- %       TYPI- QAL  TEX-  GRAIN        PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =    .  DEC.PLACE)RECOV-  M N ROCK FYING MIN TURES CHARACS                         H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MT=METRIC FT=FOOTRIC)  ERY     C (      IM TM MAT TX TX F C % M ARG  /RT T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  I N T (  . )   O X TYPE  1  2 OM1  1  2 F F C A         1     AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                          ROCK   FM      FT     IM OM2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                          QUAL   AGE FM- O LC- 3     3  4 O   /               2     AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y  G                          DESIG      VIR   COL             R   C                STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2   2

/ OVB    0.00   36.57  36.57             OVER                          P

/       36.57   84.60  48.03             ARGL CR GR SI1 LM // 1 1   1  P     BD      D64 V(    L.             L*
L                                             4  SF     CU BD
R       36.57   84.60       COMPOSITIONAL LAMINATIONS INCREASE DOWNWARDS,BECOMING LESS SILI-
R       36.57   84.60       CIFIED DOWN HOLE. WHITE MINERAL (ZEOLITE??) COATING FRACTURES.

/ CON   84.60  151.30  66.70             SAND       *F1 MX FS 4 4   4  P     CN       70 V(                   L*
L                                             7     LC BD
R       84.60  151.30       FS ARE ABE, BCDE AND BCD ALTERNATING. PYRITIZED ARGL FRAGMENTS
R       84.60  151.30       IN THOSE BRXX INTERBEDS.

/ SHR  121.66  124.70   3.02           X SAND       *B1 MX BS 4 4   4  R     CN       70 V(                   L*
L

/      128.24  130.06   1.82           X SAND       *B1 MX BS 4 4   4  R     BD      V79 V(                   L*
L
R      128.24  130.06       GOES BACK THROUGH SAME GENERAL SUCCESSION, WHICH SEEMS TO BE
R      128.24  130.06       REPEATED AS PREVIOUSLY INTERVAL. FOLDING IS ALSO DEDUCTED.

/      151.30  173.50  22.20             ARGL    CR     LM // 1 1   1  P     BD       66 V(                   V( V.
L                                             5  SF SM1 G; BN                CV       90

/      173.50  180.00   6.50             SAND           MX LM 5 5   5  P
L

/      180.00  218.40  38.40             BRHT CR GR                003 P                 V+                   V(
L                                             4  SF         DB 2 3 3 C NO1   CV       54
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PAN OCEAN OIL LTD.

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G E O L O G                                 JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                              PAGE - 2
                                     DRILLHOLE/TRAVERSE --- 79ADH051 --- (CONTINUED)

K  F  F R O M - T O -  T O T RECOV  MD % ROCK FM TM QM1 TX TX F C % M ARG    RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R Q D  AGE EV RQ LC TM QM2 TX TX S C U O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/ SHR  180.00  182.46   2.46           X BRHT CR GR                   003    R               #(                V(
L                                             4  SF        DB 2 3 3 C NO1         CV      54

/      218.40  260.78  42.38             ARGL CR SF     SS 60 1 1   1        P    F/      55 V1                D.
L                                             3  SD GG)                                                         D.

/      224.62  225.65   1.03           X SAND                 3 3   3        R    BD      54 V1                D.
L                                             5                                                        D1

/      231.10  232.76   1.66           X BRHT       S*(    DB         MN2    R               V(                      V.    23
L                                             4               2   8 C                                  V.

/      252.72  255.82   3.10           X BRHT                         0S6    R
L                                             4               2   2 C NO2

/      260.78  272.00  11.22             BRHT              DB         OR5    P               V(          V.     V(
L                                             4               2 1 3 C NP1

/ BSX  272.00  273.80   1.60             BNSX              LM 3 3   3        P               V(                L=    L(    85
L                                             5                                                                      L(

/ MSX  272.80  272.86   0.06           X MSSX              LM 3 3   3        R               V.                M9    M=    73
L                                             5                                                                      L(

/ LSX  273.80  275.84   2.04             LMSX       SN1 LH    1 1   1        P    80      54 V*                      L=    87
L                                             4     SI1    LR                                                        L=

/ MSX  275.84  277.55   1.71             MSSX       SU2 LM    1 1   1        P               M1                M1    M1    88
L                                             4            LR                                                        M3

/      277.55  282.64   5.09             BRHT              DB         NS5    P               V1                      D*    82
L                                             4               2 1 3 C LN1
R      277.55  282.64      MINERALIZED ZONES FROM 268.75 TO 282.64 ARE BS, ABC AND BCD

/      282.64  305.41  22.77             ARSI CR        SS LM 1 1   1        P    BD      56 V(                V( B. B.    78
L                                             4     SN1 BD                                                  V*

/      286.87  294.34   7.47           X ARGL CR    SN2 LM BM 1 2 2 2        R    BD     D50 V(                V(
L                                             4         SS SF
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				SAMPLE	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A UMM				SAMPLE	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A LAB				SERIAL	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	
A TYP					H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	
A MTH					WA	WA	WA	WA	WA	WA	WA	WA	
R ASY	0.00	0.00	B.CLG = BONDAR CLEGG, VANCOUVER; H-CORE = HALF CORE.										
R ASY	0.00	0.00	WA = WET ANALYSIS.										
R ASY	0.00	0.00	LESS THAN DETECTION LIMIT ENTERED AS -D.L. E.G. -0.01										
R ASY	0.00	0.00	NO ASSAY INFORMATION ENTERED AS -0.1										
A 001	268.75	269.92	099	18788	0.01	-0.01	10.71	0.04	-0.01	-0.1	-0.1	-0.1	10.44
A 001	269.92	272.00	190	18789	0.04	0.01	9.52	0.04	0.01	-0.1	-0.1	-0.1	9.32
A 001	272.00	272.86	062	18790	3.70	2.65	4.20	0.61	0.01	-0.1	-0.1	-0.1	10.87
A 001	272.86	273.80	076	18791	2.12	7.55	2.70	0.34	-0.01	-0.1	-0.1	-0.1	12.40
A 001	273.80	274.60	063	18792	0.30	0.84	8.72	0.10	-0.01	-0.1	-0.1	-0.1	9.65
A 001	274.60	275.84	122	18793	2.20	5.42	2.39	0.33	-0.01	-0.1	-0.1	-0.1	10.03
A 001	275.84	276.90	087	18794	3.60	14.50	0.81	0.46	0.01	-0.1	-0.1	-0.1	19.08
A 001	276.90	277.55	065	18795	5.18	11.20	0.86	0.68	0.02	-0.1	-0.1	-0.1	17.64
A 001	277.55	278.16	058	18796	2.88	4.60	1.57	0.35	0.01	-0.1	-0.1	-0.1	9.11
A 001	278.16	278.35	069	18797	0.95	0.96	0.51	0.11	0.04	-0.1	-0.1	-0.1	2.28
A MAX	268.75	278.85			5.18	14.50	10.71	0.68	0.04	-0.1	-0.1	-0.1	30.81

PAN OCEAN OIL LTD.

GEOLOG

JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

DRILLHOLE/TRAVERSE --- 79ADH051 --- (CONTINUED)

A	MIN				0.01	-0.01	0.51	0.04	-0.01	-0.1	-0.1	-0.1	0.24
A	CMP	272.00	278.16	533	2.83	6.85	3.0	0.4	-0.1	-0.1	-0.1	-0.1	12.68
A	CMP	275.84	277.55	152	4.39	13.25	-0.1	0.54	-0.1	-0.1	-0.1	-0.1	17.68

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

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DRILLHOLE/TRAVERSE :80-DH053      COLLAR ELEVATION:      1221.90     AZIMUTH( DEG ) :     30.00     GEOLOGGED BY : HJV +
TOTAL DEPTH/LENGTH :   309.37     NORTHING(- IF S):   7002262.00     VERTICAL ANGLE :    -55.00     DATE (YY/MM/DD): 810713
CORE/HOLE DIAMETER :       50     EASTING (- IF W):    436340.75     CO-ORD SYSTEM  :     UTM       PROJECT NUMBER : J-S
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SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	45.72	32.00	-54.00
2	76.20	34.00	-53.00
3	137.16	29.00	-48.00
4	182.88	30.00	-44.00
5	238.66	26.00	-36.00
6	274.32	26.00	-34.50
7	309.37	26.00	-32.50

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R HED                       ORIGINALLY LOGGED BY ANGIE STARTA IN JUNE 1980.

  F    - I N T E R V A L -     CORE  T- %       TYPI- CAL  TEX-  GRAIN         PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =    .  DEC.PLACE)RECOV-  W M ROCK FYING MIN TURES CHARACS                            H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MT=METRIC FT=FOOTRIC)  ERY     O T       TH TM MAT TX TX F C % M ARG   /RT T ID STK DIP  A  A  A  A  A MIN A  A  A MIN  - - - -
Y  G  F R O M - T O -  I N T (  . )  D X TYPE  1  2 OM1  1  2 F F C A            1     AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- ---    - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                          ROCK    FR      RT    TM OM2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
F  L                          QUAL    AGE EN- N LC- 3      3  4 O      /          2     AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y  G                          DESIG       VIR   COL             R      C            STRUCTUR-2  A  A  A  A  A  A  A  A  A  A   2   2

R SVY     0.00     0.00      IN S001 V-ANG -58 WAS UNCERTAIN;-54 DEGREE IS CHOSEN IN CROSS
R SVY     0.00     0.00      SECTION. IN S006 AND S007 AZIMUTH RESULTS FROM SPERRY SUN TEST
R SVY     0.00     0.00      WERE CONSIDERED INVALID. A VALUE OF 26.00 IS CHOSEN IN CROSS
R SVY     0.00     0.00      SECTION.

/ OVB     0.00    33.83   33.83          OVER                                    P

/        33.83    98.60   64.77          ARGL     SF SI1 // LC 1 2 1 2           P  1 BD     D73 V*                  L)       LI
L                                             5   CR SW= SS LR                      2 BD      55    V(                   L?     C-
R        33.83    98.60      BD VARIES THUS:D73 FROM 33.83 TO 50.40;90 DEGREES FROM 50.40
R        33.83    98.60      TO 78.10; AND 55 FROM 78.10 TO 98.60.

/        88.45    89.98    1.53        X BRHM          DB              J02   R                                    D-
L                                             5                2     O LN3

/        95.75    96.40    0.65        X ARSI         SI1 LR BN 1 4 3 4       R  1 BD      59                     L+
L                                             5       SW3 LC LM                  5                                    B?

/        98.60   109.32   10.72          BRHM          DB              NS2   P    CN      55                     V)       LI
L                                             5  S/            2   2 O NP3                                                C-
R        98.60   109.32      INTERVAL 109.20-113.30 CORRELATES TO 111.00-116.13 OF HOLE 78-33

/       100.67   105.64    4.97        X ARGL CR        LC LR 1 1   1         R    BD      55 V-                  L-
L                                             5  SF     SS CL                                   V-
```

```
K  F  F R O M - T O -  I N T RECOV  HD % ROCK TC FM RM1 TX TX F C % M ARG   RT 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                         R Q D  AGE EV RQ LC TN RM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R      100.67  105.64       VERY POOR RECOVERY BETWEEN 102.10 AND 103.60; POSSIBLE FAULT
R      100.67  105.64       ZONE .

/      109.32  113.70   4.38            SAND    CR            4 4   4       P                          L*
L                                          6       *R+ RN
----------------------------------------------------------------------------------------------------------------------------
/      112.50  113.70   1.20          X SAND    CR GG6        4 4   4       R    F1                    L*
L                                          6       *R+ RN

/      113.70  153.37  39.67            ARGL SF CR SI1 LM LC 1 1    1       P  1 BD     D55 V*           MS D) B. B- LI 75
L                                          5  SD SM= RN (L                     4 BD      37        L* V) V*        B. C-
----------------------------------------------------------------------------------------------------------------------------
R      113.70  153.37       INTERVAL 129.34-149.70 CORRELATES TO 70.00-99.20(?) OF HOLE
R      113.70  153.37       78-33. INTERVAL 113.70-129.34 CORRELATES TO 98.20-105.90 OF HOLE
R      113.70  153.37       78-33.

/      122.85  123.40   0.55          X ARGL SF CR SI1 LM LC 1 1    1       R  1 BD     D55 V*           MS V* B. B- LI 75
L                                                                                           V1     V1
----------------------------------------------------------------------------------------------------------------------------
/      126.80  127.30   0.50          X ARGL SF CR SI1 LM LC 1 1    1       R  1 BD     D55 V)        K2 MS D) B. B( LI 75
L                                          6

/      126.64  129.14   0.30          X ARGL SF CR SI1 LM LC 1 1    1       R  1 BD     D55 V*           MS D) B. B. LI 75
L                                          RM
----------------------------------------------------------------------------------------------------------------------------
/      129.50  129.65   0.15          X ARGL SF CR SI1 LM LC 1 1    1       R  1 BD     D55 V*           MS D) B. V. LI 75
L                                                                                                              V.

/      134.36  137.30   2.94          X ARGL SF CR GG5 LM LC 1 1    1       R  1 F/     D55 V*           MS D) B. B- LI 75
L
----------------------------------------------------------------------------------------------------------------------------
/      147.60  149.10   1.50          X ARGL SF CR SI1 SS LC 1 1    1       R  1 BD     D55 V*           MS D) B. B- LI 75
L                                                                                                   K2

/      153.37  158.60   5.23            RSHM          DB            KP1   P                 V*             L)
L                                          6               2      0 J04                             V=
----------------------------------------------------------------------------------------------------------------------------
/      154.70  154.95   0.25          X RRHM          DB            KP1   R                 V*          M9    L)
L                                          8               2      0 J04                             V=

/      155.20  157.90   2.70          8 ARGL          LM      1 1   1     R                 V-                V*
L                                          5            (L                                          V1
----------------------------------------------------------------------------------------------------------------------------
/      158.60  176.83  18.23            RRPM       SM1    G:        OU4   P                 V-             L)
L                                          5       *R- DB      2  + 0 NO2                      V.    V.

/      176.83  190.94  14.11            RRHT       *R=    DR        PT5   P                 V.             D-
L                                          6       *S= RS      2   1 C NO1
----------------------------------------------------------------------------------------------------------------------------
R      176.83  190.94       RS IS ABC

/      133.06  183.36   0.30          X SAND                  4 4   4     R    BD       U50
L                                          6          BG (L
```

```
K  F   F R O M - T O -  I N T RECOV  RD % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R Q D  AGE EV RN LC TM QM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/     183.36  184.57   1.21          Y BRHM                         OR4   R
L                                               * B+ 2   + 0 NO1

/     190.94  214.06  23.12           BRPM        DB                DO3   P               V-             B.
L                                    7     *B=        2   1 0 NO2                                V* V-
R     190.94  214.06        POOR RECOV (18%) BETWEEN 194.0-196.14 CONSIDERED FAULT ZONE

/     195.30  197.80   2.50          X BRHT                         NP3   R
L                                    6     *B+        2   + 0 LN2                 V.         V)

/     197.80  200.13   2.33          X CGCP SF    DB                MN1   R               V+             D.
L                                    7                8     C LO6

/     209.09  213.04   3.95          X CGCP SF                      MP1   R                              D.
L                                    7           DB 7     C MN4                              V1

/     214.06  232.20  18.14           ARGL CR SF   LC // 1 1   1      P  1 BD    U50          V-       L*     LI
L                                    5  CA S01 SS (L                     2 BD    U48    V.                   L*
R     214.06  232.20        BD VARIES FROM U50, AT TOP, TO 90 AT 223.00 AND TO U48, AT
R     214.06  232.20        BOTTOM.

/     232.20  309.37  77.17           BRPM       *B=                 OY4   P               V*             V*
L                                    6     *S+ DB     2 + 1 0 NP1
R     232.20  309.37        PEBBLES OF CHERT ARE SCATTERED THROUGHOUT THIS P.G.I. AND ARE
R     232.20  309.37        MORE RECOGNIZABLE (IN CORE PICTURES) THAN FROM 190.94 TO 214.06
R     232.20  309.37        ASSAY DATA IS NOT AVAILABLE.
```

I G C

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

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DRILLHOLE/TRAVERSE :80-DH054      COLLAR ELEVATION:       1217.80     AZIMUTH( DEG ) :   206.00     GEOLOGGED BY : HJV +
TOTAL DEPTH/LENGTH :   386.79     NORTHING(- IF S):    7002359.00     VERTICAL ANGLE :   -65.00     DATE (YY/MM/DD): 810715
CORE/HOLE DIAMETER :       NQ     EASTING (- IF W):     436672.25     CO-ORD SYSTEM  :    UTM       PROJECT NUMBER : J-S
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SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	38.40	206.00	-68.00
2	45.72	191.00	-66.00
3	91.44	187.00	-65.50
4	121.92	190.00	-64.00
5	152.40	171.00	-57.00
6	213.36	168.00	-53.00
7	274.32	161.00	-47.00
8	335.28	161.00	-39.50
9	384.35	163.00	-37.00

```
R HED                        ORIGINALLY LOGGED BY A.R. HILDEBRAND IN JULY 1980.

   F    - I N T E R V A L -    CORE  T- %      TYPI- QAL  TEX-   GRAIN         PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =    . DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                          H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MT=METRIC FT=FOOTRIC)  ERY    O I      TN TM MAT TX TX F C % M ARG    /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  I N T (  . )  D X TYPE  1  2 QM1  1  2 F F C A            1     AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- ---  - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                         ROCK   FM    RT    TM QM2 TX TX S C O O CHT     T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                         QUAL  AGE EM- O LC- 3      3  4 O     /         2    AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
Y  G                         DESIG      VTR   COL          R       C            STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2   2

R SVY     0.00     0.00         THE CROSS SECTION FOR THIS HOLE WAS PLOTED AS AN IDEAL SMOOTH
R SVY     0.00     0.00         CURVE, AND VALUES FOR INCLINATION IN S004, S007,S008,S009;AND
R SVY     0.00     0.00         FOR AZIMUTH IN S001,S004,S007,S008 ARE READINGS FROM THIS CURVE.
R SVY     0.00     0.00         VALUES FOR AZIMUTH IN S002,S003,S009 ARE FIELD READINGS
R SVY     0.00     0.00         CONSIDERED TO BE AFFECTED BY LOCAL MAGNETIC DISTURBANCE.

/ OVB     0.00    21.34  21.34              OVER                                   P

/        21.34   218.50 197.16              BRAT            G;            QT5     P     SH        55 V)                  D*
L                                              5        OB ST 2    1 O NP1                               V(     V-             B.
R        21.34   218.50         CRYSTALS OF PY OCCUR MAINLY IN CHT FRAGMENTS AND BLEBS IN ARG
R        21.34   218.50         FRAGMENTS SLICKENSIDED AND SHEAR PLANES ARE COMMON ALL THROUGH
R        21.34   218.50         OUT THE PGI. FAULT ZONES AT 59.0;70.0;AND 106.80.
R        21.34   218.50         COLOR CHANGES GRADUALLY TO 6A BETWEEN 79.0-85.80 AND 176.0-189.0

/        88.70    91.80   3.10            X BRPM        SN= HS G;         NP2     R
L                                              5        SI1 DB     2    2 O JO=
R        88.79    91.80         COATINGS OF NATIVE COPPER OCCUR AT 89.41 ON FRACTURES SURFACE.

/        99.70   101.30   1.60            X BRPM            HS G:         NS6     R     CN      U47 V1                     B-
L                                              6        SV1 OB     2    2 O JO1
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```
K  F  F R O M - T O -  T O T RECOV  RQ % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                           R Q D  AGE EV RQ LC TM QM2 TX TX S C U O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/      157.53  162.25   4.67          X BRBM          DB              OT7    R                 V-                B-
L                                           5                  2     O JM=

/      193.80  198.30   4.50          X BRBM                          OP2    R
L                                           6           G;            KN2                                           B.

/      205.50  206.70   1.40          X BRBM          DB              NO+    R                 V*                B-
L                                           6                  2   1 O LO4

/      218.50  234.39  15.89            CGCP     SF                   LS2    P                 V)                D*
L                                           7     *S1          8   1 C OR4
R      218.50  234.39          INTERVAL CORRELATES TO 71.20-76.60 OF HOLE 78-30; 438.8-494.0 OF
R      218.50  234.39          HOLE 80-56A AND TO 441.9-488.1 OF HOLE 80-56B.

/      234.39  251.65  17.26            BRBT          DB              PU7    P                 V.                D*
L                                           6     *S=          2   - O NO+

/      251.65  271.95  20.30            BRBM     SF                   RU9    P     SH      60 V*                 D( V- V.
L                                           5     *S- DB ST 2      - O JK+                         V.
R      251.65  271.95          GN, PY AND SD OCCUR IN A FRAGMENT OF SF ARGL.

/ FLT  271.60  271.08   0.08          X BRBM     SF                   RU9    R     SH      60 V*                 D( V- V.
L                                                 GG4

/      271.95  284.60  12.65            ARGL          SI1 SS ST 1 1    1         P     BD      20                    D(
L                                           5     SN1 // LC                          SH      55
R      271.95  284.60          POOR RECOVERY FROM 277.37 TO 284.60.

/      284.60  311.00  26.40            ARGL          LM LC 1 1    1             P     BD     U20                    D*
L                                           5     SN1 SS ST                          SH

/      284.60  311.00  26.40          2 BRBM            G;            QX9    R                                   D.
L                                           5          DB    2      O

/      292.40  292.58   0.18          X SAND          G;                     R                                   D-
L                                           6             XB

/      311.00  340.70  29.70            ARSI          SN2 LC (L 1 4 2 4        P  1 BD     U46                    D*
L                                           5     SI1 XB G;                       3 BD      30

/      320.80  323.65   2.85          X BRBM          DB              PR8    R                                   D-
L                                           5                  2     O

/      329.49  336.50   7.01          X BRBM          DB              OX6    R                                   D*
L                                           5                  2     O

/      340.70  366.50  25.80            BRBM          DB              OP7    P                 V)                D* V- B.    72
L                                           5                  2   = O NO=                         V- V*
R      340.70  366.50          INTERVAL 354.10-355.80 IS A POSSIBLE ORE ZONE EQUIVALENT.

/      344.60  345.10   0.50          X BRBM     SF                   KO=    R                                   D-
L                                           5                  2     O LN5
```

```
K  F   F R O M - T O -  I N T RECOV  MD % ROCK TE TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                             R Q D  AGE EV RN LC TM QM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/     352.60  354.10   1.30          X BRPM    SD                    MO=   R                                D- B.
L                                        5  SF          2     0 NO3                          V*
R     352.60  354.10        THIS INTERVAL CORRELATES TO 135.6-136.6 OF HOLE 79-51; 277.55-
R     352.60  354.10        278.85 OF HOLE 78-41 AND 231.4-235.2 OF HOLE 80-55.
R     352.60  354.10        INTERVAL 354.1-355.8 CORRELATES TO 133.7-136.6 OF HOLE 79-51 AND
R     352.60  354.10        275.84-277.55 OF HOLE 78-41

/     366.50  386.79  20.29            BRBM      SM2   OR         OS8   P            V(                  O*
L                                        5  SF     RS   2     0 JM+                          *(
R     366.50  386.79        RS ARE AB, ABC.
```

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :80-DH055	COLLAR ELEVATION: 1278.90	AZIMUTH(DEG) : 225.00	GEOLOGGED BY : +
TOTAL DEPTH/LENGTH : 242.93	NORTHING(- IF S): 7002628.00	VERTICAL ANGLE : -65.00	DATE (YY/MM/DD): 0
CORE/HOLE DIAMETER : HQ	EASTING (- IF W): 436261.81	CO-ORD SYSTEM : UTM	PROJECT NUMBER : J-S

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	30.48	231.00	-67.00
2	76.20	211.00	-61.00
3	121.92	208.00	-57.00
4	182.88	208.00	-52.00
5	237.68	208.00	-46.00

```
   F   - I N T E R V A L -    CORE  T- %       TYPI- QAL  TEX-  GRAIN          PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =    . DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                         H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MT=METRIC FT=FOOTRIC)  ERY    O T       TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN  - - - -
Y  G  F R O M - T O -  I N T (  . )  O X TYPE  1  2 OM1  1  2 F F C A          1    AZM  RT OZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                          ROCK   FM    RT    TM QM2 TX TX S C O O CHT       T ID STK DIP MG MU CL SD QS HA PR MT SL HA
F  L                          QUAL  AGE FM- U LC- 3     3  4 O     /            2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y  G                          DESIG      VIR  COL            R     C             STRUCTUR-2  A  A  A  A  A  A  A  A  A  A    2   2

R SVY    0.00     0.00      S004 READING IS ACTUALLY 212 DEG BUT IS UNCERTAIN, THEREFORE
R SVY    0.00     0.00      208 IS CHOSEN FOR MAPS.
```

PAN OCEAN OIL LTD.

G E O L O G — JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

DRILLHOLE/TRAVERSE --- 80-DH055 --- (CONTINUED)

A UMM				SAMPLE	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A LAB				SERIAL	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	
A TYP				NUMBER	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	
A MTH					WA	WA	WA	WA	WA	WA	WA	WA	
R ASY	0.00	0.00		B.CLG = BONDAR CLEGG, VANCOUVER; H-CORE = HALF CORE.									
R ASY	0.00	0.00		WA = WET ANALYSIS.									
R ASY	0.00	0.00		LESS THAN DETECTION LIMIT ENTERED AS -D.L. E.G. -0.01									
R ASY	0.00	0.00		NO ASSAY INFORMATION ENTERED AS -0.1									
A 001	231.40	232.50	80	RS9814	0.02	-0.01	0.02	0.09	0.02	3.95	-0.1	-0.1	3.89
A 001	232.50	234.90	144	RS9815	0.04	0.01	0.07	0.06	0.02	6.00	-0.1	-0.1	6.00
A 001	234.90	235.20	96	RS9816	0.19	-0.01	0.05	0.08	0.02	10.85	-0.1	-0.1	10.98

A MIN			0.02	-0.01	0.02	0.06	0.02	3.95	-0.1	-0.1	3.86
A MAX	231.40	235.20	0.19	0.01	0.07	0.09	0.02	10.85	-0.1	-0.1	11.03

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

```
DRILLHOLE/TRAVERSE :80-DH056        COLLAR ELEVATION:      1230.00     AZIMUTH( DEG ) :  228.00     GEOLOGGED BY :        +
TOTAL DEPTH/LENGTH :    23.62       NORTHING(- IF S):  7002464.00     VERTICAL ANGLE :  -70.00     DATE (YY/MM/DD):         0
CORE/HOLE DIAMETER :     HQ         EASTING (- IF W):   436749.62     CO-ORD SYSTEM  :   UTM       PROJECT NUMBER : J-S

R HED                        HOLE LOST AND TERMINATED.

   F   - I N T E R V A L -    CORE  T- %      TYPI- RAL  TEX-  GRAIN         PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L  (UNITS =    .  DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                      H  H  H  H  H ANY H  H  H ANY  ALT ORE
F  A  (MT=METRIC FT=FOOTRIC)  ERY      O T        IA TM MAT TX TX F C % M ARG   /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  I N T (  . )    D X TYPE  1  2 OM1  1  2 F F C A          1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                          ROCK    FM     RT    TF OM2 TX TX S C O O CHT       T ID STK DIP MG MU CL SD QS HA PR MT SL HA
F  L                          QUAL   AGE EN- O LC- 3      3  4 O    /             2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y  G                          DESIG      VIR   COL              R     C             STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2   2

R ASY    0.00    0.00      NO ASSAY DATA FOR THIS HOLE.
```

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6B02

DRILLHOLE/TRAVERSE :80-DH057   COLLAR ELEVATION: 1159.40   AZIMUTH(DEG) : 75.00   GEOLOGGED BY : +
TOTAL DEPTH/LENGTH : 17.98   NORTHING(- IF S): 7001814.00   VERTICAL ANGLE : -50.00   DATE (YY/MM/DD): 0
CORE/HOLE DIAMETER : NQ   EASTING (- IF W): 436572.31   CO-ORD SYSTEM : UTM   PROJECT NUMBER : J-RECC

R HED   HOLE LOST AND TERMINATED.

```
   F   - I N T E R V A L -    CORE  T- %       TYPI- DAL  TEX-  GRAIN         PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =    .  DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                         H  H  H  H  H ANY H  H  H ANY
F  A  (MT=METRIC FT=FOOTRIC)  ERY     O T       1M IM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  I N T (  . )  D X TYPE  1  2 OM1  1  2 F F C A         1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                          ROCK    FM    RT     TH OM2 TX TX S C O O CHT       T ID STK DIP MG MU CL SD QS HA PR MT SL HA
F  L                          QUAL   AGE FM- O LC- 3      3  4 O    /             2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y  G                          DESIG      VIM   COL             R    C              STRUCTUR-2 A  A  A  A  A  A  A  A  A  A   2   2
```

G E O L O G E D I T L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :80-DH056	COLLAR ELEVATION: 1451.20	AZIMUTH(DEG) : 225.00	GEOLOGGED BY : +
TOTAL DEPTH/LENGTH : 170.99	NORTHING(- IF S): 7003984.00	VERTICAL ANGLE : -70.00	DATE (YY/MM/DD): 0
CORE/HOLE DIAMETER : NQ	EASTING (- IF W): 435041.62	CO-ORD SYSTEM : UTM	PROJECT NUMBER : J-RECC

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	32.31	224.00	-70.00
2	93.27	224.00	-60.00
3	163.37	224.00	-54.00

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  F   - I N T E R V A L -    CORE  T- %      TYPI- GAL  TEX-  GRAIN        PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K L (UNITS =   . DEC.PLACE)RECOV-  N N ROCK FYING MIN TURES CHARACS                          H  H  H  H  H ANY H  H  H ANY  ALT ORE
E A  (MT=METRIC FT=FOOTRIC)  ERY    U T      TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y G  F R O M - T O -  I N T (  . )  D X TYPE  1  2 UM1  1  2 F F C A          1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K F                          ROCK   FM     KT    TM NM2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E L                          QUAL   AGE EN- U LC- 3      3  4 O     /          2    AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
Y G                          DESIG      VIR   COL              R     C            STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2   2
```

```
R SVY     0.00     0.00       S002 AZIMUHT WAS RECORDED AS 221 BUT IS UNCERTAIN.
R SVY     0.00     0.00       SPERRY SUN TESTS.

R ASY     0.00     0.00       NO ASSAY VALUES FOR THIS HOLE.
```

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6B02

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DRILLHOLE/TRAVERSE :80-DH059     COLLAR ELEVATION:      1407.20     AZIMUTH( DEG ) :   205.00     GEOLOGGED BY : HDG +
TOTAL DEPTH/LENGTH :  153.31     NORTHING(- IF S):   7004797.00     VERTICAL ANGLE :   -50.00     DATE (YY/MM/DD): 810826
CORE/HOLE DIAMETER :     NQ      EASTING (- IF W):    433273.44     CO-ORD SYSTEM  :    UTM       PROJECT NUMBER : J-END


                            SEQ. NO OF      LENGTH FROM COLLAR      AZIMUTH     VERT. ANGLE
                            SURVEY DATA      TO SURVEY POINT        ( DEG )       ( DEG )

                                 1                 91.40             195.00        -51.00
                                 2                121.90             187.00        -52.00
                                 3                152.40             186.00        -49.50

R HED                       ORIGINALLY LOGGED BY ANGIE STARTA IN JULY 1980.

   F    - I N T E R V A L -     CORE  T- %       TYPI- QAL  TEX-  GRAIN         PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =    .  DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                            H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MT=METRIC FT=FOOTRIC)  ERY     O I       TM TM MAT TX TX F C % M ARG   /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  I N T ( . )   D X TYPE  1  2 UN1  1  2 F F C A             1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                          ROCK   FM     RT    TM QM2 TX TX S C O O CHT       T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                          QUAL   AGE EN- M LC- 3      3  4 O    /            2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y  G                          DESIG      VTR  COL               R     C               STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2   2


/ OVB    0.00   15.24  15.24              OVER                             P
L

/        15.24  118.72 103.48              ARGL CR           LM 0 2 ) 3     P  0 LM     45                    B+
L                                              3A      MX    9                                       <+
R        15.24  118.72         IN GENERAL, THIS CARBONACEOUS ARGILLITE IS FAINTLY LAMINATED
R        15.24  118.72         WITH SILT TO SAND SIZE PARTICLES.  EUHEDRAL PYRITE CUBES OCCUR
R        15.24  118.72         AT INTERVALS AVERAGING .4CM IN DIAMETER.  QUARTZ-SIDERITE VEINS
R        15.24  118.72         ARE PREVALENT AND ARE PROBABLY RESPONSIBLE FOR MINOR DEFORMATION
R        15.24  118.72         WITHIN THE ARGILLITE INTERVAL.  OVERALL, THE ROCK RECOVERY AND
R        15.24  118.72         ROCK QUALITY IS POOR.

/        19.81   20.02   0.21            X ARGL SF           LM 0 2 ) 3     R  0 LM     45                    D*
L                                                                                                    V3

/        26.17   26.40   0.23            1 BRBM        SS          LM9   R     FO       40                    B1
L                                              4T            5                                       <+
R        26.17   26.40         PYRITE OCCURS AS EUHEDRAL CUBES THAT AVERAGE .5CM IN DIAMETER.

/        28.28   28.42   0.14            8 SILT                  0 2 6 2    R                                 B=
L                                              5T      LC LM 8                         <)

/        30.57   32.41   1.84            7 BRBM CR     SS          LN9   R                                    B+
L                                              3A            4                                       <+
R        30.57   32.41         SOFT SEDIMENT SLUMP WITHIN THE ARGILLITE HAS RESULTED IN MINOR
R        30.57   32.41         BRECCIATION.  PYRITE OCCURS MAINLY AS EUHEDRAL CRYSTALS, HOWEVER
```

```
K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM OM1 TX TX F C % M ARG   RT 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                           R Q D  AGE FV RO LC TM OM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R        30.57   32.41      IT ALSO OCCURS IN VEINS WITH A QUARTZ ENVELOPE.

/        33.25   37.75   4.50            X ARGL CR           BR 0 3 2 3       R   0 LM      45                      B+
L                                                                                                           #+
R        33.25   37.75      THE QUARTZ-SIDERITE VEINS SURROUND THE ANGULAR, ARGILLIC BRECCIA
R        33.25   37.75      FRAGMENTS.

/        39.62   41.12   1.50            X ARGL SF           LM 0 2 ) 3       R   0 LM      45                      B=
L                                                                                 V=          <)
R        39.62   41.12      THIS INTERVAL IS BADLY BROKEN.  THE EUHEDRAL CUBES OF PYRITE
R        39.62   41.12      AVERAGE .7CM IN DIAMETER.

/        45.58   46.20   0.62            X ARGL CR           LM 0 2 ) 3       R   0 LM      45 E+                   B+
L                                                                                                                      S)
R SPC    45.58   46.20      SAMPLE D.G. 205 TAKEN AT 45.58 METRES.

/        47.24   48.12   0.88            X ARGL CR           LM 0 2 ) 3       R   0 LM      45                      B+    B=
L                                                                                                          B+

/ FLT    52.43   52.88   0.45            X ARGL CR     GG6   LM 0 2 ) 3       R   0 LM      45 V=                   B+    D+
L
R        52.43   52.88      THIS ZONE IS HEAVILY GOUGED AND BROKEN.  THE FINE WHITE POWER
R        52.43   52.88      WITHIN THE ARGILLITE IS PROBABLY WEATHERED QUARTZ.

/        54.35   62.80   8.45            X ARGL CR           LM 0 2 ) 3       R   0 LM      50 <)                   B+    D+
L

/        66.14  103.43  37.29            X ARGL CR           LM 0 2 ) 3       R   0 LM      45                      B+    D=
L                                                            LC                                            V=
R SPC    66.14  103.43      SAMPLE D.G. 206 TAKEN AT 75.90 METRES.  THIS SAMPLE HAS QUARTZ-
R        66.14  103.43      SIDERITE VEINS SURROUNDING BRECCIATED ARGILLITE CLASTS.  SAMPLE
R        66.14  103.43      D.G 207 TAKEN AT 92.63 METRES.  THIS SAMPLE CONTAINS CONVOLUTED
R        66.14  103.43      VEINS OF QUARTZ-SIDERITE.

/ FAL   103.43  114.30  10.87            X ARGL GR     GG2   LM 0 2 ) 3       R   0 LM      45                      B+    D=
L                                                                                                          V=
R SPC   103.43  114.30      SAMPLE DG 208 TAKEN AT 103.51 METRES.  QUARTZ-SIDERITE VEINS
R       103.43  114.30      ENVELOPE GRAPHITIC ARGILLITE FRAGMENTS.  SAMPLE D.G. 172 TAKEN
R       103.43  114.30      AT 115.52 METRES.
R       118.72  119.27      THE MATRIX CONSISTS OF SAND SIZED GRAINS.

/       118.72  122.68   3.96            CGBR SF      *C1     F*          KM1    P            V=                    D+
L                                         5A             B*     3         KN4

/       118.72  119.27   0.55          X BRPM SF      *C=     F*          KL1    R            V1                    D+
L                                         5A             B*     3       0 KL2
R SPC   118.72  122.68      SAMPLE DG 171 TAKEN AT 120.52 METRES.

/       121.95  122.68   0.73          X CGBR SF      *C1     F*          KM1    R            V=                    D+
L                                                                                                          V=
R       121.95  122.68      AROUND THE CHERT BRECCIA CLASTS ARE SWIRLS OF CARBONACEOUS
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K  F   F R O M - T O -  T O T RECOV  RQD % ROCK TX TM OM1 TX TX F C % M ARG    RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                          R Q D  AGE EV MQ LC TM OM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD OS HA PR MT SL HA

R        121.95  122.68       ARGILLITE.

K $SX    122.68  122.68   0.00

/        122.68  123.50   0.82              CHER        CH6                 JK*   P    FO       50                      L1     D1
L                                               6A          BR BN           LN6                               <=      L)     L1
R        122.68  123.50       BANDED SULPHIDES PINCH OUT INTO SMALL VEINLETS, THAT AVERAGE
R        122.68  123.50       LESS THAN .1MM.  SPHALERITE BANDS ARE MAUVE TO LIGHT BROWN IN
R        122.68  123.50       COLOUR AND VERAGE 3MM.  IN WIDTH.  GALENA IS ASSOCIATED WITH
R        122.68  123.50       THE SPHALERITE AS MEDIUM GRAINED CUBES.  IT ALSO OCCURS AS
R        122.68  123.50       DISSEMINATED, FINE GRAINED CRYSTAL IN THE MILDLY BRECCIATED
R        122.68  123.50       CHERT AND LARGE EUHEDRAL CRYSTALS IN QUARTZ-SIDERITE LINED VUGS.
R        122.68  123.50       PYRITE AND PYRRHOTITE PREDOMINANTLY OCCUR IN VEINLETS ENVELOPES
R        122.68  123.50       OF QUARTZ-SIDERITE ARE COMMON AROUND DISCONTINOUS BANDS OF
R        122.68  123.50       SPHALERITE.
R SPC    122.68  123.50       SAMPLE D.G. 170 TAKEN AT 123.0 METRES (T.S.).

/        123.50  124.00   0.50              CHER        CH6                 JK*   P    FO       50                      L1     D1
L

/        124.00  125.00   1.00              CHER        CH4                 JK*   P    FO       50                      M2     D2
L                                                                                                                     M=     D1
R        124.00  125.00       FE-SULPHIDES OCCUR AS MASSIVE, FINE GRAINED, ANHEDRAL CRYSTALS
R        124.00  125.00       WITH SMALL CROSSCUTTING VEINLETS OF QUARTZ-SIDERITE.  EUHEDRAL,
R        124.00  125.00       MEDIUM GRAINED GALENA APPEARS IN VUGS AND INTERSTITIAL SPACES.
R SPC    124.00  125.00       SAMPLE D.G. 169 TAKEN AT 124.3 METRES (P.T.).

/        125.00  126.00   1.00              MSSX SF     CH2    MX                 P                   V=                  V3     D2
L                                               3T             VG                                             <)      B1     D1
R        125.00  126.00       GALENA OCCURS IN 1MM VEINLETS AND AS DISSEMINATED CRYSTALS, WITH
R        125.00  126.00       SPHALERITE, IN A SILICIOUS MATRIX.
R SPC    125.00  126.00       SAMPLE D.G. 168 TAKEN AT 125.4M (P.T).
R        125.00  126.00       CHERT RICH INTERVALS ARE FROM 10-30CMS WIDE, AND OCCUR BETWEEN
R        125.00  126.00       MASSIVE SULPHIDE INTERVALS OF 15-40CMS IN WIDTH.

/        126.00  127.00   1.00              MSSX SF     CH2    MX                 P                   V=                  V3     D2
L

/        127.00  128.00   1.00              MSSX SF     CH2    MX                 P                   V=                  V3     D2
L

/        128.00  129.00   1.00              MSSX PY            MX BN              P                   <+                  M3 B(  <2
L                                                              VG                                          M3 M)      M1     <1
R        128.00  129.00       GALENA, SPHALERITE AND QUARTZ OCCASIONALLY OCCUR IN BANDS.
R        128.00  129.00       PYRITE AND SIDERITE OCCUR AS MASSIVE PATCHES.  VEINLETS OF
R        128.00  129.00       GALENA, SPHALERITE AND CHALCOPYRITE RUN BETWEEN THESE MASSIVE
R        128.00  129.00       AREAS IN A BOXWORK STRUCTURE.  PYRRHOTE IS CLOSELY ASSOCIATED
R        128.00  129.00       WITH THE PYRITE.  LARGE LENSES OF WHITE EUHEDRAL, MEDIUM GRAIN
R        128.00  129.00       QUARTZ IS COMMON OPEN SPACE FILLING TEXTURES ARE PREVALENT.
R SPC    128.00  129.00       SAMPLE D.G. 167 TAKEN AT 128.3 METRES (P.T.).

/        129.00  130.00   1.00              MSSX PY            MX BN              P                   <+                  M3 B(  <2
L
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PAN OCEAN OIL LTD.

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G E O L O G                                  JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                      PAGE -  4
                                       DRILLHOLE/TRAVERSE --- 80-DH059 --- (CONTINUED)

K  F   F R O M - T O -  I N T RECOV  MD % ROCK IM IM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                                R Q D  AGE EV NO LC TM QM2 TX TX S C U O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/       130.00  131.00   1.00            MSSX PY        MX BN              P                  <+                 M5     <2
L                                             5T           VG                                       M3 M)      M(     <+
R       130.00  131.00        GALENA, SPHALERITE SHOW MINOR BANDING (3-5MM. THICK).  LARGE
R       130.00  131.00        OPEN SPACE CUBIC GALENA, HEXAGONAL QUARTZ, AND AN UNKNOWN
R       130.00  131.00        ORTHORHOMBIC CRYSTAL, LINE VUGS AND CAVITIES.
R SPC   130.00  131.00        SAMPLE D.G. 167A) TAKEN AT 130.84 METRES (P.T.).

/       131.00  132.00   1.00            MSSX        PY5    MX                 P                  <+                 M5     M2
L                                             5T                                                    M2 M)      M)     X=

/       132.00  133.00   1.00            MSSX        PY5    MX                 P                  <+                 M5     M2
L                                             5T                                                    M2 M)      M)     X=
R SPC   132.00  133.00        SAMPLE D.G. 167 B) TAKEN AT 132.54 METRES.

/       133.00  134.00   1.00            MSSX PY     CH1 MX BN                 P                  Q=                 M4 B+ M2
L                                                          LC                                       M1 M)      M)     X2
R SPC   133.00  134.00        SAMPLE D.G. 166 TAKEN AT 134.7 METRES (P.T.).
R       133.00  134.00        SULPHIDES ARE PREDOMINANTLY MASSIVE OR MILDLY BANDED, HOWEVER IN
R       133.00  134.00        REGIONS OF CHERT THEY BECOME THINLY LAMINATED AND HIGHLY
R       133.00  134.00        CONVALUTED.

/       134.00  135.00   1.00            MSSX PY     CH2 MX BN                 P                  Q=                 M4 B+ M2
L                                                    PY4

/       135.00  136.00   1.00            MSSX PY     CH2 MX                    P                  Q=                 M3     M2
L                                             4T     PY3                                            Q1 Q)      M+     X=

/       136.00  137.00   1.00            MSSX        CH1 MX                    P                  Q=                 M2 B( M4
L                                             5T                                                    M1 Q)      M+     X+
R       136.00  137.00        GALENA OCCURS AS COARSE TO MEDIUM GRAINED CRYSTALS IN 2CM.- 3CM.
R       136.00  137.00        MASSIVE PATCHES.

/       137.00  138.00   1.00            MSSX        CH=    MX                 P                  V+                 M3     M1
L                                             6T                                                    M2 M=      M+     D+
R       137.00  138.00        A BOXWORK OF SIDERITE AND QUARTZ-SIDERITE SURROUND MASSIVE
R       137.00  138.00        PYRITE AND GALENA.

/       138.00  139.00   1.00            MSSX PY SF CH=    MX                  P                  V2                 M3     B=
L                                                                                                   M1 M+
R       138.00  139.00        SPHALERITE PREDOMINATES AS FINE GRAINED PARTICLES IN SILICIFIED
R       138.00  139.00        REGIONS.  IT OCCASIONALLY OCCURS AS 5MM BLEBS SURROUNDED BY
R       138.00  139.00        MASSIVE PYRITE AND PYRRHOTITE.

/       139.00  140.00   1.00            MSSX PY     CH4 MX                    P                                     M3     B1
L                                                                                                   V= V+      M+     B1
R       139.00  140.00        MASSIVE SULPHIDES, 30CMS THICK, ALTERNATE WITH CHERT LAYERS
R       139.00  140.00        VEINED BY SPHALERITE, SIDERITE AND GALENA.
R SPC   139.00  140.00        SAMPLE D.G. 164 TAKEN AT 139.60 METRES.
R       139.00  140.00        SAMPLE D.G. 163 TAKEN AT 139.40 METRES.

/       140.00  140.60   0.60            MSSX PY            MX                 P   FO      55 B=                     M3     M1
L                                                          VG                                       V+         M=     M=
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```
K  F  F R O M - T O -  I N T RECOV  MD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                           R Q D  AGE EV RQ LC TM OM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD OS HA PR MT SL HA

/      140.00  140.60  0.60           3 CHEF      CH6    BR              R                                <=    <=
L                                                                 MN9                                     <=    C=
R SPC  140.00  140.60     SAMPLE D.G. 165 TAKEN AT 140.3M.
R      140.00  140.60     HYDROTHERMAL CHERT UNDERGOES MINOR BRECCIATION DUE TO SOFT
R      140.00  140.60     SEDIMENT DEFORMATION.

K SSX  140.60  140.60  0.00

/      140.60  142.20  1.60             CHEF SF   CH7    LM              P    FO      35 <+                B=
L                                              BR             MN6                                         B+    D+
R SPC  140.60  142.20     SAMPLE D.G. 161 TAKEN AT 141.0 METRES (P.T.).
R      140.60  142.20     CHERT OR SILICIFIED ARGILLITE FRAGMENTS ARE FOUND IN A
R      140.60  142.20     SILICIFIED MATRIX.  THIN, CONVOLUTED BEDS OF CARBONACEOUS
R      140.60  142.20     ARGILLITE INCREASE TOWARDS THE BOTTOM OF THIS INTERVAL.

/      142.10  142.20  0.10           9 CGCP SF                   KL2    R                                R=
L                                         4A             5     C KL4

/      142.20  152.70 10.50             BRBM CR        SC SS      K09    P    FO      30                  B+    <+
L                                         2A             3                                          V+
R      142.20  152.70     A MINERALIZED VEIN OF GALENA OCCURS BETWEEN 148.48 TO 148.96 M.

/      151.18  151.60  0.42           X BRBO CR        BR LC      K09    R    FO      30                  B+    <+
L

/      152.70  153.31  0.61             ARSI           LC                P
L                                                  BR                                               V=
```

				SAMPLE SERIAL	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A UMM													
A LAB					B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	
A TYP					H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	
A MTH					WA	WA	WA	WA	WA	WA	WA	WA	

R ASY 0.00 0.00 B.CLG = BONDAR CLEGG, VANCOUVER; H-CORE = HALF CORE.

R ASY 0.00 0.00 WA = WET ANALYSIS.

R ASY 0.00 0.00 LESS THAN DETECTION LIMIT ENTERED AS -D.L. E.G. -0.01

R ASY 0.00 0.00 NO ASSAY INFORMATION ENTERED AS -0.1

A 001	120.40	122.63	166	8460	0.04	0.03	-0.01	0.05	0.03	8.27	-0.01	-0.1	8.30
A 001	122.63	123.50	066	8461	5.55	5.50	0.01	1.54	0.02	12.70	-0.01	-0.1	25.21
A 001	123.50	124.00	050	8462	7.97	5.45	-0.01	1.60	-0.01	6.50	-0.01	-0.1	21.39
A 001	124.00	125.00	100	8463	8.55	5.10	0.02	2.07	0.02	19.18	-0.01	-0.1	34.83
A 001	125.00	126.00	100	8464	9.35	4.00	-0.01	2.50	0.03	34.32	-0.01	-0.1	50.08
A 001	126.00	127.00	100	8465	8.13	4.65	-0.01	2.53	0.02	25.91	-0.01	-0.1	41.12
A 001	127.00	128.00	100	8466	7.05	5.30	-0.01	2.16	0.02	28.22	-0.01	-0.1	42.63
A 001	128.00	129.00	100	8467	13.50	3.00	-0.01	3.18	0.03	33.01	-0.01	-0.1	52.60
A 001	129.00	130.00	100	8468	16.65	4.65	-0.01	3.95	-0.01	27.17	-0.01	-0.1	52.29
A 001	130.00	131.00	100	8469	8.40	1.58	-0.01	2.10	0.03	33.67	-0.01	-0.1	45.66
A 001	131.00	132.00	100	8470	11.76	3.00	-0.01	2.82	0.03	32.10	-0.01	-0.1	49.59
A 001	132.00	133.00	100	8471	11.31	3.73	-0.01	2.64	0.01	34.27	-0.01	-0.1	51.84
A 001	133.00	134.00	100	8472	12.99	9.35	-0.01	2.97	0.01	24.80	-0.01	-0.1	50.00
A 001	134.00	135.00	100	8473	12.79	3.50	-0.01	2.78	0.02	29.84	-0.01	-0.1	48.81
A 001	135.00	136.00	100	8474	9.18	2.62	-0.01	1.87	0.01	31.40	-0.01	-0.1	44.96
A 001	136.00	137.00	099	8475	26.61	1.27	-0.01	5.21	0.01	26.04	-0.01	-0.1	59.02
A 001	137.00	138.00	099	8476	6.50	1.67	-0.01	1.54	0.01	33.16	-0.01	-0.1	42.76
A 001	138.00	139.00	097	8477	2.97	1.61	-0.01	0.93	0.01	35.63	-0.01	-0.1	41.03
A 001	139.00	140.00	093	8478	4.40	4.10	-0.01	1.23	0.02	26.07	-0.01	-0.1	35.70
A 001	140.00	140.60	056	8479	13.97	3.15	0.01	3.15	0.03	20.49	-0.01	-0.1	40.69
A 001	140.60	142.10	141	8480	6.91	1.26	-0.01	1.78	0.01	11.09	-0.01	-0.1	20.93
A 001	142.10	143.00	087	8481	0.28	0.10	-0.01	0.07	-0.01	5.24	-0.01	-0.1	5.56
A 001	145.48	148.96	037	8482	3.12	0.13	-0.01	0.76	0.03	10.24	-0.01	-0.1	14.16
A MAX	120.40	148.96			26.61	9.35	0.02	5.21	0.03	35.63	-0.01	-0.1	76.74

A	MIN				0.04	0.03	-0.01	0.05	-0.01	5.24	-0.01	-0.1	5.23
A	CMP	122.68	137.00	1413	11.51	4.12	-0.1	2.71	-0.1	27.40	-0.1	-0.1	45.34
A	CMP	122.68	142.10	1900	10.16	3.61	-0.01	2.43	0.02	26.64	-0.1	-0.1	42.65

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :80-DH060
TOTAL DEPTH/LENGTH : 242.32
CORE/HOLE DIAMETER : HONC

COLLAR ELEVATION: 1407.20
NORTHING(- IF S): 7004797.00
EASTING (- IF W): 433273.44

AZIMUTH(DEG) : 205.00
VERTICAL ANGLE : -70.00
CO-ORD SYSTEM : UTM

GEOLOGGED BY : +
DATE (YY/MM/DD): 0
PROJECT NUMBER : J-END

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	30.48	209.70	-69.00
2	57.91	215.00	-68.00
3	88.39	214.00	-67.00
4	118.87	208.00	-64.50
5	149.35	206.00	-62.00
6	182.88	195.00	-61.00
7	213.36	191.00	-61.00
8	240.79	189.00	-60.00

```
    F   - I N T E R V A L -    CORE  T- %       TYP1- QAL  TEX-  GRAIN        PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K   L  (UNITS =    .  DEC.PLACE)RECOV-  M M ROCK FYIGG MIN TURES CHARACS                        H  H  H  H  H ANY H  H  H ANY  ALT ORE
E   A   (MT=METRIC FT=FOOTRIC)  ERY     O I       TM FM MAT TX TX F C % M ARG   /RI T ID STK DIP A  A  A  A  A MIN A  A  A MIN - - - -
Y   G  F R O M - T O -  I N T (  . )  D X TYPE  1  2 WM1  1  2 F F C A            1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K   F                          ROCK   FM      RT    TM OM2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E   L                          QUAL   AGE EN- O LC- 3      3  4 O     /           2    AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
Y   G                          DESIG      VIR   COL           R     C               STRUCTUR-2 A  A  A  A  A  A  A  A  A  A     2   2

R SVY    0.00     0.00      SPERRY SUN TESTS.
R SVY    0.00    25.60      HOLE TRICONED TO BYPASS BROKEN GROUND.
R SVY    0.00   145.66      BQ CORE; 145.66-242.32(END) NO CORE.
R SVY   30.48    57.91      AZIMUTH HAS BEEN EXTRAPOLATED.
```

A UMM				SAMPLE	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A LAB				SERIAL	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	
A TYP				NUMBER	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	
A MTH					WA	WA	WA	WA	WA	WA	WA	WA	

R ASY 0.00 0.00 B.CLG = BONDAR CLEGG, VANCOUVER; H-CORE = HALF CORE.

R ASY 0.00 0.00 WA = WET ANALYSIS.

R ASY 0.00 0.00 LESS THAN DETECTION LIMIT ENTERED AS -D.L. E.G. -0.01

R ASY 0.00 0.00 NO ASSAY INFORMATION ENTERED AS -0.1

A 001	128.76	129.76	100	KL9327	-0.01	1.28	0.08	-0.05	-0.01	5.45	-0.002	-0.1	6.638
A 001	129.76	130.31	52	KL9328	0.01	0.12	0.09	0.04	0.01	4.50	-0.002	-0.1	4.668
A 001	130.31	131.03	61	KL9329	0.01	8.20	0.01	0.06	0.01	5.55	-0.002	-0.1	13.738
A 001	184.32	185.32	91	8548	0.05	-0.01	0.12	0.06	-0.01	4.13	-0.002	-0.1	4.238
A 001	185.32	186.32	100	8531	0.48	0.12	0.01	0.09	0.03	33.18	-0.002	-0.1	33.808
A 001	186.32	188.64	224	8532	7.91	0.08	-0.01	2.09	0.02	34.50	0.002	-0.1	44.492
A 001	188.64	189.77	103	8533	11.50	0.10	0.01	2.12	0.03	18.55	0.002	-0.1	32.212
A 001	189.77	191.57	172	8534	13.20	0.34	0.06	1.90	0.01	10.15	-0.002	-0.1	25.558
A 001	191.57	192.57	98	8549	0.13	0.11	0.09	0.04	0.01	8.55	0.002	-0.1	8.832
A CMP	186.32	191.57	525		10.50	0.17	0.03	2.03	0.02	22.72	0.002	-0.1	35.372

A MIN			-0.01	-0.01	-0.01	-0.05	-0.01	4.50	-0.002	-0.1	4.308
A MAX	128.76	191.67	13.20	8.20	0.12	2.12	0.03	34.50	0.002	-0.1	58.072

G E O L O G E D I T L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

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DRILLHOLE/TRAVERSE :80-D8061      COLLAR ELEVATION:      1277.00     AZIMUTH( DEG ) :   216.00     GEOLOGGED BY :       +
TOTAL DEPTH/LENGTH :  203.30      NORTHING(- IF S):  7002478.00     VERTICAL ANGLE :   -78.00     DATE (YY/MM/DD):        0
CORE/HOLE DIAMETER :     BQ       EASTING (- IF W):   436545.87     CO-ORD SYSTEM  :    UTM       PROJECT NUMBER : J-S
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SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	15.24	214.00	-78.00
2	30.48	211.50	-78.50
3	45.72	209.00	-77.00
4	60.96	207.50	-72.50
5	76.20	206.00	-69.00
6	91.44	204.00	-67.00
7	106.64	202.00	-67.00
8	121.92	195.00	-67.00
9	137.16	195.00	-65.00
10	152.40	194.00	-63.50
11	167.64	194.00	-62.00
12	182.88	194.00	-59.50
13	198.12	194.00	-59.00

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  F   - I N T E R V A L -   CORE  T- %      TYPI- QAL  TEX-  GRAIN        PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =   . DEC.PLACE)RECOV-  H M ROCK FYING MIN TURES CHARACS                         H  H  H  H  H ANY H  H  H ANY  ALT ORE
F  A  (MT=METRIC FT=FOOTRIC)  ERY    O T     TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  I N T (  . )  D X TYPE  1  2 QM1  1  2 F F C A        1     AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                        ROCK    FN    RT    TM QM2 TX TX S C O U CHT       T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                        QUAL   AGE FN- Q IC- 3      3  4 O    /            2    AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
Y  G                        DESIG      VTR   COL             R    C              STRUCTUR-2 A  A  A  A  A  A  A  A  A  A     2   2

R SVY    0.00    0.00      SPERRY SUN TESTS. AZIMUTH WITH INCONSISTENT TRENDS HAVE BEEN
R SVY    0.00    0.00      DELETED.

R ASY    0.00    0.00      NO ASSAYS FOR THIS HOLE.

R ASY   30.48   45.72      AZIMUTH HAS BEEN EXTRAPOLATED.

R ASY   60.96   76.20      AZIMUTH HAS BEEN EXTRAPOLATED.

R ASY   91.44  106.64      AZIMUTH HAS BEEN EXTRAPOLATED.

R ASY  167.64  182.88      AZIMUTH HAS BEEN EXTRAPOLATED.

R ASY  182.88  198.12      AZIMUTH HAS BEEN EXTRAPOLATED.
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G E O L O G E D I T L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :80-DH062	COLLAR ELEVATION: 1373.80	AZIMUTH(DEG) : 27.00	GEOLOGGED BY : +
TOTAL DEPTH/LENGTH : 135.64	NORTHING(- IF S): 7004611.00	VERTICAL ANGLE : -50.00	DATE (YY/MM/DD): 0
CORE/HOLE DIAMETER : HQ	EASTING (- IF W): 433316.19	CO-ORD SYSTEM : UTM	PROJECT NUMBER : J-END

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	30.48	30.00	-50.00
2	60.96	31.00	-49.00
3	91.44	33.00	-48.00
4	135.64	31.00	-48.00

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   F   - I N T E R V A L -    CORE  T- %       TYPI- NAL  TEX-  GRAIN         PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =    . DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                          H  H  H  H  H ANY H  H  H ANY  ALT ORE
F  A  (MT=METRIC FT=FOOTRIC)  ERY    O T      TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  I N T (  . )  D X TYPE  1  2 OM1  1  2 F F C A          1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                          ROCK   FM    RT   TM OM2 TX TX S C O O CHT        T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                          QUAL   AGE EM- Q LC- 3      3  4 O   /            2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y  G                          DESIG      VIR  COL              R   C              STRUCTUR-2  A  A  A  A  A  A  A  A  A  A     2   2
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R SVY 0.00 0.00 SPERRY SUN TESTS.

PAN OCEAN OIL LTD.

DRILLHOLE/TRAVERSE --- 80-DH062 --- (CONTINUED)

					% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A UMM				SAMPLE	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A LAB				SERIAL	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	
A TYP				NUMBER	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	
A MTH					WA	WA	WA	WA	WA	WA	WA	WA	
R ASY	0.00	0.00		B.CLG = BONDAR CLEGG, VANCOUVER; H-CORE = HALF CORE.									
R ASY	0.00	0.00		WA = WET ANALYSIS.									
R ASY	0.00	0.00		LESS THAN DETECTION LIMIT ENTERED AS -D.L. E.G. -0.01									
R ASY	0.00	0.00		NO ASSAY INFORMATION ENTERED AS -0.1									
A 001	83.85	84.85	46	AH8565	0.02	0.02	0.12	0.07	0.01	5.90	-0.1	-0.1	5.94
A 001	84.85	85.85	40	AH8566	2.90	0.14	0.07	0.67	0.02	7.00	-0.1	-0.1	10.60
A 001	85.85	86.07	22	AH8567	4.85	6.90	0.12	1.84	0.02	27.10	-0.1	-0.1	40.63
A 001	86.07	87.07	59	AH8568	4.50	1.16	0.05	0.95	0.01	4.58	-0.1	-0.1	11.05
A 001	87.07	88.07	40	AH8569	4.20	2.35	0.09	0.83	0.01	3.80	-0.1	-0.1	11.08
A 001	88.07	89.07	44	AH8570	4.13	2.16	0.07	0.65	0.02	12.15	-0.1	-0.1	18.98
A 001	89.07	90.07	46	AH8571	1.16	0.92	0.04	0.36	0.02	10.30	-0.1	-0.1	12.60
A 001	90.07	90.42	16	AH8572	0.84	1.02	0.05	0.15	0.01	4.73	-0.1	-0.1	6.60
A 001	90.42	91.28	40	AH8573	1.59	0.54	0.03	0.25	0.01	6.10	-0.1	-0.1	8.32
A 001	91.28	91.44	16	AH8574	8.00	5.25	0.09	1.95	0.02	18.20	-0.1	-0.1	33.31
A 001	91.44	92.22	37	AH8575	2.70	1.05	0.03	0.53	0.01	16.60	-0.1	-0.1	20.72
A 001	92.22	93.22	40	AH8576	0.20	0.07	0.09	0.14	0.01	6.63	-0.1	-0.1	6.94
A 001	93.22	96.01	84	AH8577	0.04	0.04	0.11	0.07	0.01	10.25	-0.1	-0.1	10.32
A 001	96.01	97.54	00		-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.80
A 001	97.54	100.58	49	AH8578	0.02	0.02	0.04	0.02	-0.01	7.90	-0.1	-0.1	7.79
A CMP	85.85	89.07			4.32	2.23	0.70	0.88	0.01	8.23	-0.1	-0.1	16.17
R ASY	85.85	89.07		ACMP OVER 3.22M HAS A TRUE THICKNESS OF 2.54M.									

A MIN			-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.80
A MAX	83.85	100.58	8.00	6.90	0.12	1.95	0.02	27.10	-0.1	-0.1	43.89

G E O L O G E D I T L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA-STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :	80-DH063	COLLAR ELEVATION:	1295.40	AZIMUTH(DEG) :	183.00	GEOLOGGED BY :	JDK + JER
TOTAL DEPTH/LENGTH :	591.62	NORTHING(- IF S):	7002611.00	VERTICAL ANGLE :	-72.67	DATE (YY/MM/DD):	810611
CORE/HOLE DIAMETER :	NQWD	EASTING (- IF W):	435463.25	CO-ORD SYSTEM :	UTM	PROJECT NUMBER :	J-S

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	3.05	183.27	-71.77
2	30.48	183.22	-70.88
3	60.96	181.45	-70.64
4	91.44	179.11	-68.60
5	121.92	175.12	-62.59
6	152.40	173.57	-61.94
7	182.88	173.58	-60.62
8	213.36	174.52	-58.49
9	220.98	174.55	-57.63
10	228.60	174.14	-56.58
11	236.22	174.03	-55.70
12	243.84	175.06	-54.85
13	274.32	175.45	-52.77
14	304.80	175.43	-50.72
15	335.28	176.28	-49.42
16	365.76	178.39	-47.43
17	396.24	179.18	-45.57
18	426.72	177.51	-41.87
19	457.20	176.02	-37.50
20	487.68	175.36	-34.77

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  F    - I N T E R V A L -     CORE  T- %       TYPI- QAL  TEX-  GRAIN        PGI    STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K L (UNITS =    .  DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                           H  H  H  H  H ANY H  H  H ANY  ALT ORE
E A  (MT=METRIC FT=FOOTRIC)  ERY     U I        TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN  - - - -
Y G  F R O M - T O -  T N T ( . )  D X TYPE   1  2 QM1  1  2 F F C A           1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- - - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K F                          ROCK   FM     RT    TM QM2 TX TX S C O O CHT       T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E L                          QUAL   AGE EN- U LC- 3      3  4 O     /           2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y G                          DESIG      VTR   COL              R     C          STRUCTUR-2  A  A  A  A  A  A  A  A  A  A    2   2
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R SVY     0.00     0.00         DATA REPRESENTS MERGER OF GYROSCOPIC SURVEY DATA OBTAINED FR
R SVY     0.00     0.00         THE UPPER PART OF THE DETAILED SURVEY OF DDH 80-63B WITH THE
R SVY     0.00     0.00         LESS DETAILED CLOWER PART OF HOLE)  GYROSCOPIC SURVEY OF
R SVY     0.00     0.00         DDH 80-63.  (IE:  0.0 - 243.84M FROM DDH 80-63B).
R SVY   251.77   251.77     HALL AND ROWE STEEL WEDGE.  FULL STEEPENING.
R SVY   359.97   359.97     HALL AND ROWE STEEL WEDGE.  FULL STEEPENING.
R SVY   398.07   398.07     HALL AND ROWE STEED WEDGE.  FULL STEEPENING.

/ OVB     0.00     4.75    4.75           OVER                                  P

/         4.75    18.90   14.15           TRIC                                  P

/ WET    18.90    34.06   15.16  0.5      3R34          *S=              NQ9    P                        D*
L                                              1A                      C
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                                                          PAN OCEAN OIL LTD.
G E O L O G                                      JASON PB-ZN-AG-BA-STF DEPOSIT, Y.T.                                     PAGE - 2
                                         DRILLHOLE/TRAVERSE --- 80-DH063 --- (CONTINUED)

K  F  F R O M - T O -  I N T RECOV  MD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                         R Q D  AGE EV RG LC TM OM2 TX TX S C Q D CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R       18.90   34.06      PYRITE WEATHERING PRODUCES RED-BROWN LOCALIZED STAINING.

/ SHR   30.00   30.01   0.01           X BRHM                               R
L                                             1A
R       30.00   30.01      ROCK IS HIGHLY FRAGMENTED. SHEAR ZONE THROUGHOUT INTERVAL.
R       30.00   30.01      FRAGMENTS RANGE FROM LARGE CLASTS (S=8) TO GOUGE.

/       34.06   50.36  16.30             BRHT                         NP7   P                                 D)
L                                             3A              2 6   ( NO3

/ FAL   38.46   40.54   2.08           X FAUL       GGX                     R
L                                             3A
R       38.46   40.54      GOUGE APPEARS TO BE ALTERED BRHT.

/ SHR   40.54   42.06   1.52           X BRHM                         OS9   R               >2                6*
L                                             2A                    C

/       42.06   43.81   1.75           X BRHM                         OS9   R               >1                6*
L                                             2A                    C

/       43.81   50.36   6.55           X BRHT PY                      OP7   R               <.                #)
L                                                               1 5 C
R       43.81   50.36      DISSEMINATED AND LAMINATED PYRITE ALSO ABUNDANT. LARGE ARGILLITE
R       43.81   50.36      FRAGMENT IS BRHM.

/       50.36   56.66   6.30             BRHM       SI1 SS    0 1 1 1 NQ9   P    CV      65                   L*
L                                             1A                    C

/       56.66   79.72  23.06             BRHT                         NT7   P                                 #)
L                                             2A              2 4   C NO3                            >1 >*        # .
R       56.66   79.72      MASSIVE SIDERITE TO VEINS WITH SMALL AMOUNT OF QUARTZ.

/       69.29   74.00   4.71           X BRHT                         MO4   R                        00 >1    D-
L                                             3A              5 5   C KO6                                           00

/       74.00   79.72   5.72           X BRHT                         NT7   R                        00       #+
L                                                                                                                   00

/       79.72  123.30  43.58             BRHM       SI1               RU9   P                                 B+
L                                             1A                    C                             C-    <.
R       79.72  123.30      LENGTHS OF CORE UP TO 20 SHOW LITTLE MORE THAN SOFT SEDIMENT
R       79.72  123.30      DEFORMATION, BUT ARE SEPARATED BY SHALE CLASTS.
R       79.72  123.30      A GREEN MINERAL OCCURING ALONG FRACTURES MAY BE CHLORITE.

/      114.16  116.52   2.36           X BRHM       SI1               RU9   R                           <1    B+
L                                                                     LN=

/      116.52  119.09   2.57           X BRHM       SI1               LM+   R                                 B+
L

/ FAL  123.30  136.07  12.77             FAUL       GG7                     P
L                                             1A
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K  F  F R O M - T O -  I N T RECOV  RQ % ROCK TM TM GM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                                R Q D  AGE EV RQ LC TM GM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/      123.54  125.49   1.95             X FAUL     GG7                     R                                         D+
L                                            1A                                                        V5
R      123.54  125.49        QUARTZ-SIDERITE HAS CEMENTED THE GOUGE MATERIAL.

/ SHR  136.07  150.26  14.19               BRH4     *S1               MP9   P                                         D-
L                                            1A             3 6   C MO=                             C. L.
R      136.07  150.26        HIGHLY FRAMENTED.

/      142.40  145.18   2.78             X ARSN SD  SI3        1 1   1        R  4 BD         55                      D-
L                                            3N                                  CV         55          C. L.

/      145.55  146.50   0.95             X BRPV                         MN=   R                                         D-
L                                            2A                    0 KN=

/      148.13  150.26   2.13             X ARSN SD  SI3        1 3 + 3        R    BD         70                      D-
L                                            3N     SN1                          CV         70          C. L.
R      148.13  150.26        SILT LAMINAE ARE SIDERITIC.

/      150.26  194.50  44.24               BRHT     *S+               PR8   P                                         D)
L                                            2A             2 6       MO2

/      186.36  190.20   3.84             X BRHM                       NPQ   R                                         B)
L                                            1A                                                      L.

/      194.50  224.86  30.36               BRHM     SI1               SN8   P                                         D*
L                                            1A             2 3       MN=                            B) B)
R      194.50  224.86        REDUCE TO NR AT 214.11M. SIDERITE OCCURS WITH ONLY A SMALL
R      194.50  224.86        AMOUNT OF QUARTZ.

/      224.86  262.02  37.16               BRBT                       NS7   P                            L-         D-
L                                            1A             2 4   C LP3

/      251.76  254.51   2.75             X LOST                             R
L
R      251.76  254.51        WEDGE GROOVE.

/      256.00  256.46   0.46             X CGCP                       MO3   R                                         D.
L                                            5A             3 8       LN7                                B.

/      260.84  262.02   1.18             X CGCP                       MO3   R                                         D.
L                                            5A             3 8       LN7                                B.

/      262.02  296.70  34.68               BRHM GR PY PY2             PV6   P                                         <1
L                                            1A             2     C                              X+

/      284.29  293.39   9.10             X ARSI PY  SI1 SC NO 1 2   3         R                                         <1
L                                            1A     SN2 //     7     C
R      284.29  293.39        MAY REPRESENT A LARGE FRAGMENT.

/      296.70  330.84  34.14               BRHT PY                    PV6   P                                         <1
L                                            4A             2 1 1 C NQ1                              D.
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 K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM GM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 Y  G                          R Q D  AGE EV RQ LC TM OM2 TX TX S C G O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

 /      327.96  328.20   0.24           X FAUL                          R
 L

 /      328.20  330.84   2.64           X BRXX PY                 PQ2   R
 L                                            4A           2 3 =  NO5                           D.        D.
 R      328.20  330.84       SOME BLEBS OF CHALCOPYRITE.

 /      330.84  363.17  32.33              BRHM GR PY PY2          1  QS7   P                          <.        BN
 L                                            1A           2    C                              C. <.

 /      359.97  363.17   3.20           X LOST                          R
 L
 R      359.97  363.17       WEDGE GROOVE.

 /      363.17  371.05   7.88              BRHT PY    SNS             QRS   P                <.                D.
 L                                            4A           2 1 1 C PQ2                         C. D.
 R      363.17  371.05       ALSO SOME SANDSTONE FRAGMENTS.

 /      371.05  377.59   6.54              BRHM PY    PY1             QS9   P                                  <.
 L                                                         3 = = C                             C. D.

 /      377.59  447.88  70.29              BRHT PY GR PY1             QS5   P                                  8L
 L                                            4A           2    C PT3                          C. D.

 /      380.39  385.06   4.67           X CGCP PY                     QP1   R                <.                D.
 L                                             A           4    C PT8
 R      380.39  385.06       POSSIBLE CLAST.

 /      390.13  390.61   0.48           X CGCP PY                           R                                  D.
 L                                             A           4 1  C NO9                           D.
 R      390.13  390.61       POSSIBLE CLAST.

 /      416.95  429.74  12.79           X CGCP PY                      Q2   R                                  D+
 L                                            4A           1    C  T7                           D.
 R      416.95  429.74       POSSIBLE CLAST.

 /      398.07  399.59   1.52           X LOST                              R
 L
 R      398.07  399.59       WEDGE GROOVE.

 /      380.19  380.29   0.10           X FAUL                              R
 L
 R      380.19  380.29       SL IN VEINS WITH SD AT 435.82 TO 435.92 AND AT 446.66
 R      380.19  380.29       THROUGH OUT PGI THERE ARE SOME VEINS OF SD AND QZ; ALSO THERE
 R      380.19  380.29       MAY BE BLEBS OF GL LOCALLY IN THESE VEINS.

 /      447.88  460.59  12.71              BRHM PY    PY2             PQ7   P                                  8L
 L                                            1A           1    C                              C. L.

 /      460.59  492.11  31.52              ARSI       SI1 LM // 1 2 2 3     P   8D     V25                     D.
 L                                                    SU2  6    C                              C. <+
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```
K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM IM GM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                        R Q D  AGE EV RQ LC TM GM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R       460.59  492.11       SD MAY ALSO OCCUR AS LAMINATIONS AND BLEBS.

/ SHR   492.11  494.80  2.69              ARSI       SI1 SS // 1 2 2 3         P  2 BD      V25                       R+
L                                               1A   GG1 SS    6   C               1                  C. <+ <+

/       494.80  497.50  2.70              BRHM SF CR *S= R* SS          OS9    P                  <+            <=    7+     B)
L                                               1A GL ST3               JL*                                  B+ B)

/       494.80  497.50  2.70           1 SILT        SI8 GR SS 1 2 4 2         R  2 BD            <=            <)    7)
L                                               1A        //
R       494.80  497.50       THE SD BLEBS MAY BE BRECCIATED VEINS.  CLASTS ARE PARALLEL
R       494.80  497.50       LAMINATED ARST.  SILT AS LAMINATIONS AND SILTSTONE.

/       496.90  497.25  0.35           X BRHM SF CR *S= R* SS           OS9    R                  >7            <=    >1     <+
L

/       497.50  500.24  2.74              ARSI SF GL      SS //         023    P  2 BD        30 <1             <1    B=     B)
L                                               1A SL                                                                        B)

/       497.75  498.05  0.30           X SILT SF GL      SS // 1 2 3 2         R  2 BD        30 <1             <1    B=     B)
L                                               2A SL                                                                        B)

/       499.10  499.45  0.35           X BRHT SF GL                     MN6    R                                *=           <+
L                                               2A SL                   KM1                                     V=           <)

/       499.70  500.24  0.54           X SILT SF GL      MX BR 1 2 3 2         R                  <+            <1    81     L)
L                                               2A SL                                                                        L*
R       499.70  500.24       PYRITE VEINS AND BANDS.

K US1   500.24  500.24  0.00

/       500.24  504.28  4.04              BMSX CH GL CH2 //                    P  3 BD        30                7+    61     L1
L                                               TA SL SI2 LC VG                                            <=
R       500.24  504.28       NONSILICIFIED PORTIONS OF ORE ZONE HIGHLY FRIABLE IE:  MUCH HAS
R       500.24  504.28       BEEN REDUCED TO POWDER AT TIME OF LOGGING.  CHERT BEDDING
R       500.24  504.28       THICKER THAN SULPHIDE LAMINATIONS.  SL OFTEN CHERTY, GL IS
R       500.24  504.28       SEPARATE, OFTEN RESEMBLING STRINGERS.  BEDDING GENERALLY
R       500.24  504.28       REGULAR;  FEW CONVOLUTIONS.

K LS1   504.28  504.28  0.00

/       504.28  506.56  2.28              ARGL       SI5 // SS 0 1 4 2         P  2 BD        50 <*             <)    81     B.
L                                               1A          8                                                                B.
R       504.28  506.56       VERY SILTY ARGILLITE.  PY REPLACES SI, LM, BUT ALSO AS LOCAL
R       504.28  506.56       MASSES OF BLEBS.

/       506.56  507.60  1.04              ARSI       SI7 // SS 0 1 5 3         P  2 BD            <.                  R1
L                                               2A                                                        C.
R       506.56  507.60       UNIT IS SANDY SILT BANDED SILTY ARGILLITE.

/       507.60  512.00  4.40              BRHT       *C= R* H*          NR8    P                  <+                  7=
L                                               1A   *S+            C KP=                                 C.
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                                                  PAN OCEAN OIL LTD.
G E O L O G                                 JASON PB-ZN-AG-BA-STF DEPOSIT, Y.T.                                          PAGE -  6
                                          DRILLHOLE/TRAVERSE --- 80-DH063 --- (CONTINUED)

K  F  F R O M - T O -  C N T RECOV  MD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R Q D  AGE EV RO LC TM OM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R      507.60  512.00      NODULE-LIKE PY MAY BE REPLACED SAND CLASTS.  MATRIX BRPM.

/      508.70  508.90   0.20           X BRBT       *C= R* H*         NR8   R               <+                85
L

/      510.70  510.80   0.10           X BRBT       *C= R* H*         NR8   R               >3          >=    61
L                                                                                                    >)

/      512.00  513.40   1.40             BRPB       *C3 R* H*         MQ2   P               <1                R1
L                                             2A                      L03                         C.

/      513.40  518.20   4.60             BRBT SF    *C= R* H*         NR8   P               <+                71
L                                             1A    *S=             C KO=                         C.

/      518.20  524.46   6.26             ARSI SF        BR SS               P  2 BD      50 <1          61
L                                             1A        //                       CV      30       C.

/      518.20  518.75   0.55           X ARSI SF CR     // SS               R  2 BD      50 <1          61
L                                             1A        SS                       CV      30       C.
R      518.20  524.46      ARGL BEDS WITH SILT LM.

/      520.49  524.46   3.97           X ARSI SF        // MD               R  2 BD      50 <)          63    R     L.
L                                                       BD LM                                                       L.
R      520.49  524.46      PY AS LM REPLACEMENT, BLEBS, RARE NODULES, SELVAGES IN QZ-VEINS.
R      520.49  524.46      NOTE:  HALF CORE SAMPLES TAKEN, BUT NO ASSAY RESULTS, ONLY
R      520.49  524.46             GEOCHEM.

/      523.43  523.70   0.27           X VEIN                               R               >9          >*
L                                                                                                 C. >)

K US2  524.46  524.46   0.00

/      524.46  527.30   2.84             LMSX SF SL CH3 SS LC               P  2 BD      70 V1          L1    7+    6=
L                                             4A GL     // IB                  1 LM      70                         L=
R      524.46  527.30      CHERT (2-5CM) INTERBEDDED WITH SULPHIDE/ATE LM.  LOCAL SULPHIDE
R      524.46  527.30      (GL, PY) MICROVEINS.

/      525.15  525.30   0.15           X VEIN                               R               >9          >*          B.
L                                                                                                 C. >)             B.

/      526.70  527.30   0.60           X ARSI SF        //                  R  2 BD      45 >1          83    R+    B.
L                                             1A                                 CV      45       C.                B*

/      527.30  528.30   1.00             LMSX SF SL CH= // IB               P  1 LM     D50 V1          L1    7+    6=
L                                             6A        XB LC                    CV      50

/      527.30  528.30   1.00           5 ARGL SF    SIS IB // 0 1 5 2       R  2 BD      50
L                                             1A        SC XB 6                  CV      50
R      527.30  528.30      PARALLEL LM MILDLY LC.  QZ-VEINS CUT BY SC.  ARGL TRUNCATED BY
R      527.30  528.30      LSX.
R      527.30  528.30      VERY SILTY ARGILLITE INTERBEDDED WITH LMSX.
```

```
K  F  F R O M - T O -  I N T RECOV  MD % ROCK TX TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R Q D  AGE EV RN LC TM QM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

K LS2  528.30 528.30   0.00

/      528.30 529.80   1.50             ARGL SF  SI2 // SS         012   P  2 BD     50 V1          83    L+    B(
L                                            1A                     7          CV     50                         B)

/      529.80 538.34   8.54             ARGL SF  SI2 // SS         012   P  2 BD     35 <=          <1    8=    B.
L                                            1A                     7          CV     35       C.                B.
R      529.80 538.34      INTERMITTANTLY SILICTFIED.

/      534.60 534.80   0.20           X ARGL SF  SI2 BR SS         012   R  2 BD     50 >7          >7    82    B(
L

/      536.00 536.20   0.20           X ARGL SF  SI2 // SS         012   R  2 BD     50 V1          83    B6    B(
L

/      536.20 536.35   0.15           X ARSN     SN4 FU // 0 3 4 3       R  1 LM    U45 >1                R2    B/
L                                            3A             4                                                    B/
R      536.20 536.35      MAY BE REVERSE GRADING.

/      536.35 538.34   1.99           X ARGL SF  SI2 BR SS         012   R  2 BD     50 <2          83    L+    B(
L

/      538.34 540.80   2.46             ARSI SF  SI2 // SS 0 1 2 2       P  2 BD     40 <=          L=    L=    L/
L                                            1A   CH)       6                  CV     40       C.                L/

/ LSX  538.34 540.80   2.46           4 LMSX          // LC            R  1 LM     40             L4          L*
L                                            6A   CH1                                          C.                L+
R      538.34 540.80      BARITE-CHERT LM BECOMMING MORE FREQUENT.
R      538.34 540.80      SULPIDE/ATE LM CONCENTRATED 539.3 TO 539.7 M.

/      540.80 543.90   3.10             ARSI CR SF SI= // LC            P  2 BD     65 <=                7+
L                                            1A                                CV     65

/      540.80 543.90   3.10           X ARSI SF SF SI= // SS            R  2 BD     48 <=                7+
L                                            1A                                CV     48
R      540.80 543.90      SF LESS INTENSE IN LATTER PART OF UNIT.
R      540.80 543.90      SOFT SED. DEFORM. INCREASES

/      543.90 546.51   2.61             BRPM     SN3 F* B*         LN1   P                          <)    R+
L                                            3A   *C2              L03                           <+

/      543.90 544.20   0.30           X BRPM     SN2 F* B*         L06   R                          <)    R+
L                                            1A   *C2 R* BR        MM2                           <+
R      543.90 546.51      ROUNDED ARGL, AND LARGE CHERT CLASSTS.  SMALLER CHERT ANGOLAR.
R      543.90 546.51      POORLY SORTED MATRIX OF CLAY TO SAND.

/ FAL  546.25 546.51   0.26           X BRPM     SN3 F* B*         LN1   R                          <)    R+
L                                                 GG9

/      546.51 548.80   2.29             LOST                              P
L
```

PAN OCEAN OIL LTD.

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G E O L O G                          JASON PB-ZN-AG-BA-STF DEPOSIT, Y.T.                                 PAGE - 8
                                 DRILLHOLE/TRAVERSE --- 80-DH063 --- (CONTINUED)

K  F  F R O M - T O -  I N T RECOV  MD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R Q D  AGE EV RQ LC TM OM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R     546.51 548.80     THIS UNIT IS CONSIDERED TO BE CUTTINGS WASHED DOWN FROM A HIGHER
R     546.51 548.80     ORE ZONE.  THE ORIGINAL CORE WAS LOST, AND RECOVERY CONSISTED OF
R     546.51 548.80     SULPHIDE/ATE SAND.  INITIALLY, THIS SAND WAS ASSAYED BUT THE
R     546.51 548.80     RESULTS ARE IGNORED.

/     548.80 550.70  1.90           BRP4      *S1          LN3  P           <*              B1
L                                 1A                      KN3                          <)
R     548.80 550.70     VERY POORLY SORTED MATRIX OF CLAY TO COARSE SAND.

/     549.10 549.30  0.20         X ARGL SF GL    // SS 0 1  1     R  2 BD      35 <+              R1   <*
L                                 TA                  9

/     549.30 549.75  0.45         X BRP4      *C*          KM2  R           <)             #1   #2
L                                 TA                      KL*

/     550.70 566.80 16.10           BRHM SF CP *S= BR SC   NP9  P   CV      35 <)                  B*
L                                 1A CB      R*        C KM.                     C.    <3   R1
R     550.70 566.80     CLASTS ARGL TO ARSI.  CLAY SIZED MATRIX.  CP OCCASIONAL AS
R     550.70 566.80     DISSEMINATIONS AND LOCALLY CONCENTRATED BLEBS.  STRONGLY
R     550.70 566.80     KNIESTIC.  CR CONTENT VARIES, AND IS VERY MILDLY CB.

/ FAL 559.80 559.92  0.12         X BRHM SF CR *S= BR SC   NP9  R   CV      35 <)                  B*
L                                            GG7

/     566.80 578.90 12.10           ARGL CR SF    SS // 0 1  1     P  2 BD         <)              B=
L                                  N CB      BR                     CV      35      C. <+ <3
R     566.80 578.90     UNIT IS EXTREMELY DISRUPTED, POSSIBLY ENOUGH TO BE CALLED BRHM.
R     566.80 578.90     BEDDING FROM 0 TO 75 DEGREES TO CORE.  SILICIFICATION VARIES,
R     566.80 578.90     AND UNIT IS MILDLY CB.  STRONGLY KNIESTIC.

/     575.15 575.40  0.25         X ARGL CR SF    SS // 0 1  1     R  2 BD         <)              B=
L                                                   FO
R     575.15 575.40     FOSSIL BED (FRG?) OF CRINOID FRAGMENTS.

/     578.00 578.30  0.30         X ARGL CR SF    SS FO 0 1  1     R  2 BD         <)              B=
L
R     578.00 578.30     FOSSIL BED (FRG?) OF CRINOID AND BRACHIOPOD FRAGMENTS.

/     578.90 587.35  8.45           ARSI SF CR SI1 SS BR      01   P  1 LM         <)              D=
L                                 14 CB     //                                  C. <+ <3
R     578.90 587.35     HIGHLY DISTURBED.  CORE/BEDDING 10 TO 70 DEGREES.  STRONGLY
R     578.90 587.35     KNIESTIC.

/ FAL 585.60 585.70  0.10         X ARSI SF CR SI1 SS BR      01   R  1 LM         >4              D=
L                                            GG5

/     587.35 591.62  4.27           ARSI SF CB SI2 // BR 0 2  3 01   P  1 LM      60 <)              D=
L                                       CR     BR SS                                       1
R     587.35 591.62     CORE/BEDDING 40 TO 70 DEGREES.  LESS CARBON AND MORE CARBONATE.
R     587.35 591.62     NOT AS SILICIFIED AS PREVIOUS UNITS.  KNIEST POORLY DEVELOPED.
```

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

```
DRILLHOLE/TRAVERSE :80-DH064     COLLAR ELEVATION:     1373.80     AZIMUTH( DEG ) :  207.00     GEOLOGGED BY :       +
TOTAL DEPTH/LENGTH :  205.96     NORTHING(- IF S):  7004612.00     VERTICAL ANGLE :  -60.00     DATE (YY/MM/DD):     0
CORE/HOLE DIAMETER :    BQ       EASTING (- IF W):   433317.75     CO-ORD SYSTEM  :   UTM       PROJECT NUMBER : J-END
```

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	46.02	212.00	-61.50
2	91.74	207.00	-61.00
3	143.56	207.00	-61.00
4	204.52	207.00	-60.00

```
   F   - I N T E R V A L -    CORE  T- %       TYPI- CAL  TEX-  GRAIN        PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
 K  L (UNITS =   .  DEC.PLACE)RECOV-  W W ROCK FYING MIN TURES CHARACS                         H  H  H  H  H ANY H  H  H ANY  ALT ORE
 E  A  (MI=METRIC FT=FOOTRIC)  ERY     O I      TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
 Y  G  F R O M - T O -  I N T (  . )  D X TYPE  1  2 QM1  1  2 F F C A          1     AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 - --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 K  F                         ROCK    FO     RT     TM QM2 TX TX S C O O CHT     T ID STK DIP MG MU CL SD QS HA PR MT SL HA
 E  L                         QUAL    AGE EN- N LC- 3       3  4 O    /          2     AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
 Y  G                         DESTG      VIR    COL             R     C          STRUCTUR-2   A  A  A  A  A  A  A  A  A  A   2   2

 R SVY     0.00     0.00      SPERRY SUN TESTS

 R ASY     0.00     0.00      NO ASSAYS FOR THIS HOLE
```

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :89-DH065	COLLAR ELEVATION: 1411.00	AZIMUTH(DEG) : 210.00	GEOLOGGED BY : +
TOTAL DEPTH/LENGTH : 238.05	NORTHING(- IF S): 7004735.00	VERTICAL ANGLE : -70.90	DATE (YY/MM/DD): 0
CORE/HOLE DIAMETER : 40	EASTING (- IF W): 433385.50	CO-ORD SYSTEM : UTM	PROJECT NUMBER : J-END

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	15.24	213.80	-68.20
2	30.48	214.60	-66.80
3	45.72	214.40	-66.80
4	60.96	213.20	-66.70
5	76.20	212.90	-66.80
6	91.44	213.40	-66.90
7	106.68	213.20	-66.50
8	121.92	212.40	-66.40
9	137.16	212.00	-65.60
10	152.40	213.50	-65.00
11	167.64	213.20	-64.80
12	182.88	213.00	-64.00
13	198.12	212.80	-62.30
14	213.36	212.05	-62.00

```
  F   - I N T E R V A L -    CORE  T- %       TYPT- QAL  TEX-  GRAIN        PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K L (UNITS =   . DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                         H  H  H  H  H ANY H  H  H ANY  ALT ORE
E A  (MT=METRIC FT=FOOTRIC)  ERY    O I      TM TM MAI TX TX F C % M ARG   /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y G  F R O M - T O -  I N T ( . )  D X TYPE  1  2 QM1  1  2 F F C A           1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K F                        ROCK   FR    RT   TM QM2 TX TX S C O O CHT       T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E L                        QUAL   AGE EN- Q LC- 3     3  4 O    /           2    AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
Y G                        DESIG     VIR   COL           R      C             STRUCTUR-2 A  A  A  A  A  A  A  A  A  A     2   2
```

R SVY	0.00	0.00	GYROCOMPASS SURVEY
R SVY	0.00	0.00	SPERRY SUN DATA NOT ENTERED.
R ASY	0.00	0.00	NO ASSAYS FOR THIS HOLE

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6B02

```
DRILLHOLE/TRAVERSE :80-DH066     COLLAR ELEVATION:      1346.80     AZIMUTH( DEG ) :     31.00     GEOLOGGED BY :           +
TOTAL DEPTH/LENGTH :   384.35    NORTHING(- IF S):   7004394.00     VERTICAL ANGLE :    -55.00     DATE (YY/MM/DD):         0
CORE/HOLE DIAMETER :     HQNQ    EASTING (- IF W):    433525.62     CO-ORD SYSTEM  :     UTM       PROJECT NUMBER : J-END
```

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	60.96	34.00	-55.50
2	289.86	34.00	-54.00
3	335.58	34.00	-54.00
4	384.35	30.00	-42.00

```
  F   - I N T E R V A L -    CORE  T- %       TYPI- QAL  TEX-  GRAIN         PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =   .  DEC.PLACE)RECOV-  M M ROCK FYING MIV TURES CHARACS                          H  H  H  H  H ANY H  H  H ANY  ALT ORE
F  A  (MI=METRIC FI=FOOTRIC)  ERY    O I       TM TM MAT TX TX F C % M ARG   /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  T O T (  .)  D X TYPE  1  2 QM1  1  2 F F C A           1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                         ROCK   FM     RT    TM QM2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
F  L                         QUAL   AGE EN- Q LC- 3      3  4 O     /          2    AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
Y  G                         DESIG     VIR  COL            R     C               STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2   2

R SVY     0.00     0.00       SPERRY SUN TESTS.
R SVY     0.00     0.00       REDUCED FROM HQ TO NQ AT 254.20 M.

R ASY     0.00     0.00       NO ASSAYS FOR THIS HOLE.
```

G E O L O G E D I T L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :80-DH067	COLLAR ELEVATION: 1374.90	AZIMUTH(DEG) : 30.00	GEOLOGGED BY : +
TOTAL DEPTH/LENGTH : 99.67	NORTHING(- IF S): 7004717.00	VERTICAL ANGLE : -50.00	DATE (YY/MM/DD): 0
CORE/HOLE DIAMETER : HQ	EASTING (- IF W): 433152.12	CO-ORD SYSTEM : UTM	PROJECT NUMBER : J-END

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	52.43	34.00	-52.00
2	98.15	30.00	-51.50

```
   F    - I N T E R V A L -     CORE  I- %       TYPI- UAL  TEX-  GRAIN        PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =    .  DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                               H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MI=METRIC FI=FOOTRIC)  ERY     O 1       TM TM NAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  I N T ( . )  D X TYPE  1  2 UM1  1  2 F F C A            1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                          ROCK   FM    KT    TM UM2 TX TX S C O O CHT       T ID STK DIP MG MU CL SD QS HA PR MT SL HA
F  L                          QUAL   AGE EN- O LC- 3     3  4 D    /            2    AZM  RT H  H  H  H  H  H  H  H  H  H    1    1
Y  G                          DESIG     VIR   COL              R    C              STRUCTUR-2  A  A  A  A  A  A  A  A  A  A    2    2
```

R SVY   0.00   0.00   SPERRY SUN TESTS.

PAN OCEAN OIL LTD.

G E O L O G — JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

DRILLHOLE/TRAVERSE --- 80-DH067 --- (CONTINUED)

A UOM				SAMPLE	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A LAB				SERIAL	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	
A TYP				NUMBER	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	
A MTH					WA	WA	WA	WA	WA	WA	WA	WA	

R ASY 0.00 0.00 B.CLG = BONDAR CLEGG, VANCOUVER; H-CORE = HALF CORE.

R ASY 0.00 0.00 WA = WET ANALYSIS.

R ASY 0.00 0.00 LESS THAN DETECTION LIMIT ENTERED AS -D.L. E.G. -0.01

R ASY 0.00 0.00 NO ASSAY INFORMATION ENTERED AS -0.1

A 001	77.72	80.50	130	9318	0.02	0.25	0.26	0.05	0.01	4.65	-0.01	-0.1	5.13
A 001	80.50	80.84	25	9301	1.32	0.02	0.01	0.41	0.06	24.75	-0.01	-0.1	26.46
A 001	80.84	81.24	24	9302	1.20	-0.01	-0.01	0.38	0.06	33.50	-0.01	-0.1	35.01
A 001	81.24	81.50	15	9303	0.22	0.01	0.02	2.44	0.03	24.70	-0.01	-0.1	27.31
A 001	81.50	82.91	33	9319	0.04	0.02	0.13	0.44	0.02	13.80	-0.01	-0.1	14.34

A MIN			0.02	-0.01	-0.01	0.05	0.01	4.65	-0.01	-0.1	4.60
A MAX	77.72	82.41	1.32	0.25	0.26	2.44	0.06	33.50	-0.01	-0.1	37.72

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :80AH056	COLLAR ELEVATION: 1230.00	AZIMUTH(DEG) : 228.00	GEOLOGGED BY : WJJ +
TOTAL DEPTH/LENGTH : 647.40	NORTHING(- IF S): 7002464.00	VERTICAL ANGLE : -70.00	DATE (YY/MM/DD): 811019
CORE/HOLE DIAMETER : BQ00	EASTING (- IF W): 436749.62	CO-ORD SYSTEM : UTM	PROJECT NUMBER : J-S

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	30.48	224.00	-68.00
2	91.44	218.50	-66.00
3	152.40	213.00	-64.00
4	213.36	209.50	-64.00
5	274.32	206.00	-61.00
6	362.10	204.00	-57.00
7	365.76	203.00	-56.00
8	373.38	201.00	-56.00
9	381.00	199.50	-55.00
10	388.62	198.00	-54.00
11	396.24	196.50	-51.00
12	403.86	195.00	-49.00
13	411.48	194.33	-46.00
14	426.70	193.00	-43.50
15	457.20	192.00	-43.00
16	487.68	191.00	-40.00
17	518.16	189.00	-36.00
18	548.64	185.00	-31.00
19	563.88	176.00	-31.00
20	571.50	175.00	-30.00
21	579.12	174.00	-29.00
22	586.74	172.90	-28.00
23	594.36	171.80	-28.00
24	601.98	170.70	-27.00
25	609.60	169.60	-28.00
26	646.18	164.00	-22.00

R HED 80-AH056: A-HOLE WAS 80-56A AND IS THE PILOT HOLE FOR WEDGED

R HED HOLE B (HOLE WAS CALLED 80-56B).

```
  F   - I N T E R V A L -    CORE  I- %      TYPI- QAL  TEX-  GRAIN       PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K L (UNITS =   . DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                        H  H  H  H  H ANY H  H  H ANY  ALT ORE
E A  (MT=METRIC FT=FOOTRIC)  ERY    O I      TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y G  F R O M - T O -  I N T ( . )  D X TYPE  1  2 OM1  1  2 F F C A          1    AZM  RT OZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K F                         ROCK   FM    RT   TM OM2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E L                         QUAL   AGE EN- O LC- 3     3  4 O     /         2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y G                         DESIG     VIR  COL            R     C            STRUCTUR-2  A  A  A  A  A  A  A  A  A  A    2   2
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R SVY 91.44 152.40 AZIMUTH IS EXTRAPOLATED.
R SVY 213.36 274.32 AZIMUTH IS EXTRAPOLATED.

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                                                          PAN OCEAN OIL LTD.
G E O L O G                                      JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                     PAGE - 2
                                        DRILLHOLE/TRAVERSE --- 80ADH056 --- (CONTINUED)

K  F  F R O M - T O -  T O T RECOV MD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                        R O D  AGE EV RQ LC TM OM2 TX TX S C O D CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R SVY  365.76  373.38      AZIMUTH IS EXTRAPOLATED.
R SVY  381.00  388.62      AZIMUTH IS EXTRAPOLATED.
R SVY  388.62  396.24      AZIMUTH IS EXTRAPOLATED.
R SVY  396.24  403.86      AZIMUTH IS EXTRAPOLATED.
R SVY  411.48  426.72      AZIMUTH IS EXTRAPOLATED.
R SVY  457.20  487.68      AZIMUTH IS EXTRAPOLATED.
R SVY  571.50  579.12      AZIMUTH IS EXTRAPOLATED.
R SVY  586.74  594.36      AZIMUTH IS EXTRAPOLATED.
R SVY  594.36  601.98      AZIMUTH IS EXTRAPOLATED.
R SVY  601.98  609.60      AZIMUTH IS EXTRAPOLATED.
R SVY  609.60  646.18      AZIMUTH IS EXTRAPOLATED.
R SVY  647.40  647.40      END OF WEDGED HOLE A.
R SVY    0.00    0.00      SPERRY SUN TESTS; ERRATIC AZIMUTHS (POSSIBLY DUE TO PYRRHOTITE)
R SVY    0.00    0.00      ARE DELETED IN THE ABOVE LISTING.
R SVY    0.00  363.32      HQ-CORE SIZE
R SVY  363.32  647.40      NQ-CORE SIZE

/        0.00   18.90 18.90             OVER                               P
L

/       18.90   27.86  8.96             BRHT       *S+ BR B*        N97   P                                 D*
L                                            4A    B*1 R* F* 3   +   M02                            D*
R       18.90   27.86      PY DISS PREDOMINANTLY IN CHERT CLASTS

/       27.86   45.37 17.51             BRBM           BR FL         MP8   P                                 D(
L                                            2A        SS    3       IH-

/ FLT   29.45   29.60  0.15           X FAUL       GGX                     R
L

/ FAL   33.44   39.32  5.88           X FAUL       GGX                     R
L

/ FLT   41.20   41.40  0.20           X FAUL       GGX                     R
L

/ FLT   42.70   43.28  0.58           X FAUL       GGX                     R
L

/       45.37   56.96 11.59             BRHT       *S) BR B*         KR6   P                                 D(
L                                            4A    B*1 F* R* 3   )   M02                                           D.
R       45.37   56.96      PY OCCURS AS CLAST REPLACEMENT AND DISS MAINLY IN CLASTS

/       56.96   58.45  1.49             BRBM           BR FL         MP9   P    CL      50                   B*
L                                            2A        SS
R       56.96   58.45      CLEAVAGE MAY BE SLUMP CLEAVAGE

/       58.45   61.19  2.74             BRHT           BR R*          MP3   P                                 D*
L                                            4A        F* SS 2       M04

/       59.92   60.16  0.24           6 BRHT           BR B*         MP3   R                              HE #1
L                                            4A        F* SS 2       M04                            #1    R*       R.
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PAN OCEAN OIL LTD.


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K  F   F R O M - T O -  T N T RECOV  MD % ROCK TP TM QM1 TX TX F C % M ARG    RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                         R Q D  AGE EV RJ LC TM QM2 TX TX S C O O CHT        2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/        61.19   68.70   7.51           BRHM          BR FL           MP7   P    CL      60                     D)
L                                            3A       SS    3

/        61.19   62.80   1.61         X OVER      *S( BR FL           MP7   R    CL      60                     D)
L                                            3A       SS    3         LN+
R        61.19   68.70        CLEAVAGE MAY BE SLUMP CLEAVAGE.

/        64.85   65.15   0.30         X OVER          BR FL           MP7   R    CL      60                     D)
L                                                                     MN)

/        66.70   77.00   8.30           BRHT      *S) BR B*           NN3   P                                   D(
L                                            4A       F* SS 2    )    J05                                             B.

/ FLT    68.70   68.80   0.10         X FAUL      GGX                       R
L
R        68.70   77.00        PY RESTRICTED MAINLY TO CLASTS.

/        73.76   74.33   0.57         X BRHM          BR FL           NO8   R
L                                            2A       SS    4
R        73.76   74.33        COMPRISES ONE LARGE CLAST THAT WAS DISRUPTED DURING TRANSPORT.

/        77.00   87.78  10.78           BRHT      *S) BR F*           OR5   P                                   D*
L                                            4A       B*    3    )    JL3                              D*
R        77.00   87.78        ARGL CLASTS BECOME COARSER UPHOLE.  PY AND SD DISS MAINLY IN
R        77.00   87.78        CLAST.

/        83.37   86.56   3.19         X BRHT      *S* BR B*           NS7   R                                   D*
L                                            2A       R*    1    *    MO2                              D*
R        83.37   86.56        LARGE ARGL CLASTS INTERNALLY DEFORMED DURING TRANSPORT.

/        87.78  101.50  13.72           BRHT      *S* BR F*           NR6   P                                   D*
L                                            3A       B* FU 3    *    MO3                                <.          D.
R        87.78  101.50        CHERT CLASTS FINE UP.  PV, SD & SL OCCUR MAINLY IN CLASTS.

/ FLT    89.86   90.10   0.24         X FAUL      GGX                       R
L

/ FAL    98.41  101.50   3.09         X FAUL      GGB                       R
L
R        98.41  101.50        MAY BE COMPRISED OF UNIT ABOVE OR BELOW FAULT OR BOTH.

/       101.50  104.80   3.30           BRHT          BR B*           MN1   P                                   D(
L                                            4A       F*    4         KN6
R       101.50  104.80        PY DISS MAINLY IN CLASTS.

/       102.25  104.80   2.55         X ARGL          PX SS A A   A         R                                   B-
L                                            2A
R       102.25  104.80        FAINT SLUMP FEATURES EVIDENT.  PROBABLY COMPRISES ONE CLAST.

/ FAL   104.80  110.64   5.84           BRHT      GG2 BR B*           MP3   P                                   D-
L                                            3A       CU    3         LN2
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PAN OCEAN OIL LTD.

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G E O L O G                          JASON PB-ZN-AG-BA STE DEPOSIT, Y.T.                                        PAGE -  4
                                 DRILLHOLE/TRAVERSE --- 80ADH056 --- (CONTINUED)

K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                          R N D  AGE EV RN LC TM OM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R       104.80  110.64       70% OF CORE BROKEN UP OR GOUGE.

/       110.64  119.80   9.16            ARST      SI= BD LM A D = F       P  2 BD      60                   D*
L                                            2A    SM) SS    7                                 L* <.

/ FAL   110.64  115.90   5.26          X FAUL      GG7                     R
L
R       110.64  119.80       ONLY 10% OF CORE IS SLUMPED PRODUCING SOME FLASERS.

/       119.80  130.62  10.82            BRBT      *S* SS B*          NR5  P    IM      60                   D(
L                                            3A        F* CU 2   *    MO3
R       119.80  130.62       CHERT CLASTS COARSEN UP.  SOME ARGL CLASTS IMBRICATED.

/ FLT   121.51  121.58   0.07          X FAUL      GGX                     R
L

/       130.62  139.90   9.28            BRBM      *S( SS             NR9  P                                 D-
L                                            2A              2   ( O                             <.
R       130.62  139.90       LARGER ARST CLASTS HAVE SAND BEDS.  CORE BROKEN UP FROM 134.60
R       130.62  139.90       TO 135.03 AND 136.24 TO 136.70 AND 136.90 TO 137.70.  POSSIBLY
R       130.62  139.90       DUE TO FAULTING.

/       139.90  142.70   2.80            BRBT      *S) SS B*          NP7  P                              GR D-
L                                            2A        F*    3   )    LN1                             D.
R       139.90  142.70       TRACE CARBONACEOUS MATERIAL DISS IN MATRIX.  CORE BROKEN UP.

/       142.70  146.80   4.10            BRBM          SS             QR9  P  2                      D+      D*
L                                            2A              6
R       142.70  146.80       COMPRISED OF ONE ARSI BOULDER THAT IS SLIGHTLY INTERNALLY
R       142.70  146.80       DISRUPTED.

/       146.80  160.53  13.73            BRBT      *S) SS B*          NP6  P                                 D-
L                                            3A        F*    2   )    LO2
R       146.80  160.53       PROBABLY A DISCREET FLOW.  POOR MIXING DIDN'T TRAVEL FAR.

/       151.30  151.66   0.36          X BRBT      SO2 BR G;          IM5  R                                 D)
L                                            3A                       JM3
R       151.30  151.66       POSSIBLY A TURBIDITE.  SD AND ARGL MATRIX.

/ SHR   160.53  168.30   7.77            BRBM      *S) SS FL          NP9  P                 V-              D.
L                                            2A    GG1       3   )    LM+
R       160.53  168.30       HEAVILY SHEARED.  CONTACTS APPROXIMATE.

/ SHR   168.30  197.10  28.80            BRBT CR   S*- SS B*          MP9  P                 V-
L                                            3A    GG2 H*    3   -    LO1
R       168.30  197.10       MATRIX LIGHTLY GRAPHITIC.  HEAVILY SHEARED.  CONTACTS
R       168.30  197.10       APPROXIMATE.

/       197.10  290.38  93.28            BRBM          SS FL          KR9  P    CL      65                   D.
L                                            2A                                              <-
R       197.10  290.38       DISRUPTED ARST UNIT.  CLEAVAGE MAY BE  1)SLUMP CLEAVAGE
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K  F   F R O M - T O -  I N T RECOV  RD % ROCK TM TM NM1 TX TX F C % M ARG    RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                              R Q D  AGE EV RG LC TM NM2 TX TX S C U O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R       197.10  290.38       2)SLATY CLEAVAGE OR 3)DEWATERING TRACES.

/ SHR   207.30  220.98  13.68             X SHER       GG1                      R
L

/ SHR   225.35  225.70   0.35             X SHER                                R
L

/ SHR   227.17  227.40   0.23             X SHER                                R
L

/ SHR   231.92  239.20   7.28             X SHER       GG2                      R
L

/ SHR   245.80  246.50   0.70             X SHER                                R
L

/ SHR   248.87  249.70   0.83             X SHER                                R
L

/ SHR   252.93  253.74   0.81             X SHER                                R
L

/ SHR   254.81  255.40   0.59             X SHER                                R
L

/ SHR   264.75  265.44   0.69             X SHER                                R
L

/ SHR   271.04  271.73   0.69             X SHER                                R
L

/ SHR   272.70  273.10   0.40             X SHER                                R
L

/ VEG   288.80  290.38   1.58             1 VEI        QZ6 GR     A K 3 M       R   VN        90                   D*
L                                                      S01
R       288.80  290.38       CONTAINS ARGL FRAGMENTS BROKEN OFF WALLROCK.

/ SHR   290.38  291.74   1.36               BRHT       SD1 BR FU         LN2    P                                  D*
L                                               4A               2       IN7                             <*

/       290.38  291.08   0.70             X CGSM       SD2 BR FU I N 6 P        R
L                                               5A               2                                       <*   D*
R       290.38  291.74       POSSIBLY A TURBIDITE THAT WAS SOFT SEDIMENT SLUMPED.

/       291.74  337.72  45.98               BRHM            SS FL         KR9    P   CL        60                   D.
L                                               2A                                                       <-
R       291.74  337.72       SAME AS 197.10 TO 290.38M.

/ SHR   297.18  304.95   7.77             X SHER       GG2                      R
L
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K F   F R O M - T O -  I N T RECOV  MD % ROCK TN TN QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                          R Q D  AGE EV RO LC TM QM2 TX TX S C O O CHT        2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R      306.93  309.90      LARGE ARSN BOULDER.

/ SHR  319.55  322.78   3.23           X SHER                               R
L

/      337.72  368.30  30.58             BRHM CR    *S( BR            NS8   P                                 D-
L                                             3A              3   *   LM+
R      337.72  368.30      MATRIX LIGHTLY GRAPHITIC WITH SOME CHERT PEBBLES.  FRAGMENTS
R      337.72  368.30      MUCH SMALLER THAN IN ABOVE UNIT AND CONSIST MAINLY OF ARSI.
R      337.72  368.30      CHERT CONTENT DECREASES SLIGHTLY DOWNHOLE FROM SHEAR.  CHANGE
R      337.72  368.30      FROM BR TO MG AT 363.32M.

/      352.70  353.90   1.20           X BRHM CR        BR            MN6   R                                 B+
L                                             2A              5       IM+                               V*          B)
R      352.70  353.90      SAME AS FGI BUT HIGHER MATRIX CONTENT AND SMALLER CLASTS.

/ SHR  353.90  354.52   0.62           X SHER       GG1                     R
L

/      367.94  368.04   0.10           7 SAND       CH3 MX    G I 5 K       R                                 D1
L                                             4A              7                                      D2             D1

/      368.30  374.08   5.78             BRBT           BR B*         MO4   P                                 D-
L                                             6A              3 )     LO5                               V*
R      368.30  374.08      A COARSE SAND MAINLY OF CHERT IN ARGL OCCURS AS MATRIX.

/      372.73  374.08   1.35           X BRBT           BR B*         MP7   R                                 7*
L                                             4A              2 2     LM1

/      374.08  375.28   1.20             BRHM CR                      MN7   P                                 <(
L                                             2A              5
R      374.08  375.28      MATRIX GRAPHITIC SIMILAR TO MATRIX OF ABOVE TWO UNITS.

/ SHR  374.74  375.28   0.54           X SHER                               R               V+
L

/      375.28  376.93   1.65             SAND CH        // FU F H 6 M       P               <(                D-
L                                             6A        8*    2     O                                D2
R      375.28  376.93      LESS THAN 20% MAXIMUM SIZED PARTICLES.  POSSIBLY A TURBIDITE.
R      375.28  376.93      ANGULAR CLASTS.  CORE AT CONTACTS BROKEN UP.  MAY BE A FRAGMENT.

/      376.93  403.80  26.87             BRHM CR    *S- BR 6*         OU9   P
L                                             3A              1 - (   IJ*                            <.
R      377.93  403.80      MATRIX LIGHTLY GRAPHITIC.  GREATEST DISRUPTION AND ROTATION OF
R      377.93  403.80      FRAGS IN TOP 12M OF UNIT.

/ FRG  388.70  389.30   0.60           X CBCP       *S) 6*    6 M 3 P       R                                 D-
L                                             5A              2   )                                  R+

/      402.29  402.70   0.41           8 BRBT       *S+               JL3   R                                 D(
L                                             4A              3   +   IK2
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```
K  F  F R O M - T O -  T N T RECOV  MO % ROCK IM TN OM1 TX TX F C % M ARG    RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                               R Q D  AGE EV RQ LC TN OM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/       402.35  402.41  0.06          X SAND CH       R* F* H K 3 N           R                                   D.
L                                           6A             5                                       D*             B.
R       402.35  402.41        5% ROUNDED ARL CLASTS.  UNIT DOES NOT APPEAR TO BE A CLAST.

/       403.80  432.82  29.02           BRHA        *S* SS             PU9    P              <-                   D.
L                                          2A             4   *                                    D=             V.
R       403.80  432.82        UNIT IS A LIGHTLY SLUMPED ARST WITH BEDS OF SD MATRIX FINE SAND.
R       403.80  432.82        SL OCCURS AS BLEBS IN A QZ VEIN.  BEDDING IS CONSISTANT AT ABOUT
R       403.80  432.82        50' FROM 403.80 TO 422.22M. AFTER WHICH IT STEEPENS.
R       403.80  432.82        CORRELATABLE WITH DDH 56B  403.25M TO 440L70M.

/ FLT   414.32  414.54  0.22          X FAUL        GGX                       R
L

/ SHR   428.05  432.82  4.77          X SHER        GG2                       R
L

/       431.66  432.82  1.16          X LOST                                  R
L

/       432.62  435.42  2.60            BRHM CR        BR              NR7    P
L                                          2A             3            KN)
R       432.62  435.42        ARST CLASTS IN A LIGHTLY GRAPHITIC ARGL MATRIX THAT CONTAINS
R       432.82  435.42        ROUNDED CHERT CLASTS.  COMPRISES A MIXING OR TRANSITION ZONE
R       432.82  435.42        BETWEEN TWO GRAVITY FLOWS WITH THE CLASTS OF THE UPPER UNIT
R       432.52  435.42        MIXED WITH THE MATRIX OF THE LOWER UNIT.

K UDF   435.42  435.42  0.00

/       435.42  449.21  13.79           BRHT CR     *S( SR B*          NQ5    P                                   D(
L                                          4A          F*    3 2 (     LN+                         R.
R       435.42  449.21        MATRIX LIGHTLY GRAPHITIC CONG FRAGS UP TO 45CM.  MAJOR FRAGS
R       435.42  449.21        DESCRIBEB BELOW.

/ SHR   438.30  438.81  0.51          X SHER                                  R
L

/ FRG   438.81  439.21  0.40          X CGXX        *S* CG B* I M 5 S         R                                   D.
L                                          5A          F*    6   *                                 *-
R       438.81  439.21        SD OCCURS AS MATRIX IN SAND CLASTS.

/ FRG   439.77  440.00  0.23          X CGXX        *S+ CG B* I M 5 S         R                                   D.
L                                          5A                6   +                                 *)
R       439.77  440.00        SAME AS ABOVE FRAG.

/ FRG   443.18  443.70  0.52          X CGXX           CG B* I M 5 S          R                                   D-
L                                          5A          F*    6                                        <+
R       443.18  443.70        SAME AS ABOVE FRAG.

/ FRG   446.30  446.58  0.28          X CGXX           CG B* I M 5 S          R              <-                   *-
L                                          5A          B*    6
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```
K  F   F R O M - T O -   I N T RECOV  MD % ROCK TM TM RM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                              R Q D  AGE EV RO LC IM RM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R        446.30  446.53          SAME AS ABOVE FRAG.

/ SHR   447.20  449.21   2.01            X SHER        GG8                          R
L

/ SHR   449.21  464.21  15.00             BRHM         GG6                          P
L                                              3A                     KL-                               <-
R       449.21  464.21          CORE EXTREMELY BROKEN UP.  NOT POSSIBLE TO DETERMINE ARGL FRAG.
R       449.21  464.21          SIZE AS THE PIECES OF CORE ARE MAX 4CM.  FROM 447.18M TO 464.21M
R       449.21  464.21          CORRELATABLE WITH 462.99M TO 476.00M OF DDH 568.
R       464.21  466.34          TYPE 1

/       464.21  489.51  25.30             BRBI         *S=                    OT6   P                   <-
L                                              4A      S9)        2 2 )      MO1

/ FRG   464.21  466.34   2.13            X CGXX        *S* CG B* H L 3 N            R
L                                              5A                  7    *                                D) <)
R       464.21  489.51          CONG FRAGS CONTAIN DISS SD.  MAJOR FRAGS DESCRIBED BELOW.  TWO
R       464.21  489.51          TYPES OF CONG FRAGS:  1)ROUNDED CHERT CLASTS, SOME F*, IN A
R       464.21  489.51          MEDIUM SAND MATRIX.  2)ROUNDED CHERT CLASTS WITH A HIGHER ARGL
R       464.21  489.51          CLAST % IN A COARSE SAND-GRIT MATRIX.

/ FAL   473.30  474.20   0.90            X FAUL        GG6                          R
L

/ FRG   478.18  478.60   0.42            X CGXX            CG    H L 3 N            R
L                                              5A                  7                                     D+ <-
R       478.18  478.60          TYPE 1

/ FRG   478.63  479.64   1.01            X CGXX            CG    I M 4 N            R
L                                              6A                                                        D)
R       478.63  479.64          TYPE 2

/ FRG   480.51  481.13   0.62            X CGXX            CG B* H L 5 N            R
L                                              6A          H*                                            D=
R       480.51  481.13          TYPE 1, BUT WITH HIGHER CLAST CONTENT.

/ FRG   481.94  482.36   0.42            X CGXX            CG    H L 4 O            R
L                                              5A                                                        D=
R       481.94  482.36          TYPE 1.  SOME BREAKING UP AND MIXING OF CONG FRAGS WITH MATRIX
R       481.94  482.36          AT CONTACTS.  FROM 483.80M TO 494.11M CORRELATABLE TO DDH 568
R       481.94  482.36          488.10M TO 499.80M.

/       489.51  494.14   4.63             BRHT             BR SS              PQ4   P
L                                              4A                     2       LO1                        D*
R       489.51  494.14          CONG CLASTS TYPE 1 OF ABOVE CLASSIFICATION UP TO 50CM.  DEFINITE
R       489.51  494.14          MIXING OF UNCONSOLIDATED FRAGS WITH MATRIX.  POSSIBLY SAME FLOW
R       489.51  494.14          EVENT AS ABOVE UNIT.

K LOF   494.14  494.14   0.00

/       494.14  526.63  32.54             BRHM         ST= BR SS              PU9   P
L                                              5A      SN= LM                                            D+       D*
```

```
K  F   F R O M - T O -  I N T RECOV  RD % ROCK TN TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                             R Q D  AGE EV RQ LC TF QM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R        494.14  526.68      UNIT CONSISTS OF A SLUMPED ARSI WITH THE MAJORITY OF THE
R        494.14  526.68      DISRUPTION OCCURRING AT THE CONTACTS.  SD OCCURS AS MATRIX IN
R        494.14  526.68      THE SAND BEDS.  PR OCCURS VERY FINELY DISS IN SOME FINE SILT
R        494.14  526.68      BEDS.  SILT SAND CONTENT HIGHEST IN REPEAT INTERVAL DESCRIBED
R        494.14  526.68      BELOW.

/ FRG    506.00  511.30   5.30           X ARSI        S11 BD LM A C 2 G        R  2 BD       58                    B-
L                                              4A     SM1 SS SC                    SC       58                    D*
R        506.00  511.30      ONLY SLIGHTLY DEFORMED BY SS.

/        526.68  527.83   1.15             BRBT        *S-                 ND1    P
L                                              3A                  2 7 -   LM+

/ FRG    527.11  527.69   0.58           X CGXX        *S*         F M 6 N        R                                      B.
L                                              5A                  5   *                              D=        B-
R        527.11  527.69      SD COMPRISES MUCH OF MATRIX OF CONG FRAG.
R        527.83  528.55      ZONE OF FINER FRAGS.  POSSIBLY THE TOP OF THE SLUMP.

/        527.83  534.61   6.78             BRB4          BR                NS9    P                                 R*
L                                              3A                  2       LN-                            D)

/        527.83  528.55   0.72           X BRB4          BR                M09    R
L                                              3A                  3                                      D*
R        527.83  534.61      A SLUMPED ARSI.

/        533.45  534.61   1.16           X BRB4        *S+ BR              NP9    R                                 D)
L                                              3A                          KN-                            D)
R        533.45  534.61      ZONE OF FINER FRAGS.  POSSIBLY THE BOTTOM OF THE SLUMP.

/        534.61  536.50   1.89             BRBT        CR2 BR              MP7    P
L                                              3A     *S+          4   )   LM)                                <-    B*
R        534.61  536.50      ZONE CHARACTERIZED BY HIGHER CONTENT OF LIGHTLY CARBONACEOUS
R        534.61  536.50      ARGL MATRIX.  POSSIBLY A MIXING ZONE OF ABOVE SLUMP AND CARB
R        534.61  536.50      ARGL BELOW.

/        536.50  540.30   3.80             BRP4        CR1 BR FU           NR2    P                                 D.
L                                              2A     *S*            - *   KM)
R HLT    536.50  540.30      PROBABLY REPRESENTS A PERIOD OF QUIESCENCE IN A EUXINIC BASIN
R        536.50  540.30      INTO WHICH VARIOUS FRAGMENTS, NOTABLY SILICIFIED ARGL CLASTS,
R        536.50  540.30      HAVE SLUMPED.  FINES UP FROM 539.00M TO 539.20M.

/        540.30  543.26   2.96             BRPM        CR) BR              NR6    P
L                                              3A                    *     LN*                            D* <(
R        540.30  543.26      SAME AS ABOVE UNIT BUT CONTAINS MORE ARGL FRAGS.

/        543.26  548.00   4.74             BRB3        *S.                 OR9    P                                 B(
L                                              3A                          JM-

/        548.00  549.05   1.05             BRBT          BR                NP7    P                                 7(    D.
L                                              3A                          LN1                                          B.
R        549.05  549.49      GALENA ZONE.  BANDED PY, SL & GL AT BOTTOM OF THIS UNIT.
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                                                                   PAN OCEAN OIL LTD.
G E O L O G                                              JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                          PAGE - 10
                                                  DRILLHOLE/TRAVERSE --- 80ADH056 --- (CONTINUED)

K  F  F R O M - T O - I N T RECOV  RD % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                                   R O D AGE EV RU LC TM QM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

K DS1  549.05  549.15   0.00

/      549.05  559.10   10.05           MSSX GL SD     MX     F J 6 N        P               V)                M2     M2
L                                            4A PY                                                    D3       D.     D+

/      549.05  549.49   0.44          X MSSX GL SL     MX     F L 3 M        R                                  D1     M3
L                                            5A PY                                                    D3       D.     B2
R      549.05  559.10      THIS PGI IS BASED ON THE LUMP SUM OF PREVIOUSLY DETERMINED ASSAY
R      549.05  559.10      INTERVALS.  GEOLOGICAL CHANGES ARE REPEATED BELOW AS NONE
R      549.05  559.10      CONFORM TO ASSAY SAMPLING INTERVALS.

/      549.49  550.30   0.81          X MSSX GL PY     MX     F L 4 N        R               V=                 B2     M2
L                                            5A SL                                                    D2 <+    D.     B=
R      549.49  550.30      PYRITIC ZONE.  BECOMES MORE PYRITIC UPHOLE

/      550.30  550.86   0.56          X MSSX PY SD     MX     H K 7 L        R               V+                 B3 B* D1
L                                            4A GL                                                    D2       D.
R      550.30  550.86      PYRITIC ZONE.

/      550.86  551.38   0.52          X MSSX GL PY     MX     H J 8 M        R                                  B1     M4
L                                            4A SL                                                    D2       D-     D1
R      550.86  551.38      GALENA ZONE

/      551.38  551.81   0.43          X MSSX PY SD     MX     F J 2 K        R               V+                 M6     D2
L                                            ST GL                                                    D1       D.     D=
R      551.38  551.81      PYRITIC ZONE

/      551.81  554.23   2.42          X MSSX SD PY *C= MX 8R G I 7 K        R                                  D2 B- D=
L                                            6A GL         H*                                         D6 V+    D)     D)
R      551.61  554.23      SIDERITIC ZONE.  CHERT CLASTS 3CM SIZE IN LOWER IS CM OF UNIT.

/      554.23  554.36   0.13          X MSSX GL SL     MX     F I 3 L        R                                  D1     M7
L                                            4A PY                                                       <1    D-     D1
R      554.23  554.36      GALENA ZONE

/      554.36  554.90   0.54          X MSSX GL PY *C) MX     F I 7 N        R                                  B3 D- D4
L                                            5A SL                                                    D2       D-     <)
R      554.36  554.90      GALENA PYRITE ZONE.  POSSIBLY FRAGMENTED BEDDED CHERT.

/      554.90  555.50   0.60          X MSSD SD PY     MX     G I 8 N        R                                  B1 B- D1
L                                            6A GL                                                    D7 V+    B)     7+
R      554.90  555.50      SIDERITIC ZONE.

/      555.50  555.73   0.23          X MSSD SD GL     MX     G I 5 N        R                                  D2     D3
L                                            5A PY                                                    D5
R      555.50  555.73      SIDERITE GALENA ZONE

/      555.73  555.93   0.20          X MSSX GL SD     MX     F I 4 N        R                                  D2 8. D5
L                                            4A PY                                                    D2
R      555.73  555.93      GALENA ZONE
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K  F   F R O M - T O -  T H I RECOV  MD % ROCK TM TM NM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                             R Q D  AGE EV RO LC TM NM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/       555.93  558.09   2.16          X MSSX GL SD      MX    G I 6 N       R                                D1 D= D5
L                                             5A PY                                            93             D)    <)
R       555.93  558.09       GALENA SIDERITE ZONE.  SIDERITE IS COARSE GRAINED.  PYRRHOTITE
R       555.93  558.09       AND GALENA PERCENT INCREASES DOWNHOLE IN UNIT.

/       558.09  558.34   0.25          X MSSX GL PY      MX    F I 4 M       R                                   B2 M7
L                                             4A                                               B= B)          D)
R       558.09  558.34       GALENA ZONE.  GALENA IS LIGHTLY POROUS.  PYRITE IS FAINTLY
R       558.09  558.34       BANDED.

/       558.34  558.54   0.20          X MSSX PY GL      MX    F I 5 K       R                                D4    M5
L                                             4A                                                              D)
R       558.34  558.54       PYRITE GALENA ZONE.

/       558.54  558.69   0.15          X MSSX GL PY      MX    F I 3 L       R                                D3    M7
L                                             4A
R       558.54  558.69       GALENA PYRITE ZONE.

/       558.69  559.10   0.41          X MSSX PY GL      MX    A H 7 K       R                                M6    D2
L                                             3T                                               D+                   D+
R       558.69  559.10       PYRITIC ZONE.  SOME CONCHOIDAL PY UP TO 3MM, ZONED WITH SL, GL,
R       558.69  559.10       MOST COMMON IN ARGL.  ARGL INTERSTITIAL 10%.

K LS1   559.10  559.10   0.00

/       559.10  564.54   5.44            ARPM CB     *S)                   OU6   P                            B-
L                                             3A                          - )   LN+                       <.    B.
R       559.10  564.54       SLIGHTLY CARBONACEOUS MATRIX SIMILAR TO UNIT ABOVE ORE ZONE.

/ FRG   564.54  567.85   3.31            ARSU        SN2 BO LM A G 3 K         P                            O.
L                                             4A     ST2 SS FU                                        <-    N-    B.

/       567.85  571.09   3.15            BRPM CR     *S)                   OU6   P                            B-
L                                             3A                          - )                             <.    B.
R       567.85  571.09       SAME AS 559.10M TO 564.54M.

/       571.09  583.70  12.70            BRBM CR          BR               OO5   P                                  B.
L                                             3A                         (      LN=                       V-    N*    B.
R       571.09  583.70       SLIGHTLY CARBONACEOUS MATRIX.  RELATED TO ABOVE UNIT BY SIMILAR
R       571.09  583.70       MATRIX.  CUOG FRAGS OCCUR IN THE BOTTOM OF THE UNIT.  559.10M TO
R       571.09  583.70       583.36M CORRELATABLE WITH DDH 56B 586.37M TO 583.90M.

K US2   583.70  583.70   0.00

/       583.70  587.00   3.30            GNSX        SIF BR ST             LO6   P                            M3    D)
L                                             4A     BN                                            <+         B+
R       583.70  587.00       PY OCCURS AS MATRIX.  MAJOR PYRITE ENDS AT 587.16M, BUT ASSAY
R       583.70  587.00       INTERVAL ENDS AT 587.00M, SO UNIT IS ARTIFICIALLY SHORT.  PY
R       583.70  587.00       ROUGHLY INTERBEDDED WITH SILICIFIED ARGILLITE.

K LS2   587.00  587.00   0.00
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K  F   F R O M - T O -  L N T RECOV  MD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R Q D  AGE EV RO LC TM MM2 TX TX S C O O CHT     2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA


/        587.00  600.00  13.00          BRHM      *S+ BR SS        N09   P                 <*                 B*
L                                            4A               4    +                                 <*

/        587.00  589.86   2.86        X BRHM      SIF BR           MP9   R                                    I=
L                                            4A               4                                      <*
R        587.00  600.00       SOME SILICIFIED CLASTS NEAR THE VOTTOM OF THE UNIT.

K US3    600.00  600.00   0.00

/        600.00  612.00  12.00          FGSX PY PR SIF BR BD A M 4 0     P                                    M4 D. D)
L                                            50 SD            6                                      D1         D1
R        600.00  612.00       FRAGS CONSIST OF SILICIIED ARGL.  SD PERCENTAGE INCREASES
R        600.00  612.00       DOWNHOLE WHILE PY, PR DECREASE.  BANDED ARGL AND PY-PR-SD OCCUR
R        600.00  612.00       FROM 603.50M TO 607.50, BUT ALSO LIGHTLY BRECCIATED.  600.00M TO
R        600.00  612.00       612.80M CORRELATABLE WITH DDH 56B 643.08M TO 654.64M.

/        609.13  612.00   2.87        X FGSX SD PY SIF BR    A M 5 0     R                                    D1    D+
L                                            6A PR            6                                      I3         D=
R        609.13  612.00       FRAG PERCENTAGE INCREASES DOWNHOLE.

K LS3    612.00  612.00   0.00

/        612.00  630.97  18.97          BRHM      *S= SS CL        NT9   P     CL         45 <-                   D(
L                                            3A               3                                      D-               B.
R        612.00  630.97       ORIGINALLY AN ARST, NOW SLUMPED.  SLATY CLEAVAGE.

/ VEN    614.49  615.59   1.10        9 VEIN QZ              A I 1 0     R                                    B-
L                                            N                                                                B.
R        614.49  615.59       CONTAINS ARGL FRAGS.

/        621.04  621.29   0.25        X BRHM      SD= SS                 R                                    D*
L                                            4A                                                      <1         B*
R        621.04  621.29       SIDERITIC ZONE.

/ FRG    630.97  634.49   3.52          CGBR          BR SS        L01   P                                    M+
L                                            6A           F*       LN6                               M2
R        630.97  634.49       3 FRAGS OF CGBR EACH SEPARATED BY 20CM OF BRPM WHOSE CLASTS
R        630.97  634.49       ORIGINATE IN THE CGBR.  SS EVIDENT IN BRPM.

/        634.49  638.80   4.31          BRHM      *S= SS           NP9   P                                    B-
L                                            3A                                                      D. <-
R        637.03  637.64       STRONGLY CARBONACEOUS AND FRIABLE.  POSSIBLY A PARTIALLY
R        637.03  637.64       RELITHIFIED SHEAR.

/        637.03  638.80   1.77        7 BRHM CR   *S=              N09   R     CL         35 <+                   D-
L                                            3A   GR)                                                <*

/ DYK    633.80  642.48   3.68          D/FL FX       HX     G I 1 K     P                 <-              MS D.    D(
L                                            W                                                 D*         D1
R        636.60  642.48       SERICITIZED.
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K  F   F R O M - T O -  T N T RECOV  MIT % ROCK TR TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                       R Q D  AGE EV RQ LC TM OM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD OS HA PR MT SL HA

R       642.48  643.50      GRAPHITE DEVELOPMENT ON SLICKENSIDES.

/       642.48  647.40   4.92            ARGL          LM     A D 1 D       P  0 LM      33                     <(
L                                            3A                                                            <*

/       642.43  643.50   1.02          X BRAM CR       BR CL           MO8   R    CL      45                     D.
L                                            4A                                                      <)
R       642.43  643.50      GRAPHITE DEVELOPMENT ON SLICKENSIDES.
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PAN OCEAN OIL LTD.

G E O L O G — JASON PB-ZN-AG-BA STF DEPOSIT, Y.T. —

DRILLHOLE/TRAVERSE --- 80ADH056 --- (CONTINUED)

A UMM					SAMPLE	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A LAB					SERIAL	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	
A TYP					NUMBER	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	
A MTH						WA	WA	WA	WA	WA	WA	WA	WA	

R	ASY	0.00	0.00		B.CLG = BONDAR CLEGG, VANCOUVER; H-CORE = HALF CORE.									
R	ASY	0.00	0.00		WA = WET ANALYSIS.									
R	ASY	0.00	0.00		LESS THAN DETECTION LIMIT ENTERED AS -D.L. E.G. -0.01									
R	ASY	0.00	0.00		NO ASSAY INFORMATION ENTERED AS -0.1									
A	001	548.00	549.05	105	PH8383	0.85	0.28	0.98	0.40	0.01	5.54	0.002	-0.1	7.962
A	001	549.05	550.00	95	PH8384	24.16	5.80	0.33	10.37	0.08	16.33	0.002	-0.1	56.972
A	001	550.00	551.00	100	PH8385	13.00	2.15	0.09	5.75	0.06	29.66	-0.002	-0.1	50.608
A	001	551.00	552.00	100	PH8386	23.96	4.95	0.33	9.31	0.03	22.58	-0.002	-0.1	61.058
A	001	552.00	553.00	100	PH8387	6.00	0.37	0.03	2.46	0.04	31.75	-0.002	-0.1	40.548
A	001	553.00	554.00	99	PH8388	5.95	0.10	0.03	2.74	0.03	30.87	-0.002	-0.1	39.618
A	001	554.00	555.00	99	PH8389	24.84	1.07	0.31	9.05	0.03	18.09	0.004	-0.1	53.294
A	001	555.00	556.00	99	PH8390	12.00	0.07	0.03	4.57	0.03	22.58	-0.002	-0.1	39.178
A	001	556.00	557.00	100	PH8391	18.39	0.61	0.22	6.15	0.02	16.31	-0.002	-0.1	41.598
A	001	557.00	558.00	100	PH8392	24.45	0.05	0.02	7.60	0.03	14.01	-0.002	-0.1	46.058
A	001	558.00	559.10	110	PH8393	33.89	0.81	0.14	10.47	0.02	22.02	-0.002	-0.1	67.248
R	ASY	558.00	559.10		AG ASSAY MODIFIED FOLLOWING THREE CHECK ASSAYS.									
A	001	559.10	560.10	98	PH8394	0.40	-0.01	0.84	0.03	-0.01	3.73	-0.002	-0.1	4.878
A	CMP	549.05	559.10	1002		18.78	1.63	0.15	6.87	0.03	22.45	-0.1	-0.1	49.710
R	ASY	549.05	559.10		SPECIFIC GRAVITY OF COMPOSITE IS 3.8.									
A	001	583.70	585.00	127	PH8610	2.60	0.05	0.10	1.70	0.03	19.15	-0.002	-0.1	23.528
A	001	585.00	586.00	95	PH8611	0.16	0.02	0.27	0.34	0.11	17.55	0.002	-0.1	18.352
A	001	586.00	587.00	95	PH8612	0.12	0.08	0.11	1.47	0.07	22.50	0.002	-0.1	24.252
A	001	587.00	588.00	96	PH8613	0.04	0.02	0.22	0.27	0.06	10.00	0.002	-0.1	10.512
A	001	588.00	589.00	98	PH8614	0.04	-0.01	0.31	0.22	0.03	6.70	0.002	-0.1	7.192
A	001	589.00	589.86	84	PH8615	0.02	-0.01	0.26	0.29	0.07	7.50	0.002	-0.1	8.032
A	CMP	583.70	587.00	518		1.11	0.05	0.15	1.22	0.06	19.68	-0.1	-0.1	22.070
A	001	600.00	601.00	97	PH8535	0.12	0.04	0.16	0.24	0.04	16.65	-0.002	-0.1	17.148
A	001	601.00	602.00	97	PH8536	0.18	0.02	0.04	0.22	0.07	25.70	-0.002	-0.1	26.128
A	001	602.00	603.00	97	PH8537	0.55	0.04	0.07	0.21	0.05	23.70	-0.002	-0.1	24.518
A	001	603.00	604.00	96	PH8538	1.10	0.02	0.06	0.39	0.05	26.40	-0.002	-0.1	27.918
A	001	604.00	605.00	96	PH8539	0.36	0.07	0.06	0.16	0.08	28.65	-0.002	-0.1	29.278
A	001	605.00	606.00	96	PH8540	0.36	0.05	0.02	0.06	0.05	17.30	-0.002	-0.1	17.738
A	001	606.00	607.00	96	PH8541	0.48	0.11	0.14	0.19	0.02	20.90	-0.002	-0.1	21.738
A	001	607.00	608.00	96	PH8542	2.22	0.03	0.17	0.65	0.03	25.25	-0.002	-0.1	28.248
A	001	608.00	609.00	96	PH8543	0.67	0.06	0.09	0.14	0.05	34.78	-0.002	-0.1	35.688
A	001	609.00	610.00	97	PH8544	0.42	0.02	0.12	0.14	0.03	20.20	-0.002	-0.1	20.828
A	001	610.00	611.00	99	PH8545	0.27	0.05	0.13	0.04	0.01	18.50	-0.002	-0.1	18.898
A	001	611.00	612.00	99	PH8546	0.05	-0.01	0.15	0.02	0.02	8.00	-0.002	-0.1	8.128
A	001	612.00	612.65	64	PH8547	0.02	-0.01	0.34	0.02	0.01	6.95	-0.002	-0.1	7.228
A	CMP	600.00	612.00	1162		0.57	0.04	0.12	0.21	0.04	22.17	-0.1	-0.1	22.950

PAN OCEAN OIL LTD.

JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

DRILLHOLE/TRAVERSE --- 80ADH056 --- (CONTINUED)

A MIN			0.02	-0.01	0.02	0.02	-0.01	3.73	-0.1	-0.1	3.570
A MAX	548.00	612.65	24.84	5.80	0.96	10.47	0.11	31.75	0.004	-0.1	73.854

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :80ADH057	COLLAR ELEVATION: 1159.40	AZIMUTH(DEG) : 60.00	GEOLOGGED BY : +
TOTAL DEPTH/LENGTH : 182.27	NORTHING(- IF S): 7001814.00	VERTICAL ANGLE : -50.00	DATE (YY/MM/DD): 0
CORE/HOLE DIAMETER : NQ	EASTING (- IF W): 436572.31	CO-ORD SYSTEM : UTM	PROJECT NUMBER : J-RECC

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	53.34	61.00	-49.00
2	90.83	63.00	-49.50
3	137.16	62.00	-48.00
4	181.36	63.00	-45.00

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   F   - I N T E R V A L -    CORE  T- %       TYPI- CAL  TEX-  GRAIN        PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =   .  DEC.PLACE)RECOV-  H M ROCK FYING MIN TURES CHARACS                  H   H   H   H   H ANY H   H   H ANY  ALT ORE
E  A  (MT=METRIC FT=FOOTRIC)  ERY    G I      TM  TM MAT TX TX F C % M ARG  /RI T ID STK DIP A   A   A   A   A MIN A   A   A MIN - - - -
Y  G  F R O M - T O - L N T H (  . )  D X TYPE  1  2 NM1  1  2 F F C A         1     AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                          ROCK   FM     RT    TM NM2 TX TX S C O U CHT     T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                          QUAL   AGE FO- R LC- 3      3  4 O    /          2     AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y  G                          DESIG      VIR   COL             R    C           STRUCTUR-2 A  A  A  A  A  A  A  A  A  A     2   2
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R SVY   0.00   0.00   SPERRY SUN TESTS

R ASY   0.00   0.00   NO ASSAY DATA FOR THIS HOLE.

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :	80A/H063	COLLAR ELEVATION:	1295.40	AZIMUTH(DEG) :	183.00	GEOLOGGED BY :	+
TOTAL DEPTH/LENGTH :	397.78	NORTHING(- IF S):	7002611.00	VERTICAL ANGLE :	-72.76	DATE (YY/MM/DD):	810000
CORE/HOLE DIAMETER :	NQ	EASTING (- IF W):	436463.25	CO-ORD SYSTEM :		PROJECT NUMBER :	JSOUTH

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	3.05	183.00	-71.77
2	30.48	183.22	-70.88
3	60.96	181.45	-70.64
4	91.44	179.11	-68.60
5	121.92	175.12	-62.59
6	152.40	173.57	-61.94
7	182.88	173.38	-60.62
8	213.36	174.52	-58.49
9	220.98	174.55	-57.63
10	228.60	174.14	-56.58
11	236.22	174.03	-55.70
12	243.84	172.15	-55.59
13	248.41	171.47	-55.40
14	305.10	163.00	-53.00
15	335.60	160.00	-47.50

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   F    - I N T E R V A L -     CORE  1- %      TYPI- QAL  TEX-  GRAIN         PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =    . DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                             H  H  H  H  H ANY H  H  H ANY  ALT ORE
F  A  (MT=METRIC FT=FOOTRIC)  ERY     O T       IN TM MAT TX TX F C % M ARG   /RI  T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  I N T (  . )  D X TYPE   1  2 QM1  1  2 F F C A          1     AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- - - ---- -- -- --- -- -- - - - - ---- ---  - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                           ROCK   FM    RT      TM QM2 TX TX S C O O CHT        T ID STK DIP MG MU CL SD QS HA PR MT SL HA
F  L                           QUAL   AGE EN- O LC- 3      3  4 O    /               2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y  G                           DESIG      VIR   COL           R      C                 STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2   2

R SVY    0.00    0.00     DATA FROM COLLAR TO WEDGE OFF POINT (246.41 M) FROM GYROSCOPIC
R SVY    0.00    0.00     SURVEY OF DDH 80-636.  REMAINDER FROM SPERRY SUN TESTS.
R SVY  248.41  248.41     BEGINNING OF WEDGED HOLE A.
R SVY  248.41  248.41     HALL AND ROWE STEEL WEDGE.  FULL AZIMUTH LEFT.
R SVY  274.00  274.00     HALL AND ROWE STEEL WEDGE.  FULL AZIMUTH LEFT.
R SVY  306.30  306.30     HALL AND ROWE STEEL WEDGE.  FULL AZIMUTH LEFT.
R SVY  397.78  397.78     HOLE ABANDONED WHEN RODS BROKE AT SECOND WEDGE (274 M).
R SVY  397.78  397.78     UNABLE TO RECOVER DRILL EQUIPMENT BELOW BREAK.
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G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :80800056	COLLAR ELEVATION: 1230.00	AZIMUTH(DEG) : 228.00	GEOLOGGED BY : +
TOTAL DEPTH/LENGTH : 679.71	NORTHING(- IF S): 7002464.00	VERTICAL ANGLE : -70.00	DATE (YY/MM/DD): 0
CORE/HOLE DIAMETER : 00	EASTING (- IF W): 436749.62	CO-ORD SYSTEM : UTM	PROJECT NUMBER : J-S

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	30.48	224.00	-68.00
2	91.44	218.50	-66.00
3	152.40	213.00	-64.00
4	213.36	209.50	-64.00
5	274.32	206.00	-61.00
6	362.10	204.00	-57.00
7	365.76	203.00	-56.00
8	373.38	201.00	-56.00
9	381.00	199.50	-55.00
10	387.10	199.40	-54.00
11	411.48	199.00	-54.00
12	443.48	196.00	-53.00
13	472.44	193.00	-53.00
14	504.44	193.50	-51.00
15	533.40	194.00	-50.00
16	563.88	190.90	-50.00
17	571.50	190.20	-50.00
18	601.98	187.00	-49.00
19	632.46	187.80	-45.00
20	640.08	188.00	-46.50
21	679.70	189.00	-45.00

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  F   - I N T E R V A L -     CORE  T- %       TYPI- QAL  TEX-  GRAIN        PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K L (UNITS =    . DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                         H  H  H  H  H ANY H  H  H ANY  ALT ORE
E A  (MT=METRIC FT=FOOTNIC)  ERY    U I       TM TM MAT TX TX F C % M ARG   /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y G  F R O M - T O -  I N T (  . )  D X TYPE  1  2 QM1  1  2 F F C A            1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K F                         ROCK    FM    RT    TM QM2 TX TX S C O O CHT        T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E L                         QUAL   AGE FN- D LC- 3     3  4 O    /              2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y G                         DESIG      VIS   COL            R     C              STRUCTUR-2  A  A  A  A  A  A  A  A  A  A    2   2
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R SVY    0.00    0.00     SPERRY SUN TESTS:  ERRATIC AZIMUTHS, POSSIBLY DUE TO PYRROTITE,
R SVY    0.00    0.00     ARE DELETED IN THE LISTING.
R SVY  387.10  387.10     BEGINNING OF WEDGED HOLE B.
R SVY  387.10  387.10     HALL AND ROWE STEEL WEDGE - FULL STEEPENING.
R SVY  679.71  679.71     END OF WEDGED HOLE B.

/        0.00  391.61 391.61          MISS                                P

/      391.61  394.70   3.09          BRHM                           NQ9  P                <(                       R)
L                                        3A              2           JL+
R      391.61  394.70     THE LAST 5CMS OF THIS INTERVAL CONTAINS QUARTZ VEINS WITHIN
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K  F   F R O M - T O -  T O T RECOV  MD % ROCK TM TM OM1 TX TX F C % M ARG    RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R Q D  AGE EV RD LC IN OM2 TX TX S C O U CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R       391.61  394.70        BRECCIATED FRAGMENTS.

/ FRG   394.70  399.20  4.50            ARST        SN2 RD // 0 3 2 3        P  2 BD      43                          L*
L                                           3A                 8
R       399.20  401.53        THE PEBBLY MUDSTONE CONTAINS ONE 1.25 METRE SILT BANDED
R       399.20  401.53        ARGILLITE FRAGMENT.  THE TOP 3CMS IS A MUDSTONE MATRIX, WHICH
R       399.20  401.53        GRADES QUICKLY INTO A SANDSTONE MATRIX, FOR THE REMAINDER OF THE
R       399.20  401.53        BED.

/       399.20  405.95  6.75            BRHT        *C.                 NU9  P                                            L*
L                                           3A            F* 3          JM1

/       399.20  401.53  2.33          9 BRPM        *C(      F*          KT1  R                                            R(
L                                           5A      SN7        4         JM2
R       399.20  405.95        LAMINATED PYRITE OCCURS WITHIN THE SANDSTONE LAYER OF SILT
R       399.20  405.95        BANDED ARGILLITES.

/       405.95  440.07  34.12           BRHM           SS               LS9  P                    V(                      L*
L                                           3A                 3                                          L*
R       405.95  440.07        THE SILT BANDED ARGILLITE FRAGMENTS CONTAIN LAMINATED CARBONITES
R       405.95  440.07        WITHIN THEIR SAND BEDS.  THIS INTERVAL IS BROKEN AND SHEARED
R       405.95  440.07        INDICATING SOME FAULTING HAS OCCURRED.

/       418.26  418.50  0.24          9 SAND           MX      0 3 9 5       R                    V=                      D*
L                                           8T                 9                                       <*
R       418.26  418.50        THIS SANDSTONE BED IS POSSIBLY A FRAGMENT.

/ FLT   432.04  432.29  0.25          x BRHM        G68 SS              LS9  R                    V(                      L*
L

/       433.35  433.58  0.23          9 BRHT           CC               KM6  R                    <=
L                                           4A                 2         JK1
R       433.35  433.58        A 2CM, OVAL PYRITE CONCRETION IS PRESENT WITHIN THIS INTERVAL.

/       440.07  441.94  1.87            BRHM        *C(                 JP9  P                    <*                      L*
L                                           3A         H*      2         JM=

K UDF   441.94  441.94  0.00

/       441.94  442.36  0.42            BRHT                            LN3  P                                            D*
L                                           3A                 3         KO2                              B+
R       441.94  442.36        A TRANSITION OCCURS WITHIN THIS INTERVAL, WHICH GOES FROM MUD TO
R       441.94  442.36        SAND.

/       442.36  449.88  7.52            CGCP        *C+      F*          KN2  P                    V1                      C+
L                                           6A         B* G; 5       C KO5                              <(

/       442.36  443.72  1.36          9 BRHM                            KP4  R
L                                           5A                           KO2
R       442.36  449.88        A NORMAL GRADING OF FRAGMENTS OCCURS INDICATING TOPS ARE UP HOLE

/       443.72  444.68  0.96          7 BRPM        *C)      F*          KM=  R                                            R*
L                                           5A      SN7 B*     4       O KO2
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K   F   F R O M - T O -   L N T RECOV  MD % ROCK TM TM QM1 TX TX F C % M ARG    RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E  -L-  ----.--  ----.--  ---.--  ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y   G                            R Q D  AGE EV RN LC TM QM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R       443.72  444.68        WITHIN THIS INTERVAL THE MATRIX IS A SANDSTONE.  TWO
R       443.72  444.68        HETEROLIGHIC BRECCIAS INTERCALATE WITH THE PEBBLY MUDSTONE.  THE
R       443.72  444.68        AVERAGE 22CMS IN THICKNESS AND THE LOWER BED HAS A GREAT DEAL OF
R       443.72  444.68        QUARTZ VEINING.  PARTS OF THE PEBBLY MUDSTONE BECOME
R       443.72  444.68        INCORPORATED IN THE HETEROLITHIC BRECCIA
R       449.88  451.80        THE MATRIX GRADES FROM A MUDSTONE TO A SANDSTONE IN A DOWN HOLE
R       449.88  451.80        DIRECTION.

/       449.88  458.57    8.69            BRAM         SS              LP9    P                  <=                  L.
L                                                3A          2                                          <(

/       449.88  451.80    1.92          6 BRPM                         LP3    R                  <+                  L(
L                                                3A          2         JN1

/       454.46  455.08    0.62          9 CGCP                         KO2    R                                      C(
L                                                6A          4      C  KN5                              <(

/ FLT   455.08  457.50    2.42          7 BRPM       GG5               LO3    R                  V=                  V+
L                                                3A          2         KM2
R       455.08  457.50        THE FAULT GOUGE MAKES IT DIFFICULT TO DISTINGUISH THE ROCK TYPE
R       455.08  457.50        MATRIX.  IT APPEARS TO CHANGE FROM A SANDSTONE MATRIX TO A
R       455.08  457.50        MUDSTONE MATRIX IN A DOWNHOLE DIRECTION.

/ SHR   458.57  465.42    6.85            BRHT       GG=               LR8    P                  V=                  <+
L                                                3A          2         KL1                              <(
R       458.57  465.42        THE ROCK IS HIGHLY BROKEN AND SHEAR.  INDICATING THAT FAULTING
R       458.57  465.42        CONTINUES.

/       461.01  461.77    0.76          7 BRPM       *C+               KM=    R                  <+                  R+
L                                                5A      R* F* 3    O  JN2
R       461.01  461.77        THIS INTERVAL HAS A SANDSTONE MATRIX.

/       465.42  471.78    6.36            BRPM    CR GG=               LQ2    P                  <+                  <+
L                                                4A   *C( R*     2    O  KO1                              <(
R       465.42  471.78        THE MATRIX CHANGES FROM SANDSTONE TO MUDSTONE.

/       471.78  472.65    0.87            SAND          MX     3  3   3        P                  V1                  <=
L                                                6A         RP

/ FAL   472.65  479.48    6.83            BRHT       GG6               LG5    P                  V1             <*   R+
L                                                3A CR       2         JL1

/       479.48  483.79    4.31            BRHI                         LR7    P                  <)                  C+
L                                                3A          1         KN2

/       482.50  482.63    0.13          8 SAND          LC G; 1  3  9  4       R                                      D)
L                                                5A          8                                            C+

/       483.79  488.03    4.24            BRPM SF    *C+ R* F*         140    P
L                                                4A          4      O  KN2                                 <*   R+
R       483.79  488.03        THE MATRIX IS COMPOSED OF SANDS TO SILT SIZED PARTICLES.
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K  F   F R O M - T O -  I N T RECOV  MO % ROCK TM TM Q41 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                          R Q D  AGE FV RQ LC IM QQ2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/       484.02  486.23   2.21             9 BRPM CR     *S)                LP2   R                                   V)
L                                              2A     *C)          2 ) )   KN1
R       484.02  486.23       THE MATRIX IS MUD FILLED.

/       488.03  500.83  12.80                BRHT       *C(     R*         MS8   P                                   R*
L                                              3A          CC F* 2         LM1                                       L+
R       488.03  500.83       LARGE 2-3CM BANDS OF PYRRHOTITE ARE FOUND IN SILTY ARGILLITES
R       488.03  500.83       THROUGHOUT THIS INTERVAL.  THESE FRAGMENTS ALSO SHOW INTERVAL
R       488.03  500.83       SOFT SEDIMENT SLUMP.
R SPC   488.03  500.83       D.G. 201 TAKEN OF PYRRHOTITE BAND AT 498.10 METRES.

/       493.51  493.96   0.45             6 BRPM        *C*                KM1   R                                   R*
L                                              3A          R* B* 3      0  JM2
R       493.51  493.96       THE INTERSTITIAL SPACES ARE FILLED WITH SAND SIZED GRAINS.

/       500.83  505.57   4.74                CGBR       *C      G;         LP2   P                                   B)
L                                              5A          F* B* 4      C  K04
R       500.83  505.57       THERE ARE TWO CYCLES OF NORMAL GRADING WHICH INDICATE TOPS ARE
R       500.83  505.57       UPHOLE.

/       503.80  505.57   1.77             7 BRHT        *C)     F*         LP4   R                                   D+
L                                              4A          B* 3            L02
R SPC   503.80  505.57       SAMPLE TAKEN AT 504.10 METERS (D.G.200).  THE BRECCIA FRAGMENTS
R       503.80  505.57       ARE COATED WITH A DISSEMINATED DULL YELLOW MINERAL THAT COULD BE
R       503.80  505.57       PYRITE.

K LDF   505.57  505.57   0.00

/       505.57  524.10  18.53                BRHM               CC         MU9   P                                   L)
L                                              3A          SS      2       JN=                                       L)
R       505.57  524.10       THE BRECCIA FRAGMENTS ARE SILT BANDED ARGILLITES.

/       516.01  518.79   2.78             2 BRPM                           KP1   R                                   C)
L                                              5A                  4    0  K02
R       516.01  518.79       THIS REPEAT INTERVAL INTERCATES WITH THE HOMOGENEOUS BRECCIA AS
R       516.01  518.79       BED, OR DISCONTINOUS LENSES THAT VARY FROM 2CMS TO 87CMS IN
R       516.01  518.79       THICKNESS.

/       524.10  526.02   1.92                CGCP SF    *C)                K03   P                                   C)
L                                              5A                 F* 5     K03

/       526.02  529.92   3.90                BRHT CR    *C*     F*         M06   P                   <)              <+
L                                              3A          CC      2       KN2
R       526.02  529.92       QUARTZ-PYRITE VEINS ARE FOUND WITHIN SILTY ARGILLITE BRECCIA.

/       529.92  539.50   9.58                BRHM CR       SS              MR9   P                   <)              D+
L                                              3A                  3       JK(                            <(

/       539.50  545.05   5.55                BRHT    CR                    MS8   P                                   R+
L                                              3A                  2       JM=                            <(     V+
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K  F   F R O M - T O -  I N T RECOV  RD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                               R Q D  AGE EV RO LC TM OM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/       545.05  551.43   6.38            BRPM CP                    KR2   P    FO       45                    R)
L                                          2A            2          JL1
R       545.05  551.43        THIS ROCK INTERVAL HAS PREDOMINANTLY A MUDSTONE MATRIX WHICH
R       545.05  551.43        GRADES INTO A SANDSTONE MATRIX FOR 10CMS, AND THE BACK INTO A
R       545.05  551.43        MUDSTONE MATRIX FOR THE LAST 3 METERS.

/       551.43  552.92   1.49            CGCP                       LQ3   P                                   R+
L                                          5A            4      C   KO3
R       551.43  552.92        ALL THE CHERT FRAGMENTS ARE HIGHLY ROUNDED, WHERE AS THE
R       551.43  552.92        ARGILLITE FRAGMENTS ARE ONLY MODERATELY ROUNDED.
R       552.92  553.01        THE PEBBLY MUDSTONE HAS A MUDSTONE MATRIX.

/       552.92  560.47   7.55            BRPM                       LR8   P                                   B+
L                                          3A            2          JK+                             B)

/       552.92  553.01   0.09          8 BRPM                       LN2   R                                   D*
L                                          2A            2          JK+
R SPC   552.92  560.47        DG 203 TAKEN AT 558.09M CONTAINS SIDERITE AND PYRITE BLEBS
R       552.92  560.47        WITHIN ARGILLIC BRECCIA FRAGMENTS.  WHITE QUARTZ R1 MS THE
R       552.92  560.47        PYRITE BLEBS.

/       559.93  560.39   0.46          9 BRPM                       KO1   R                                   B+
L                                          4A            3      0   KN3                          B+
R       559.93  560.39        THE PEBBLY MUDSTONE HAS A SANDSTONE MATRIX.

/       560.47  562.97   2.50            BRBM                       MN6   P                                   B1    B)
L                                                                   KL=                             <=
R SPC   560.47  562.97        DG.204 TAKEN AT 561.70 METRES         .
R       560.47  562.97        THE GALENA OCCURS AS 1.2MM EUHEDRAL CRYSTALS

K US1   562.97  562.97   0.00

/       562.97  564.15   1.18            MSSX          MX BN              P              B1                   B1 B* M4
L                                          5M                                                       B1          M2
R SPC   562.97  564.15        DG 109 TAKEN AT 564.15 METRES.  THE MASSIVE ORE CONSIST OF
R       562.97  564.15        THINLY BANDED MAUVE SPHALERITE (1-2CMS).  MASSIVE MEDIUM GRAINED
R       562.97  564.15        GALENA AND SMALL .4CM BLEBS OF CHACOPYRITE.  QUARTZ VEINS AND
R       562.97  564.15        LENSES AVERAGE 2CMS IN DIAMETER.  THROUGHOUT THE ORE ZONE
R       562.97  564.15        SILICIFIED, ARGILLIC BRECCIA FRAGMENTS ARE FOUND IN THE MASSIVE
R       562.97  564.15        SULPHIDE MATRIX.  THEIR VOLUME CONSTITUTES LESS THAN 2% OF THE
R       562.97  564.15        TOTAL INTERVAL.

/       564.15  565.71   1.56            MSSX PY       MX BN              P              B1                   M6 B* M4
L                                                                                                               B1

/       565.71  566.25   0.54            MSSX SO       MX                 P              V1                   B1    Q1
L                                          5T                                                    M6             B)
R       565.71  566.25        THIS INTERVAL IS LACKING IN BEDDING OR LAMINATIONS.  IT IS A
R       565.71  566.25        MASSIVE SIDERITE WITH QUARTZ.  VEINING AND THE OCCASIONAL PATCH
R       565.71  566.25        OF GALENA.  THE SIDERITIC AREAS SHOW BOILING TEXTURES BY WAY OF
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K  F   F R O M - T O -  I N T RECOV  NO % ROCK TM TM UM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  -- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                         R Q D  AGE EV RJ LC TM UM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SO QS HA PR MT SL HA

R       565.71  566.25        IRREGULAR MIXING.  SAMPLE D.G.179 TAKEN AT 566.25 METRES.
R       565.71  566.25        SAMPLE D.G.180 TAKEN AT 566.60 METRES.

/       566.25  568.76  2.51           MSSX          MX                P                 Q1                M2    M4
L                                         5A            VG                                           Q3        M=    M1
R       566.25  568.76        THE RECOVERY OVER THIS INTERVAL IS POOR IN THE MORE SIDERITIK
R       566.25  568.76        VUGGY SECTION AT THE BASE OF THE INTERVAL.  NEAR THE TOP OF THE
R       566.25  568.76        INTERVAL, THE ORE IS A MASSIVE GALENA RICH SULPHIDE, WITH
R       566.25  568.76        IRREGULAR PATCHES OF SIDERITE, QUARTZ AND SPHALERITE.

/       568.76  570.59  1.83           MSSX SO       MX                P                                   B2    Q)
L                                         SO            VG                                           M6              B)
R       568.76  570.59        THE RECOVERY OVER THIS INTERVAL WAS VERY POOR.

/       570.59  571.50  0.91           MSSX SO       MX                P                 Q=                M2    Q=
L                                         5A            VG                                           Q3              B)
R SPC   570.59  571.50        SAMPLE D.G. 181 TAKEN AT 570.20 METRES.  THE UPPER HALF OF THE
R       570.59  571.50        MASSIVE SULPHIDE IS RICH IN SIDERITE AND QUARTZ SIDERITE.  THE
R       570.59  571.50        LOWER PART IS RICH IN GALENA AND PYRITE.

/       571.50  574.55  3.05           MSSX SO       MX                P                 Q+                M1    M3
L                                                                                                    Q2              M2
R       571.50  574.55        ALTERATION OCCURS AROUND MASSIVE REGIONS OF PYRITE, GALENA AND
R       571.50  574.55        SPHALERITTION.  GALENA AND SPHALERITE FORM AROUND SMALL 3MM
R       571.50  574.55        PATCHES OF QUARTZ, AND IN DENDRITIC TEXTURES IN AND AROUND
R       571.50  574.55        MASSIVE PYRITE.
R SPC   571.50  574.55        SAMPLE D.G. 182 TAKEN AT 571.28 METRES.
R       571.50  574.55        SAMPLE D.G. 183 TAKEN AT 574.50 METRES.

/       574.55  576.07  1.52           MSSX SO       VG                P                 B(                M4    M5
L                                                                                                       Q1           D1

/       576.07  576.62  0.55           MSSX SO       MX                P                 B(                <=    Q6
L                                                                                                       M3           D=

/       576.62  577.48  0.86           MSSX SO       MX                P                 Q=                M2    Q=
L                                                                                                       Q2           B1

/       577.48  578.17  0.69           MSSX SO       MX                P                 Q=                M2    Q=
L                                                                                                                    B)
R SPC   577.48  578.17        SAMPLE D.G. 184 TAKEN AT 577.9 METRES.

/       578.17  580.95  2.78           MSSX          MX VG             P   LM      25                      L=    M7
L                                         3A            BN LM                                           B1           X2
R       578.17  580.95        IN PARTS, THE CORE SHOWS FAINT BANDING, AND LAMINATION OF
R       578.17  580.95        SULPHIDES.

/       580.95  581.86  0.91           MSSX          MX VG             P   LM      25                      L=    M7
L
R       580.95  581.86        THE UPPER PART IS MASSIVE, WHEREAS THE LOWER PART IS BANDED WITH
R       580.95  581.86        SULPHIDES AND ALTERATION CLAYS (POSSIBLY SERICITE).  THE BANDS
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K  F  F R O M - T O -  I N T RECOV  MO % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                           R Q D  AGE EV RW LC TM QM2 TX TX S C U O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R      580.95  581.86     ARE CONVOLUTED, AND FROM 2CM TO 2MM IN WIDTH.  TENSION FRACTURES
R      580.95  581.86     OCCUR IN THE PYRITE BANDS.
R SPC  580.95  581.86     SAMPLE D.G. 185 TAKEN AT 581.80 METRES.

/      581.86  582.63  0.77          SOLF           MX                  P               M6                 M2    B2
L                                        9G            BR                                     <+                 R=
R      581.86  582.63     THIS HIGHLY ALTERED INTERVAL MAY BE A BLEACH ARGILLITE, RICH IN
R      581.86  582.63     QUARTZ-SERICITE.  SMALL MICROVEINS OF CHLORITE CROSSCUT THE
R      581.86  582.63     MASSIVE ROCK.

/      582.63  583.43  0.80          MSSX           MX                  P               B)                 B1    M8
L                                        4A            VG                                           B1           B=

/      583.43  584.51  1.08          MSSX SD        MX                  P               B=                 B1    M6
L                                        61                                                         Q2           B*
R SPC  583.43  584.51     SAMPLE D.G. 186 WAS TAKEN AT 584.00 METRES.

/      584.51  586.37  1.86          MSSX           MX                  P               <+                 M2 B* M4     07
L                                        4A            VG                                           B+     B)    B+
R      584.51  586.37     THIS INTERVAL IS DOMINATED BY MASSIVE PYRITE AND GALENA.
R      584.51  586.37     SPHALERITE OCCURS AS SMALL BLEBS IN MASSIVE GALENA OR AS BANDS
R      584.51  586.37     ASSICIATED WITH QUARTZ-SERICITE LENSES.
R SPC  584.51  586.37     SAMPLE D.G. 187 WAS TAKEN AT 585.60 METRES.

K LS1  586.37  586.47  0.00

/      586.37  587.04  0.67          BRHT SF     *C) B* H*      NS4     P               <)              <=     R1    D=
L                                        4A         QU SS 3 *     KM1                             <)
R      586.37  587.04     THE MATRIX IS A FAILY SANDY PEBBLY MUDSTONE.

/      587.04  588.19  1.15          BRHT SF     *C) B* H*      NS4     P               <)              <=     R=    D)
L                                                                                                 <)         R)

/      588.19  591.20  3.01          BRHT SF     *C) B* H*      NS4     P               <)              <=     R1    D=
L
R      588.19  591.20     PYRRHOTITE, PYRITE, SIDERITE, GALENA AND SPHALERITE
R      588.19  591.20     MINERALIZATION OCCURS IN AN ARGILLITE BOULDER THAT MEASURES 1.21
R      588.19  591.20     METRES ACROSS.

/      591.20  592.32  1.12          BRHT SF     *C) B* H*      NS4     P               <)              <+     C=    B)
L                                                                                             D(             D(
R      591.20  592.32     SULPHIDES SARROUND BRECCIA FRAGMENTS AND ALSO OCCUR WITHIN THE
R      591.20  592.32     FRAGMENTS AND MATRIX AS DISSEMINATED CRYSTALS.

/      592.32  593.66  1.34          MSSX PY        MX                  P               B1                 M4    B=
L                                        4U            BN                                     M2           M1    L1
R      592.32  593.66     ARGILLIC FRAGMENTS AND BANDS OCCUR THROUGHOUT THE MASSIVE
R      592.32  593.66     SULPHIDE.  THE TOP IS RICH IN SIDERTIE, WHEREAS THE BOTTOM IS
R      592.32  593.66     PREDOMINANTLY MASSIVE SULPHIDES.

/      593.66  594.89  1.23          CGSD SF                      LM2     P               V+                 R=    B)
L                                        5A                     C KM4                         E=
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K  F   F R O M - T O -  I N T RECOV  RQ % ROCK TM IP GM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                               R Q D  AGE FV RO LC TM GM2 TX TX S C O U CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/       594.89  595.79   0.90          CGSN SF                          LM2   P                 <)              R=    B=
L                                           SA                        C KM4                             <)

/       595.79  596.85   1.06          CGSN SF                          LM2   P                 <.              R=    B2
L                                           SA                        C KM4                          <( E=

/       596.85  609.36  12.51          BBHM         *S+     SS          OR8   P                 <*
L                                                                   +   JL(                             R+      B+

/       602.32  602.32   0.00        X BRHM         *S+     SS          QR8   R                 <*              <=    B=

/       607.88  609.36   1.48        X BRHM         *S+     SS          OR8   R                 V3
L                                                                   +   JL(                             <)      B+

K US2   609.36  609.36   0.00

/       609.36  610.03   0.67          GGSX SF           MX                   P                 V1              B1 B+ E2
L                                           SA        GG BR                                     B+      M3
R SPC   609.36  610.03        SAMPLE D.G. 196 TAKEN AT ? ? ?.
R       609.36  610.03        THIS INTERVAL CONSISTS OF A SILICEOUS ARGILLITE WITH SEM.-MASSIVE
R       609.36  610.03        SULPHIDES.  GALENA ENVELOPES LARGER QUARTZ VEINS.

/       610.03  611.00   0.97          BMSX SF        MX BR                   P                 V2              B+ B( B=
L                                                     VG SK                                     Q2      Q3

/       611.00  612.00   1.00          BGSX SF        BG MX                   P    LM       42 <+              B1 B* B)
L                                                     LM MX                                     X1      X3

/       612.00  613.00   1.00          BGSX SF           MX                   P                 V1              M2 B* M2
L                                                                                               X2      M1
R       612.00  613.00        ARGILLIC BEDS ARE GREATLY REDUCED AND ACOUNT FOR ONLY 30% OF THE
R       612.00  613.00        TOTAL INTERVAL VOLUME.  BEDS AVERAGE 2CMS.  IN THICKNESS.

/       613.00  614.00   1.00          BGSX SF        BN MX                   P                 V1              B1 B) B+
L                                                        MX                                     V1      B=
R       613.00  614.00        ARGILLIC BANDS ACCOUNT FOR 40%, BY VOLUME, OF THE TOTAL INTERVAL

/       614.00  615.00   1.00          BGSX SF        BR MX                   P                 V=              B1 B) M1
L                                                     MX BR                                     V1      B=
R       614.00  615.00        SIDERITIC LENSES (AVERAGE THICKNESS 8CMS) ALTERNATE WITH
R       614.00  615.00        SILICEOUS ARGILLITES (AVERAGE THICKNESS 7CMS).  BANDS OF
R       614.00  615.00        SULPHIDES WITHINSIDERITIC ROCK SHOW CONVOLUTED TEXTURES.
R SPC   614.00  615.00        SAMPLE D.G. 209 TAKEN AT ? ? ?

/       615.00  616.00   1.00          BGSX SF           MX                   P                 V=              B1 B) M1
L                                                                                               V1      B=

/       616.00  617.00   1.00          BGSX SF           MX                   P                 V=              B1 B) M1
L                                                                                               V1      B=

/       617.00  618.00   1.00          BGSX SF           MX                   P                 V1              M3 B) M1
L                                                                                               Q2      B=
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K  F  F R O M - T O -  T O T RECOV  NO % ROCK TM TM OR1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R Q D  AGE EV RQ LC TM OR2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA
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R      617.00  618.00      ARGILLITE BEDS ACCOUNT FOR 10% OF THE TOTAL ROCK INTERVAL.
R      617.00  618.00      GALENA AND SIDERITE BORDER LARGE QUARTZ VEINS.

/      618.00  619.00   1.00             BRSX SF           MX               P               V1                M3 B) M1
L                                                                                                  Q2        B=
--------------------------------------------------------------------------------------------------------------------------------
/      619.00  620.00   1.00             BRSX SF           MX               P               V1                B1 B+ E2
L
R      619.00  620.00      SILICEOUS, BLEACHED ARGILLITE FRAGMENTS AVERAGE 3CMS TO
R      619.00  620.00      DIAMETER.  ARGILLITE APPEARS TO PARTIALLY OR TOTALLY REPLACE
R      619.00  620.00      SOME OF THE ORIGINAL ARGILLITE.
--------------------------------------------------------------------------------------------------------------------------------
/      620.00  621.00   1.00             BRSX SF           MX               P               V1                L2 B* M1
L                                                                                                  Q2        L2

/      621.00  622.00   1.00             BRSX SF           MX               P               V1                B1 B+ E2
L
--------------------------------------------------------------------------------------------------------------------------------
R SPC  621.00  622.00      SAMPLE D.G. 197 TAKEN AT

/      622.00  630.00   8.00             BRSX                               P               V1                L2 B* M1
L                                                                                                  Q2        L2
R      622.00  630.00      PYRRHOTITE, PYRITE, AND GALENA BANDS ALTERNATE WITH SILICEOUS
R      622.00  630.00      ARGILLITE
--------------------------------------------------------------------------------------------------------------------------------
R SPC  622.00  630.00      SAMPLE D.G. 212 WAS TAKEN AT

K LS2  630.00  630.00   0.00

/      630.00  632.00   2.00             BRSX          BN                   P  1 LM      43 V1                X1    B*
L                                            5A        MX LM                                       B=        X=    B)
--------------------------------------------------------------------------------------------------------------------------------
R      630.00  632.00      SILICEOUS ARGILLITE PREDOMINATES IN 1-10CM BEDS.  SOME SIDERITE,
R      630.00  632.00      PYRITE AN PYRRHOTITE OCCUR IN BANDS AS DISSEMINATIONS, OR IN
R      630.00  632.00      THIN LAYERS.

/      632.00  636.00   4.00             BRSX          BU BR                P  1 LM      44 <=                X1    B*
L                                            5A        MX LM                                       Q4        X1    V)
--------------------------------------------------------------------------------------------------------------------------------
R      632.00  636.00      MILDLY BRECCIATED ARGILLITE IS COATED WITH DISSEMINATED TO
R      632.00  636.00      MASSIVE PYRTIE AND PYRRHOTITE-SPHALERTIE AND GALENA ARE
R      632.00  636.00      SCATTERED THROUGHOUT THE ARGILLITE.  SILICIFIED ARGILLITE
R      632.00  636.00      AMOUNTS TO 70% OF THE TOTAL INTERVAL VOLUME.
R SPC  632.00  636.00      SAMPLE D.G. 213 TAKEN AT
--------------------------------------------------------------------------------------------------------------------------------
/      636.00  641.15   5.15             ARGL SF    SN= LC LM 1 3 = 3       P  1 LM      27 <+                L+
L                                            5A           BR 8                                     R+        L=    V+

/      636.72  636.80   0.08           X ARGL GR    SN= LC LM 1 3 = 3       R  1 LM      27 <1                <=
L                                            5A           SK 8                                     R+        <+    V+
R      636.72  636.80      A HIGHLY SHEARED AND GRAPHITIC REGION WITH STOCKWORK VEIN ING.
--------------------------------------------------------------------------------------------------------------------------------
/      641.15  648.00   6.85             ARGL SF    SN= BN LM 1 3 = 1       P  1 LM      26 <+                X1    B.
L                                            5A        LC BR 9                                     R3        X=    B(
R      641.15  648.00      MANY OF THE ARGILLIC BEDS ARE PARTIALLY OR WHOLLY REPLACED BY
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K  F   F R O M - T O -   T O T RECOV  RQ % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                                 R G D  AGE EV RQ LC T4 QM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R        641.15  648.00       SIDERITE, IN THE UPPER HALF OF THIS INTERVAL.  PYRITE AND
R        641.15  648.00       PYRRHOTITE OCCUR AS LAMINATED DISSEMINATIONS IN THE SANDY
R        641.15  648.00       LAMINATIONS WITHIN THE ARGILLITE.  MOST OF THE FE-SULPHIDES ARE
R        641.15  648.00       FOUND WITH SIDERITIZED REGIONS, IN VEINS AND AS THE MATRIX FOR
R        641.15  648.00       BRECCIATED ARGILLITE FRAGMENTS.
R SPC    641.15  648.00       SAMPLE D.G. 214 TAKEN AT

K US3    643.00  643.00  0.00

/        648.00  650.00  2.00            ARGL SF    SM= BN SS 1 3 = 1        P  1 LM       26 <+                      X=    B.
L                                                          BR                                            R1          B+
R        648.00  650.00       THIS BRECCIATED SILICIFIED ARGILLITE MAKES UP 70% OF THE TOTAL
R        648.00  650.00       INTERVAL VOLUME.

/        650.00  654.00  4.00            BBSX            BR BN               P    LM       20 L2                      X3    B.
L                                              3B           LM                                           <1          X1    B.
R        650.00  654.00       THE ARGILLITE, NEAR THE TOP, IS BRECCIATED AND FE-SULPHIDES MAKE
R        650.00  654.00       UP THE MATRIX.  FURTHER DOWN THE SULPHIDES BECOME BANDED IN 1CM
R        650.00  654.00       LAYERS WITH .5CM LAYERS OF QUARTZ.

/        654.00  659.47  5.47            ARGL SF    SM* LC     0 3 * 3       P  0 BD       25 V1                      L=
L                                              5A   SI(    LM 8                                          <+
R SPC    654.00  659.47       SAMPLE D.G. 215 TAKEN AT

K LS3    656.00  656.00  0.00

/        659.47  660.91  1.44            ARGL CR    SM* LM                   P  0 BD       25 <)                      L=
L                                              4A   SI(     CC 8                                         <)
R        659.47  660.91       PYRITE BEDS ARE 1.5 - 2.0 CMS IN THICKNESS.  LARGE NODULES OF
R        659.47  660.91       PYRITE ARE 2CMS IN DIAMETER.

/        660.91  665.59  4.68            BRBB          SS             MR8    P                                            B=
L                                              4A             3                                          <*

/ MSX    665.59  672.08  6.49            MSBX PY                             P                                            M4
L                                              3B                                                        <)
R        665.59  672.08       APPROXIMATELY 80% OF THE MATRIX HAS BEEN REPLACED BY PYRITE.
R        665.59  672.08       BOTH ARGILLITE AND CHERT FRAGMENTS OCCUR IN THE PYRITIZED MATRIX
R SPC    665.59  672.08       SAMPLE D.G. 216 TAKEN AT

/        672.08  672.93  0.85            BRRN                         LN1    P                                            C1
L                                              3A             2       LO2

/        672.93  674.23  1.30            SAND            LC LM 0 3 8 3         P                                          L1
L                                              4A             8
R        672.93  674.23       A FEW ARGILLITE LAYERS INTERCALATE WITHIN THE SANDSTONE.

/        674.23  679.71  5.48            ARSI CR    SR1 BD SK 0 3 1 3        P    BD       47                         B+
L                                              2A             8                                              V2
```

A UMM				SAMPLE	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A LAB				SERIAL	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	
A TYP				NUMBER	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	
A MTH					WA	WA	WA	WA	WA	WA	WA	WA	

R ASY 0.00 0.00 B.CLG = BONDAR CLEGG, VANCOUVER; H-CORE = HALF CORE.

R ASY 0.00 0.00 WA = WET ANALYSIS.

R ASY 0.00 0.00 LESS THAN DETECTION LIMIT ENTERED AS -D.L. E.G. -0.01

R ASY 0.00 0.00 NO ASSAY INFORMATION ENTERED AS -0.1

A 001	560.47	562.05	123	PH8483	0.27	0.20	0.83	0.12	0.01	8.35	-0.002	-0.1	9.678
A 001	562.05	562.97	62	PH8484	1.41	1.22	1.40	0.84	0.02	8.40	-0.002	-0.1	13.188
A 001	562.97	564.15	96	PH8485	24.99	11.15	0.14	10.65	0.06	7.60	-0.002	-0.1	54.488
A 001	564.15	565.71	127	PH8486	25.52	4.95	0.04	9.15	0.07	25.45	-0.002	-0.1	65.078
A 001	565.71	566.25	31	PH8487	6.00	0.81	-0.01	2.61	0.03	34.50	-0.002	-0.1	43.838
A 001	566.25	568.76	146	PH8488	21.17	6.86	0.04	8.94	0.03	24.80	-0.002	-0.1	61.678
A 001	568.76	570.59	04	PH8489	0.60	0.32	-0.01	0.62	0.01	39.55	-0.002	-0.1	41.028
A 001	570.59	571.50	88	PH8490	3.05	0.34	-0.01	1.82	-0.01	27.70	-0.002	-0.1	32.788
A 001	571.50	574.55	126	PH8491	17.60	7.79	-0.01	8.75	0.01	17.40	-0.002	-0.1	51.438
A 001	574.55	576.07	14	PH8492	26.22	4.75	0.02	11.63	0.02	27.30	-0.002	-0.1	69.838
A 001	576.07	576.62	46	PH8493	30.13	2.60	0.01	14.45	0.03	15.75	-0.002	-0.1	62.918
A 001	576.62	577.48	72	PH8494	35.48	0.24	-0.01	16.53	-0.01	10.50	-0.002	-0.1	62.628
A 001	577.48	578.17	45	PH8495	23.32	0.64	0.01	10.96	-0.01	12.20	0.037	-0.1	47.057
A 001	578.17	580.95	98	PH8496	48.26	16.51	0.06	27.20	0.02	7.70	-0.002	-0.1	99.648
A 001	580.95	581.86	57	PH8497	42.24	17.51	0.10	21.45	0.03	9.75	-0.002	-0.1	90.978
A 001	581.86	582.63	26	PH8498	8.70	2.95	0.10	4.11	0.01	17.60	-0.002	-0.1	33.368
A 001	582.63	583.43	63	PH8499	62.13	2.30	0.02	24.77	0.01	9.50	-0.002	-0.1	98.628
A 001	583.43	584.51	65	PH8500	43.71	0.28	-0.01	16.59	0.04	10.65	-0.002	-0.1	71.158
A 001	584.51	586.37	93	PH8501	23.62	0.81	0.03	9.20	0.11	14.60	-0.002	-0.1	48.268
A 001	586.37	587.04	44	PH8502	2.55	0.11	3.72	0.97	0.01	5.65	-0.002	-0.1	12.908
A 001	587.04	588.19	100	PH8503	0.23	0.01	5.32	0.54	-0.01	2.35	-0.002	-0.1	8.338
A CMP	562.97	586.37	1197		25.78	5.98	-0.03	12.00	-0.03	18.71	-0.002	-0.1	62.308
A 001	591.20	592.32	105	PH8587	0.88	-0.01	1.41	0.37	-0.01	3.55	-0.002	-0.1	6.088
A 001	592.32	593.66	129	PH8588	2.23	-0.66	0.04	1.49	0.04	36.43	-0.002	-0.1	39.468
A 001	593.66	594.80	109	PH8589	0.51	0.03	0.38	0.18	-0.01	4.20	-0.002	-0.1	5.188
A 001	594.80	595.79	94	PH8590	2.89	-0.01	0.36	0.73	-0.01	2.50	-0.002	-0.1	6.358
A 001	595.79	596.85	101	PH8591	9.02	-0.01	0.16	1.87	-0.01	2.70	-0.002	-0.1	13.628
A CMP	592.32	596.85	441		3.53	-0.21	0.22	1.08	-0.01	13.01	-0.002	-0.1	17.518
A 001	609.35	610.00	63	KL8504	8.20	0.03	0.16	2.04	0.18	31.95	-0.002	-0.1	42.458
A 001	610.00	611.00	99	KL8505	2.50	0.03	0.64	0.54	0.09	23.45	-0.002	-0.1	27.148
A 001	611.00	612.00	99	KL8506	0.52	0.02	0.39	0.52	0.07	26.40	-0.002	-0.1	27.818
A 001	612.00	613.00	99	KL8507	10.98	0.05	0.12	1.73	0.06	28.45	-0.002	-0.1	41.288
A 001	613.00	614.00	99	KL8508	1.73	0.02	0.15	0.33	0.10	29.30	0.008	-0.1	31.538
A 001	614.00	615.00	99	KL8509	6.23	0.04	0.05	1.16	0.08	29.35	0.002	-0.1	36.812
A 001	615.00	616.00	100	KL8510	3.60	0.06	0.23	0.64	0.07	26.75	-0.002	-0.1	31.248
A 001	616.00	617.00	100	KL8511	3.85	0.04	0.21	0.72	0.04	28.40	0.002	-0.1	33.162
A 001	617.00	618.00	99	KL8512	5.43	0.01	0.07	1.00	0.09	34.65	-0.002	-0.1	41.048
A 001	618.00	619.00	98	KL8513	3.65	0.02	0.02	0.77	0.18	33.65	-0.002	-0.1	38.188
A 001	619.00	620.00	98	KL8514	0.14	0.01	0.17	0.24	0.14	27.14	-0.002	-0.1	27.738
A 001	620.00	621.00	99	KL8515	8.61	0.06	0.08	1.61	0.06	34.15	-0.002	-0.1	44.468
A 001	621.00	622.00	100	KL8516	1.21	0.02	0.08	0.22	0.07	33.05	-0.002	-0.1	34.548
A 001	622.00	623.00	100	KL6517	5.32	0.02	0.04	0.92	0.06	34.10	-0.002	-0.1	40.358

A UMM A LAB A TYP A MTH				SAMPLE SERIAL NUMBER	% PB B.CLG H-CORE WA	% ZN B.CLG H-CORE WA	% BA B.CLG H-CORE WA	OZ AG B.CLG H-CORE WA	% CU B.CLG H-CORE WA	% FE B.CLG H-CORE WA	OZ AU B.CLG H-CORE WA	% CD B.CLG H-CORE WA	HASH
A 001	623.00	624.00	100	KL8518	4.02	-0.02	0.29	0.73	0.08	31.20	-0.002	-0.1	36.198
A 001	624.00	625.00	99	KL8519	5.15	0.22	0.16	0.84	0.05	28.65	-0.002	-0.1	34.968
A 001	625.00	626.00	99	KL8520	5.60	0.06	0.06	0.75	0.05	32.15	-0.002	-0.1	38.568
A 001	626.00	627.00	99	KL8521	6.75	0.02	0.04	0.95	0.03	31.65	-0.002	-0.1	39.338
A 001	627.00	628.00	99	KL8522	4.38	0.02	0.08	0.69	0.05	27.40	-0.002	-0.1	32.518
A 001	628.00	629.00	99	KL8523	0.96	0.25	0.02	0.27	0.07	36.90	-0.002	-0.1	38.368
A 001	629.00	630.00	99	KL8524	0.15	0.08	0.09	0.16	0.09	20.63	-0.002	-0.1	21.098
A 001	630.00	631.00	99	KL8525	0.12	0.21	0.23	0.14	0.03	7.20	-0.002	-0.1	7.828
A 001	631.00	632.00	99	KL8526	0.04	0.49	0.22	0.07	0.03	9.50	-0.002	-0.1	10.248
A 001	632.00	633.00	99	KL8527	0.12	0.46	0.06	0.15	0.03	26.00	-0.002	-0.1	26.718
A 001	633.00	634.00	99	KL8528	0.13	0.47	0.11	0.22	0.02	25.43	-0.002	-0.1	26.278
A 001	634.00	635.00	97	KL8529	0.04	0.31	0.23	0.12	0.04	21.00	-0.002	-0.1	21.638
A 001	635.00	636.00	97	KL8530	0.03	0.14	0.31	0.15	0.01	8.50	-0.002	-0.1	9.038
A CMP	609.36	630.00	2044		4.16	0.05	0.15	0.78	0.08	29.93	-0.002	-0.1	35.048
A 001	641.15	641.95	79	PH8550	0.01	-0.01	0.28	0.05	0.01	9.10	-0.002	-0.1	9.338
A 001	641.95	643.00	104	PH8551	0.02	-0.01	0.24	0.07	0.03	13.10	-0.002	-0.1	13.348
A 001	643.00	644.04	103	PH8552	0.04	-0.01	0.13	0.18	0.04	21.80	-0.002	-0.1	22.078
A 001	644.04	644.96	87	PH8553	0.01	0.01	0.13	0.08	0.08	27.03	-0.002	-0.1	27.238
A 001	644.96	646.00	94	PH8554	0.01	0.02	0.10	0.27	0.08	28.85	-0.002	-0.1	29.228
A 001	646.00	647.00	91	PH8555	0.02	-0.01	0.20	0.09	0.03	15.00	-0.002	-0.1	15.228
A 001	647.00	648.00	93	PH8556	-0.01	-0.01	0.19	0.04	0.01	11.90	-0.002	-0.1	12.018
A 001	648.00	649.00	99	PH8557	0.01	0.01	0.24	0.07	0.01	9.08	-0.002	-0.1	9.318
A 001	649.00	650.00	99	PH8558	-0.01	0.04	0.25	0.06	0.01	7.55	-0.002	-0.1	7.798
A 001	650.00	651.00	99	PH8559	0.02	0.02	0.08	0.17	0.06	29.30	-0.002	-0.1	29.548
A 001	651.00	652.00	100	PH8560	0.02	0.01	0.10	0.15	0.05	25.90	-0.002	-0.1	26.128
A 001	652.00	653.00	100	PH8561	0.01	-0.01	0.12	0.13	0.02	17.80	-0.002	-0.1	17.968
A 001	653.00	654.00	99	PH8562	0.01	-0.01	0.13	0.14	0.03	20.38	-0.002	-0.1	20.578
A 001	654.00	655.00	98	PH8563	0.02	0.01	0.17	0.16	0.02	14.00	-0.002	-0.1	14.278
A 001	655.00	656.00	98	PH8564	0.02	0.08	0.19	0.21	0.06	7.40	-0.002	-0.1	7.858
A CMP	643.00	656.00	1260		0.02	-0.02	0.16	0.14	0.04	18.14	-0.002	-0.1	18.378
A 001	665.99	667.00	101	PH8616	0.01	-0.01	0.27	0.10	0.05	15.30	-0.002	-0.1	15.618
A 001	667.00	668.00	100	PH8617	0.03	-0.01	0.13	0.11	0.06	24.65	-0.002	-0.1	24.868
A 001	668.00	669.00	100	PH8618	0.03	-0.01	0.14	0.23	0.07	27.60	-0.002	-0.1	27.958
A 001	669.00	670.00	100	PH8619	0.03	-0.01	0.20	0.18	0.04	25.20	0.002	-0.1	25.542
A 001	670.00	671.00	100	PH8620	0.04	-0.01	0.10	0.12	0.04	29.20	-0.002	-0.1	29.388
A 001	671.00	672.08	108	PH8621	0.02	-0.01	0.10	0.18	0.05	23.45	-0.002	-0.1	23.688

A MIN			-0.01	-0.01	-0.01	0.04	-0.01	2.35	-0.002	-0.1	2.248
A MAX	560.47	672.08	62.13	17.51	5.32	27.20	0.18	39.55	0.037	-0.1	151.82

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R ASY    0.00    0.00    MAX HASH TOTAL IS ACTUALLY 151.827; THE 7 HAS BEEN LEFT OFF .
R ASY    0.00    0.00    NOTE THAT MIN AND MAX WERE CALCULATED FOR EACH WEDGED HOLE.
R ASY    0.00    0.00    SINCE IT MIGHT BE RECOGNIZED AS ONE ASSAY FILE BY THE COMPUTER
R ASY    0.00    0.00    SOME EDITING PROBLEMS MIGHT OCCUR.
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G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA-STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE : 80838063	COLLAR ELEVATION: 1295.40	AZIMUTH(DEG) : 183.00	GEOLOGGED BY : JER + JDK
TOTAL DEPTH/LENGTH : 561.90	NORTHING(- IF S): 7002611.00	VERTICAL ANGLE : -72.67	DATE (YY/MM/DD): 810000
CORE/HOLE DIAMETER : NQ	EASTING (- IF W): 436463.25	CO-ORD SYSTEM : UTM	PROJECT NUMBER : J-S2

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	3.05	183.27	-71.77
2	30.48	183.22	-70.88
3	60.96	181.45	-70.64
4	91.44	179.11	-68.96
5	121.92	175.12	-62.59
6	152.40	173.57	-61.94
7	182.88	173.38	-60.62
8	213.36	174.52	-58.49
9	220.98	174.55	-57.63
10	228.60	174.14	-56.58
11	236.22	174.03	-55.70
12	243.84	172.15	-55.59
13	251.46	171.27	-53.88
14	259.08	170.33	-53.50
15	266.70	170.26	-51.79
16	274.32	170.35	-50.94
17	281.94	170.35	-49.94
18	289.56	170.53	-48.94
19	297.18	171.23	-47.96
20	304.80	171.34	-47.55
21	312.42	171.09	-46.84
22	320.04	171.21	-46.65
23	327.66	171.48	-46.45
24	335.28	171.51	-45.81
25	342.90	171.22	-44.82
26	350.52	171.39	-43.59
27	358.14	171.42	-41.74
28	365.76	172.04	-40.69
29	373.38	172.04	-39.80
30	381.00	172.28	-38.90
31	388.62	172.41	-37.99
32	396.24	172.48	-37.54

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                         33        403.86        174.41       -34.73
                         34        411.48        176.06       -32.00
                         35        419.10        165.02       -30.80
                         36        426.72        164.50       -30.43
                         37        434.34        165.13       -29.76
                         38        441.96        165.38       -29.48
                         39        449.58        165.36       -28.86
                         40        457.20        165.57       -28.55
                         41        464.82        166.27       -27.89
                         42        472.44        165.59       -27.69
                         43        480.06        166.08       -26.97
                         44        487.68        165.21       -26.60
                         45        493.17        166.11       -26.65

   F   - I N T E R V A L -    CORE  I- %      TYPI- QAL  TEX-  GRAIN        PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =    .  DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                        H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MT=METRIC FT=FOOTRIC)  ERY     O I        IM IM MAT TX TY F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  I N T (  . )   U X TYPE  1  2 OM1  1  2 F F C A          1     AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                          ROCK   FM     RT    IM OM2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  I                          QUAL   AGE EN- O LC- 3     3  4 O    /            2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y  G                          DESIG      VIR   COL            R    C            STRUCTUR-2 A  A  A  A  A  A  A  A  A  A     2   2

R SVY    0.00    0.00       ALL DATA FROM DETAILED GYROSCOPIC SURVEY OF DDH 80-638.
R SVY  248.41  248.41       BEGINNING OF WEDGED HOLE A.
R SVY  248.41  248.41       HALL AND ROWE STEEL WEDGE.
R SVY  269.14  269.14       BEGINNING OF WEDGED HOLE B.
R SVY  269.14  269.14       HALL AND ROWE STEEL WEDGE.

/        0.00  269.14 269.14          MISS                         P
L

/      269.14  321.67  52.53          BRHM      S12 H* R*          NR9   P    CL       40 <*         <- <*     8*
L                                        1A        F*              LN*                        C-
R      269.14  321.67       CLASTS ARE ARST.  CLEAVAGE POORLY DEFINED.  MEASUREMENT DUBIOUS.

/ FAL  270.88  271.08   0.20        X FAUL      GG9                    R
L                                        1A

/ SHR  276.75  277.06   0.31        X FAUL      GG5                    R
L                                        1A

/ FLT  280.93  281.34   0.41        X FAUL      GG5                    R
L                                        1A

/ FGT  285.29  291.90   6.61        X ARST      S12 SS                 R  2 80       81 V.
L                                                                                           C- V. V-
R      285.29  291.90       POSSIBLE CLAST.  BOUNDED BY FAULT DOWNHOLE, SMALL SHEAR UPHOLE.

/      321.67  333.28  11.61          BRHM      S12 H* R*          NR9   P     00      00 <*         <- <*     8*
L

/      321.67  333.28  11.61        3 BRHT      *C) H* F*          MO8   R                                C.    D*
L                                        2A     B* R*              MN2                        C.                    R.
R      321.67  333.28       SPHALERITE AT 321.67M.

/      333.28  334.89   1.61          SAND      SS9 FU    3 4 7 7        P                 >7                     D*
L                                        5A               2                               >) >=
R      333.28  334.89       LARGE CLASTS OF CHERT AND ARGL.  SAND SIZED PRIMARILY CHERT.
R      333.28  334.89       PYRITE AS DISSEMINATIONS IN SAND, BLEBS IN QUARTZ VEINS.
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     /      334.89  343.17    8.22            1 CGCP      HX HX          MN3   P                                     D)
     L                                             1A                    MO=
                                                    PAN OCEAN OIL LTD.
     G E O L O G                                     JASON PB-ZN-AG-BA-STF DEPOSIT, Y.T.                                  PAGE -  3
                                               DRILLHOLE/TRAVERSE --- 80BWH063 --- (CONTINUED)

     K  F  F R O M - T O -  T O T RECOV  MD % ROCK TX TM NM1 TX TX F C % M ARG   RT 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
     E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
     Y  G                          R Q D  AGE EV NN LC TM NM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA


     /      334.89  343.17    8.22            1 CGCP      *C= F* B*          LN3   R                                     D).
     L                                             5A          R* H*       O NO7                                           D.

     / FGT  334.89  343.17    8.28            4 ARGL CR                            R  2 BD      35
     L                                                                                                  C.
     R      334.89  343.17        OCCURS AT THREE SEPARATE LOCATIONS, AND MAY BE CLASTS.
     R      334.89  343.17        ORIGINALLY LOGGED AS A FRAGMENT.

     /      343.17  351.78    8.61              BRHM      ST2                PSX   P                                     8=
     L                                             1A                        MN.

     /      351.34  351.58    0.24            X SAND      SN9         3 4 8 4 OO1   R                                     D.
     L                                             8D              8
     R      351.34  351.58        TWO ARGL FRAGMENTS WITHIN THIS REPEAT UNIT.

     /      351.78  364.38   12.60              ARSI CR BA ST2 SS     1 2 2 2       P  3 BD      79 >*             <.    8=
     L                                             1A SD                                                C. >= >*
     R      351.78  364.38        PYRITE MAINLY DISSEMINATED IN SILT BANDS.

     K UDF  364.38  364.38    0.00
     R UDF  364.38  364.38        THE 'OTHER' FRAGMENTS ARE SANDSTONE. SOME CHERT ELASTS FROM CGCP

     /      364.38  375.79   11.41              BRPM      S*, R* H*          OS8   P                                     D*
     L                                                                     O MN1                                    <=
     R      364.38  375.79        OCCURS AS MATRIX FOR LARGE ARSI FRAGMENTS, AND BETWEEN BLOCKS OF
     R      364.38  375.79        BRHM.

     /      375.79  378.04    2.25              SAND SD SX SN9 CU G;          34   P              D   >+
     L                                             4A                                                      >= >+     8*    >.

     /      375.79  378.04    2.25            4 CGCP      *C=                MN2   R                                     7)
     L                                             4A                      C MO8
     R      375.79  378.04        SPHALERITE WITHIN QUARTZ VEINS.
     R      375.79  378.04        INTERVAL SHOWS GRADING FROM CGCP TO WELL SORTED SAND.  PY-VEINS.

     / SHR  375.86  376.02    0.16            X FAUL      GG7                      R                                     8=
     L

     / SHR  376.28  376.40    0.12            X FAUL      GG8                      R
     L

     /      378.04  386.60    8.56              BRHT      *C* R* H*          OS9   P                                     8*
     L                                             1A                  = * C MO=                            C=

     /      386.60  395.02    8.42              BRHT           B* F*         OR7   P                                     D*
     L                                             2A              R* H*   = - C LO3                                <.
     R      386.60  395.02        HIGH PERCENT ARGL DUE TO LARGE CLASTS.
     R      386.60  395.02        HIGH CHERT COMPONENT AS MATRIX.
     R      395.02  395.20        PYRITE IN MATRIX.  ON EITHER SIDE OF THIS PGI, SMALL INTERVALS
     R      395.02  395.20        OF CGCP OR HIGH CHERT BRHT MAY BE INJECTIONS OF THE PGI MATERIAL
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                                                              PAN OCEAN OIL LTD.
G E O L O G                                         JASON PB-ZN-AG-BA-STF DEPOSIT, Y.T.                                        PAGE -  4
                                              DRILLHOLE/TRAVERSE --- 80BWH063 --- (CONTINUED)

K  F  F R O M - T O -  I N T RECOV  RD % ROCK TG TM G 1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                                   R Q D  AGE EV RQ LC TM G 2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R      395.02  395.20      THE BOUNDARIES OF THIS PGI ARE IRREGULAR.  A 3CM. QUARTZ-PYRITE-
R      395.02  395.20      PYRRHOTITE VEIN MARKS THE END OF THIS INTERVAL.

/ FRG  395.02  402.52   7.50            CGCP          F* F*           L03   P               >)                D+
L                                            3A                       MP7                          >, >)    B.

/      395.02  395.20   0.18          X CGCP          F* H*           L03   R               >)                P1
L                                            3A                       MP7                          >, >)    B.

/      402.52  420.28  17.76            BRHM       *C) F* B*          OR9   P                                 D-
L                                            2A        R*      )      K01                       C-

/      407.42  413.31   5.89          X ARSI       ST1 SS                   R  2 80       60                  D.
L                                            1A
R      407.42  413.31      POSSIBLY A LARGE FRAGMENT.  NO POSITIVE INDICATION OF TOPS.  TAN
R      407.42  413.31      COLORED SILT VARIES IN BEDDING THICKNES, AND OCCUR AT VERY
R      407.42  413.31      IRREGULAR INTERVAL.

/      420.28  447.83  27.55            BRHI       *C= R* H*          OS7   P               <*                7)
L                                                      B*       * . 0 L03                       C- <, <-

/      420.28  447.83  27.55          2 SAND                  3 4 3 6       R                                 D.
L                                                             5

/      420.28  447.83  27.55          3 CGCP       *C= R* F*                R                                 D*
L                                            3A        R*
R      420.28  447.83      THE INTERVAL HAS VARYING SIZES OF ARGL-ARSI CLASTS INTIMATELY
R      420.28  447.83      INTERMIXED WITH THE CGCP AND SAND.  THE ENTIRE INTERVAL
R      420.28  447.83      REPRESENTS A DEBRIS FLOW.
R      420.28  447.83      GENERALLY GRADES TO CGCP.

/ FAL  431.15  431.60   0.45          X FAUL       G69                      R               <-                B-
L                                            1A                                                 C.
R      431.15  431.60      FAULT IN CGCP.

K LDF  447.83  447.83   0.00

/      447.83  491.40  43.57            BRHM GL SD SIX SC             QU9   P               V)          V-    L-    V.
L                                            1A    S 1         ) C LN*                      C.
R      447.83  491.40      EXCEPT FOR SEVERAL SAND CLASTS, ALL CLASTS ARE ARSN.

/      459.25  459.35   0.10          X SAND       C 1 MX SC 2 3    3       R  2 8D                           D.
L                                            3A               8
R      459.25  459.35      THIS AND THE FOLLOWING SAND ARE INTERBEDS WITHIN ARSI.

/      459.70  459.93   0.23          X SAND       C 1 MX SC 2 3    3       R  2 8D                           D.
L                                            3A               8
R      459.70  459.93      VEINING OF QZ-SD-PY-GL.

/      487.50  488.41   0.91          X CGCP GL PY *C) H* F*          MN1   R                                 B=    B.
L                                            3A        H* R*      0 L09
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K  F   F R O M - T O -  I N T RECOV  MO % ROCK TN TN OBL TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                            R Q D  AGE EV RN LC TN OB2 TX TX S C Q O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/       491.40  493.70   2.30           BRHT GL SL     F* B*        NQ7   P                  #)        <1     D1    <*
L                                            1A        R*      *   0 LO2                           #* #)               D)
R       491.40  493.70        ASSAYS BEGIN AT THIS INTERVAL.  SPHALERITE OCCURS IN ARGL
R       491.40  493.70        PORTION AND REPLACES CHERT.

/       493.70  495.10   1.40           BRHT GL SL     F* B*        NO5   P                  #+      ) <=     D1    D)
L                                                                    3                                 +            +
R       493.70  495.10        GALENA OCCURS IN ARGL, OFTEN ADJACENT TO SL.

/       495.10  498.42   3.32           BRHT GL SL     F* B*        NR7   P                  >)        <1     D+  1 <*
L                                            2A                                                                      *

/       495.10  498.42   3.32         5 CGCP GL SL *C= F* B*        LN+   R                  >1      P1       P=    B*
L                                            3A PY     B*           LN9                            C. >.               B*

/       498.42  499.30   0.88           CHER           SS                 P  2 BD       55 V=      P1       D1
L                                            4A                                                    D+

/ LSX   499.30  499.80   0.50           LMSX GL SL     SS                 P  1 LM       55         B1 L+    L1    L+
L                                               PY
R       499.30  499.80        SPHALERITE IS DISSEMINATED WITHIN BANDS OF CHERT LAMINATIONS

K US1   499.80  499.80   0.00

/ LSX   499.80  500.72   0.92           LMSX GL SL     SS                 P  1 LM       55         B1 L+    L1    72
L                                                                                                                   2
R       499.80  500.72        MARKED INCREASE IN SULPHIDES.  GALENA OCCURS AS LAMINATIONS, AND
R       499.80  500.72        FRACTURE FILLING.

/       500.72  501.36   0.64           LMSX GL SL CH6 SS                 P  1 LM       55         B1 L+    L1    L+
L                                                                                                                   1

/       500.72  501.31   0.59         1 ARGL           SS                 R  2 BD
L                                            1A
R       500.72  501.36        INTERBEDS OF ARGILLITE.  THESE MAY BE FRAGMENTS.

/ LSX   501.36  502.09   0.73           LMSX GL SL CH6 SS                 P  1 LM       55 V+      B1 L+    L2    L+
L

/       501.36  502.09   0.73         2 CHAR PY    SF3                    R                  V+    V* V+    L=
L                                            3A

/ LSX   502.09  502.89   0.80           LMSX GL SL CH6 SS                 P  1 LM       55         B1 L+    L2    L=
L                                                                                                                   1

/       502.09  502.89   0.80         3 CHAR PY    SF3                    R                  V+             L+
L                                                                                                  V* V+

/ LSX   502.89  503.54   0.65           LMSX GL SL CH6 SS                 P  1 LM       45 >1      B1 L=    L=    L+
L                                                                                                                   =
```

```
K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM    TX TX F C % M ARG    RI 1 IO AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- --  --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R Q D  AGE EV RN LC TN     TX TX S C U O CHT       2 IO AZM DIP MG MU CL SD QS HA PR MT SL HA

/ LSX  503.54  504.14   0.60          LMSX GL SL     SS                  P  1 L      55 >2       B1 L+    L=    L1
L                                                                                             <, <-                1
R      503.54  504.14      MINOR BRECCIA WIT QUARTZ    L CONTAINING SIDERITE, CHLORITE.

/ LSX  504.14  504.74   0.60          LMSX GL SL     SS                  P  1 L      55 V=       B1 L2    L1    L=
L                                                                                                                  =

/      504.38  504.46   0.08        X BRHM                        LN9   R                <=                      B*
L                                                                  CKM  1                           <,                 B*

K LS1  504.74  504.74   0.00

/      504.74  505.44   0.70          BRHM        SF2              NP9   P                <5          V2    B+    B*
L                                          2A                   C KN1                             >-                B*

/      505.44  506.48   1.04          BRHM SF        R* F*         MO9   P                >1                B=
L                                          1A     * *         * C KN+

/      506.48  507.30   0.82          BRHM SF BA    R* F*          MP9   P                >+          <1    B1
L                                          1A     *           * C KN+                             >) >)

/      507.30  510.24   2.94          BRHM SF BA     R* F*         MO)   P                <1          <1    B1
L                                          1A                 * C KN+
R      507.30  510.24      THIS INTERVAL WAS NOT ASS   D.

/ FLT  510.00  510.13   0.13        X FAUL                               R                <+          <2    B2
L                                          8A                                                                   <?
R      510.00  510.13      YELLOW COLOR IN BARITE       E SPHALERITE.

/      510.13  510.24   0.11        X ARSI          SS    0 1   2        R                <-          <=    B+    B.
L                                          1A                                                     <.

/      510.24  511.20   0.96          ARSI BA       SS    0 1   2        P  2 BO     29 <=          <1    B=
L                                          1A                                                     <.

/      511.20  512.21   1.01          ARSI BA       SS    0 1   2        P  2 BO     29 <=          <1    B=
L                                          1A                                                     <.

K US2  512.21  512.21   0.00

/ BSX  512.21  513.30   1.09          BOSX SL GL CH6 SS                  P  2 OO     27             L+    X1    L=
L                                          5A BA                                                                L=

/ LSX  513.30  513.75   0.45          LMSX BA SL CH3 SS                  P  1 LM     25             L4    L1    L=
L                                          6A GL                            2 BO     25                         L=
R      513.30  513.75      THE ORE BECOMES MUCH MORE FRIABLE WITH INCREASED BARITE.  THE
R      513.30  513.75      SULPHIDES ARE LAMINATED WITH THE EXCEPTION OF CERTAIN PYRITE
R      513.30  513.75      BEDS.  BARITE AND CHERT ARE GENERALLY BEDDED.

/ LSX  513.75  514.35   0.55          LMSX BA SL CH4 SS                  P  1 LM     25             L2    L1    L1
L                                                                           0 00     00                          1
```

```
K  F  F R O M - T O -  I N T RECOV  MD % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                                R Q D  AGE EV RD LC TM QM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/ LSX  514.30  514.87   0.57             LGSX BA SL CH4 SS                 P  1 LM      25             L2    L1    L1
L                                                                             0 00      00                         1
R      514.30  514.37        THE CHERTY BEDS ARE REGULAR, AND THE BARITIC LAMINATIONS ARE
R      514.30  514.87        CONVOLUTE.

/ LSX  514.87  515.51   0.64             LGSX BA SL CH6 SS                 P  1 LM      25 V=          L+    L1    L+
L                                             5A                                                                   1
R      514.87  515.51        SULPHIDE-SULPHATE LAMINATIONS REDUCED, MORE REGULAR.

/ LSX  515.51  516.56   1.05             LGSX BA SL C   SS                 P  1 L       25 V+          L2    L1    L=
L                                             5A

/      516.56  517.10   0.54             LGSX BA SL C   SS                 P  1 L       25 >2          L1    L+    L+
L                                             5A                                                                   =

/      517.10  517.64   0.54             LGSX BA SL C   SS                 P  1 L       25 <=          L3    L1    L*
L                                             5A                                                                   )

/      517.64  518.25   0.61             LGSX BA SL C   SS                 P  1 L       25 <=          L1    L+    L+
L                                             5A                                                                   1

K LS2  518.25  518.25   0.00

/      518.25  518.93   0.68             ARSI           SS    0 1   2      P  2 BD      25 <+          <=    L1    D.
L                                             1A                                                                   L)

/      518.93  519.84   0.91             ARSI           SS    0 1   2      P  2 BD      25 <+          <)    L1    D.
L                                             1A                                                                   D.

/      519.84  527.07   7.23             ARSI           SS MD              P  2 BD      37 >)          <)    7=
L                                                     SC                                          <.    C.
R      519.84  527.07        PYRITE OCCURS IN LAMINATIONS, BANDS, VEINLETS IN A CRACKLE
R      519.84  527.07        BRECCIA, AND AS WHAT SEEMS TO BE A NODULE.  SOFT SEDIMENT
R      519.84  527.07        DEFORMATION INCREASES DOWNHOLE, AND THE INTERVAL ENDS WITH A
R      519.84  527.07        3CM QUARTZ VEIN CONTAINING MINOR SIDERITE.

/      527.07  536.75   9.68             BRBM        SM2                   P              <*                 D*    B.
L                                             1A                                                  <.    C.

/      527.07  536.75   9.68           5 BRBM        SM7 R* F* 3 4 3 4 KN1 R              <*
L                                             2A    *C) B*    4     0 KO                                C.
R      527.07  536.75        SAND MATRIX CONTAINING CHERT AND ARGILLITE CLASTS.

/      528.84  529.05   0.21           X SAND        SM9 SS MX 3 4 2 4     R                                 B+
L                                             3A              8

/      536.05  536.75   0.70           X SAND SL CB SM9 G. SS 3 4 3 6      R          U                      B)
L                                             3A    CB+ MX    7                                                    D.

/      536.75  538.45   1.70             BRBT SF SL SF1              LN7   P              V)          V)    7)    7)
L                                             1A GL                 C LO2                                          7)
```

```
K  F   FROM - TO -  INT RECOV  MD % ROCK TM TM RM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R Q D  AGE EV RG LC IM RM2 TX TX S C U O CHT     2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R       536.75  540.41      THREE ASSAY INTERVALS WERE TAKEN ALONG THIS LENGTH.  SULPHIDES
R       536.75  540.41      BEGIN TO SHOW UP AS BLEBS AND AS BRECCIA FILLINGS.
R       536.75  550.16      COMPOSITIONAL CHANGES ARE VERY RAPID WITHIN THIS PGI.  IT IS
R       536.75  550.16      DOMINATED BY VARIOUS SIZES OF SAND CLASTS, BUT ARGILLITE BRECCIA
R       536.75  550.16      IS VERY COMMON.  THIS BRECCIA IS FREQUENTLY CONTINUOUS WITH
R       536.75  550.16      BRPM, THE LATTER CONTAINING SAND CLASTS UP TO COBBLE SIZE.
R       536.75  550.16      CHERT CLASTS ARE RARE.

/       538.45  539.02  0.57          BRHG GL SL SF2           M06   P           >=         >)   61   61
L                                      1A BA            C                               >1             6)
R       538.45  539.02      THIS INTERVAL IS HIGHLY BRECCIATED, HENCE THE HIGH SULPHIDE
R       538.45  539.02      CONTENT, PRIMARILY AS BRECCIA FILL.

/       539.02  540.41  1.39          BRHD GL SL SF2           M06   P           V+         <)   81   D.
L                                                                                       V+             V*
R       539.02  540.41      BRECCIA ABSENT.

/       540.41  550.16  9.75          BRHM        5 3          L09   P           <1         <*   8= 8-
L                                                    3 0 KN+                          C. <= <1

/ FGT   540.41  550.16  9.75        2 SAND       CB+ SS    3 4 3 4       R
L                                                SB9       7                          C.         1

/       540.41  550.16  9.75        1 BRPM CR    SB2 SS P* 0 1  1        R           <1              8=
L                                        M                   1  KN+                  C. <= <1
R       540.41  550.16      THIS PGI CHARACTERIZED BY NUMEROUS QZ-SD CROSS CUTTING VEINLETS.
R       540.41  550.16      THIS SAND IS CLASTS OR SMALL INTERBEDS WITHIN THE BRHM.

/ FGT   543.37  543.86  0.49        X SAND                 3 4 3 4       R           <1         <*   8) 8*
L                                                          7                          C. <= <1

/ FGT   545.67  546.40  0.73        X SAND                 3 4 3 4       R           <1         <*   8)
L                                                          7                          C. <= <1

/       550.16  550.72  0.56          BRPM SY    SM1 SS    0 1  1        P           <)         <-   D- 8+
L                                      M                     1                        C. <*
R       550.16  550.72      ASSAYED INTERVAL;  CHALCOPYRITE WAS PROBABLY THE IMPETUS.
R       550.16  559.00      ORIGINALLY LOGGED AS STRONGLY KNTEST ZONE WITH POSSIBLE
R       550.16  559.00      CORRELATION WITH DDH-80-63:  555.0 M. - 565.0 M.

/       550.72  559.00  8.28          BRPA SF    SF3               MP8   P           #2              8=
L                                      1A                                             C. #1 #2

/ FGT   550.72  559.00  8.28        3 SAND       CB)                     R           #1              D*
L                                      2A                                             C. #= #1

/       550.72  559.00  8.28        2 BRHM SF                            R
L                                      M
R       550.72  559.00      MODERATE TO INTENSE QZ-SD VEINING IN CRACKLE BRECCIA.
R       550.72  559.00      MAINLY IN UPPER PART OF INTERVAL WHERE QZ-SD VEINING REDUCED.
R       550.72  559.00      DOMINATES LOWER INTERVAL, AND HAS INTENSE QZ-SD VEINING.
```

```
K  F  F R O M - T O -  I N T RECOV  MD % ROCK TN TN R 1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                                R Q D  AGE EV RN LC TN R 2 TX TX S C O O CHT        2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/      559.00  561.90   2.90           BERM CR SF SF= SS SC 0 1   1 K01   P              <)                B*
L                                            9                  0                                 C. <* <1
R      559.00  561.90       PYRITE OFTEN REPLACES ARGILLITE CLASTS.
```

A UMR / A LAB / A TYP / A MTH			SAMPLE SERIAL NUMBER	% PB B.CLG H-CORE WA	% ZN B.CLG H-CORE WA	% BA B.CLG H-CORE WA	OZ AG B.CLG H-CORE WA	% CU B.CLG H-CORE WA	% FE B.CLG H-CORE WA	OZ AU B.CLG H-CORE WA	% CD B.CLG H-CORE WA	HASH
R ASY	0.00	0.00	B.CLG = BONDAR CLEGG, VANCOUVER; H-CORE = HALF CORE.									
R ASY	0.00	0.00	WA = WET ANALYSIS.									
R ASY	0.00	0.00	LESS THAN DETECTION LIMIT ENTERED AS -D.L. E.G. -0.01									
R ASY	0.00	0.00	NO ASSAY INFORMATION ENTERED AS -0.1									
A 001	491.40	493.70	215	0.21	0.87	3.84	0.19	-0.01	3.50	-0.002	-0.1	8.498
A 001	493.70	495.10	125	0.82	2.95	2.55	0.18	-0.01	4.48	-0.002	-0.1	10.868
A 001	495.10	498.42	319	0.18	0.22	4.64	0.09	-0.01	1.90	0.010	-0.1	6.930
A 001	498.42	499.30	88	0.66	3.27	0.41	0.12	-0.01	3.60	-0.002	-0.1	7.948
A 001	499.30	499.80	50	0.94	2.68	1.34	0.13	-0.01	1.45	0.002	-0.1	6.432
A 001	499.80	500.72	92	9.10	13.40	1.14	0.70	0.01	1.35	0.003	-0.1	25.603
A 001	500.72	501.36	64	3.18	5.58	1.36	0.25	-0.01	1.95	0.002	-0.1	12.212
A 001	501.36	502.09	73	2.40	4.25	5.41	0.33	-0.01	10.45	-0.002	-0.1	22.728
A 001	502.09	502.89	80	3.00	5.90	2.68	0.52	-0.01	2.67	-0.002	-0.1	14.658
A 001	502.89	503.54	65	1.56	2.13	2.91	0.32	-0.01	1.70	-0.002	-0.1	8.508
A 001	503.54	504.14	60	3.50	7.55	1.26	0.55	-0.01	2.75	-0.002	-0.1	15.498
A 001	504.14	504.74	58	2.70	2.65	9.55	0.47	-0.01	5.45	-0.002	-0.1	20.708
A 001	504.74	505.44	67	0.25	0.27	9.24	0.07	-0.01	3.10	-0.002	-0.1	12.818
A 001	505.44	506.48	100	0.09	0.06	8.04	0.06	-0.01	3.50	-0.002	-0.1	11.638
A 001	506.48	507.30	79	0.15	0.09	5.70	0.08	-0.01	5.10	-0.002	-0.1	11.008
A CMP	499.80	504.74	491	3.91	6.32	-0.10	0.30	-0.01	-0.10	-0.10	-0.1	10.120
A 001	510.24	511.20	95	0.08	0.01	12.53	0.04	-0.01	3.23	-0.002	-0.1	15.778
A 001	511.20	512.21	101	0.10	0.16	13.57	0.10	-0.01	3.45	-0.002	-0.1	17.268
A 001	512.21	513.30	109	2.53	2.70	1.50	0.62	-0.01	5.30	-0.002	-0.1	12.538
A 001	513.30	513.75	45	2.51	3.65	26.04	0.45	-0.01	3.15	-0.002	-0.1	35.888
A 001	513.75	514.30	55	4.50	5.20	0.82	0.75	-0.01	3.50	-0.002	-0.1	14.658
A 001	514.30	514.87	57	4.55	6.65	0.31	0.88	-0.01	3.80	-0.002	-0.1	16.078
A 001	514.87	515.51	64	1.54	5.74	1.66	0.39	-0.01	3.40	-0.002	-0.1	12.618
A 001	515.51	516.56	105	0.22	0.97	13.27	0.10	-0.01	4.25	-0.002	-0.1	18.698
A 001	516.56	517.10	52	1.30	3.15	7.50	0.39	0.01	1.55	-0.002	-0.1	13.798
A 001	517.10	517.64	52	0.21	0.77	14.75	0.10	-0.01	4.50	-0.002	-0.1	20.218
A 001	517.64	518.25	58	1.52	4.05	4.96	0.50	0.01	3.10	-0.002	-0.1	14.038
A 001	518.25	518.93	62	0.08	0.07	2.26	0.10	-0.01	4.50	-0.002	-0.1	7.298
A 001	518.93	519.84	71	0.05	0.04	0.37	0.11	-0.01	5.00	-0.002	-0.1	5.458
A CMP	512.21	515.51	330	3.01	4.55	-0.10	0.62	-0.10	-0.10	-0.10	-0.1	7.680
A 001	530.75	538.45	68	0.81	0.13	0.35	0.03	0.02	5.05	-0.002	-0.1	6.288
A 001	538.45	539.02	45	4.30	0.77	0.08	0.49	0.10	24.18	-0.002	-0.1	29.818
A 001	539.02	540.41	111	0.15	0.07	0.66	0.06	0.04	6.35	-0.002	-0.1	7.228
A 001	550.16	550.72	56	0.02	0.02	0.84	0.33	1.22	4.10	0.002	-0.1	6.432

I G C

G E O L O G E D I T L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

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DRILLHOLE/TRAVERSE :81-A001       COLLAR ELEVATION:       0.00    AZIMUTH( DEG ) :    0.00     GEOLOGGED BY :      +
TOTAL DEPTH/LENGTH :     0.00     NORTHING(- IF S):       0.00    VERTICAL ANGLE :*********    DATE (YY/MM/DD):        0
CORE/HOLE DIAMETER :              EASTING (- IF W):       0.00    CO-ORD SYSTEM  :             PROJECT NUMBER : JASON

   F   - I N T E R V A L -    CORE  T- %      TYPI- VAL  TEX-  GRAIN        PGT   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =   . DEC.PLACE)RECOV-  N N ROCK FYING SIM TURES CHARACS                          H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MT=METRIC FT=FOOT-IC)  ERY    O I      IN IN MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  I N T ( . )  D X TYPE  1  2 ORI  1  2 F F C A          1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                          ROCK   FR    RT    IC OR2 TX TX S C O O CHT     T ID STK DIP MG MU CL SD QS HA PR MT SL HA
F  L                          QUAL   AGE EN- 0 LC- 3     <  4 O     /         2    AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
Y  G                          DESIG      VIR   COL          R       C           STRUCTUR-2  A  A  A  A  A  A  A  A  A  A    2   2
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PAN OCEAN OIL LTD.

G E O L O G — JASON PB-ZN-AG-BA STF DEPOSIT, Y.T. —

DRILLHOLE/TRAVERSE --- 81-A001 --- (CONTINUED)

				% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A UNM			SAMPLE	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	% CD	HASH
A LAB			SERIAL	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	
A TYP				H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	
A MTH				WA	WA	WA	WA	WA	WA	WA	WA	

```
R ASY   0.00   0.00   ***THIS IS A ASSAY A001 FILE HEADER AND SAMPLE***

R ASY   0.00   0.00

R ASY   0.00   0.00   B.CLG = BONDAR CLEGG, VANCOUVER; H-CORE = HALF CORE.

R ASY   0.00   0.00   WA = WET ANALYSIS.

R ASY   0.00   0.00   HASH TOTALS SHOULD BE FROM ASSAY SHEET SUMS.

R ASY   0.00   0.00   LESS THAN DETECTION LIMIT ENTERED AS -D.L. E.G. -0.01, -0.50

R ASY   0.00   0.00   NO ASSAY INFORMATION ENTERED AS -0.1
A MIN
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G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

```
DRILLHOLE/TRAVERSE :81-A065      COLLAR ELEVATION:      0.00   AZIMUTH( DEG ) :    0.00    GEOLOGGED BY :      +
TOTAL DEPTH/LENGTH :     0.00    NORTHING(- IF S):      0.00   VERTICAL ANGLE :*********   DATE (YY/MM/DD):        0
CORE/HOLE DIAMETER :             EASTING (- IF W):      0.00   CO-ORD SYSTEM  :            PROJECT NUMBER : JASON

   F   - I N T E R V A L -   CORE  I- %     TYPI- CAL  TEX-  GRAIN          PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =   .  DEC.PLACE)RECOV-  N M ROCK FYING MIN TURES CHARACS                      H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MT=METRIC FT=FOOTRIC)  ERY    O I      TM TM NAT TX TX F C % M ARG   /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  T O T ( . )  O X TYPE  1  2 QM1  1  2 F F C A            1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                         ROCK    FM     RT     TM ON2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
F  L                         QUAL    AGE FM- G LC- 3      3  4 O      /          2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y  G                         DESIG      VIR   COL           R      C               STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2   2
```

G E O L O G

			SAMPLE	L.R.GL	H.R.GL	L.R.SL	H.R.SL	L.R.BA	H.R.BA	L.R.PY	H.R.PY
A UMM			SAMPLE	L.R.GL	H.R.GL	L.R.SL	H.R.SL	L.R.BA	H.R.BA	L.R.PY	H.R.PY
A LAB			NUMBER	VCR.P.	VCR.P.	VCR.P.	VCR.P.	VCR.P.	VCR.P.	VCR.P.	VCR.P.
A TYP				PS+TS	PS+TS	PS+TS	PS+TS	PS+TS	PS+TS	PS+TS	PS+TS
A MTH				VISUAL	VISUAL	VISUAL	VISUAL	VISUAL	VISUAL	VISUAL	VISUAL
R ASY	0.00	0.00	***THIS IS A ASSAY A005 FILE HEADER AND SAMPLE***								
R ASY	0.00	0.00									
R ASY	0.00	0.00	L.R. = LOW RANGE; H.R. = HIGH RANGE; GL = GALENA;								
R ASY	0.00	0.00	SL = SPHALERITE; BA = BARITE; PY = PYRITE. SIZE IS IN MM.								
R ASY	0.00	0.00	VCR. P. = VANCOUVER PETROGRAPHICS LTD.; PS+TS = POLISHED SEC'NS.								
R ASY	0.00	0.00	POLISHED THIN SECTIONS AND THIN SECTIONS OF MINERALIZED SAMPLES.								

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                              G E O L O G   E D I T   L I S T I N G                        SYSTEMS ENGINEERING BY
                                                                                       INTERNATIONAL GEOSYSTEMS CORP.

                                             PAN OCEAN OIL LTD.
                                  JASON PB-ZN-AG-BA SIF DEPOSIT, Y.T.

                                             FORMAT VERSION : 6802

 DRILLHOLE/TRAVERSE :31-A100     COLLAR ELEVATION:       0.00      AZIMUTH( DEG ) :     0.00      GEOLOGGED BY :      +
 TOTAL DEPTH/LENGTH :     0.00   NORTHING(- IF S):       0.00      VERTICAL ANGLE :*********      DATE (YY/MM/DD):       0
 CORE/HOLE DIAMETER :            EASTING (- IF W):       0.00      CO-ORD SYSTEM  :               PROJECT NUMBER : JASON

    F    - I N T E R V A L -    CORE  T- %       TYPI- GAL  TEX-  GRAIN        PGI    STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
 K  L (UNITS =    . DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                            H   H   H   H   H ANY H   H   H ANY  ALT ORE
 E  A  (MI=METRIC FT=FOOTRIC)  ERY    O T      TM  TH  MAT TX  TX F C % M ARG  /RI T ID STK DIP  A   A   A   A   A MIN A   A   A MIN - - - -
 Y  G  F R O M - T O -  I N T (  . )  O X TYPE  1   2 OM1  1   2 F F C A           1     AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 - --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 K  F                         ROCK    FM     RT     TM OM2 TX TX S C O O CHT     T ID STK DIP MG MU CL SD QS HA PR MT SL HA
 E  L                         QUAL    AGE FM- 0 LC- 3       3  4 O      /        2     AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
 Y  G                         DESIG      VTP   COL                R      C          STRUCTUR-2  A  A  A  A  A  A  A  A  A  A    2   2
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A UMM                                  RQD              SP.GR.
A TYP                                   CM                  SG
A MTH                                  B-B               WEIGH
A LAB                                  FLD                 FLD

R ASY    0.00    0.00    ***THIS IS A ASSAY A100 FILE HEADER AND SAMPLE***

R ASY    0.00    0.00

R ASY    0.00    0.00    RCOV=RECOVERY(C17-20) IS MEASURED TO CM BLOCK TO BLOCK(B-B)

R ASY    0.00    0.00    RQD=ROCK QUALITY DESIGNATOR(C27-32)MEASURED IN CM BLOCK TO BLOCK

R ASY    0.00    0.00        RQD IS THE TOTAL LENGTH (BETWEEN BLOCKS) OF PIECES OF CORE

R ASY    0.00    0.00        AT LEAST 2-1/2 TIMES DIAMETER OF CORE TO NEAREST CM, DIVIDED

R ASY    0.00    0.00        BY LENGTH OF INTERVAL = BLOCK(TO) MINUS BLOCK(FROM)TIMES 100

R ASY    0.00    0.00    CM INDICATES THAT MEASUREMENTS ARE IN CM'S WHICH ARE TO BE RIGHT

R ASY    0.00    0.00        JUSTIFIED AGAINST THE DOUBLE VERTICAL LINE AT RIGHT MARGIN

R ASY    0.00    0.00        OF EACH FIELD.

R ASY    0.00    0.00    B-B=BLOCK-TO-BLOCK (DRILLERS BLOCKS). ENTER METRAGE OF ONE BLOCK

R ASY    0.00    0.00        AS THE TO OF ANY INTERVAL AND THE METRAGE OF THE NEXT BLOCK.

R ASY    0.00    0.00        ADDITIONAL POINTS (FROM-TO'S) CAN BE ESTABLISHED BETWEEN

R ASY    0.00    0.00        BLOCKS TO BRACKET SPECIFIC INTERVALS OF LOCALIZED POOR

R ASY    0.00    0.00        RECOVERY. B-B IS ENTERED RIGHT JUSTIFIED IN EACH FIELD IN

R ASY    0.00    0.00        THE A-MTH HEADER.

R ASY    0.00    0.00    THE FIRST INTERVAL, THROUGH THE OVERBURDEN, WITH ZERO RECOVERY,

R ASY    0.00    0.00        SHOULD BE ENTERED FIRST.
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G E O L O G E D I T L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :81-DH068
TOTAL DEPTH/LENGTH : 971.40
CORE/HOLE DIAMETER : [illegible]

COLLAR ELEVATION: 1275.94
NORTHING(- IF S): 7002472.00
EASTING (- IF W): 436496.25

AZIMUTH(DEG) : 0.00
VERTICAL ANGLE : -90.00
CO-ORD SYSTEM : UTM

GEOLOGGED BY : DWB + RJT
DATE (YY/MM/DD): 810521
PROJECT NUMBER : J-S3

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	30.00	146.90	-89.47
2	61.00	169.10	-87.40
3	91.00	151.30	-85.47
4	122.00	131.50	-86.75
5	152.00	124.20	-86.42
6	183.00	121.80	-86.10
7	213.00	117.80	-86.00
8	244.00	117.20	-85.38
9	274.00	120.10	-84.13
10	305.00	132.80	-84.92
11	335.00	151.50	-84.20
12	348.69	143.00	-85.00
13	350.82	139.00	-84.50
14	369.11	157.00	-83.25
15	419.10	166.00	-80.25
16	425.81	166.00	-80.25
17	436.73	173.00	-80.00
18	445.31	173.00	-79.75
19	459.33	181.00	-78.33
20	475.48	179.00	-77.00
21	491.34	176.00	-76.50
22	505.97	177.00	-75.50
23	518.46	175.00	-75.25
24	535.53	172.00	-74.50
25	555.65	170.00	-73.25
26	571.50	170.50	-72.00
27	588.57	168.00	-70.75
28	605.64	168.00	-68.33
29	617.83	167.00	-67.50
30	620.27	168.00	-68.00
31	630.02	166.00	-66.25
32	642.21	167.00	-66.00

33	654.41	167.00	-66.00
34	666.60	165.00	-65.75
35	673.61	162.00	-65.67
36	678.79	165.00	-65.50
37	690.98	165.00	-65.50
38	703.17	166.00	-65.00
39	715.37	165.50	-65.00
40	727.56	166.00	-65.00
41	739.75	166.00	-65.00
42	751.94	166.00	-64.50
43	764.13	166.00	-63.75
44	776.33	166.50	-63.33
45	788.52	166.00	-63.00
46	800.71	167.00	-62.75
47	803.45	165.00	-62.75
48	812.90	166.50	-62.50
49	825.09	168.00	-62.50
50	837.29	168.00	-62.00
51	849.48	168.00	-61.00
52	867.67	169.00	-60.50
53	873.86	168.50	-59.75
54	886.05	168.00	-59.00
55	898.25	168.00	-58.25
56	910.44	167.00	-57.50
57	922.63	166.00	-56.33
58	933.91	164.00	-56.00
59	934.82	164.00	-54.67
60	947.01	162.50	-52.33
61	962.25	163.00	-52.33
62	968.35	163.00	-52.00

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  F    - I N T E R V A L -    CORE  T- %       TYPI- UAL  TEX-  GRAIN        PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K L (UNITS =    .  DEC.PLACE)RECOV-  R M ROCK FYING MIN TURES CHARACS                         H  H  H  H  H ANY H  H  H ANY  ALT ORE
E A   (MT=METRIC FT=FOOTRIC)  ERY     U T        TM TM MAT TX TX F C % M ARG   /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y G  F R O M - T O -  I N T (  . )  D X TYPE   1  2 OM1  1  2 F F C A            1    AZM   RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- ---  - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K F                             ROCK   FM     RT    TM OD2 TX TX S C O O CHT     T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E L                             QUAL   AGE FM- 9 LC- 3     3  4 O     /          2    AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
Y G                             DESIG      VTR   COL             R     C           STRUCTUR-2  A  A  A  A  A  A  A  A  A  A     2   2

R SVY     0.00   348.69      DATA FOR UPPER PART OF HOLE OBTAINED FROM GYROCOMPASS SURVEY
R SVY     0.00   348.69          OF DDH 81-68A.  REMAINDER FROM SPERRY SUN MULTI-SHOT.
R SVY     0.00   348.69          GYROCOMPASS DATA IS CONSIDERED MORE ACCURATE, AND SHOULD BE
R SVY     0.00   348.69          USED FOR PLOTS.
R SVY     0.00   348.69      A LISTING OF THE REPLACED SPERRY SUN DATA CAN BE FOUND
R SVY     0.00   348.69      WITHIN THE 'RSUA'.
R SVY   348.69   971.40      SURVEY DATA FROM SPERRY SUN MULTI-SHOT.
R SVY    99.97    99.97         HALL AND ROWE STEEL WEDGE.  DIP IS 1.5 TO STEEPEN
R SVY   298.09   298.09         CLAP RETREIVABLE WEDGE.  DIP.75 TO STEEPEN.  HALF AZIMUTH TO
R SVY   298.09   298.09         RIGHT.
R SVY   325.22   325.22         CLAP RETREIVABLE WEDGE-FULL AZIMUTH TO THE RIGHT
R SVY   359.05   359.05         CLAP RETREIVABLE WEDGE-FULL AZIMUTH TO THE RIGHT
R SVY   412.70   412.70         CLAP RETREIVABLE WEDGE-FULL AZIMUTH TO THE RIGHT
R SVY   432.21   432.21         CLAP RETREIVABLE WEDGE-FULL AZIMUTH TO THE RIGHT
R SVY   447.45   447.45         CLAP RETREIVABLE WEDGE-FULL AZIMUTH TO THE RIGHT

/          0.00     6.10   6.10           TRIC                             P

/ OFT      6.10    35.97  29.87           BRBR                       PR9   P                              LI B.
L                                     5A     *S-       2   -   MO+                                        C.    B.
R          6.10    35.97      MINOR PYRITE NODULES WITH HT CORES IN SOME CASES. SIZE FROM
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K  F   F R O M - T O -  I N T RECOV  RD % ROCK TX TN GM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                        R Q D  AGE EV RQ LC TO GM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R       6.10   35.97     2 TO 4 CMS.
R       6.10   35.97     CHERT IS PARTICULARLY CONCENTRATED BETWEEN 20.0M AND 30.0M.

/      31.00   32.20   1.20        X FAUL                          R                V=

/      34.75   35.97   1.22        X FAUL GR                       R

/      35.97   46.94  10.97          SILT CH    SN+ //     1 3 + 6        P  2 BD      28                  D)
L                                         3A    PY)        8
R      35.97   46.94     OCCASIONAL SANDY LAYERS FROM 44.04 TO 46.94. MINOR DISSEMINATED
R      35.97   46.94     SPHALERITE IN GRIT ZONE AT 46.34M.

/      46.94   55.80   8.86          ARSN CR    PY* G;     0 5 2 5        P    BD      U53
L                                         3A

/      53.04   53.62   0.56        6 SAND       PYI G;     1 3 7 5        R                                    D1
L                                         4A               7

/      55.80   60.84   5.04          BRHT                         KP7     P                                    D+
L                                         3A               2      KN1

/      60.84   63.90   3.06          SAND       PY* G;     I K 8 M        P            U
L                                         4A               7
R      60.84   63.90     THREE GRADED SEQUENCES (CYCLICAL?). UPPER SAND IS GRADATIONAL
R      60.84   63.90     INTO BASE OF OVERLYING UNIT. PYRITE OCCURS IN COARSER INTERVALS
R      60.84   63.90     PREFERRENTIALLY REPLACING CLASTS.

/      63.90   82.64  18.74          BRHM       PY)                   JP9     P
L                                         4A                      JL=                            <.           D-
R      63.90   82.64     MINOR DISSEMINATED SPHALERITE ASSOCIATED WITH CHERT IN GRIT
R      63.90   82.64     CLAST(?) (APPROX. 0.1CM). INCIPIENT SLATEY CLEAVAGE OCCURS
R      63.90   82.64     THROUGH-OUT. CHERT IS RESTRICTED TO UPPER 1M OF INTERVAL. NARROW
R      63.90   82.64     (<1CM) QUARTZ CARBONATE VEINS AT 65.01 AND 65.51 METERS.

/      82.64   92.34   9.70          BRHT       PY*                   MP3     P
L                                         4A    SN1               IU6

/      84.90   85.40   0.50        8 SAND          G;      I L 3 M        R    BD      U45
L                                         5A               7

/      92.34  105.00  12.66          BRHT       PY*                   JT7     P
L                                         6A                  +   JM1

/      99.97  102.41   2.44        X LOST                          R

/     105.00  169.38  64.38          BRHM       PY(                   IU8     P
L                                         3A                                                     <)           8.

/     120.20  120.75   0.55        X SAND       PY=        2 3 9 3        R
L                                         7A

/     122.00  123.40   1.40        X FAUL                          R
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                                                      PAN OCEAN OIL LTD.
 G E O L O G                                    JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                     PAGE -  4
                                            DRILLHOLE/TRAVERSE --- 81-DH068 --- (CONTINUED)

K  F  F R O M - T O -  T O T RECOV  MB % ROCK TH TN OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                            R Q D  AGE EV RN LC TP OM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/     154.10 155.85   1.75         X FAUL                          R

/     169.36 183.42  14.04           ARSI CR   SC+ LM    1 2 + 2     P  1 BD      43
L                                       4A                                                 <-

/     179.00 180.14   1.14         X FAUL      PY(                 R
L

/     183.42 196.29  12.87           BRHT                     NS9  P
L                                       4A            3                                    <.
R     183.42 196.29       TRACE OF SPHALERITE AND PYRITE IN QUARTZ CARBONATE VEIN AT
R     183.42 196.29       190.43 M.

/     194.16 196.29   2.13         X FAUL      GG9                 R
L                                       3A

/     196.29 206.17   9.88           BRHT CR                  MR7  P
L                                       5A            2       KN2

/     196.29 197.30   1.01         1 BRHT SF QZ PY)           NR7  R              V1                D*
L                                       7A            8       LO2                        V+
R     196.29 197.30       ZONE OF INTENSE SILICIFICATION AND QUARTZ VEINING WITH MINOR
R     196.29 197.30       SIDERITE AND SCATTERED PYRITE.

/     206.17 221.40  15.23           ARSI      SN1 //    0 2 1 2     P  2 BD      35                D)
L                                       4A                                               V  K*

/     221.40 238.98  17.56           BRHT                     MS5  P                                D(
L                                       8A   *S)        2   ) MO3                        <. <.

/     238.98 250.66  11.68           BRPM                     LR8  P                                D.
L                                       4A   *S)        2   ) JN+                           <.
R     238.98 250.66       INTV PRED PEB MUDSTN MTX/ABNT MUD-GENERALLY MTX SUPPORTED,OCCAS
R     238.98 250.66       CLAST SUPPORTED. INTV APPEARS TO BE GRADATIONAL BTWN OVERLYING
R     238.98 250.66       BRHT AND UNDERLYING BRPM.

/     250.66 255.26   4.60           BRPM                     LS5  P                                D(
L                                       5A   *S*        2   * KM=

/     255.26 269.80  14.54           BRPM                     MU9  P                                D.
L                                       4A   *S+        2 ( + JM*
R     255.26 269.80       FRAG OF PEBBLY CHT SS AT 265.25M. THIS FRAG IS POSSIBLY RELATED
R     255.26 269.80       TO CGCP FACIES. FRAG SIZE P.

/ FRG 266.10 269.80   3.70         X ARSI      SN1 SS    0 3 1 3     R  2 BD      65                D.
L                                       3A

/     269.80 273.72   3.92           BRHT      *S=                LR4  P                                D-
L                                       5A            2 4 =   KM)
R     269.80 273.72       INTERVAL IS CHARACTERIZED BY THE PRESENCE OF LARGE CLASTS OF
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K  F  F R O M - T O -  I N T RECOV  MD % ROCK TN TX QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                           R Q D  AGE FV SQ LC TN QM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R        269.80  273.72        PEBBLY CHERT SANDSTONE(GRADING INTO CGCP). THE LARGEST OF THESE
R        269.80  273.72        IS 1.5 CMS.

/        273.72  281.28   7.56           BRPM                             LS4   P                          D-
L                                            5A     *S+         2   +    JN+

/        281.28  297.30  16.02           BRPP                             ST9   P                          D.
L                                            4A     *S)         2   )    LL(
R        281.28  297.30        INTERVAL COMPRISES PREDOMINANTLY LARGE ARSI CLASTS-PROBABLY
R        281.28  297.30        A SLIGHTLY SLUMPED ARSI UNIT.

/        297.30  307.65  10.35           BRBM SL    S*.                   MQ8   P                          D.
L                                            3A     *S*         2   *    KO*                   <.                 D.

/        298.09  299.62   1.53         X LOST                                   R

/ SHR    303.69  307.65   3.96         X BRBM SL    S*.                   MQ8   R                          D.
L                                            3A     *S*         2   *    KO*                   <.                 D.
R        303.69  307.65        ROCK BETWEEN 303.69 AND 307.65 RUBBLY-PROBABLE SHEAR.
R        307.30  307.65        SL ASSOCIATED WITH SHALE CLAST AT 307.55M.SL OCCURS ALONG
R        307.30  307.65        UPPER AND LOWER MARGINS OF CLAST, PARALLEL TO BEDDING-SUGGESTS
R        307.30  307.65        EITHER PREFERENTIAL REPLACEMENT OR ORIGINAL BEDDED SULFIDE
R        307.30  307.65        -PROBABLY A SULFIDE CLAST.
R        307.30  307.65        TRACE SD VEINING DISPLACED BY MINOR FAULTS.

/        307.65  311.19   3.54           CGXX SF        RS     I N 3 O LP1   P                          D*
L                                            6A                 5     C LN8

/        307.65  311.19   3.54         3 ARGL GR    SI1 RS     1 1   1          R
L                                            2A             LM
R        307.65  311.19        BOUMA SEQ:A-E, A-E; EXCELLENT EXAMPLE! SEVERAL CYCLES
R STG    307.65  311.19        RANGING FROM CONGLOM TO SANDSTONE. POSSIBLE MARKER BED.

/        311.19  322.68  11.49           BRBM                             MT9   P                  #.            #.       #.
L                                            4A     *S*         2   *    LO+                                 #.
R        311.19  322.68        PY, PR AND GL OCCUR TOGETHER WITH CALCITE IN A VUG AT 321.92M
R        311.19  322.68        (VUG APPROX 4 CMS DIAMETER).

/        322.68  353.40  30.72           BRPM                             MT6   P                          D.
L                                            4A     *S(         2 * (    LP+

K UDF    353.40  353.40   0.00
R        353.40  353.40        TOP OF THICK SEQUENCE OF DEBRIS FLOWS CHARACTERIZED BY
R        353.40  353.40        CGCP CLASTS.

/        353.40  366.67  13.27           BRBT                             MT6   P                          D.
L                                            6A                 2        LP3

/        353.40  354.59   1.19         X BRBT                   / J 8 R KR4   R                          D-
L                                            6A                 4        JL4

/        366.67  380.62  13.95           PRBT                             MT5   P                          D.
L                                            5A               2 3 +      MO1
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K  F  F R O M - T O -  T N T RECOV  RD % ROCK TM TM NM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                         R Q D  AGE EV RN LC TM NM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R     366.67  380.62      INTERVAL CONTAINS SEVERAL LARGE CGCP CLASTS(?), ONE OF WHICH
R     366.67  380.62      IS 1M IN LENGTH.

/     371.43  372.58    1.15          X CGCP SF SD           J M 6 0 LM=   R                                 D.
L                                            8A    *S-       5   - 0 M09                             D)

/     380.62  387.77    7.15            BRHB                         NS9   P                                 D-
L                                            4A    *S*       2 ) *   KN1

/ FLT 380.62  383.07    2.45          X FAUL GR                            R

/ FLT 384.00  385.30    1.30          X FAUL GR                            R

/     336.80  387.77    0.97          X ARGL SF                            R                                 D-
L                                            6A                                                     <+
R SIG 386.50  387.77      POSSIBLE FRAGMENT OF RR CHERT-CUT BY QS VNS-FOOTWALL FRAG?

/     387.77  393.90    6.13            BRHT                         MS9   P                                 D.
L                                            4A    *S)       2 = )   LN+

/     393.90  409.50   15.60            BRPM CR                      RT7   P                                 D.
L                                            4A    *S+       2   +   I0=

/ FAL 405.00  407.52    2.52          X FAUL GR    GG2                     R                                 D.

/     409.50  412.70    3.20            BRHT CR                      QR7   P                                 D-
L                                            3A    *S*       2   *   LN2
R     409.50  412.70      GENERALLY CLOSED; OCCAS OPEN, WITH MUD MTX.

/     409.59  410.16    0.66          X FAUL GR                            R                                 D-
R     409.59  410.16      RUBBLY CORE

/     412.70  418.60    5.90            BRHT CR                      QR7   P                                 D*
L                                            4A    *S=       2   =   M02
R     412.70  418.60      INTERVAL OCCASIONALLY "OPEN" WITH SANDY MTX (I).

/     418.60  439.17   20.57            BRPM CR                      RS5   P                                 D.
L                                            5A    *S)       2 4 )   MP=
R     418.60  439.17      INTERVAL CHARACTERIZED BY NUMEROUS LARGE CONG FRAGS RANGING FROM
R     418.60  439.17      20 CMS TO 1 METER. GENERALLY CLOSED; OCCASIONALLY OPEN WITH
R     418.60  439.17      BRPM MTX.

/     421.80  422.15    0.35          X FAUL GR                            R
R     421.80  422.15      RUBBLY CORE

/     432.21  433.73    1.52          X LOST                               R

/     437.00  438.42    1.42          X CGBR SF SD           0 L 4 0 K01   R
L                                            5A    *S)       5   ) 0 KN6                             D1
R     437.00  438.42      INTERVAL SIDERITIZED+SILICIFIED, PARTIC. ARGL FRAGS-ALSO MTX.
R     437.00  438.42      DGR SL ASSOCIATED LOCALLY. DERIVED FROM FOOTWALL(?)
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PAN OCEAN OIL LTD.


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K  F   FROM  - TO  -  TAT RECOV  RD % ROCK TW TM OM1 TX TX F C % M ARG    RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                               R O D  AGE EV RO LC TK OM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/        439.17  441.25   2.08          CGXX SO SF             6 6 7 P KN1   P
L                                             8A    *S)         5 - ) C MP8                      D1
R        439.17  441.25      INTV CONTAINS 2 SMALL (W) CLASTS OF REWORKED BRXX. ONE CLAST
R        439.17  441.25      COMPRISES TIGHTLY PACKED ANGULAR FRAGMENTS OF GREY CHERT(APPROX.
R        439.17  441.25      5MM). OTHER CLAST IS A SILICIFIED ARGILLITE BRECCIA CUT BY
R        439.17  441.25      QTZ. STOCKWORK. ARGL FRAGS POSSIBLY CONTAIN DISSEM CELSIAN
R        439.17  441.25      GRAINS. THESE ARE PROBABLY FOOTWALL FRAGS.
R        439.17  441.25      SIDERITIZED-PARTICULARLY IN ARGL MTX

/        441.25  442.55   1.30          BRXX                             KP1   P            >*
L                                             6A              6         KN8
R        441.25  442.55      ESSENTIALLY A CHT GRIT WITH OCCAS. SHALE CLASTS.

/        442.55  450.19   7.64          BRPM                             NR5   P                           D-
L                                             5A    *S1         2 = 1    LO2

/        450.19  453.05   2.86          BRHT CR     *S)                  OO2   P                           D.
L                                             6A              4   )     JN7
R        450.19  453.05      APPEARS TO BE CONFORMABLE WITH UNDERLYING UNIT.
R SIG    450.19  453.05      POSSIBLE MARKER BED.

/        453.05  455.05   2.00          SAND C3        BD      I L 1 L         P  2 BD      50 <.          D.
L                                             7A              8
R        453.05  455.05      ABUNDANT QTZ GRAINS
R SIG    453.05  455.05      POSSIBLE MARKER BED
R        453.05  455.05      POSSIBLE LOAD CLAST. SEVERAL SMALL (15 CM) CYCLES.

/        455.05  464.20   9.15          BRBI                             NT6   P                           D.
L                                             5A              2         MO3
R        455.05  464.20      MATRIX OCCASIONALLY SANDY

/        464.20  493.87  29.67          BRHT                             VV7   P                           D.
L                                             4A    *S=         2 + =    LO=

/ FRG    469.95  470.80   0.85       X CBCP                    I L 5 O 001   R
L                                             7A              6     O LO7

/ FRG    473.04  480.20   7.16       X ARSI          SM1 BD SS O 3 1 3        R  2
L                                             4A
R        473.04  480.20      VERY LARGE CLAST

/        484.00  485.10   1.10       X SAND SF       MX      3 3   3         R    BD       60 V+         V.
L                                             4A              9
R        484.00  485.10      PROBABLE CLAST
R        484.00  485.10      GENERALLY MASSIVE; LOCALLY SLIGHTLY ARG AND LAM

/ FRG    486.70  493.20   6.50       X ARSI          SM1 BD SS O 3 1 3        R  2
L                                             4A
R        486.70  493.20      VERY LARGE CLAST

K LDF    493.87  493.87   0.00
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K  F  F R O M - T O -  L N T RECOV  RD % ROCK TH TN OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                             R Q D  AGE FV RW LC TH OM2 TX TX S C U O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R      493.87  493.37       BASE OF THICK SEQUENCE OF DEBRIS FLOWS CHARACTERIZED BY CGCP
R      493.87  493.87       CLASTS.

/      493.87  571.65  77.78          BRBM CR                 WW9   P   BD     55                D-
L                                       4A
R      493.87  571.65       INTERVAL DOMINATED BY EXTREMELY LARGE SHALE CLASTS (UP TO
R      493.87  571.65       APPROX. 27M). THE MATRIX BETWEEN THESE CLASTS IS NOT CLEARLY
R      493.87  571.65       VISIBLE. LOCALLY HOWEVER, CAN SEE HIGHLY DISRUPTED BEDDING
R      493.87  571.65       AND OCCASIONALLY SMALL SHALE AND SANDSTONE CLASTS. THE BEDDING
R      493.87  571.65       IN THE LARGE ARSI CLASTS IS SLIGHTLY DISRUPTED, SUGGESTING
R      493.87  571.65       SOFT SEDIMENT SLUMPING. ENTIRE UNIT IS PROBABLY A SLUMP OF
R      493.87  571.65       VERY LOCAL ORIGIN. IE NOT FAR TRAVELLED. CORE TO BEDDING ANGLES
R      493.87  571.65       VARY MARKEDLY PYRITE GENERALLY RESTRICTED TO SILT/SAND BEDS.

/      493.87  499.06   5.19          X ARSI        SI= BD SS 0 3 = 3       R 2 BD     60
R      493.87  499.06       FAULT 495.40-496.00M.

/ FRG  499.06  499.25   0.20          X SAND CR        BD     3 3   3       R   BD     40
L                                       6A                    9

/ FRG  500.91  512.75  11.84          X ARSI        SI2 BD SS 0 2 2 3       R 1 BD    T85
L                                                                             BD    B90       <-     <.
R      500.91  512.75       POSSIBLE FAULT ZONE-RUBBLY CORE- 512.40 TO 512.75M
R      500.91  512.75       -CONTAINS PY AND PR (TOTAL 1-2%), GRAPHITIC

/ FRG  513.00  513.50   0.50          X ARSM           BD SS 0 3 6 5       R 2 BD     10
L                                       7A                                                           D-

/ FRG  513.40  516.64   3.24          X ARSI        SM2 BD SS 0 3 2 3       R 1 BD    T25              <.   <.
L                                                                             BD    B45       <-     <.
R      513.40  516.64       FAULT ZONE-RUBBLY CORE- 513.40-513.89M
R      513.40  516.64       FAULT ZONE-RUBBLY CORE- GRAPHITIC- 516.15-516.64M.

/      518.90  520.80   1.90          X FAUL GR                               R
L                                                                                               <+   <*

/ FRG  520.80  544.85  24.05          X ARSI        SI1 BD CL 6 2 1 2       R 1 BD    T75
L                                                   LR                              B80
R      520.80  544.85       FAULT FROM 537.67 TO 540.30M -GRAPHITIC.

/ FRG  546.20  557.17  10.97          X ARSI        SI= BD SS 0 2 = 2       R 2 BD    T50                <-
L                                                                                   B45
R      546.20  557.17       MINOR FAULT - 556.83-557.17M -GRAPHITIC.

/ FRG  557.17  558.22   1.05          X ARSI        SI2 LM    0 2 2 3       R 1 BD    T70
L                                                                                   B60

/ FRG  558.22  558.72   0.50          X SAND CR        MX     3 3   3       R
L                                       7A                    9

/ FRG  562.56  571.65   9.09          X ARSI        SI1 BD SS 0 2 1 2       R 2 BD    T55
L                                                                                   B15
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K  F   F R O M - T O -  I A T RECOV  MD % ROCK IA TM GM1 TX TX F C % M ARG   RT 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                            R Q D  AGE EV RQ LC TM GM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/       571.65  600.15  28.50            ARSI        S13 BD SS 0 2 3 3      P  2 BD     U30 V.              L-
L                                              5A       (L LR                           B50

/       576.80  577.70   0.90        X FAUL GR                              R
R       571.65  600.15          UPPER 1M HIGHLY SLIPPED TO BRECCIATED

/       600.15  607.32   7.17            BRHM        *S)               US9  P                               L)
L                                              4A              2   )   KL)
R       600.15  607.32          PYRITE FORMS PREFERENTIALLY IN SAND LAMINAE IN BRHM FRAGS, AND
R       600.15  607.32          OCCURS AS LARGE XLS AS MUCH AS 5MM DM.

/       607.32  613.46   6.14            ARSI        S12 LM LR 0 2 2 3      P  1 BD     T35                 L)
L                                              4A                                       B42

/       609.75  610.60   0.85        X FAUL GR                              R

/       613.46  614.50   1.04            BRPE                          LO5  P                               D+
L                                              5A              2       MN1

/       613.70  614.50   0.80        X FAUL GR                              R

/       614.50  626.40  11.90            ARSH        SM6 BD LR 0 2 6 3      P  3 BD     U58                 D+
L                                              5A          SS (L R                      B64
R       614.50  626.40          SEVERAL SMALL PYRITE CONCRETIONS (APPROX. 3CMS).
R       614.50  626.40          LOCAL SHEARING(GRAPHITIC) THROUGHOUT INTV.

/       626.40  631.85   5.45            BRPM SE                       SS6  P                               D+
L                                              5A              2       LP2
R       626.40  631.85          "MATRIX" BETWEEN LARGE SHALE CLASTS CONSISTS MAINLY OF CHERT
R       626.40  631.85          CLASTS FLOATING IN MUD/GRIT MTX. LOCALLY MTX MAY BE QUITE
R       626.40  631.85          SILICEOUS.
R       626.40  631.85          ARGILLITE CLASTS LOCALLY EXHIBIT PRONOUNCED SOFT SEDIMENT
R       626.40  631.85          DEFORMATION TEXTURES.
R       626.40  631.85          PYRITE IS PARTICULARLY ABUNDANT TOWARDS BASE OF INTV WHERE IT
R       626.40  631.85          OCCURS AS DISSEMINATED GRAINS ALONG SAND BEDS. GRAINS UP TO 4MM
R       626.40  631.85          DIAMETER. MAY COMPRISE UP TO 7 % OF CERTAIN FRAGMENTS.
R       626.40  631.85          PYROBITUMEN(?) OCCURS AT 630M. -OCCURS AS DISCRETE RHOMBIC TO
R       626.40  631.85          RECTANGULAR GRAINS IN A CARBONATE MTX. THIS MATERIAL OCCURS
R       626.40  631.85          IN NARROW ELONGATE WISPY ZONES PARALLEL TO LAMINAE IN HOST
R       626.40  631.85          SEDIMENT- CARBON/BITUMEN(?) WAS PROBABLY SYN-SEDIMENTARY.
R       626.40  631.85          -PRESENT TEXTURE IS PROBABLY PULL APART STRUCTURE RELATED TO
R       626.40  631.85          SOFT SEDIMENT OR LATER TECTONIC DEFORMATION (SEE SKETCH BELOW)

/       631.85  644.55  12.70            BRHM                          WW9  P
L                                              4A    *S)       5   )
R       631.85  644.55          INTERVAL IS DOMINATED BY VERY LARGE CLASTS OF ARSI WITH ONLY
R       631.85  644.55          MINOR MUD "MTX" -REPRESENTS SLIGHTLY DISRUPTED ARSI-CORE TO BDG
R       631.85  644.55          ANGLES VARY MARKEDLY.

/ FRG   631.85  632.15   0.30        X SAND          MX    3 5 + 3         R
L                                              7A              3
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K  F   F R O M - T O -  I N T RECOV  MD % ROCK  TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----   -- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                            R Q D  AGE EV RN LC TM QM2 TX TX S C O O CHT     2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/ FRG   632.15  641.00   8.85          X ARSI        SN1 LM LR 0 2 1 3        R  1 BD      U75 <.        <.        D-
L                                                        SS                                 B87

/ FRG   641.00  642.50   1.50          X ARSI        SN1 LM SS 0 2 1 3        R  1 BD      T30 <.        <.        D-
L                                                                                           B04
R       641.00  642.50        ZONE OF INTENSE PYRITIZATION IN BRBM MTX-MTX HERE IS A
R       641.00  642.50        SANDY MUDSTONE -APPROX. 30% PY.

/       644.55  653.88   9.33            ARSI        SN1 LM SS 0 2 1 3        P  1 BD      T38 <.                  D-
L                                     5A         LR                                         B51

/ SIG   650.75  653.83   3.13          X ARSI SF     SN1 ST SS 0 2 1 3        R  1 V/      T63 V=           <-   L-    <.
L                                     6A         LR                                         B51
R       650.75  653.88        INTV HAS UNDERGONE MODERATE TO INTENSE SILICIFICATION AND
R       650.75  653.88        BLEACHING RELATED TO QTZ VEINING. SILICIFICATION AND BLEACHING
R       650.75  653.88        INCREASE PROGRESSIVELY TOWARDS BASE OF INTERVAL.
R       650.75  653.88        MINOR PY CONCRETIONS(3 CMS).
R       650.75  653.88        BARITE VEINS APPEAR TO BE LATE -IE- BARITE OCCURS AS POWDERY TO
R       650.75  653.88        CRUST LIKE MASSES ALONG NARROW FRACTURES, SOME OF WHICH ARE
R       650.75  653.88        SLICKENSIDED-SUGGESTS VERY LATE REMOBILIZATION FOLLOWING
R       650.75  653.88        TECTONISM/SHEARING (PROBABLY BY GROUNDWATER).

K US1   653.88  653.88   0.00

/       653.88  660.81   6.93            BNSX BA PY      LM                   P  1 LM
L                                     7A SL      SS
R       653.88  660.81        MONOMINERALLIC AND POLYMINERALLIC BA, SL, PY, QZ, GL, LAMINAE
R       653.88  660.81        INTERBANDED WITH BA.

/       653.88  654.10   0.22          X LNSX PY BA CH1 LM                    R  0 LM        40                        L2     L1 L3
L                                     5A SL                                                                                   L3
R       653.88  654.10        IRREGULAR AND DISCONTINUOUS
R       653.88  654.10        LAMINATIONS OF BA,BA+SL,SL,PY,PY+QZ,QZ. BA,SL,PY,GL CHANGE
R       653.88  654.10        UPWARDS INTO PY,QZ,SL,GL, THIS UPPERMOST INTERVAL OF SULPHATE
R       653.88  654.10        DOMINANT PGI REPRESENTS SILICEOUS SULPHIDE CAP TO MINERALIZING
R       653.88  654.10        EVENT.

/       654.10  655.50   1.40          X LNSX BA SL CH= LM BD                 R  1 LM        40                        B1     L= L7
L                                     BA                                                                                      L1
R       654.10  655.50        WAVY CONTINUOUS LAMINATIONS OF BA,SL INTERBEDDED WITH VERY THIN
R       654.10  655.50        BEDDED BARITE (1-2CM). SPHERICAL PY BLEBS LOCALLY DEVELOPPED,
R       654.10  655.50        POSTDATE LAMINATED ORE STAGE.

/       655.50  657.93   2.43          X BNSX BA SL CH+ LM BD                 R  3 LM                                  B+     L= X8
L                                     BA PY                                  FD                                               L=
R       655.50  657.93        WHITE MASSIVE BA (+/- SL) WITH DARK WAVY LAMINAE OF DISSEMINATED
R       655.50  657.93        0.1 MM GL. TIGHT 5 CM AMPLITUDE FOLD, INTERPRETED TO BE TECTONIC
R       655.50  657.93        AXIAL PLANE 20 DEGREES TO CORE AXIS. TIGHT CHEVRON FOLDS IN
R       655.50  657.93        BEDDED BA, SL (TECTONIC). 655.5 TO 655.93 RUBBLY CORE, POOR
R       655.50  657.93        RECOVERY.
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 K  F   F R O M - T O -  T N T RECOV  MD % ROCK CM TM GM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 Y  G                            R Q D  AGE EV RW LC TM GM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

 /      657.93  658.93   1.05            X BNSX BA PY     LM BD               R  3 LM                                L2    L= X8
 L                                              BA GL                                                                      L+
 R      657.93  658.93       RUBBLY CORE, POOR RECOVERY. PY BANDS INTERBEDDED WITH BA AND
 R      657.93  658.93       GL

 /      658.93  660.26   1.28            X BNSX BA SL CH= LM BD               R  3 LM                                L+    L+ X7
 L                                              BA PY                               BD                                     L1
 R      658.93  660.26       IRREGULARILY BANDED BA, SL WITH 2-6CM PYRITIC SILICEOUS BEDS.

 /      660.26  660.81   0.55            X BNSX BA PY CH1 LM BD               R  3 BD                                L1    L) X6
 L                                              6A SL                                                                      L)
 R      660.26  660.81       BA, SL, GL ZONES INTERBEDDED WITH SILICIFIED ARGILLITE.

 /      660.81  662.21   1.40              LMSX CH SL CH7 LM                  P  1 BD      55                  L1    L=    L)
 L                                              7A PY                               LM                                     L+
 R      660.81  662.21       GREY MASSIVE SILICIFIED ARGILLITE, WITH LOCAL
 R      660.81  662.21       DELICATE THIN LAMINATIONS OF CHERT,SL AND POSSIBLY BA. EXCELLENT
 R      660.81  662.21       PRESERVATION OF PRIMARY? DEPOSITIONAL FEATURES IN THIS SILICEOUS
 R      660.81  662.21       SECTION. ALSO LAMINATION PARALLEL SPHALERITE VEIN WITH COCKSCOMB
 R      660.81  662.21       EUHEDRAL QUARTZ WITH SL, QZ CENTER. OTHER BA-SL VEINS XCUT LAM.

 /      662.21  664.77   2.56              LMSX BA PY     LM                  P  1 BD      50                  X9    L)    L+
 L                                              7A SL                               LM                                     L=
 R      662.21  664.77       LAMINATED BA, GL,SL AND MINOR PY.

 /      664.77  671.55   6.78              BNSX BA SL CH1 LM BD               P  2                             X8    L)    L1
 L                                              7A GL                                                                      L+
 R      664.77  671.55       LAMINATED AND THIN BEDDED BA, PY, SL, GL WITH OCCASIONAL MEDIUM
 R      664.77  671.55       BEDDED MASSIVE SILICEOUS LAYERS.

 /      664.77  665.27   0.50            X BNSX BA SL CH3 LM BD               R  0                             X6    L)    L=
 L                                              7A GL                                                                      L=
 R      664.77  665.27       5 TO 10 CM CHERTY BED IN LAMINATED BA, SL, GL .

 /      665.27  665.56   0.29            X BNSX BA PY CH1 LM BD               R  2 BD      35                  X6    M2    L=
 L                                              7A SL                                                                      L1

 /      665.56  666.60   1.04            X LOST                               R
 L

 /      666.60  667.82   1.22            X BNSX BA SL CH2 LM BD               R  2                             X6    L)    L=
 L                                              7A GL                                                                      L1

 /      667.82  669.34   1.52            X LMSX BA SL     LM BD               R  2                             X6    L+    L2
 L                                              7A GL                                                                      L2
 R      667.82  669.34       WAVY BANDED BA, SP, GL, PY.

 /      669.34  671.17   1.83            X BNSX BA SL     LM BD               R  2                             X9          L=
 L                                              7A GL                                                                      L=
 R      669.34  671.17       ONE 3 CM PIECE OF BANDED BA, GL, RECOVERED ONLY.
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K  F   F R O M - T O -  T O T RECOV  RD % ROCK TM TM GM1 TX TX F C % M ARG   RT 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                           R Q D  AGE EV RJ LC TM GM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/       671.17  671.55   0.38           X BOSX BA PY CH2 LG BD                R  2                          X4    L2     L=
L                                                 5A SL                                                                     L1
R       671.17  671.55       ARGILLITE ALTERNATING WITH LAMINATED SP, QZ, PY BEDS.

K LS1   671.55  671.55   0.00

/       671.55  674.83   3.28             ARGL SF BA      BX     0 0 0 0      P  4
L                                                 5A         14
R       671.55  674.83       ARGILLITE INTERBEDDED WITH ZONES OF LAMINATED BA.
R       671.55  674.83       20% WHITE,SOFT PRISMATIC MM LONG XLS (TERMED X)
R       671.55  674.83       CROSSCUTTING VEINS OF QTZ,X,HONEY COLOURED TRANSLUSCENT BLEBS
R       671.55  674.83       (SL2)

/       673.08  673.95   0.87           X ARGL PY SL CH1 BD LM                R  1                                L(     L(
L                                                 7A SF                                                                     L(
R       673.08  673.95       ESSENTIALLY SILICIFIED ARGL WITH OCCASIONAL LAM & IREG PTCHS OF
R       673.08  673.95       CHT. CHT LAM CONTAIN MOR GL, SL AND PYR.

/       674.22  674.83   0.61           X ARGL PY SL CH1 BD LM                R  1                                L*     L+
L                                                 7A SF                                                                     L+
R       674.22  674.83       SILICIFIED ARGL WITH OCCASIONAL LAM OF CHT CONTAINING SL, GL
R       674.22  674.83       AND PYR.

/       674.83  693.12  18.29             ARGL SF                0 0   0      P  1
L                                                 4A
R       674.83  693.12       BLACK SILICIFIED ARGILLITE INTERBEDDED WITH PYRITIZED BRHM 0.2
R       674.83  693.12       TO 2 M THICK. SPOTTED ALTERATION (CIRCULAR AGGREGATES OF SOFT,
R       674.83  693.12       WHITE PRISMATIC XLS) OCCURS CONSISTENTLY BELOW BRHM BEDS.

/       674.83  680.76   5.93           X ARGL SF                0 0   0      R
L                                                 4A
R       674.83  680.76       BLACK MASSIVE SILICIFIED ARGILLITE.

/       680.76  683.06   2.30           X BRHM SF                       MQ7   R                                   D)
L                                                 6A    *S*      2   +  LM+

/       683.06  693.12  10.06           X ARGL                   0 0   0      R                V)
L                                                 3A                                                  V*
R       683.06  693.12       BLACK ARGL WITH THIN FLOWS (TO 8 CM) OF SILICEOUS ARGILLITE
R       683.06  693.12       FRAGMENTS. SPOTTED ALTERATION IN FOOTWALL OF EACH FLOW. ABUNDANT
R       683.06  693.12       QZ-CARB. VEINING.

/       693.12  703.91  10.79             ARSI PY        LM      0 2 1 2      P  1 BD      60 V*                      L=
L                                                 5A
R       693.12  703.91       DISCONTINUOUS AND CONTINUOUS LAMINATIONS OF VFG PY INCREASING
R       693.12  703.91       TOWARDS ORE ZONE. CONSTANT DIP, NO SLUMP FOLDING AS SEEN IN ORE
R       693.12  703.91       ZONE BELOW. SILICEOUS.

/       703.91  704.65   0.74             LMSX PY NC     LM SS                P  1                          L3
L                                                 7A SL                                                                     L)
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PAN OCEAN OIL LTD.

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 G E O L O G                         JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                      PAGE - 13
                                 DRILLHOLE/TRAVERSE --- 81-DH068 --- (CONTINUED)

 K  F  F R O M - T O -  T O T RECOV  MD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 Y  G                               R Q D  AGE EV RQ LC TM OM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

 R       703.91  704.65      CM BEDS OF SILICEOUS ARGILLITE WITH BEDS OF LAMINATED QC,PY,SL.
 R       703.91  704.65      SILICEOUS; IN DETAIL SULPHIDE LAMINATIONS SHOW PY, SL,
 R       703.91  704.65      INTERSTITIAL TO AUTHIGENIC (?) EUHEDRAL QZ GRAINS.

 /       704.65  706.65  2.00            ARSI PY         LM PY                P                                  L=
 L                                           5A
 R       704.65  706.65      WIDESPREAD ALTERATION OF SILICEOUS ARGILLITE BY BANDS OF
 R       704.65  706.65      VFG EUHEDRALTO ANHEDRAL CARBONATES ?

 K OS2   706.65  706.65  0.00

 /       706.65  707.35  0.70            MSSX PY CB CH1 MX                    P                                  X5     X=
 L                                             GL
 R       706.65  707.35      CRUDELY BEDDED-MOTTLED TEXTURE DEFINED BY ARGL & SULFIDE- RICH
 R       706.65  707.35      ZONES.MOD-STRONG SILICIFICATION OF ARGL.

 /       707.35  708.35  1.01            BNSX SF SL CH7 BN                    P  2 BD     T42 <)            <)     L=     L+
 L                                           5A GL                                                                      L1
 R       707.35  708.36      INTBD CHT,MSSX & POSSIBLY SILICIFIED ARGL. SULFIDE LAYER
 R       707.35  708.36      BUFF-COLOURED-COMPRISED SL,GL,PY & QTZ/MNR CALC.

 /       708.36  747.85  39.49           BNSX BA SL CH5 SS ST                 P  2 BD     T42 <)            L4     L+     L+
 L                                           6A GL     BN                                                               L=
 R       708.36  747.85      ALTERATING BANDS & LAM OF CHT, BARITE & SULFIDES
 R       708.36  747.85      CHT-BUFF,CFPXL, CONTAINS SCATTERED CALC PODS.
 R       708.36  747.85      BARITE-VFXL,MGY,SUCROSIC TEX
 R       708.36  747.85      SULFIDES-GL, SL, PY.
 R       708.36  747.85         -PYR-TENDS TO BE DISSEM THROUGHOUT ROCK IN BOTH CHT & BA
 R       708.36  747.85          BANDS.
 R       708.36  747.85         -SL & GL TEND TO OCCUR AS THIN LAM(1-2MM),GENERALLY WITHIN
 R       708.36  747.85          BARITIC BANDS BUT LOCALLY IN CHERTY BANDS. SL & GL ARE
 R       708.36  747.85          INTERGROWN WITH CHT, BARITE & CALCITE.
 R       708.36  747.85      LATE BARREN QTZ VNS TEND TO BE PERPENDICULAR TO BEDDING.

 /       712.80  718.00  5.20          X BNSX BA SL CH5 SS ST                 R  2 BD     T75 <)            L4     L+     L+
 L

 /       718.00  718.85  0.85          X BNSX BA SL CH5 SS ST                 R  2 BD     T60 <)            L4     L+     L+
 L

 /       718.85  723.20  4.35          X BNSX BA SL CH5 SS ST                 R  2 BD     T82 <)            L4     L+     L+
 L

 /       723.20  724.90  1.70          X BNSX BA SL CH5 SS ST                 R  2 BD     T60 <)            L4     L+     L+
 L

 /       724.90  728.90  4.00          X BNSX BA SL CH5 SS ST                 R  2 BD     T52 <)            L4     L+     L+
 L

 /       728.90  730.30  1.40          X BNSX BA SL CH5 SS ST                 R  2 BD     T75 <)            L4     L+     L+
 L
```

```
K  F   F R O M - T O -  I N T RECOV  RD % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L-  ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                            R Q D  AGE EV RN LC TM QM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/      730.50   731.40     1.10            X BNSX FA SL CH5 SS ST               R  2 BD     T58 <)          L4    L+    L+
L

/      731.40   733.00     1.60            X BNSX BA SL CH5 SS ST               R  2 BD     T82 <)          L4    L+    L+
L

/      733.00   734.80     1.80            X BNSX BA SL CH5 SS ST               R  2 BD     T60 <)          L4    L+    L+
L

/      734.80   738.00     3.20            X BNSX FA SL CH5 SS ST               R  2 BD     T75 <)          L4    L+    L+
L

/      738.00   742.80     4.80            X BNSX BA SL CH5 SS ST               R  2 BD     T50 <)          L4    L+    L+
L

/      742.80   745.70     2.90            X BNSX BA SL CH5 SS ST               R  2 BD     T60 <)          L4    L+    L+
L

/      745.70   747.85     2.15            X BNSX BA SL CH5 SS ST               R  2 BD     T75 <)          L4    L+    L+

/      747.85   749.29     1.44              BNSX SF SL      BM                 P  2 BD     T52 <+                L+    L+
L                                                 4A GL                                                                 L1

K LS2  749.29   749.29     0.00

/      749.29   778.07    28.78              ARSI SF    SI+ LM XB 0 1 + 1       P  1 BD     U60          V.       V)    L.
L                                                 4A                                                          K+

/      771.00   771.16     0.16            X FAUL SF    GG9                     R               V1             P1    P1
L                                                 5A                                                       V)

K US3  778.07   778.07     0.00

/      778.07   796.66    18.59              LMSX SF SL QC3 BD    0 1 1 1       P  2 BD      60          V( B*    D=
L                                                 4A                                                          V=          L+
R      778.07   796.66          ESSENTIALLY SILICIFIED ARGL WITH OCCAS LAM OF CHT, WITH SL, PY
R      778.07   796.66          AND BA.

/      780.92   782.48     1.56            X LMSX QZ SL QC3 LC    0 1 1 1       R  2 BD      60 V4       V+       D+
L                                                 4A 50                                                    V1          L1

/      784.48   788.28     3.80            X LMSX QZ SL QC3 LC    0 1 1 1       R  2 BD      60          V.       B=
L                                                 4A 50                                                    V=          L=

/      793.41   794.20     0.79            X LMSX SL PY QC4 LC    0 1 1 1       R  2 BD      55                   B=
L                                                 4A                                                                    L=

K LS3  796.66   796.66     0.00

/      796.66   832.80    36.14              ARSI SF    SM1 // XB 0 1 1 2       P  2 BD     U50 V*                D)
L                                                 5A       G;                                                 K*       D*
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 K   F   F R O M - T O -   L G T RECOV  RD % ROCK TM TM RM1 TX TX F C % M ARG    RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
 E  -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
 Y   G                                R G D  AGE FV RO LC TM OM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

 /       805.55  806.24    0.69           7 ARST 01    SN2                    R                              V. V)
 L                                                6A                                                             V+         P2

 /       832.80  837.96    5.16             ARST CB    SN+ G; LM 0 1 1 2      P  1 BD    U60                                D*
 L                                                3A                                                             K*

 /       837.96  850.10   12.14             CGSN       SN6 CU G; I L 2 M      P                 >+
 L                                                        ST SS 5    C
 R       837.96  850.10        INTERVAL COMPRISES 6 CU CYCLES OF APPROX EQUAL THICKNESS
 R       837.96  850.10        LOWER 3 CYCLES GRADE FROM ARST AT BASE TO PEBBLY SAND AT
 R       837.96  850.10        TOP. UPPER 3 CYCLES GRADE FROM SAND TO PEBBLY SAND
 R       837.96  850.10        TOP OF ONE FLOW SEQUENCE HAS BEEN BRECCIATED BY SLUMPING.

 /       850.10  853.70    3.60             ARSN       SN3 LM   0 3 3 3       P  3 BD     35
 L                                                                              1 LM

 /       853.70  855.23    1.53             CGPS       SN2 B* H* J L 2 N      P
 L                                                     *C= F*    4    O

 /       855.23  860.68    5.45             ARST       SN2 LM SS 0 3 2 3      P    3     T45 V1
 L
 R       855.23  860.68        BOTTOM 1.5 METERS EXHIBIT SOFT SED SLUMPING AND MINOR CHERT.

 /       857.60  860.68    2.68           X ARST       SN2 LM SS 0 3 2 3      R    3     T45 V2

 /       860.68  867.82    7.14             ORPM       SN2             QS2    P              V+
 L                                                            2    O KO6
 R       860.68  867.32        SIMILAR MATRIX TO CGPS UNIT ABOVE.

 /       867.82  868.32    0.50             CGSN          CU MX I L 2 N       P              V)
 L                                                        IM

 /       868.32  872.73    4.46             BRHT                   BS7    P              <+
 L                                                            2     LO3

 /       872.70  892.36   19.58             CGBR       SN2 B* F*           PR1    P              >1
 L                                                        DB     3         LO7

 /       892.36  905.10   12.74             CGSN          DB CU I M 5 O       P              >1
 L                                                     SN3 //    3    O          BD      50
 R       892.35  905.10        LOWER 0.7 M. IS PLANE // LAM MED GR SN PEBBLES COARSEN UPWARDS.

 /       905.10  909.00    3.90             CGPS OB    SN2 ST F* J M 6 P      P              >3
 L                                                  SF *C1 B* H* 1    C

 /       909.00  911.26    2.26             BRHT                   MO8    P              <*
 L                                                5A   *S+       2  +  NR1                                   D)
 R       909.00  911.25        PY OCCURS DISSEM WITHIN SANDSTONE CLASTS.

 /       911.26  971.40   60.14             ARSI       SN1 SS BD 0 3 1 3      P  2 BD    60                                D-
 L                                                4A
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K  F  F R O M - T O -  I N T RECOV  RD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R Q D  AGE EV RN LC TM OM2 TX TX S C U O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R       911.25  971.40       BDG OCCASIONALLY SLIGHTLY DISRUPTED.

/       919.60  923.85   4.25           X ARSI       SM1 SS BD 0 3 1 3       R  2 BD      45                          D-
L

/       923.85  932.84   8.99           X ARSI       SM1 SS BD 0 3 1 3       R  2 BD      70                          D-
L

/       932.84  934.82   1.98           X ARSI       SM1 SS BD 0 3 1 3       R  2 BD      90                          D-
L

/       934.82  938.45   3.63           X ARSI       SM1 SS BD 0 3 1 3       R  2 BD      78                          D-
L

/       938.45  939.40   0.95           X ARSI       SM1 SS BD 0 3 1 3       R  2 BD      85                    <=    <-
L

/       939.40  941.00   1.60           X ARSI       SM1 SS BD 0 3 1 3       R  2 BD      40                          D-
L

/       941.00  943.97   2.97           X ARSI       SM1 SS BD 0 3 1 3       R  2 BD      82                    <=    <*
L

/       943.97  951.00   7.03           X ARSI       SM1 SS BD 0 3 1 3       R  2 BD      60                          D-
L

/       951.00  964.20  13.20           X FAUL GR    GG2                     R                <+                      #+
R       951.00  964.20       VERY RUBBLY INTV WITH SOME GOUGE. INTV CUT BY QTZ VNS WITH SOME
R       951.00  964.20       PYR.PYRITE ALSO APPEARS TO OCCUR AS A VERY LATE PHASE IN BRECCIA
R       951.00  964.20       INTERSTICES & ALONG FRACTURES. THIS POSTDATES AT LEAST SOME QTZ
R       951.00  964.20       VEINING AS THIS VEINING IS DISPLACED BY FAULTING.

/       964.20  965.00   0.80           X SAND          BD    3 3   3       R  2 BD      40
L                                            6A

/       965.00  971.40   6.40           X ARSI       SM1 SS BD 0 3 1 3       R  2 BD      60                    <*    <.
R       965.00  971.40       QS VNS MAINLY QTZ WITH MINOR SIDERITE.
R       965.00  971.40       INTV OCCASIONALLY RUBBLY WITH GRAPHITIC SLIPS.
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			SAMPLE NUMBER	% PB	% ZN	% BA	OZ AG	% CU	% FE	OZ AU	SG	HASH TOTAL
A UMM												
A LAB				B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG		
A TYP				H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE		
A MTH				WA	WA	WA	WA	WA	WA	WA		
R ASY	0.00	0.00	B.CLG = BONDAR CLEGG, VANCOUVER; H-CORE = HALF CORE.									
R ASY	0.00	0.00	WA = WET ANALYSIS									
R ASY	0.00	0.00	HASH TOTALS SHOULD BE ENTERED FROM SUMS ON ASSAY SHEETS.									
R ASY	0.00	0.00	LESS THAN DETECTION LIMIT ENTERED AS -D.L. E.G. -0.01									
R ASY	0.00	0.00	NO ASSAY INFORMATION ENTERED AS -0.1									
A MIN				0.02	0.07	6.24	-0.02	-0.01	0.39	-0.10	-0.10	9.49
A MAX	652.00	676.73		6.00	18.44	51.06	0.41	0.01	7.73	-0.10	-0.10	83.45

A MIG			0.03	0.40	2.61	0.02	-0.01	0.50	-0.10	2.90	25.32
A MAX	7?5.17	750.29	0.42	3.85	41.95	0.66	-0.01	18.47	-0.10	3.90	73.14

A	MIN					0.02	0.20	1.20	0.02	-0.01	1.46	-0.10	-0.10	2.69
A	MAX	776.00	797.66			1.70	4.60	13.75	0.10	0.01	6.93	-0.10	2.80	29.79
A	001	652.88	653.88	100	089873	0.02	0.07	9.45	0.04	-0.01	2.41	-0.10	-0.10	11.78
R	ASY	652.88	676.74		SOUTH ZONE #1;INTERVAL 653.88-671.55M.									
A	001	653.88	654.10	22	089874	6.00	18.44	13.77	0.41	0.01	7.73	-0.10	-0.10	46.16
A	001	654.10	655.50	140	089875	1.05	2.56	42.09	0.02	-0.01	0.43	-0.10	-0.10	45.94
A	001	655.50	655.93	32	089876	1.11	2.16	48.50	0.02	-0.01	1.18	-0.10	-0.10	52.78
A	001	655.93	656.93	100	089877	0.88	3.80	51.06	0.02	-0.01	0.57	-0.10	-0.10	56.12
A	001	656.93	657.93	100	089878	0.77	3.45	42.77	0.04	-0.01	0.40	-0.10	-0.10	47.22
A	001	657.93	658.98	41	089879	1.60	4.60	41.69	-0.02	-0.01	3.64	-0.10	-0.10	51.30
A	001	658.98	660.26	128	089880	1.03	3.10	44.16	0.02	-0.01	1.18	-0.10	-0.10	49.28
A	001	660.26	660.81	29	089881	2.21	1.98	7.97	0.03	-0.01	2.89	-0.10	-0.10	14.87
A	001	660.81	661.11	30	089882	0.48	4.20	8.65	0.04	-0.01	2.51	-0.10	-0.10	15.67
A	001	661.11	662.21	110	089883	0.12	0.44	8.06	-0.02	-0.01	2.66	-0.10	-0.10	11.05
A	001	662.21	662.64	12	089884	2.09	4.70	28.60	0.04	-0.01	3.77	-0.10	-0.10	38.98
A	001	662.64	663.24	57	089885	1.17	3.65	48.40	0.02	-0.01	0.48	-0.10	-0.10	53.51
A	001	663.24	664.16	80	089886	1.55	4.05	41.63	-0.02	-0.01	0.70	-0.10	-0.10	47.70
A	001	664.16	664.77	34	089887	2.26	4.40	40.89	-0.02	-0.01	0.58	-0.10	-0.10	47.90
A	001	664.77	665.27	31	089888	0.78	1.60	16.24	0.02	-0.01	2.28	-0.10	-0.10	20.71
A	001	665.27	666.60	16	089889	0.58	5.85	26.69	-0.02	-0.01	2.56	-0.10	-0.10	33.45
A	001	666.60	667.82	63	089890	1.78	3.08	39.50	0.02	-0.01	0.98	-0.10	-0.10	45.15
A	001	667.82	669.34	58	089891	1.70	4.80	42.75	0.03	-0.01	1.26	-0.10	-0.10	50.33
A	001	669.34	671.17	9	089892	1.54	5.05	46.10	0.02	-0.01	0.39	-0.10	-0.10	52.89
A	001	671.17	671.55	11	089693	0.14	7.15	24.83	0.02	-0.01	4.42	-0.10	-0.10	36.35
A	001	671.55	672.08	41	089894	0.12	1.27	7.10	0.02	-0.01	2.16	-0.10	-0.10	10.46
A	001	672.08	673.08	100	089895	0.04	0.26	9.83	0.02	-0.01	7.86	-0.10	-0.10	17.80
A	001	673.08	673.95	87	089896	1.88	2.39	9.56	0.10	-0.01	1.86	-0.10	-0.10	15.58
A	001	673.95	674.22	27	089897	0.18	0.30	10.15	0.02	-0.01	1.91	-0.10	-0.10	12.35
A	001	674.22	674.83	26	089898	1.89	1.26	9.85	0.13	-0.01	2.21	-0.10	-0.10	15.13
A	001	674.83	675.74	02	089899	0.07	0.59	6.77	0.02	-0.01	2.46	-0.10	-0.10	9.70
A	001	675.74	676.74	100	089900	0.06	0.21	6.24	0.03	-0.01	2.96	-0.10	-0.10	9.29
A	001	703.17	703.91	74	089826	0.03	0.40	8.80	0.06	-0.01	6.28	-0.10	3.00	18.46
R	ASY	703.17	750.29		SOUTH ZONE #2;INTERVAL 706.65-749.29M.									
A	001	703.91	704.65	74	089627	1.24	2.83	9.83	0.31	-0.01	4.52	-0.10	2.90	21.52
A	001	704.65	705.65	100	089827	0.43	1.63	11.90	0.13	-0.01	4.32	-0.10	3.00	21.30
A	001	705.65	706.65	100	089828	0.48	2.50	11.00	0.16	-0.01	4.32	-0.10	3.00	21.35
A	001	706.65	707.36	71	089830	4.42	2.97	2.61	0.66	-0.01	18.47	-0.10	3.40	32.42
A	001	707.36	708.36	100	089831	2.65	3.85	9.09	0.43	-0.01	2.26	-0.10	2.90	21.07
A	001	708.36	709.36	100	089832	3.32	3.80	22.20	0.53	-0.01	1.26	-0.10	3.20	34.20
A	001	709.36	710.36	100	089833	1.92	2.95	39.58	0.24	-0.01	0.60	-0.10	3.60	48.78
A	001	710.36	711.36	100	089834	1.22	2.75	33.65	0.19	-0.01	1.00	-0.10	3.40	42.10
A	001	711.36	712.36	100	089835	0.93	3.12	34.50	0.14	-0.01	1.41	-0.10	3.50	43.49
A	001	712.36	713.36	100	089836	1.18	2.67	36.75	0.29	-0.01	1.20	-0.10	3.60	45.58
A	001	713.36	714.36	100	089837	1.18	3.10	32.40	0.25	-0.01	1.33	-0.10	3.40	41.55
A	001	714.36	715.36	100	089838	0.84	2.18	39.60	0.18	-0.01	1.76	-0.10	3.60	48.05
A	001	715.36	716.36	100	089839	0.52	2.95	36.90	0.18	-0.01	1.76	-0.10	3.50	45.70
A	001	716.36	717.25	89	089840	0.60	2.95	34.20	0.18	-0.01	2.79	-0.10	3.50	44.11
A	001	717.25	718.25	100	089841	1.25	2.76	26.95	0.19	-0.01	1.66	-0.10	3.30	36.00
A	001	718.25	719.33	108	089842	1.16	2.28	29.00	0.15	-0.01	6.33	-0.10	3.60	42.41
A	001	719.33	720.33	100	089843	1.90	2.00	32.90	0.30	-0.01	2.54	-0.10	3.50	43.03
A	001	720.33	721.33	100	089844	0.98	2.05	22.96	0.23	-0.01	4.94	-0.10	3.20	34.25
A	001	721.33	722.33	100	089845	1.45	2.78	37.25	0.20	-0.01	0.83	-0.10	3.60	46.00

A	MIN				0.02	0.20	1.20	0.02	-0.01	1.46	-0.10	-0.10	2.69
A	LAB			NUMBER	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG	B.CLG		TOTAL
A	TYP				H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE	H-CORE		
A	MTH				WA	WA	WA	WA	WA	WA	WA		
A	MIN				0.02	0.07	6.24	-0.02	-0.01	0.39	-0.10	-0.10	9.49
A	001	722.33	723.33	100	089846	1.96	2.80	41.55	0.34	-0.01	1.13	-0.10	3.70	51.37
A	001	723.33	724.33	100	089847	0.55	2.05	36.35	0.17	-0.01	1.31	-0.10	3.50	43.82
A	001	724.33	725.33	100	089848	1.82	1.75	36.30	0.19	-0.01	0.88	-0.10	3.40	44.23
A	001	725.33	726.42	109	089849	1.78	2.36	36.29	0.17	-0.01	1.08	-0.10	3.50	45.07
A	001	726.42	727.42	100	089850	1.56	2.52	39.70	0.13	-0.01	1.69	-0.10	3.60	49.09
A	001	727.42	728.42	100	089851	1.98	1.44	34.35	0.13	-0.01	1.71	-0.10	3.40	42.00
A	001	728.42	729.52	110	089852	0.82	1.40	32.13	0.08	-0.01	3.09	-0.10	3.50	40.91
A	001	729.52	730.52	100	089853	0.76	1.21	24.60	0.05	-0.01	2.31	-0.10	3.20	32.02
A	001	730.52	731.52	100	089854	0.86	1.77	39.50	0.05	-0.01	1.56	-0.10	3.50	47.13
A	001	731.52	732.52	100	089855	0.39	0.73	20.05	0.04	-0.01	2.08	-0.10	3.10	26.28
A	001	732.52	733.35	83	089856	0.60	1.45	28.53	0.04	-0.01	2.16	-0.10	3.30	35.97
A	001	733.35	734.87	152	089857	1.22	1.26	33.60	0.02	-0.01	3.06	-0.10	3.40	42.45
A	001	734.87	735.87	100	089858	1.86	1.19	40.30	0.03	-0.01	1.36	-0.10	3.50	48.13
A	001	735.87	736.87	100	089859	0.96	1.01	34.90	0.02	-0.01	2.16	-0.10	3.40	42.34
A	001	736.87	737.87	100	089860	0.48	1.15	35.15	0.03	-0.01	2.78	-0.10	3.50	42.98
A	001	737.87	738.37	100	089861	0.70	1.63	32.60	0.04	-0.01	2.18	-0.10	3.30	40.34
A	001	738.87	739.87	100	089862	0.32	1.16	16.75	0.03	-0.01	4.97	-0.10	3.10	26.22
A	001	739.87	740.87	100	089863	0.38	2.50	19.00	0.04	-0.01	3.44	-0.10	3.10	28.35
A	001	740.87	741.87	100	089864	0.54	2.28	28.20	0.03	-0.01	2.03	-0.10	3.30	36.27
A	001	741.87	742.87	100	089865	1.48	2.12	34.25	0.02	-0.01	1.96	-0.10	3.50	43.22
A	001	742.87	743.87	100	089866	2.24	2.20	41.60	0.02	-0.01	1.05	-0.10	3.90	50.90
A	001	743.87	744.87	100	089867	1.04	2.74	37.50	0.02	-0.01	1.03	-0.10	3.50	45.72
A	001	744.87	745.85	98	089868	0.88	2.98	39.50	0.02	-0.01	2.16	-0.10	3.60	49.03
A	001	745.85	746.85	100	089869	0.79	2.83	41.95	0.02	-0.01	0.50	-0.10	3.60	49.58
A	001	746.85	747.85	100	089870	1.14	3.25	32.25	0.03	-0.01	3.36	-0.10	3.50	43.42
A	001	747.85	749.29	120	089871	1.06	3.85	12.33	0.04	-0.01	2.46	-0.10	3.00	22.63
A	001	749.29	750.29	100	089872	0.06	0.44	11.91	0.04	-0.01	4.39	-0.10	2.90	19.63
A	001	776.00	777.07	91	66536	0.02	0.24	4.93	0.07	-0.01	4.00	-0.10	2.80	11.95
R	ASY	776.00	797.60	SOUTH ZONE #3;INTERVAL 778.07-796.66M.									
A	001	777.07	778.07	95	66537	0.02	0.20	8.38	0.04	-0.01	2.35	-0.10	2.80	13.68
A	001	778.07	779.07	100	089901	0.03	0.99	7.91	0.02	-0.01	2.85	-0.10	-0.1	11.59
A	001	779.07	780.07	100	089902	0.10	3.15	8.52	0.06	-0.01	3.61	-0.10	-0.1	15.23
A	001	780.07	780.92	85	089903	0.44	3.44	9.63	0.03	-0.01	2.81	-0.10	-0.1	16.14
A	001	780.92	781.92	100	089904	0.62	3.25	10.58	0.02	-0.01	2.11	-0.10	-0.1	16.37
A	001	781.92	782.48	56	089905	0.34	1.78	10.26	0.05	-0.01	4.40	-0.10	-0.1	16.62
A	001	782.48	783.48	100	089906	0.25	1.70	12.06	0.07	-0.01	3.21	-0.10	-0.1	17.08
A	001	783.48	784.48	100	089907	0.23	1.90	13.75	0.03	-0.01	2.96	-0.10	-0.1	18.66
A	001	784.48	785.48	100	089908	1.43	4.30	9.63	0.04	-0.01	1.71	-0.10	-0.1	16.90
A	001	785.48	786.48	100	089909	1.70	4.00	10.30	0.03	-0.01	1.46	-0.10	-0.1	17.28
A	001	786.48	787.48	100	089910	1.32	3.30	11.43	0.06	0.01	1.81	-0.10	-0.1	17.73
A	001	787.48	788.28	80	089911	1.42	2.50	8.27	0.06	-0.01	2.16	-0.10	-0.1	14.20
A	001	788.28	789.28	100	089912	0.24	1.05	10.89	0.02	-0.01	3.16	-0.10	-0.1	15.15
A	001	789.28	790.28	100	089913	0.62	1.34	8.48	0.05	-0.01	2.26	-0.10	-0.1	12.54
A	001	790.28	791.28	100	089914	0.28	1.34	8.50	0.04	-0.01	2.71	-0.10	-0.1	12.66
A	001	791.28	792.28	100	089915	0.27	1.80	7.49	0.04	-0.01	2.39	-0.10	-0.1	11.78
A	001	792.28	793.41	113	089916	0.24	1.39	8.09	0.04	-0.01	3.82	-0.10	-0.1	13.37
A	001	793.41	794.20	79	089917	1.44	4.60	7.26	0.06	0.01	2.26	-0.10	-0.1	15.43
A	001	794.20	795.20	100	089918	1.01	3.75	6.72	0.10	-0.01	2.56	-0.10	-0.1	13.93
A	001	795.20	796.20	100	089919	0.26	3.20	2.75	0.02	-0.01	2.56	-0.10	-0.1	8.58
A	001	796.20	796.66	46	089920	0.13	3.10	1.20	0.05	0.01	6.93	-0.10	-0.1	11.27
A	001	796.66	797.66	100	089921	0.04	0.33	1.55	0.02	-0.01	3.41	-0.10	-0.1	5.14

A UMM					RQD	SP.GR.
A TYP					CM	SG
A MTH					B-B	WEIGH
A LAB					FLD	FLD
R ASY	0.00	0.00		RCOV=RECOVERY(C17-20) IS MEASURED IN CM BLOCK TO BLOCK(B-B)		
R ASY	0.00	0.00		RQD=ROCK QUALITY DESIGNATOR(C27-32)MEASURED IN CM BLOCK TO BLOCK		
R ASY	0.00	0.00		RQD IS THE TOTAL LENGTH (BETWEEN BLOCKS) OF PIECES OF CORE		
R ASY	0.00	0.00		AT LEAST 2-1/2 TIMES DIAMETER OF CORE TO NEAREST CM, DIVIDED		
R ASY	0.00	0.00		BY LENGTH OF INTERVAL = BLOCK(TO) MINUS BLOCK(FROM)TIMES 100		
R ASY	0.00	0.00		CM INDICATES THAT MEASUREMENTS ARE IN CM'S WHICH ARE TO BE RIGHT		
R ASY	0.00	0.00		JUSTIFIED AGAINST THE DOUBLE VERTICAL LINE AT RIGHT MARGIN		
R ASY	0.00	0.00		OF EACH FIELD.		
R ASY	0.00	0.00		B-B=BLOCK-TO-BLOCK (DRILLERS BLOCKS). ENTER METRAGE OF ONE BLOCK		
R ASY	0.00	0.00		AS THE TO OF ANY INTERVAL AND THE METRAGE OF THE NEXT BLOCK.		
R ASY	0.00	0.00		ADDITIONAL POINTS (FROM-TO'S) CAN BE ESTABLISHED BETWEEN		
R ASY	0.00	0.00		BLOCKS TO BRACKET SPECIFIC INTERVALS OF LOCALIZED POOR		
R ASY	0.00	0.00		RECOVERY. B-B IS ENTERED RIGHT JUSTIFIED IN EACH FIELD IN		
R ASY	0.00	0.00		THE AMTH HEADER.		
R ASY	0.00	0.00		THE FIRST INTERVAL, THROUGH THE OVERBURDEN, WITH ZERO RECOVERY,		
R ASY	0.00	0.00		SHOULD BE ENTERED FIRST -- SEE BELOW.		
A 100	0.00	6.10	00		00	
R ASY	0.00	6.10		OVERBURDEN		
A 100	6.10	7.92	89		19	
A 100	7.92	10.67	208		101	
A 100	10.67	11.58	75		17	
A 100	11.58	14.63	289		149	
A 100	14.63	17.68	249		107	2.71
A 100	17.68	20.73	252		110	
A 100	20.73	23.77	200		22	
A 100	23.77	25.30	139		63	
A 100	25.30	28.35	279		167	
A 100	28.35	29.87	132		50	
A 100	29.87	31.70	146		23	
A 100	31.70	34.75	292		138	
A 100	34.75	35.97	82		00	
A 100	35.97	38.71	250		92	
A 100	38.71	41.76	297		151	2.63
A 100	41.76	43.89	203		24	
A 100	43.89	46.94	240		39	
A 100	46.94	49.99	273		145	2.68
A 100	49.99	53.04	273		106	
A 100	53.04	57.00	321		137	
A 100	57.00	59.74	271		19	2.63
A 100	59.74	62.79	289		194	2.72
A 100	62.79	64.31	126		31	
A 100	64.31	67.36	305		231	
A 100	67.36	69.19	155		25	2.69
A 100	69.19	72.24	261		120	
A 100	72.24	75.29	270		213	
A 100	75.29	78.33	301		211	
A 100	78.33	80.16	159		54	
A 100	80.16	83.21	295		57	
A 100	83.21	86.26	301		241	
A 100	86.26	89.31	300		269	
A 100	89.31	91.74	216		84	2.69

A	DMM					RQD		SP.GR.					
A	TYP					CM		SG					
A	MTH					M-M		WEIGH					
A	LAB					FLD		FLD					
A	MIN					0.02	0.07	6.24	-0.02	-0.01	0.39	-0.10	-0.10	9.49
A	100	91.74	93.88	214		17							
A	100	93.88	96.01	141		115							
A	100	96.01	99.36	335		133							
A	100	99.36	102.41	220		180							
R	ASY	102.41	105.46		256	199	2.65						
R	ASY	99.97	102.41		WEDGE GROOVE.								
A	100	102.41	103.94	153		109							
A	100	103.94	105.46	152		89							
A	100	105.46	107.29	170		51							
A	100	107.29	110.34	290		59							
A	100	110.34	113.39	293		154							
A	100	113.39	116.13	224		54							
A	100	116.13	119.18	303		98							
A	100	119.18	122.22	208		149							
A	100	122.22	124.56	140		42							
A	100	124.36	126.80	223		61							
A	100	126.80	128.63	173		21		2.70					
A	100	128.63	129.84	111		22							
A	100	129.84	132.89	282		38							
A	100	132.89	135.64	226		64							
A	100	135.64	138.68	280		139							
A	100	138.68	139.90	47		00							
A	100	139.90	142.95	299		239							
A	100	142.95	145.69	233		86							
A	100	145.69	148.74	305		177							
A	100	148.74	151.79	240		24							
A	100	151.79	154.84	297		91							
A	100	154.84	157.89	291		183							
A	100	157.89	160.93	291		163							
A	100	160.93	163.98	284		189							
A	100	163.98	167.03	305		162							
A	100	167.03	170.08	306		212							
A	100	170.08	173.13	290		180							
A	100	173.13	176.17	255		95		2.74					
A	100	176.17	179.22	251		122							
A	100	179.22	180.14	88		00							
A	100	180.14	182.27	190		26							
A	100	182.27	185.32	287		158							
A	100	185.32	188.37	279		169		2.83					
A	100	188.37	191.11	201		60							
A	100	191.11	194.16	123		43							
A	100	194.16	196.29	117		00							
A	100	196.29	196.90	61		43							
A	100	196.90	199.34	181		42							
A	100	199.34	200.25	32		00							
A	100	200.25	203.30	281		140		2.75					
A	100	203.30	206.35	272		145							
A	100	206.35	209.70	276		168							
A	100	209.70	210.62	92		43							
A	100	210.62	213.06	177		105							
A	100	213.06	216.10	258		181							

A UMM				RQD		SP.GR.						
A TYP				CM		SG						
A MTH				B-B		WEIGH						
A LAB				FLD		FLD						
A MIN				0.02	0.07	6.24	-0.02	-0.01	0.39	-0.10	-0.10	9.49
A 100	216.10	219.15	294	245		2.71						
A 100	219.15	222.20	298	253								
A 100	222.20	225.25	288	80								
A 100	225.25	226.77	146	69								
A 100	226.77	228.30	112	84								
A 100	228.30	231.34	294	220		2.73						
A 100	231.34	234.39	305	289								
A 100	234.39	237.44	300	169								
A 100	237.44	239.88	230	150								
A 100	239.88	240.49	40	00								
A 100	240.49	241.10	56	26								
A 100	241.10	241.40	30	14								
A 100	241.40	243.54	130	69								
A 100	243.54	245.97	204	156								
A 100	245.97	247.50	153	53		2.79						
A 100	247.50	249.63	204	92								
A 100	249.63	251.16	116	00								
A 100	251.16	252.68	139	73		2.70						
A 100	252.68	255.73	285	213								
A 100	255.73	258.78	302	277								
A 100	258.78	261.82	295	245								
A 100	261.82	264.26	198	48								
A 100	264.26	266.40	159	118		2.76						
A 100	266.40	268.53	192	118								
A 100	268.53	271.38	319	234		2.73						
A 100	271.88	275.23	326	268								
A 100	275.23	278.59	290	251								
A 100	278.59	281.64	270	166		2.79						
A 100	281.64	283.46	173	168								
A 100	283.46	286.51	305	326		2.73						
A 100	286.51	289.56	300	202								
A 100	289.55	292.61	277	235								
A 100	292.61	295.66	305	269								
A 100	295.66	298.09	243	279								
A 100	298.09	299.62	060	153								
R ASY	298.09	299.62	WEDGE GROOVE									
A 100	299.62	301.14	152	96		2.75						
A 100	301.14	302.67	108	43								
A 100	302.67	303.89	120	00								
A 100	303.89	306.63	203	33								
A 100	306.63	307.85	117	55		2.71						
A 100	307.85	308.76	91	63								
A 100	308.76	310.29	136	98								
A 100	310.29	313.33	282	213								
A 100	313.33	316.38	294	223								
A 100	316.38	319.43	305	219		2.75						
A 100	319.43	322.48	300	251								
A 100	322.48	325.22	274	283								
A 100	325.22	326.75	153	145								
A 100	326.75	329.79	160	118								
A 100	329.79	331.62	166	153								

PAN OCEAN OIL LTD.

G E O L O G JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

DRILLHOLE/TRAVERSE --- 81-DH068 --- (CONTINUED)

A	UMN				RQD		SP.GR.						
A	TYP				C%		SG						
A	MTH				B-B		WEIGH						
A	LAB				FLD		FLD						
A	MIN				0.02	0.07	6.24	-0.02	-0.01	0.39	-0.10	-0.10	9.49
A	100	331.62	334.67	297	197								
A	100	334.67	337.72	295	181								
A	100	337.72	340.77	305	301								
A	100	340.77	343.20	234	93								
A	100	343.20	346.25	305	310		2.75						
A	100	346.25	349.61	327	240								
A	100	349.61	352.96	307	304								
A	100	352.96	356.01	267	106								
A	100	356.01	357.23	117	90								
A	100	357.23	359.05	182	127		2.75						
A	100	359.05	362.10	144	93								
A	100	362.10	363.63	61	00								
A	100	363.63	366.67	304	279								
A	100	366.67	370.03	310	234								
A	100	370.03	373.38	335	289								
A	100	373.35	373.99	57	00								
A	100	373.99	374.60	61	47								
A	100	374.60	377.04	237	226								
A	100	377.04	379.48	243	138		2.77						
A	100	379.48	381.30	160	113								
A	100	381.30	383.13	97	06								
A	100	383.13	384.05	92	43		2.71						
A	100	384.05	385.27	120	37								
A	100	385.27	388.32	284	162								
A	100	388.32	391.67	330	179		2.76						
A	100	391.67	394.41	267	155								
A	100	394.41	395.33	87	17								
A	100	395.33	398.07	250	79								
A	100	398.07	399.29	114	25								
A	100	399.29	400.51	116	60								
A	100	400.51	402.95	204	94								
A	100	402.95	405.99	264	94		2.71						
A	100	405.99	406.91	92	15								
A	100	406.91	407.52	45	00								
A	100	407.52	409.96	186	94								
A	100	409.96	412.70	270	226		2.61						
A	100	412.70	416.05	146	92								
A	100	416.05	417.58	153	91		2.75						
A	100	417.58	418.80	108	40								
A	100	418.80	420.01	111	65								
A	100	420.01	422.76	275	190								
A	100	422.76	425.81	268	178								
A	100	425.81	426.72	91	91								
A	100	426.72	428.35	171	96								
A	100	428.85	432.21	290	263								
A	100	432.21	433.73	00	152		2.73						
R	ASY	432.21	433.73	WEDGE GROOVE									
A	100	433.73	434.95	122	105								
A	100	434.95	436.47	152	147								
A	100	436.47	438.00	153	132								
A	100	438.00	441.05	300	286		2.84						

A UMM				ROD		SP.GR.						
A TYP				CR		SG						
A MTH				R-R		WEIGH						
A LAB				FLD		FLD						
A MIN				0.02	0.07	6.24	-0.02	-0.01	0.39	-0.10	-0.10	9.49
A 100	441.05	444.09	292	138		2.70						
A 100	444.09	447.45	317	241		2.74						
A 100	447.45	450.19	144	58								
A 100	450.19	451.71	145	106		2.70						
A 100	451.71	454.76	260	245		2.78						
A 100	454.76	458.11	324	259								
A 100	458.11	461.47	305	257		2.81						
A 100	461.47	464.52	305	264								
A 100	464.52	465.73	88	40								
A 100	465.73	467.55	183	132								
A 100	467.56	468.17	38	00								
A 100	468.17	471.22	305	238								
A 100	471.22	474.27	305	233								
A 100	474.27	477.62	322	289								
A 100	477.62	480.67	281	169								
A 100	480.67	483.72	305	278								
A 100	483.72	486.77	277	231								
A 100	486.77	487.98	121	70		2.81						
A 100	487.98	490.42	195	75								
A 100	490.42	493.47	290	224								
A 100	493.47	495.60	207	152								
A 100	495.60	496.52	92	50								
A 100	496.52	499.26	274	282								
A 100	499.26	502.31	305	267								
A 100	502.31	505.36	301	264								
A 100	505.36	508.10	274	297								
A 100	508.10	508.71	61	00								
A 100	508.71	509.02	24	24								
A 100	509.02	511.15	87	64								
A 100	511.15	513.89	274	163								
A 100	513.89	516.64	206	149								
A 100	516.64	519.07	224	126								
A 100	519.07	519.68	61	00								
A 100	519.68	520.60	86	11								
A 100	520.60	522.43	183	160								
A 100	522.43	525.48	302	294								
A 100	525.48	528.52	300	252								
A 100	528.52	531.57	281	281								
A 100	531.57	534.62	305	285								
A 100	534.62	537.67	305	298								
A 100	537.67	537.97	25	00		2.73						
A 100	537.97	538.28	31	00								
A 100	538.28	539.19	73	26								
A 100	539.19	539.50	29	00								
A 100	539.50	539.80	20	00								
A 100	539.80	541.63	150	72								
A 100	541.63	543.46	183	171								
A 100	543.46	545.29	183	141								
A 100	545.29	546.81	122	114								
A 100	546.81	549.25	205	104								
A 100	549.25	550.47	106	63								

A UMM				RQD		SP.GR.						
A TYP				CM		SG						
A MTH				S-B		WEIGH						
A LAB				FLD		FLD						
A MIN				0.02	0.07	6.24	-0.02	-0.01	0.39	-0.10	-0.10	9.49
A 100	550.47	553.52	296	249								
A 100	553.52	556.56	304	268								
A 100	556.56	557.17	49	12								
A 100	557.17	557.78	61	23								
A 100	557.78	558.39	61	23								
A 100	558.39	559.61	120	45								
A 100	559.61	562.66	305	210								
A 100	562.66	564.49	177	145								
A 100	564.49	567.54	305	248								
A 100	567.54	570.59	305	296								
A 100	570.59	573.63	304	289								
A 100	573.63	576.68	260	177								
A 100	576.68	577.29	49	15								
A 100	577.29	580.03	241	127								
A 100	580.03	581.25	122	47								
A 100	581.25	584.61	302	204								
A 100	584.61	585.22	61	37								
A 100	585.22	586.44	122	34		2.76						
A 100	586.44	587.35	61	54								
A 100	587.35	590.40	280	188								
A 100	590.40	591.01	47	00								
A 100	591.01	591.92	84	38								
A 100	591.92	593.14	122	62								
A 100	593.14	595.27	205	117								
A 100	595.27	595.58	31	31								
A 100	595.58	595.88	26	00								
A 100	595.88	597.71	140	101								
A 100	597.71	599.85	207	97								
A 100	599.85	601.37	121	56								
A 100	601.37	602.59	119	36								
A 100	602.59	603.81	122	34								
A 100	603.81	604.42	61	15								
A 100	604.42	605.94	129	15		2.76						
A 100	605.94	607.77	183	48								
A 100	607.77	608.69	87	13								
A 100	608.69	609.60	74	00								
A 100	609.60	610.51	84	00								
A 100	610.51	612.04	153	129								
A 100	612.04	612.95	75	00		2.79						
A 100	612.95	614.17	120	26		2.80						
A 100	614.17	615.09	92	19								
A 100	615.09	616.61	152	61								
A 100	616.61	617.52	91	43								
A 100	617.52	618.74	122	44								
A 100	618.74	620.57	147	18								
A 100	620.57	621.79	122	27								
A 100	621.79	623.01	122	26		2.80						
A 100	623.01	624.54	153	29								
A 100	624.54	625.45	82	19								
A 100	625.45	628.50	291	179								
A 100	628.50	631.55	305	213		2.82						

A UNM				ROD		SP.GR.						
A TYP				CM		SG						
A MTH				6-8		WEIGH						
A LAB				FLD		FLD						
A MIN				0.02	0.07	6.24	-0.02	-0.01	0.39	-0.10	-0.10	9.49
A 100	631.55	634.59	301	167								
A 100	634.59	637.64	265	156								
A 100	637.64	640.69	305	291		2.81						
A 100	640.69	643.74	305	190								
A 100	643.74	646.18	228	77								
A 100	646.18	647.70	152	93								
A 100	647.70	650.75	305	222		2.86						
A 100	650.75	652.83	190	99								
A 100	652.83	655.93	305	160								
A 100	655.93	658.98	277	116		4.26						
A 100	658.98	660.81	167	95								
A 100	660.81	662.64	169	41		2.81						
A 100	662.64	663.24	60	00		3.90						
A 100	663.24	664.16	92	13								
A 100	664.16	664.77	45	00								
A 100	664.77	666.60	44	00								
A 100	666.60	667.82	72	00		3.67						
A 100	667.82	669.34	69	00								
A 100	669.34	671.17	00	00								
A 100	671.17	671.55	7	00								
A 100	671.55	672.08	41	19								
A 100	672.08	672.69	61	35								
A 100	672.69	674.22	127	38		2.73						
A 100	674.22	674.83	25	00								
A 100	674.83	675.74	38	00								
A 100	675.74	677.27	103	45								
A 100	677.27	680.31	277	153								
A 100	680.31	683.36	305	235								
A 100	683.36	683.97	42	35		2.70						
A 100	683.97	687.02	299	177								
A 100	687.02	690.07	305	272								
A 100	690.07	690.37	010	000								
A 100	690.37	692.20	158	106								
A 100	692.20	693.12	046	000								
A 100	693.12	694.33	101	040								
A 100	694.33	695.55	117	030		2.69						
A 100	695.55	696.16	61	000								
A 100	696.16	696.77	036	000								
A 100	696.77	697.38	040	000								
A 100	697.38	697.99	031	000								
A 100	697.99	698.60	029	000								
A 100	698.60	698.91	015	000								
A 100	698.91	699.06	012	000								
A 100	699.06	699.82	046	000								
A 100	699.82	701.04	025	000								
A 100	701.04	703.17	201	108								
A 100	703.17	705.31	214	212		2.96						
A 100	705.31	708.36	305	242		2.96						
A 100	708.36	711.40	304	271								
A 100	711.40	714.45	305	250								
A 100	714.45	717.50	305	305								

A UMM					RQD		SP.GR.						
A TYP					C%		SG						
A MTH					3-8		WEIGH						
A LAB					FLD		FLD						
A MIN					0.02	0.07	6.24	-0.02	-0.01	0.39	-0.10	-0.10	9.49
A	100	717.50	720.55	305	208								
A	100	720.55	723.60	305	140								
A	100	723.60	726.95	335	264								
A	100	726.95	730.00	305	239		3.45						
A	100	730.00	733.35	335	236								
A	100	733.35	736.70	335	245								
A	100	736.70	739.75	305	300								
A	100	739.75	742.80	305	206								
A	100	742.80	745.85	305	230								
A	100	745.85	748.89	304	248		2.99						
A	100	748.89	751.94	305	171								
A	100	751.94	754.99	305	216								
A	100	754.99	758.04	305	234								
A	100	758.04	761.08	304	241								
A	100	761.08	764.13	305	218								
A	100	764.13	767.18	305	181		2.95						
A	100	767.18	770.23	305	240								
A	100	770.23	773.28	206	279								
A	100	773.28	776.32	290	207								
A	100	776.32	779.07	240	133								
A	100	779.07	782.12	305	225								
A	100	782.12	785.16	304	285								
A	100	785.16	786.51	335	230								
A	100	788.51	786.55	004	000								
A	100	788.55	789.13	058	000		2.92						
A	100	789.13	791.57	244	170								
A	100	791.57	794.61	304	302								
A	100	794.61	797.04	243									
A	100	797.04	797.65	62	94								
A	100	797.66	800.71	305	213								
A	100	800.71	801.32	53	0								
A	100	801.32	803.76	240	185								
A	100	803.76	806.81	285	100								
A	100	806.81	809.85	259	251								
A	100	809.85	811.65	167	111								
A	100	811.65	812.90	119	72								
A	100	812.90	814.43	153	78								
A	100	814.43	816.25	177	86		2.81						
A	100	816.25	819.00	275	130								
A	100	819.00	822.05	298	196								
A	100	822.05	824.79	271	120								
A	100	824.79	827.84	305	223								
A	100	827.84	830.88	284	158								
A	100	830.88	833.93	303	268								
A	100	833.93	836.98	305	199		2.78						
A	100	836.98	837.59	25	20								
A	100	837.59	838.58	91	62								
A	100	838.58	841.55	297	216								
A	100	841.55	844.60	299	246								
A	100	844.60	847.95	302	256								
A	100	847.95	851.31	326	260								

A UOM				REC		SP.GR.						
A TYP				C%		SG						
A MTH				B-B		WEIGH						
A LAB				FLD		FLD						
A MIN				0.02	0.07	6.24	-0.02	-0.01	0.39	-0.10	-0.10	9.49
A 100	851.31	854.35	304	310								
A 100	854.35	857.40	305	216								
A 100	857.40	860.45	305	256								
A 100	860.45	863.50	305	204								
A 100	863.50	865.33	138	130								
A 100	865.33	867.77	244	217								
A 100	867.77	870.81	304	209								
A 100	870.81	873.86	305	138								
A 100	873.86	876.91	297	224								
A 100	876.91	879.96	301	265		2.78						
A 100	879.96	883.01	296	222								
A 100	883.01	886.05	295	270								
A 100	886.05	887.88	183	153								
A 100	887.88	891.24	316	265								
A 100	891.24	893.37	213	228								
A 100	893.37	896.72	319	278								
A 100	896.72	899.77	305	260								
A 100	899.77	902.82	305	312								
A 100	902.82	905.87	305	282								
A 100	905.87	909.22	322	139								
A 100	909.22	912.57	312	267		2.78						
A 100	912.57	915.92	325	294								
A 100	915.92	918.97	300	285								
A 100	918.97	922.32	315	246								
A 100	922.32	925.37	305	290								
A 100	925.37	928.73	296	242								
A 100	928.73	931.77	299	233								
A 100	931.77	934.82	287	239								
A 100	934.82	937.87	237	168								
A 100	937.87	940.92	294	270								
A 100	940.92	943.97	296	248		2.84						
A 100	943.97	947.01	277	157								
A 100	947.01	950.06	264	35								
A 100	950.06	952.20	177	0								
A 100	952.20	953.72	69	0								
A 100	953.72	955.85	56	0								
A 100	955.85	957.99	116	0								
A 100	957.99	958.90	72	0								
A 100	958.90	959.51	55	0								
A 100	959.51	961.03	71	0								
A 100	961.03	961.34	12	0								
A 100	961.34	962.86	119	50								
A 100	962.86	963.17	18	0								
A 100	963.17	965.00	124	30								
A 100	965.00	966.22	71	17								
A 100	966.22	968.04	163	126								
A 100	968.04	971.40	279	150								

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :81-00069 | COLLAR ELEVATION: 1347.38 | AZIMUTH(DEG) : 180.00 | GEOLOGGED BY : DWH + JER
TOTAL DEPTH/LENGTH : 1042.72 | NORTHING(- IF S): 7002950.00 | VERTICAL ANGLE : -80.00 | DATE (YY/MM/DD): 810606
CORE/HOLE DIAMETER : HQ60 | EASTING (- IF W): 436447.94 | CO-ORD SYSTEM : UTM | PROJECT NUMBER : J-MAIN

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	25.60	180.00	-79.75
2	40.23	171.00	-78.75
3	76.50	160.00	-77.00
4	110.03	156.00	-76.75
5	137.77	156.00	-76.25
6	152.71	153.00	-75.50
7	167.33	152.00	-75.00
8	175.26	151.00	-74.75
9	181.66	151.00	-74.75
10	188.98	157.00	-73.75
11	204.52	156.00	-73.75
12	237.74	151.00	-73.00
13	268.22	150.00	-72.75
14	299.61	150.00	-71.75
15	308.45	152.00	-71.00
16	326.44	152.00	-69.50
17	343.51	151.00	-68.50
18	356.92	150.00	-68.00
19	371.25	151.00	-66.50
20	399.29	151.00	-62.00
21	435.86	150.50	-59.75
22	466.34	153.00	-58.25
23	500.79	156.00	-56.00
24	517.86	155.00	-55.00
25	539.19	156.00	-54.00
26	568.76	157.00	-53.00
27	598.63	156.00	-52.50
28	626.36	150.00	-51.50
29	661.42	145.00	-51.00
30	694.64	148.00	-51.00
31	726.64	154.00	-51.00
32	755.60	154.00	-50.00

33	789.13	156.00	-48.50
34	815.95	154.00	-47.00
35	851.61	153.00	-42.00
36	886.36	155.00	-37.75
37	918.36	162.00	-34.00
38	949.15	162.00	-31.25
39	980.24	160.00	-30.00
40	1027.48	166.00	-26.00

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R HED                  HQ DRILLED FROM 9.0 M TO 171.90 M, NQ DRILLED FROM 171.9 M TO

R HED                  604.11 BQ DRILLED FROM 604.11 TO END OF HOLE.

   F   - I N T E R V A L -   CORE  T- %       TYPI- VAL  TEX-  GRAIN        PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =   .  DEC.PLACE)RECOV-  H M ROCK FYING MIN TURES CHARACS                         H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MT=METRIC FT=FOOTRIC)  ERY     O T      TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  I N T (  . )  D x TYPE  1  2 0M1  1  2 F F C A          1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                         ROCK    FM    RT    TM 0M2 TX TX S C U O CHT     T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                         QUAL   AGE FN- 0 LC- 3     3  4 0    /           2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y  G                         DESIG      VIR   COL             R     C           STRUCTUR-2  A  A  A  A  A  A  A  A  A  A    2   2

R SVY  184.10  184.10        HOLE WEDGED (RETRIEVABLE ) FOR AZIMUTH.
R SVY  303.88  303.88        HOLE WEDGED (RETRIEVABLE)  FOR AZIMUTH.

/          0.00   12.19  12.19             OVER                                    P

/         12.19   51.82  39.63             ARSI    PY SI= LR    0 2 = 2            P  1           V.                    L+
L                                               5A

/ FLT     12.19   17.37   5.18          X ARSI        GG9                          R
L                                               4A

/         17.37   17.86   0.49          X ARSI        SI1 LM    0 2 1 2            R  1 BD       90
L                                               5A

/         17.37   22.85   5.49          X ARSI     PY SI= LR    0 2 = 2            R  1 BD       55 V.                    L+
L                                               5A

/         26.82   51.82  25.00          X ARSI     PY SI= LR    0 2 = 2            R  1 BD       80 V.                    L+
L                                               5A

/ FLT     49.07   49.34   0.27          X ARSI        GG9                          R
L                                               6A

/         51.82   60.42   8.60             BRRM       SN2                 JL2      P                                        8.
L                                               5A                        JK2

/         51.82   52.45   0.63          X SAND           BD     4 4    4           R  3 BD       70 V*                    D)
L                                               6A                                                          V.

/         55.50   57.50   2.00          X SAND                                     R
L                                               6A

/ FAL     60.42   62.79   2.37             FAUL       GG9                          P
L                                               4A

/         62.79  187.45 124.66             ARSI    PY SI= LR    0 2 = 2            P  1           K+                    8*
L                                               5A

/        140.82  150.00   9.18          X ARSI        GG9                          R
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G E O L O G                                JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                        PAGE -  3
                                   DRILLHOLE/TRAVERSE --- 81-DH069 --- (CONTINUED)

K  F   F R O M - T O -   I N T RECOV  MO % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -|- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                             R Q D  AGE EV RO LC TM OM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/       78.05   99.67  21.64             X ARSI    PY SI= LM    0 2 = 2       R  1 BD       90 K+                    8*
L                                              5A

/       99.67  124.70  25.03             X ARSI    PY SI= LM    0 2 = 2       R  1 BD       60 K+                    8*
L                                              5A

/      124.70  140.82  16.12             X ARSI    PY SI= LM    0 2 = 2       R  1 BD       75 K+                    8*
L                                              5A

/      140.82  187.45  46.63             X ARSI    PY SI= LM    0 2 = 2       R  1 BD       90 K+                    8*
L                                              5A
R      140.82  187.45        PYRITE OFTEN OCCURS AS NODULES WHICH IN SOME CASES EXHIBIT
R      140.82  187.45        PRESSURE SHADOW STRUCTURES. PYRITIZATION USUALLY OCCURS IN THE
R      140.82  187.45        SILTY LAMELLAE ALTHOUGH SOME IS DISSEMINATED IN THE ARGILLITE.

/      187.45  196.90   9.45               ARSI CR    SI= // SS 0 1 7 2       P  2 BD       88 <)                    8*
L                                              2A          SC    6
R      187.45  196.90        PY SISSEMINATED, VEINLETS.  BD VARIES 85-90 DEGREES.  MOD.CR

/ FAL  188.50  188.55   0.05             X ARSI CR    SI= BR SS 0 1 7 2       R  2 BD       88 <)                    8*
L                                                     GG6

/      188.55  190.65   2.10             X ARSI CR    SI= // BR 0 1 7 2       R  2 BD       65 <)                    8*
L                                                         SS                     CV         70
R      188.55  190.65        CV ROTATED 45 DEGREES TO BEDDING.

/ FAL  190.65  190.80   0.15             X ARSI CR    SI= BR SS 0 1 7 2       R  2 BD       88 <)                    8*
L                                                     GG6

/      190.80  191.11   0.31             X VEIN                               R                >9
L                                              A

/      191.11  192.00   0.89             X ARSI CR    SI1 BP SC 0 1 7 2       R  2 BD       65 <+                    8*
L                                                        SS //                   CV         75
R      191.11  192.00        ALSO BEDDING PLANE CLEAVAGE.

/      192.00  196.90   4.90             X ARSI CR    SI= // SS 0 1 7 2       R  2 BD       75 <)                    8*
L                                                                                CV         80
R      192.00  196.90        BEDDING VARIES 65-90 DEGREES.  CV PLANE ROTATED 90 DEGREES FROM
R      192.00  196.90        BD.  ALSO BD PLANES CLEAVAGE (C2), AND SLUMP CLEAVAGE.

/      196.90  198.50   1.60               VEIN           BR                  P                >9             B(    B*
L

/      196.90  198.50   1.60             1 ARSI CR    SI=         0 1   2     R                                      D(
L                                              1A

/      198.50  200.50   2.00               ARGL CR    SI+         0 1   2     P                V+
L                                              1A
R      198.50  200.50        ABOUT 2.5% QZ-MICROVEINING.  VERY RUBBLY CORE DUE TO CORING AT
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K  F   F R O M - T O -  I N T RECOV  RL % ROCK TM TM RM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                           R Q U  AGE EV RN LC TM RM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R       198.50  200.50        NEAR BEDDING PLANE ANGLE.  (I.E:  PARALLEL TO SECTION),
R       198.50  200.50        COMPOUNDED BY CLEAVAGES.

/ FAL   200.50  203.00   2.50             ARGL CR    GG7 FR // 0 1   1        P                 <1            6+
L                                              1A               R
R       200.50  203.00        OCCASIONAL LARGE FRAGMENTS INDICATE ROCK IS ARGL.

/ FAL   203.00  206.96   3.96             FAUL CR GP GG9          0 1   2       P                 #2            7+
L                                                N  SI/
R       203.00  206.96        OCCASIONAL LARGE FAULT BRECCIA FRAGMENTS ARE ARGL, BUT INTERVAL
R       203.00  206.96        MAY BE ARSI.

/       206.96  226.75  19.79             ARSI CR    SI= // SS 0 1   2       P  2 BD       70 >)               8*
L                                              1A           LC                  CV       60
R       206.96  226.75        BEDDING PLANE CLEAVAGE ALSO PRESENT.
R       206.96  226.75        CHANGES IN CORE/BEDDING ANGLE DUE TO FOLDING.  INDICATION IS
R       206.96  226.75        GENTLE, OPEN FOLDS WITH DRILLING NEAR NORMAL TO FOLD AXIS.

/ SHR   214.40  214.60   0.20          X ARSI CR    SI= // SS 0 1   2       R  2 BD       90 >)               8*
L                                                   GG3                                   90
R       214.40  214.60        CLEAVAGE LOGGED IS BEDDING PLANE.  OTHER NOT IDENTIFIABLE.

/ FLT   216.60  218.70   2.10          X ARSI CR    SI= // SS 0 1   2       R  2 BD       85 >)               8*
L                                                   GG5                                   85
R       216.60  218.70        CLEAVAGE LOGGED IS BEDDING PLANE.  OTHER NOT IDENTIFIABLE.

/ FAL   226.75  255.42  28.67             ARSI CR    SI=          0 1   2       P                 <(            D*
L                                              1A   GG8

/       226.97  226.99   0.02          X LOST                                   R
L
R       226.97  226.99        GROUND

/       227.99  229.21   1.22          X ARSI CR    SI1 // SC 0 1   2       R  2 BD       70 <(            D*
L                                                       SS LC                   CV       70
R       227.99  229.21        BEDDING PLANE CLEAVAGE.

/       229.21  230.12   0.91          X LOST                                   R
L
R       229.21  230.12        GROUND

/ FLT   232.00  233.00   1.00          X ARSI CR    SI= // SC 0 1   2       R  2 BD       85 <(            D*
L                                                     3 SS LC                   CV       90

/ FLT   236.83  238.50   1.67          X ARSI CR    SI= // SC 0 1   2       R    C1       80 <(            D*
L                                                     3 SS LC                   C2       30

/       240.49  246.00   5.51          X ARSI CR    SI= // SC 0 1   2       R    C1       30 <(            D*
L                                                     5 SS LC                   C2       70
R       240.49  246.00        BEDDING/CORE ANGLE FROM 70-90 DEGREES.  C2 IS BEDDING CV.

/       249.94  250.85   0.91          X ARSI CR    SI=          0 1   2       R                 #3            D*
L
```

```
K  F   F R O M - T O -  L N T RECOV  MO % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                            R Q D  AGE EV WN LC TM QM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/        252.50  254.40   1.90          X ARSI CH    SI=        0 1   2         R                 <(              D*
L                                                       5

/ FLT    255.42  268.53  13.11            ARSI       SI1 // SC                  P  2 BD       60
L                                            1A      GG1 SS                        C1         70
R        255.42  268.53         ALSO BEDDING PLANE CLEAVAGE.

/        266.70  267.61   0.91          X LOST                                  R
L
R        266.70  267.61         GROUND

/ FAL    268.53  270.97   2.44            ARSI       SI1        0 1   2         P  2 BD           <+              D+
L                                            1A      GG9
R        268.53  270.97         OCCASIONAL LARGE FAULT BRECCIA FRAGMENTS INDICATE ARSI.

/        270.97  366.37  95.40            ARSI              LM  1 2 + 2         P  1              K)              D*
L                                            5A

/        321.04  324.52   3.48          X FAUL       GG2                        R                 V)              V*
L                                            5A

/        343.90  344.73   0.83          X FAUL       GG7                        R                 V*
L                                            5G

/          0.00    0.00   0.00          X ARSI              LM  1 2 + 2         R  1 BD       65  K)              D*
L                                            5A
R        270.97  366.37         PYRITE OFTEN OCCURS AS NODULES WHICH MAY EXHIBIT PRESSURE SHADOW
R        270.97  366.37         TEXTURES.

/        366.37  383.59  17.22            BRPM       SN3 B* F*  1       KUS     P  2                              D*
L                                            6A          R*     2     0 JL2

/        372.00  372.62   0.62          X SAND              LM CU 1 I   I       R    BD       70  V*
L                                            5A                 8

/        372.80  373.20   0.40          X SAND                  I K 2 K         R
L                                            6A                 6

/        373.48  383.59  10.11          X ARST              LM  J I 1 J         R  1              V*
L                                            5A

/        383.59  461.18  77.59            ARSI       SI= LM     1 2 2 2         P  1 BD       45           V.
L                                            5A      SN2                                                     K*

/        383.59  387.10   3.51          9 FAUL       QZ4                        R                            V4
L                                            4A      GG6

/        405.00  405.70   0.70          4 FAUL       GG3                        R                 V=
L                                            4A

/        409.15  409.60   0.45          5 FAUL       GG4                        R                 V*
L                                            4A
```

```
 K  F   F R O M - T O -   I N T RECOV  MD % ROCK TO TM GM1 TX TX F C % M ARG    RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
 E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----   --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
 Y  G                         R Q D  AGE EV RO LC TB GM2 TX TX S C D O CHT        2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

 /       414.60  415.86   1.26            8 ARSO           LG    1 3 3 3        R  2
 L                                               5A

 /       426.00  426.40   0.40            7 ARSO 5A        LM CU 1 3 3 3        R  2
 L

 /       461.18  470.65   9.47              ARSI       SN) LM    0 3 1 3        P  1 BD      55 V*       V.       D*
 L                                               4A

 /       468.48  468.71   0.23            9 ARSO           LM    0 3 2 3        R  1 BD      55
 L                                               5A

 /       470.65  497.00  26.35              ARSI       SN1 LM    0 3 1 3        P  1 BD      45 K.       K.       D*
 L                                               5A                                                      K.

 /       476.67  477.73   1.06            6 FAUL       GG3                      R                                 D)
 L                                               4A

 /       480.86  481.89   1.03            7 FAUL       GG2                      R                                 D)
 L                                               4A
 R       470.65  497.00         CARBONATE STAIN SHOWS PINK  COLORATION ON QUARTZ CARBONATE VEINS
 R       470.65  497.00         SUGGESTING CALCITE IS PRESENT.

 /       497.00  529.73  32.73              ARSI       SI+ LM CU 0 1 + 1        P  1 BD      75 K+       K)       D*
 L                                               5A

 /       529.73  534.31   4.58              ARSI       SI) LM    0 1 ) 2        P  1 BB      50 K)       S)       D)
 L                                               5A    SN*

 /       534.31  539.52   5.21              ARSI       SI= LM    0 1 = 2        P  2 BD      45 V)       S)       D)
 L                                               5A    SN)

 /       536.96  537.59   0.63            9 SAND           LM    2 2   2        R  2 BD      45 V+       S)
 L                                               7A              6

 /       539.52  550.70  11.18              ARSI       SI* LM    0 1 + 1        P  1 BD      30 K)       K)       D)
 L                                               5A    SN)

 /       550.44  550.70   0.26            X FAUL       GG3                      R               K1
 L                                               6A

 /       550.70  591.20  40.50              CGCP SC    *C1 MX B* I L 9 D MO3    P               V*                D* D)
 L                                               7A       F*           C LO5

 /       591.20  600.62   9.42              SAND       SH7 G: B* 1 M 3 N KN1    P            D                 MS D*
 L                                               7A    *C+ F*    5     0 LN2                                   J*

 /       591.96  593.14   1.18            8 CGCP       *C= G: B* I M 8 N KL1    R            D                    D*
 L                                               7A       F*    4      C IM7

 /       597.03  598.85   1.82            6 CGCP       *C= G: B* I M 6 O IL=    R            D
 L                                               7A    *B. F*    3     C IO5
```

```
 K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM QM1 TX TX F C % M ARG   RT 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 Y  G                            R Q D  AGE FV RQ LC TM QM2 TX TX S C Q O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

 R        591.20  600.62       MANY ARGILLITE FRAGMENTS ARE SILICIFIED AND HAVE QUARTZ
 R        591.20  600.62       STOCKWORKING.

 /        600.00  600.62   0.62            8 SAND                 I N 2 0 101   R               K)
 L                                            7A                        IN1
 ---------------------------------------------------------------------------------------------------------------------------
 /        600.62  750.20 149.58              CGCP SF    *C= MX B* I L 9 0 M03   P               V*        J.    MS D*
 L                                            7A          F*          C L05                                  J.
 R        600.62  750.20       PYRITE PRIMARILY DISSEMINATED IN MATRIX.

 / FSX    602.00  602.18   0.18            1 CGCP PY    PY9               NL5   R               V1                  M9
 ---------------------------------------------------------------------------------------------------------------------------
 L                                            50                        NL5

 /        603.20  604.11   0.91            X FAUL       GG6                     R
 L                                                                                                                    V1
 R        600.62  750.20        LOCALLY CUT BY POROUS PYRITIC SEAMS.
 ---------------------------------------------------------------------------------------------------------------------------
 /        649.22  652.18   2.96            8 SAND         G;    I L 6 M         R          D                     MS
 L                                            5A                                                                 J2
 R        649.22  652.18       IN SOME INSTANCES THE MATRIX HAS BEEN TOTALLY ALTERED TO
 R        649.22  652.18       SERICITE (?).

 /        668.56  668.67   0.11            X FAUL       GGX                     R
 ---------------------------------------------------------------------------------------------------------------------------
 L

 /        688.85  692.27   3.42            X CGCP       PY2 B* F* I L 6 0 L03   R               >=                  J2
 L                                            7A                        M07
 R        688.85  692.27        PYRITE APPEARS TO HAVE TOTALLY REPLACED THE MATRIX IN SOME
 R        688.85  692.27        INTERVALS.
 ---------------------------------------------------------------------------------------------------------------------------
 /        746.40  750.20   3.80            X CGCP SF    PY2 MX B* I L 9 0 M03   R               V*        J.    MS 62
 L

 / CON    750.20  756.04   5.84              ARSN       SN4 G: (L 0 3 4 3       P  3 BD     D24       V.          D*
 L                                            3A          BD FE 5                                      V(
 ---------------------------------------------------------------------------------------------------------------------------
 /        752.64  754.88   2.24            8 BRBT PY    SN2 R* H*         JN1   R               K)                  B+
 L                                            5A        *C= B* F* 2       JN4
 R        752.64  754.88       MUCH OF THE PYRITE APPEARS TO HAVE REPLACED SAND CLASTS TO FROM
 R        752.64  754.88       BLEBS OF PYRITE.
 ---------------------------------------------------------------------------------------------------------------------------
 /        756.04  762.96   6.92              ARGL CR            0 0             P    BD      50 V*                  D*
 L                                            3A

 /        762.95  832.98  70.02              ARSI       SI+ LM  0 1 + 1         P  1 BD      60 K)        V(        D*
 L                                            4A                8
 ---------------------------------------------------------------------------------------------------------------------------
 / FAL    807.80  809.09   1.29            X FAUL       GGX                     R                                   D)
 L                                            3A
 R        807.80  809.09       FAULT GOUGE WASHED OUT FROM 808.02 TO 809.09.

 /        809.09  816.45   7.36            X ARSI       SI+ LM  0 1 + 1         R  1 BD      60 K)        V(        D*
 L                                                                                                     C)
```

```
K  F   F R O M - T O -  I N T RECOV  MD % ROCK 1M TM GM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                       R Q D  AGE EV NN LC TN GM2 TX TX S C O O CHT        2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/       815.45  829.82  13.37         X ARSI       SI2 G; (L 0 3 + 3       R  1 BD     D60 K)        <.        B)
L                                                      XB FF                                      C)

K OM1   825.00  825.00   0.00

K LM1   826.00  826.00   0.00

/       832.98  847.01  14.03          ARGL        SI+                     P  2 BD      67 <.                  L*
L                                          1A                                 CL        75            C.

/       836.72  836.92   0.20         X FAUL       GG8                     R
L                                          B

/ FLT   837.51  842.37   4.86         X BRXX SF    *86 SS                  R  2 BD      67 #=         #=       6(
L                                          2A SF GG2               JL.        CL        75            C. #-

/       847.01  876.73  29.72          ARSI SF     SI1 SS (L 0 2  2        P    BD     D58 V*         <(       8+
L                                          B           G; FE                                      C.
R       847.01  876.73       PYRITE IN SILT BANDS, AND AS DISSEMINATIONS. QUARTZ AND
R       847.01  876.73       QUARTZ-CALCITE VEINS TERMINATED BY SOFT SEDIMENT DEFORMATION.

/       849.25  849.80   0.55         X BRBT SF          R* H*         N08     R                V(                B*
L                                          3A                          LM2

/       862.74  876.73  13.99         X ARSI SF    SI1 SS (L 0 2  2        R    BD     D58 V*         <(       8+
L                                                                                                 V.               V-
R       862.74  876.73       SULPHIDE MINERALIZATION WITHIN QUARTZ AND QUARTZ-CALCITE VEINS.
R       862.74  876.73       DEGREE OF ARGILLITE SILICIFICATION VARIES.

/ CON   876.73  883.82   7.09          SAND GR           G; SS 2 3 6 3     P    BD      35                     D)
L                                          4A                3                BD      90
R       876.73  883.82       POSSIBLE SANDSTONE CLAST SHOWN BY BEDDING PARALLEL TO CORE.

/       876.73  883.82   7.09         5 ARGL CR SF                         R  4 BD      65                     D?
L                                          B
R       876.73  883.82       MASSIVE ARGL WITH 1MM SILT LAMINATIONS.

/       876.73  883.82   7.09         1 ARSN       SI6 R*    0 1 9 6       R
L                                          2A      *C.        3        JM1
R       876.73  883.82       PYRITE REPLACEMENT OF CHERT CLASTS.

/       883.82  891.59   7.77          BRBM              SC            OP9     P                                   8(
L                                          1A               ) +   C                                 <.
R       883.82  891.59       OTHER CLASTS ARE SANDSTONE.

/       883.82  891.59   7.77         2 ARGL SF CR       MX                    R                                <.  L-
L                                          B                                                      (.
R       883.82  891.59       SEEMS TO BE MATRIX AND POSSIBLY AS CLASTS.

/       883.82  891.59   7.77         1 BRBT       *C+ R*              LN6     R                                   8(
L                                          1A                          LN4
```

```
 K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TO OM1 TX TX F C % M ARG   RT 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 Y  G                                 R O D  AGE EV RN LC IM OM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

 R        883.82  891.59        APPEARS TO BE MATRIX MATERIAL.

 /        891.59  900.95   9.36                ARGL SF CR SI. MX SS                 P                           <. <.
 L                                                                                       CV                        <.
 R        891.59  900.95        OCCASIONAL GRADING UP HOLE SHOWS POSSIBLE LARGE ARGL CLASTS. THE
 R        891.59  900.95        EXISTANCE OF SMALL AMOUNTS OF ARSH AND BRHM IS ADDITIONAL
 R        891.59  900.95        EVIDENCE FOR ARGL CLASTS.

 /        896.25  896.30   0.07              X BRHM                       MN9    R                                   B-
 L                                                1A

 /        900.18  900.33   0.15              X ARSH                 1 2 9 2         R                           <.       B*
 L                                                2A

 /        900.95  957.87  56.92                BRHM S      SI2 SS SC        P19    P                           <. <.    8*
 L                                                1A       *C. R*       )   C MO=                       C. V. V-
 R        900.95  957.87        AT LEAST 90% OF ARGILLACEOUS CLASTS ARE ARSI. LACK OF INTERVAL
 R        900.95  957.87        DEFORMATION WITHIN ARSI CLASTS INDICATES SHORT DISTANCE OF
 R        900.95  957.87        TRANSPORT. BITUMIN WITHIN QUARTZ. CALCITE-SIDERITE VEINS.

 /        909.71  909.95   0.24              X CGCP        *C- R* H*        LO4    R                                   D*
 L                                                2A        F* B*         C LN6
 R        909.71  909.95        PYRITE DISSEMINATED IN MATRIX, AND AS CHERT CLAST REPLACEMENT.

 /        935.30  936.14   0.84              X BRPA                                 R                 >+                D-      B.
 L
 R        935.30  936.14        BLEB OF GALENA OCCURS WITHIN QUARTZ MACROVEIN .

 /        936.32  937.97   1.65              X BRHT        *C. F* H*        NP7    R                                   D*
 L                                                2A        R*              MO3

 /        944.96  946.25   1.27              X BRHT        *C. F* B*        NO8    R                                   D*
 I                                                2A        R* H*           LN2

 /        935.30  957.87  22.57              X BRHM S      SI2 SS SC        PR9    R                           <. <.    8*
 L

 /        941.30  943.95   2.65              X ARSI        SI= SS (L 1 2   3        R  2 BD     U45
 L                                                1A       SN) LP G; 7                                 C.             D)
 R        941.30  943.95        POSSIBLE CLAST. PYRITE DISSEMINATED WITHIN SILT/SAND BANDS.

 /        947.98  951.59   3.61              X ARGL            SS                   R                <.                 D*
 L                                                                                                     C.

 /        957.87  975.32  17.45                BRHT        *C1 H* R*        NP6    P                                   D*
 L                                                1A        F* B*    )      MQ4                        C.

 /        960.27  962.87   2.60              X ARSI            CU (L 1 2 . 3        R  2 BD     D34 <.                O.
 L                                                             FE SS 7                                 C.
 R        960.27  962.87        PROBABLE CLAST.

 /        967.03  971.05   4.02              X BRHT        *C1 H* R*        NP3    R                                   D*
 L                                                2A                  0       7
```

```
K  F   F R O M - T O -  I N 1 RECOV  MD % ROCK TX TX QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                              R Q D  AGE EV KG LC TX QM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/      971.05  972.69   1.64          X ARSI                  1 2   3        R    BD     D60 V*                  D.
L                                                             7                                  C.
R      971.05  972.69        PROBABLE CLAST.
--------------------------------------------------------------------------------------------------------------------------------
/      972.77  973.00   0.23          X SAND            CL SS B F 7 I        R                                   B.
L                                             1A              4

/      975.32  988.60  13.28            BRBM            B*              OR9  P                                   D-
L                                             1A                        MO=                      C.
--------------------------------------------------------------------------------------------------------------------------------
/      975.32  988.60  13.28          1 BRHT       *C. R* F*            MP5  R                                   D(
L                                             5A        B*              L05                      C.

/      963.56  984.46   0.88          X BRHT       *C- R* F*            L02  R                                   D(
L                                             4A        B*              L08                      C.
--------------------------------------------------------------------------------------------------------------------------------
/      984.61  985.68   1.07          X CGCP       *C- R* F*            LN3  R                                   D*
L                                             5A        B*              LN7

/      978.96  979.20   0.22          X BRXX                                 R            >9        >)              B.
L                                              V
R      976.96  979.20        QUARTZ MACROVEIN IN ARGILLITE WITH GALENA CRYSTALS.
--------------------------------------------------------------------------------------------------------------------------------
/      988.60  990.42   1.82            ARSI            SS    1 2   3        P    BD      65                     L*
L                                             1A
R      988.60  990.42        CHANGE IN BEDDING ANGLE AND BRPM SUGGESTS THIS MAY BE A CLAST.

/      990.39  990.42   0.03          X BRPP            R*                   R                                   R)
--------------------------------------------------------------------------------------------------------------------------------
L                                             1A                        LN3

/      990.42 1042.72  52.30            ARSI PY    SI2 SS LR 1 2   3         P  2 BD      37 V-                  L*
L                                             1A   S*. //                            CL      35          C.
R      990.42 1042.72        LAMINATED PYRITE FRAGMENTS FROM 1-4CM ACROSS PERIODICALLY OCCUR.
--------------------------------------------------------------------------------------------------------------------------------
/      997.02 1001.70   4.68          X ARSI PY    SI2 SS LR 1 2   3         R  2 BD      45 V-                  8*
L
R      997.02 1001.70        PYRITE MICROVEINS PRESENT.

/      997.02  997.05   0.03          X BRXX                                 R            #2        #2          #1
L                                             5A
--------------------------------------------------------------------------------------------------------------------------------
R      997.02  997.05        CLEAVAGE STRIKE APPROX. 80 DEGREES FROM BEDDING STRIKE.

/     1001.70 1009.50   7.80          X ARSI PY    SI2 SS LR 1 2   3         R  2 BD      55 V-                  L*
L
R     1001.70 1009.50        CLEAVAGE BECOMES BETTER DEFINED DOWN HOLE.
--------------------------------------------------------------------------------------------------------------------------------
/     1009.50 1019.50  10.00          X ARSI PY    SI2 SS LR 1 2   3         R  2 BD      30 V-                  L*
L

/     1015.38 1015.48   0.10          X SAND CB         G: CL F H 3 H        R  2 BD     D30                     D*
L                                             3A              5
```

```
K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R Q D  AGE EV RN LC TM OM2 TX TX S C O U CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R      1015.38 1015.48       CALCAREOUS CEMENT.

/      1019.50 1025.30   5.80            X ARST PY    S12 SS LR 1 2   3       R  2 BD      40 V-            L*
L                                                                                          25
R      1019.50 1025.30       CLEAVAGE AT 45 DEGREES TO BEDDING STRIKE.

/ SHR 1034.02 1034.17   0.15            X FAUL                                R               >6       >3          D)
L                                            6A
```

```
A UMM                                      RQD            SP.GR.
A TYP                                      CM                 SG
A MTH                                      B-B             WEIGH
A LAB                                      FLD               FLD

R ASY    0.00    0.00    RCOV=RECOVERY(C17-20) IS MEASURED IN CM BLOCK TO BLOCK(B-B)

R ASY    0.00    0.00    RQD=ROCK QUALITY DESIGNATOR(C27-32)MEASURED IN CM BLOCK TO BLOCK

R ASY    0.00    0.00        RQD IS THE TOTAL LENGTH (BETWEEN BLOCKS) OF PIECES OF CORE

R ASY    0.00    0.00        AT LEAST 2-1/2 TIMES DIAMETER OF CORE TO NEAREST CM, DIVIDED

R ASY    0.00    0.00        BY LENGTH OF INTERVAL = BLOCK(TO) MINUS BLOCK(FROM)TIMES 100

R ASY    0.00    0.00    CM INDICATES THAT MEASUREMENTS ARE IN CM'S WHICH ARE TO BE RIGHT

R ASY    0.00    0.00        JUSTIFIED AGAINST THE DOUBLE VERTICAL LINE AT RIGHT MARGIN

R ASY    0.00    0.00        OF EACH FIELD.

R ASY    0.00    0.00    B-B=BLOCK-TO-BLOCK (DRILLERS BLOCKS). ENTER METRAGE OF ONE BLOCK

R ASY    0.00    0.00        AS THE TO OF ANY INTERVAL AND THE METRAGE OF THE NEXT BLOCK.

R ASY    0.00    0.00        ADDITIONAL POINTS (FROM-TO'S) CAN BE ESTABLISHED BETWEEN

R ASY    0.00    0.00        BLOCKS TO BRACKET SPECIFIC INTERVALS OF LOCALIZED POOR

R ASY    0.00    0.00        RECOVERY. B-B IS ENTERED RIGHT JUSTIFIED IN EACH FIELD IN

R ASY    0.00    0.00        THE AMTH HEADER.

R ASY    0.00    0.00    THE FIRST INTERVAL, THROUGH THE OVERBURDEN, WITH ZERO RECOVERY,

R ASY    0.00    0.00        SHOULD BE ENTERED FIRST -- SEE BELOW.

A 100    0.00   12.19    00                  00
R ASY    0.00   12.19       OVERBURDEN
A 100   12.19   14.02   151                  56
A 100   14.02   15.85   149                  22
A 100   15.85   17.37   104                  19
A 100   17.37   18.90   115                  27
A 100   18.90   20.42    94                  00
A 100   20.42   21.64   116                  00
A 100   21.64   22.25    61                  00
A 100   22.25   22.86    42                  00
A 100   22.86   24.38    52                  00
A 100   24.38   25.91    70                  00
A 100   25.91   26.82    75                  00
A 100   26.82   28.04    95                  00
A 100   28.04   28.65    57                  00
A 100   28.65   30.18   144                  00
A 100   30.18   31.70   142                  00
A 100   31.70   33.22   136                  00
```

					RQD	SP.GR.
A UMM						
A TYP					CM	SG
A MTH					B-B	WEIGH
A LAB					FLD	FLD
A	100	33.22	34.75	130	00	
A	100	34.75	35.97	122	33	
A	100	35.97	37.19	122	40	
A	100	37.19	39.01	140	41	
A	100	39.01	40.23	102	30	
A	100	40.23	41.15	90	00	
A	100	41.15	42.67	110	28	
A	100	42.67	44.20	95	00	
A	100	44.20	45.11	91	23	
A	100	45.11	46.33	122	18	
A	100	46.33	47.55	122	20	
A	100	47.55	49.07	127	51	
A	100	49.07	50.29	118	00	
A	100	50.29	51.82	126	00	
A	100	51.82	53.34	92	00	
A	100	53.34	54.86	94	00	
A	100	54.86	56.39	137	00	
A	100	56.39	57.30	36	00	
A	100	57.30	58.83	102	00	
A	100	58.83	60.96	103	00	
A	100	60.96	62.79	116	00	
A	100	62.79	64.31	95	00	
A	100	64.31	66.14	160	00	
A	100	66.14	69.19	120	00	
A	100	69.19	72.24	92	00	
A	100	72.24	74.68	48	00	
A	100	74.68	76.29	47	00	
A	100	76.29	78.03	104	00	
A	100	78.03	79.86	150	18	
A	100	79.86	81.69	172	00	
A	100	81.69	83.52	183	00	
A	100	83.52	85.04	114	00	
A	100	85.04	85.65	61	00	
A	100	85.65	87.17	110	22	
A	100	87.17	88.39	122	00	
A	100	88.39	89.61	122	00	
A	100	89.61	91.14	125	06	
A	100	91.14	92.96	148	19	
A	100	92.96	95.71	275	87	
A	100	95.71	96.62	84	00	
A	100	96.62	98.15	151	09	
A	100	98.15	99.67	152	23	
A	100	99.67	101.19	134	00	
A	100	101.19	102.72	153	00	
A	100	102.72	104.85	200	00	
A	100	104.85	105.77	68	00	
A	100	105.77	107.29	138	00	
A	100	107.29	108.20	89	23	
A	100	108.20	109.73	48	18	
A	100	109.73	111.86	175	29	
A	100	111.86	114.69	245	28	

A	UMM				RQD	SP.GR.
A	TYP				C%	SG
A	MTH				R-R	WEIGH
A	LAB				FLD	FLD
A	100	114.60	116.74	105	00	
A	100	116.74	119.79	202	00	
A	100	119.79	121.92	178	90	
A	100	121.92	123.75	183	18	
A	100	123.75	124.97	107	21	
A	100	124.97	126.19	99	00	
A	100	126.19	127.71	108	00	
A	100	127.71	128.63	75	00	
A	100	128.63	129.84	190	00	
A	100	129.84	130.76	86	00	
A	100	130.76	131.67	84	00	
A	100	131.67	134.11	50	00	
A	100	134.11	136.25	204	76	
A	100	136.25	139.29	304	99	
A	100	139.29	140.82	120	19	
A	100	140.82	141.73	73	00	
A	100	141.73	142.04	23	00	
A	100	142.04	144.17	213	131	
A	100	144.17	147.22	269	186	
A	100	147.22	150.27	270	164	
A	100	150.27	153.31	304	71	
A	100	153.31	155.45	116	53	
A	100	155.45	157.58	211	49	
A	100	157.58	160.93	329	88	
A	100	160.93	163.98	305	231	
A	100	163.98	165.20	122	97	
A	100	165.20	167.03	172	72	
A	100	167.03	170.08	270	150	
A	100	170.08	171.91	183	47	
A	100	171.91	174.35	230	107	
A	100	174.35	174.96	61	53	
A	100	174.96	175.26	15	00	
A	100	175.26	176.48	71	14	
A	100	176.48	177.70	43	00	
A	100	177.70	178.31	29	00	
A	100	178.31	179.22	91	27	
A	100	179.22	179.83	45	00	
A	100	179.83	180.75	91	26	
A	100	180.75	181.05	30	00	
A	100	181.05	181.65	48	30	
A	100	181.65	182.88	96	63	
A	100	182.88	183.49	44	16	
A	100	183.49	184.10	61	34	
A	100	184.10	185.47	00	137	
R	ASY	184.10	185.47	WEDGE GROOVE		
A	100	185.47	185.93	46	26	
A	100	185.93	187.45	46	20	
A	100	187.45	188.06	52	00	
A	100	188.06	188.67	47	00	
A	100	188.67	190.80	79	00	
A	100	190.80	191.11	29	00	

PAN OCEAN OIL LTD.

					RQD	SP.GR.
A UMM					RQD	SP.GR.
A TYP					CM	SG
A MTH					B-B	WEIGH
A LAB					FLD	FLD
A	100	191.11	192.63	109	00	
A	100	192.63	193.85	111	15	
A	100	193.85	194.46	32	00	
A	100	194.46	195.68	105	00	
A	100	195.68	196.90	36	00	
A	100	196.90	199.03	145	45	
A	100	199.03	200.25	87	12	
A	100	200.25	201.47	89	00	
A	100	201.47	202.08	55	00	
A	100	202.08	203.00	48	00	
A	100	203.00	203.91	69	00	
A	100	203.91	206.35	214	00	
A	100	206.35	206.96	61	00	
A	100	206.96	207.87	19	00	
A	100	207.87	208.48	40	00	
A	100	208.48	208.79	29	00	
A	100	208.79	210.31	000	00	
A	100	210.31	210.92	35	00	
A	100	210.92	211.53	50	00	
A	100	211.53	212.45	30	00	
A	100	212.45	212.75	25	00	
A	100	212.75	213.66	89	00	
A	100	213.66	214.58	71	00	
A	100	214.58	215.49	58	00	
A	100	215.49	217.02	92	00	
A	100	217.02	218.54	130	00	
A	100	218.54	220.07	124	18	
A	100	220.07	221.89	157	54	
A	100	221.89	222.50	57	36	
A	100	222.50	223.11	57	00	
A	100	223.11	224.33	66	00	
A	100	224.33	225.25	80	00	
A	100	225.25	226.16	70	00	
A	100	226.16	227.08	71	00	
A	100	227.08	227.99	00	00	
A	100	227.99	228.90	80	00	
A	100	228.90	229.21	18	00	
A	100	229.21	230.12	00	00	
A	100	230.12	230.73	58	00	
A	100	230.73	232.26	147	00	
A	100	232.26	232.87	56	00	
A	100	232.87	234.09	87	00	
A	100	234.09	235.00	84	00	
A	100	235.00	235.92	66	00	
A	100	235.92	236.83	74	00	
A	100	236.83	237.74	83	00	
A	100	237.74	238.96	72	16	
A	100	238.96	240.49	123	00	
A	100	240.49	241.40	84	00	
A	100	241.40	242.01	61	00	
A	100	242.01	243.23	116	00	

A UMM				RQD	SP.GR.
A TYP				CR	SG
A MTH				B-B	WEIGH
A LAB				FLD	FLD
A 100	243.23	244.14	69	00	
A 100	244.14	245.36	116	00	
A 100	245.36	246.58	98	00	
A 100	246.58	247.80	97	00	
A 100	247.80	249.02	96	00	
A 100	249.02	249.94	67	00	
A 100	249.94	250.85	61	00	
A 100	250.85	252.07	98	00	
A 100	252.07	254.20	209	00	
A 100	254.20	255.42	120	00	
A 100	255.42	256.79	124	00	
A 100	256.79	258.17	120	00	
A 100	258.17	258.78	58	00	
A 100	258.78	260.30	126	17	
A 100	260.30	261.21	81	00	
A 100	261.21	263.04	124	00	
A 100	263.04	264.26	71	00	
A 100	264.26	265.18	68	00	
A 100	265.18	265.48	25	00	
A 100	265.48	266.70	20	00	
A 100	266.70	267.61	88	00	
A 100	267.61	268.53	69	00	
A 100	268.53	270.97	220	00	
A 100	270.97	271.58	61	15	
A 100	271.58	271.88	7	00	
A 100	271.88	273.71	122	29	
A 100	273.71	274.62	91	27	
A 100	274.62	276.45	145	14	
A 100	276.45	277.37	91	00	
A 100	277.37	278.59	122	20	
A 100	278.59	280.42	140	46	
A 100	280.42	281.33	91	81	
A 100	281.33	283.46	174	74	
A 100	283.46	286.21	218	71	
A 100	286.21	288.04	152	14	
A 100	288.04	291.08	266	156	
A 100	291.08	294.13	255	249	
A 100	294.13	297.18	271	198	
A 100	297.18	297.48	30	23	
A 100	297.48	300.53	305	270	
A 100	300.53	301.75	107	101	
A 100	301.75	303.89	174	124	
A 100	303.89	305.41	90	90	
A 100	305.41	306.63	80	19	
A 100	306.63	308.15	135	103	
A 100	308.15	309.98	148	128	
A 100	309.98	312.72	217	189	
A 100	312.72	313.33	37	00	
A 100	313.33	314.55	87	19	
A 100	314.55	315.77	110	30	
A 100	315.77	317.91	189	76	

A	UMM				RQD	SP.GR.
A	TYP				CM	SG
A	MTH				B-R	WEIGH
A	LAB				FLD	FLD
A	100	317.91	319.74	163	121	
A	100	319.74	321.56	144	41	
A	100	321.56	322.78	93	00	
A	100	322.78	323.39	61	11	
A	100	323.39	324.31	82	00	
A	100	324.31	325.53	99	33	
A	100	325.53	325.83	21	00	
A	100	325.83	328.57	174	95	
A	100	328.57	329.79	122	53	
A	100	329.79	331.32	100	11	
A	100	331.32	332.23	81	23	
A	100	332.23	333.76	96	00	
A	100	333.76	335.89	211	130	
A	100	335.89	338.94	283	148	
A	100	338.94	341.07	198	101	
A	100	341.07	343.20	191	36	
A	100	343.20	343.81	29	23	
R	ASY	343.51	343.81	GROUND UP BY DRILL.		
A	100	343.81	346.56	275	137	
A	100	346.56	349.00	196	88	
A	100	349.00	350.82	170	102	
A	100	350.82	353.57	275	127	
A	100	353.57	355.70	145	134	
A	100	355.70	359.05	313	284	
A	100	359.05	361.19	214	152	
A	100	361.19	362.71	152	82	
A	100	362.71	364.54	147	71	
A	100	364.54	367.89	302	225	
A	100	367.89	371.25	328	256	
A	100	371.25	373.99	274	209	
A	100	373.99	377.04	293	279	
A	100	377.04	380.09	305	231	
A	100	380.09	381.91	69	28	
A	100	381.91	383.13	108	95	
A	100	383.13	386.18	304	215	
A	100	386.18	387.10	79	11	
A	100	387.10	388.01	86	0	
A	100	388.01	388.62	60	0	
A	100	388.62	389.84	100	20	
A	100	389.84	393.19	304	205	
A	100	393.19	396.54	316	231	
A	100	396.54	396.85	26	11	
A	100	396.85	397.15	00	00	
R	ASY	396.85	397.15	GROUND1		
A	100	397.15	398.07	53	00	
A	100	398.07	398.68	00	00	
R	ASY	398.07	398.68	GROUND2		
A	100	398.68	400.20	105	11	
A	100	400.20	402.03	183	105	
A	100	402.03	403.25	121	24	
A	100	403.25	404.77	129	66	

A UMM				RQD	SP.GR.
A TYP				CM	SG
A MTH				R-R	WEIGH
A LAB				FLD	FLD
A 100	404.77	405.69	92	00	
A 100	405.69	407.21	152	99	
A 100	407.21	408.43	109	11	
A 100	408.43	409.04	57	00	
A 100	409.94	409.96	92	00	
A 100	409.96	411.48	135	24	
A 100	411.48	413.92	215	140	
A 100	413.92	416.65	260	180	
A 100	416.65	417.53	54	00	
A 100	417.58	420.01	227	136	
A 100	420.01	422.75	256	209	
A 100	422.76	425.81	268	195	
A 100	425.81	428.55	274	130	
A 100	428.55	430.68	192	109	
A 100	430.65	433.73	305	274	
A 100	433.73	435.56	183	93	
A 100	435.56	438.61	300	221	
A 100	436.61	439.52	91	31	
A 100	439.52	441.35	157	119	
A 100	441.35	443.79	229	112	
A 100	443.79	445.31	152	140	
A 100	445.31	446.53	102	63	
A 100	446.53	448.06	153	106	
A 100	448.06	449.28	95	72	
A 100	449.28	450.19	71	00	
A 100	450.19	450.80	61	12	
A 100	450.80	451.41	58	13	
A 100	451.41	452.32	70	17	
A 100	452.32	454.15	161	122	
A 100	454.15	455.07	92	59	
A 100	455.07	457.81	244	220	
A 100	457.81	460.25	244	196	
A 100	460.25	462.08	147	111	
A 100	462.08	463.30	122	89	
A 100	463.30	466.04	274	222	
A 100	466.04	468.48	198	118	
A 100	468.48	470.09	152	133	
A 100	470.09	472.14	208	146	
A 100	472.14	474.27	206	115	
A 100	474.27	475.18	91	059	
A 100	475.18	476.40	078	013	
A 100	476.40	477.01	61	000	
A 100	477.01	477.93	069	000	
A 100	477.93	479.45	107	036	
A 100	479.45	480.67	090	000	
A 100	480.67	481.28	051	000	
A 100	481.28	481.89	050	000	
A 100	481.89	483.41	124	056	
A 100	483.41	484.33	070	045	
A 100	484.33	486.16	126	071	
A 100	486.16	486.77	060	014	

A	UMM					RQD	SP.GR.
A	TYP					CM	SG
A	MTH					H-3	WEIGH
A	LAB					FLD	FLD
A	100	486.77	488.59	166		080	
A	100	488.59	491.03	221		085	
A	100	491.03	492.86	168		121	
A	100	492.86	495.91	278		213	
A	100	495.91	498.35	236		164	
A	100	498.35	500.48	194		064	
A	100	500.43	502.92	244		126	
A	100	502.92	505.05	182		117	
A	100	505.05	508.41	326		274	
A	100	508.41	509.93	149		42	
A	100	509.93	511.45	152		66	
A	100	511.45	513.59	203		137	
A	100	513.59	516.64	305		241	
A	100	516.64	517.55	59		00	
A	100	517.55	518.77	120		24	
A	100	518.77	520.29	119		100	
A	100	520.29	521.82	141		32	
A	100	521.82	524.26	244		91	
A	100	524.26	527.30	296		240	
A	100	527.30	527.91	60		45	
A	100	527.91	530.96	247		120	
A	100	530.96	533.70	248		117	
A	100	533.70	533.86	08		00	
A	100	533.86	534.31	00		00	
R	ASY	533.86	534.31		GROUND	11	
A	100	534.31	534.92	44		229	
A	100	534.92	537.67	273		56	
A	100	537.67	539.19	152		00	
A	100	539.19	541.63	187		00	
A	100	541.63	543.76	203		00	
A	100	543.76	546.20	244		105	
A	100	546.20	548.03	161		35	
A	100	548.03	549.55	140		53	
A	100	549.55	551.08	139		18	
A	100	551.08	551.99	76		27	
A	100	551.99	552.30	30		19	
A	100	552.30	552.60	30		31	
A	100	552.60	555.96	316		241	
A	100	555.96	557.48	152		140	
A	100	557.48	560.83	320		301	
A	100	560.83	563.88	305		269	
A	100	563.88	566.62	240		159	
A	100	566.62	569.06	217		71	
A	100	569.06	571.80	260		136	
A	100	571.80	574.85	305		289	
A	100	574.85	577.60	275		178	
A	100	577.60	580.64	304		255	
A	100	580.64	584.00	321		283	
A	100	584.00	587.35	322		264	
A	100	587.35	590.40	305		241	
A	100	590.40	593.75	326		125	

A UMM					RQD	SP.GR.
A TYP					CM	SG
A MTH					B-B	WEIGH
A LAB					FLD	FLD
A	100	593.75	594.36	61	67	
A	100	594.36	594.66	23	23	
A	100	594.66	597.71	305	301	
A	100	597.71	601.07	314	223	
A	100	601.07	603.20	172	106	
A	100	603.20	604.11	80	29	
A	100	604.11	605.64	90	87	
A	100	605.64	608.69	291	228	
A	100	608.69	611.73	304	298	
A	100	611.73	614.78	304	304	
A	100	614.78	617.83	298	281	
A	100	617.83	619.96	171	141	
A	100	619.96	622.71	275	240	
A	100	622.71	624.54	154	107	
A	100	624.54	627.59	326	300	
A	100	627.59	629.41	148	98	
A	100	629.41	633.46	314	248	
A	100	633.46	633.68	22	61	
A	100	633.68	634.90	49	00	
A	100	634.90	636.42	140	99	
A	100	636.42	637.03	28	10	
A	100	637.03	640.08	258	191	
A	100	640.08	641.30	94	57	
A	100	641.30	644.35	305	284	
A	100	644.35	645.26	48	34	
A	100	645.26	646.18	62	35	
A	100	646.18	649.22	226	156	
A	100	649.22	650.75	110	86	
A	100	650.75	652.27	97	49	
A	100	652.27	654.41	186	158	
A	100	654.41	657.45	288	239	
A	100	657.45	660.50	238	166	
A	100	660.50	663.55	270	205	
A	100	663.55	666.60	247	158	
A	100	666.60	669.34	208	82	
A	100	669.34	669.95	58	00	
A	100	669.95	671.17	45	11	
A	100	671.17	672.69	45	19	
A	100	672.69	673.00	31	00	
A	100	673.00	673.91	58	00	
A	100	673.91	676.96	214	178	
A	100	676.96	677.27	29	00	
A	100	677.27	679.28	152	91	
A	100	679.28	680.62	87	53	
A	100	680.62	681.84	82	36	
A	100	681.84	682.45	49	00	
A	100	682.45	682.75	15	00	
A	100	682.75	684.58	110	00	
A	100	684.58	685.07	18	00	
A	100	685.07	685.50	16	00	
A	100	685.50	686.29	67	10	

G E O L O G

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.
DRILLHOLE/TRAVERSE --- 81-DH069 --- (CONTINUED)

A UMM A TYP A MTH A LAB					ROD CM B-S FLD	SP.GR. SG WEIGH FLD
A	100	686.29	688.85	210	45	
A	100	688.85	690.98	85	10	
A	100	690.98	691.90	40	00	
A	100	691.90	692.20	5	00	
A	100	692.20	693.12	34	14	
A	100	693.12	695.55	195	171	
A	100	695.55	698.60	305	249	
A	100	698.60	699.39	7	00	
A	100	699.39	700.00	57	49	
A	100	700.00	703.05	298	279	
A	100	703.05	706.22	298	246	
A	100	706.22	709.27	294	278	
A	100	709.27	712.32	296	282	
A	100	712.32	715.37	298	291	
A	100	715.37	718.41	304	246	
A	100	718.41	719.02	53	30	
A	100	719.02	721.46	244	213	
A	100	721.46	724.51	291	245	
A	100	724.51	727.56	292	251	
A	100	727.56	730.61	289	156	
A	100	730.61	732.00	139	66	
A	100	732.00	733.65	137	54	
A	100	733.65	736.70	287	212	
A	100	736.70	739.75	298	270	
A	100	739.75	742.80	299	272	
A	100	742.80	744.32	152	128	
A	100	744.32	745.85	151	139	
A	100	745.85	748.89	286	219	
A	100	748.89	751.94	252	107	
A	100	751.94	752.55	61	43	
A	100	752.55	754.99	209	146	
A	100	754.99	756.51	135	38	
A	100	756.51	757.12	59	00	
A	100	757.12	760.17	282	138	
A	100	760.17	763.22	305	202	
A	100	763.22	766.42	312	253	
A	100	766.42	768.55	190	117	
A	100	768.55	770.23	135	48	
A	100	770.23	773.28	296	241	
A	100	773.28	776.33	300	234	
A	100	776.33	779.37	297	192	
A	100	779.37	782.42	292	206	
A	100	782.42	785.47	303	216	
A	100	785.47	788.52	305	267	
A	100	788.52	791.57	297	233	
A	100	791.57	794.61	296	209	
A	100	794.61	797.66	301	253	
A	100	797.66	800.71	296	259	
A	100	800.71	801.01	27	00	
A	100	801.01	803.76	273	239	
A	100	803.76	804.57	61	25	

A UMM A TYP A MTH A LAB				ROD CM B-P FLD	SP.GR. SG WEIGH FLD
A 100	804.37	805.28	91	35	
A 100	805.28	806.81	130	39	
A 100	806.81	808.02	115	35	
A 100	808.02	809.09	00	00	
A 100	809.09	809.85	76	00	
A 100	809.85	810.62	34	00	
A 100	810.62	811.68	92	00	
A 100	811.68	813.05	130	17	
A 100	813.05	814.43	138	22	
A 100	814.43	815.80	98	29	
A 100	815.80	816.41	61	00	
A 100	816.41	817.78	137	36	
A 100	817.78	819.00	70	35	
A 100	819.00	821.22	219	69	
A 100	821.22	821.59	37	25	
A 100	821.59	824.79	292	148	
A 100	824.79	825.40	55	00	
A 100	825.40	826.01	41	00	
A 100	826.01	826.47	6	00	
A 100	826.47	827.23	9	00	
A 100	827.23	828.14	53	11	
A 100	828.14	828.45	25	10	
A 100	828.45	829.82	73	00	
A 100	829.82	830.43	11	00	
A 100	830.43	830.58	15	00	
A 100	830.58	831.19	08	00	
A 100	831.19	831.46	06	00	
A 100	831.46	831.49	3	00	
A 100	831.49	831.86	05	00	
A 100	831.86	832.16	28	17	
A 100	832.16	832.23	07	00	
A 100	832.23	832.41	05	00	
A 100	832.41	832.44	03	00	
A 100	832.44	832.59	12	00	
A 100	832.59	832.71	8	00	
A 100	832.71	832.87	9	00	
A 100	832.87	833.20	07	26	
A 100	833.20	833.63	43	11	
A 100	833.63	834.24	33	18	
A 100	834.24	834.54	27	12	
A 100	834.54	834.73	14	00	
A 100	834.73	834.79	3	00	
A 100	834.79	834.88	9	00	
A 100	834.88	834.91	3	00	
A 100	834.91	835.79	79	13	
A 100	835.79	836.68	56	10	
A 100	836.68	837.29	33	00	
A 100	837.29	837.47	9	00	
A 100	837.47	837.74	27	00	
A 100	837.74	838.50	74	00	
A 100	838.50	839.01	7	00	

A UMM A TYP A MTH A LAB				RQD CM R-R FLD	SP.GR. SG WEIGH FLD
A 100	839.01	839.57	6	00	
A 100	839.57	840.18	8	00	
A 100	840.18	840.79	61	00	
A 100	840.79	841.86	93	00	
A 100	841.86	842.01	13	00	
A 100	842.01	842.37	10	00	
A 100	842.37	842.52	4	00	
A 100	842.52	842.82	9	00	
A 100	842.82	843.63	23	00	
A 100	843.63	844.30	27	00	
A 100	844.30	844.45	15	00	
A 100	844.45	844.65	5	00	
A 100	844.65	845.01	7	00	
A 100	845.01	845.16	3	00	
A 100	845.16	845.26	2	00	
A 100	845.26	845.36	3	00	
A 100	845.36	845.67	4	00	
A 100	845.67	846.12	37	00	
A 100	846.12	846.43	10	00	
A 100	846.43	846.73	17	00	
A 100	846.73	846.81	06	00	
A 100	846.81	846.96	8	00	
A 100	846.96	847.01	05	00	
A 100	847.01	847.85	72	00	
A 100	847.85	848.03	18	00	
A 100	848.03	849.17	66	00	
A 100	849.17	849.48	31	00	
A 100	849.48	850.39	73	00	
A 100	850.39	850.85	32	00	
A 100	850.85	851.36	48	00	
A 100	851.36	851.99	28	00	
A 100	851.99	852.27	028	00	
A 100	852.27	852.63	12	00	
A 100	852.63	853.14	51	00	
A 100	853.14	854.20	104	18	
A 100	854.20	854.96	68	00	
A 100	854.96	856.34	117	45	
A 100	856.34	857.55	104	00	
A 100	857.55	858.16	52	13	
A 100	858.16	859.69	153	56	
A 100	859.69	861.21	152	107	
A 100	861.21	861.67	33	22	
A 100	861.67	862.89	111	27	
A 100	862.89	864.54	165	118	
A 100	864.54	864.64	10	00	
A 100	864.64	865.94	118	96	
A 100	865.94	867.56	159	120	
A 100	867.56	868.68	94	19	
A 100	868.68	869.14	45	09	
A 100	869.14	870.61	147	58	
A 100	870.61	871.37	76	26	

				RQD	SP.GR.
A UMM				RQD	SP.GR.
A TYP				CM	SG
A MTH				B-B	WEIGH
A LAB				FLD	FLD
A 100	871.37	872.95	158	86	
A 100	872.95	874.57	162	90	
A 100	874.57	876.30	165	114	
A 100	876.30	877.62	152	88	
A 100	877.62	879.50	164	108	
A 100	879.50	881.18	164	143	
A 100	881.18	882.83	151	79	
A 100	882.83	883.92	30	00	
A 100	883.92	884.22	30	00	
A 100	884.22	884.40	16	00	
A 100	884.40	884.65	9	00	
A 100	884.65	884.85	20	00	
A 100	884.85	886.36	147	39	
A 100	886.36	887.43	97	55	
A 100	887.43	888.95	151	62	
A 100	888.95	890.32	137	92	
A 100	890.32	892.00	168	105	
A 100	892.00	893.47	136	25	
A 100	893.47	894.28	76	58	
A 100	894.28	895.69	141	52	
A 100	895.69	896.57	75	53	
A 100	896.57	897.13	60	00	
A 100	897.13	898.70	140	60	
A 100	898.70	900.23	149	23	
A 100	900.23	901.75	152	67	
A 100	901.75	903.43	166	73	
A 100	903.43	905.01	158	122	
A 100	905.01	906.68	166	125	
A 100	906.68	908.38	159	106	
A 100	908.38	908.61	23	12	
A 100	908.61	910.23	156	85	
A 100	910.23	911.81	150	143	
A 100	911.81	913.33	151	75	
A 100	913.33	913.64	22	00	
A 100	913.64	915.16	152	109	
A 100	915.16	916.89	168	106	
A 100	916.89	917.75	85	35	
A 100	917.75	919.51	169	95	
A 100	919.51	921.18	164	105	
A 100	921.18	923.01	162	139	
A 100	923.01	924.00	98	38	
A 100	924.00	925.53	144	69	
A 100	925.53	927.05	143	74	
A 100	927.05	928.60	155	133	
A 100	928.60	930.13	144	122	
A 100	930.13	931.62	146	77	
A 100	931.62	933.25	163	124	
A 100	933.25	934.97	167	81	
A 100	934.97	936.60	163	88	
A 100	936.60	938.12	148	109	
A 100	938.12	939.24	100	41	

A	UMM				ROD	SP.GR.
A	TYP				CM	SG
A	MTH				R-B	WEIGH
A	LAB				FLD	FLD
A	100	939.24	940.77	150	84	
A	100	940.77	942.29	146	70	
A	100	942.29	943.81	149	109	
A	100	943.81	945.34	146	76	
A	100	945.34	946.86	148	55	
A	100	946.86	948.39	153	64	
A	100	948.39	950.11	166	98	
A	100	950.11	951.87	165	61	
A	100	951.87	953.36	149	27	
A	100	953.36	954.33	86	12	
A	100	954.33	955.70	108	00	
A	100	955.70	957.43	167	65	
A	100	957.43	959.05	162	121	
A	100	959.05	960.58	150	103	
A	100	960.58	962.10	152	122	
A	100	962.10	963.65	155	35	
A	100	963.65	965.40	162	129	
A	100	965.40	967.05	163	100	
A	100	967.05	968.73	167	133	
A	100	968.73	969.72	82	66	
A	100	969.72	971.25	150	100	
A	100	971.25	972.77	144	80	
A	100	972.77	974.29	152	104	
A	100	974.29	975.82	149	105	
A	100	975.82	977.01	110	58	
A	100	977.01	977.42	21	00	
A	100	977.42	978.20	78	30	
A	100	978.20	979.93	157	56	
A	100	979.93	981.61	165	48	
A	100	981.61	983.28	167	72	
A	100	983.28	984.96	145	107	
A	100	984.96	986.49	153	134	
A	100	986.49	988.01	149	122	
A	100	988.01	989.53	150	58	
A	100	989.53	991.06	149	117	
A	100	991.06	992.58	152	103	
A	100	992.58	994.26	164	124	
A	100	994.26	995.96	165	115	
A	100	995.96	997.74	166	127	
A	100	997.74	999.36	152	101	
A	100	999.36	1000.20	63	33	
A	100	1000.20	1001.73	144	9	
A	100	1001.73	1001.88	15	00	
A	100	1001.88	1003.25	102	37	
A	100	1003.25	1006.45	290	207	
A	100	1006.45	1009.12	236	183	
A	100	1009.12	1011.86	274	180	
A	100	1011.86	1013.05	119	71	
A	100	1013.05	1013.61	38	9	
A	100	1013.61	1014.07	46	00	
A	100	1014.07	1015.29	63	00	

G E O L O G

					RQD	SP.GR.
A	UMM				RQD	SP.GR.
A	TYP				CM	SG
A	MTH				B-H	WEIGH
A	LAB				FLD	FLD
A	100	1015.29	1016.20	91	49	
A	100	1016.20	1017.42	114	32	
A	100	1017.42	1018.16	54	00	
A	100	1018.16	1018.24	4	00	
A	100	1018.24	1021.98	251	190	
A	100	1021.08	1022.30	122	36	
A	100	1022.30	1026.26	359	254	
A	100	1026.26	1029.77	351	239	
A	100	1029.77	1032.97	302	282	
A	100	1032.97	1036.62	321	191	
A	100	1036.62	1039.67	305	230	
A	100	1039.67	1042.72	305	172	

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA SIF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE : 81-JJ070	COLLAR ELEVATION: 1296.71	AZIMUTH(DEG) : 171.20	GEOLOGGED BY : JWP + BAO
TOTAL DEPTH/LENGTH : 847.65	NORTHING(- IF S): 7002575.00	VERTICAL ANGLE : -80.10	DATE (YY/MM/DD): 810000
CORE/HOLE DIAMETER : BQ	EASTING (- IF W): 436528.81	CO-ORD SYSTEM : UTM	PROJECT NUMBER : J-82

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	30.00	165.90	-80.53
2	61.00	168.40	-80.30
3	91.00	172.90	-79.73
4	122.00	168.50	-78.50
5	152.00	166.30	-77.10
6	183.00	165.90	-75.65
7	213.00	160.60	-75.50
8	244.00	158.80	-74.77
9	274.00	156.00	-74.02
10	305.00	152.20	-73.43
11	335.00	150.50	-72.18
12	366.00	149.30	-70.37
13	396.00	149.20	-68.42
14	427.00	150.30	-67.95
15	457.00	154.50	-64.18
16	488.00	160.30	-62.45
17	518.00	160.40	-62.35
18	549.00	159.80	-60.82
19	579.00	159.30	-58.42
20	610.00	163.50	-51.73
21	640.00	170.80	-43.53
22	671.00	170.70	-41.83
23	701.00	171.10	-40.47
24	732.00	171.30	-39.50
25	762.00	171.40	-38.92
26	766.54	170.00	-39.50
27	778.72	170.00	-39.00
28	790.96	170.00	-38.50
29	803.15	170.00	-38.50
30	815.34	170.00	-38.25
31	827.53	170.00	-38.00
32	839.72	170.00	-38.00

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  F   - I N T E R V A L -    CORE  T- %       TYPI- MAL  TEX-  GRAIN         PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K L (UNITS =    .  DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                          H  H  H  H  H ANY H  H  H ANY  ALT ORE
F A  (MT=METRIC FT=FOOTRIC)  ERY     O I      TM TM MAT TX TX F C % M ARG   /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y G F R O M - T O -  T H T ( . )     D X TYPE  1  2 OM1  1  2 F F C A           1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- ---  - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K F                          ROCK   FM      RT    TM OM2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E L                          QUAL   AGE FM- O LC- 3      3  4 O    /            2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y G                          DESIG     VTR    COL               R    C            STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2   2
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 K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM OW1 TX TX F C % M ARG   RI 1 ID AZM DIP WZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 Y  G                            R Q D  AGE EV RO LC TM OW2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

 R SVY    0.00    0.00      DATA FROM GX10SCOPIC DIRECTIONAL SURVEY.  THIS DATA IS MOST
 R SVY    0.00    0.00      RELIABLE AND WILL BE USED FOR PLOTTING THE SECTION.
 R SVY    0.00    0.00      SPERRY SUN MULTI-SHOT DATA MERGED WITH GYROSCOPIC SURVEY
 R SVY    0.00    0.00      TO COMPLETE THE SURVEY DATA.

 / OVB    0.00    5.49   5.49              OVER                                P

 /        5.49    9.16   3.67              BRHT          G;            FT8     P                                 D-
 L                                               2           2       C NN1
 R        5.49    9.16      PYRITE REPLACEMENT OF CHERT CLASTS.

 /        9.16   32.92  23.76              BRHM                        MT7     P                                 D*
 L                                               4           2       O LM=

 /       15.30   18.90   5.60            X BRHM                        NP8     R                                 D*
 L                                               4           2       C

 /       27.50   28.86   1.36            X BRHM                        OP8     R                                 D-
 L                                               4           2       C

 /       32.92   50.30  17.38              PRHT                        PT5     P                                 D*
 L                                               4           2       C NO3
 R       32.92   50.30      BITUMEN BLEBS IN SIDERITE VEIN.

 /       50.30   55.10   4.80              BRHM                        OS7     P                                 D-
 L                                               4           2       C MN=

 /       55.10   59.00   3.90              ARSI          // MO 0 3 1 3         P    BD      60                   B(
 L                                               4           8       C

 /       59.00   74.50  15.50              BRHM                        PP8     P                                 D(
 L                                               4                   C NO)                           -<
 R       59.00   74.50      CHERT CLAST WITH EUHEDRAL SIDERITE, SPHALERITE AND PYRITE.

 /       63.40   66.14   2.74            X WEDG                                R

 /       74.50   88.10  13.60              ARSI          //    0 3 1 3         P    BD      60                   (L
 L                                               4           8       C

 /       88.10   96.60   8.50              BRHM                        OS8     P                     <-
 L                                               4           2       C KL*

 /       96.60  118.26  21.66              ARSI          // SS 0 3 0 4         P    BD      60       <-          (L
 L                                               4           8
 R       96.60  118.26      LOWER TWO METERS SHOW INCREASING DISRUPTION TO BRHM CONTACT
 R       96.60  118.26      BELOW. THEREFORE ARST LIKELY A 10 M CLAST.

 /      118.26  120.75   2.49              BRHM                        MO7     P                                 D(
 L                                               4           2         LM+
 R      118.26  120.75      PYRITE REPLACEMENT OF CHERT CLASTS.

 /      120.75  133.30  12.55              CGBR       CH5 H= R=        NM)     P                                 D
 L                                                       F+    5       KN7
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                                                            PAN OCEAN OIL LTD.
G E O L O G                                       JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                      PAGE -  3
                                          DRILLHOLE/TRAVERSE --- 81-DH070 --- (CONTINUED)

K  F   F R O M - T O -  T N T RECOV  MO % ROCK TM TM NM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                                 R Q D  AGE EV RO LC TM NM2 TX TX S C U U CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R       120.75  133.30      10% OF CLASTS SHOW FOOTWALL RELATED ALTERATION (SIDERITE VEINING
R       120.75  133.30      , EUHERAL SIDERITE, EUHERAL UNKNOWN CARBONATE (DOLOMITE?),
R       120.75  133.30      PYROBITUMEN IN DOLOMITE VEINING, CHERT FRAGS WITH LIGHT COLOURED
R       120.75  133.30      RIMS. ANGULAR TO ROUNDED CHERT PEBBLES IN CHERT GRIT SAND. GOOD
R       120.75  133.30      MARKER UNIT.

/       124.36  125.58  1.22            x WEDG                          R

/       133.30  147.40  14.10             BRHM                    OT7   P                                 D(
L                                                                 JL+

/ FAL   140.18  141.70  1.52            x FAUL                          R                                 V=
L
R       140.18  141.70      PYRITIC SHEARED GOUGE.

/       147.40  156.60  9.20              BRHT        CH2 H+ R+   QR2   P
L                                                        F)       7
R       147.40  156.60      CONGLOMERATE FRAGMENTS TO 1.5M, COMPOSITION SIMILAR TO OVERLYING
R       147.40  156.60      CGBR.

/       147.40  149.95  2.55            x CGCP        SN6         LO)   R
L                                                                 LN4
R       147.40  149.95      BLEACHED RIMS, SD VEINING, EUHERAL CARBONATE IN 10% OF PEBBLES.
R       147.40  149.95      PEBBLES FLOAT IN CHERT GRIT WACKE.

/       150.25  150.75  0.50            x CGCP        SN5         LO=   R
L                                                                 LN4

/       153.82  156.60  2.78            x CGCP        SN6         LO=   R                V)       >)
L                                                                 LN3
R       153.82  156.60      INTERVAL COMPOSED OF THREE LARGE CLASTS. (1) ROUNDED TO
R       153.82  156.60      SUBROUNDED PEBBLES IN CLEAN SAND MATRIX CUT BY QZ-SD VEINS,
R       153.82  156.60      (2)ARGILLITE CUT BY QZ-SD VEINS DEFORMED BY DISRUPTION OF
R       153.82  156.60      CLAST AND (3) SUBROUNDED TO SUBANGULAR CHERT PEBBLES IN
R       153.82  156.60      ARGILLACEOUS WACKE MATRIX.

/       156.60  184.64  28.04             BRHM                    OU6   P                                 D*
L                                      3                          MU=
R       156.60  184.64      INTERVAL MATRIX FINES UPWARD FROM BRHT TO A VERY DISTINCTIVE
R       156.60  184.64      SIDERITIZED CHERT SILTSTONE GRANULE WACKE(10% OF CLASTS REPLACED
R       156.60  184.64      BY PYRITE). SOURCING FROM SIDERITIZED ZONE, PYRITE POST DEPOSI-
R       156.60  184.64      TIONAL REPLACEMENT. MINOR SPHALERITE AS CORES TO PYRITE.

/       156.60  170.58  13.98           x BRHM                    OT8   R                                 D*
L                                      3                          KO)

/       170.58  178.00  7.42            x ARSI        SI1 //    0 2 1 2     R                             D*
L                                      3           LC
R       170.58  178.00      INTERNALLY DISRUPTED ARSI INTERPRETED TO BE A FRAGMENT. BOUNDED
R       170.58  178.00      ABOVE AND BELOW BY SIMILAR MATRIX.

/       178.00  184.64  6.64            x BRHT                    OP6   R    BD      50                   D*
L                                      3                          NO1
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                                                         PAN OCEAN OIL LTD.
 G E O L O G                                       JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                      PAGE -  4
                                                  DRILLHOLE/TRAVERSE --- 81-DH070 --- (CONTINUED)

 K  F  F R O M - T O -  I N T RECOV  MD % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
 E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
 Y  G                            R Q D  AGE EV RQ LC IM QM2 TX TX S C G O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA


 /     184.64  255.00  70.36             BRHM                        NP4   P                                D)
 L                                           3                       KL)                                       D-
 R     184.64  255.00     ENTIRE INTERVAL INTERPRETED AS A SINGLE GENETIC UNIT. BASAL
 R     184.64  255.00     UNIT SLUMPED ARSI/ARSD FRAGMENTS IN AN ARGILLACEOUS MATRIX
 R     184.64  255.00     (2 - ). THIS GRADES UPWARD WITH INCREASING % MATRIX AND %
 R     184.64  255.00     CHERT FRAGS AND DECREASING ARGILLITE CLAST SIZE. THIS REPRESENTS
 R     184.64  255.00     A 100M THICK SLUMP GRADING UPWARDS INTO A SEDIMENT FLOW OF
 R     184.64  255.00     INCREASING % MATRIX AS FRAGMENTS BECOME COMINUTED. MATRIX IS A
 R     184.64  255.00     DISTINCTIVE GRIT WACKE OF CHERT AND FG SANDSTONE (QUARTZOSE
 R     184.64  255.00     WITH CARBONATE CEMENT) FRAGMENTS. CHERT IS SELECTIVELY
 R     184.64  255.00     PYRITIZED. MINOR SPHALERITE.

 /     211.53  213.06   1.53           X WEDG                              R

 /     231.04  234.09   3.05           X WEDG                              R

 /     255.00  341.40  86.40             BRHM                        QT7   P                                L*
 L                                           4
 R     255.00  341.40     CHARACTERIZED BY SAND BANDED ARGILLITE FRAGMENTS IN AN ARGILLITE
 R     255.00  341.40     MATRIX. NOTABLE ABSENCE OF CHERT FRAGMENTS.

 /     261.52  262.74   1.22           X WEDG                              R

 /     299.92  301.04   1.12           X WEDG                              R

 / FAL 309.40  314.55   5.15           X FAUL                              R                                V*
 L
 R     309.40  314.55     ZONE OF VERY RUBBLY RECOVERY, LOCALLY CATACLASTIC
 R     309.40  314.55     GRANULAR CHARACTER IN MUDDY MATRIX. BRECCIATED ROCK WITH QZ-
 R     309.40  314.55     CARB FILLING IN UPPER PART.

 /     328.00  341.40  13.40           X BRHM                        QT7   R              V)                L* V*
 L                                           4                                                   V)
 R     328.00  341.40     SECTION CUT BY NUMEROUS SO-QZ-PY (+-PO,CP,SL) VEINS

 /     341.40  371.00  29.60             BRHM                        PS5   P                                D*
 L                                           4                =      NO)                      C-
 R     341.40  371.00     FIVE PERCENT HETEROLITHIC FRAGMENTS OF WEB, FG TO CG SS,
 R     341.40  371.00     SELECTIVELY PYRITIZED. UPPER EXTENT OF CHLORITE COATING IS 350M
 R     341.40  371.00     0.60 WEB FRAGMENT.

 /     371.00  384.00  13.00             BRHM                        ST8   P              V.
 L                                           4                                            C- V.
 R     371.00  384.00     ARST FRAGMENTS, MINOR QZ-CARB-PY VEINING DISRUPTED BY SOFT SED.
 R     371.00  384.00     DEFORMATION OF ARGILLITE IN SLUMP.

 /     384.00  413.00  29.00             BRAT                        OS7   P                                D*
 L                                           4                       LO2                      C-
 R     384.00  413.00     WEB (SAND TO 8CM CLASTS) VARIABLY DILUTED WITH ARGL FRAG.

 K UDF 384.00  384.00   0.00
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K  F  F R O M - T O -  T N T RECOV  MD % ROCK TN TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R Q D  AGE FV WJ LC TM QM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/     384.00  393.75   9.75          X BRBT                          OS6   R                                D*
L                                          4                         KN2                          C-
R     384.00  393.75        CHERT BX MATRIX FINES UPWARD FROM 4 CM SUBANGULAR CLASTS TO
R     384.00  393.75        4 MM SIZE ANGULAR GRIT. ARGILLITE FRAG CROSSCUT BY 10 CM BX ZONE
R     384.00  393.75        OF FE DOLOMITE (CG) MATRIX. PY REPLACES CHERT FRAG

/     393.75  397.90   4.15          X CGSN       SN6       J M 3 N NO4    R
L                                          4A               B    C                                C-
R     393.75  397.90        SIMILAR TO ABOVE FLOW VERY WELL SORTED FINE GRIT TOP
R     393.75  397.90        CORRELATES WITH CGXX AT 307.65M IN DDH 68.

/     413.00  425.36  12.36            BRBM                          OR6   P                          C-       D*
L                                          4A                        JM2

/     421.84  423.36   1.52          X WEDG                                R

/     425.36  447.14  21.78            BRBT       SN2 H)             OS3   P                          C- V.    D*
L                                         5A      CH+                LO6                                  V)

/     428.91  429.16   0.25          X FAUL       GG9                      R                                   D=
L                                         3A

/     431.02  431.68   0.66          8 SAND          G:     I K 3 L        R              U
L                                         5A

/     439.14  447.14   8.00          7 SAND          G:     I K 4 M        R              U
L                                         5A

/     442.26  443.78   1.52          X WEDG                                R

/     447.14  464.98  17.84            BRBT       SN1                OS8   P                               B)
L                                         5A               2         KL1                          C- <(

/     461.16  462.68   1.52          X WEDG                                R

/     464.98  479.27  14.29            BRBM       SN+                OQ9   P                             <*       B)
L                                         5A               2         JM=                          C(                V.

/     464.98  469.23   4.25          X BRBM CG    SN+                OQ9   R
L                                         4A               2         JM=                          C(

/     479.27  485.90   6.63            BRBT       SN=                NO6   P                            U(        B)
L                                         5A               3         KN3                          C-
R     479.27  485.90        SOME ARGILLITE FRAGMENTS SHOW ALTERATION TO CALCITE PROBABLY
R     479.27  485.90        A PSE-DEPOSTIONAL FEATURE TSANSPORTED INTO THE AREA.

/     483.41  484.93   1.52          X WEDG                                R

/     485.90  505.00  19.10            BRBM                          OS9   P                                B*
L                                         7                3 )       MN*                          C(
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K  F  F R O M - T O -  I N T RECOV  MO % ROCK TM TM QM1 TX TX F C % M ARG   RT 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R N D  AGE EV AU LC TM QM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R       485.90  505.00      CLASTS OF WHITE ANGULAR CHERT SHOW DEPOSITION WHILE STILL SOFT
R       485.90  505.00      SLUMPAGE OF FRAGMENTAL PRE-CONSILIDATION.

/ FAL   505.00  511.50   6.50            FAUL                            P              V)
L                                                                                           C(
R       505.00  511.50      ZONE OF POOR RECOVERY. RUBBLY ARGILLITE, QTZ VEINED CHERT
R       505.00  511.50      BRECCIA.

/       511.50  548.83  37.33            BRHT         SN) F+ H+        PS3  P                C(         B*
L                                             6       Ch2 F+      2    MP5                                  B.
R       511.50  548.83      HETEROGENEOUS MIXTURE OF ANGULAR CHERT (WFB) BRECCIAS AND SANDS
R       511.50  548.83      WITH VARIABLE AMOUNTS OF ARGL AND ARSI BOTH AS 10 CM TO 1 M
R       511.50  548.83      CLASTS AND ARGILLACEOUS MATRIX. SEVERAL CHERT GRIT UNITS
R       511.50  548.83      NORMALLY GRADED. PY(+-SL) SELECTIVELY REPLACE CHERT IN WFB. WFB
R       511.50  548.83      REP. AQUIFERS FOR BRINE ?

/       548.83  551.85   3.02            CGCP         SN3              LN2  P
L                                                                      LO6

/       551.85  553.80   1.95            SAND            G;                 P
L
R       551.85  553.80      BS AB SEQUENCE

/       553.80  555.45   1.65            CGPS                               P
L
R       553.80  555.45      BCD SEQUENCE

/       555.45  558.44   2.99            CGPS                               P
L
R       555.45  558.44      BCD SEQUENCE

/       558.44  562.00   3.56            CGPS            G; FO         MO1  P
L                                                              4       LN6

/       558.44  559.31   0.87          X ARSI            //                 R
L
R       558.44  559.31      BOUMA SEQUENCE

/       562.00  567.14   5.14            CGPS         SN3 G:           LP2  P
L                                            4A SD           5    O KN6                         D+
R       562.00  567.14      CHARACTERIZED BY WELL ROUNDED ARG PEBBLES & SIDERITIZED MTX FILL

/       562.00  563.00   1.00          X ARSI CR         //                 R
L
R       562.00  563.00      UPPER PORTION OF BOUMA ABCD SEQUENCE SHARP UPPER CONTACT WITH
R       562.00  563.00      SUPERADJACENT FLOW.

/       567.14  607.47  40.33            BRHT         SN+ H+ R)        QT3  P              V*          D*
L                                             6       CH2 F)    2 1    MO3                      V*          D.
R       567.14  607.47      ZONES OF CHERT FRAGMENTS SHOWING IRREGULAR CONTACTS WITH ARGL/
R       567.14  607.47      ARST FRAGMENTS. CHERT ZONES ARE UNSORTED SANDY BRECCIAS WITH
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                                                 PAN OCEAN OIL LTD.
G E O L O G                               JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                    PAGE -  7
                                      DRILLHOLE/TRAVERSE --- 81-DH070 --- (CONTINUED)

K  F  F R O M - T O -  I N T RECOV  RD % ROCK TM TO QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R Q D  AGE EV RQ LC TM QM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R     567.14 607.47     VARIABLE ARGILLACEOUS COMPONENT. DISCONTINUOUS SHALE SEAMS (1-3
R     567.14 607.47     MM) ORIENTED 60-70 DEGREES TO CORE REPRESENT SOFT SED. SHEAR
R     567.14 607.47     PLANES. SD-PY-QZ+-SL VEINS TO 2 CM.

K LDF 607.47 607.47  0.00

/     607.47 613.51  6.04           ARSN      SN3 G; LB 1 3 3 3     P 1 BD     U30
L                                        6        SS LM
R     607.47 613.51     DISCONTINUOUS STARVED RIPPLES TO 1 CM THICK, CONTINUOUS BEDS
R     607.47 613.51     WITH MASSIVE BASE AND LAM. TOPS TO 1CM THICK AND 1MM CONTINUOUS
R     607.47 613.51     SAND LAMINAE INTERBEDDED. APPEARS TO BE OVERBANK DEPOSIT.

/     613.51 617.13  3.62           ARGL      SN1 LM   0 3 1 3      P 0 LM     20
L

/     617.13 623.40  6.27           ARSN      SN3 BD   0 4 3 4      P 3 BD     25 V.              V*
L                                                                                         V*            V*
R     617.13 623.40     SHARP BASE AND TOP SAND BANDS 2 TO 8 CM INTERBEDDED WITH SILTY
R     617.13 623.40     ARGILLITE AND 1-5 MM SAND LAM. SAND BEDS XLAM. SMALL SAND DYKE
R     617.13 623.40     INTO ARGILLITE. NUMEROUS 3-4 CM BLEACHED BAND. OFTEN IMMEDIATELY
R     617.13 623.40     ABOVE SAND BANDS. SD-PY-QTZ VEINS PARALLEL TO BEDDING.

/     623.40 628.15  4.75           ARSI      SN1 BD SS             P   BD     35
L                                        4
R     623.40 628.15     1-3 MM SAND BANDS DISRUPTED BY SOFT SED. CLEAVAGE.

/     628.15 639.17 11.02           BRBM      SN2 SS          NO8   P   BD     55
L                                        4                    LM(
R     628.15 639.17     SLIGHTLY SLUMPED ARSI.

/     639.17 643.20  4.03           ARGL          LM SS 0 1 0 1     P
L                                        4

/     643.20 651.80  8.60           BRBM      SN3 SS          QR6   P   BD
L                                        7                    KL3
R     643.20 651.80     SLUMPED FRAGMENTS OF SAND BANDED ARGILLITE AND GRADED SANDS.
R     643.20 651.80     LOCALLY DERIVED.

/     651.80 670.80 19.00           BRBT      CH3 F1 B1       NP=   P                         D.
L                                            R1               LC4                     D.
R     651.80 670.80     CHERT CLASTS SUBROUNDED TO SUBANGULAR. 10% SHOW ALTERATION RIMS,
R     651.80 670.80     FRACTURES, PYRITE. FRAGMENTS OF WEB WITH SIDERITE MATRIX.

/     655.02 656.54  1.52          X NEOG                       R

/     662.30 663.64  1.34          X ARSN         SS G 0 3 2        R   BD     40
L
R     662.30 663.64     MINOR SEAMS OF PYROBITUMEN IN GRADED SAND. THIN CONGLOMERATE
R     662.30 663.64     BEDS TO 5 CM.

/     670.80 675.80  5.00           ARGL          SS LM 0 2 * 2     P                         *D
L                                        5
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PAN OCEAN OIL LTD.

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 G E O L O G                                JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                           PAGE - 8
                                     DRILLHOLE/TRAVERSE --- 81-DH070 --- (CONTINUED)

K  F  F R O M - T O -  I N T RECOV  MD % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                           R Q D  AGE EV RQ LC TM QM2 TX TX S C U O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R      670.80  675.80      SLUMPED ARGL

/      675.80  679.21   3.41          BRHT                         MN)   P
L                                          5                       LM2
R      675.80  679.21      BEDS TO 10 CM OF GREY CHERT GRIT, LOCALLY WITH PY-QTZ MATRIX
R      675.80  679.21      INTERBEDDED WITH BLACK ARGL +- CHERT GRIT FRAGMENTS. GL-SD BLEB
R      675.80  679.21      IMMEDIATELY BELOW ONE GRIT BED.

/      679.21  680.40   1.19          ARGL           MX    0 0 0 0       P                V)
L                                          3
R      679.21  680.40      DISTINCTIVE BLACK SOOTY ARGL. BEDDING PARALLEL QZ-SD VEINS, 1%

/      680.40  685.19   4.79          BRHM                         OR    P                                  V)   V.
L                                                                                                 V)
R      680.40  685.19      SLUMPED ARGL,ARSI. SD-PY-MINOR GL VEINS, 1%.

/      685.19  694.18   8.99          BRHT SF                      LR6   P
L                                                                  LN)
R      685.19  694.18      DISTINCTIVE LT. GREY PARTIALLY SILICIFIED ARGILLITE. TEXTURALLY
R      685.19  694.18      SIMILAR TO WFB (GRIT TO PEBBLE SIZE, ROUNDED TO SUBANGULAR.
R      685.19  694.18      FRAGMENTS OF WFB, 1%. IRREG. PY-CALCITE PATCHES, PY REPLACEMENT
R      685.19  694.18      OF CHERT CLASTS AND MATRIX.

/      694.18  702.60   8.42          ARGL SF CR     MX    0 5 + 6       P                                  B)
L
R      694.18  702.60      DISTINCTIVE BLACK CARBONACEOUS SHALE WITH 2% THIN (1-2CM) WHITE
R      694.18  702.60      CHERT GRIT BANDS. MINOR DEBRIS SLUMPS INTO VERY EUXINIC SHALES.

/      702.60  729.36  26.76          BRHM       SN3 SS                  P                                  D)   B*
L                                                *C)                                                        L)   B*
R      702.60  729.36      SLUMPED FRAGMENTS OF SAND BANDED ARGILLITE (SAND BANDS TO
R      702.60  729.36      20 CM,AV. 2-4) TO SEVERAL METERS MIXED WITH MINOR WFB CLASTS
R      702.60  729.36      TO 10 CM. LOCAL VFG BANDS OF PO-PY TO 5CM, BLEBS OF PO-GL-QZ,
R      702.60  729.36      NODULES OF PO: ALSO IN SMALL SLUMP A 4 CM CLAST OF GL-SL
R      702.60  729.36      WITH PY RIM.

/      729.36  741.95  12.59          BRHM SF        LM            SU9   P                V=                B=   B)
L                                                                  JK1                                           B*
R      729.36  741.95      90% ARST FRAGMENTS TO 2.5M IN ARGILLACEOUS CHERT GRIT MATRIX
R      729.36  741.95      SHOWING WIDESPREAD REPLACEMENT BY PY,GL,SL,CALCITE. MATRIX %
R      729.36  741.95      INCREASES DOWNSECTION. SILICIFICATION INCREASES DOWN SECTION
R      729.36  741.95      TOWARDS ORE ZONE TO TIGHTLY INDURATED. SPOTTED EUHERAL GREY 1MM
R      729.36  741.95      UNKOWN MINERAL REPLACES 30% OF LOWERMOST SECTION. 3% MILKY
R      729.36  741.95      QUARTZ VEINS WITH MINOR CALCITE.

/      741.95  742.75   0.80          CGBR SF    *C9 F* H*               P                                  B1
L                                                    R*            LM9                                           B)
R      741.95  742.75      WFB WITH CRACKLE FRACTURE, BLEACHED AND PYRITIC RIMS, PY AND SL
R      741.95  742.75      REPLACEMENT OF CLASTS AND MATRIX.

K US1  742.75  742.75   0.00
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K  F  F R O M - T O -  I N T RECOV  MO % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 1D AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R Q D  AGE EV RO LC TM QM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/      742.75  744.75  2.00             LMSX SL GL     LM FR               P   RD      30 L2        L1 L1    M2    L=
L                                            PY CB     RD F9                                                       L1
R      742.75  744.75     30 CM CAP OF MASSIVE COLLIFORM PY AT TOP. INCREASING ARGILLITE
R      742.75  744.75     DOWNWARDS THROUGH MASSIVE BANDED SL-GL, LAM. CA-GL-SL, LAM CHERT
R      742.75  744.75     -SL-GL TO LAM CHERT -ARG. 2% QZ-CH VEINS.

/      744.75  749.30  4.55             BNSX SL GL     BN LM               P              L2        L2 L=          L=
L                                            CH BA        F9                                                       L2
R      744.75  749.30     YELLOW TO ORANGE BROWN SL, BANDED WITH CA OR LAM WITH CHERT.
R      744.75  749.30     NO ARGILLITE . <1% IRREG. CA VEINS.

/      749.30  754.78  5.48             LMSX SL        LM BD               P              L3 V)     Q+             V)
L                                                         F9                                                       L=
R      749.30  754.78     LAM. ARG-SL-CHERT FOLDED, LOCALLY BX'ED. 5% QZ-CARB-FL-SERICITE?
R      749.30  754.78     CROSSCUT CARB-GL VEINS AND PATCHES (2%) THAT INTURN CROSSCUT
R      749.30  754.78     THE LAM SULPHIDES AND CHERT. THE FORMER SHOW BLEACHED - GREY
R      749.30  754.78     ALTERATION CROSSCUT BY VEINS OF GREEN CHLORITE, FL AND WHITE
R      749.30  754.78     V. SOFT MINERAL? VENT VEINING?

/      754.78  761.67  6.89             BNSX SL                            P   LM  50     M3                 B+    L+
L
R      754.78  761.67     SPOTTED REPLACEMENT BY DARK QZ CLUSTERS (TO 7 MM) LOCALLY.

/      761.67  764.91  3.24             CGBR       *C9                     P                                 Q1
L                                                                   KM9
R      761.67  764.91     BEDS TO 15 CM OF MASSIVE BLACK CHERT XCUT BY FRACTURES WITH
R      761.67  764.91     GREY SELVAGES (SOURCE OF BLEACHED RIM CLASTS?) INTERBEDDED
R      761.67  764.91     WITH CHERT SEDIMENTARY BX BEDS TO 2M. CHERT BX DERIVED FROM
R      761.67  764.91     ADJACENT CHERT BEDS. SOURCE OF HYDROTHERMAL CHERT FRAGS!

/      762.26  762.53  0.27           X LMSX SL BA     LM                  R   LM  35     L4           L1    Q1
L                                            QZ                                                                    L5

/      764.91  769.65  4.74             BNSX SL QZ     LM FR               P   LM  50     M            L1    Q1    L1
L                                            BA PY                                                                 L+
R      764.91  769.65     PY REPLACEMENT OF ORIGINAL SL-BA LAMINATIONS. 6 CM FRAGMENTAL
R      764.91  769.65     CHERT BX BED DIRECTLY OVERLYING CHERT BED. INTERESTING THAT
R      764.91  769.65     COLLIFORM PY REPLACES SULPHIDES AT TOP AND BOTTOM OF ORE ZONE.

K LS1  769.65  769.65  0.00

/      769.65  773.95  4.30             LMSX PY BA     LM FR               P   LM      40 V)        V)       B1
L                                            CR
R      769.65  773.95     BLACK CARBONACEOUS ARGILLITE TO .7M INTERBEDDED WITH L+ ZONES
R      769.65  773.95     OF LAM. BA-PY-SL AND BA-PY. WHITE SPOTTED ALTERATION IN ARG
R      769.65  773.95     ASSOCIATED WITH LAM BA-PY ZONES. THIS IS A GOOD CORRELATABLE
R      769.65  773.95     UNIT SEEN IN 81-68 AND 81-68A AS WELL.

/      773.95  786.62  12.67            BRHM CR PY *C1 DB FR               P              V(        V(       D1    V.
L
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K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                           R N D  AGE EV RG LC TM OM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R       773.95  786.62       INTERBEDDED ARG-CHERT CLAST SLUMPS. ARGL WITH LAM FRAMBOIDAL PY
R       773.95  786.62       BEDS OF CGBR TO 20 CM. SLUMPS WITH >20% CHERT FRAGS HAVE
R       773.95  786.62       REPLACEMENT BY PY TO 30%.

/       773.95  776.30  2.35           X ARGL CR        GX LG          08)8  R    LM       30 V)        V.        X)
L
R       773.95  776.30       EUXINIC CONDITIONS IMMEDIATELY PRIOR TO DEBOUCHING OF UPPER
R       773.95  776.30       SULPHIDE ZONE. QZ-CA VEINS LIKELY TECTONIC TENSION FRACTURES
R       773.95  776.30       DIFFUSE PY BANDS TO 3 CM.

/       786.62  792.18  5.56             ARSI PY CR             0 3 1 3     P    LM       45
L
R       786.62  792.18       DIFFUSE PY BANDS TO 3 CM, FRAMBOIDAL LAMINAE OF PY. > PY DOWN
R       786.62  792.18       SECTION.

K US2   792.18  792.18  0.00

/       792.18  794.24  2.06             BNSX PY GL     FR LM               P    BD       40 V+              L)     Q2     Q=
L                                                                                                                          L)
R       792.18  794.24       BLEBS AND LAYERS OF COLLIFORM PY, GL REPLACES PY LOCALLY. BOTH
R       792.18  794.24       CROSSCUT SL-BA LAM. 70% ARGILLITE. HI GL/SL.

/       794.24  795.25  1.01             BNSX BA SL CH1 LM F9               P    LM       60                 L4     L)     L=
L                                               GL PY                                                                      L=
R       794.24  795.25       > GL UPWARDS.

/       795.25  802.52  7.27             LMSX BA SL CH6 LM                  P    LM       70                 L+     L)     V)
L                                                                                                                          L+
R       795.25  802.52       VERY RHYTHMIC 0.5 TO 2 CM GREY CHERT BEDS INTERBEDDED WITH
R       795.25  802.52       2-3 CM BANDS OF LAM SL-BA. % CH BEDS > DOWNSECTION. 5% QZ
R       795.25  802.52       TENSION FRACTURES IN CHERT.

/       802.52  806.70  4.18             BNSX GL SL CH3 LM                  P    BD       45                 L)     Q)     Q2
L                                                                                                                          L1
R       802.52  806.70       HIGH GRADE ZONE. GL AS CG PATCHES TO 20 CM FG MASSIVE LAM ZONES
R       802.52  806.70       TO 25 CM, WITH INTERBEDDED RHYTHMIC 1-2 CM GREY CHERT BEDS AND
R       802.52  806.70       2-5 CM ZONES OF LAM RED SL AND CHERT.

/       803.13  803.91  0.78           X MSSX GL CH CH2                     P                                Q3            Q3
L
R       803.13  803.91       MOTTLED GL-CARBONATE. PROXIMAL VENT TEXTURE.

/       806.70  807.60  0.90             BNSX BA SL CH1                     P    BD       40                 L2            Q+
L                                                                                                                          L1

/       807.60  808.61  1.01             LMSX SL PY CH6                     P    BD       50                        D)     D.
L                                                                                                                          L=
R       807.60  808.61       BA-SL LAM 1-4 CM ZONES INTERBEDDED WITH 1-4 CM GREY CHERT BEDS.
R       807.60  808.61       1% QZ TENSION FRACTURES IN CHERT WITH FG TOURMALINE WEEDLES &
R       807.60  808.61       AGGREGATE CLUSTERS.

/       808.61  809.53  0.92             LMSX BA SL CH5 LM                  P    BD       45 V)              L4     L+     D.
L                                                                                                                          L+
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K  F   F R O M - T O -   I N T RECOV   MO % ROCK TM TM OM1 TX TX F C % M ARG    RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----    --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                              R Q D  AGE EV RG LC TM OM2 TX TX S C U O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R        808.61  809.53        BA-SL LAM REP SULPHIDE-SULPHATE ALTERNATING PPTE SEPARATED
R        808.61  809.53        BY HOMOGENEOUS SILICA (+-PY) PPTE. QZ VEINS WITH TOURMALINE.
R        808.61  809.53        IF SWEATED FROM ROCK DURING TECTONISM, REFLECTS HI BORON IN HOST
R        808.61  809.53        ROCK. SPOTTED ALT. MIN. IN CHERT.

/        809.53  810.43  0.90          LMSX BA SL CH5 LM                P    BD      40 V)           L4    L+    D.
L                                                                                                               L+

/        810.43  811.40  0.97          LMSX BA SL CH5 LM                P    BD      20 V)           L4    L+    D.
L                                                                                                               L+

/        811.40  812.25  0.85          LMSX BA SL CH5 LM                P    BD      25 V)           L4    L+    D.
L                                                                                                               L+

/        812.25  813.21  0.96          LMSX BA SL CH5 LM                P    BD      40 V)           L4    L+    D.
L                                                                                                               L+

/        813.21  814.12  0.91          LMSX BA SL CH5 LM                P    BD      50 V)           L4    L+    D.
L

/        814.12  815.12  1.00          LMSX BA SL CH5 LM                P    BD      40 V)           L4    L+    D.
L                                                                                                               L+

/        815.12  815.86  0.74          LMSX BA SL CH5 LM F9             P    BD      40 V)           L4    L+    D.
L                                                                                                               L+

/        815.86  818.66  2.80          LMSX BA SL CH5 LM                P    BD      40 V)           L4    L+    D.
L                                                                                                               L+

/        818.66  827.25  8.59          LMSX SL PY CH9 LM F8             P    BD      40 V+           L1    D)    L)
L                                                                                                               L+
R        818.66  827.25        QZ-CARB-TOURMALINE TENSION FRACTURES (1%)  AND LOCALLY
R        818.66  827.25        IRREGULAR 2CM VEINS/PATCHES WITH PYRITIC HALO. MORE CHERT RICH
R        818.66  827.25        TOWARD BASE.

/        827.25  831.37  4.12          LMSX SL PY                       P    BD      60              L+    L+    G.
L                                          CR                                                                   L+
R        827.25  831.37        60% ARGILLITE, SL-PY-BA, SL-BA AND PY LAM. SL DARK RED BROWN.
R        827.25  831.37        DIFFUSE PY BANDS TO 3 CM.

K LS2    831.37  831.37  0.00

/        831.37  843.81  12.44         ARGL PY             0 3 0 =      P    BD      40 V.                 L*
L                                                                                                               V)
R        831.37  843.81        LIGHT GREEN-BROWN F.G. BANDS TO 3 CM OF UNKOWN COMP, 2%

/        843.81  847.65  3.84          CGBR PY     CH5                  P
L
R        843.81  847.65        CHERT BRECCIA FRAGS IN CHERT SAND. MATRIX 20% F.G. PY,
R        843.81  847.65        SULPHIDE - CHERT CLAST SLUMP.
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					RQD	SP.GR.
A	UMM				RQD	SP.GR.
A	TYP				CM	SG
A	MTH				B-B	WEIGH
A	LAB				FLD	FLD
R	ASY	0.00	0.00	RCOV=RECOVERY(C17-20) IS MEASURED IN CM BLOCK TO BLOCK(B-B)		
R	ASY	0.00	0.00	RQD=ROCK QUALITY DESIGNATOR(C27-32)MEASURED IN CM BLOCK TO BLOCK		
R	ASY	0.00	0.00	RQD IS THE TOTAL LENGTH (BETWEEN BLOCKS) OF PIECES OF CORE		
R	ASY	0.00	0.00	AT LEAST 2-1/2 TIMES DIAMETER OF CORE TO NEAREST CM, DIVIDED		
R	ASY	0.00	0.00	BY LENGTH OF INTERVAL = BLOCK(TO) MINUS BLOCK(FROM)TIMES 100		
R	ASY	0.00	0.00	CM INDICATES THAT MEASUREMENTS ARE IN CM'S WHICH ARE TO BE RIGHT		
R	ASY	0.00	0.00	JUSTIFIED AGAINST THE DOUBLE VERTICAL LINE AT RIGHT MARGIN		
R	ASY	0.00	0.00	OF EACH FIELD.		
R	ASY	0.00	0.00	B-B=BLOCK-TO-BLOCK (DRILLERS BLOCKS). ENTER METRAGE OF ONE BLOCK		
R	ASY	0.00	0.00	AS THE TO OF ANY INTERVAL AND THE METRAGE OF THE NEXT BLOCK.		
R	ASY	0.00	0.00	ADDITIONAL POINTS (FROM-TO'S) CAN BE ESTABLISHED BETWEEN		
R	ASY	0.00	0.00	BLOCKS TO BRACKET SPECIFIC INTERVALS OF LOCALIZED POOR		
R	ASY	0.00	0.00	RECOVERY. B-B IS ENTERED RIGHT JUSTIFIED IN EACH FIELD IN		
R	ASY	0.00	0.00	THE AMTH HEADER.		
R	ASY	0.00	0.00	THE FIRST INTERVAL, THROUGH THE OVERBURDEN, WITH ZERO RECOVERY,		
R	ASY	0.00	0.00	SHOULD BE ENTERED FIRST -- SEE BELOW.		
A	100	0.00	5.49	00	00	
R	ASY	0.00	5.49	OVERBURDEN		
A	100	5.49	6.71	112	69	
A	100	6.71	8.23	145	68	
A	100	8.23	9.75	152	89	
A	100	9.75	11.28	145	20	
A	100	11.28	12.80	133	76	
A	100	12.80	15.85	217	138	
A	100	15.85	18.90	262	152	
A	100	18.90	19.81	45	0	
A	100	19.81	23.47	250	89	
A	100	23.47	26.82	261	158	
A	100	26.82	29.87	292	92	
A	100	29.87	32.92	291	232	
A	100	32.92	35.97	299	169	
A	100	35.97	36.58	40	36	
A	100	36.58	39.01	243	230	
A	100	39.01	42.06	271	169	

					RQD	SP.GR.
A UMM					RQD	SP.GR.
A TYP					CM	SG
A MTH					3-B	WEIGH
A LAB					FLD	FLD
A 100	42.06	45.11	268		155	
A 100	45.11	48.16	294		217	
A 100	48.16	51.21	305		170	
A 100	51.21	54.25	296		204	
A 100	54.25	57.30	287		188	
A 100	57.30	60.35	300		240	
A 100	60.35	63.40	279		232	
A 100	63.40	66.14	00		00	
R ASY	63.40	66.14		WEDGE GROOVE		
A 100	66.14	67.97	115		38	
A 100	67.97	70.41	229		114	
A 100	70.41	72.54	200		164	
A 100	72.54	74.37	175		94	
A 100	74.37	76.81	217		138	
A 100	76.81	77.42	61		00	
A 100	77.42	79.25	168		85	
A 100	79.25	81.69	244		170	
A 100	81.69	82.11	42		14	
A 100	82.11	82.60	49		00	
A 100	82.60	84.73	164		131	
A 100	84.73	87.78	238		176	
A 100	87.78	90.83	305		193	
A 100	90.83	93.27	191		129	
A 100	93.27	93.88	61		81	
A 100	93.88	96.62	271		127	
A 100	96.62	99.36	272		178	
A 100	99.36	100.89	117		13	
A 100	100.89	103.02	213		152	
A 100	103.02	105.16	178		97	
A 100	105.16	106.68	152		85	
A 100	106.68	108.51	151		111	
A 100	108.51	109.12	61		59	
A 100	109.12	110.95	169		107	
A 100	110.95	112.17	122		75	
A 100	112.17	115.21	272		94	
A 100	115.21	118.26	305		166	
A 100	118.26	119.79	153		75	
A 100	119.79	121.31	147		106	
A 100	121.31	121.92	61		57	
A 100	121.92	124.36	221		146	
A 100	124.36	125.58	00		00	
R ASY	124.36	125.58		WEDGE GROOVE		
A 100	125.58	127.10	152		114	
A 100	127.10	128.63	143		95	
A 100	128.63	129.84	89		30	
A 100	129.84	130.45	00		00	
R ASY	129.84	130.45		GROUND		
A 100	130.45	132.59	214		232	
A 100	132.59	134.72	177		84	
A 100	134.72	135.94	122		52	
A 100	135.94	137.16	93		00	

A	UMM				ROD	SP.GR.
A	TYP				CM	SG
A	MTH				B-B	WEIGH
A	LAB				FLD	FLD
A	100	137.15	138.38	122	16	
A	100	138.38	139.29	87	39	
A	100	139.29	141.12	160	60	
A	100	141.12	142.65	138	38	
A	100	142.65	143.87	110	45	
A	100	143.87	145.69	182	167	
A	100	145.69	148.74	305	197	
A	100	148.74	151.79	305	246	
A	100	151.79	154.84	301	208	
A	100	154.84	157.28	223	173	
A	100	157.28	158.50	122	38	
A	100	158.50	159.11	45	00	
A	100	159.11	162.15	284	221	
A	100	162.15	163.98	171	132	
A	100	163.98	167.03	303	280	
A	100	167.03	170.08	305	273	
A	100	170.08	173.13	291	211	
A	100	173.13	174.96	165	165	
A	100	174.96	176.17	120	73	
A	100	176.17	179.22	287	186	
A	100	179.22	181.66	244	208	
A	100	181.66	183.79	203	121	
A	100	183.79	185.01	117	65	
A	100	185.01	186.84	183	143	
A	100	186.84	188.37	137	124	
A	100	188.37	189.59	87	39	
A	100	189.59	191.41	182	183	
A	100	191.41	194.46	305	284	
A	100	194.46	197.51	297	278	
A	100	197.51	200.56	263	181	
A	100	200.56	203.61	305	191	
A	100	203.61	205.44	179	179	
A	100	205.44	208.48	291	239	
A	100	208.48	211.53	305	277	
A	100	211.53	213.06	00	153	
R	ASY	211.53	213.06	WEDGE GROOVE		
A	100	213.06	214.58	152	147	
A	100	214.58	216.41	161	118	
A	100	216.41	218.85	221	215	
A	100	218.85	221.89	304	296	
A	100	221.89	224.94	305	289	
A	100	224.94	227.99	305	324	
A	100	227.99	231.04	305	262	
A	100	231.04	234.09	112	305	
R	ASY	231.04	234.09	WEDGE GROOVE		
A	100	234.09	235.61	137	98	
A	100	235.61	237.13	152	139	
A	100	237.13	240.18	300	262	
A	100	240.18	243.23	305	243	
A	100	243.23	246.28	305	195	
A	100	246.28	249.63	276	232	

					RQD	SP.GR.
A UMM					RQD	SP.GR.
A TYP					CM	SG
A MTH					B-B	WEIGH
A LAB					FLD	FLD
A 100	249.63	252.68	305		332	
A 100	252.65	254.20	151		35	
A 100	254.20	256.95	275		114	
A 100	256.95	258.17	122		0	
A 100	258.17	259.69	152		0	
A 100	259.69	261.52	183		65	
A 100	261.52	262.74	00		00	
R ASY	261.52	262.74		WEDGE GROOVE		
A 100	262.74	264.26	152		153	
A 100	264.26	266.09	155		129	
A 100	266.09	269.14	296		187	
A 100	269.14	269.44	22		22	
A 100	269.44	272.49	190		163	
A 100	272.49	275.54	305		158	
A 100	275.54	278.59	303		251	
A 100	278.59	281.64	304		249	
A 100	281.64	284.68	294		268	
A 100	284.68	287.73	300		294	
A 100	287.73	290.78	302		275	
A 100	290.78	293.83	305		188	
A 100	293.83	296.88	297		282	
A 100	296.88	299.92	301		254	
R ASY	299.92	301.04		WEDGE REAM		
A 100	301.04	302.67	160		150	
A 100	302.67	304.19	144		136	
A 100	304.19	306.93	219		188	
R ASY	306.93	307.23		GRIND		
A 100	307.23	309.98	242		172	
A 100	309.98	311.20	122		00	
A 100	311.20	312.12	25		00	
A 100	312.12	313.33	121		00	
A 100	313.33	313.61	28		00	
R ASY	313.61	314.55		GRIND		
A 100	314.55	316.38	176		52	
A 100	316.38	319.13	275		39	
A 100	319.13	322.17	304		207	
A 100	322.17	323.09	91		00	
A 100	323.09	325.22	213		146	
A 100	325.22	326.75	152		31	
A 100	326.75	329.18	226		127	
A 100	329.18	330.40	65		21	
A 100	330.40	331.01	45		17	
A 100	331.01	332.54	78		00	
A 100	332.54	333.15	61		18	
R ASY	333.15	334.06		GRIND		
A 100	334.06	336.50	122		85	
R ASY	336.50	337.41		GRIND		
A 100	337.41	339.55	214		230	
A 100	339.55	342.60	288		244	
A 100	342.60	345.64	291		200	
A 100	345.64	348.69	304		258	

					RQD	SP.GR.
A	UMM					
A	TYP				CM	SG
A	MTH				B-F	WEIGH
A	LAB				FLD	FLD
A	100	348.69	351.74	280	203	
A	100	351.74	352.96	117	35	
A	100	352.95	355.70	204	143	
A	100	355.70	358.75			
A	100	358.75	361.80	273	229	
A	100	361.80	362.10	27	27	
A	100	362.10	364.54	220	187	
A	100	364.54	367.59	305	268	
A	100	367.59	368.20	54	46	
A	100	368.20	371.25	267	150	
A	100	371.25	372.79	136	83	
A	100	372.79	374.60	127	00	
A	100	374.60	375.21	36	00	
A	100	375.21	376.12	62	31	
A	100	376.12	376.73	45	17	
A	100	376.73	377.95	107	21	
A	100	377.95	379.48	132	51	
A	100	379.48	380.70	79	35	
A	100	380.70	381.61	57	00	
A	100	381.61	382.22	61	00	
A	100	382.22	382.83	9	00	
A	100	382.83	383.44	46	17	
A	100	383.44	383.74	13	00	
A	100	383.74	386.79	271	172	
A	100	386.79	387.10	30	00	
A	100	387.10	390.14	282	224	
A	100	390.14	391.36	101	39	
A	100	391.36	392.58	97	49	
A	100	392.58	395.63	269	194	
A	100	395.63	398.07	183	127	
A	100	398.07	399.29	89	00	
A	100	399.29	400.20	91	41	
A	100	400.20	401.12	90	23	
A	100	401.12	402.64	108	66	
A	100	402.64	403.56	70	24	
A	100	403.56	404.16	38	00	
A	100	404.16	405.99	140	35	
A	100	405.99	406.60	61	75	
A	100	406.60	408.13	123	56	
A	100	408.13	409.96	140	92	
A	100	409.96	412.70	200	193	
A	100	412.70	415.75	231	156	
A	100	415.75	417.27	84	11	
A	100	417.27	418.19	34	00	
A	100	418.19	420.01	73	00	
A	100	420.01	420.93	75	53	
A	100	420.93	421.84	57	00	
A	100	421.84	424.59	98	74	
A	100	424.59	426.11	81	33	
A	100	426.11	427.63	83	00	
A	100	427.63	429.16	67	19	

A UMM A TYP A MTH A LAB				RQD CM B-B FLD	SP.GR. SG WEIGH FLD
A 100	429.16	430.38	59	00	
A 100	430.36	432.51	154	99	
A 100	432.51	434.34	159	68	
A 100	434.34	436.78	162	134	
A 100	436.78	437.69	42	00	
A 100	437.69	438.91	41	00	
A 100	438.91	440.74	23	00	
A 100	440.74	442.26	94	27	
A 100	442.26	445.31	51	19	
A 100	445.31	447.14	98	94	
A 100	447.14	449.58	193	167	
A 100	449.58	452.63	277	256	
A 100	452.63	455.37	183	146	
A 100	455.37	455.68	13	00	
A 100	455.68	456.59	56	00	
A 100	456.59	457.50	61	42	
A 100	457.50	459.03	101	49	
A 100	459.03	461.16	170	110	
A 100	461.16	463.60	65	12	
A 100	463.60	465.12	95	56	
A 100	465.12	466.34	69	13	
A 100	466.34	467.87	91	00	
A 100	467.87	469.09	82	14	
A 100	469.09	469.70	33	00	
A 100	469.70	470.00	14	00	
A 100	470.00	471.83	135	48	
A 100	471.83	472.44	43	13	
A 100	472.44	474.88	110	00	
A 100	474.88	476.71	88	30	
A 100	476.71	477.01	24	00	
A 100	477.01	477.62	31	00	
A 100	477.62	478.23	20	00	
A 100	478.23	479.15	11	00	
A 100	479.15	480.36	65	00	
A 100	480.36	480.85	7	00	
A 100	480.85	481.28	9	00	
A 100	481.28	483.41	181	88	
A 100	483.41	484.63	00	00	
A 100	484.63	486.00	107	72	
A 100	486.00	487.98	105	00	
A 100	487.98	488.29	29	11	
A 100	488.29	489.51	109	00	
A 100	489.51	490.42	57	13	
A 100	490.42	491.03	58	00	
A 100	491.03	492.56	66	00	
A 100	492.56	493.47	77	00	
A 100	493.47	494.69	104	12	
A 100	494.69	495.91	79	17	
A 100	495.91	496.21	19	00	
A 100	496.21	496.82	13	00	
A 100	496.82	497.74	53	00	

A UMM				ROD	SP.GR.
A TYP				CM	SG
A MTH				B-B	WEIGH
A LAB				FLD	FLD
A 100	497.74	499.26	89	00	
A 100	499.26	499.57	19	00	
A 100	499.57	500.66	35	00	
A 100	500.66	501.70	30	00	
A 100	501.70	502.62	32	00	
A 100	502.62	502.92	26	00	
A 100	502.92	503.22	10	00	
A 100	503.22	504.14	20	00	
A 100	504.14	505.05	46	00	
A 100	505.05	505.66	30	00	
A 100	505.66	507.49	118	18	
A 100	507.49	508.41	35	00	
A 100	508.41	509.02	11	00	
A 100	509.02	510.24	42	00	
A 100	510.24	512.37	118	00	
A 100	512.37	513.89	137	124	
A 100	513.89	515.57	161	00	
A 100	515.57	516.94	102	00	
A 100	516.94	518.46	142	65	
A 100	518.46	519.99	148	62	
A 100	519.99	520.60	38	00	
A 100	520.60	522.12	87	28	
A 100	522.12	523.95	153	00	
A 100	523.95	525.48	142	15	
A 100	525.48	527.00	128	24	
A 100	527.00	528.83	147	00	
A 100	528.83	530.35	132	12	
A 100	530.35	531.57	98	00	
A 100	531.57	533.10	123	13	
A 100	533.10	534.31	78	00	
A 100	534.31	535.53	93	14	
A 100	535.53	537.06	121	24	
A 100	537.06	538.58	130	32	
A 100	538.58	540.11	116	52	
A 100	540.11	541.63	147	32	
A 100	541.63	543.15	137	13	
A 100	543.15	544.68	151	96	
A 100	544.68	546.20	101	00	
A 100	546.20	547.73	143	12	
A 100	547.73	549.55	180	104	
A 100	549.55	550.47	92	00	
A 100	550.47	553.52	292	180	
A 100	553.52	556.56	290	144	
A 100	556.56	559.31	273	109	
A 100	559.31	562.36	285	198	
A 100	562.36	564.49	202	73	
A 100	564.49	567.54	297	217	
A 100	567.54	567.84	27	21	
A 100	567.84	570.89	287	168	
A 100	570.89	573.94	301	159	
A 100	573.94	574.24	30	23	

					RQD	SP.GR.
A UMM					RQD	SP.GR.
A TYP					CM	SG
A MTH					B-B	WEIGH
A LAB					FLD	FLD
A	100	574.24	576.99	270	146	
A	100	576.99	578.82	183	78	
A	100	578.82	581.25	221	127	
A	100	581.25	583.69	223	136	
A	100	583.69	586.74	305	134	
A	100	586.74	588.26	152	00	
A	100	588.26	590.40	208	73	
A	100	590.40	593.45	292	219	
A	100	593.45	596.49	304	191	
A	100	596.49	599.54	267	201	
A	100	599.54	601.98	204	174	
A	100	601.98	602.59	61	62	
A	100	602.59	605.03	194	117	
A	100	605.03	607.47	240	166	
A	100	607.47	610.51	278	160	
A	100	610.51	613.56	272	170	
A	100	613.56	615.09	130	00	
A	100	615.09	618.13	270	96	
A	100	618.13	618.44	24	24	
A	100	618.44	619.66	105	28	
A	100	619.66	623.62	348	126	
A	100	623.62	626.97	282	230	
A	100	626.97	630.02	220	125	
A	100	630.02	633.07	285	152	
A	100	633.07	636.12	301	104	
A	100	636.12	639.17	286	104	
A	100	639.17	639.47	30	00	
A	100	639.47	642.52	268	117	
A	100	642.52	644.35	147	56	
A	100	644.35	645.57	75	56	
A	100	645.57	648.61	271	92	
A	100	648.61	651.66	270	155	
A	100	651.66	655.02	333	207	
A	100	655.02	656.23	00	00	
A	100	656.23	657.76	70	12	
A	100	657.76	659.28	152	52	
A	100	659.28	660.91	143	110	
A	100	660.81	664.16	335	120	
A	100	664.16	667.51	222	124	
A	100	667.51	669.65	191	96	
A	100	669.65	671.78	177	48	
A	100	671.78	675.13	316	187	
A	100	675.13	678.79	343	162	
A	100	678.79	681.23	220	67	
A	100	681.23	682.14	91	16	
A	100	682.14	685.19	303	120	
A	100	685.19	687.93	246	157	
A	100	687.93	691.29	240	179	
A	100	691.29	693.12	178	75	
A	100	693.12	696.77	342	203	
A	100	696.77	699.82	299	113	

A UMM					RQD	SP.GR.
A TYP					CM	SG
A MTH					B-B	WEIGH
A LAB					FLD	FLD
A 100	699.82	701.34	149		137	
A 100	701.34	704.70	314		155	
A 100	704.70	708.05	322		130	
A 100	708.05	711.40	318		155	
A 100	711.40	715.06	357		246	
A 100	715.06	718.11	297		88	
A 100	718.11	720.55	224		120	
A 100	720.55	722.99	227		36	
A 100	722.99	724.81	182		80	
A 100	724.81	727.86	299		97	
A 100	727.86	728.47	13		00	
R ASY	727.86	728.47		GROUND 60 CM		
A 100	728.47	728.78	23		00	
A 100	728.78	732.13	335		109	
A 100	732.13	733.35	96		20	
A 100	733.35	736.70	323		191	
A 100	736.70	740.36	354		227	
A 100	740.36	742.49	209		110	
A 100	742.49	745.85	319		167	
A 100	745.85	749.20	320		203	
A 100	749.20	752.55	324		218	
A 100	752.55	753.77	118		50	
A 100	753.77	757.12	294		113	
A 100	757.12	760.78	356		279	
A 100	760.78	764.13	325		214	
A 100	764.13	767.79	366		258	
A 100	767.79	771.14	335		265	
A 100	771.14	773.58	232		114	
A 100	773.58	776.63	296		181	
A 100	776.63	779.68	280		190	
A 100	779.68	783.34	351		161	
A 100	783.34	785.47	212		177	
A 100	785.47	786.99	125		58	
A 100	786.99	788.21	100		00	
A 100	788.21	788.52	31		00	
A 100	788.52	790.35	183		126	
A 100	790.35	793.70	307		147	
A 100	793.70	797.05	303		183	
A 100	797.05	800.40	335		251	
A 100	800.40	801.01	61		48	
A 100	801.01	804.06	305		241	
A 100	804.06	804.67	59		26	
A 100	804.67	807.11	241		133	
A 100	807.11	810.16	298		230	
A 100	810.16	813.21	305		239	
A 100	813.21	816.25	288		205	
A 100	816.25	819.30	305		259	
A 100	819.30	822.35	297		237	
A 100	822.35	825.40	293		206	
A 100	825.40	828.45	295		198	
A 100	828.45	830.28	160		99	

A	UMM				RQD	SP.GR.
A	TYP				CM	SG
A	MTH				B-B	WEIGH
A	LAB				FLD	FLD
A	100	830.26	832.10	173	110	
A	100	832.10	834.54	244	100	
A	100	834.54	835.15	55	00	
A	100	835.15	836.98	164	29	
A	100	836.98	840.33	334	129	
A	100	840.33	843.81	136	32	
A	100	843.81	846.73	292	242	
A	100	846.73	847.65	92	63	

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :	81-DH071	COLLAR ELEVATION:	1253.00	AZIMUTH(DEG) :	18.00	GEOLOGGED BY :	HDG +
TOTAL DEPTH/LENGTH :	108.20	NORTHING(- IF S):	7002550.00	VERTICAL ANGLE :	-49.50	DATE (YY/MM/DD):	810613
CORE/HOLE DIAMETER :	HQ	EASTING (- IF W):	436733.94	CO-ORD SYSTEM :		PROJECT NUMBER :	J-MAIN

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	25.60	16.00	-48.25
2	42.67	16.00	-48.00
3	73.15	17.00	-48.25
4	108.20	15.50	-48.00

R HED DRILL HOLE 81-DH071 WAS DIRECTED AT THE MAIN ORE ZONE BETWEEN

R HED 76-DH011 AND 76ADH013, IN ORDER TO OBTAIN ADDITIONAL

R HED INFORMATION ON PB/ZN/BA/AG GRADES. THE ORE INTERSECTION EXTENDED

R HED FROM 80.36 TO 98.70 METRES, AVERAGING 8.61% ZN, 1.79% PB,

R HED 12.69% FE AND 0.07% BA. THE CENTRE OF THE ORE INTERVAL IS

R HED LOCATED 685 METRES FROM THE ZERO BASELINE AT 1189.3 METRES ABOVE

R HED SEALEVEL. CORE RECOVERY WAS POOR AT 41.5%. BASED ON CORE BEDDING

R HED MEASUREMENTS, THE TRUE THICKNESS OF THE ORE ZONE WAS ESTIMATED

R HED AS 11.5 METRES.

R HED STRATIGRAPHIC CORRELATIONS WERE POSSIBLE USING

R HED THE SANDSTONE MARKER BEDS C, B, A AND 0. THE ORE ZONE IS A

R HED SILICATE HOSTED LAMINATED SULPHIDE THAT HAS UNDERGONE MINOR

R HED DEFORMATION AND BRECCIATION DUE TO SOFT SEDIMENT SLUMP.

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  F   - I N T E R V A L -    CORE  T- %      TYPI- QAL  TEX-  GRAIN        PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K L (UNITS =   .  DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                        H  H  H  H  H ANY H  H  H ANY  ALT ORE
F A  (MT=METRIC FT=FOOTRIC)  ERY    O I      TM TM MAT TX TX F C % M ARG  /RT T ID STK DIP  A  A  A  A  A MIN A  A  A MIN  - - - -
Y G F R O M - T O -  1 N T ( . )    D X TYPE  1  2 QM1  1  2 F F C A          1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K F                          ROCK   FM     RT    TM QM2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E L                          QUAL   AGE FM- Q LC- 3      3  4 O     /          2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y G                          DESIG      VIR   COL             R     C            STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2   2
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R SVY 0.00 0.00 ALL SURVEYS DONE WITH THE SPERRY-SUN

/ OVB 0.00 14.16 14.16 OVER P

PAN OCEAN OIL LTD.

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G E O L O G                               JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                          PAGE - 2
                                    DRILLHOLE/TRAVERSE --- 81-DH071 --- (CONTINUED)

K  F  F R O M - T O -  I N T RECOV  MD % ROCK TX TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R Q D  AGE EV RQ LC TM QM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/ CON   14.16   16.02   1.86             BRH4    CR *S*               MD9   P                                 B*
L                                             3               2       KN+

/ CON   16.02   26.21  10.19             BRHT    CR =C+   F*          MT7   P    FO      35            <(     D*
L                                             3        R*     1       KO2

/ FLT   26.21   26.59   0.38             FAUL       SG7                     P
L

K M/C   26.59   26.59   0.00

/       26.59   27.24   0.65             SAND CR    SN9 // G; 1 3 9 3       P  2 BD     U25            <(     D*
L                                             8     SI1       8

/ CON   27.24   29.88   2.64             BRHT CR                      MT8   P                          <(     R(
L                                             3               2       KO1
R       27.24   29.88      PYRITE LAMINATIONS ARE PRESENT WITHIN ARGILLITE CLASTS.

/ CON   29.88   34.82   4.94             ARSI CR    SN1 // LM 1 3 1 3       P  1 LM       81           <(     L)
L                                             2     SI+       8
R       29.88   34.82      THE LAMINATIONS WITHIN THE ARSI INCREASE IN THICKNESS AND SAND
R       29.88   34.82      CONTENT AT GREATER DEPTHS. IT IS LIKELY THAT THIS SILT BANDED
R       29.88   34.82      ARGILLITE INTERVAL IS A LARGE CLAST DUE TO THE HIGH BEDDING
R       29.88   34.82      ANGLE.

K M/B   34.82   34.82   0.00

/       34.82   36.47   1.65             SAND       SN9 G; // 0 3 ) 5 KM)   P  2 BD     U47            <(     L*
L                                             7     SI+       7       JL=

/ CON   36.47   37.60   1.13             BRHT       SN1 G;            LO4   P                                 D(
L                                             7     *C+ F* B*         KM3
R       36.47   37.60      THERE ARE TWO DISTINCT NORMAL GRADING CYCLES PRESENT IN THIS
R       36.47   37.60      UNIT.

/       36.70   36.80   0.10           9 SAND           G; BD 0 4 2 5       R  2 BD     U45                   D.
L                                                             8

/       37.32   37.60   0.28           9 ARSM       SN1 G; LM               R  2 LM     U48                   D*
L                                                   SI4 //

/ CON   37.60   38.50   0.90             SAND       SN9 G;    0 5 8 6       P                          <.     L(
L                                             7     SI=       7

/ CON   38.50   43.70   5.20             CGBR       *S) G;            MR3   P                                 D*
L                                             5     *C+ F* B* 2   ) C LP4

/ CON   43.70   45.72   2.02             ARSI CR        LM    0 1   0       P  1 LM       40                   L)
L                                             3               2

/       44.16   44.70   0.54           9 CGBR       *C=   F*          LO4   R                                 R*
L                                             4               8       LN4
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K  F  F R O M - T O -  I N T RECOV  RD % ROCK TX TM QM1 TX TX F C % M ARG    RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R G D  AGE EV RJ LC TM QM2 TX TX S C O O CHT        2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/ CON  45.72   47.87    2.15             ARGL CR       MX      0 1   1        P                           <.    B*
L                                             2               1

K M/A  47.87   47.87    0.00

/      47.87   48.98    1.11             SAND          G;      3 4 5 6        P  1 BD      40 <)                  L(
L                                             5               2

/ CON  48.98   51.21    2.23             CGBR CR       G;            M04      P                                 D*
L                                             5               3       KM5

/ CON  51.21   63.54   12.33             ARSI CR    SI=        0 0   0        P                           <(    D(
L                                             2     SN1       1

/ FLT  51.21   54.35    3.14          X ARGL CR    GG4 MX     0 0   0        R                                 D(
L                                             1               1

/      57.75   57.83    0.08          X BRHT     *C+ G; B*             KL2    R                                 B*
L                                             4         R*    5       JK2

/      58.34   58.63    0.29          X SAND CR    SN7 G; XB 0 3 7 4       R  2 BD     U45                      L*
L                                             5     SI*       2
R      58.34   58.63     THIS SANDSTONE CONTAIRS CARBONACEOUS ARGILLITE WITHIN THE MATRIX

/      60.66   61.27    0.61          X ARST CR    SN2 G; BD 0 3 3 3       R  2 BD     U40                      L*
L                                             3     SI)       5
R      60.66   61.27     THE PYRITE OCCURS AS EUHEDRAL TO SUBHEDRAL CRYSTALS. USUALLY IT
R      60.66   61.27     IS ASSOCIATED WITH SAND LAYERS.

/      62.70   63.54    0.84          3 BRHT          FE                    LN3    R                                 B+
L                                             5               5       JK3

/ COU  63.54   68.82    5.28             ARGL       SN( MX                      P  0 LM      40                      D)
L                                                   SI(    LM 2

/      63.54   64.92    1.38          9 BRHT          SS                    MO8    R                           <.    R*
L                                             5               3       KM1

K M/O  66.50   66.50    0.00

/      66.50   66.85    0.35          X BRPM     SN5    B*             JL=    R                                 R=
L                                             5     *C+ R* H* 6       JL2
R      66.50   66.85     THE PEBBLY MUDSTONE HAS A SANDSTONE MATRIX.

/      67.25   67.96    0.71          9 BRHT          BR                    MO7    R                                 #=
L                                             5               3       KM1
R      67.25   67.96     PYRITE IN THE LAST B.R.H.T. APPEARS IN VUGS AS EUHEDRAL, OPEN
R      67.25   67.96     SPACE FILLING CRYSTALS.
R      67.25   67.96     THE LOWER .5 METERS OF THE B.R.H.T. IS SHEARED, INDICATING A
R      67.25   67.96     POSSIBLE FAULT.
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                                                          PAN OCEAN OIL LTD.
G E O L O G                                      JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                      PAGE - 4
                                         DRILLHOLE/TRAVERSE --- 81-DH071 --- (CONTINUED)

K  F  F R O M - T O -  I N T RECOV  MD % ROCK TM TM UM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                         R Q D  AGE FV RG LC TM QM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/ CON   68.82   70.40   1.56             SILT       SI5 G: // 1 3 3 3       P  2 BD     U42             <.    L+
L                                             5     SN3    BD 7
R       68.82   70.40      SEVERAL NORMAL GRADING CYCLES ARE PRESENT IN THIS P.G.I.

/       68.82   69.62   0.80           1 BRHT           G:            LM5   R                                 L+
L                                             5               4       KL2

/ CON   70.40   71.93   1.53             BRHT       SN+               NR8   P                                 B*
L                                             4               2       KM1

/ CON   71.93   78.03   6.10             SILT       SN3       2 3 3 3       P  2 BD      39             <*    <*
L                                             5     SI6 BD XB 8

/ CON   78.03   80.36   2.33             SILT CR    SG4       2 3 3 3       P    BD      65 <)          <*    D*
L                                             1               8

K UM1   80.36   80.36   0.00

/ WET   80.36   81.12   0.76             SAND    PY           1 3 8 6       P  1                        <(    B1    B+
L                                             4               7                                                  B1

/ LSX   81.12   82.48   1.36             LMSX    PY CH8 LM LC         MM(   P  1                              L1    B(
L                                             8                                                                  V1

/ LSX   82.48   84.12   1.64             LMSX SF BA     LM LC               P  1            L6          L1    B+
L                                             78                                                                 <) L1
R       82.48   84.12      MINOR OFFSETS IN BEDDING INDICATE FAULTING WITHIN THIS ZONE.

/ LSX   84.12   85.44   1.32             LMSX SF BA     LM                  P  1            L5          L=    L1
L                                             8                                                                  L2

/ LSX   85.44   91.04   5.60             LMSX SF BA     LM LC               P  1 LM      42 L4          L1    L1    L+
L                                       8     7                                                                  L1 L1

/ FSX   91.04   91.50   0.46             FGSX PY                      LM3   P  1                              #1
L                                       5Y    6Y                                                                 #6

/ LSX   91.50   92.05   0.55             LMSX SF        LM LC               P  1 LM      52 L6                L1    L.
L                                             7                                                                  L2 L1

/ MSX   92.05   93.60   1.55             MSSX PY                            P                           *+    #2    B+
L                                             5Y                                                                 #6

/ LSX   92.80   93.27   0.47           9 LMSX SF        LM LC               R  1 LM      52 L6                L1    L+
L                                             7                                                                  L+ L3
R       92.80   93.27      OFFSET ARGILLITE BANDS AND FRAGMENTS ARE SEEN IN THE MARCASITE
R       92.80   93.27      MATRIX.

/ CON   93.60   96.04   2.44             SAND       SN8 LM LC         1383  P               L2                      L=
L                                             7     SI1       8                                                  L3 L1
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K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM QN1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R Q D  AGE EV RQ LC TM QM2 TX TX S C Q Q CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/ LSX   96.04   97.10   1.06             LMSX SF       LM LC                P  1            L6              L=    L=    L)
L                                             7R                                                                       L1 L2

/ CON   97.10   98.70   1.60             SILT CR    SN4 LM // 2 3 4 3       P  1                                  L+    L=
L                                             4     SI3 LC    7                                                      L= L1
R       97.10   98.70       THE ORE INTERSECTION FROM 80.36 TO 98.70 IS TYPE 4 IN THE JASON
R       97.10   98.70       MODEL .

K LM1   98.70   98.70   0.00

/ CON   98.70   99.28   0.58             SAND BA    SN6 LM // 2 3 8 3       P  1                            <=    D)
L                                             3           G; 8
R       98.70   99.28       THE SANDSTONE GRADES NORMALLY IN AN UPHOLE DIRECTION.

/ CON   99.28  102.72   3.44             BRPM     CR *C= G; B*        LQ1   P                               <.    D)
L                                             4           F* 9* 4     LQ4
R       99.28  102.72       THIS PEBBLY MUDSTONE HAS A SANDSTONE MATRIX.

/ NET   99.55   99.37   0.32           X SAND CR    SN7 LM    1 3 7 3       R  2                            <.    L=
L                                             2     SI2       8                                                    L=
R       99.55   99.87       BRECCIATED SULPHIDE FRAGMENTS WERE FOUND INTERMIXED WITH THE
R       99.55   99.87       SANDSTONE. IT SEEMS LIKELY THAT THEY ORIGINATED FROM ANOTHER
R       99.55   99.87       BOX IN THE MINERALIZED ZONE, AND WERE ACCIDENTLY MIXED UP WITH
R       99.55   99.87       THE SANDSTONE UNIT.

/ NET  100.12  100.40   0.28           X SAND       SN7 LM    1 3 7 3       R  2                            <.    L=
L                                             2     SI2       8                                                    L=

/ CON  102.72  108.20   5.48             ARGL          MX     0 0   0       P                               <.    <=
L                                             2               9

/ FLT  102.72  107.01   4.29           X ARGL       GG8 MX    0 0   0       R                               <.    <=
L                                             2               9
R      102.72  107.01       THIS SECTION IS BADLY SHEARED AND GOUGED, INDICATING SIGNIFICANT
R      102.72  107.01       FAULTING.
```

A	UMM				RQD	SP.GR.
A	TYP				CM	SG
A	MTH				B-B	WEIGH
A	LAB				FLD	FLD
R	ASY	0.00	0.00	RCOV=RECOVERY(C17-20) IS MEASURED IN CM BLOCK TO BLOCK(B-B)		
R	ASY	0.00	0.00	RQD=ROCK QUALITY DESIGNATOR(C27-32)MEASURED IN CM BLOCK TO BLOCK		
R	ASY	0.00	0.00	RQD IS THE TOTAL LENGTH (BETWEEN BLOCKS) OF PIECES OF CORE		
R	ASY	0.00	0.00	AT LEAST 2-1/2 TIMES DIAMETER OF CORE TO NEAREST CM, DIVIDED		
R	ASY	0.00	0.00	BY LENGTH OF INTERVAL = BLOCK(TO) MINUS BLOCK(FROM)TIMES 100		
R	ASY	0.00	0.00	CM INDICATES THAT MEASUREMENTS ARE IN CM'S WHICH ARE TO BE RIGHT		
R	ASY	0.00	0.00	JUSTIFIED AGAINST THE DOUBLE VERTICAL LINE AT RIGHT MARGIN		
R	ASY	0.00	0.00	OF EACH FIELD.		
R	ASY	0.00	0.00	B-B=BLOCK-TO-BLOCK (DRILLERS BLOCKS). ENTER METRAGE OF ONE BLOCK		
R	ASY	0.00	0.00	AS THE TO OF ANY INTERVAL AND THE METRAGE OF THE NEXT BLOCK.		
R	ASY	0.00	0.00	ADDITIONAL POINTS (FROM-TO'S) CAN BE ESTABLISHED BETWEEN		
R	ASY	0.00	0.00	BLOCKS TO BRACKET SPECIFIC INTERVALS OF LOCALIZED POOR		
R	ASY	0.00	0.00	RECOVERY. B-B IS ENTERED RIGHT JUSTIFIED IN EACH FIELD IN		
R	ASY	0.00	0.00	THE MTH HEADER.		
R	ASY	0.00	0.00	THE FIRST INTERVAL, THROUGH THE OVERBURDEN, WITH ZERO RECOVERY,		
R	ASY	0.00	0.00	SHOULD BE ENTERED FIRST -- SEE BELOW.		
A	100	0.00	15.24	00	00	
R	ASY	0.00	15.24	OVERBURDEN		
A	100	15.24	16.75	106	00	2.59
A	100	16.76	19.81	249	00	2.52
A	100	19.81	20.42	61	00	
A	100	20.42	22.86	200	00	
A	100	22.86	24.38	135	00	
A	100	24.38	25.91	125	00	
A	100	25.91	27.13	91	00	2.72
A	100	27.13	28.96	127	00	2.30
A	100	28.96	30.18	119	00	2.77
A	100	30.18	30.78	39	00	
A	100	30.78	32.31	153	47	2.79
A	100	32.31	33.22	91	00	
A	100	33.22	34.14	57	00	
A	100	34.14	35.97	163	00	2.62
A	100	35.97	37.80	149	54	2.71
A	100	37.80	40.23	243	69	2.55

A UMM				RQD	SP.GR.
A TYP				CM	SG
A MTH				5-R	WEIGH
A LAB				FLD	FLD
A 100	40.23	42.37	192	74	2.59
A 100	42.37	42.67	30	49	
A 100	42.67	43.28	61	23	
A 100	43.28	45.42	214	43	2.51
A 100	45.42	48.16	191	22	2.51
A 100	48.16	51.21	86	00	
A 100	51.21	54.25	144	00	
A 100	54.25	56.08	116	00	
A 100	56.08	57.91	144	00	
A 100	57.91	58.83	92	00	
A 100	58.83	60.66	140	00	
A 100	60.66	62.48	137	19	
A 100	62.48	63.40	80	27	
A 100	63.40	64.92	109	00	
A 100	64.92	66.45	148	00	
A 100	66.45	67.97	123	22	2.65
A 100	67.97	68.28	31	19	
A 100	68.28	70.10	182	69	
A 100	70.10	72.54	244	53	2.68
A 100	72.54	73.76	114	00	
A 100	73.76	75.59	168	00	
A 100	75.59	77.11	136	00	2.42
A 100	77.11	78.03	92	00	
A 100	78.03	80.56	114	26	
A 100	80.36	81.12	25	00	
A 100	81.12	82.43	96	00	
A 100	82.48	84.12	33	00	
A 100	84.12	85.44	11	00	
A 100	85.44	91.04	207	00	
A 100	91.04	91.50	25	00	
A 100	91.50	92.05	48	00	
A 100	92.05	93.60	84	00	
A 100	93.60	96.04	62	00	
A 100	96.04	97.10	75	00	
A 100	97.10	98.70	95	00	
A 100	98.70	99.28	54	00	
A 100	99.28	99.55	22	00	
A 100	99.55	100.89	132	00	2.44
A 100	100.89	102.72	183	25	
A 100	102.72	104.55	179	00	
A 100	104.55	106.07	152	00	2.68
A 100	106.07	107.29	86	00	
A 100	107.29	108.20	91	00	

R SUM DRILL HOLE 81-71 WAS DRILLED AT AN AZIMUTH OF 18 DEGREES AND AN

R SUM INCLINATION OF -49.5 DEGREES. THERE WAS SUFFICIENT EVIDENCE TO

R SUM ESTABLISH THAT STRATIGRAPHIC TOPS ARE TO THE SOUTH, THEREFORE;

R SUM DRILLING PROCEEDED THROUGH PROGRESSIVELY OLDER ROCKS. STRATI-

R SUM GRAPHIC POSITION, IN RELATION TO THE ORE ZONE, WAS KNOWN THROUGH
R SUM THE CORRELATION OF MARKER BEDS C,B,D, AND O FROM DDH77-21. IT
R SUM WAS THEREFORE POSSIBLE TO ESTABLISH THE DISTANCE TO THE ORE ZONE
R SUM WITH A FAIR DEGREE OF ACCURACY.
R SUM ABOVE THE ORE ZONE, IN THE HANGING WALL THE ROCKS ARE CROSSCUT
R SUM BY QUARTZ AND BARITE MICROVEINS. THE ORE ZONE CONSISTS OF
R SUM SILICEOUS, LAMINATED SULPHIDES. THE LAMINATIONS ARE HIGHLY
R SUM CONVALUTED AND WILDLY BRECCIATED. A SULPHIDE LAMINATED SILTSTONE
R SUM IS FOUND CONFORMABLY CUTTING THROUGH THE ORE ZONE. THE LACK OF
R SUM FOOTWALL ALTERATION, OR MASSIVE SULPHIDES INDICATES THAT THIS
R SUM ZONE IS DISTALLY LOCATED IN RELATION TO ANY HYDROTHERMAL SOURCE.

G E O L O G E D I T L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :81-DH072 COLLAR ELEVATION: 1253.00 AZIMUTH(DEG) : 18.00 GEOLOGGED BY : HDG +
TOTAL DEPTH/LENGTH : 203.00 NORTHING(- IF S): 7002550.00 VERTICAL ANGLE : -75.00 DATE (YY/MM/DD): 810618
CORE/HOLE DIAMETER : HQ EASTING (- IF W): 436733.94 CO-ORD SYSTEM : PROJECT NUMBER : J-MAIN

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	33.22	17.00	-74.00
2	48.46	18.00	-74.00
3	63.70	20.00	-73.33
4	78.94	19.00	-73.00
5	94.18	23.00	-72.50
6	109.42	23.00	-72.25
7	124.66	24.00	-72.25
8	139.90	26.00	-72.00
9	155.14	25.00	-72.00
10	170.38	25.00	-72.50
11	185.62	26.00	-73.00
12	200.86	25.00	-73.00

R HED DRILL HOLE 81-DH072 WAS DIRECTED AT THE MAIN ORE ZONE BETWEEN

R HED INTERSECTIONS 77-DH022 AND 78-DH027, IN ORDER TO OBTAIN

R HED SUPPLEMENTARY INFORMATION FOR GRADE AND TONNAGE ESTIMATES.

R HED THE ORE INTERSECTION EXTENDED FROM 162.28 TO 191.81 METRES, WITH

R HED AVERAGE GRADES OF 9.27% ZN, 2.09% PB, 9.85% FE AND 0.05% BA.

R HED CU VALUES WERE BELOW DETECTION LIMITS AND AG WAS LESS THAN

R HED 0.05% OZ. PER TON. THE ORE ZONE INTERSECTION IS 686 METRES FROM

R HED THE ZERO BASELINE AT AN ELEVATION OF 1087 METRES ABOVE SEALEVEL.

R HED BASED ON CORE BEDDING ANGLES, THE TRUE THICKNESS OF THE ORE ZONE

R HED IS ESTIMATED AS BEING 9.0 METRES. CORE RECOVERY IN THE ORE ZONE

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R HED                          WAS 70.2%.

R HED                          STRATIGRAPHIC CORRELATIONS WERE POSSIBLE USING THE SANDSTONE

R HED                          MARKER BEDS C, B, A AND D. THE ORE ZONE IS SIMILAR TO 81-DH071,

R HED                          IN THAT IT IS A SILICATE HOSTED LAMINATED SULPHIDE. A BLUE OXIDE

R HED                          MINERAL WAS OBSERVED TO OCCUR WITHIN THE HANGING WALL SEDIMENTS.

  F   - I N T E R V A L -    CORE  T- %      TYPI- GAL  TEX-  GRAIN         PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =   .  DEC.PLACE)RECOV-  N M ROCK FYING MIN TURES CHARACS                         H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MT=METRIC FT=FOOTRIC)  ERY    O I       TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  I N T (  . )  O X TYPE  1  2 9M1  1  2 F F C A           1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                          ROCK   FM     RT    TM 9M2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                          QUAL   AGE EN- Q LC- 3     3  4 O    /            2    AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
Y  G                          DESIG      VIR   COL            R    C              STRUCTUR-2  A  A  A  A  A  A  A  A  A  A     2   2

R SVY    0.00    0.00      SPERRY-SUN MULTI-SHOT RESULTS.

/ OVB    0.00    8.84   8.84          OVER                            P

/ CON    8.84   31.09  22.25          BRHT        *S= G; SC         MQ5   P   FO       75                             D)
L                                          4      *C1 F* B* 2   =   LP3

/ CON   31.09   36.88   5.79          ARGL GR        MX     0 1 . 1       P                <.                         <*
L                                          1                9

/ CON   36.88   40.94   4.06          BRPM        *C=     B*        KQ3   P                                           R)
L                                          3          B* R* 3       KN1

/ FLT   40.94   65.03  24.09          ARGL CR     GG= MX     0 3 = 1      P   LM       72                             L+
L                                          1          LM     8

/       40.94   65.03  24.09       2 BRHT GR      *C)     F* 2      KM1   R                                           R=
L                                          1          B* B*         JM2
R       40.94   65.03      THIS INTERVAL APPEARS TO BE A CARBONACEOUS ARGILLITE WITH
R       40.94   65.03      INTERCALATED HETEROLITHIC BRECCIA. THE BRECCIA BEDS AVERAGE 20
R       40.94   65.03      CMS IN THICKNESS. THE ALTERNATIVE IS THAT THE WHOLE INTERVAL IS
R       40.94   65.03      A HETEROLITHIC BRECCIA WITH ARGILLITE FRAGMENTS OF 2 METERS IN
R       40.94   65.03      SIZE.

/ CON   65.03   71.30   6.27          BRHT        *C=     F*        NT5   P                <.                         R)
L                                          4          R*     3      LO2
R       65.03   71.30      THE MAJOR VOLUME OF PYRITE IS FOUND AS LAMINATIONS WITHIN THE
R       65.03   71.30      SILT BANDED ARGILLITE FRAGMENTS.

K M/C   71.30   71.30   0.00

/       71.30   75.05   3.75          SAND        SB8 G; BD         1383  P  2 BD      U65                            D)
L                                          5      SI1 //     8

/       72.84   75.05   2.21       3 BRPM         *C= G; B*         KM2   R                                           D)
L                                          5          B*     5      KM4
R       72.84   75.05      THERE ARE FOUR DISTINCT NORMAL GRADED SEQUENCES THAT OCCUR
R       72.84   75.05      WITHIN THE SAND P.G.T. AND GRADE FROM A PEBBLY MUDSTONE WITH
R       72.84   75.05      A SANDSTONE MATRIX.

/ CON   75.05   86.67  11.62          BRHT     CR *C)     R*        MT7   P                                           R+
L                                          3                 3      KN1
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K  F   F R O M - T O -  I N T RECOV  RD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                           R Q D  AGE EV RJ LC TM OM2 TX TX S C O D CHT     2 ID AZM DIP MG MU CL SD OS HA PR MT SL HA

/       78.77   79.74   0.97          9 SAND       SI= GI    0 3 9 5       R                              D)
L                                          5       SN9          7

/ FLT   84.20   84.71   0.51          X BRHT CR CR GG9    R*          MI7  R                              R+
L                                          1                2         KN1
R       84.20   84.71       THE CORE IS BROKEN AND SHEARED IN MANY PLACES, WHICH INDICATES
R       84.20   84.71       THIS INTERVAL MAY HAVE BEEN FAULTED.

K M/B   86.67   86.67   0.00

/       86.67   87.99   1.32            SAND       SN9 MX    1 3 9 4       P                              D)
L                                          4                8

/ CON   87.99  100.71  12.72            CGBR       *C= G; R*          LS3  P                              R)
L                                          5          H* R* 5         MP6

/ FLT   99.06  100.71   1.65          X CGBR GR    GG8 G; R*          LS3  R                              R)
L                                          2          H* R* 5         MP6
R       99.06  100.71       THE CHERT PEBBLE MATRIX EXHIBITS NORMAL GRADING IN SEVERAL
R       99.06  100.71       SEPARATE CYCLES.

/ CON  100.71  111.97  11.26            CGBR          G; R*           LR1  P                              R)
L                                          5       *C= H* R* 7        LP8

K M/A  101.91  101.91   0.00

/      101.91  111.97  10.06          3 BRPM       *C* G; R* 3 4 7 7 LP1   R     FO      U65              R+
L                                          5          H*    7         LP2
R      101.91  111.97       SEVERAL CYCLES OF CGBR GRADE INTO A COARSE PEBBLY MUDSTONE
R      101.91  111.97       WITH A SANDSTONE MATRIX. THERE ARE 3 PEBBLY MUDSTONE BEDS THAT
R      101.91  111.97       GRADE GRADUALLY INTO THE CHERT PEBBLE BRECCIA. THE FIRST PEBBLY
R      101.91  111.97       MUDSTONE BED EXTENDS FROM 101.71 TO 104.71 M, THE SECOND
R      101.91  111.97       EXTENDS FROM 106.44 TO 106.93 M AND THE FINAL BED EXTENDS FROM
R      101.91  111.97       111.51 TO 111.97 M.

/ CON  111.97  113.89   1.92            BRHT       *C1    R*          LR8  P                              D)
L                                          3                1         KO1

/      113.29  113.89   0.60          9 CGBR       *C2    R*          KL1  R                              #2
L                                          5          R* 6            KL6

/ CON  113.89  117.23   3.34            ARGL CR        MX L4 0 1  1        P  0                           D*
L                                          1                9

/ CON  117.23  121.46   4.23            BRHT       *C= SS G;          LQ3  P                              C+
L                                          5          F* R* 3         LN3

/      117.23  117.47   0.24          8 SAND       SN8 BD G; 1 3 9 3       R     BD      U55              L+
L                                          5       SI=          9

/      118.07  118.43   0.36          9 SAND       SN8       1 3 8 3       R                              L+
L                                          5       SI2          8
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                                        PAN OCEAN OIL LTD.
 G E O L O G                     JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                   PAGE -  4
                           DRILLHOLE/TRAVERSE --- 81-DH072 --- (CONTINUED)

K  F  F R O M - T O -  I N T RECOV  MD % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R Q D  AGE EV RO LC TM QM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/ CON   121.46   134.21   12.75                ARGL CR          SC     0 4 + 5         P   0 LM       55                <(     D+
L                                                    2          LM     8
R       121.46   134.21         INTERCALATED,GRIT SIZED,CHERT FRAGMENTS ARE RESPONSIBLE FOR THE
R       121.46   134.21         LAMINATIONS WITHIN AN OTHERWISE MASSIVE ARGILLITE.

/       129.92   132.85   2.93              x  ARGL CF          BR     0 4 + 5         R   0 LM       55 >+             <+     D+
L
R       129.92   132.85         THE CORE IS HIGHLY SHEARED AND FRACTURED WITHIN THIS ZONE.
R       129.92   132.85         QUARTZ AND BARITE VEINS CROSSCUT THE ARGILLITE FRAGMENTS AND
R       129.92   132.85         MUDDY MATRIX. IN CERTAIN SECTIONS PYRITE REPLACES THE MUDSTONE
R       129.92   132.85         MATRIX AND BECOMES THE PREDOMINANT MINERAL.

K M/D   134.21   134.21   0.00

/       134.21   135.32   1.11                 SAND             G; BD 1 3 9 3         P     BD      U48                       D+
L                                                    5                 8

/ FLT   135.32   142.05   6.73                 ARGL     CR GG=         0 4 + 5         P   0 LM      U58                <.     R)
L                                                    2          LM     8
R       135.32   142.05         PYRITE IS FOUND WITHIN CHERT CLASTS AS A POSSIBLE REPLACEMENT
R       135.32   142.05         MINERAL. THE LAMINATIONS ARE DUE TO THE INTERCALATED, GRIT SIZED
R       135.32   142.05         CHERT FRAGMENTS.

/       138.26   138.46   0.20              8 MSSX PY SF        BR                     R                 <2                   #5
L                                                    SY                                                                             *+
R       138.26   138.46         THE MASSIVE PYRITE, QUARTZ VEINING AND SPHALERITE BRECCIA
R       138.26   138.46         FRAGMENTS INDICATE THIS SECTION IS PART OF THE HANGING WALL
R       138.26   138.46         ALTERATION ASSOCIATED WITH THE ORE ZONE. THIS UNIT ALSO CONTAINS
R       138.26   138.46         ARGILLITE FRAGMENTS.

/ CON   142.05   145.89   3.84                 BRHT CR     SN=                  MR4    P                 <*                   V+
L                                                    3A                2        JN2

/       145.80   145.89   0.09              9 BRHT CR      SN=                  MR4    R                 <*                   >8
L                                                    3A                2        JN2
R       145.80   145.89         A LARGE PYRITE VEIN CUTS THE ARGILLITE AND INCORPERATES ARGILLIC
R       145.80   145.89         FRAGMENTS INTO ITS MATRIX.

/ CON   145.89   146.77   0.88                 SILT        SI3 G; BD 1 3 4 5           P   2 BD      U50                       V=
L                                                    6     SN4         7

/ CON   146.77   151.40   4.63                 BRPM        SN2 G; F*            LO3    P                                <(     <+
L                                                    3     *C+ B* R* 2          JN1

/ FLT   148.00   148.13   0.13              X BRPM         SN2 G; F*            LO3    R                                <(     <+
L                                                    3     *C+ B* R* 2          JN1

/ FAL   151.40   158.30   6.90                 BRHT CR     *C= G; F*            MR4    P                 <)             <)     R+
L                                                    3          R* B* 2         JN2
R       151.40   158.30         THE CORE WITHIN THIS INTERVAL IS HIGHLY BROKEN AND SHEARED,
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K  F  F R O M - T O -  I N T RECOV  MD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R Q D  AGE FV RQ LC TM OM2 TX TX S C O D CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R      151.40  158.30      INDICATING STRONG FAULTING.

/      155.21  155.30   0.09          X BRRR SF    *C= G; F*         MR4   R               <)          <)    L1       B=
L
R      155.21  155.30      THE UNKNOWN BLUE MINERAL IS ALSO OBSERVED ABOVE THE ORE ZONE
R      155.21  155.30      IN DDH81-75. THIS MINERAL IS ONLY SEEN IN THE HANGING WALL.

/ CON  158.30  160.91   2.61            SILT       SI9 LM SS 1 2 1 2       P  2 LM       75             <=    L=
L                                             4    SM1       9

/      160.17  160.91   0.74          8 BRBT                             KN2   R                                  L=
L                                             5              4       KL1

/ CON  160.91  162.28   1.37            ARGL SF      LC      1 1   1       P  1 LM       70 02                    L=
L                                             5              9                                                          L*

/      161.83  161.93   0.10          6 ARGL SF              1 1   1       R    FO       70 02                    L=
L                                             5              9
R      161.83  161.93      ARGL CONTAINS CLEAR HEXAGONAL QUARTZ IN VUGS AND CAVITIES.

/      161.93  162.28   0.35          9 SILT       SI9 LM SS 1 2 1 2       R                              <+    D+
L                                             4    SM1       9

K UM1  162.28  162.28   0.00

/ LSX  162.28  163.98   1.70            LMSX       C98 LM                  P  2 LM       74 E*              L)    L2          4
L                                             8                                                                 L=
R      162.28  163.98      SIGNIFICANT ORE ZONE MINERALIZATION OCCURS IN THIS P.G.I.

/ LSX  163.98  167.03   3.05            LMSX SF      LM                    P  2 LM       64 L5     L2             L2       <(  4
L                                             78          LC                                                    L1
R      163.98  167.03      THE MINERAL IDENTIFIED AS GRAPHITE COULD ALSO BE MAGENITE OR
R      163.98  167.03      SPECULAR/HEMATITE.

/ LSX  167.03  168.87   1.84            LMSX SF      LM                    P  2 LM       74 L8                    L1    L(    4
L                                             9                                                                 L1

/ CON  168.87  170.48   1.61            ARGL CR SF   MX      1 1   1       P                <2          B)             <C  4
L                                             1              9                                                  B)

/ LSX  170.48  172.76   2.28            LMSX SF      LM                    P  2 LM       78 L5              L1    >3    L(    4
L                                             8                                                                 L2

/ LSX  172.76  175.87   3.11            LMSX SF BA   LC                    P    LM       87 L4              L2    L3          4
L                                             8                                                                 L1
R      172.76  175.87      CARBONACEOUS ARGILLIC BEDS OF 1 CM THICKNESS ARE INTERBEDDED
R      172.76  175.87      WITH THE SULPHATE/SULPHIDE UNIT. THEY TOTAL LESS THAN 5% OF THE
R      172.76  175.87      TOTAL UNIT VOLUME.

/ LSX  175.87  177.21   1.34            LMSX SF      LM                    P  1 LM       78 L5              L1    L1       <.  4
L                                             7                                                                 L1
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K  F  F R O M - T O -  I N T RECOV  RD % ROCK TN TN OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R O D  AGE EV RO LC TM OM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/        177.21  178.92   1.71              LMSX SF        LM                 P  1 LM      78 L5          L1    L1      <.  4
L                                                7                                                                 L1

/        178.92  179.86   0.94              LMSX SF        LM                 P  1 LM      78 L5          L1    L1      <.  4
L                                                7                                                                 L1

/        179.86  181.02   1.16              LMSX SF        LM                 P  1 LM      78 L5          L1    L1      <.  4
L                                                7                                                                 L1

/        179.85  180.03   0.17            6 MSSX PY        BR MX              R                *3         *=    R5          4
L                                                4                                                                 *)

/ CON    181.02  183.03   2.01              SILT SF     SI6 BD LC 1 2 8 2     P  2 BD      72 L1          L1    L1          4
L                                                3      CH2       8                                                L+

/        183.03  185.03   2.00              SILT SF     SI6 BD LC 1 2 8 2     P  2 BD      72 L1          L1    L1          4
L                                                3      CH2       8                                                L+

/        185.03  186.53   1.50              SILT SF     SI6 BD LC 1 2 8 2     P  2 BD      72 L1          L1    L1          4
L                                                3      CH2       8                                                L+

/        186.53  188.06   1.53              SILT SF     SI6 BD LC 1 2 8 2     P  2 BD      72 L1          L1    L1          4
L                                                3      CH2       8                                                L+

/ CON    188.06  190.20   2.14              SILT SF     SI2 LM LC             P  1 LM      80 L4          L1    L2          4
L                                                4      CH4       8                                                L=
R        188.06  190.20        SULPHIDES ARE FOUND IN CHERT RICH LAMINATIONS, WHICH INTERBED
R        188.06  190.20        WITH SILTSTONE LAYERS. THESE CHERTY LAMINATED SULPHIDES ARE FROM
R        188.06  190.20        5-25 CM IN THICKNESS.

/ LSX    190.20  191.81   1.61              LMSX        CH8 LC                P  2 LM      30 L8          V+    V=          4
L                                                7      SI=                                                        L=

K LM1    191.81  191.81   0.00

/ CON    191.81  197.96   6.15              SILT CR        MX     2 2   2     P                           <(    S1
L                                                2                9

/        193.55  195.99   2.44            X LOST                              R
L

/        197.96  201.90   3.94              BRHT CR                     NR7   P                                 R1
L                                                4                2     JN1

/        201.90  202.60   0.70              SAND CR     SN7 MX    0 3 7 5     P                                 D=
L                                                4                8
R        201.90  202.60        CONVALUTED,CARBONACEOUS ARGILLITE INTERFINGERS THE SANDSTONE.

/        202.60  203.00   0.40              BRPY CR                     JK2   P                           <*    D=
L                                                2                3     JK1
```

```
K  F  F R O M - T O -  I N T RECOV  MD % ROCK TM TM NM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                           R Q D  AGE EV RJ LC TN NM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R      202.60  203.00      THE PEBBLY MUDSTONE HAS A SANDSTONE MATRIX.
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K  F   F R O M - T O -  T N 1 RECOV  MD % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R Q D  AGE EV RN LC TN NM2 TX TX S C U Q CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R        111.86  112.43      AND BRECCIATION OF THE BRHT UNIT.

/ FLT    112.95  118.86   5.91            ARGL CR    SN) SS LM 1 3 ) 3       P  1                            L+
L                                              3     GG1        9                                         <)
R        112.95  118.86      SANDSTONE LAMINATIONS WITHIN THE ARGL INCREASE GOING DOWN.
R        112.95  118.86      THE UNIT IS HIGHLY BROKEN UP DUE TO FAULTING.

/        118.86  127.84   8.98            CGCP       SN3 G;             LR2  P              <)               B)
L                                              6                5     C KO4

K M/C    118.86  118.86   0.00

/        118.86  120.32   1.46          8 SAND       SN8 G; BD 2 3 8 5       R  2 BD     U52 V+              D)
L                                              6     GG1        7

/ FLT    121.30  122.30   1.00          X CGCP       GG4 G; F*          LR2  R              <1               B+
L                                              6     *C+ B*     5     C KO4                               <+        D)

/        127.50  127.84   0.34          9 SAND       SN9 BD     1 3 9 5      R  2 BD     50                  D)
L                                              6                8

/        127.64  135.42   7.58            BRHT CR    *C+ FO CC          LO6  P    FO     55                  B)
L                                              4        F*      3       KO2
R        127.84  135.42      THE ARGILLITE AND CHERT CLASTS ARE SURROUNDED BY A MUDDY MATRIX.

/        128.55  128.96   0.41          9 SAND       SN8        1 3 8 5      R                               D)
L                                              6                8

/        134.41  135.42   1.01          8 CGBR       SN2                MP2  R                               B)
L                                              6     *C3 F*     6     C KN6

/        135.42  142.52   7.10            BRHT       *S* ND             MR7  P                               *)
L                                              3                2   *   KN1

/ FLT    137.10  137.42   0.32          X BRHT       GG7 ND             MR7  R                               D)
L                                              3                2   *   KN1

K M/C    142.52  142.52   0.00

/        142.52  144.35   1.83            SAND CR    GG3 BD     1 3 8 5      P  2                            D)
L                                              8                7

/        144.35  154.20   9.85            BRHT CR    *C+    F*          LR8  P                               L)
L                                              3        B*      2       KO1
R        144.35  154.20      PYRITE OCCURS AS A REPLACEMENT MINERAL IN CHERT CLASTS, AND AS
R        144.35  154.20      LAMINATIONS WITHIN ARSI FRAGMENTS.

/        151.49  151.67   0.18          9 CGBR       SN2 BD G;          KL1  R  3 BD     U60                 R+
L                                                    GG+      ) 7       KN6
R        151.49  151.67      THE CORE IS HIGHLY SHEARED AND CARBONACEOUS INDICATING THE
R        151.49  151.67      POSSIBILITY OF FAULTING.
```

A	UMM				RQD	SP.GR.
A	TYP				CM	SG
A	MTH				B-B	WEIGH
A	LAB				FLD	FLD

R	ASY	0.00	0.00	RCOV=RECOVERY(C17-20) IS MEASURED IN CM BLOCK TO BLOCK(B-B)
R	ASY	0.00	0.00	RQD=ROCK QUALITY DESIGNATOR(C27-32)MEASURED IN CM BLOCK TO BLOCK
R	ASY	0.00	0.00	RQD IS THE TOTAL LENGTH (BETWEEN BLOCKS) OF PIECES OF CORE
R	ASY	0.00	0.00	AT LEAST 2-1/2 TIMES DIAMETER OF CORE TO NEAREST CM, DIVIDED
R	ASY	0.00	0.00	BY LENGTH OF INTERVAL = BLOCK(TO) MINUS BLOCK(FROM)TIMES 100
R	ASY	0.00	0.00	CM INDICATES THAT MEASUREMENTS ARE IN CM'S WHICH ARE TO BE RIGHT
R	ASY	0.00	0.00	JUSTIFIED AGAINST THE DOUBLE VERTICAL LINE AT RIGHT MARGIN
R	ASY	0.00	0.00	OF EACH FIELD.
R	ASY	0.00	0.00	B-B=BLOCK-TO-BLOCK (DRILLERS BLOCKS). ENTER METRAGE OF ONE BLOCK
R	ASY	0.00	0.00	AS THE TO OF ANY INTERVAL AND THE METRAGE OF THE NEXT BLOCK.
R	ASY	0.00	0.00	ADDITIONAL POINTS (FROM-TO'S) CAN BE ESTABLISHED BETWEEN
R	ASY	0.00	0.00	BLOCKS TO BRACKET SPECIFIC INTERVALS OF LOCALIZED POOR
R	ASY	0.00	0.00	RECOVERY. B-B IS ENTERED RIGHT JUSTIFIED IN EACH FIELD IN
R	ASY	0.00	0.00	THE AMTH HEADER.
R	ASY	0.00	0.00	THE FIRST INTERVAL, THROUGH THE OVERBURDEN, WITH ZERO RECOVERY,
R	ASY	0.00	0.00	SHOULD BE ENTERED FIRST -- SEE BELOW.

A	100	8.84	10.36	114	22	
A	100	10.36	11.58	112	00	
A	100	11.58	12.80	117	60	
A	100	12.80	13.72	87	18	
A	100	13.72	16.76	290	139	2.62
A	100	16.76	18.90	151	32	
A	100	18.90	21.64	267	44	
A	100	21.64	24.69	305	78	
A	100	24.69	28.04	301	116	
A	100	28.04	31.09	305	139	
A	100	31.09	31.70	54	00	
A	100	31.70	33.53	183	00	
A	100	33.53	33.83	30	00	2.54
A	100	33.83	35.66	159	00	
A	100	35.66	36.88	116	00	2.73
A	100	36.88	37.49	54	20	
A	100	37.49	40.54	305	99	
A	100	40.54	43.28	224	21	

A UMM A TYP A MTH A LAB				RQD CM B-B FLD	SP.GR. SG WEIGH FLD
A 100	43.28	43.59	27	00	
A 100	43.59	46.63	268	67	
A 100	46.63	47.85	122	00	
A 100	47.85	49.38	110	30	
A 100	49.38	50.29	91	18	2.66
A 100	50.29	50.90	61	00	
A 100	50.90	53.04	184	44	
A 100	53.04	53.95	71	00	
A 100	53.95	54.56	49	00	
A 100	54.56	56.39	151	00	
A 100	56.39	58.22	94	00	
A 100	58.22	59.44	79	00	
A 100	59.44	60.66	97	00	
A 100	60.66	62.18	56	00	
A 100	62.18	63.09	72	00	
A 100	63.09	64.31	96	00	
A 100	64.31	65.53	75	00	
A 100	65.53	67.36	164	43	
A 100	67.36	69.19	181	36	
A 100	69.19	69.80	61	20	2.67
A 100	69.80	72.54	274	21	
A 100	72.54	75.29	258	30	2.63
A 100	75.29	78.03	258	00	
A 100	78.03	79.86	176	45	
A 100	79.86	82.60	268	134	
A 100	82.60	83.21	46	20	
A 100	83.21	85.04	173	00	2.87
A 100	85.04	86.87	183	19	
A 100	86.87	89.92	271	114	2.51
A 100	89.92	92.96	304	138	2.64
A 100	92.96	95.71	275	82	
A 100	95.71	99.06	326	207	
A 100	99.06	102.11	213	91	2.40
A 100	102.11	103.33	122	177	
A 100	103.33	106.38	289	250	
A 100	106.38	109.42	285	115	2.47
A 100	109.42	111.25	176	137	
A 100	111.25	113.69	222	112	2.69
A 100	113.69	115.82	213	88	
A 100	115.82	117.04	95	25	2.57
A 100	117.04	120.40	314	77	
A 100	120.40	122.53	185	28	2.66
A 100	122.53	124.97	240	00	
A 100	124.97	127.41	209	24	
A 100	127.41	128.93	124	00	
A 100	128.93	130.45	152	00	2.15
A 100	130.45	133.50	253	20	
A 100	133.50	134.42	92	44	2.66
A 100	134.42	136.25	171	66	2.75
A 100	136.25	137.46	121	00	
A 100	137.46	138.99	131	00	

				RQD	SP.GR.
A UMM				RQD	SP.GR.
A TYP				CM	SG
A MTH				B-B	WEIGH
A LAB				FLD	FLD
A 100	138.99	139.60	49	00	
A 100	139.60	140.82	104	00	
A 100	140.82	141.73	91	00	
A 100	141.73	144.48	257	08	2.69
A 100	144.48	145.69	121	33	
A 100	145.69	148.13	200	20	
A 100	148.13	150.88	275	124	
A 100	150.88	153.92	285	020	
A 100	153.92	155.45	136	000	
A 100	155.45	157.89	190	000	
A 100	157.89	160.91	254	045	
A 100	160.91	162.28	137	000	
A 100	162.28	163.98	101	000	2.39
A 100	163.98	167.03	107	000	2.84
A 100	167.03	168.87	94	000	2.54
A 100	168.87	170.48	42	000	3.20
A 100	170.48	172.76	206	000	2.66
A 100	172.76	175.87	130	000	3.37
A 100	175.87	177.21	132	000	2.80
A 100	177.21	178.92	138	000	1.70
A 100	178.92	181.02	141	000	
A 100	181.02	183.03	180	000	2.68
A 100	183.03	185.03	197	000	
A 100	185.03	186.53	150	000	
A 100	186.53	188.06	140	000	
A 100	188.06	190.20	160	000	2.74
A 100	190.20	191.81	156	000	3.08
A 100	191.81	197.96	272	000	2.84
A 100	197.96	200.25	229	145	
A 100	200.25	202.60	202	72	2.46
A 100	202.60	203.00	40	00	2.32

R SUM DRILL HOLE 81-72 WAS DRILLED FROM THE SAME SET UP AS DDH81-71.
R SUM THE INCLINATION WAS STEEPENED TO -75 DEGREES, AND THE AZIMUTH
R SUM MAINTAINED AT 18 DEGREES. THE MARKER UNITS C,B,A,AND D WERE USED
R SUM TO LOCATE THE POSITION OF THE DRILL HOLE IN RELATION TO THE ORE
R SUM ZONE. OTHER THAN MARKER BEDS, LITHOLOGIC CORRELATIONS BETWEEN
R SUM DDH81-71 AND DDH81-72 WERE ONLY FAIR.
R SUM AN UNKOWN BLUE MINERAL WAS FOUND ABOVE THE ORE ZONE IN
R SUM DDH81-72 WHICH APPEARS TO CORRESPOND TO A SIMILAR MINERAL FOUND
R SUM IN DDH81-75.SAMPLES WERE TAKEN FROM BOTH HOLE FOR IDENTIFICATION
R SUM PURPOSES.

R SUM THE LAMINATED SILTSTONE FOUND WITHIN DDH81-71 ORE ZONE WAS
R SUM ALSO PRESENT IN DDH81-72. THIS BED MAY PROVE TO BE A GOOD MARKER
R SUM HORIZON WITHIN THE MAIN ZONE.

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6B02

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DRILLHOLE/TRAVERSE :81-DH073      COLLAR ELEVATION:      1236.10     AZIMUTH( DEG ) :    20.00      GEOLOGGED BY : HDG +
TOTAL DEPTH/LENGTH :    24.99     NORTHING(- IF S):   7002474.00     VERTICAL ANGLE :   -69.00      DATE (YY/MM/DD): 810628
CORE/HOLE DIAMETER :     HQ       EASTING (- IF W):    436718.62     CO-ORD SYSTEM  :               PROJECT NUMBER : J-MAIN

                         SEQ. NO OF     LENGTH FROM COLLAR     AZIMUTH     VERT. ANGLE
                         SURVEY DATA     TO SURVEY POINT       ( DEG )      ( DEG )

                              1              17.37               25.00        -65.00

R HED                    81-DH073 WAS DIRECTED AT THE MAIN ZONE, HOWEVER EXTREME

R HED                    AZIMUTH DEVIATION FORCED THE ABANDONMENT OF THE HOLE.

   F    - I N T E R V A L -    CORE  I- %      TYPI- QAL  TEX-  GRAIN         PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =    .  DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                          H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MI=METRIC FT=FOOTRIC)  ERY     O 1      TM TM MAT TX TX F C % M ARG   /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  I N T (  . )  D X TYPE  1  2 OM1  1  2 F F C A          1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                         ROCK    FM     RT     TM OM2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                         QUAL   AGE EN- O LC- 3      3  4 O    /             2    AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
Y  G                         DESIG      VIR   COL              R    C               STRUCTUR-2 A  A  A  A  A  A  A  A  A  A     2   2

/ OVB    0.00    3.35   3.35            OVER                                  P
L

/ CON    3.35    8.50   5.15            BRPM        *S(              MP6      P                                      D)
L                                          2              2   *    KO=

/        7.55    7.60   0.65          X BRPM CR     *S(              MP6      R                                      D)
L                                          2              2   *    KO=

/        8.50   17.32   8.82            BRBM CR               N R 9           P                                      B)
L                                          3         4

/       17.32   24.99   7.67            ARSI CR     SN1 SC    1 3 1 3         P  2 BD      61                         L)
L                                          3        SI+       8
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A UMM                                        RQD              SP.GR.
A TYP                                        CM                   SG
A MTH                                        B-B               WEIGH
A LAB                                        FLD                 FLD

R ASY    0.00    0.00    RCOV=RECOVERY(C17-20) IS MEASURED IN CM BLOCK TO BLOCK(B-B)

R ASY    0.00    0.00    RQD=ROCK QUALITY DESIGNATOR(C27-32)MEASURED IN CM BLOCK TO BLOCK

R ASY    0.00    0.00        RQD IS THE TOTAL LENGTH (BETWEEN BLOCKS) OF PIECES OF CORE

R ASY    0.00    0.00        AT LEAST 2-1/2 TIMES DIAMETER OF CORE TO NEAREST CM, DIVIDED

R ASY    0.00    0.00        BY LENGTH OF INTERVAL = BLOCK(TO) MINUS BLOCK(FROM)TIMES 100

R ASY    0.00    0.00    CM INDICATES THAT MEASUREMENTS ARE IN CM'S WHICH ARE TO BE RIGHT

R ASY    0.00    0.00        JUSTIFIED AGAINST THE DOUBLE VERTICAL LINE AT RIGHT MARGIN

R ASY    0.00    0.00        OF EACH FIELD.

R ASY    0.00    0.00    B-B=BLOCK-TO-BLOCK (DRILLERS BLOCKS). ENTER METRAGE OF ONE BLOCK

R ASY    0.00    0.00        AS THE TO OF ANY INTERVAL AND THE METRAGE OF THE NEXT BLOCK.

R ASY    0.00    0.00        ADDITIONAL POINTS (FROM-TO'S) CAN BE ESTABLISHED BETWEEN

R ASY    0.00    0.00        BLOCKS TO BRACKET SPECIFIC INTERVALS OF LOCALIZED POOR

R ASY    0.00    0.00        RECOVERY. B-B IS ENTERED RIGHT JUSTIFIED IN EACH FIELD IN

R ASY    0.00    0.00        THE AMTH HEADER.

R ASY    0.00    0.00    THE FIRST INTERVAL, THROUGH THE OVERBURDEN, WITH ZERO RECOVERY,

R ASY    0.00    0.00        SHOULD BE ENTERED FIRST -- SEE BELOW.

A 100    0.00    2.73    0                       0
R ASY    0.00    2.73     OVERBURDEN
A 100    2.73    3.35   61                       0
A 100    3.35    3.96   54                       0
A 100    3.96    5.49  134                       0
A 100    5.49    6.40   59                      55
A 100    6.40    8.23  173                      94
A 100    8.23   12.50  305                     170
A 100   12.50   14.33  183                     156
A 100   14.33   17.37  304                     222
A 100   17.37   20.42  305                     105
A 100   20.42   22.25  173                      53
A 100   22.25   24.99  207                     144
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G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :81-DH074	COLLAR ELEVATION: 1236.10	AZIMUTH(DEG) : 18.00	GEOLOGGED BY : HDG +
TOTAL DEPTH/LENGTH : 274.93	NORTHING(- IF S): 7002473.00	VERTICAL ANGLE : -69.00	DATE (YY/MM/DD): 810628
CORE/HOLE DIAMETER : HQ	EASTING (- IF W): 436718.37	CO-ORD SYSTEM : UTM	PROJECT NUMBER : J-MAIN

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	29.67	25.00	-63.50
2	44.50	25.00	-61.50
3	59.74	28.00	-60.00
4	74.98	30.00	-59.00
5	90.22	29.00	-59.00
6	105.46	30.00	-58.25
7	120.70	33.50	-58.00
8	135.94	32.00	-57.50
9	151.18	35.00	-56.50
10	166.42	35.00	-56.33
11	181.66	36.00	-56.00
12	196.90	38.00	-56.00
13	212.14	38.00	-54.50
14	227.38	39.50	-51.67
15	242.62	41.00	-51.00
16	257.86	39.50	-51.75
17	273.10	40.00	-51.75

R HED DRILL HOLE 81-DH074 WAS DIRECTED AT THE MAIN ORE ZONE, BENEATH

R HED 81-DH072, THE RESULTS FROM THIS INTERSECTION WOULD BE USED FOR

R HED GRADE AND TONNAGE CALCULATIONS, IN CONNECTION WITH THE MAIN

R HED ZONE.

R HED THE ORE INTERSECTION EXTENDED FROM 243.96 METRES TO 259.38

R HED METRES, WITH AVERAGE GRADES OF 10.45% ZN, 3.18% PB, 8.44% FE AND

R HED 0.05% BA. THE MAJORITY OF CU VALUES WERE BELOW DETECTION LIMITS,

R HED AND AG WAS LESS THAN 0.04% PER TON. THE CENTRE OF THE ORE ZONE

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R HED                     INTERSECTION IS 721 METRES FROM THE ZERO BAELINE AT 1025 METRES

R HED                     ABOVE SEA LEVEL, BASED ON CORE TO BEDDING ANGLE MEASUREMENTS,

R HED                     THE TRUE THICKNESS OF THE INTERSECTION WAS ESTIMATED TO BE

R HED                     10.0 METRES. CORE RECOVERY WAS CALCULATED AS BEING 69.6%.

R HED                     STRATIGRAPHIC CORRELATION WAS POSSIBLE WITH MARKER BEDS

R HED                     D, C, B, A AND O. THE ORE ZONE IS A SILICATE HOSTED, LAMINATED

R HED                     SULPHIDE WITH MINOR DEFORMATION AND BRECCIATION.

  F   - I N T E R V A L -    CORE  T- %      TYPI- QAL  TEX-  GRAIN        PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K L (UNITS =   .  DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                          H  H  H  H  H ANY H  H  H ANY  ALT ORE
E A  (MT=METRIC FT=FOOTRIC)  ERY    O I      TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y G  F R O M - T O -  I N T (  . )  D X TYPE  1  2 QM1  1  2 F F C A          1     AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K F                         ROCK   FM    RT    TM QM2 TX TX S C O D CHT        T ID STK DIP MG MU CL SD OS HA PR MT SL HA
E L                         QUAL   AGE EN- Q LC- 3      3  4 O     /           2    AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
Y G                         DESIG      VIR   COL             P     C             STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2   2

R SVY    0.00    0.00     SPERRY-SUN MULTI-SHOT RESULTS.

/ OVB    0.00    3.66   3.66        OVER                                P

/        3.66    8.23   4.57        BRPM       *S*               MP6    P                                                D)
L                                     2             2   *        KO=

/        6.50    6.80   0.30      X BRPB CR    *S*               MP6    R                                                D)
L                                     2             2   *        KO=

/        7.80    8.10   0.30      X SAND       SNX (C   3 3  3          R                                                D.
L                                     7             9

/        8.23   20.24  12.01        BRBM CR                      NR9    P                                                B)
L                                     3             4

/       20.24   51.96  31.72        ARSI CR    SN1 XB SC 1 3 1 3        P  2 BD       61                                 L)
L                                     3        ST+      8

/       51.96   55.47   3.51        BRPM    C3                   MQ4    P                                                B)
L                                     3                          LO2

/       55.47   57.62   2.15        BRBT       SN1 G;            NO3    P                                                D)
L                                     4        *C= B* F* 4       MN4
R       55.47   57.62     THERE IS ONE NORMAL GRADED CYCLE OF CHERT WHICH INDICATES THAT
R       55.47   57.62     STRATIGRAPHIC TOPS ARE UPHOLE. SAND MAKES UP MOST OF THE MATRIX
R       55.47   57.62     BETWEEN CHERT CLASTS.

/       57.62   59.93   2.31        CGCP       *C1 F*            NP1    P                                                D)
L                                     8          B*    7     C LN6
R       57.62   59.93     THE LARGER CHERT FRAGMENTS ARE WELL ROUNDED WHEREAS THE SMALL
R       57.62   59.93     CHERT CLASTS ARE MORE ANGULAR.

K M/D   57.62   57.62   0.00

/       57.62   58.29   0.67      9 SAND       SU9 G; BD 2 3 9 6        R     BD     U45                                 D)
L                                     8             8
```

```
G E O L O G

K  F   F R O M - T O -   T O T RECOV  RO % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                             R Q D  AGE FV RO LC TM OM2 TX TX S C O O CHT        2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/        59.93   67.29   7.36          BRHT        *S* G;              NS4   P    F0      U55                         C)
L                                        4         *C+ F*     2   *    LP2
R        59.93   67.29        THE CLASTS ARE SURROUNDED BY A MUDDY MATRIX.

/        67.29   82.06  14.77          BRPM CR     *S+                 MQ4   P                                        B)
L                                        3                    2   +    JM=

/        82.06   86.91   4.85          BRPM CR     *S= SS              NP9   P                                        L+
L                                        3                    3     =
R        82.06   86.91        THE PYRITE OCCURS WITHIN THE SANDSTONE LAMINATIONS OF THE
R        82.06   86.91        BRECCIATED ARSI FRAGMENTS.

/        86.91   88.53   1.62          BRPM        *S= (L     3 6 3 8 LO=    P                                        D)
L                                        6                    7 + = 0 LOB
R        86.91   88.53        CHERT BRECCIA FRAGMENTS ARE SUPPORTED BY A SANDSTONE MATRIX.

/        88.53   90.61   2.08          BRHT                            LQ8   P                                        D)
L                                        3                    2        LQ1

/        90.61   95.30   4.69          BRHT        *S=                 MR4   P                                   <*   B)
L                                        4                    3 + =    LQ2

/        90.61   91.21   0.60        8 BRPM        SN8                 LN1   R                                        D+
L                                        6                    7        JM3
R        90.61   91.21        THE MATRIX IS SANDSTONE SUPPORTED.

/        92.01   92.37   0.36        9 BRPM        SN8                 LN=   R                                        D+
L                                        6                    8        JM2
R        92.01   92.37        THE MATRIX IS SANDSTONE SUPPORTED.

/        95.30  101.33   6.03          BRPM        SN6 G;              MP1   P    F0      U50 V)                      D+
L                                        6         *S)        7 * ) C LQ3
R        95.30  101.33        THE MATRIX IS SANDSTONE SUPPORTED.

/       101.33  108.22   6.89          BRHT                            MQ6   P                                        R)
L                                        3                    2 *      LQ2                                       V+
R       101.33  108.22        THE PYRITE OCCURS PREDOMINANTLY IN QUARTZ VEINS AND CHERT CLASTS
R       101.33  108.22        THE QUARTZ VEINS CUT ACROSS THE ARSI FRAGMENTS AND THE MUDSTONE
R       101.33  108.22        MATRIX.

/       108.22  109.87   1.65          BRPM        SN6 G;              KL=   P                                   <.   D)
L                                        6         *C+ F* B* 6      0 KN3                                        V+
R       108.22  109.87        CHERT BRECCIA FRAGMENTS ARE SUPPORTED BY A SANDSTONE MATRIX.

/       109.87  112.95   3.08          BRHT                            MP7   P                                        R+
L                                        4                    2        KN1                                       V+

/ FLT   111.86  112.43   0.57        X BRHT CR     GG2                 MP7   R                <+        B+        C+      B.
L                                        4                    2        KN1                                       >=           B(
R       111.86  112.43        THE AREA OF FAULTING IS CHARACTERIZED BY SULPHIDE MINERALIZATION
```

```
K  F  F R O M - T O -  I N T RECOV MD % ROCK TM TM GM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R Q D AGE EV RO LC TO OM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/ FLT  154.20  156.06   1.86            CGBR CR    GG= F*    4       LN1   P                                 R+
L                                             4    *C1    B*         KN3

/      154.20  154.30   0.10          8 BRPM CR    *C=               KN=   R                                 R+
L                                             2           F*         JM2

K M/A  156.06  156.06   0.00

/      156.06  157.58   1.52            SAND           XB    1 3 9 3       P                                 B+
L                                             6              8

/      156.06  156.62   0.56          3 ARSI CR    SN3 BD SS 1 3 3 3       R  2 BD      32                   D)
L                                             4              8

/      156.62  157.00   0.38          7 BRPM       *C(               LO1   R                                 B+
L                                             4        F*    3       KN2
R      156.62  157.00      THE MATRIX IS SANDSTONE IN THIS INTERVAL.

/      157.58  170.08  12.50            BRPT CR    *S4               KS6   P                                 R+
L                                             4    *C) F* B* 2 + +   KO2
R      157.58  170.08      PYRITE IS CONFINED TO CHERT FRAGMENTS AS A REPLACEMENT MINERAL.

/ FLT  158.42  159.01   0.59          X BRBT GR    *S4               KS6   R                                 D)
L

/      168.12  170.08   1.96          7 BRBM CR    GG7               LN9   R                           V2    D+
L                                             3                 )

/      170.08  172.00   1.92            SILT CR        LM    2 3 2 4       P  1         52                   L+
L                                             2              8

/      170.08  170.83   0.75          8 SAND           BD    2 3 8 4       R  2                        V1    D1
L                                             5              8

/      171.52  172.00   0.38          X SILT PY        LM    2 3 2 4       R  1         52                   L3
L                                             2              8

/      172.00  173.95   1.95            ARSI CR    SI= LM (L 1 2 = 2       P  1                        <*    D+
L                                             2    SN+       8

/      172.00  173.95   1.95          1 BRPM                         KM1   R  3                        <*    D=
L                                             3              2       JM2
R      172.00  173.95      INTERBEDDED BRPM INTERVALS ARE FROM .3 - 3 CM  THICK.

/      173.95  176.32   2.37            BRPM       *C+    F*         LM1   P                                 R+
L                                             2        B* R* 2       JM2

/      176.32  179.75   3.43            BRBT       *S+ G;            LR3   P                           <.    R+
L                                             4              2   +   JM3
R      176.32  179.75      PYRITE OCCURS AS A REPLACEMENT MINERAL IN CHERT CLASTS.
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PAN OCEAN OIL LTD.

G E O L O G — JASON PB-ZN-AG-BA STF DEPOSIT, Y.T. — PAGE - 6

DRILLHOLE/TRAVERSE --- 81-DH074 --- (CONTINUED)

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K  F  F R O M - T O -  I N T RECOV  MD % ROCK TM TM QM1 TX TX F C % M ARG   RT 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                         R Q D  AGE EV RQ LC TM QM2 TX TX S C O O CHT        2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/      179.05  179.55    0.50           7 SAND           G; BD 2 3 7 4       R  2        U52                   D+
L                                             5               7

/      179.75  181.66    1.91             ARGL CR              1 3 = 4       P             53                   L+
L                                             1               9

/      179.75  181.66    1.91           2 BRPH CR                      L03   R                                 R)
L                                             1               2       JK+

/      181.66  185.33    3.67             BRHT           G;            MR7   P                                 R+
L                                             3               2       K02

/      185.33  186.65    1.32             SAND           BD G; 2 3 7 5       P  2        U45                   D=
L                                             6               7
R      185.33  186.65      EUHEDRAL PYRITE CRYSTALS ARE PREVALENT THROUGHOUT THE SANDSTONE
R      185.33  186.65      INTERVAL INDICATING EPIGENETIC DEPOSITION.

/      186.65  198.12   11.47             BRHT       *C+ I*            MV8   P                                 R+
L                                             4         8*    1       L01
R      186.65  198.12      LARGE ARSN FRAGMENTS CONTAIN PYRITE LAMINATIONS WITHIN SANDSTONE
R      186.65  198.12      LAYERS.

/      198.12  201.82    3.70             ARGL CR    GG1       1 1   1       P                                 <)
L                                             1               9

/      199.15  199.40    0.25           X ARGL CR    GG2       1 1   1       R                                 #7
L                                             1               9

/      201.17  201.82    0.65           2 BRHT       *C+               JM2   R                                 *2
L                                             5         F* B* 5       JM3

/      201.82  206.65    4.83             BRHT       *S*               LR3   P                                 *+
L                                             5     *C) F*    3   *   K04
R      201.82  206.65      PYRITE OCCURS AS A REPLACEMENT MINERAL IN CHERT FRAGMENTS.

/      206.65  230.03   23.38             ARGL CR              1 3 + 4       P  0          41                   L+
L                                             1            LM 9
R      206.65  230.03      THE ARGL IS FAINTLY LAMINATED, WITH MOST LAMINATIONS PARTIALLY
R      206.65  230.03      REPLACED BY PYRITE. MILD BRECCIATION OF THE ARGL OCCURS IN TWO
R      206.65  230.03      10 CM SECTIONS, IN WHICH PYRITIZATION APPEARS TO BE STRONGEST

/      218.24  218.57    0.33           8 SAND PY        XB BD 1 3 7 3       R  1 BD      45                   D2
L                                             5               8

/      221.80  222.00    0.20           5 SILT BD PY SIS G; BD 1 3 4 3       R    BD      50                   L1
L                                             3     SN4       8

/      226.50  227.21    0.71           9 BRHT       *G) G;            KP4   R                                 D=
L                                             4         F*    3       K02

/ FLT  230.03  231.60    1.57             ARGL CR LM GG3       1 3 ) 3       P  1 LM  55     <+          <)    #=
L                                             1               9
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K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM GM1 TX TX F C % M ARG   RT 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R Q D  AGE EV RO LC TM GM2 TX TX S C U O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/       230.52  230.98   0.46             9 BRHM                              MP9  R                                 D+
L                                               4                  3          KL=

K M/O   231.60  231.60   0.00
-----------------------------------------------------------------------------------------------------------------------------
/       231.60  233.02   1.42               SAND        SN6 G: BD 1 3 6 6          P  3 BD     U60                    L=
L                                               4       SI2

/       233.02  240.32   7.30               ARSI        SI1                        P  1         42                    B+
L                                               4       SN=
-----------------------------------------------------------------------------------------------------------------------------
/       240.32  241.71   1.39               ARGL CR     SI+ LM      0 2 + 2        P  1 LM      32            <)      L+          8
L                                               3                   9

/       241.71  243.96   2.25               SILT        SI8 LM      1 3 = 3        P  1 LM      35            <+      L+          8
L                                               3       SN=         8
-----------------------------------------------------------------------------------------------------------------------------
K UM1   243.96  243.96   0.00

/ MSX   243.96  245.63   1.67               MSSX     SF      BR              KM3   P                 <=       X1    #3     B+    8
L                                               4                                                                           Q=
-----------------------------------------------------------------------------------------------------------------------------
/ LSX   245.63  247.19   1.56               LMSX SF SX      LM               JK=   P  1              L5       L1    L2     L+    8
L                                               5           VG BR                                                           L1
R       245.63  247.19       THE SILICA IS HIGHLY WEATHERED AND UNCONSOLIDATED.

/ LSX   247.19  247.90   0.71               LMSX SF SX      LM LC                  P  1 LM      30 L5       L1    L2     L=    8
L                                               BR                                                                          L2
-----------------------------------------------------------------------------------------------------------------------------
/ FSX   247.90  248.66   0.76               FGSX SF CR      LC                     P                 L5       L=    L1     B=    8
L                                               3                                                                           L1
R       247.90  248.66       THIS UNIT CONSISTS OF DISCONTINUOUS LAMINATIONS OF SULPHIDE AND
R       247.90  248.66       SULPHATE WHICH HAVE BEEN FRAGMENTED.
-----------------------------------------------------------------------------------------------------------------------------
/ LSX   248.66  250.93   2.27               LMSX SF         LC LM                  P  1 LM      37 L6       L1    #2     L+    8
L                                               BT             BR                                                           L2

/ LSX   250.93  252.55   1.62               LMSX SF         LM                     P  1         65 L5       L=    B1     L+    8
L                                               BT                                                                          L2
R       250.93  252.55       ARGILLITE BEDS(0.7CMS)OCCUPY 10-15% OF THE TOTAL UNIT VOLUME.
-----------------------------------------------------------------------------------------------------------------------------
/       252.55  252.98   0.43               SAND SF         MX               33 3  P                 M9       C+    D=           8
L                                               B                   8
R       252.55  252.98       THIS UNIT DOES NOT APPEAR TO BE A TRUE SANDSTONE. THE SAND SIZED
R       252.55  252.98       ANGULAR FRAGMENTS ARE CLEAR QUARTZ WHICH SUGGESTS SILICIFICATION
R       252.55  252.98       HAS OCCURRED.
-----------------------------------------------------------------------------------------------------------------------------
/       252.98  254.51   1.53               LOST                                   P

/ LSX   254.51  255.84   1.33               LMSX SF         LM LC                  P  1 LM      58 L3       L1    #3     L+    8
L                                               7           BR                                                              L1
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K  F  F R O M - T O -  I N T RECOV  MD % ROCK TM TM RM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R Q D  AGE EV RM LC TM RM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R      254.51 255.84            THIS HIGHLY CONVOLUTED,MILDLY BRECCIATED LMSX CONTAINS ARGILLITE
R      254.51 255.84            FRAGMENTS THAT MAY HAVE ORIGINALLY BEEN BEDDED AND LATER
R      254.51 255.84            DISRUPTED.

/ LSX  255.84 257.76   1.92             LMSX SF  BA    LM //               P  1 LM      40 L5         L2    L1    L+    8
L                                            8         LC SS                                                      L2
R      255.84 257.76            ARGILLITE BEDS ARE 5% OF THE TOTAL VOLUME.

/ LSX  257.76 259.38   1.62             LMSX SF  PY    LM LC               P            L3         L2    B2          8
L                                            4                                                                    L1

/      259.38 260.60   1.22             LOST                               P

K LM1  259.96 259.96   0.00

/      260.60 261.73   1.13             SILT           LM    0 1 8 1       P  1 LM      50 V=         <)    L=
L                                            3               8                                                    L=

/      261.73 264.87   3.14             SILT           LM    0 1 8 1       P  1 LM      60 V)         <+    L+
L                                            3               8

/      264.87 267.50   2.63             SILT           LC LM 0 1 8 1       P  1 LM      50 L1         <)    L=
L                                            4               8
R      264.87 267.50            THE SULPHIDE AND QUARTZ LAMINATIONS OCCUR IN DESCRETE 3-5 CM
R      264.87 267.50            PACKAGES. THE SILTSTONE AND THE LAMINATIONS ARE CONVOLUTED AND
R      264.57 267.50            MILDLY BRECCIATED.

/ CON  267.50 274.93   7.43             ARGL CR GR ST= LC BN         02=2  P    LM      60 V=               E=
L                                            2  PY           9
R      267.50 274.93            THIS UNIT IS A CARBONACEOUS ARGL IN WHICH CONVOLUTED INTERVALS
R      267.50 274.93            OF MORE SILICIFIED ARGILLITE ARE BORDERED BY PYRITIC ENVELOPES.
R      267.50 274.93            THESE UNITS ARE LATER CROSSCUT BY SILICIOUS VEINS AND VEINLETS.
R      267.50 274.93            OPEN SPACE FILLING BY QUARTZ AND PYRITE IS ALSO PRESENT. THE
R      267.50 274.93            DISRUPTION OF BEDDING SEEMS TO BE ASSOCIATED WITH THE INTRODUCT-
R      267.50 274.93            ION OF PYRITE AND SILICIFICATION OF THE ARGL.
```

A UMM					RQD	SP.GR.
A TYP					CM	SG
A MTH					B-B	WEIGH
A LAB					FLD	FLD
R ASY	0.00	0.00	RCOV=RECOVERY(C17-20) IS MEASURED IN CM BLOCK TO BLOCK(B-B)			
R ASY	0.00	0.00	RQD=ROCK QUALITY DESIGNATOR(C27-32)MEASURED IN CM BLOCK TO BLOCK			
R ASY	0.00	0.00	RQD IS THE TOTAL LENGTH (BETWEEN BLOCKS) OF PIECES OF CORE			
R ASY	0.00	0.00	AT LEAST 2-1/2 TIMES DIAMETER OF CORE TO NEAREST CM, DIVIDED			
R ASY	0.00	0.00	BY LENGTH OF INTERVAL = BLOCK(TO) MINUS BLOCK(FROM)TIMES 100			
R ASY	0.00	0.00	CM INDICATES THAT MEASUREMENTS ARE IN CM'S WHICH ARE TO BE RIGHT			
R ASY	0.00	0.00	JUSTIFIED AGAINST THE DOUBLE VERTICAL LINE AT RIGHT MARGIN			
R ASY	0.00	0.00	OF EACH FIELD.			
R ASY	0.00	0.00	B-B=BLOCK-TO-BLOCK (DRILLERS BLOCKS). ENTER METRAGE OF ONE BLOCK			
R ASY	0.00	0.00	AS THE TO OF ANY INTERVAL AND THE METRAGE OF THE NEXT BLOCK.			
R ASY	0.00	0.00	ADDITIONAL POINTS (FROM-TO'S) CAN BE ESTABLISHED BETWEEN			
R ASY	0.00	0.00	BLOCKS TO BRACKET SPECIFIC INTERVALS OF LOCALIZED POOR			
R ASY	0.00	0.00	RECOVERY. B-B IS ENTERED RIGHT JUSTIFIED IN EACH FIELD IN			
R ASY	0.00	0.00	THE AMTH HEADER.			
R ASY	0.00	0.00	THE FIRST INTERVAL, THROUGH THE OVERBURDEN, WITH ZERO RECOVERY,			
R ASY	0.00	0.00	SHOULD BE ENTERED FIRST -- SEE BELOW.			
A 100	0.00	3.66	000		000	
R ASY	0.00	3.66	OVERBURDEN			
A 100	3.66	5.81	187		46	2.70
A 100	5.81	8.23	242		107	
A 100	8.23	11.28	305		172	
A 100	11.28	14.33	303		162	
A 100	14.33	14.94	61		45	
A 100	14.94	17.98	304		291	
A 100	17.98	21.34	230		173	
A 100	21.34	24.69	335		172	2.70
A 100	24.69	28.04	335		194	
A 100	28.04	28.65	61		75	
A 100	28.65	30.18	137		69	
A 100	30.18	33.22	304		114	
A 100	33.22	34.75	152		63	
A 100	34.75	35.66	81		20	
A 100	35.66	38.17	251		99	2.65
A 100	38.17	41.76	303		51	

A UNM				RQD	SP.GR.
A TYP				CY	SG
A MTH				B-6	WEIGH
A LAB				FLD	FLD
A 100	41.76	44.81	201	122	
A 100	44.31	47.85	304	89	2.73
A 100	47.85	49.85	124	69	
A 100	49.85	52.43	260	34	
A 100	52.43	55.47	255	77	
A 100	55.47	58.83	295	232	2.76
A 100	58.83	62.13	313	305	
A 100	62.13	65.52	309	233	2.70
A 100	65.52	68.53	230	195	
A 100	68.58	71.32	256	225	
A 100	71.32	72.24	92	92	
A 100	72.24	75.29	277	231	2.67
A 100	75.29	78.33	283	256	
A 100	78.33	81.38	274	208	2.66
A 100	81.38	84.48	288	236	2.68
A 100	84.48	86.56	161	70	
A 100	86.56	89.61	255	209	2.66
A 100	89.61	92.96	262	155	2.70
A 100	92.96	96.32	217	18	
A 100	96.32	97.54	81	18	
A 100	97.54	99.67	131	87	
A 100	99.67	101.80	126	29	
A 100	101.80	102.72	77	39	2.74
A 100	102.72	103.94	122	83	2.66
A 100	103.94	107.29	281	163	
A 100	107.29	110.34	229	115	2.51
A 100	110.34	111.86	152	16	
A 100	111.86	114.91	191	46	2.72
A 100	114.91	117.96	138	00	2.73
A 100	117.96	121.01	158	21	
A 100	121.01	124.05	57	17	
A 100	124.05	126.80	119	88	2.67
A 100	126.80	128.32	152	66	2.65
A 100	128.32	130.15	110	33	
A 100	130.15	132.28	152	48	
A 100	132.23	133.20	73	46	
A 100	133.20	136.25	241	137	2.67
A 100	136.25	139.29	204	93	2.69
A 100	139.29	142.34	198	76	2.66
A 100	142.34	145.39	254	71	2.69
A 100	145.39	146.61	86	17	
A 100	146.61	149.35	193	48	
A 100	149.35	150.57	89	00	
A 100	150.57	151.49	74	00	
A 100	151.49	152.70	88	39	
A 100	152.70	156.06	281	53	2.70
A 100	156.05	157.58	99	36	2.66
A 100	157.56	159.41	132	00	
A 100	159.41	160.65	119	00	2.69
A 100	160.65	162.15	116	00	
A 100	162.15	163.63	83	00	

A UMM				RQD	SP.GR.
A TYP				CM	SG
A MTH				B-B	WEIGH
A LAB				FLD	FLD
A 100	163.68	164.29	41	00	
A 100	164.29	166.73	139	34	
A 100	166.73	168.86	146	23	
A 100	168.86	170.08	62	00	
A 100	170.08	171.30	73	17	2.54
A 100	171.30	172.52	116	31	2.63
A 100	172.52	173.74	69	18	
A 100	173.74	176.78	153	48	
A 100	176.78	177.70	69	00	
A 100	177.70	178.92	21	00	2.71
A 100	178.92	179.53	11	00	
A 100	179.53	180.14	54	17	
A 100	180.14	181.66	112	00	
A 100	181.66	183.18	144	41	
A 100	183.18	184.71	121	76	
A 100	184.71	186.23	114	31	2.41
A 100	186.23	187.76	114	57	
A 100	187.76	189.28	104	47	
A 100	189.28	190.20	59	00	
A 100	190.20	191.41	94	00	
A 100	191.41	192.33	63	18	
A 100	192.33	193.85	108	74	
A 100	193.85	194.77	66	39	
A 100	194.77	195.38	43	21	
A 100	195.38	196.90	98	19	
A 100	196.90	198.42	104	24	
A 100	198.42	199.03	61	00	
A 100	199.03	199.95	39	00	
A 100	199.95	201.17	53	00	
A 100	201.17	202.69	114	00	
A 100	202.69	203.91	74	00	
A 100	203.91	205.44	108	44	2.64
A 100	205.44	206.65	94	51	
A 100	206.65	207.57	44	00	
A 100	207.57	208.48	52	00	
A 100	208.48	209.70	51	00	
A 100	209.70	210.62	38	00	
A 100	210.62	212.14	67	19	
A 100	212.14	213.36	84	43	
A 100	213.36	214.58	88	19	
A 100	214.58	216.10	99	00	
A 100	216.10	217.63	112	36	
A 100	217.63	219.15	121	25	2.64
A 100	219.15	220.68	89	24	
A 100	220.68	222.20	119	21	
A 100	222.20	223.11	84	00	
A 100	223.11	224.33	37	00	
A 100	224.33	225.25	81	13	
A 100	225.25	225.55	30	11	
A 100	225.55	226.77	77	00	
A 100	226.77	227.99	95	28	

A UMM A TYP A MTH A LAB				RQD CM B-B FLD	SP.GR. SG WEIGH FLD
A 100	227.99	229.51	118	21	
A 100	229.51	230.43	58	00	
A 100	230.43	231.34	61	14	
A 100	231.34	232.87	141	51	
A 100	232.87	234.39	86	00	
A 100	234.39	235.92	112	24	
A 100	235.92	237.44	125	00	
A 100	237.44	238.96	120	22	
A 100	238.96	240.32	118	15	2.47
A 100	240.32	241.71	132	00	
A 100	241.71	243.96	225	00	
A 100	243.96	245.63	157	00	
A 100	245.63	247.19	145	00	
A 100	247.19	247.90	70	00	
A 100	247.90	248.66	74	00	
A 100	248.66	250.93	151	00	
A 100	250.93	252.55	152	00	
A 100	252.55	252.98	40	00	
A 100	252.98	254.51	00	00	
A 100	254.51	255.84	69	00	
A 100	255.84	257.76	158	00	
A 100	257.76	259.38	57	00	
A 100	259.38	260.60	00	00	
A 100	260.60	261.73	113	00	
A 100	261.73	264.87	220	00	
A 100	264.87	266.09	89	00	2.90
A 100	266.09	267.00	68	00	
A 100	267.00	268.83	169	00	
A 100	268.83	269.75	59	00	
A 100	269.75	272.19	155	43	
A 100	272.19	273.71	73	00	
A 100	273.71	274.02	20	00	
A 100	274.02	274.50	29	00	
A 100	274.50	274.93	38	00	

R SUM	NORMAL GRADING OF SANDSTONE AND CHERT PARTICLES INDICATES THAT
R SUM	TOPS ARE IN AN UPHOLE DIRECTION (I.E. SOUTH). MARKER BEDS D,C,B,
R SUM	A AND O WERE USED TO CORRELATE THE STRATIGRAPHIC POSITION OF
R SUM	THE DRILL HOLE.
R SUM	THE SPHALERITE WITHIN THE ORE HORIZON IS COLOURED LIGHT PINK,
R SUM	CANARY YELLOW AND WHITE, MAKING GRADE ESTIMATES DIFFICULT. THE
R SUM	MARCASITE AND PYRITE RICH AREAS. SULPHIDE BRECCIATION AND DEFOR-
R SUM	MATION APPEAR TO RESULT FROM SOFT SEDIMENT SLUMP RELATING TO
R SUM	MOVEMENT ASSOCIATED WITH HYDROTHERMAL ACTIVITY.

G E O L O G E D I T L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA SIF DEPOSIT, Y.T.

FORMAT VERSION : 6802

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DRILLHOLE/TRAVERSE :81-DH075     COLLAR ELEVATION:     1235.54     AZIMUTH( DEG ) :    18.00     GEOLOGGED BY :        +
TOTAL DEPTH/LENGTH :  553.83     NORTHING(- IF S):  7002472.00     VERTICAL ANGLE :   -82.50     DATE (YY/MM/DD):        0
CORE/HOLE DIAMETER :     NQNF    EASTING (- IF W):   436719.50     CO-ORD SYSTEM  :              PROJECT NUMBER : J-MAIN
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SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	11.89	18.00	-82.75
2	26.21	20.00	-82.75
3	44.50	29.50	-83.25
4	60.66	34.00	-82.75
5	73.15	41.00	-82.25
6	93.27	56.00	-78.75
7	107.59	60.00	-76.00
8	123.14	61.00	-75.00
9	137.16	62.50	-73.00
10	153.62	63.50	-70.75
11	168.86	64.00	-70.00
12	184.10	64.00	-68.67
13	198.12	65.00	-68.00
14	213.36	62.00	-67.50
15	228.60	64.00	-67.75
16	243.50	63.00	-67.75
17	259.08	62.00	-67.00
18	277.37	63.00	-66.67
19	333.76	64.50	-65.67
20	365.76	63.00	-65.25
21	396.24	66.00	-63.75
22	426.72	64.00	-63.00
23	457.81	64.00	-63.00

```
  F   - I N T E R V A L -    CORE  T- %     TYPI- QAL  TEX-  GRAIN        PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K L (UNITS =    . DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                         H  H  H  H  H ANY H  H  H ANY  ALT ORE
E A  (MT=METRIC FT=FOOTRIC)  ERY    O I      TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y G  F R O M - T O -  I N T (  . )  D X TYPE  1  2 OM1  1  2 F F C A          1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K F                         ROCK   FM     RT    TM OM2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
F L                         QUAL  AGE FM- O LC- 3     3  4 O      /         2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y G                         DESIG      VIR   COL          R      C            STRUCTUR-2 A  A  A  A  A  A  A  A  A  A     2   2

R SVY    0.00    0.00      SINGLE SHOT RESULTS FROM SPERRY-SUN DIP NOT TURN OUT FOR
R SVY    0.00    0.00      DEPTHS 495.60M., 519.99 M, 544.37 M, AND 550.47 M.

/ OVB    0.00    4.45   4.45          OVER                            P
L

/        4.45   19.04  14.59          BRPM       *S( CC          LR6    P                             R)
L                                          4     *C) F* F* 2 ) )  JO=
R        4.45   19.04      PYRITE OCCURS AS A REPLACEMENT MINERAL IN CHERT CLASTS.
```

```
K  F   F R O M - T O -  I N T RECOV  RD % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                           R Q D  AGE EV RW LC TM QM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R        4.45   19.04      IT ALSO FORMS ALONGATE CONCRETIONS OR NODULES.

/       19.04   89.61  70.57          BRHM        SS DD       MR9   P                        B9
L                                        4
R       19.04   89.61      PYRITE IS PRESENT IN THE SAND LAYERS OF SILTBANDED ARGILLITE
R       19.04   39.61      FRAGMENTS.

/       89.61   91.13   1.52          BRHT      *C)           L07   P                        R+
L                                        3      F* R* 3       JN1
R       89.61   91.13      PYRITE OCCURS AS A REPLACEMENT MINERAL WITHIN CHERT FRAGEMENTS.
R       89.61   91.13      CRYSTALS ARE EUHEDRAL TO SUBHEDRAL.

/       91.13  101.03   9.90          BRHM CR     SS          LR9   P  7                     B(
L                                        3            3

/       95.93   96.84   0.91        3 BRPM      *C(           L07   R  6                     R)
L                                        3        F* 2        JN1                                R(
R       95.93   96.84      SPHALERITE AND PYRITE BOTH APPEAR AS REPLACEMENT MINERAL IN
R       95.93   96.84      CHERT FRAGMENTS.

/       97.26  101.03   3.77        9 BRHM CR   *S( SS        K09   R                        R)
L                                        3          2  (      JK)
R       97.26  101.03      PYRITE ALMOST COMPLETELY REPLACES MOST CHERT FRAGMENTS AND
R       97.26  101.03      SANDSTONE LAMINATIONS WITHIN ARGILLITE FRAGMENTS.

/      101.03  108.52   7.49          BRHT CR   *S* G;        L04   P                        R)
L                                        5      *C+ B* F* 4  *   KP3
R      101.03  108.52      THE CHERT FRAGMENTS GRADE NORMALLY UPWARDS THE MATRIX CHANGES
R      101.03  108.52      CHANGES FROM SAND SIZED PARTICLES TO CLAY SIZED.

K M/D  108.52  108.52   0.00

/      108.52  113.42   4.90          SAND      *C3 G; BD 1 3 8 5   P  2       U62 V+      #*     B)
L                                        7        B* F* 8                                    V(
R      108.52  113.42      PYRRHOTITE IS FOUND INFREQUENTLY IN QUARTZ VEINS.

/      110.53  112.72   2.19        9 CGCP      *C+ G;        LR3   R              V)      #*     B)
L                                        6        F* B* 5     KN6

/      113.42  116.95   3.53          CGCP      *C+ F* B*     L01   P              V(      F(     C)
L                                        6            6       KN7
R      113.42  116.95      PYRITE OCCURS AS BOTH A REPLACEMENT MINERAL IN CHERT FRAGMENTS
R      113.42  116.95      AND AS A BRECCIA COATING. CALCITE OCCURS AS AN ENVELOPE

/      116.95  126.80   9.85          BRHT      *C+           MR8   P                        R+
L                                        3        B*    3     K01                    V(            B.
R      116.95  126.80      PYRITE OCCUR AS A REPLACEMENT MINERAL FOR CHERT AND A SELUAGE
R      116.95  126.80      AROUND ARGILLITE FRAGMENTS.

/      126.80  137.80  11.00          ARSI      SN1 LC              P  1 LM    22 S.             L)
L                                        3      SI+        7
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                                                          PAN OCEAN OIL LTD.
G E O L O G                                      JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                     PAGE - 3
                                         DRILLHOLE/TRAVERSE --- 81-DH075 --- (CONTINUED)

K  F  F R O M - T O -  I N T RECOV  MD % ROCK TM TM OM1 TX TX F C % M ARG  RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R Q D  AGE EV RQ LC TM QMP TX TX S C U O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R      126.60  137.80      THIS UNIT PROBABLY REPRESENTS A LARGE FRAGMENT DUE TO THE SMALL
R      126.60  137.80      BEDDING ANGLE.

/      137.80  139.29   1.49             BRHT       *C) CC            MQ6   P                                 R+
L                                                       F* R*         KP1                                           R(
R      137.80  139.29      PYRITE PREDOMINATES AS A REPLACEMENT MINERAL IN CHERT FRAGMENTS.
R      137.80  139.29      OCCASIONAL CONCRETIONS OR NODULES OF PYRITE ARE ALSO PRESENT.
R      137.80  139.29      THE MATRIX IS PREDOMINANTLY ARGILLIC.

/      139.29  150.60   11.31            BRH4       *S1               LR8   P                                 *+
L                                                          ND     1   JK)                                           *.
R      139.29  150.60      THE SPHALERITE AND PYRITE BOTH OCCUR AS REPLACEMENT MINERALS IN
R      139.29  150.60      THE CHERT FRAGMENTS. MOST OF THE FRAGMENTS ARE SAND BANDED
R      139.29  150.60      ARGILLITES.

/      150.60  179.80   29.20            ARST CR    SM1 BD                  P 2 BD       65          <)       L+
L                                             3     S1= BR SS 7
R      150.60  179.80      PYRITE OCCURS AS CONCRETIONS, AS WELL AS LAMINATIONS IN THE
R      150.60  179.80      SILT BANDED ARGILLITE. THE CALCITE VEINS ARE ASSOCIATED WITH
R      150.60  179.80      AREAS OF MINOR BRECCIATION.

/      179.80  183.45   3.65             CGCP       *C1    F*         LP2   P                                 *+
L                                             6         B*    4     C KP6
R      179.80  183.45      PYRITE OCCURS AS A REPLACEMENT MINERAL IN CHERT FRAGMENTS.

/      179.80  180.85   1.65           9 BRHT CR    *C)               KN5   R                                 *+
L                                             3         B+ F* 2       JM2
R      179.80  180.85      PYRITE OCCURS AS A REPLACEMENT MINERAL IN CHERT.

/      183.45  190.29   6.84             BRHT CR                      LS6   P               V+                B+
L                                             4               3       LN3                               V(

/      186.41  187.09   0.68           9 BRPM       *C+    F*         LM=   R                                 R+
L                                             6         B*    5       JN2

/ FLT  186.62  190.29   1.67           3 SAND GR        G; BD 1 3 8 4       R               <=                D+
L                                             5         BR    7

/      190.29  194.38   4.09             BRHT       *C)    F*         MS6   P               V+                *+
L                                             3         R*    3 (     KO1                                           B.
R      190.29  194.38      THE SPHALERITE OCCURS IN QUARTZ VEINS.

/      194.38  201.25   6.87             BRPM       *S+ G;            LR2   P                                 #+
L                                             4     *C+ B* F* 4   + C J02                               <*
R      194.38  201.25      PYRITE OCCURS AS BOTH A REPLACEMENT MINERAL IN AND AROUND
R      194.38  201.25      CHERT FRAGMENTS. THE MATRIX CONSISTS OF SAND TO SILT SIZED
R      194.38  201.25      PARTICLES.

/ FLT  201.25  203.72   2.47             BRHT       GG7               LQ3   P               V)                B)
L                                             2     *C+ F*    3       KQ2

/      203.72  209.20   5.48             BRHG           BR            KP8   P                                 B)
L                                             2               3       JN=                               V+
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K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R Q D  AGE EV RQ LC TN OM2 TX TX S C U O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/       208.01  208.21   0.20          9 SAND          BD    1 3 9 5        R    BD       70                     D+
L                                           6                8                                       V=

/ FLT   209.20  214.41   5.21            BRHT       GG6 BR              LO3   P                                   R)
L                                           2          CC                KL1                           V=

/       212.55  214.41   1.86          8 SAND       GG1 BR   1 3 8 5        R                                     B+
L                                           4                7                                       V=

/       214.41  217.32   2.91            ARSI       SH1 SS BD 1 3 1 3        P  2 BD      67                     L+
L                                                   SI+                                                V+

/ CON   217.32  235.61  18.29            BRHT CR       BR                LR8   P                V+                B+
L                                           2                2           JM=                           V)

/ FAL   223.72  226.80   3.08          X BRHT CR    GG9 BR               LR8   R                V+                B+
L                                           2                2           JM=                           V)

/       229.26  229.57   0.31          9 SAND       SH7 G; ED 1 3 7 5        R  2 BD     U72 <+                   D=
L                                           6       SI+      6

/ FLT   232.15  235.61   3.46          X BRHT GR    GG5 BR               LR8   R                <=                B+
L                                           2                2           JM=                           V)

/ CON   235.61  248.11  12.50            BRHG CR                         MO8   P                                  R)
L                                           3                2           JK=
R       235.61  248.11        PYRITE OCCURS AS A REPLACEMENT MINERAL IN CHERT.

/       248.11  273.80  25.69            BRHT       *S)    H*            MR7   P                                  H)
L                                           3       *C) F* H* 2   )      KP1                           V*
R       248.11  273.80        PYRITE OCCURS AS A REPLACEMENT MINERAL IN CHERT FRAGMENTS AND
R       248.11  273.80        WITHIN SANDSTONE LAMINATIONS OF ARSI FRAGMENTS.

/       258.10  260.30   2.20          X BRHT CR    *S)    H*            MR7   R                                  H)
L

/       273.80  300.62  26.82            ARSI CR       SS (L 1 3 1 3        P  3 BD      52                     L)
L                                           3          BD XB 7

/       278.42  278.81   0.39          X BRHT CR       SS (L 1 3 1 3        R  3 BD      55                     L)
L                                           3          BD XB 7                                                  B+
R SPC   278.42  278.81        SAMPLE O.G. 114 TAKEN AT 278.42 M

/       295.96  300.02   4.06          X BRHT GR       BR BD 1 3 1 3        R  3 BD      52                     L)
L                                                                                                      >=          V(
R       295.96  300.02        EXTREME VEINING OF ARSI RESULTS IN BRECCIATION OF THIS UNIT.
R       295.96  300.02        VEINING APPEARS TO FLOW AROUND ARSI CLASTS.
R SPC   295.96  300.02        SAMPLE O.G. 115 TAKEN AT 297.18 M
R SPC   295.96  300.02        SAMPLE O.G. 116 TAKEN AT 299.80 M

/       300.02  300.62   0.60          9 SAND          G;    0 3 9 4        R  2 BD     U65                      D+
L                                           5                8
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K  F  F R O M - T O -   I N T RECOV  MD % ROCK TM TM GM1  TX TX F C % M ARG   RI 1 ID  AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- ---  -- -- - - - - ---- --- - --  --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                          R Q D  AGE EV RQ LC TM GM2  TX TX S C O O CHT       2 ID  AZM DIP MG MU CL SD QS HA PR MT SL HA

/ CON  300.62  306.65    6.03              ARGL CP         MX    0 0   0       P                                  D(
L                                               1               9

/      300.62  306.65    6.03            3 BRHT CR    *C+  (L            KM2   R  3                               R=
L                                               3         F* B* 6       LN2
R      300.62  306.65       THE PYRITE OCCURS AS A REPLACEMENT MINERAL IN CHERT FRAGMENTS.
R      300.62  306.65       THE BRHT OCCURS AS 5-20 CM INTERBEDS WITHIN THE ARGL.
R SPC  300.62  306.65       SAMPLE D.G. 117 TAKEN AT 301.50 M.

/ CON  306.65  312.81    6.16              BRHT       *S+  G;            KR3   P                         <)       R+
L                                               4    *C=  F* B* 3   +   LO2
R SPC  306.65  312.81       SAMPLE D.G. 118 TAKEN AT 309.92 M.

/ CON  312.81  319.40    6.59              ARSI       SN1  BD // 0 3 1 3       P  1 BD       50    <*             B)
L                                               4         ST SS 8                                          >+
R SPC  312.81  319.40       SAMPLE D.G. 119 TAKEN AT 313.44 M.

/      313.01  313.12    0.11            9 BRHT                          JL1   R                                  B)
L                                               3               3       JM2                                >+
 
/      314.64  315.40    0.56            9 CGCP       GG2  F*            KQ1   R                                  *+
L                                               6    *C3        3     C KP6                                <)
R SPC  314.64  315.40       SAMPLE D.G. 120 TAKEN AT 314.88 M.

/      317.42  317.81    0.39            8 BRHT SF    *C(     F*         KL2   R                                  D+
L                                               4         B*    3       JK1                                >5
R      317.42  317.81       SAMPLE D.G. 121 TAKEN AT 317.63 M.

/      319.40  325.01    5.61              BRHT                          LP3   P                                  D+
L                                               5               3       JP2                                C)

K M/B  319.40  319.40    0.00

/      319.40  320.87    1.47            8 SAND       SN7  G; BD 0 3 7 6       R  2 BD      U50                   D+
L                                               5    SI1        7

/ CON  325.01  332.05    7.04              BRPM CR    *C)  BD            LP2   P  2 BD       55                   R)
L                                               1         F* B* 2       JMT
R      325.01  332.05       THE PYRITE OCCURS AS A REPLACEMENT MINERAL IN CHERT CLASTS, AND
R      325.01  332.05       THE SANDSTONE LAMINATIONS OF THE ARSI CLASTS, THE AMOUNT OF
R      325.01  332.05       CHERT IN THE FORM OF SANDSTONE SIZED PARTICLES INCRESEASES NEAR
R      325.01  332.05       THE BASE OF THIS UNIT, ARGL INTERBEDS ARE 10-25 CMS IN WIDTH.

/ CON  332.05  335.78    3.73              ARGL CR         MX    0 0   0       P                                  D)
L                                                               9

/      335.01  335.78    0.77            4 SAND GR    SN7  FE LC 0 3 7 5       R                                  D1
L                                               3               8

/ CON  335.78  341.66    5.88              BRHT CR    *C+     B*         LO3   P                                  R=
L                                               2         B* F*         JN1
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 K  F  F R O M - T O -  I N T RECOV  MD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 Y  G                               R O D  AGE EV RB LC TM OM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

 /       338.70  339.30   0.60           9 ARGL CR    SM+ MX    0 3 + 3          R                                        D*
 L                                            1                 8
 R       338.70  339.30       A SANDY 10 CM UNIT IS PRESENT ABOVE THE MASSIVE ARGL.
 -----------------------------------------------------------------------------------------------------------------------------------
 /       339.50  339.60   0.10           X BRHT CR    *C+    R*           LQ3    R                                        R=
 L                                                                                                                  <=

 / FLT   341.66  348.11   6.45             BRPM CR    GG2                 LQ4    P                                        L+
 L                                            2       *C( F*    2         JL=                                       V)
 R       341.66  348.11       PYRITE OCCURS AS BOTH A REPLACEMENT MINERAL IN CHERT FRAGEMENTS
 -----------------------------------------------------------------------------------------------------------------------------------
 R       341.66  348.11       AND AS FINE LAMINATIONS WITHIN THE MUDSTONE MATRIX.

 /       348.11  349.61   1.50             CGCP       *C)    F*           LQ3    P                                        R+
 L                                            5          R*     4      C JN3
 R       348.11  349.61       PYRITE OCCURS AS A REPLACEMENT MINERAL IN CHERT FRAGMENTS.
 -----------------------------------------------------------------------------------------------------------------------------------
 K M/A   348.11  348.11   0.00

 /       348.11  348.57   0.46           R SAND           G;    0 3 8 4          R    BD     U50 V+                       D+
 L                                            6              BD 8                                                   V)
 R SPC   348.11  348.57       SAMPLE D.G. TAKEN AT 349.00 M.
 -----------------------------------------------------------------------------------------------------------------------------------
 / CON   349.61  355.14   5.53             CGBR       *S+ G;              KP2    P                                        H+
 L                                                    *C  R* F* 5    +    JN4

 / CON   355.14  361.92   6.78             ARSI CR    SI= BD G; 0 3 1 5          P  3        U60                          L+
 L                                            1       SM1       8                                                   <.
 R       355.14  361.92       THE PYRITE OCCURS AS A REPLACEMENT MINERAL IN THE SAND-SILT
 -----------------------------------------------------------------------------------------------------------------------------------
 R       355.14  361.92       BEDS, WHICH ARE INTERCALATED WITH THE MORE MASSIVE ARGILLIC BEDS
 R SPC   355.14  361.92       SAMPLE D.G. 144 TAKEN AT 356.85 M.
 R SPC   355.14  361.92       SAMPLE D.G. 145 TAKEN AT 359.86 M.

 /       357.90  358.71   0.81           9 BRHT       *S) CL    L 0 8            R                                        R=
 L                                            3                 3 M 1   K
 -----------------------------------------------------------------------------------------------------------------------------------
 R       357.90  358.71       THE PYRITE OCCURS AS REPLACEMENT MINERALIZATION WITHIN CHERT.

 /       359.66  359.86   0.20           X ARSI CR    GG8 BD G; 0 3 1 5          R  3        U60                    <*    L+
 L
 R       359.66  359.86       THE GOUGE COULD REPRESENT A MINOR FAULT.
 -----------------------------------------------------------------------------------------------------------------------------------
 /       361.92  375.86  13.94             ARGL CR    SM+ BD              03+3   P  3 BD       57                         D+
 L                                            1       SI)       8

 /       361.92  375.86  13.94           2 BRHT                           KP     R                                        R=
 L                                            2                 3         JL2
 R       361.92  375.86       THE PYRITE OCCURS AS A REPLACEMENT MINERAL IN CHERT CLASTSTS.
 -----------------------------------------------------------------------------------------------------------------------------------
 /       375.86  398.12  22.26             ARGL CR       BD MX  0 2 + 2          P  1 BD       75                   <.    L+
 L                                            1                 9                                                   <.
 R SPC   375.86  398.12       SAMPLE D.G. 146 TAKEN AT 375.92 M , D.G. 147M AT 377.4 M  AND
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K  F  F R O M - T O -  I N T RECOV  RQ % ROCK TM TM JM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                             R Q D  AGE EV RQ LC T4 JM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R SPC  375.65  398.12        383.46 M.

/      390.24  391.26  1.02            X ARGL CR        BD MX 0 2 + 2       R  1 BD      75                 <(    V1
L                                                                                                           V2
R SPC  390.24  391.26        SAMPLE D.G. 149 TAKEN AT 390.78 IS REPRESENTATIVE OF THE
R SPC  390.24  391.26        NETWORK VEINING IN THIS INTERVAL.

/      398.12  402.24  4.12              BRHT         *C) G; H*          KP4   P                                  H+
L                                           3            F* B* 3         JM1                                <(
R      398.12  402.24        WITHIN THIS INTERVAL THE MATRIX IS MADE UP OF SAND SIZED
R      398.12  402.24        PARTICLES. PYRITE IS FOUND AS A REPLACEMENT MINERAL IN CHERT
R      398.12  402.24        FRAGMENTS . IND NORMAL GRADING CYCLES ARE ALSO OBSERVED WITHIN
R      398.12  402.24        THIS INTERVAL.

/      398.17  399.72  1.55            5 SILT         SI7 G; (L 2 3 2 3       R  3         U72                    L+
L                                           4         SN2        6
R      398.17  399.72        SANDSTONE BEDS OF 3 MM THICK ARE INTERBEDDED WITH SILTSTONE
R      398.17  399.72        BEDS THAT RANGE FROM 3-5 CM IN THICKNESS. THE SANDSTONE BEDS
R      398.17  399.72        ARE SLIGHTLY LENSOIDAL AND DISPLAY LOADCAST AND FLAME STRUCTURE.
R      398.17  399.72        WITHIN THE SILTSTONE BEDS

/      402.24  419.10  16.86             ARGL CR         MX      0 0   0          P                                  L+
L                                           1                    9

/      402.24  419.10  16.86           3 BRPM         *C. ND SS          MN8   R                                  R+
L                                           3                B* 3      JL=
R      402.24  419.10        THE BRPM BEDS RANGE FROM 15-160 CM AND ARE INTERBEDDED WITH
R      402.24  419.10        BEDS  OF ARGL THAT VARY FROM 100-150 CM IN THICKNESS.
R      402.24  419.10        THE PYRITE OCCURS AS NODULES DUE TO THE COMPLETE REPLACEMNENT OF
R      402.24  419.10        CHERT FRAGMENTS.

/      419.10  423.67  4.57              ARSN         SN3 G; (L 0 3 5 5       P  2         U65 V)                 R)
L                                           3         SI2        7
R      419.10  423.67        PYRITE OCCURS AS A REPLACEMENT MINERAL IN SANDSTONE SIZED
R      419.10  423.67        FRAGMENTS.

/      423.67  425.50  1.83              BRPM                            LM1   P                                  R+
L                                           3                    5       KL=

K M/O  425.50  425.50  0.00

/      425.50  427.02  1.52              SAND            LC G; 2 3 8 6       P            U60                    D)
L                                           4               LM 8

/ FLT  427.02  428.65  1.63              BRHT CR      GG3                LP3   P                   V+             R+
L                                           3         *G( F* B* 3        KM2

/      428.65  440.07  11.42             ARSI         SN2 BD (L 0 3 2 3       P  1         U70                    L+
L                                           3            LC SS 7

/ FLT  431.60  431.85  0.25            8 CGCP         GG2                KM1   R                   <)             **
L                                           6         *G)        4       JL4
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K  F  F R O M - T O -  I N T RECOV  MD % ROCK IN IN OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                            R Q D  AGE EV RO LC IN OM2 TX TX S C O O CHT        2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/      431.85 440.07 8.22           + BRHT                       KN2  R                              B+
L                                          3            3        JM1
R      431.85 440.07     THE BRHT UNIT OCCURS IN THIN 3-20 CM INTERCALATED BEDS. THE
R      431.85 440.07     ARSI BEDS ARE THICK 2-3 METER INTERVAL.

/      440.07 447.68 7.61             ARGL CR    SN+ SS BO            P  1 BL       65               B+
L                                          2          BO R
R SPC  440.07 447.68     SAMPLE D.G. 151 TAKEN AT 442.30 M.

/      447.66 462.38 14.70            BRHT       *C= R* F*           MS7  P                              R+
L                                          3A    *S) H* B* 2   )     K01
R      447.68 462.38     SAND BANDED ARGILLITE PREDOMINANTLY SANDSTONE.
R      447.68 462.38     THE MATRIX IS PREDOMINANTLY SANDSTONE.

/      452.32 452.77 0.45           X BRHT       *C= R* F*           MS7  R                              R1
L

/      462.38 485.84 23.46            BRPM       *C=    F*           K01  P              <(          <*   D*        <(
L                                          5A    *S( B* H* 4   ) 0 MG2
R SPC  462.38 485.84     SAMPLE D.G. 172 TAKEN AT 473 METERS IS A PEBBLY MUDSTONE WITH
R      462.38 485.84     A SANDSTONE MATRIX. ALONG THE FRACTURES A BRIGHT, MEDIUM BLUE
R      462.38 485.84     MINERAL OCCURS. ASSOCIATED WITH THIS UNKOWN MINERAL IS A FINE
R      462.38 485.84     GRAINED WHITE BARITE. THE UNKOWN MINERAL OCCURS THROUGH OUT THE
R      462.38 485.84     PEBBLY MUDSTONE, AND MAY BE A HANGING WALL MINERAL ASSOCIATED
R      462.38 485.84     WITH THE ORE ZONE.

/      473.92 485.84 11.92          X BRPM       *C=    F*           K01  R              <(          <*   D*        <(
L

/      485.84 487.98 2.14             SILT CR        VG   1 1   1         P              <(          <+   <(
L                                          3A             9

/      487.25 487.52 0.27           6 SAND SF    CH7      1 3 7 5       R              <+          <=   D+
L                                          4A             8                                                 D(
R      487.25 487.52     SMALL FE-RICH SPHALERITE CRYSTAL ARE FOUND IN 3 MM VUGS.

K UM1  487.98 487.98 0.06

/      487.98 489.75 1.77             LMSX SF        LC                 P  0 LM       75 L4            <( L3     L=
L                                          9R        8R                                                       L2

/      487.52 487.77 0.25           9 LMSX SF    CH7 LC                 R  1              L7            <( L2     L+
L                                          9A        8R                                                       L1
R      487.52 487.77     WITHIN THIS CHERTY UNIT BRECCIATED FRAGMENTS AND VERY THINLY
R      487.52 487.77     LAMINATED BEDS OF CARBONACEOUS ARGILLITE ARE INTERCALATED WITHIN
R      487.52 487.77     THE LAMINATED SULPHIDE.

/      488.37 489.75 1.38           2 SILT CR        4X   1 1   1       R    C/  77                <+
L                                          2A             9
R      488.37 489.75     SILTSTONE BEDS FROM 1.5 TO 13 CM ARE INTERBEDDED WITHIN THE
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K  F   F R O M - T O -  I N T RECOV  RD % ROCK TO FM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                           R Q D  AGE EV RO LC TM OM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R       488.37  489.75     LAMINATED SILICEOUS SULPHIDE BEDS, WHICH AVERAGES 20 CMS THICK.
R       488.37  489.75     THESE SILTSTONE BEDS ARE CONVOLUTED, AND OFFSET BY MINOR
R       488.37  489.75     FAULTING IN CERTAIN AREAS.

/ FSX   489.75  491.10  1.35          FGSX SF        SS BR               P                L5          L=    B1    D1
L                                          96        LC                                                           *3
R       489.75  491.10     THIS UNIT IS PROBABLY FRAGMENTED DUE TO SOFT SEDIMENT SLUMP,
R       489.75  491.10     WHICH CAUSES THE LAMINATED SULPHIDE TO OFFSET AND ROTATE.
R       489.75  491.10     CARBONACEOUS ARGILLITE AND SILTSTONE FRAGMENTS AVERAGE 3 CMS IN
R       489.75  491.10     DIAMETER AND RANGE FROM 0.2 CM TO 8 CM IN DIAMETER.

/ LSX   491.10  492.25  1.15          LMSX SF        LC                  P  1 LM       70 L4                L+    E+
L                                          99           BR                                                     L1 L2
R       491.10  492.25     THE GALENA APPEARS TO FORM AN ENVELOPE AROUND THE MARCASITE RICH
R       491.10  492.25     LAYERS. MARCASITE RICH UNITS OF 4 CM THICKNESS INTERCALATE
R       491.10  492.25     WITHIN 30 CM UNITS OF LAMINATED SILICEOUS SULPHIDE. THESE
R       491.10  492.25     MARCASITE RICH UNITS SHOW A HIGHER DEGREE OF INTERNAL BRECCIA-
R       491.10  492.25     TION.

/       492.25  492.94  0.69          SILT           60 LC 1 1   1       P  1 BD       85          <=          D+
L                                          5A              8                                                   L2 L1

/ FSX   492.94  493.62  0.68          FGSX SF        BR SS               P                *3                      *+
L                                          4A        LC                                                        B2 *1
R       492.94  493.62     SILTSTONE AND LAMINATED SULPHIDE FRAGMENTS AVERAGE 2 CMS. IN
R       492.94  493.62     DIAMETER AND RANGE FROM .3 TO 6 CM IN DIAMETER. FRAGMENTS ARE
R       492.94  493.62     HIGHLY ANGULAR AND APPEAR TO HAVE BEEN DISPLACED VERY LITTLE
R       492.94  493.62     FROM THEIR PLACE OF ORIGIN . BRECCIATION PROBABLY RESULTS FROM
R       492.94  493.62     SOFT SEDIMENT SLUMP.

/ LSX   493.62  495.30  1.68          LMSX SF        LC                  P   0            L6          L=          L+
L                                          8Y                                                                  B1 L2

/       493.62  493.73  0.11        8 SILT CR   SN2       1 2 3 3        R    C/       67 L1                      L=
L                                          4A   SI6       8                                                    B3 D1
R       493.62  493.73     THE STRATIGRAPHIC TOP OF THE SILTSTONE BED IS RICH IN MARCASITE.

/       495.30  497.62  2.32          BRPT                          KO1  P                <+          D*    <+    *+
L                                          4A             3   1                                                <= *=
R       495.30  497.62     THE FRAGMENTS ARE EXTREMELY ANGULAR WHICH INDICATES A SHORT
R       495.30  497.62     TRANSPORT DISTANCE. THE "OTHER FRAGMENTS" CLASSIFICATION (I.E.
R       495.30  497.62     LOWER TIER, COLUMN 41) IS COMPOSED OF LAMINATED SILICEOUS
R       495.30  497.62     SULPHIDES. THESE ANGULAR CLASTS AVERAGE 4 CM IN DIAMETER AND
R       495.30  497.62     RANGE FROM .4 TO 15 CMS IN DIAMETER. IT IS COMMON TO SEE
R       495.30  497.62     CARBONACEOUS SILTSTONE LAMINATIONS WITHIN THESE LAMINATED
R       495.30  497.62     SULPHIDE BRECCIA. IT SEEMS LIKELY THAT A DEBRIS FLOW HAS
R       495.30  497.62     PARTIALLY ERODED THE ORE ZONE, AFTER WHICH SULPHIDE DEPOSITION
R       495.30  497.62     CONTINUED.

/       495.30  495.61  0.31        9 SILT CR   SI3 LC    1 2 1 3        R  0 LM       69          <)          D*
L                                          40   SN1   BR  8                                                    L5 L+
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K  F   F R O M - T O -  I N T RECOV  RD % ROCK TM TM GM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                        R Q D  AGE EV RG LC TM GM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R      495.30  495.61      THIS FINELY LAMINATED SILTSTONE IS EXTREMELY RICH IN FE-
R      495.30  495.61      SULPHIDES AND PERHAPS SHOULD BE CONSIDERED AS A LAMINATED SUL-
R      495.30  495.61      PHIDE. MILD BRECCIATION HAS OCCURRED, RESULTING IN SOME ANGULAR,
R      495.30  495.61      ARGILLIC CLASTS.

K LM1  497.62  497.62  0.00

/      497.62  499.00  1.38            SILT CR    SI7    LM 1 2 2 2       P  1 LM      70 V=          <+
L                                          3A    SM2 LC LC 8                                                    B= <+
R      497.62  499.00      FE-SULPHIDES OCCUR AS SMALL BLEBS, WITHIN SILICATE LENSES, THAT
R      497.62  499.00      PARRALLEL BEDDINGS. QUARTZ VEINS CONTAIN SOME SPHALERITE, AND
R      497.62  499.00      CROSSCUT BEDDINGS. PYRITE ALSO OCCURS IN 0.4 CM LAMINATIONS
R      497.62  499.00      WITHIN THE SILTSTONE. LOADCASTS WERE OBSERVED BETWEEN THE PYRITE
R      497.62  499.00      RICH QUARTZ LENSES  AND THE SILTSTONE HOST, INDICATING A SYNSE-
R      497.62  499.00      DIMENTARY PERIOD FOR LENSE FORMATION.

/      499.00  501.00  2.00            SILT CR    SI7    LM 1 2 2 2       P  1 LM      75 V=          <+
L

/      501.00  503.53  2.53            SILT CR    SI7    LM 1 2 2 2       P  1 LM      72 V=          <+
L

/ LSX  503.53  504.14  0.61            LMSX             LC                P  1            L2          L)          L1
L                                          8D           VG MX                                                    M3 L3
R      503.53  504.14      HIGHLY CONVOLUTED LAMINATED SULPHIDES ARE INTERCALATED WITH A
R      503.53  504.14      7 CM THICK BED OF MASSIVE MARCASITE. THE MASSIVE SULPHIDE IS
R      503.53  504.14      EXTREMELY VUGGY AND APPEARS TO BE A PRODUCT OF OPEN SPACE
R      503.53  504.14      FILLING. CARBONACEOUS SILTSTONE BEDS, AVERAGING 1 CM IN
R      503.53  504.14      THICKNESS, ARE ALSO INTERBEDDED WITHIN THE LAMINATED SULPHIDE
R      503.53  504.14      AND CONSTITUTE 10% OF THE TOTAL INTERVAL.

/ FLT  504.14  509.45  5.31            SILT CR    SI8 LM     1 1   1      P  1 LM      50 <+          <+     D)
L                                          3A                8                                               <)
R      504.14  509.45      THIS INTERVAL IS EXTREMELY BROKEN UP. IT IS LIKELY THAT THE
R      504.14  509.45      LAMINATED SULPHIDE ABOVE THE SILTSTONE IS PART OF THE MAIN ORE
R      504.14  509.45      BODY AND HAS BEEN DISPLACED TO ITS PRESENT POSITION BY
R      504.14  509.45      SUBSEQUENT FAULTING.

/ FLT  509.45  533.40  23.95           ARGL CR    GG1 MX     0 0   0      P               <+          <(     B)
L                                          1A            MD 9
R      509.45  533.40      THIS UNIT IS HIGHLY BROKEN AND SHEARED. SLICKENSIDE SURFACES
R      509.45  533.40      ARE OBSERVED WITHIN SHEARED ZONES. PYRITE IS OCCASIONALLY
R      509.45  533.40      OBSERVED AS THIN .3 CM LAMINATIONS WITHIN THE MASSIVE ARGILLITE.

/      533.40  553.83  20.43           ARST CR    SM1 SS XB 0 3 1 3       P  1 BD     U70                    <+
L                                          3A        8D    8                                  V)
R      533.40  553.83      THE SANDSTONE LAMINATIONS WITHIN THE ARGILLITE ARE LENSOIDAL
R      533.40  553.83      AND CROSSBEDDED. OFFSETS ON BEDDING ARE DUE TO SOFT SEDIMENT
R      533.40  553.83      SLUMP. THIS INTERVAL IS HIGHLY BROKEN, BUT NOT AS BADLY GOUGED
R      533.40  553.83      AS THE PREVIOUS ARGILLITE (IE 509.45 TO 533.40 M).
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A UMM                                  ROD          SP.GR.
A TYP                                  CM              SG
A MTH                                  B-B          WEIGH
A LAB                                  FLD            FLD

R ASY    0.00    0.00    RCOV=RECOVERY(C17-20) IS MEASURED IN CM BLOCK TO BLOCK(B-B)

R ASY    0.00    0.00    RQD=ROCK QUALITY DESIGNATOR(C27-32)MEASURED IN CM BLOCK TO BLOCK

R ASY    0.00    0.00        RQD IS THE TOTAL LENGTH (BETWEEN BLOCKS) OF PIECES OF CORE

R ASY    0.00    0.00        AT LEAST 2-1/2 TIMES DIAMETER OF CORE TO NEAREST CM, DIVIDED

R ASY    0.00    0.00        BY LENGTH OF INTERVAL = BLOCK(TO) MINUS BLOCK(FROM)TIMES 100

R ASY    0.00    0.00    CM INDICATES THAT MEASUREMENTS ARE IN CM'S WHICH ARE TO BE RIGHT

R ASY    0.00    0.00        JUSTIFIED AGAINST THE DOUBLE VERTICAL LINE AT RIGHT MARGIN

R ASY    0.00    0.00        OF EACH FIELD.

R ASY    0.00    0.00    B-B=BLOCK-TO-BLOCK (DRILLERS BLOCKS). ENTER METRAGE OF ONE BLOCK

R ASY    0.00    0.00        AS THE TO OF ANY INTERVAL AND THE METRAGE OF THE NEXT BLOCK.

R ASY    0.00    0.00        ADDITIONAL POINTS (FROM-TO'S) CAN BE ESTABLISHED BETWEEN

R ASY    0.00    0.00        BLOCKS TO BRACKET SPECIFIC INTERVALS OF LOCALIZED POOR

R ASY    0.00    0.00        RECOVERY. B-B IS ENTERED RIGHT JUSTIFIED IN EACH FIELD IN

R ASY    0.00    0.00        THE AMTH HEADER.

R ASY    0.00    0.00    THE FIRST INTERVAL, THROUGH THE OVERBURDEN, WITH ZERO RECOVERY,

R ASY    0.00    0.00        SHOULD BE ENTERED FIRST -- SEE BELOW.

A 100    0.00    4.45    00                   00
R ASY    0.00    4.45      OVERBURDEN
A 100    4.45    5.18    73                   00
A 100    5.18    7.01   169                   80
A 100    7.01    9.45   212                  135
A 100    9.45   12.50   276                  228
A 100   12.50   12.98    48                   28           2.68
A 100   12.98   14.33   123                   94
A 100   14.33   17.37   248                  185
A 100   17.37   19.51   198                  155
A 100   19.51   21.34   169                   39
A 100   21.34   24.38   225                  139
A 100   24.38   26.21   183                   16
A 100   26.21   27.13    81                   48
A 100   27.13   28.04    48                   30
A 100   28.04   31.09   296                  250
A 100   31.09   32.61   149                   84
A 100   32.61   34.75   186                  165
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A UMM				RQD	SP.GR.
A TYP				CM	SG
A MTH				B-B	WEIGH
A LAB				FLD	FLD
A 100	34.75	38.10	302	226	
A 100	38.10	38.71	61	47	
A 100	38.71	42.06	318	206	
A 100	42.06	42.67	59	00	
A 100	42.67	46.02	332	169	
A 100	46.02	49.38	318	221	
A 100	49.38	51.82	244	131	
A 100	51.82	54.56	272	116	
A 100	54.56	55.17	61	000	
A 100	55.17	58.22	305	160	
A 100	58.22	61.57	304	204	
A 100	61.57	64.01	227	80	
A 100	64.01	67.36	313	212	
A 100	67.36	69.49	209	91	
A 100	69.49	71.63	198	85	
A 100	71.63	72.24	48	20	
A 100	72.24	74.98	264	80	
A 100	74.98	78.21	293	46	
A 100	78.21	83.21	500	134	
A 100	83.21	86.44	312	105	
A 100	86.44	87.17	61	00	
A 100	87.17	87.78	58	21	
A 100	87.78	89.61	145	46	
A 100	89.61	92.96	294	69	2.68
A 100	92.96	96.32	302	130	
A 100	96.32	99.36	304	137	
A 100	99.36	102.41	305	162	2.55
A 100	102.41	105.77	292	216	
A 100	105.77	108.81	255	127	2.67
A 100	108.81	111.86	305	159	2.44
A 100	111.35	114.91	305	200	2.71
A 100	114.91	117.96	298	174	
A 100	117.96	121.91	293	130	2.67
A 100	121.01	124.05	304	150	
A 100	124.05	127.10	197	97	2.71
A 100	127.10	130.15	301	212	
A 100	130.15	133.20	305	100	
A 100	133.20	136.25	303	151	
A 100	136.25	139.29	292	162	2.68
A 100	139.29	142.34	297	201	
A 100	142.34	145.39	305	182	2.67
A 100	145.39	148.44	294	181	
A 100	146.44	151.49	282	89	
A 100	151.49	154.53	297	186	
A 100	154.53	157.58	300	93	2.75
A 100	157.58	160.63	258	125	
A 100	160.63	163.68	302	96	
A 100	163.68	166.73	278	118	
A 100	166.73	169.77	303	167	
A 100	169.77	172.82	292	164	
A 100	172.82	175.87	283	00	

A DMM					RQD	SP.GR.
A TYP					CM	SG
A MTH					B-S	WEIGH
A LAB					FLD	FLD
A	100	175.87	178.00	213	00	
A	100	178.00	178.92	92	00	
A	100	178.92	180.75	150	00	
A	100	180.75	183.79	284	95	2.59
A	100	183.79	185.01	117	24	
A	100	185.01	188.06	288	75	
A	100	188.06	189.89	180	19	
A	100	189.89	193.24	307	00	2.67
A	100	193.24	195.99	275	00	
A	100	195.99	199.03	296	136	2.68
A	100	199.03	200.25	110	17	
A	100	200.25	203.30	298	51	2.55
A	100	203.30	204.52	105	00	
A	100	204.52	205.74	102	00	
A	100	205.74	206.35	55	00	2.65
A	100	206.35	207.89	107	00	
A	100	207.89	209.40	113	00	
A	100	209.40	211.53	120	00	
A	100	211.53	213.97	235	00	
A	100	213.97	214.88	91	00	
A	100	214.88	215.49	58	00	2.62
A	100	215.49	216.71	94	00	
A	100	216.71	217.32	34	00	2.73
A	100	217.32	218.54	71	00	
A	100	218.54	220.07	129	00	
A	100	220.07	220.68	46	00	
A	100	220.68	221.59	69	00	
A	100	221.59	223.72	45	00	
A	100	223.72	225.86	156	00	
A	100	225.86	228.30	241	00	
A	100	228.30	230.73	141	00	
A	100	230.73	231.65	63	00	2.69
A	100	231.65	235.61	290	00	
A	100	235.61	238.35	166	00	
A	100	238.35	239.88	153	28	
A	100	239.88	242.93	273	103	2.68
A	100	242.93	244.45	152	23	
A	100	244.45	247.80	304	55	
A	100	247.80	249.02	112	00	2.66
A	100	249.02	252.07	305	139	
A	100	252.07	253.59	152	47	
A	100	253.59	254.51	10	00	
A	100	254.51	257.56	283	17	
A	100	257.56	259.38	142	81	
A	100	259.38	260.30	53	00	
A	100	260.30	261.82	97	38	
A	100	261.82	263.65	176	125	
A	100	263.65	265.79	155	00	
A	100	265.79	267.61	143	45	
A	100	267.61	267.92	26	00	
A	100	267.92	268.93	32	00	

A UMM A TYP A MTH A LAB				RQD C% 4-8 FLD	SP.GR. SG WEIGH FLD
A 100	268.83	269.14	21	00	
A 100	269.14	270.05	79	19	
A 100	270.05	270.97	71	23	
A 100	270.97	273.41	30	06	
A 100	273.41	274.02	19	06	
A 100	274.02	274.93	61	00	
A 100	274.93	275.84	71	00	
A 100	275.84	278.28	198	97	
A 100	278.28	278.89	57	23	
A 100	278.39	280.42	93	00	
A 100	280.42	282.85	92	06	2.67
A 100	282.85	283.34	38	06	
A 100	283.34	284.68	89	00	
A 100	284.68	285.29	61	00	
A 100	285.29	286.21	92	19	
A 100	286.21	288.65	105	00	
A 100	288.65	290.17	139	00	
A 100	290.17	292.00	145	00	
A 100	292.00	293.83	173	00	
A 100	293.53	295.96	120	56	
A 100	295.96	297.18	122	00	
A 100	297.18	298.40	103	42	
A 100	298.40	302.06	271	80	
A 100	302.06	305.41	295	61	2.68
A 100	305.41	308.46	288	69	
A 100	308.46	311.81	297	195	2.51
A 100	311.81	315.16	297	108	
A 100	315.16	316.99	115	00	
A 100	316.99	320.04	280	54	2.65
A 100	320.04	322.17	148	17	
A 100	322.17	325.22	202	06	2.67
A 100	325.22	327.96	175	26	2.65
A 100	327.96	331.01	274	74	
A 100	331.01	334.06	296	38	2.68
A 100	334.06	337.72	233	00	
A 100	337.72	340.16	227	54	2.72
A 100	340.16	342.90	201	25	
A 100	342.90	344.42	79	00	
A 100	344.42	346.56	214	00	2.65
A 100	346.56	349.61	268	59	2.61
A 100	349.61	352.65	276	23	
A 100	352.65	352.96	10	00	
A 100	352.96	356.01	276	21	2.61
A 100	356.01	356.31	9	00	
A 100	356.31	357.38	87	00	2.65
A 100	357.38	359.66	195	00	
A 100	359.66	361.30	211	46	
A 100	361.80	363.63	163	33	
A 100	363.63	366.67	192	122	2.70
A 100	366.67	369.72	297	141	
A 100	369.72	373.08	326	37	

						ROD	SP.GR.
A	UMM					ROD	SP.GR.
A	TYP					CM	SG
A	MTH					B-B	WEIGH
A	LAB					FLD	FLD
A	100	373.08	376.43	182		56	
A	100	376.43	377.04	57		00	
A	100	377.04	380.09	267		35	
A	100	380.09	381.61	123		42	
A	100	381.61	384.66	301		92	2.64
A	100	384.66	386.79	213		29	
A	100	386.79	389.23	244		00	
A	100	389.23	390.75	88		19	
A	100	390.75	392.87	180		00	
A	100	392.87	395.33	236		00	
A	100	395.33	398.37	265		20	
A	100	398.37	401.42	275		19	2.55
A	100	401.42	404.47	260		111	
A	100	404.47	406.60	170		37	
A	100	406.60	409.80	316		76	
A	100	409.80	410.26	46		00	2.67
A	100	410.26	412.39	171		28	
A	100	412.39	413.61	122		00	
A	100	413.61	414.83	79		00	
A	100	414.83	416.66	147		28	
A	100	416.66	419.10	219		00	
A	100	419.10	421.54	236		17	
A	100	421.54	423.67	172		23	2.67
A	100	423.67	424.28	61		36	
A	100	424.28	427.02	250		00	2.66
A	100	427.02	428.85	142		00	2.64
A	100	428.85	430.99	161		20	
A	100	430.99	432.51	118		00	
A	100	432.51	434.95	232		00	
A	100	434.95	435.85	83		00	
A	100	435.86	439.22	325		67	2.76
A	100	439.22	441.05	168		00	
A	100	441.05	441.96	60		00	
A	100	441.96	442.87	62		00	2.73
A	100	442.87	443.48	54		00	
A	100	443.48	444.70	86		00	
A	100	444.70	445.92	100		00	
A	100	445.92	447.14	122		00	
A	100	447.14	449.28	156		06	
A	100	449.28	450.80	145		38	
A	100	450.80	452.32	133		00	
A	100	452.32	455.68				
A	100	455.68	458.72	253		00	2.67
A	100	458.72	459.33	61		00	
A	100	459.33	460.25	74		00	
A	100	460.25	462.38	73		17	
R	ASY	460.25	461.47		GROUND		
A	100	462.38	465.43	186		52	
A	100	465.43	468.48	167		13	2.59
A	100	468.48	471.53	256		96	
A	100	471.53	473.66	160		27	

A	UNM					RQD	SP.GR.
A	TYP					CR	SG
A	MTH					B-B	WEIGH
A	LAB					FLD	FLD
R	ASY	471.53	471.83		GROUND		
A	100	473.66	475.18	61		00	
A	100	475.18	475.79	16		00	
A	100	475.79	477.01	73		00	
A	100	477.01	478.54	110		00	
A	100	478.54	480.67	165		00	
A	100	480.67	481.89	98		00	
A	100	481.89	483.11	122		23	
A	100	483.11	486.16	284		32	
A	100	486.16	486.77	61		00	
A	100	486.77	487.07	00		00	
R	ASY	486.77	487.07		GROUND		
A	100	487.07	487.98	55		00	
A	100	487.98	489.75	177		123	
A	100	489.75	492.25	190		13	
A	100	492.25	492.94	26		00	
A	100	492.94	493.62	68		43	
A	100	493.62	495.30	76		00	
A	100	495.30	497.20	165		34	
A	100	497.20	499.00	124		25	
A	100	499.00	501.00	122		00	
A	100	501.00	503.53	213		00	
A	100	503.53	504.14	32		00	
A	100	504.14	505.05	50		00	
A	100	505.05	506.58	93		00	
A	100	506.58	508.10	135		12	
A	100	508.10	509.02	85		16	
A	100	509.02	509.93	80		12	2.59
A	100	509.93	510.84	91		32	
A	100	510.84	512.06	93		00	
A	100	512.06	512.67	47		00	
A	100	512.67	513.59	57		00	
A	100	513.59	514.50	89		12	
A	100	514.50	515.72	87		12	
A	100	515.72	516.94	110		00	
A	100	516.94	517.25	27		00	
A	100	517.25	518.16	52		00	
A	100	518.16	519.07	63		00	
A	100	519.07	520.29	83		00	2.70
A	100	520.29	521.82	146		23	
A	100	521.82	523.04	93		00	
A	100	523.04	524.26	122		00	
A	100	524.26	525.17	72		00	
A	100	525.17	525.78	61		00	
A	100	525.78	527.00	94		29	
A	100	527.00	527.61	58		15	
A	100	527.61	528.52	56		00	
A	100	528.52	529.74	121		12	
A	100	529.74	530.66	78		00	
A	100	530.66	531.88	106		00	
A	100	531.88	533.40	145		19	

				RQD	SP.GR.
A UMM				RQD	SP.GR.
A TYP				CO	SG
A MTH				B-B	WEIGH
A LAB				FLD	FLD
A 100	533.40	534.01	48	00	
A 100	534.01	535.53	132	23	
A 100	535.53	536.75	120	00	
A 100	536.75	538.28	121	63	
A 100	538.28	538.89	61	17	
A 100	538.89	540.11	87	00	2.71
A 100	540.11	541.02	84	17	
A 100	541.02	542.24	122	00	
A 100	542.24	543.76			
A 100	543.76	545.29	153	99	
A 100	545.29	546.20	76	13	
A 100	546.20	547.12	92	28	
A 100	547.12	548.64	152	82	
A 100	548.64	549.55	91	21	
A 100	549.55	550.16	59	00	
A 100	550.16	551.69	113	17	
A 100	551.69	552.60	91	52	
A 100	552.60	553.83	12	00	

R SUM DRILL HOLES DDH81-75 AND DDH77-22 CORRELATED WELL USING

R SUM MARKER BEDS D,B,A AND O. CORRELTION WITH DDH78-27 WAS ALSO

R SUM FAIRLY ACCURATE IN PREDICTING THE DRILL HOLE LOCATION, WITH

R SUM RESPECT TO THE ORE ZONE, ONCE IT WAS IT WAS REALIZED THAT THE

R SUM MARKER BED C WAS NOT PRESENT. THIS MARKER BED HAS EITHER BEEN

R SUM FAULTED OUT OR GREATLY REDUCED IN SIZE.

R SUM LITHOGIC UNIT IN DDH81-75, WERE BROKEN SHEARED AND GOUGED

R SUM THROUGHOUT LARGE PORTION OF THE HOLE.MANY UNITS WERE ALSO

R SUM REPEATED, INDICATING A GREAT DEAL OF FAULTING HAS TAKEN PLACE.

R SUM THE ORE ZONE IS APPARENTLY TRUNCATED AT DEPTH BY A MAJOR FAULT.

R SUM A .5 M ZONE OF MINERALIZATION OCCURS 8 METERS PAST THE MAIN

R SUM ORE ZONE AS A RESULT OF THIS FAULT.

R SUM AN UNKOWN BLUE MINERAL WAS OBSERVED IN THE HANGING WALL ROCKS

R SUM ABOVE THE ORE ZONE. IT WAS SAMPLED FOR IDENTIFICATION.

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                              G E O L O G   E D I T   L I S T I N G                     SYSTEMS ENGINEERING BY
                                                                                  INTERNATIONAL GEOSYSTEMS CORP.

                                              PAN OCEAN OIL LTD.
                                        JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

                                             FORMAT VERSION : 6B02

DRILLHOLE/TRAVERSE :81-DH076      COLLAR ELEVATION:     1296.37     AZIMUTH( DEG ) :      5.00     GEOLOGGED BY : JER + AMC
TOTAL DEPTH/LENGTH :  163.25      NORTHING(- IF S):  7002568.00     VERTICAL ANGLE :    -59.00     DATE (YY/MM/DD): 810817
CORE/HOLE DIAMETER :      HQ      EASTING (- IF W):   436555.31     CO-ORD SYSTEM  :     UTM       PROJECT NUMBER : J-MAIN


                            SEQ. NO OF     LENGTH FROM COLLAR     AZIMUTH     VERT. ANGLE
                            SURVEY DATA     TO SURVEY POINT       ( DEG )       ( DEG )

                                 1               46.02              7.00         -57.75
                                 2               83.52             10.00         -56.00
                                 3              124.05             13.00         -55.25
                                 4              167.03             16.00         -55.00

  F   - I N T E R V A L -      CORE  T- %        TYPI- GAL  TEX-  GRAIN         PGT    STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K L (UNITS =   . DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                                H  H  H  H  H ANY H  H  H ANY  ALT ORE
F A  (MI=METRIC FI=FOOTRIC)  ERY   O T       TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y G  F R O M - T O -  I N T (  . )  D x TYPE  1  2 QM1  1  2 F F C A          1     AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K F                       ROCK   FM     RT    TM QM2 TX TX S C O O CHT       T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E L                       QUAL   AGE EN- O LC- 3       3  4 O    /           2     AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y G                       DESIG     VTR   COL             R      C             STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2   2

R SVY    0.00    0.00       ALL SURVEY ARE SPERRY SUN SINGLE SHOT.

/ OVB    0.00    3.77   3.77            OVER                                P
L

/ WET    3.77    7.88   4.11            CGCP PY     *C1 B* F*        MP4    P                                          D*
L                                            6A          R* CU        O LN6
R        3.77    7.88        OPEN STRUCTURE INVOLVES CHERT AND ARGILLITE SANDSTONE MATRIX.

/ WET    7.48    7.88   0.40          X SAND PY     *C+       4 5 3 7       R                                       LI D*
L                                            5A     SN9                                                             C.

/ WET    7.88   15.86   7.98            BRBN        SI2              NO9    P                                       LI D*
L                                            1A                                                                     C.

/       15.86   19.64   3.78            ARSI        SI1 SS                  P  2 BD      62                           L*
L                                            1A                                   CL      62
R       15.86   19.64        PYRITE WITHIN SILT LAMINATIONS.  BEDDING PLANE CLEAVAGE.

/       19.64   47.70  28.06            BRMI        *C=     R*       NS8    P                                       LI D(
L                                                       F* B*        LO2                              C.            C.
R       19.64   47.70        CHLORITE IS BRIGHT GREEN.

/       30.76   32.16   1.40          X BRBN SF                      NP9    R                                          D.
L                                            1A                      LN1                              C.

/ SHR   30.91   31.00   0.09          X BRXX                         LN3    R                           #7             B-
L                                            6A
```

```
K  F  F R O M - T O -  T N T RECOV  MD % ROCK TN TN OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                          R Q D  AGE EV RD LC TN OM2 TX TX S C D O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/       32.16   32.40   0.24          X ARSH       SN5 SS  0 3 2 4     R               <-          C.  B*
L                                          3A

/       33.30   35.40   2.10          X BRHT       *C=   R*            NS8   R               V*          C. LI D(
L                                                        + =

/       35.40   35.66   0.26          X SAND               3 4 3 6     R
L

/       35.66   36.10   0.44          X BRHT       *C= CU R*           NP4   R                              LI D(
L                                          2A                            6

/       36.10   37.07   0.97          X CGCP       *C1 B* F*           MP2   R               V)
L                                          6A                           L08

/       37.25   38.50   1.25          X SAND           G; SS 3 4   6         R           D   V+                D*
L                                          6A

/       47.70   53.96   6.26            BRHM       *C) R* F*           OR9   P                                 D-
L                                          2A          R*       . *    M01

/       53.96   56.85   2.89            BRHT SF    *C) FU F*           NP8   P
L                                                  R*                  L02

/       53.96   56.85   2.89          5 SAND               3 4 4 6     R                                 D-
L                                          4A

/       56.85   60.66   3.81            BRHT SF    *C1 H* F*           NS5   P
L                                                  R*              .   M05

/       50.66   64.95   4.29            BRHT SF    *C= H* F*           NQ6   P
L                                                  R*                  LP4

/ FLT   64.12   64.15   0.03          X FAUL       669                       R
L                                          N

/       64.15   64.95   0.80          X SAND           G; CU 3 4   8         R           D                     D*
L                                                           3
R       64.15   64.95      LARGER CLASTS ARE ARGILLITE, BUT INTERVAL DOMINATED BY CHERT

/       64.95   69.98   5.03            BRHM                                 P
L

/ FAL   67.95   68.03   0.08          X FAUL       GG9                       R
L                                          N

/       69.98   71.96   1.98            ARST       SI1 SS                    P  2 BD           <-          <.
L                                          1A                                                  C.
R       69.98   71.96      TRACES OF CHERT CLASTS MAY BE INJECTIONS OF BRHT.

/       76.17   76.27   0.10          X SAND       SNX G;  3 4 2 4     R           D60 <*                L+
L                                          4A               8
```

```
K F  F R O M - T O -  I N T RECOV  MD % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y G                         R Q D  AGE EV RQ LC TM QM2 TX TX S C O O CHT         2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/ FAL  71.48   71.96   0.48           X FAUL CR    GG7                     R
L                                             6

/      71.96   87.90  15.94             PRHT CR    *C+ H* R*          NS7  P               <-          <-    D*
L                                                      F* 6*     )    MO3                           <, <-

/ FLT  75.00   75.19   0.19           X FAUL CR    GG4                     R
L                                             6

/ FAL  75.80   76.28   0.48           X FAUL       GG7                     R
L                                            1A

/ SHR  77.90   78.10   0.20           X BRHT CR    *C+ H* R*          NS7  R               <-          <-    D*
L                                                  GG1 F* R*     )    MO3                           <, <-

/      82.10   83.70   1.60           X CGCP SF    *C) CU H*          MO6  R               >*                D-
L                                            3A                       LN4

/      83.70   84.16   0.46           Y SAND C3        SS    3 4 2 6       R               <-
I                                            3A                7
R      83.70   84.16         CALCITE CEMENT.

/      87.90   91.00   3.10             SAND           SS    3 4   4       P  2 BD         V+                L-
L                                            3A                8                                        V*

/      87.90   91.00   3.10           1 ARGL CR      +                     R                                 D-
L                                            0   LM+
R      87.90   91.00         BITUMENS WITHIN QUARTZ VEINS.  PYRITE ALSO IN MASSIVE PATCHES.
R      87.90   91.00         CHERT CLAST FORM A SMALL PORTION OF THE INTERVAL.  SOME APPARENT
R      87.90   91.00         ANGULAR CLASTS MAY BE BROKEN QUARTZ VEINS.  DISTRUCTION OF VEINS
R      87.90   91.00         DURING SOFT SEDIMENT DEFORMATION INDICATES THAT THE VEINS WERE
R      87.90   91.00         PRESENT SHORTLY AFTER DEPOSITION.  POOR ROCK QUALITY PROHIBITS
R      87.90   91.00         DISTINGUISHING STRATIGRAPHIC DIRECTION.

/      91.00   93.22   2.22             BRHT                          NQ5  P               V)          C.    D*
L                                            1A                     0 MN4

/      91.00   93.22   2.22           3 ARGL           SS                  R               V*          C.    D*
L                                            1A

/      91.00   93.22   2.22           3 BRPM                               R               <*          C.    D*
L                                            1A                       LN1
R      91.00   93.22         THE ROCK IN THIS INTERVAL IS TOO HIGHLY FRACTURED TO ALLOW AN
R      91.00   93.22         ACCURATE MEASUREMENT OF ARGILLITTE CLAST SIZE.
R      91.00   93.22         SOFT SEDIMENT DEFORMATION MAKES LITHOLOGICAL IDENTIFICATION
R      91.00   93.22         DIFFICULT BY SHEARING AND STRETCHING THE ARGILLACEOUS COMPONENTS

/ SHR  93.22   97.67   4.45             ARSI       SI2 SS    1 2 2 3       P  2 BD         <)          C*    7*
L                                                              7

/ FAL  93.22   93.72   0.50           X ARSI       SI2 SS    1 2 2 3       R  2 BD         <)          C*    7*
L                                                  GG2         7
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```
K  F   F R O M - T O -  I N T RECOV  RD % ROCK TM TO GM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                           R Q D  AGE EV RN LC TM GM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/ FLT   95.68   97.67   1.99           X ARGL CR     SIX      0 1 1 1       R               <)          C*    7*
L                                             4      GG3      8
R       95.68   97.67      ROCK HIGHLY FRACTURED.  COHESION OCCASIONALLY GIVEN BY QUARTZ
R       95.68   97.67      VEINING.  SLIGHT SILICIFICATION.

/       97.67  102.41   4.74             BRBT        *C= R* *F          KM5  P               <1                D*
L                                            2A          *B           C KN5

/       97.67  102.41   4.74           0 ARGL CR         SS   0 1 1 2       R               <*
L                                            1A                                                        <*
R       97.67  102.41      ARGL CLASTS PARTIALLY COMPOSED OF ARSI.

/      101.26  102.12   0.86           X CGCP        *C1 F* B*          MO1  R  2 BD
L                                            3A          R*           O LO9

/      102.12  102.41   0.29           X SAND        SNX G; SS 2 3 2 6      R  3 BD      U70                D-
L                                            2A          //     7

/      102.41  121.92  19.51             BRBM                           PR9  P                          <-
L                                                                       LN+                                         <.

/      102.41  121.92  19.51           3 SILT        SI6 SS    2 3   3      R  2 BD                     <-    D-
L                                            2A      SN2        6                                                   <.
R      102.41  121.92      THE SILTSONE OCCURS AS CLASTS WITHIN THE BRBM.

/      118.20  121.92   3.72           X ARGL CR         SS                 R               V)          <-    8*    <.
L                                             4                                                                     <.
R      118.20  121.92      SULPHIDES OCCUR IN QUARTZ AND BARITE VEINING.

/      121.92  123.00   1.08             BRBM        *C-                LP9  P              <*          C.    8*
L                                                                       MO1
R      121.92  123.00      FEW AND SMALL CHERT CLASTS WITH ARGILLITE CLASTS UP TO 10CM.

/ SHR  123.00  123.93   0.93             BRBM        *C-                LP9  P              <*          C.    8*
L                                                    GG=
R      123.90  123.93      INTERMITANTLY FRACTURED ROCK SUGGESTS SHEAR ZONE.

/ SHR  123.93  124.97   1.04             BRBM        *C-                LP9  P              <*          C.    8*
L                                                    GG=

K UM1  124.97  124.97   0.00

/ LSX  124.97  125.97   1.00             LMSX SX BA CH5 SS //               P  1 BD      55             L2    L2    L)
L                                            1A PY                                                                  L+
R      124.97  125.97      CHERT CONTENT OF THIS INTERVAL IS UP TO 50%, REACHING SOMEWHAT
R      124.97  125.97      HIGHER PERCENT IN LATTER PART OF INTERVAL.  SPHALERITE HARD TO
R      124.97  125.97      ESTIMATE.  OCCURS AS CRYSTALS, LAMINATIONS (YELLOW) IN BARITE,
R      124.97  125.97      AND DISSEMINATED IN BARITE, GIVING THE BARITE A YELLOW COLOR.

/ LSY  125.40  125.58   0.18           X LMSX SX BA GG1 SS //               R  1 BD      55             L2    M3    L)
L
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PAN OCEAN OIL LTD.

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G E O L O G                                   JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                          PAGE -  5
                                            DRILLHOLE/TRAVERSE --- 81-GH076 --- (CONTINUED)

K  F   F R O M - T O -  T M T RECOV  MD % ROCK TM TM SM1 TX TX F C % M ARG    RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                              R Q D  AGE EV RO LC TM SM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R       125.40  125.58      POSSIBLY A WEAK FAULT THROUGH THIS INTERVAL.  THE LAMINATIONS
R       125.40  125.58      THROUGHOUT THIS PGI ARE MODERATELY CONVOLUTE, WITH ISOLATED
R       125.40  125.58      STRONG CONVOLUTIONS.

/ LSX   125.97  127.00  1.03          LMSX SX BA GG3 SS //            P  1 BD      85             L6    L3    L=
L WET                                      TA PY CH+                                                          L=
R       125.97  127.00      INTERVAL EXTREMELY FRIABLE.  FIRST PART OF INTERVAL IS FRAGMENTS
R       125.97  127.00      OF 5 - 70CM, BUT INCREASED BARITE IN LATTER PART PRODUCES
R       125.97  127.00      FRIABLILITY.  CHERT OCCURS EARLY IN PGI.

/ LSX   127.00  129.11  2.11          LMSX SX BA GG1 SS //            P  1 BD      60             L3    L2    L=
L                                          TA    CH3                                                           1

/ LSX   127.40  127.65  0.25        X LMSX SX BA GG3 SS //            R  1 BD      85             L3    L3    L=
L                                                5

/ LSX   129.11  130.09  0.98          LMSX SX BA GG8 SS //            P  1 BD      87             L4    L2    L+
L                                          TY PY CH3                                                          L1
R       129.11  130.09      THE INTERVAL IS EXTREMELY BROKEN UP, BUT THIS MAY HAVE BEEN THE
R       129.11  130.09      RESULT OF DRILLING RATHER THAN FAULTING.  COMPOSITION ESTIMATES
R       129.11  130.09      ARE DIFFICULT.  MUCH HAS BEEN INFERRED FROM TWO COMPETENT CLASTS

/ LSX   130.09  131.06  0.97          LMSX SX BA GG8 SS //            P  1 BD      87             L4    L2    L+
L

/ LSX   131.06  132.18  1.12          LMSX SX CA CH5 SS //            P  1 BD         <+          L3    7*    L=
L                                          BA SF GG7                                                          L1
R       131.06  132.18      GALENA CONTENT BEGINS TO INCREASE AT THIS POINT.  IT OCCURS IN
R       131.06  132.18      LAMINATIONS OF VERY FINE CRYSTALS.  AGAIN THE SPHALERITE IS
R       131.06  132.18      DIFFICULT TO ESTIMATE.  UNDER MAGNIFICATION, PATCHES OF WHITE
R       131.06  132.18      BARITE BLEND INTO PATCHES, WITH THE YELLOW COLOR DEEPENING AS
R       131.06  132.18      SPHALERITE CONTENT INCREASES.

/ LSX   132.18  133.20  1.02          LMSX SX BA CH2 // SS            P    BD      61             L4    L-    L2
L                                          TA SF GG5                                                          L2
R       132.18  133.20      BEDDING CONVOLUTIONS AND SLUMPING IS MINOR IN THIS INTERVAL.  G-
R       132.18  133.20      SCALE ESTIMATES OF GALENA AND SPHALERITE ARE TOWARD THE LOWER
R       132.18  133.20      END OF THE SCALE INTERVAL.

/ LSX   133.20  134.32  1.12          LMSX SX BA CH2 // SS            P    BD      61             L4    L-    L1
L                                                =

/ LSX   134.32  135.65  1.33          LMSX SX BA CH2 // SS            P    BD      61             L4    L-    L1
L                                                +

/ LSX   135.65  136.38  0.73          LMSX SX BA CH2 // SS            P    BD      61             L4    L-    L2
L

/ LSX   136.38  137.33  0.95          LMSX SX BA CH4 // SS       MP1  P  1 BD      50             L4    L-    L1
L                                          YA    0                                                             3
R       136.38  137.33      THE FIRST HALF OF THIS INTERVAL IS DOMINATED BY A PIECE OF
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G E O L O G                              JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                    PAGE -  6
                                    DRILLHOLE/TRAVERSE --- 81-DH076 --- (CONTINUED)

K  F   F R O M - T O -  C N T RECOV  MD % ROCK TN TM NM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L-  ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                               R Q D  AGE EV RN LC TM NM2 TX TX S C U O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R       136.38  137.33        LAMINATED CHERTY ARGILLITE.  THE BEDDING IS APPROX.  PARALLEL TO
R       136.38  137.33        THE CORE AXIS.  THE LATTER HALF HAS BEDDING AT 50 DEGREES, AND
R       136.38  137.33        CONTAINS SILICIFIED ARGILLITE CLASTS.  THE ORIGIN OF THE LARGEST
R       136.38  137.33        CLAST IS UNCERTAIN, BUT THE SMALLER CLASTS APPEAR TO BE BRECCIA
R       136.38  137.33        FROM CHERTY BEDS.  THIS SEEMS TO HAVE RESULTED FROM SOFT
R       136.38  137.33        SEDIMENT DEFORMATION.

/ LSX   137.33  138.42   1.09           LMSX SX BA CH2 // SS           P    BD       50              L4    L1    L2
L                                            TA      0                                                           1

/ LSX   138.42  139.46   1.04           LMSX SX BA CH2 // SS           P    BD       50              L4    L1    L2
L                                            TA      0                                                           L1
R       138.42  139.46        THIS INTERVAL HAS CONFORMABLE CHERT BED 2.5CM THICK.

/       139.46  140.46   1.00           LMSX SX BA CH3 // SS           P  1 BD       61              L3    L+    L2
L                                            TA SF                                                               L1
R       139.46  140.46        THIS INTERVAL HAS DISRUPTEDED, BRECCIATED CHERT (BLACK) BEDS IN
R       139.46  140.46        MODERATELY PLASTICALLY DEFORMED BARITE.  CHERT CLASTS HAVE BEEN
R       139.46  140.46        ONLY SLIGHTLY ROTATED.  IN CONTRAST, THE FIRST THIRD OF THIS
R       139.46  140.46        INTERVAL SHOWS BARITE IN PLASTIC FLOWS AOUND SEVERLY DISTRUPTED
R       139.46  140.46        CHERT BEDS.  BEDDING ORIENTATION SEEMS TO CHANGE WITHIN THIS
R       139.46  140.46        DEFORMED PART.

/ LSX   140.46  141.86   1.40           LMSX SX BA CH2 // SS           P  1 BD       53              L3    L1    L2
L                                            5A                                                                  2
R       140.46  141.86        THE MATERIAL IN THIS INTERVAL IS EXTREMELY FRIABLE, THOUGH
R       140.46  141.86        VIRTUALLY NONE OF THE FINE GROUND FRACTION CALLED GOUGE IN
R       140.46  141.86        PREVIOUS INTERVALS IS PRESENT.

/ LSX   141.86  143.37   1.51           LMSX SX BA CH1 // SS           P  1 BD       61              L2    L2    L2
L                                            3A     GG2                                                          2
R       141.86  143.37        THIS FRIABLE INTERVAL IS MODERATELY DEFORMED AT THE TOP, AND
R       141.86  143.37        BECOMES EXTREMELY DEFORMED LOWER DOWN WHERE SLUMPED AND
R       141.86  143.37        BRECCIATED CHERTY ARGL BEDS ACCOMPANY PLASTIC DEFORMATION IN THE
R       141.86  143.37        BARITE.  THE INTERVAL IS BROKEN AT THE TOP BY GOUGE.

/ LSX   143.37  144.77   1.40           LMSX SX BA CH1 // SS           P  1 BD       55              L1    L4    L2
L                                            UA                                                                  1
R       143.37  144.77        MUCH INCREASED PYRITE.  MODERATE TO SEVER SOFT SEDIMENT
R       143.37  144.77        DEFORMATION PRODUCES BEDDING ANGLES OF 50 - 60 DEGREES. ROCK IS
R       143.37  144.77        MUCH MORE COMPETENT THAN PREVIOUS INTERVALS.  PYRITE HAS
R       143.37  144.77        NUMEROUS VUGS.

/ LSX   144.77  145.39   0.62           LMSX SX BA CH1 // SS           P  1 BD       70              L1    L4    L2
L                                            UA                                                                  1

/ LSX   145.39  146.39   1.00           LMSX SX BA CH1 // SS           P  1 BD       70              L2    L4    L2
L                                            UA                                                                  2

/ LSX   146.39  147.50   1.11           LMSX SX BA CH1 // SS           P  1 BD       63              L2    M6    L1
L                                                                                                                1
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 K  F   F R O M - T O -  I N T RECOV  RQ % ROCK TM TM NM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 Y  G                           R G D  AGE FV RW LC TM NM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

 R        146.39  147.50      LAST HALF OF INTERVAL IS ALMOST ENTIRELY MASSIVE, VUGGY PYRITE
 R        146.39  147.50      LAMINATIONS ARE NOT EASILY DISTINGUISHED IN THE PYRITE, BUT ARE
 R        146.39  147.50      NOTICEABLE CONVOLUTE IN THE SULPHIDE-SULPHATE.

 / LSX    147.50  148.44    0.94               LMSX SX BA CH= // SS               P  1 BD      65               L6   L1   L1
 L                                                 A2

 / LSX    148.44  149.42    0.98               LMSX SX BA CH1 // SS               P  1 BD      65               L4   L1   L1
 L                                                 HA                                                                    L1

 / LSX    148.44  149.42    0.98            2 ARGL SF                             R                             <*
 L                                                 2A
 R        148.44  149.42      THE CHERTY ARGILLITE SEEMS CONFORMABLE WITH BEDDING IMMEDIATELY
 R        148.44  149.42      ABOVE, BUT BEDDING IS DISTURBED BELOW WITH PLASTIC DEFORMATION
 R        148.44  149.42      OF BARITE.  DISTINCT WHITE SPHALERITE POOR CHERTY BARITE PATCHES
 R        148.44  149.42      ABRUPTLY CHANGE TO CHERT POOR, SPHALERITE RICH, YELLOW BARITE.
 R        148.44  149.42      LAMINATIONS ARE CONTINUOUS BETWEEN THE SEPARATE AREAS.

 / LSX    149.42  150.41    0.99               LMSX SX BA CH2 // SS               P  1 BD      62               L3   L1   L1
 L                                                 IA                                                                     2

 / LSX    150.41  151.49    1.08               LMSX SX BA CH2 // SS               P  1 BD      62               L3   L1   L1
 L                                                 IA                                                                     2

 /        150.41  151.49    1.08            1 ARGL SF                             R                             <*   <3
 L                                                 1A
 R        150.41  151.49      THE CHERTY ARGILLITE MAY BE A FRAGMENT 30CM LONG.  IT IS HIGHLY
 R        150.41  151.49      FRACTURED WITH PYRITE VEINING.

 / LSX    151.49  152.80    1.31               LMSX SX BA CH2 // SS               P  1 BD      55               L2   L1   L2
 L                                                                                                                        2

 /        151.49  152.80    1.31            1 ARSI SF     SI1 SS    0 1   1       R  2 BD      55               >1   >3
 L                                                 1A

 / LSX    151.62  151.73    0.11            X LMSX SX BA CH1 // SS                R  1 BD      65               L1   L8   L=
 L                                                                                                                        1
 R        151.62  151.73      THIS IS THE FINAL INTERVAL OF THE ORE ZONE THE LAMINATIONS ARE
 R        151.62  151.73      VERY REGULAR, AND SHOW LITTLE TECTONIC OR SOFT SEDIMENT
 R        151.62  151.73      DEFORMATION.  THE ARGILLITE IS AT THE BOTTOM OF THE INTERVAL.
 R        151.62  151.73      MINOR INTERBEDDING OCCURS WITH 3.5CM OF ARSI SEPARATED FROM THE
 R        151.62  151.73      BULK OF THE ARSI BY 8.5CM OF LMSX.  THE PYRITE MACROVEINING CUTS
 R        151.62  151.73      BOTH THE SILT AND THE SULPHIDE LAMINATIONS.  ASSOCIATED WITH THE
 R        151.62  151.73      PYRITE IS BARITE WHICH FORMS THE CENTRAL PART OF SOME OF THE
 R        151.62  151.73      VEINS.
 R        152.80  153.22      A PYRITE MACROVEIN WITH BARITE OCCURS AT THE CONTACT BETWEEN THE
 R        152.80  153.22      BRHT AND ARSI.  IT CONTAINS FRAGMENTS OF ARGL BRECCIA, AND
 R        152.80  153.22      MICROVEINS EXTEND INTO THE ARSI, BUT NOT INTO THE BRHT.

 K LM1    152.80  152.80    0.00

 / CON    152.80  153.83    1.03               BRHT        *C) ST B*          LP3   P                  <)                  B*
 L                                                 2A        F* R*            KM7
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PAN OCEAN OIL LTD.

G E O L O G   JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.
DRILLHOLE/TRAVERSE --- 81-DH076 --- (CONTINUED)

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K  F  F R O M - T O -  I N T RECOV  MD % ROCK TF TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                           R Q D  AGE EV RQ LC IF QM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/      152.80  153.22  0.42           X ARSI                                    R  2 BD       55              <*    7)
L                                          1A
R      152.80  153.83     SEEMS CONFORMABLE WITH ARST IMMEDIATELY UPHOLE.

/ SHR  153.83  154.89  1.06             BRHT       *C) ST B*         LP3   P                 >+                     8+
L
R      153.83  154.89     LARGE QUARTZ VEIN WITH A MULTITUDE OF PYRITE VEINS MAY BE
R      153.53  154.89     FILLING OF A SHEAR.

/ CON  154.75  154.89  0.14           X CGCP       *C1 F* B*         MO1   R    CN                        <-    7)
L                                          3A                        MO9                                               <?
R      154.75  154.89     YELLOW STAINING OF BARITE POSSIBLY SPHALERITE.

/      154.89  155.89  1.06             CGCP       *C1 F* B*         MO1   P                              <-    7)
L                                          3A                        MO9                                               <?
R      154.59  155.89     RECURRENCE OF YELLOW STAINED BARITE.

/      155.89  156.89  1.00             CGCP       *C1 F* B*         MO2   P                              6)    6+
L                                                                      8                                               00

/      156.89  158.21  1.32             CGCP       *C1 F* B*         MO2   P                              6)    6+
L                                                                     P8                                               00

/      156.21  162.80  4.59             CGCP       *C1 F* B*         MP1   P                              <-    7)
L                                                                     P

/ CON  162.80  164.15  1.35             SAND           G; MX 3 4 3 6       P           D                  <.    7)
L                                                            7
R      162.80  164.15     CONTACT WITH CGCP IS GRADATIONAL.

/      163.50  164.15  0.65           X BRHT       *C1 B* F*         MP4   R                              <-    6)
L                                                  R*                KN6
R      163.50  164.15     GRADATIONAL CONTACT BETWEEN THE SAND AND BRHT.

/      164.15  165.30  1.15             ARSI SF    SF- SS // 0 1   2       P  2 BD      60 <-                     8*
L                                          1A
R      164.15  165.30     MAY BE A LARGE FRAGMENT, THOUGH CONTACT CONFORMS TO BEDDING.

/      164.66  164.80  0.14           X BRHT       *C+ R* F*         MP4   R                                    D)
L                                          2A      H*                KM6

/      165.25  165.30  0.05           X BRHT       *C. R* F*         MO3   R                                    83
L                                          2A                        LN7
R      165.25  165.30     SEEMS LIKE INJECTION ALONG CONTACT.

/ CON  165.30  168.25  2.95             ARGL CR SF SF= SS // 0 1   2       P  2 BD      59 <*             B.    L)
L                                          R       ST= FR

/      166.58  167.18  0.60           X ARGL 00 00 000 SS // 0 1   2       R  2 BD      59 <*             B.    L)
L                                          1A      SI1 00
```

```
K  F   F R O M - T O -  L N T RECOV  MD % ROCK FM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                       R Q D  AGE EV RU LC TM OM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/      167.46  167.64   0.18           X ARGL CR SF SF= SS // 0 1   2       R  2 BD      59 <1           B.     L+
L                                                N    SI= FR
R      167.46  167.64      STOCKWORK-LIKE QUARTZ VEINING.
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G E O L O G E D I T L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

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DRILLHOLE/TRAVERSE :81-DH077     COLLAR ELEVATION:     1235.53   AZIMUTH( DEG ) :    18.00   GEOLOGGED BY : HDG +
TOTAL DEPTH/LENGTH :  298.09     NORTHING(- IF S):  7002472.00   VERTICAL ANGLE :   -76.00   DATE (YY/MM/DD): 810708
CORE/HOLE DIAMETER :    HQNQ     EASTING (- IF W):   436719.94   CO-ORD SYSTEM  :    UTM     PROJECT NUMBER : J-MAIN
```

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	19.81	23.00	-72.25
2	36.57	28.00	-69.75
3	57.91	32.00	-67.25
4	72.54	34.00	-65.50
5	88.70	35.00	-65.00
6	106.68	37.00	-62.50
7	118.87	37.00	-62.00
8	128.00	38.00	-61.50
9	146.30	38.00	-61.50
10	160.93	38.00	-60.50
11	174.34	39.00	-60.00
12	198.12	41.00	-57.25
13	220.07	41.00	-55.00
14	235.00	46.00	-52.75
15	249.00	45.00	-52.00
16	264.26	47.00	-50.00
17	279.50	48.00	-49.00
18	294.74	46.00	-48.00

```
  F   - I N T E R V A L -    CORE  T- %      TYPI- QAL  TEX-  GRAIN        PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =   . DEC.PLACE)RECOV-  M N ROCK FYING MIN TURES CHARACS                        H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MT=METRIC FT=FOOTRIC)  ERY    O I      IN IN MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  T O T ( . )  D X TYPE  1  2 001  1  2 F F C A         1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                         ROCK   FM    RT    IN 002 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                         QUAL   AGE EN- Q LC- 3     3  4 O    /           2    AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
Y  G                         DESIG      VIR   COL             R    C            STRUCTUR-2 A  A  A  A  A  A  A  A  A  A      2   2

R SVY    0.00    0.00     SPERRY-SUN SINGLE-SHOT RESULTS.
R SVY  175.87  175.87     CLARISON WEDGE FULL STEEPENING, WEDGE NO GOOD.
R SVY  180.75  180.75     CLARISON WEDGE FULL STEEPENING.
R SVY  202.08  202.08     CLARISON WEDGE FULL STEEPENING.
R SVY  220.07  220.07     CLARISON WEDGE FULL AZIMUTH RIGHT.

/ OVB    0.00    3.95    3.95          OVER                                P
L

/        3.95   11.02    7.07          BRPH       *S*               MP6    P                                D)
L                                          2A             2   *     KN=
R        3.95   11.02     ARGILLITE FILLS THE PEBBLY MUDSTONE MATRIX.

/       11.02   23.30   12.28          BRBM CP        SC            NR9    P                                B)
L                                          3              4
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                                         PAN OCEAN OIL LTD.
 G E O L O G                          JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                      PAGE -  2
                                  DRILLHOLE/TRAVERSE --- 81-DH077 --- (CONTINUED)

 K  F   F R O M - T O -  I N T RECOV  RD % ROCK TR TM RM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
 E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
 Y  G                          R Q D  AGE EV RO LC TM RM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

 /        23.50   62.80  39.50           ARSI CR     SM1 SC BD 1 3 1 3        P  1 BD      54                      L)
 L                                            3A     S1+    XB 8

 /        62.80   67.29   4.49           BRHT        *S*               MP6    P                                    R)
 L                                            3A     *C* R* B* 2    1  LN1
 R        62.80   67.29       THE HETEROGENEOUS BRECCIA HAS A PEBBLY MUDSTONE MATRIX.

 /        67.29   69.19   1.90           BRHT        *C.               LP6    P                                    R)
 L                                            4A        R*    3        LN2

 /        67.29   67.79   0.50         7 CGCP        *C.               LN2    R                                    R)
 L                                            5A        R*    4      C LM6
 R        67.29   67.79       FROM THE CHERT PEBBLE CONGLOMERATE TO THE HETEROGENEOUS BRECCIA
 P        67.29   67.79       THERE IS A TRANSITIONAL CHANGE.  THIS INVOLVES AN INCREASE IN
 R        67.29   67.79       THE NUMBER OF SILTY ARGILLITES.  BOTH INTERVALS HAVE A SANDY
 R        67.29   67.79       MATRIX WITH A CLOSED FRAMEWORK, HOWEVER THE HETEROGENEOUS
 R        67.29   67.79       BRECCIA DOES BECOME MORE OPEN IN THE LAST 20CMS.

 /        69.19   70.90   1.71           SAND        SM7 G; BD 1 3 9 6        P  2 BD     U65 V=                   D*
 L                                            8A              7     0                             B*

 /        69.19   70.90   1.71         3 CGCP        *C) G; BD         LO1    R  2 BD     U65 V=                   D*
 L                                            7A                   C LO4
 R        69.19   70.90       THE CONGLOMERATE IS INTERBEDDED WITH THE SANDSTONE, AS NORMALLY
 R        69.19   70.90       GRADED INTERVALS WHICH PROGRESS FROM COARSE CHERT FRAGMENTS TO
 R        69.19   70.90       FINE SANDSTONES.  THESE CYCLES ARE REPEATED AT LEAST 5 TIMES
 R        69.19   70.90       THROUGH THE TOTAL INTERVAL.

 /        70.90   83.03  12.13           BRHT        *S*    F*         NS3    P                                    R*
 L                                            3A     *C) R* R* 2       LP2
 R        70.90   83.03       THE BRECCIA IS MAINLY COMPOSED OF SILTY ARGILLIC AND CHERTY
 R        70.90   83.03       FRAGMENT WITHIN A PEBBLY MUDSTONE MATRIX.  THE SIZE AND
 R        70.90   83.03       FREQUENCY OF SILTY ARGILLIC FRAGMENTS DECREASES GOING DOWNHOLE
 R        70.90   83.03       UNTIL THE ROCK TYPE CHANGES TO A PEBBLY MUDSTONE.

 /        83.03   90.61   7.58           BRPM        *S+    F*         MO2    P                                    R)
 L                                            3A     *C) R* B* 2    + 0 KO2

 /        90.61   92.36   1.75           SAND        SM9 MX     3 3 9 4       P                   <)               D*
 L                                            5A              B

 /        91.01   91.20   0.19         7 BRPM        *C*               KO1    R                                    R+
 L                                            4A     SF7    F* 3     0 KN2
 R        91.01   91.20       THIS INTERVAL HAS A SANDSTONE MATRIX.  IT APPEARS AS A LARGE
 R        91.01   91.20       LENSE WITHIN THE SANDSTONE, RATHER THAN AN INTERBED.

 /        92.36   96.82   4.46           CGBR        *C+    F*         JO2    P                   V+               R)
 L                                            5A        B* R* 3      C KO3                                B*
 R        92.36   96.82       CHERT CLASTS ARE MODERATELY ROUNDED TO INTERMEDIATE.  THE MATRIX
 R        92.36   96.82       IS MADE UP OF SAND SIZED PARTICLES, GRADING INTO CLAY NEAR THE
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K  F  F R O M - T O -  I N T RECOV  CO % ROCK TM IM OM1 TX TX F C % M ARG    RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                                R Q D  AGE EV RS LC TM OM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R       92.36  96.82       BASE. THIN 3CM BEDS OF SANDSTONE, WITH THE OCCASIONAL BRECCIA
R       92.36  96.82       FRAGMENT, INTERBED WITH THE CONGLOMERATE AND ACCOUNT FOR ABOUT
R       92.36  96.82       5% OF THE TOTAL INTERVAL VOLUME.  SMALL, LIGHT YELLOW, SIDERITE
R       92.36  96.82       BLEBS ARE FOUND IN THE QUARTZ VEINS.

/       96.82  99.64   2.62             BRP4        *C)              LP2   P                                 D*
L                                            3A          F* R* 1 *    0 K02

/       99.64 103.50   3.86             BRHT        *C)    R*        LR4   P                                 R*
L                                            3A          F*    2 )     L02
R       99.64 103.50       THE ARGILLITE CLASTS BECOME SMALLER NEAR THE BOTTOM OF THIS
R       99.64 103.50       INTERVAL.

/      103.50 116.95  13.45             BRPM        *C=    6*        L02   P                                 D(
L                                            5A          F*    3      0 L02                              <

/      113.00 116.95   3.95          X  BRPM                               R               <+
L
R      113.00 116.95       THE ROCK IS HIGHLY BROKEN DUE TO POSSIBLE FAULTING.

/      116.95 119.18   2.23             BRHT        *S)              L05   P                                 D)
L                                            2A              2       KM1                             <+

/      119.18 130.76  11.58             BRPM        *S)    G:        LR2   P               <)                R+
L                                            4A     *C+ R* 6* 3   ) 0 KN2
R      119.18 130.76       THE MATRIX IS SANDSTONE.  THIS INTERVAL IS BROKEN AND MILDLY
R      119.18 130.76       SHEARED WITH QUARTZ-PYRITE VEINS CUTTING THROUGH THE MATRIX AND
R      119.18 130.76       BRECCIA FRAGMENTS.  VEINING IS THEREFORE POST SEDIMENT
R      119.18 130.76       LITHIFICATION.

/      119.74 121.41   1.67          7  BRHT        *C)    R*        LP6   R                                 R+
L                                            3A              2       KN1                             V+

/      130.76 139.29   8.53             BRHM CR     GG1              LR8   P    FO      42 <+                <+
L                                            2A                      JL+

/      139.29 150.12  10.83             CGBR        *C)    G;        L02   P               <)
L                                            5A          F*        C K04                             <+
R      139.29 150.12       THE CHERT FRAGMENTS APPEAR MODERATELY ANGULAR TO INTERMEDIATE.

/      142.34 143.86   1.52          9  SAND        SN9    G; 0 3 9 4      R  1 BD      U45 <+
L                                            5A          BD // 8

/      147.90 148.64   0.74          8  SAND        SN8    G; 0 3 9 5      R  2 BD      U38                  B+
L                                            5A          BD // 8

/ SHR  150.12 160.02   9.90             BRHM CR                      MQ8   P                                 D+
L                                            2A              2       JK=
R      150.12 160.02       THIS IS A HOMOGENEOUS WITH A PEBBLY MUDSTONE MATRIX.

/ FLT  160.02 169.58   9.56             BRHT CR     *S+    SS        L06   P                                 D+
L                                            2A            CC 2   +  KM1               <+
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K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                         R Q D  AGE EV RQ LC TM OM2 TX TX S C U O CHT        2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/ SHR  163.68  165.81   2.13          7 SAND         LC DB 0 3 9 5        R              V=                 D+
L                                       5A                 8

/      169.58  193.55  23.97            BRBT      *C+    B*          NR5  P  0 LM        <)                 R+
L                                       3A          R* CC 2          LP2                             <*

/      179.53  193.55  14.02          5 ARGL CR       MX     0 1 + 5      R  0 LM     38 <*                 D+
L                                       1A          LM SS 9
R      179.53  193.55      THE CARBONACEOUS ARGILLITE BEDS, WITHIN THE HETEROGENEOUS
R      179.53  193.55      BRECCIA, ARE FROM .2 TO 2.5 METRES IN WIDTH.  THE HETEROGENEOUS
R      179.53  193.55      FRAGMENTS ARE SILTY ARGILLITE AND CHERT.  THE MASSIVE
R      179.53  193.55      CARBONACEOUS ARGILLIC INTERVALS WERE CLASSIFIED AS TRUE
R      179.53  193.55      INTERBEDS ON THE BASIS OF CONTANT LAMINATION ANGLES AND
R      179.53  193.55      CONFORMABLE LOWER CONTACTS.

/      193.55  199.02   5.47            ARGL CR       MX     0 2 + 5      P  0 LM     45 <(                 L=
L                                       1A            LM 9

/      196.35  196.60   0.25          8 SAND      SNS        0 3 5 3      R              L5                 D=
L                                       7A            LC 8
R      196.35  196.60      A LARGE 10CM., SILICIFIED SANDSTONE OCCURS ABOVE A 9CM., MASSIVE
R      196.35  196.60      SANDSTONE.  THIS SILICIFIED UNIT HAS BEEN CONSIDERABLY ALTERED
R      196.35  196.60      BY THE STOCKWORK VEINING.

/      199.02  200.71   1.69            BRPM               G;        LO2  P                                 R+
L                                       2A                   3     O KM2

/      200.71  202.08   1.37            BRBT      *C=      G:        LP3  P                                 R+
L                                       4A            F* R* 3      C KO3
R      200.71  202.08      THE BOTTOM GRADES INTO A COARSE GRIT (REVERSE GRADING).

/      202.08  206.14   4.06            ARGL CR       MX LM 0 1 = 1       P  0 LM     47                    L=
L                                       1A            //     9

/      209.63  206.14   1.31          5 BRBM CR                      KM5  R                                 R+
L                                       1A                   2       JM=
R      206.14  206.74      THIS SANDSTONE CONTAINS CARBONACEOUS ARGILLITE WITHIN THE
R      206.14  206.74      INTERSTITIAL SPACES.  NORMAL GRADING OF THE SANDSTONE INDICATES
R      206.14  206.74      THAT TOPS ARE UPHOLE.

/      206.14  224.64  18.50            BRBT      *C=      G;        MU4  P                                 R+
L                                       4A            R* F* 2        LP3

/      206.14  206.74   0.60          7 SAND      SMB G;     0 3 8 5      R                                 D=
L                                       5A              MX 8
R      206.14  224.64      GRADING OF BOTH SILTY ARGILLITE AND CHERT FRAGMENT OCCURS IN
R      206.14  224.64      THIS INTERVAL.  THE CHERT EVENTUALLY GRADES INTO A SANDSTONE AT
R      206.14  224.64      THE TOP OF THE HETEROLITHIC BRECCIA.

/      220.07  221.59   1.52          X LOST                              R
L
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                                                        PAN OCEAN OIL LTD.
 G E O L O G                              JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                    PAGE -  5
                                        DRILLHOLE/TRAVERSE --- 81-DH077 --- (CONTINUED)

 K  F  F R O M - T O -  L N T RECOV  RD % ROCK TM TM NM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 Y  G                        P Q D  AGE EV RN LC TM NM2 TX TX S C U O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA


 /        224.64  227.32   2.68           ARGL CR    SN+      0 3 + 1      P    LM      45                L+
 L                                             1A          LM 9
 R        224.64  227.32       THE ARGILLITE INTERVAL MAY REPRESENT A LARGE ARGILLITE FRAGMENT.

 /        227.32  232.70   5.38           BRHT      *S( G;            MR3  P                             R+
 L                                             4A   *C= R* F*      (  L03

 /        232.70  245.82  13.12           ARGL CR    SN+ MX   0 2 )        P  0 LM      50                L+
 L                                             1A          LM

 /        244.74  244.84   0.10         8 BRHT CR                     JJ2  R                             R2
 L                                             2A             7

 /        245.82  259.40  13.58           ARGL CR    SN+ MX   0 2 ) 2      P  0 LM      47            L(   L=
 L                                                   GG*   LM

 /        247.89  248.15   0.26         4 SAND       SN7 LM // 0 2 7 3      R    LM      52                L2
 L                                             0Y             7

 /        254.82  259.40   4.58         2 BRHT      *C=    H*         MN7  R                             R=
 L                                             1A   *S) H*     2   )  KM2
 R        254.82  259.40       THE HETEROLITHIC BRECCIA OCCURS IN TWO PLACES, AS A 50CM AND A
 R        254.82  259.40       20CM. INTERBED WITHIN THE ARGILLITE.

 /        259.40  277.00  17.60           ARSI       SM1    BD 0 2 1 3      P  1                         D+
 L                                             2A        // G; 8
 R        259.40  277.00       AT 274.89 METRES, A SMALL 1CM PYRITE BAND OCCURS.

 / SHR    277.00  278.20   1.20           ARSM CR    SM3 BD // 0 3 5 3      P  1 BD     43            <)   L+   D.
 L                                             1A    SI2          8                                             D.
 R        277.00  278.20       BARITIC MICROVEINS OCCUR IN AREAS OF BROKEN, FRACTURED ROCK.

 /        278.20  280.20   2.00           BRHT SF   *C+                KM3  P              <=
 L                                             4A        H* R* 3      JL2                          <)   R+   <*
 R        278.20  280.20       SPHALERITE IS FOUND IN SMALL QUARTZ MICROVEINS, AND AS A
 R        278.20  280.20       REPLACEMENT MINERAL IN CHERT FRAGMENTS.  THESE FRAGMENTS ARE
 R        278.20  280.20       MODERATELY ANGULAR.  THE WHOLE INTERVAL IS HEAVILY BROKEN AND
 R        278.20  280.20       VEINED.

 K UM1    280.20  280.20   0.00

 / LSX    280.20  281.15   0.95           LMSX SF        LM LC              P  0 LM      43 L4                   L=
 L                                             AY        SS PP                                              L2 L3
 R        280.20  281.15       THE SPHALERITE IS YELLOW AND ALTERNATES IN THINLY LAMINATED
 R        280.20  281.15       LAYERS WITH MARCASITE, QUARTZ AND GALENA.  SILICIFIED ARGILLITE
 R        280.20  281.15       BEDS, 1CM IN THICKNESS, INTERCALATE WITH THE LAMINATED SULPHIDE.

 /        281.15  281.53   0.38           FGSX           SS                 P              #4                   #+
 L                                             4A        BR                                                 #2 #1
 R        281.15  281.53       SILICIFIED ARGILLITED AND LAMINATED SULPHIDES ARE CONVOLUTED TO
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K  F  F R O M - T O -  I N T RECOV  MD % ROCK TM TM QM1 TX TX F C % M ARG    RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                                R Q D  AGE EV RW LC TM QM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R      281.15  281.53      THE POINT OF BRECCIATION.  MICRO-QUARTZ VEINS CONTAIN LARGE
R      281.15  281.53      YELLOW SPHALERITE CRYSTALS.

/      281.53  282.34  0.81             LMSX SF         LM LC               P  0 LM      37 L4                       L=
L                                            BY         SS BR                                                     L2 L3
R      281.53  282.34      A HIGHLY WEATHER BAND OF DIRTY, SOFT SULPHIDE RICH ARGILLITE
R      281.53  282.34      INTERCALATES AT 281.94 METRES, WITH THE LAMINATED SULPHIDE.

/      282.34  282.97  0.63             LMSX SF         LC BR               P  0 LM      37 L4                       L=
L                                                       LM
R      282.34  282.97      THE TOP AND BOTTOM 10CMS OF THIS LAMINATED SULPHIDE CONSISTS OF
R      282.34  282.97      BRECCIATED FRAGMENTS OF LAMINATED SULPHIDE AND ARGILLITE IN AN
R      282.34  282.97      ARGILLIC MATRIX.

/      282.97  283.81  0.64             FGSX                SS              P               #5                       #1
L                                            4A             BR                                                    M3 #2
R      282.97  283.81      THE FRAGMENTED, LAMINATED SULPHIDE FRAGMENTS RANGE FROM 3 TO 5
R      282.97  283.81      CMS IN DIAMETER.  DARK BLACK, CARBONACEOUS ARGILLITE FRAGMENTS
R      282.97  283.81      RANGE FROM .5 - 2CMS IN DIAMETER.  THE ANGULARITY AND
R      282.97  283.81      PRESERVATION OF REMNANT BEDDING INDICATES THAT THE FRAGMENTS
R      282.97  283.81      HAVE BEEN DISPLAYED VERY LITTLE FROM THEIR ORIGINAL BEDDING.
R      282.97  283.81      THE MATRIX IS A DARK GREY, SILTY ARGILLITE WHICH IS PROBABLY
R      282.97  283.81      SULPHIDE RICH.  THIS UNIT BECOMES PROGRESSIVELY RICHER IN
R      282.97  283.81      MASSIVE MARCASITE.

/      283.81  284.61  0.80             LMSX            LM LC               P  0 LM      57 L4            <*         L=
L                                            8D             BR                                                    M3 L3
R      283.81  284.61      THE MARCASITE OCCURS AS BOTH FINE LAMINATIONS, AND AS MASSIVE
R      283.81  284.61      BLOCKS OF SULPHIDE WITH DISSEMINATED GALENA.  ARGILLITE BED ARE
R      283.81  284.61      FROM TO .5 - 5CMS THICK, AND BRECCIATED WHERE LAMINATED
R      283.81  284.61      SULPHIDES UNDER GO INTENSE DEFORMATION.

/      284.61  284.99  0.36             LMSX            LM LC               P  0 LM      57 L4            <*         L=
L                                                                                                                 L1
R      284.61  284.99      ARGILLIC INTERBEDS ARE AS THICK AS 15CMS AND ACCOUNT FOR 30% BY
R      284.61  284.99      VOLUME, OF THE TOTAL INTERVAL.

/      284.99  286.21  1.22             ARGL CR         LM LC 0 1   1       P              L2                 <*         L)
L                                            1A             BR 9                                                  M2 L1
R      284.99  286.21      LAMINATED SULPHIDES INTERBED WITH THE ARGILLITE.  SULPHIDE BEDS
R      284.99  286.21      ARE FROM 1 - 10CMS.  IN THICKNESS AND ACCOUNT FOR 40% OF THE
R      284.99  286.21      TOTAL ROCK INTERVAL.

K LM1  286.21  286.21  0.00

/      286.21  287.30  1.09             SILT        SI5 LM    0 2 6 2       P  1 LM      52 <)            <+    D+
L                                            3A                9                                                     B)

/      287.30  289.46  2.16             SILT        SI5 LM    0 2 6 2       P  1 LM      52 <)            <+    L=
L                                            3A                9                                                     B)

/      289.46  292.73  3.27             ARGL CR         MX    1 1   1       P    LM      50               <+    L=
L                                            3             LM 9
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K  F  F R O M - T O -  I N T RECOV  RD % ROCK TM TM SM1 TX TX F C % M ARG    RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
F -|- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                           R Q D  AGE EV RO LC TP SM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD OS HA PR MT SL HA

/      292.73  294.44   1.71          CGSA PY                      LP4   P                                  R1
L                                          5A           2          JM4

/      294.44  298.09   3.65          ARGL CR       MX      1 1    1         P    LM      45                D+
L                                          2A         LM 9
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G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6B02

DRILLHOLE/TRAVERSE :81-DH078	COLLAR ELEVATION: 1296.37	AZIMUTH(DEG) : 355.00	GEOLOGGED BY : JER +
TOTAL DEPTH/LENGTH : 428.55	NORTHING(- IF S): 7002568.00	VERTICAL ANGLE : -83.00	DATE (YY/MM/DD): 810901
CORE/HOLE DIAMETER : HQNR	EASTING (- IF W): 436555.31	CO-ORD SYSTEM : UTM	PROJECT NUMBER : J-MAIN

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	27.43	0.00	-81.50
2	86.39	5.00	-81.25
3	118.26	6.00	-81.25
4	146.30	12.00	-81.25
5	175.87	12.00	-81.00
6	206.35	13.00	-81.00
7	230.43	16.00	-81.50
8	263.35	24.00	-80.50
9	295.66	24.00	-80.50
10	322.78	25.00	-80.50
11	342.90	24.00	-80.25
12	355.09	25.00	-80.25
13	367.28	26.00	-80.00
14	374.09	26.00	-80.25
15	391.66	24.00	-80.25
16	403.86	25.00	-80.25
17	416.52	24.00	-80.00
18	428.24	27.00	-80.00

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   F   - I N T E R V A L -    CORE  T- %       TYPI- QUAL  TEX-  GRAIN         PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =    .  DEC.PLACE)RECOV-  R M ROCK FYING  ION TURES CHARACS                          H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MT=METRIC FT=FOOTRIC)  ERY      O I       TM IN MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN  - - - -
Y  G  F R O M - T O -  L N T (  . )   D X TYPE  1  2 Q41  1  2 F F C A          1     AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                          ROCK   FR     RT     TM Q42 TX TX S C O O CHT        T ID STK DIP MG MU CL SD QS HA PR MT SL HA
F  L                          QUAL   AGE FR- N LC- 3     3  4 U    /             2     AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y  G                          DESTG     VIS   COL             R    C               STRUCTUR-2  A  A  A  A  A  A  A  A  A  A    2   2

R SVY   27.43  428.55       ALL DATA FROM SPERRY SUN.  NO WEDGES WERE SET ON THIS HOLE.

/ OVB     0.00     5.32    3.32              OVER                            P
L

/ WET     5.32     9.05    5.73              ARGL          SI+ SS SC 0 1   1         P                                     D.
L                                               1A

/ WET     3.32     9.05    5.73            3 SAND          S09 SC MX 3 4 4 5         R                                     D.
L                                               2A            FU

/ WET     5.32     9.05    5.73            2 CGCP          *C= F* B*        NL3      R                 <*                  D.
L                                               5A                         0 OK7

/ WET     5.32     9.05    5.73            1 BRHT          SI+              NO8      R                                     D.
L                                               1A                          LO2
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PAN OCEAN OIL LTD.

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G E O L O G                              JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                   PAGE - 2
                                   DRILLHOLE/TRAVERSE --- 81-DH078 --- (CONTINUED)

K  F   F R O M - T O -  I N T RECOV  RQD % ROCK TM TG QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                          R Q D  AGE EV RQ LC TG QM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/ WET    9.05  16.70   7.65            CBCP      *C+ F* B*        L06   P                             D.
L                                           2A        R*        0 L04

/ WET   16.70  18.92   2.22            CBCP                       LN4   P                             D.
L                                           2A                  0 L06

/ WET   16.70  18.92   2.22          A SHAT          B* F*        NP8   R                             D.
L                                           1A        R*      *   L02

/ WET   18.92  24.38   5.46            BRBA CR                    GSX   P                             D.
L                                           1A                  C
R       18.92  24.38       UNIT GENERALLY HAS CLOSED STRUCTURE, WITH A MATRIX OF BRPM.

/ WET   18.92  24.38   5.46          1 BRBT          B*           N09   R                             D.
L                                           1A                  0 LN=

/ WET   18.92  24.38   5.46          1 BRPM               0 1 9 1       R                             D.
L                                           1A                    LM+
R EDT   18.92  24.38       INTERVAL CORRECTED TO MATCH WITH ABOVE.

/ WET   24.24  24.38   0.14          X FAUL      GG5                    R                             D*
L                                           VA

/ WET   24.38  30.50   6.12            BRBT      *C= FU F*        N07   P                             D*
L                                           2A        B* R*       MP3

/ WET   30.50  41.75  11.25            ARGL      SIS SS SC 0 1   2      P  2 BD      86               L*
L                                           1A

/ WET   41.75  57.00  15.25            BRBT      *C+ R* F*        QS7   P                             D*
L                                           2A        B*        C MP3

/ WET   45.70  54.86   9.16          X BRBS      *C* B* R*        N09   R                             D-
L                                           1A     F* B*        C MO+

/       57.00  62.79   5.79            ARGL                             P                             D-
L                                           1A

/       61.35  61.60   0.25          X BRBS                             R                             D)
L                                           1A

/ FLT   62.30  62.79   0.49          X FAUL      GG2                    R              #)             D)
L                                           1A
R       62.79  63.30       YELLOW COLOUR OF BARITE VEIN INDICATES POSSIBLE SPHALERITE.

/       62.79  65.56   2.77            SAND SL   CB= G;     3 4 4 6     P  3 BD     U75               B*
L                                           3A              5                          C.                  B.

/       62.79  63.31   0.51          X BRBT BA SL *C1 F* B*       MG3   R              V1        <*
L                                           3A        R*          LN7                                  <?
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                                                          PAN OCEAN OIL LTD.
G E O L O G                                      JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                     PAGE -  3
                                         DRILLHOLE/TRAVERSE --- 81-DH078 --- (CONTINUED)

K  F  F R O M - T O -  I N T RECOV  MD % ROCK TR TM GM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R Q D  AGE EV RW LC TM GM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA


/       62.79   65.55   2.77           1 SAND SL    *C= F* B*          LN3   R                                 B*
L                                             3A        R* H*          MO7                                           B.

/       65.56   80.60  15.04             BRHT       *C1 F* B*          NR3   P               V*                8)
L                                                       R*      .   O  MP7
R       65.56   80.60      SOME ARGL FRAGMENTS SHOW PRIMARY QUARTZ VEINING.
R       65.56   80.60      MINOR SAND FGT.

/       79.59   80.60   1.01           X BRHT       *C1 F* B*          LP7   R               OO                B*
L                                             2A                       LO3

/       80.60  133.22  52.62             BRHM           R* F*          NS9   P               <.          C.    B*
L                                             1A CR     R*          O  KO1                         C.

/ SHR   84.70   85.30   0.60           X FAUL       GG1                      R
L                                             1A

/ FAL   94.36   95.40   1.04           X FAUL       GG3                      R
L                                             1A

/ FLT   96.84   96.93   0.09           X FAUL       GG2                      R
L                                             1A

/ FLT   98.90   99.16   0.16           X FAUL       GG2                      R
L                                             1A

/      106.63  109.42   2.79           X BRHT       *C2 F* B*          MQ4   R                                 B*
L                                             2A    CR+ R*             LP6
R      106.63  109.42      GRADATIONAL BOUNDARIES INDICATE INTERVAL CONTINUOUS WITH BRHM.
R      120.00  125.00      CLASTS IN THIS INTERVAL CARBONACEOUS.  CLASTS MAINLY ARSI.

/ FAL  120.60  121.01   0.41           X FAUL       GG5                      R
L

/ CON  133.22  138.38   5.16             SAND CR    SN9 G; FU 3 4 4 5        P  1 LM     U65          P)       B*
L                                             3A    CBJ SS    4                 CN      70       C.

/      133.22  138.38   5.16           3 BRHT       *C+ R* F*          LO4   R  2 BD                           B*
L                                             3A        R* MX          KN6                         C.

/      133.22  138.38   5.16           1 BRHT       *C) R* F*          MP6   R  4                              B*
L                                             3A        B*             LO4                         C.

/ FLT  138.10  138.38   0.28           X FAUL                                R               V1          <+    8)
L                                             1A                                                   C.
R      138.10  138.38      FAULT IS HIGH ARGILLITE SAND.

/ FGT  138.38  140.84   2.46             ARGL       SI= SS    O 1   2        P  2 BD      63 <*                D*
L                                             1A              7                 CL      63       C.
R      138.38  140.84      CLEAVAGE COINCIDENT WIH BEDDING PLANE.
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                                           PAN OCEAN OIL LTD.
 G E O L O G                         JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                  PAGE -  4
                                  DRILLHOLE/TRAVERSE --- 81-DH078 --- (CONTINUED)

 K  F   F R O M - T O -  I N T RECOV  RQ % ROCK TM TM GG1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 Y  G                          R Q D  AGE EV RQ LC TM GG2 TX TX S C O O CHT     2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

 /     140.64  142.10    1.26              BRHT       *C1 R* F*         LO6   P                                 B)
 L                                              5A        B*          C LN4                         C.

 /     142.10  190.90   48.80              BRHM SL BA SI1       0 1   2 OSX   P               >.       >- >.    7*
 L                                              1A PY                                               C. >.             B*

 / FGT 142.65  151.49    8.84            X ARGL       SI=       0 1   2 MP8   R  2 BD      80 >+       >1 >=    7=
 L                                              1A                      LN2                            >+ >+          B*
 R     142.65  151.49    MICROVEINING COINTAINS CA-BA-QZ-SD-PY AND SL AS BLEBS.
 R     142.55  151.49    THIS INTERVAL IS PROBABLY A FRAGMENT; ITS UPPER AND LOWER
 R     142.65  151.49    BOUNDARIES ARE BOTH BRECCIATED.

 /     152.50  157.58    5.08            X BRHM SL BA SI1       0 1   2 OSX   R               #1       #1 #1    7*
 L                                                                    C                                #)             #*

 / FLT 159.10  162.30    3.20            X BRHT       *C+ F* B*         MP7   R               V-       V.       B*
 L                                              2A    GG2 R* H*       C LO3                         B. V- V*

 /     171.00  172.00    1.00            X BRHM SL BA SI1       0 1   2 OSX   R               #=       #= #)    7*
 L                                                                                                     #*

 / FLT 172.00  173.20    1.20            X BRHM SL BA SI1       0 1   2 OSX   R               >.       >- >.    7*
 L                                                    GG2

 / FLT 173.20  174.90    1.70            X BRHT       *C*               MP9   R                                 B*
 L                                                    GG2             O KN1
 R     173.20  174.90    MATRIX APPROACHES BRPM WITH SANDY MUDSTONE.

 / FLT 180.14  181.05    0.91            X BRHT       GG5                     R
 L                                                    *C)

 /     190.90  204.05   13.15              BRHT       *C) R* F*         MR8   P               <-                D-
 L                                              1A    GR) H*          O LP2                         C. <. <-
 R     190.90  204.05    INTERVAL IS GRAPHITIC IN SHEARS.

 / FLT 193.04  193.34    0.30            X BRHT       *C) R* F*         MR8   R               <-                D-
 L                                                    GG2

 /     193.34  194.05    0.71            X BRHT       *C= R* F*         MQ2   R               <-                D*
 L                                                           H*           8                                        B-

 / FLT 194.05  194.35    0.30            X BRHT        =                 Q2   R                                  *
 L                                                    GG4    H*           8

 /     195.50  197.10    1.60            X BRHT       *C= R* F*         MQ2   R               <-                D*
 L                                                           H*           8

 / FLT 197.90  198.40    0.50            X BRHM CB    GG5               NP9   R               <=       D+ <+       B=
 L                                              1A    SG2               KL+                            <+ <=       M1

 / FLT 198.40  200.25    1.85            X BRHT       SG= R* F*         MR8   R               <-                D-
 L                                                    GG=
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K  F   F R O M - T O -   T O T RECOV  MD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R Q D  AGE EV RO LC TM OM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA


/       204.05  211.65   7.60            CGBR       *C2 F* B*          MP2   P                   P)        D*
L                                            3A     GG*              O LO8

/       204.05  211.65   7.60          2 BRBT           F* B*          MO6   R             <*              D*
L                                            2A     *C= SS           O LO4                        <. <*

/       204.05  211.65   7.60          2 BRBT GR CR *C.                LP8   R             <.              D-
L                                            1A     GR*              O KO2

/ FRG   204.05  211.65   7.60          1 SAND CR    CB) MX SS 3 4 2 4        R                             B*
L                                            3A               8
R       204.05  211.65       MATRIX IS SANDY AND CONTAINS ABOUT 70% ANGULAR CHERT GRAINS.
R       204.05  211.65       GRAPHITE LINES SHEARS AT IRREGULAR INTERVALS.
R       204.05  211.65       THE CHART RICH PORTIONS OF THIS INTERVAL ARE NEARLY IDENTICAL
R       204.05  211.65       TO THE CGBR PREVIOUSLY DESCRIBED.  THE INCREASED ARGILLITE
R       204.05  211.65       CONTENT IS DUE TO LARGE, DEFORMED FRAGMENTS FOR WHICH THE CGBR
R       204.05  211.65       FORMS A MATRIX AND TO RELATIVELY SMALL AMOUNTS OF HOMOGENEOUS
R       204.05  211.65       ARGILLITE SUSPENDING RARE CHERT CLASTS (BRPM).
R       204.05  211.65       CARBON CONTENT OF INTERVAL VARIES, AND IS GRAPHITIC IN SHEARS.

/ CON   207.57  207.72   0.15          X SAND       CH1 G; R* 3 4 4 7        R          U                  B*
L                                            3A               3
R       207.57  207.72       THIS PEBBLY SAND GRADES INTO CARBONACEOUS ARGILLITE BENEATH.

/ CON   207.72  209.09   1.37          X ARGL CR GR ST)    SS 0 1   1        R    CN       60        <. <-     D-
L                                            N SF                          2 BD       60
R       207.72  209.09       UPHOLE CONTACT IS GRADATIONAL WITH GRADED PEBBLY SAND.

/ FRG   211.65  224.20  12.55            ARSN CR GR SN4 SS R* 3 4   4        P  2 BD       75             B*   P+
L                                            2A                     ML)
R       211.65  224.20       THE PRESENCE OF RARE CHERT CLASTS IS TENUOUS EVIDENCE FOR
R       211.65  224.20       BRECCIATION WITHIN THIS INTERVAL.  SOFT SEDIMENT DEFORMATION
R       211.65  224.20       IS STRONG.  BEDDING UNDULATES BETWEEN 70 AND 80 DEGREES.

/       222.20  223.90   1.70          X CGCP           F* R*          LO3   R             V)              D*
L                                            2A                      O LO7                   V.

/       224.20  224.90   0.70            BRHM CR    *C+ R* H*          MO7   P             <)              D*
L                                            1A                        KO3                   <*

/       224.90  228.90   4.00            SAND GR        SS    3 4 4 7        P  2 BD       >)    65                B.
L                                            2A               5

/       224.90  228.90   4.00          1 ARGL CR GF     SS                   R                             D*
L                                            N
R       224.90  228.90       GALENA OCCURS AS A BLEBBS WITHIN QUARTZ VEINS.  INTERVAL IS
R       224.90  228.90       GRAPHITIC IN SHEARS.  SMALLER QUARTZ VEINS DEFORMED BY SOFT
R       224.90  228.90       SEDIMENT DEFORMATION.

/ CON   225.60  226.30   0.70          X ARSI       SI1 SS G; 0 2   8        R    CN      U60 >1          <*   B)    B.
L                                            1A                            2 BD       60             >*
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K  F   F R O M - T O -  I O T RECOV  MD % ROCK TM TM C T TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R Q D  AGE EV RO LC TM C 2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R      225.60  226.30       UPPER CONTACT APPEARS CONFORMABLE.  A 3 CM SILT-SAND BAND SHOWS
R      225.60  226.30       GRADING.

/ FAL  227.00  228.00   1.00           X ARGL CR GR GG1        0 1   1       R                  >6               B*    B.
L                                            9                                                          <)           B- L-
R      227.00  228.00       INTERVAL BEGINS WITH 15 CM QUARTZ VEIN, DEFORMED, CONTAINING
R      227.00  228.00       VERY MINOR SIDERITE AND ARGL CLASTS.  THIS IS FOLLOWED BY ABOUT
R      227.00  228.00       10 CM OF GOUGE.  THE REST IS HIGHLY DEFORMED CRACKLE BRECCIATED
R      227.00  228.00       ARGL WITH QZ-SD-GL-SL FILL.  QUARTZ FORMS BOXWORK WITHIN VEINS.
R      227.00  228.00       THE ARGL BRECCIATION IS CONTINUOUS WITH SAND FORMING REMAINDER
R      227.00  228.00       OF PGI.

/ FRG  228.90  238.36   9.46             ARGL CR GR      MX    0 1   1       P  2 BD        72 >+           C. HE 6+ B.
L                                             6 SF                              CV        72          >*    C-    B*

/      228.90  238.36   9.46           2 BRHT CR GR *C) R* H*          L06   R                 V+          <.    B+ B.
L                                           2A SF      R* F*     ) C KN4                               V.          B)

/      228.90  238.36   9.46           + BRPM CR GR *C+ R* F*                R                                   B*
L                                           1A SF                      JL4
R      228.90  238.36       INTERVAL CHARACTERIZED BY PYRITE VEINS, BARREN QZ-SD VEINS
R      228.90  238.36       WITH QUARTZ FORMING BOXWORK.  CLEAVAGE COINCIDENT WITH BEDDING,
R      228.90  238.36       AND COATED WITH BLOOD-RED, POWDERY MINERAL (POSSIBLE HEMATITE).
R      228.90  238.36       THE "OTHER" FRAGMENTS ARE PEBBLY SANDSTONE.

/      238.36  251.62  13.26             BRHT GR     *C4 R* F*         L02   P                             <.    V+
L                                           1A          R*            0 JL8
R      238.36  251.62       THE INTERVAL CONTAINS SMALL ANGULAR TO ROUNDED CHERT AND
R      238.36  251.62       ROUNDED ARGILLITE FRAGMENT IN AN ARGILLITE MATRIX.

/      240.80  251.62  10.82           X BRHT GR     *C  R* F*         MR5   R                             <* HE V+
L                                           2A                        C LP5                                  B*     V)
R      240.80  251.62       BLEBS OF HEMETITE THROUGHOUT DITTO:  APPROX 0.5%.

/      251.62  266.09  14.47             ARSI CR GR  SS SC                   P  2 BD      U23 <*           <*    7+
L                                           1A       + (L                                           <.
R      251.62  266.09       PYRITE OCCURS AS DISSEMINATIONS, LAMINATIONS AND VEINS.
R      251.62  266.09       STRATIGRAPHIC DIRECTION IS DIFFICULT TO ESTABLISH.

/ FAL  263.20  266.09   2.89           X ARSI CR GR GG2 SS SC                R  2 BD      U23 #1           #+    7+
L                                                                                                   #+              B.
R      263.20  266.09       CRACKLE BRECCIATION INCREASES TO QZ-SD-BA-SL FILLED BRECCIA.
R      263.20  266.09       THE ROCK THEN BECOMES VERY BROKEN WITH GOUGE.

/ FAL  266.09  271.88   5.79             ARGL CR GR GG3 SS SC 0 1   1        P                  #=          #*    8)
L                                           R SF                                                    #)

/ FAL  266.09  271.88   5.79           2 SAND        GG5 SS     3 4 4 5      R                  <=          <*    P+
L                                          1A                   6                                   <)

/ FAL  266.09  271.88   5.79           1 BRHT        *C* R* H*         M07   R                  <+          <*    D)
L                                          2A          F*               L03                         <*
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K  F   F R O M - T O -  I N T RECOV  MD % ROCK TX TM GR1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                             R Q D  AGE EV RN LC TM GR2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/ FAL  266.09  271.88   5.79          1 BRPM CR SF           0 1   1        R                  <)           <-    D*
L                                              5 GR                     KL+                            <-
R      266.09  271.88        SAND POSSIBLY INJECTED.  RIP-UP CLASTS FROM 0.5 TO 2.5 CM
R      266.09  271.88        ACROSS.

/ SHR  271.88  280.92   9.04               ARGL CR GR            0 1   2        P  2 BD        67 <)           <*    D-
L                                                 SF                                                      <.

/ FAL  271.88  275.84   3.96             X ARGL CR GR            0 1   2        R  2 BD        67 <)           <*    D-
L                                                 SF                                                      <.

/      280.92  308.20  27.28               BRBT          R* H*        MS7   P                 <*           <*    B)
L                                        1A              F* B*       0 L02                               <* <-        <*

/ FRG  280.92  308.20  27.28          1 SAND           SS XB 3 4    6        R                 <-                 B*
L                                        3A             // 6; 6                                           <- <.
R      280.92  308.20        INTERVAL DOMINATED BY LARGE ARGL AND ARSI FRAGMENTS.
R      280.92  308.20        BIMODAL NATURE GIVEN BY SMALL CLAST MATRIX IN OPEN STRUCTURE.
R      280.92  308.20        CLAST REPLACEMENT BY PYRITE COMPLETE IN SOME CLASTS.
R      280.92  308.20        PYRITE ALSO AS LAMINATIONS AND VEINS.
R      280.92  308.20        SAND CLASTS VARIOUSLY SHOW CROSS-BEDDING, GRADED BEDDING, AND
R      280.92  308.20        PLANAR BEDDING, BUT IN THE NATURE OF CLASTS; NO BEDDING ANGLES
R      280.92  308.20        OR TOP DIRECTIONS CAN BE DETERMINED.

/      308.20  315.10   6.90               BRPM          S  IM     3 4   5 MR2   P  2 BD        65              <- HE P)
L                                        2A                         1 0                                       B-
R      308.20  315.10        THIS INTERVAL IS CHARACTERIZED BY VARIOUS SIZED ARGL CLASTS
R      308.20  315.10        THAT ARE ANGULAR TO MODERATELY ROUNDED.  THE "OTHER" FRAGMENTS
R      308.20  315.10        ARE LAMINATED SAND.  HEMATITE LOCALLY DISSEMINATED.
R      308.20  315.10        ISOLATED BEDDING WITH ANGLE COINCIDENT WITH IMBRICATION.

/ FAL  310.80  311.20   0.40             X FAUL CR GR                            R
L                                          
R      310.80  311.20        POSSIBLE BRSC REPETITION DUE TO FAULTING.

/      311.20  312.19   0.99             X BRPM          6; R* 3 4   5 LP8   R  2 BD        65              <- HE P)
L                                        1                           JL+
R      311.20  312.19        APPARENT GRADING OF ARGL CLASTS.

/      315.10  322.50   7.40               BRBT CR       F* B*        MG7   P                          Y*        D)
L                                        2A              R*        *   K03                                    <-
R      315.10  322.50        RARE BITUMINOUS CLASTS.

/      322.10  322.50   0.40             X BRPM         SG9       3 4   5 KM+   R                                HE
L                                        2A                    6      KN1                                        D-

/      322.50  326.55   4.05               CGCP        *C1 F* B*       KN2   P                                    7+
L                                        3A             R* CU       0 L08
R      322.50  326.55        INTERVAL GENERALLY COARSENS UPWARD, BUT GRADING NOT APPARENT,
R      322.50  326.55        PYRITE AS BLEBS, AND VEINING.
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K  F   F R O M - T O -  I N T RECOV  MD % ROCK TF TM UN1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                           R O D  AGE EV RW LC TM UN2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD OS HA PR MT SL HA

R        326.55  326.90        CONTACT GRADATIONAL WITH PREVIOUS CGCP INTERVAL.
R        326.55  326.90        GRADES TO CGCP.

/        326.55  328.35  1.60          CGCP      *C1 F* B*         K02   P                               B)
L                                                       G;          P

/ CON    326.55  326.90  0.35        X CGSP      SN9 G; MX 3 4 4 7       R    CN      38                 B*
L                                       2A                  6
R        326.55  328.35        CHERT CLASS (SIZE P).
R        328.35  330.40        LARGE PEBBLE-SIZED CLASTS INCREASE IN FREQUENCY DOWNHOLE.
R        328.35  330.40        UNIT GRADES INTO LOWER CGCP.

/        328.35  369.72  41.37         CGCP      *C) F* B*         L01   P               <-       <-     B*
L                                                S 1 G; FU       O KP9                                     <*

/        328.35  330.40  2.05        X CGSP         G; MX 3 4 4 7        R
L                                       2A                  6                                    V*

/        353.00  355.40  2.40        X CGSP HF   S   FU MX F H 4 O       R               <-           HE B*
L                                       3A                  6                                         R.
R        353.00  355.40        ONE LARGE COBBLE CHERT CLAST.  PEBBLE CLASTS DOMINATELY CHERT,
R        353.00  355.49        AND LARGER ONES CONCENTRATED NEAR BOTTOM OF INTERVAL.

/        355.40  358.75  3.35        X CGPR GR   S   F* B*         K03   R               V*       <-
L                                       2A       *                 K07

/ FLT    360.60  362.40  1.80        X CGCP      *   F* B*         KN2   R                               7+
L

/        363.57  364.85  1.28        X CGPR      *   VG            KM3   R               <-       <*     B*
L                                       2A                       O KN7

/        364.85  368.60  3.75        X CGSP      S   VG MX F H 3 O       R               <.       <-     B*
L                                       2A                  6

/        369.72  376.63  6.91          BRHT GR CR *C1 F* B*        MR5   P                        <.
L                                       2A SF       K*             K05
R        369.72  376.63        INTERVAL HAS LARGE ARST CLASTS SUPPORTED BY MUCH SMALLER CLAST
R        369.72  376.63        BRHT WHICH CONTAINS ALL OF THE CHART.

/        375.00  375.81  0.81        X BRHT GR CR *C1 F* B*        KM3   R                        <.
L                                                                  K07
R        375.00  375.81        BLUE POSSIBLE BARIUM MINERAL AS COATING.

/        375.61  376.63  0.82        X SAND      SN9 VG MX 3 4 4 L       R                            HE B*
L                                       2A                  6                                         B*

/        376.63  396.95  20.32         CGCP      SN= F* B*         M01   P               <)       <. HE B*
L                                       3A                       C LP9                            <- R*

/        383.65  385.46  1.81        X SAND         MX SS 3 4 3 4        R               <*       <. HE
L                                       2A                  7                                         B-
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```
K  F   F R O M  - T O -  I N T RECOV  RQ % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R Q D  AGE EV RO LC TM QM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/      388.00  391.00  3.00          X CGCP       SN= F* B*          MN1  R               >+          <. HE B*
L                                            3A        F* VG        C L09                               <- R*        U.

/      391.00  393.25  2.25          X SAND          SS G; 3 4 5 N       R            U  <)
L                                                          -                                   C.
R      391.00  393.25      GRADING TENUOUS EXCEPT AT BOTTOM OF INTERVAL WHERE LARGER
R      391.00  393.25      CLASTS THAT ARE ALL ARGL OCCUR.

/      393.25  396.95  3.70          X CGCP       S = F* B*          KN1  R               >)          <. HE B*
L                                                              O                               C.

/      396.95  404.40  7.45            BRPM       S 7 F* B* 3 4    4 MP5  P               <*          <* HE B*
L                                            2A     *C) R*         O KN5                                 R-

/      398.28  399.80  1.52          X BRPM CR GR S 7 F* B* 3 4    4 MQ8  R               <*          <) HE B)
L                                            1A SF  *C) R*         O KN2                                 R-

/ FLT  399.80  400.20  0.40          X BRPM CR GR S 7 F* B* 3 4    4 MP5  R               >9          <+ HE B)
L                                            2A     *C) R*         O KN5                                 R-

/      400.20  402.00  1.80          X BRPM       S 7 F* B* 3 4    4 MP5  R               <*          <* HE Q+
L                                            2A     *C) R*         O KN5                                 R-

/ FAL  402.00  402.34  0.34          X BRPM CR GR S 7 F* B* 3 4    4 MP5  R               >5          <* HE B*
L                                            2M     GS- R*         O KN5                       <.        R-

/      402.34  404.03  1.69          X SAND       S  SS MX 3 3     3      R               #2                7)
L                                            1A

/      404.03  404.40  0.37          X CGSN SF    SM7 R* B*          KM2  R               #1          <*    R)
L                                            3A     *C* F*         O K08
R SAM  404.40  404.40      BEGIN SAMPLING ABOVE MAIN ORE ZONE.

/      404.40  406.40  2.00            CGSN SF    SM7 R* B*          KM2  P               #1          <*    R)
L                                            3A     *C* F*         O K08

/      406.14  406.40  0.26          X PBSN       SN9 G; LR               R            U  <.                B-
L                                                     BS
R      406.14  406.40      POSSIBLE BCUMA: ABC.  TURBIDITE TRUNCATES LAMINATE OF LOWER
R      406.14  406.40      LMSX.  COMPLEX SEQUENCE OF CLASTICS WITH MATRIX DOMINATED
R      406.14  406.40      BY SAND.
R      406.40  406.40      BEGIN MAIN ZONE ORE BODY.

K UM1  406.40  406.40  0.00

/ LSX  406.40  407.40  1.00            LMSX BA SL CH1 SS                  P  1 LM      55          L7          L=
L                                            1A GL                            CN      80                   L+ L1
R      406.40  407.40      CONTACT WITH UPPER PBSN EROSIONAL, IRREGULAR.

/ LSX  406.80  407.40  0.60          X LMSX BA SL CH1 SS                  R  1 LM      70          L9          L+
L                                            9  GL                                                          B) L=
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PAN OCEAN OIL LTD.

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G E O L O G                      JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                       PAGE - 10
                           DRILLHOLE/TRAVERSE --- 81-DH078 --- (CONTINUED)

K  F   F R O M - T O -  I N T RECOV  MD % ROCK TX TX OX1 TX TX F C % M ARG    RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                         R Q D  AGE FV RO LC TO OX2 TX TX S C O O CHT         2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R        406.40  411.10         BY THE OVERLYING BRECCIA-CONGLOMERATE SEQUENCE.

/ LSX    407.40  411.10   3.70            LMSX BA SL C+) SS                   P  1 LM      65            L9          L+
L                                              9  GL                                                              B) L=

/        408.06  410.16   2.10          X LMSX BA SL C+) SS                   R  1 LM      70            L9          L+
L                                              9  GL                                                              B) L=

/        408.55  408.60   0.05          X SILT SF    SI6       1 2 5 3        R  2 BD      65            <-     D-
L                                              1A                                                 <-

/ FRG    410.16  410.60   0.44          X SILT SF    SI6 FX    1 2 5 3        R                          <-     D-
L                                              1A                                                 <-

/ LSX    410.60  411.10   0.50          X LMSX BA SL C+) SS                   R  1 LM      60            L9          L+
L                                              9  GL                                                              B) L=

K LM1    411.10  411.10   0.00

/        411.10  416.10   5.00            SILT SF SL SI6 SS SC 1 2 5 3        P  2 BD      50 >*         83     P)
L                                              1A BA                                                                 V*

/        411.10  416.10   5.00          2 LMSX       CH= SS                   R  1 LM      50 >)         88          L+
L                                              9                                                                     L+
R        411.10  416.10         QZ-BA VEINING AS BRECCIA FILL IN LMSX NEAR TOP OF INTERVAL.
R        411.10  416.10         LMSX CONCENTRTED NEAR TOP OF INTERVAL WITH LOCAL BEDS.
R        411.10  416.10         BARITE LAMINATIONS THROUGHOUT SILTSTONE.  MANY QUARTZ VEINS
R        411.10  416.10         TRUNCATED BY SOFT SEDIMENT DEFORMATION.

/        415.10  416.10   1.00          X SILT SF SL SI6 SS SC 1 2 5 3        R  2 BD      60 >*         83     P)
L

/        416.10  418.20   2.10            SILT SF SL SI1 SS SC 1 2 5 3        P  2 BD      50 K+         83     P)
L

/        418.20  428.55  10.35            ARGL CR SL     SC    0 1   1        P  2 BD      73 K=         7)     L*
L                                               N BA                    JK*       CV       70                           V)
R        418.20  428.55         CLEAVAGE AT 45 DEGREES TO BEDDING PLANE.

/        421.28  428.55   7.27          X ARGL CR SF     SC    0 1   1        R  2 BD      73 <*         <*     L*     0
L

/        426.80  427.30   0.50          X BRPM SF CR *CO R* B*                R                          B+     L1
L                                               A                       KL3
```

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :81-08079	COLLAR ELEVATION: 1362.86	AZIMUTH(DEG) : 210.00	GEOLOGGED BY : PCH +
TOTAL DEPTH/LENGTH : 403.86	NORTHING(- IF S): 7004716.00	VERTICAL ANGLE : -60.00	DATE (YY/MM/DD): 810905
CORE/HOLE DIAMETER : 69	EASTING (- IF W): 432979.56	CO-ORD SYSTEM : UTM	PROJECT NUMBER : J-END

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	149.96	211.50	-55.50
2	162.15	209.00	-55.50
3	174.34	211.00	-55.00
4	186.53	211.00	-55.00
5	198.73	211.00	-55.00
6	210.92	211.50	-54.50
7	223.11	211.00	-54.00
8	235.30	211.50	-54.00
9	247.49	210.00	-54.25
10	259.67	211.50	-54.50
11	262.13	209.00	-54.00
12	268.83	209.00	-53.00
13	281.02	207.00	-50.00
14	293.21	208.00	-48.50
15	305.41	206.50	-47.50
16	317.60	205.50	-46.50
17	329.79	206.50	-45.50
18	341.98	205.00	-44.50
19	354.18	206.00	-43.75
20	366.37	207.00	-43.00
21	378.56	205.00	-42.66
22	390.75	206.00	-42.00
23	402.95	206.42	-42.00

```
   F   - I N T E R V A L -    CORE  T- %      TYPI- QAL  TEX-  GRAIN       PGT   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =   . DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                       H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MT=METRIC FT=FOOTRIC)  ERY    O I      TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  I N T ( . )  D X TYPE  1  2 QM1  1  2 F F C A         1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- - - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                        ROCK   FM     HT    TM QM2 TX TX S C O O CHT       T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                        QUAL  AGE EN- Q LC- 3     3  4 U     /           2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y  G                        DESTG     VIR   COL            R     C             STRUCTUR-2  A  A  A  A  A  A  A  A  A  A    2   2

R SVY     0.00     0.00         ALL SURVEYS WERE TAKEN WITH A MULTI-SHOT
R SVY     0.00     0.00         INSTRUMENT EXCEPT FOR 262.13 M WHICH WAS DONE WITH A
R SVY     0.00     0.00         SINGLE SHOT.  SURVEY DATA IS AVAILABLE FOR EVERY 3.3
R SVY     0.00     0.00         METER INTERVAL.

/ FRG     0.00    11.92  11.92              OVER                          P
L
R         0.00    11.92      COMPETENT CORE CONSISTS OF CGCP (UNIT 2) AND SILTSTONE (IMP FM)
R         0.00    11.92      FLOAT BOULDERS.
```

```
K  F   F R O M - T O -  I N T RECOV  MO % ROCK TM TM OMI TX TX F C % M ARG   RT 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                           R Q D  AGE EV RO LC TM OM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD OS HA PR MT SL HA

/ FRG   11.92   14.33   2.46          OVER                         P
L
R       11.92   14.33        SEMICONSOLIDATED MATERIAL CONSISTS OF FERRI-CRETE BRECCIA

/       14.33  169.77 155.39          ARSI SO    SI1 SS LC          P  3 BD       70
L                                                  5 A
R       14.33  169.77        RUSTY WEATHERING ALONG CLEAVAGE FRACTURES 14.38M TO 25.90M

/       38.65   38.90   0.25        X VEIN                          R                                           C.
L                                                                                                                         >9
R       38.65   38.90        TRACE GL ENCRUSTING SMALL OPEN SPACE VUGS.  CONSIDERABLE ARSI
R       38.65   38.90        INTERVAL (29.57 TO 46.02) CORED PARALLEL TO BD.

/       52.50   52.51   0.01        X ARSI SO    SI1 SS LC          R  3 BD       70
L

/       52.80   60.00   7.20        X ARSW SC    SI3    LC          R  4 BD       85
L                                                  5 A

/       72.21   72.22   0.01        X ARSI SO    SI1 SS LC          R  3 BD       00
L

/       73.63   82.90   9.27        X ARSW SO    SI3 SS LC          R  3 BD       75
L                                                  6 A

/       75.00   75.01   0.01        X ARSI SO    SI1 SS LC          R  3 BD       60
L

/       75.29   75.30   0.01        X ARSI SO    SI1 SS LC          R  3 V/       85       V*   S*
L

/       76.50   76.51   0.01        X ARSI SO    SI1 SS LC          R  3 BD       85
L

/       85.00   85.01   0.01        X ARSI SO    SI1 SS LC          R  3 BD       70
L

/       90.43   90.44   0.01        X ARSI SO    SI1 SS LC          R  3 V/       00
L

/       92.00   92.01   0.01        X ARSI SO    SI1 SS LC          R  3 BD       60
L

/       93.07   93.77   0.70        X ????                          R    V/       90
L

/       99.70   99.71   0.01        X ARSI SO    SI1 SS LC          R  3 BD       65
L

/      103.00  103.01   0.01        X ARSI SO    SI1 SS LC          R  3 BD       70
L
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```
K  F   F R O M - T O -   T N T RECOV  MD % ROCK  TM TM GR1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R Q D  AGE EV RG LC TN GR2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/      104.60  104.61   0.01          X ARSI SD    SI1 SS LC              R  3 BD      65
L

/      110.25  110.75   0.50          X ARSI SD    FOS RU LC              R  3 BD      67
L                                                      B
R      110.25  110.75     RIP-UP CLASTS CONSIST OF WELL ROUNDED ELLIPSOIDAL SHAPED
R      110.25  110.75     FRAGMENTS-SOME SHAPES HIGHLY SUGGESTIVE OF FOSSIL DETRITUS

/      114.30  114.31   0.01          X ARSI SD    SI1 SS LC              R  3 BD      67
L

/      117.65  117.66   0.01          X ARSI SD    SI1 SS LC              R  3 BD      71
L

/      120.70  120.71   0.01          Y ARSI SD    SI1 SS LC              R  3 BD      73
L

/      123.75  126.80   3.05          X ARSI SD    SI3 SS LC              R  3 BD      70
L

/      123.95  126.80   2.85          X ARSI SD    SI2 SS LC              R  3 BD      67
L

/      130.15  130.16   0.01          X ARSI SD    SI1 SS LC              R  3 BD      72
L

/      133.20  133.21   0.01          X ARSI SD    SI1 SS LC              R  3 BD      73
L

/      134.00  138.75   4.75          X ARSI SD    SI3 SS LC              R  4 BD      70
L
R      134.00  138.75     REDUCING TO GG AT 138.07

/      144.30  152.70   8.40          X ARSI SD    SI3 SS LC              R  3 BD      60
L

/ FLT  153.30  153.62   0.32          X FAUL       GG6                    R    C/      60
L

/ FLT  156.88  157.28   0.40          X FAUL       GG9                    R    C/      60
L

/      160.90  162.42   1.52          X ARSI SD    SI3 SS LC              R  4 BD      60
L

/      169.77  196.55  26.78            ARSN       SI4                    P  6
L

/      192.00  192.90   0.90          X SILT SD     RU LC CC X C       R
L
```

K F F R O M - T O - I N T RECOV RQD % ROCK FM TM OM1 TX TX F C % M ARG RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- -- - - - -
Y G R Q D AGE EV RU LC TM OM2 TX TX S C G O CHT 2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

K	F	FROM	TO	INT	ROCK / REMARKS	TX	ARG	RI	ID	DIP	CY	BA	XX	YY	A 1 A 2
R		192.00	192.90		WISPY, MOTTLED TEXTURE (PERHAPS DEWATERING COMPACTIONAL FEATURE)										
R		192.00	192.90		SIDERITIZED PATCHES SEPARATED BY SHALY PARTINGS.										
/		194.76	196.55	1.79	X SILT SD	RU LC CC X C	R								
L															
/	COM	196.55	230.65	34.10	ARGL	LM BT		P	2 LM	D					
L											C/		70		
R		196.55	230.65		. THIS INTERVAL IS CHARACTERIZED BY COMPOSITIONAL MED GREY COLOUR										
R		196.55	230.65		BANDING-BLEACHED BANDS ARE BIOTURBATED WITH WELL DEVELOPED WORM										
R		196.55	230.65		TUBES INDICATING TOP DIRECTION DOWN THE HOLE.										
/		201.47	201.48	0.01	X ARGL	LM BI		R	2 BD	D67					
L															
/		208.18	208.19	0.01	X ARGL	LM BI		R	2 BD	D68					
L															
/		214.60	214.61	0.01	X ARGL	BI BI		R	2 BD	D73					
L															
/		219.76	219.77	0.01	X ARGL	LM BI		R	2 BD	D72					
L															
/		226.77	226.78	0.01	X ARGL	LM BI		R	2 BD	D67					
L															
/	FAL	230.65	231.65	1.00	FAUL GG			P							
L															
R		230.65	231.65		STRONGLYGRAPHITIC CONTAINING CONTORTED QZ STRINGERS.										
/		231.65	248.80	17.15	ARSH SD	SI3		P	3			Q*			
L															>+
/		235.92	235.93	0.01	X ARSH SD	SI3		R	3 BD	45		Q*			
L															>+
R		248.80	249.94		STRONGLY BRECCIATED-ARSI FGT'S CHLORITIZED WITH CORRODED RIMS										
/		248.80	306.00	57.20	ARSI	LM SS		P							
L															
/		248.80	249.94	1.14	4 ARSI			R				Q*			
L														P*	>6
/		252.07	252.08	0.01	X ARSI	LM SS		R	BD	30					
L															
/		264.26	264.27	0.01	X ARSI	LM SS		R	BD	55					
L															
/		269.00	269.01	0.01	X ARSI	LM SS		R	BD	70					
L															

PAN OCEAN OIL LTD.

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G E O L O G                         JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                 PAGE -  5
                                DRILLHOLE/TRAVERSE --- 81-DH079 --- (CONTINUED)

K  F   F R O M - T O -   L N T RECOV  MO % ROCK  TR IR OH1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ----  -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                             R Q D  AGE EV RO LC TN OR2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/      271.58  271.59   0.01             X ARSI      LM SS                   R    BD      85
L

/      274.93  274.94   0.01             X ARSI      LM SS                   R    BD      57
L

/      279.00  279.01   0.01             X ARSI      LM SS                   R    BD      58
L

/      283.77  283.78   0.01             X ARSI      LM SS                   R    BD      65
L

/      287.00  287.01   0.01             X ARSI      LM SS                   R    BD      90
L

/      294.74  294.75   0.01             X ARSI      LM SS                   R    BD      65
L

/      299.92  299.93   0.01             X ARSI      LM SS                   R    BD      45
L

/      306.00  332.20  26.20               ARSH SD  SI3 LC SS                P  3 BD
L                                                    7 A                                                                      V+

/      306.32  306.33   0.01             X ARSH SD  SI3 LC SS                R  3 BD      60
L                                                    7 A                                                                      V+

/      312.42  312.43   0.01             X ARSH SD  SI3 LC SS                R  3 BD      50
L                                                    7 A                                                                      V+

/      318.82  318.83   0.01             X ARSH SD  SI3 LC SS                R  3 BD      50
L                                                    7 A                                                                      V+

/      325.22  325.23   0.01             X ARSH SD  SI3 LC SS                R  3 BD      60
L                                                    7 A                                                                      V+

/      331.32  331.33   0.01             X ARSH SD  SI3 LC SS                R  3 BD      65
L                                                    7 A                                                                      V+

/      332.20  403.86  71.66               ARSI SD  SI1 LC SS                P  2 BD
L                                                    6 A                                    1 LM

/      334.37  334.38   0.01             X ARSI SD  SI1 LC SS                R  2 BD      60
L                                                    6 A                                    1 LM

/      341.50  341.51   0.01             X ARSI SD  SI1 LC SS                R  2 BD      65
L                                                    6 A                                    1 LM

/      349.61  349.62   0.01             X ARSI SD  SI1 LC SS                R  2 BD      70
L                                                    6 A                                    1 LM
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PAN OCEAN OIL LTD.

G E O L O G

JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

DRILLHOLE/TRAVERSE --- 81-DH079 --- (CONTINUED)

K F Y	F -L- G	FROM	TO	INT	RECOV RQD	MD AGE	% EV	ROCK RU	TS LC	FM TH	QM1 QM2	TX TX	TX TY	F S	C C	% O	M D	ARG CHT	RI	1 2	ID ID	AZM AZM	DIP DIP	QZ MG	FL MU	CY CL	CA SD	BA QS	XX HA	PY PR	CP MT	GL SL	YY HA	A 1	A 2
/		351.74	351.75	0.01			X	ARSI	SD		SI1	LC	SS						R	2	BD		85												
L											6	A												1	LM										
/		358.00	358.01	0.01			X	ARSI	SD		SI1	LC	SS						R	2	BD		90												
L											6	A												1	LM										
/		362.00	362.01	0.01			X	ARSI	SD		SI1	LC	SS						R	2	BD		75												
L											6	A												1	LM										
/		367.28	367.29	0.01			X	ARSI	SD		SI1	LC	SS						R	2	BD		65												
L											6	A												1	LM										
/		373.68	373.69	0.01			X	ARSI	SD		SI1	LC	SS						R	2	BD		65												
L											6	A												1	LM										
/		379.17	379.18	0.01			X	ARSI	SD		SI1	LC	SS						R	2	BD		50												
L											6	A												1	LM										
/		386.18	386.19	0.01			X	ARSI	SD		SI1	LC	SS						R	2	BD		45												
L											6	A												1	LM										
/		392.28	392.29	0.01			X	ARSI	SD		SI1	LC	SS						R	2	BD		45												
L											6	A												1	LM										
/		396.85	396.86	0.01			X	ARSI	SD		SI1	LC	SS						R	2	BD		30												
L											6	A												1	LM										
/	FLT	401.42	402.64	1.22			X	FAUL			GG8								R																
L																																			
/		403.85	403.86	0.01			Y	ARSI	SD		SI1	LC	SS						R	2	BD		90												
L											6	A												1	LM										

GEOLOG EDIT LISTING

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

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DRILLHOLE/TRAVERSE :81-0B060     COLLAR ELEVATION:      1219.65     AZIMUTH( DEG ) :     15.00     GEOLOGGED BY : DHG +
TOTAL DEPTH/LENGTH :  249.02     NORTHING(- IF S):   7002524.00     VERTICAL ANGLE :    -83.50     DATE (YY/MM/DD): 810000
CORE/HOLE DIAMETER :     NQ      EASTING (- IF W):    436837.19     CO-ORD SYSTEM  :     UTM       PROJECT NUMBER : J-MAIN
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SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	24.38	14.00	-83.00
2	44.20	16.00	-82.75
3	66.45	32.00	-82.50
4	83.82	32.00	-82.50
5	109.73	34.00	-82.00
6	128.02	40.00	-81.00
7	154.84	46.00	-79.33
8	173.43	50.00	-79.00
9	191.72	49.00	-78.75
10	201.47	53.00	-78.25
11	216.71	52.00	-78.00
12	231.95	52.00	-78.50
13	249.02	46.00	-78.00

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  F   - I N T E R V A L -     CORE  I- %       TYPI- NAL  TEX-  GRAIN        PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K L (UNITS =    . DEC.PLACE)RECOV-  N N ROCK FYING MIN TURES CHARACS                              H  H  H  H  H ANY H  H  H ANY  ALT ORE
E A  (MT=METRIC FT=FOOTRIC)  ERY    O T       IN IN MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y G  F R O M - T O -  I N T ( . )  D X TYPE  1  2 NM1  1  2 F F C A          1     AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K F                           ROCK   FR     RT    TN NM2 TX TX S C O D CHT        T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E L                           QUAL   AGE FN- N LC- 3      3  4 0    /             2    AZM  RT H  H  H  H  H  H  H  H  H  H   1  1
Y G                           DESIG      VTR   COL             R    C               STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2  2

R SVY    0.00    0.00      SPERRY-SUN MULTI-SHOT RESULTS.

/ OVB    0.00   11.28  11.28              OVER                                P
L

/       11.28   22.56  11.28              ARSI CR     SM= LM //               P  0 LM      70                   L+
L                                              3A     S1+      8
R       11.28   22.56      THE TOP IS HIGHLY BROKEN AND STAINED DUE TO SURFACE WEATHERING.

/       22.56   31.41   8.85              BRBT CR     *C(     R*        MV8   P  1 LM                      <(   P+
L                                              2A        R*     9       KP1
R       22.56   31.41      ARGILLIC BRECCIA FRAGMENTS GRATER THAN 50CMS ARE HIGHLY
R       22.56   31.41      CARBONACEOUS, AND MAY REPRESENT INTERCALATED BEDDING WITHIN THE
R       22.56   31.41      BRBT UNIT. RATHER THAN ARGILLIC BRECCIA.

/ SHR   31.04   31.41   0.37          X BRBT GR     *C(     R*        MV8   R  1 LM          <1          <(   D=
L

/       31.41   34.00   2.59              SAND SF     SM9 MX    1 3 9 6       P                 <+              D+
L                                              5A            LC
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```
K  F   F R O M - T O -  I N T RECOV  RD % ROCK TR ID RM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                             R Q D  AGE EV RO LC IF RM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R        31.41   34.00        THE MASSIVE SANDSTONE CONTAINS CARBONACEOUS ARGILLITE WITHIN THE
R        31.41   34.00        INTERSTITIAL SPACES.  THE ARGILLITE IS ALSO OBSERVED AS VERY
R        31.41   34.00        THIN, HIGHLY CONVOLUTED, WISPY LAYERS WITHIN THE SANDSTONE.

/        34.00   39.10   5.10            BRHT CR     *C)     F*          DR7   P                <)          <(    D+
L                                             3A        R* G; 3       LP2
R        34.00   39.10        CHERT FRAGMENTS SHOW SLIGHT GRADING INDICATING TOPS ARE IN AN
R        34.00   39.10        UPHOLE DIRECTION.

/        39.10   43.56  44.46            ARGL CR     SN( MX LM 1 1   1        P  0 LM     U80            <(    L+
L                                             M            G; 9
R        39.10   43.56        THE ARGILLITE IS EXTREMELY CARBONACEOUS, GIVING IT A STRIKING
R        39.10   43.56        BLACK COLOUR.  PYRITE REPLACES THIN CHERT LAMINATIONS, AND
R        39.10   43.56        EXHIBITS NORMAL GRADING.  THIS UNIT IS TYPICAL OF THE CANOL 3B
R        39.10   43.56        UNIT.

/        43.58   44.31   0.73          8 BRHT CR     *C)                 LM3   R                            <(    R=
L                                             1A        H* R* 3       KL1
R        43.58   44.31        THE HETEROLITHIC BRECCIA OCCURS IN THE SAME MATRIX AS THE ABOVE
R        43.58   44.31        ARGILLITE.  THE CHERT FRAGMENTS HAVE UNDERGONE CONSIDERABLE
R        43.58   44.31        REPLACEMENT BY PYRITE.

/ SHR    52.12   55.47   3.35          X ARGL GR     GS+ MX LM 1 1   1        R  0 LM     U80            <(    L+
L

/        57.76   60.15   2.39          9 BRHT CR     *C+     R*          LP2   R                            <(    R=
L                                             1A        H* F*         LO2

/        61.26   61.78   0.52          X ARGL CR     SN( MX LM 1 1   1        R  0 LM     U78 <=         <(    L+
L

/ SHR    77.42   81.50   4.08          X ARGL CR     GG1 MX SK 1 1   1        R  0 LM     U80 <=         <(    <=
L
R        77.42   81.50        STOCKWORK PYRITE VEINING OCCURS IN A SHEARED ARGILLITE.

/        81.50   83.56   2.06          X ARGL CR     SN( SK LC 1 1   1        R  0 V/     U79 V2         <(    D+
L                                                       BK                                           B+
R        81.50   83.56        STOCKWORK QUARTZ VEINING OCCURS IN A MILDLY BRECCIATED ARGILLITE
R        81.50   83.56        THE QUARTZ VEINS CONFORM TO THE ARGILLIC LAMINATIONS.

/        83.56   84.02   0.46            SAND           RD LC 1 3 6 3       P  2 LM     U83 <+               L=
L                                             4A           G; 8
R        83.56   84.02        THE BEDDING WITHIN THE SANDSTONE IS MILDLY CONVOLUTED.  PYRITE
R        83.56   84.02        LAMINATIONS ARE DUE TO REPLACEMENT OF THE COARSER, SAND SIZED
R        83.56   84.02        CHERT PARTICLES.

/        84.02   94.92  10.90            ARGL CR     SN( MX LM 1 1   1        P  0 LM     U79                  L+
L                                             M            G; 9

/        84.02   94.92  10.90          2 BRHT CR     *C1 G; MD           KN1   R    C/     T78 <)               R=
L                                             1A        H* R* 3       KP2
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K  F   F R O M - T O -  I N T RECOV  GD % ROCK TX TX QZ1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                               R O D  AGE EV RU LC TX QZ2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R        64.02   94.92       THE HETEROLITHIC BRECCIA INTERCALATES WITH THE ARGILLITE IN 30CM
R        64.02   94.92       BEDS.  THE CHERT FRAGMENTS ARE SUB-ANGULAR AND INCREASE IN SIZE
R        64.02   94.92       GOING DOWNHOLE.  MINOR SHEARING OF THE ARGILLITE OCCURS AT 92.05
R        64.02   94.92       METERS.  QUARTZ-PYRITE VEINS OCCUR NEAR THE BOTTOM OF THE P.G.I.

/        94.92  109.72  14.80            BRHT       *C  G:             LU6    P                <*                     R+
L                                            5A        F* R* 2         LP3                              <*
R        94.92  109.72       SILTY ARGILLITE FRAGMENTS OF GREATER THAN 60CMS ARE RAFTED IN A
R        94.92  109.72       CHERT BRECCIA.  COMPACTION OF CHERT BRECCIA RESULTS IN PRESSURE
R        94.92  109.72       SOLUTION BETWEEN GRAIN BOUNDARIES.  THE FRAGMENTS ARE ANGULAR.
R        94.92  109.72       BOTH REVERSE AND NORMAL GRADING OF BRECCIA FRAGMENTS OCCUR,
R        94.92  109.72       HOWEVER THE FORMER IS DOMINANT.

/        94.95   97.04   2.09          X BRHT       *C  G:             LU6    R                <)                     R+
L                                                                                                       V+
R        94.95   97.04       SIDERITE VEINS CUT THROUGH FRACTURED CHERT FRAGMENTS.  IN LARGE,
R        94.95   97.04       CHERT CLAST ARE COMPLETELY REPLACED BY FINE GRAINED PYRITE.

/       109.72  122.40  12.68            SAND CR    SN8 G; BD 1 3 8 6       P  2 BD      U78 <)                     L+
L                                            4A     SI1     LC 8

/ FLT   112.72  113.08   0.36          X SAND CR    GG7 G; BD 1 3 8 6       R  2 BD      U78 V1                     L+
L                                            4A     SI1     LC 8

/       117.96  122.40   4.44          5 BRSN CR    SN6 G; B*          KN2    R                                       R)
L                                            4A     *C* R* LC 5        KN2
R       117.96  122.40       WISPY, CONVOLUTED ARGILLITE LAMINATIONS OCCUR THROUGHOUT THE
R       117.96  122.40       SANDY BRECCIA.

/       122.40  125.65   3.25            BRHM                          MQ8    P                                       R+
L                                            5A CR            3        JK+

/       125.65  127.71   2.06            ARGL CR              1 1   1       P  0 LM       78                         D)
L                                            0           LC 9

/       127.71  134.10   6.39            ARSI CR    SN2 DB LC 1 3 2 6       P  2 BD       74                         L+
L                                            1A     SI1     G; 7

/       127.71  128.21   0.50          7 SAND   CR SN7 MX    0 3 7 3        R                                       D+
L                                            3A          LC 6
R       127.71  134.10       SAND AND SILT ARE INTERBEDDED WITH A MASSIVE BLACK, CARBONACEOUS
R       127.71  134.10       ARGILLITE.  PYRITE LAMINATIONS OCCUR WITHIN SANDY OR SILTY BEDS.

/       128.42  132.20   3.78          1 BRHT CR                       KM3    R                                       R+
L                                            4A          G; 3          JL4
R       128.42  132.20       HETEROLITHIC BRECCIAS ARE OFTEN ASSOCIATED WITH SANDY BEDS, AS
R       128.42  132.20       THEY GRADE UP TO COARSER FRAGMENTS.  THESE BEDS ARE
R       128.42  132.20       APPROXIMATELY 5CMS WIDE.  BETWEEN 129.85 AND 130.15 THE ROCK IS
R       128.42  132.20       VERY PYRITIC (10-20%), AND WEATHERED.

/       132.20  133.72   1.52          9 SAND   CR    LM G; 1 3 9 5         R  0 LM      U50 <(                     D1
L                                            4A           8
```

```
K  F   F R O M - T O -  T O T RECOV  MD % ROCK TP TO OM1 TX TX F C % M ARG   RT 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                        R O O  AGE EV RV LC TM OM2 TX TX S C G O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R      132.20  133.72      THE SANDSTONE CONTAINS LARGE ARGILLIC CLASTS.  IT IS POROUS AND
R      132.20  133.72      HEAVILY WEATHERED.

/      134.10  140.90   6.80             BRBM                          MR8   P                           R+
L                                           3A CR          2           JN+
-------------------------------------------------------------------------------------------------------------------
/      140.90  149.96   9.06             BRBT        *C= G; 6*         NT6   P                <(          R+
L                                           4A CR      R* ST           MU3

/      143.12  143.67   0.55           X BRBT        *C= G; 6*         NT6   R                <(          R1
L                                           4A CR      R* VG           MQ3
-------------------------------------------------------------------------------------------------------------------
R      143.12  143.67      BOTH ARGILLITE AND CHERT CLASTS ARE GRADED NORMALLY, INDICATING
R      143.12  143.67      TOPS ARE IN AN UPHOLE DIRECTION.

/      149.96  167.68  17.72             ARGL CR     SW( MX    1 1   1       P  1 LM      65 <)          L+
L                                           2A         LC LM 9
R      149.96  167.68      THE CORE IS MODERATELY BROKEN THROUGHOUT THE INTERVAL.
-------------------------------------------------------------------------------------------------------------------
/ FLT  151.49  154.53   3.04           X ARGL CR     GG1 MX    1 1   1       R  1 LM      65 <=          Q=
L

/      158.90  159.87   0.97           7 BRBT CR     *C)    6*         LO2   R                           R=
L                                           2A         F*              KO2
-------------------------------------------------------------------------------------------------------------------
R      158.90  159.87      THIS INTERVAL POSESSES A PEBBLY MUDSTONE MATRIX.

/      166.97  167.05   0.08           8 SAND    CR SN9        1 3 9 3       R                           D+
L                                           3A                 8

/      167.68  169.15   1.47             BRSN CR     SN7    LC         KP2   P  2 BD      U68            <+
-------------------------------------------------------------------------------------------------------------------
L                                           3A         BO G; 6         JL1

/      169.15  213.06  43.91             ARSI    CR SN2 LM SS 1 3 2 3        P  1 LM      U78 <1         L)
L                                           3A         LC
R      169.15  213.06      SAND OCCURS IN THIN LAMINATIONS AND/OR LENSES, THAT VARY FROM
R      169.15  213.06      1-3CMS.  IN THICKNESS.
-------------------------------------------------------------------------------------------------------------------
/      188.06  200.05  11.99           X ARSI    CR SN2 LM SS 1 3 2 3        R  1 LM      U78 <*         <*
L                                           3A
R      188.06  200.05      SMALL SMR.  TENSION GASHES OCCUR NORMAL TO BEDDING.  THESE ARE
R      188.06  200.05      FILLED WITH QUARTZ AND PYRITE.
-------------------------------------------------------------------------------------------------------------------
/      205.33  210.92   5.59           X ARSI    CR SN2 GB XB 1 3 2 3        R  1 BD      U81 <+     <+  D)
L                                                          LC
R      205.33  210.92      THE SMALL MICROVEINS OF BARITE ARE ZONES OF WEAKNESS ALONG WHICH
R      205.33  210.92      THE CORE BREAKS.

/      210.92  213.06   2.14           X ARSI    CR SN2 BO XB 1 3 2 3        R  1 BD      U80 V=     <+  D+
-------------------------------------------------------------------------------------------------------------------
L                                                          LC
R      210.92  213.06      THE CORE IS HIGHLY BROKEN DUE TO BOTH QUARTZ AND BARITE VEINING.

K OM1  213.06  213.06   0.00
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K  F   F R O M - T O -  I N T RECOV  FD % ROCK TM TM NM1 TX TX F C % M ARG    RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                               R Q D  AGE EV RQ LC TM NM2 TX TX S C O O CHT        2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/ LSX  213.06  214.70   1.64              LMSX SF    662 LM LC                P  1 LM       77 L5               <*     B1     L+
L                                              BA                                                                          L2
R      213.06  214.70       THE SILICEOUS LAMINATED SULFHIDE CONTAINS TWO LARGE ARGILLIC
R      213.06  214.70       BEDS, AT THE TOP AND THE BOTTOM OF THE INTERVAL.  THESE BEDS ARE
R      213.06  214.70       ABOUT 10-20CMS.  IN THICKNESS.  THEY ARE BLACK, CARBONACEOUS AND
R      213.06  214.70       HIGHLY BROKEN.  IN COMPARISON TO THE SILICEOUS, LAMINATED
R      213.06  214.70       SULPHIDE.  THEY CONTAIN MORE SPHALERITE.  WITHIN THE LAMINATED
R      213.06  214.70       SULPHIDE, THE SPHALERITE IS A RESINOUS BROWN COLOUR.  IT OCCURS
R      213.06  214.70       AS MEDIUM SIZED CRYSTALS (.7MM).  PYRITE / MARCASITES CONFORM TO
R      213.06  214.70       LAMINATIONS AND AVERAGE 3MM. IN SIZE.

/ LSX  214.70  216.35   1.65              LMSX BA         LM                      P  0 LM       78                  L6     D+     L+
L                                              BA         LC                                                               L2
R      214.70  216.35       THE BARITE IS FINELY LAMINATED WITH PINK SPHALERITE, GALENA AND
R      214.70  216.35       FLEBS OF PYRITE.  THE DIRTY GREY COLOUR IS DUE TO IMPURITIES
R      214.70  216.35       WITHIN THE BARITE.  SPHALERITE LAMINATIONS AVERAGE 2MM, AND
R      214.70  216.35       GALENA LAMINATIONS AVERAGE .3MM IN THICKNESS.  DARK GREEN
R      214.70  216.35       ARGILLITE BEDS (.5CM THICK) TOTAL 5% OF THE TOTAL INTERVAL
R      214.70  216.35       VOLUME.

/      216.35  216.71   0.36              LMSX BA         LM                      P  0 LM       78                  L6     D+     L+
L
R      216.35  216.71       THIS INTERVAL IS THE SAME AS THE PRECEEDING INTERVAL, EXCEPT FOR
R      216.35  216.71       ITS FLUID NATURE.

/ FSX  216.71  217.73   1.02              FGSX            BR                      P                                 L2     B1     D1
L                                              BR         LC SS                                                            L4
R      216.71  217.73       THE ORIGINAL LAMINATED TEXTURE OF THE SULPHIDE IS DISTRUBED BY
R      216.71  217.73       BRECCIATION OF BOTH THE LAMINATED ORE AND THE SILICEOUS,
R      216.71  217.73       ARGILLIC INTERBEDS.  THESE ARGILLIC INTERBEDS ARE 20% OF THE
R      216.71  217.73       TOTAL INTERVAL VOLUME.  SPHALERITE OCCURS AS A YELLOW OR PINK
R      216.71  217.73       MINERAL.  GALENA IS VERY FINE GRAINED, AND HIGHLY DISSEMINATED.
R      216.71  217.73       OVERALL, THE CORE IS A SOFT MUSH WHICH IS EASILY BROKEN BY THE
R      216.71  217.73       FINGERS.

/ LSX  217.73  218.25   0.52              LMSX BA         LM                      P  0 C/       65                  L5     D1     L+
L                                              BA         BR LC                                                            L1
R      217.73  218.25       GALENA OCCURS IN .2MM LAMINATIONS, WITH PINK SPHALERITE
R      217.73  218.25       LAMINATIONS SURROUNDING IT ON BOTH SIDES.  BETWEEN 217.93 -
R      217.73  218.25       217.97 METRES, THE BARITE AND ARGILLITE BEDS BECOME BRECCIATED.
R      217.73  218.25       ARGILLIC INTERBEDS OF 2CM.  THICKNESS, OCCUR THROUGHOUT THE
R      217.73  218.25       INTERVAL.  THEY AMOUNT TO 25% OF THE TOTAL INTERVAL VOLUME.  A
R      217.73  218.25       LARGE 15CM. ARGILLITE BED OCCURS AT THE END OF THE INTERVAL.

/ LSX  218.25  219.46   1.21              LMSX BA         LM                      P                                 L3     B1     D1
L                                              BR         LC SS                                                            L3
R      218.25  219.46       THIS UNIT IS SIMILAR TO THE PRECEEDING LMSX EXCEPT THE ROCK
R      218.25  219.46       QUALITY IS VERY POOR.  ORIGINAL LAMINATIONS ARE DIFFICULT TO SEE
R      218.25  219.46       DUE TO THE MUSHY CHARACTER OF THE CORE.  ABOUT 30% OF THE TOTAL
R      218.25  219.46       CORE VOLUME IS COMPOSED OF SILICEOUS, BLACK ARGILLITE INTERBEDS.
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K  F   F R O M  - T O -  T O T RECOV  RD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R Q D  AGE EV RQ LC TM OM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/ LSX  219.46  220.98   1.52               LMSX SF         BD LN               P  1 BD     67             <+    L1    L=
L                                               AG         BR                                                         L2
R      219.46  220.98        THE LAMINATED SULPHIDE INTERCALATES WITH BEDS OF SILICIFIED
R      219.46  220.98        ARGILLITE.  THESE BEDS VARY FROM .4 - 4CMS IN THICKNESS, AND
R      219.46  220.98        CONTAIN A LARGE AMOUNT OF LAMINATED TO LEWSOIDAL PYRITE /
R      219.46  220.98        MARCASITE.  THESE ARGILLIC BEDS ARE 30% BY VOLUME,  OF THE TOTAL
R      219.46  220.98        INTERVAL.

/      219.86  220.41   0.55             6 FGSX            BR                  R                          Q1    B=    D+
L                                               60                                                                    #2

/      220.68  220.98   0.30             9 ARGL SF         MX           11     R              <=          <)    B=    D)
L                                               BA                  9                                                 D+

/      220.98  222.27   1.29               LMSX BA         LC LM               P  0 LM     68             L6    L(    L+
L                                               BA         BR                                                         L1
R      220.98  222.27        GALENA LAMINATIONS AVERAGE .2MM - .5MM.  PINK SPHALERITE
R      220.98  222.27        LAMINATIONS AVERAGE 2MM.  IN WIDTH.  AT THE BASE OF THE INTERVAL
R      220.98  222.27        SLIGHTLY BRECCIATED, LIGHT GREY, SILICIFIED ARGILLITE BEDS
R      220.98  222.27        INTERBED WITH THE SULPHATE.

/      222.27  222.96   0.69               LMSX BA         LC LM               P  0 LM     70             L6    L(    L+
L

/      222.96  224.56   1.60               LMSX BA         LC LM               P  0 LM     75             L5    L2    L+
L                                                                                                                     L2
R      222.96  224.56        ARGILLITE  LAMINATIONS AVERAGE 3MM.  IN WIDTH AND 5% OF THE
R      222.96  224.56        TOTAL INTERVAL VOLUME.

/      224.56  225.25   0.69               LMSX BA         LC LM               P  0 LM     67             L6    L(    L+
L

/      225.25  226.00   0.75               LMSX BA         LC LM               P  0 LM     70             L6    L(    L+
L

/      226.00  226.39   0.39               LMSX BA         LC LM               P  0 LM     88             L6    L(    L+
L

/      226.39  227.27   0.88               LMSX BA         LC LM               P  0 LM     82             L6    L(    L+
L

/      227.27  228.11   0.84               LMSX BA         LC LM               P  0 LM     64             L6    L(    L+
L

/      228.11  229.21   1.10               LMSX BA         LC LM               P  0 LM     68             L6    L(    L+
L

/      229.21  230.14   0.93               LMSX BA         LC LM               P  0 LM     63             L6    L(    L+
L

/      230.14  231.95   0.91               LMSX BA         LC LM               P  0 LM     60             L6    L(    L+
L
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K E Y	F R O M	T O	I N T / RECOV	ROCK	TX	RI 1 ID	DIP	BA	PY	GL
/ L	231.05	232.20	1.15	LMSX BA	LC LM	P 0 LM	78	L6	L(	L+
/ L	232.20	232.97	0.77	LMSX BA	LC LM	P 0 LM	81	L6	L(	L+
/ L	232.97	233.97	1.00	LMSX BA	LC LM	P 0 LM	82	L6	L(	L+
/ L	233.97	235.17	1.20	LMSX BA	LC LM	P 0 LM	80	L6	L(	L+
/ L	235.17	235.99	0.82	LMSX BA	LC LM	P 0 LM	83	L6	L(	L+
/ L	235.99	236.83	0.84	LMSX BA	LC LM	P 0 LM	82	L6	L(	L+
R	235.99	236.83	THE CORE IS HIGHLY BROKEN THROUGHOUT THE INTERVAL.							
/ L	236.83	237.83	1.00	LMSX BA	LC LM	P 0 LM	79	L6	L(	L+
/ L	237.83	238.83	1.00	LMSX BA	LC MX LM	P 0 LM	77	L7	L)	L) L=
R	237.83	238.83	LAMINATIONS OF GALENA SURROUNDED BY YELLOW SPHALERTIE OCCUR IN A							
R	237.83	238.83	FAIRLY MASSIVE BARITIC INTERVAL. THE SPHALERITE ENVELOPES THE							
R	237.83	238.83	.2MM GALENA LAMINATIONS. THIS INDICATES A CYCLIC REPITITION OF							
R	237.83	238.83	ORE FORMING PROCESSES. ARGILLIC INTERBEDS ARE VERY THIN, AND							
R	237.83	238.83	AMOUNT TO LESS THAN 2% OF THE TOTAL INTERVAL VOLUME.							
R	237.83	238.83	LAMINATIONS ARE FAIRLY WIDELY SPACED.							
/ L	238.83	239.83	1.00	LMSX	LC MX	P 0 LM	77	L7	L)	L)
/ L	239.72	239.74	0.02	9 ARGL SF 6A	ST= LC MX 1 2 = 2 9	R 0 C/	45	L7	L)	L)
/ L	239.83	240.83	1.00	LMSX	LC MX	P 0 LM	68	L7	L)	L)
/ L	240.83	241.40	0.57	LMSX	LC MX	P 0 LM	70	L7	L)	L)
/ L	241.40	242.29	0.89	LMSX BA 7A SF	LC LM	P 0 LM	69	L5	D+	L) L=
R	241.40	242.29	THIN CONVOLUTED WISPS OF ARGILLITE INTERCALATE WITH THE SULPHATE							
R	241.40	242.29	AND SUPHIDE LAYERS.							
/ L	242.29	243.52	1.23	LMSX BA 7A	LC LM VG BR	P 0 LM	70 <(	L4	L+	B) L=

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K  F  F R O M - T O -  I N T RECOV  FD % ROCK TM TR GM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                         R Q D  ACE EV RG LC TR GM2 TX TX S C G O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R       242.29  243.52      THICK 10CMS.  SILICEOUS ARGILLITE BEDS INTERCALATE WITH THE
R       242.29  243.52      SULPHATE.  THESE INTERBEDS ARE SLIGHTLY BRECCIATED AND
R       242.29  243.52      FRAGMENTED, WHICH RESULTS IN LARGE VARIATIONS IN BEDDING
R       242.29  243.52      THICKNESS.  LAMINAE CONVOLUTIONS ARE MORE OBVIOUS IN THE
R       242.29  243.52      ARGILLIC REGIONS.  THE LAST 42CMS. OF THIS INTERVAL IS MASSIVE
R       242.29  243.52      SULPHATE WITH VERY FEW SPHALERITE / GALENA LAMINTIONS.  THE
R       242.29  243.52      TOTAL VOLUME OF ARGILLITE GOES FROM 40% TO <5% IN THE LAST 42CMS

K LM1   243.52  243.52  0.00

/       243.52  249.02  5.50          ARSI     SI1 LM LC 0 2 1 2     P  1 LM     71 L=         L=   L+
L                                         3A          8                                <*            L+

/       243.52  249.02  5.50         1 LMSX          LC LM           R  0 LM     72            L4   L+   B)
L                                         7A                                                         L=
R SPC   243.52  249.02      SAMPLE D.G.  TAKEN AT 243.64 METRES.  ONE UNIDENTIFIED MINERAL
R       243.52  249.02      WAS FOUND IN SAMALL FRACTURES, WITHIN THE ARGILLITE.  CHOLORITE
R       243.52  249.02      IS ASSOCIATED WITH THE UNIDENTIFIED LIGHT BLUE MINERAL.
R       243.52  249.02      INTERCALATED BARITIC BEDS OCCUR THROUGHOUT THE ARGILLITE.  THE
R       243.52  249.02      BEDS AVERAGE 10 - 15CMS.  IN THICKNESS, AND AMOUNT TO 10% OF THE
R       243.52  249.02      TOTAL INTERVAL.  THE BEDS CONTAIN VERN THIN LAMINATIONS OF
R       243.52  249.02      QUARTZ, ARGILLITE, PYRITE AND SPHALERITE.
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G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

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DRILLHOLE/TRAVERSE :81-DH081      COLLAR ELEVATION:     1219.65     AZIMUTH( DEG ) :    25.00     GEOLOGGED BY : HDG +
TOTAL DEPTH/LENGTH :  109.73      NORTHING(- IF S):  7002524.00     VERTICAL ANGLE :   -65.00     DATE (YY/MM/DD): 810917
CORE/HOLE DIAMETER :       HQ     EASTING (- IF W):   436837.19     CO-ORD SYSTEM  :    UTM       PROJECT NUMBER : J-MAIN
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SER. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	34.44	23.00	-64.33
2	44.80	23.00	-64.00
3	46.65	23.00	-64.50
4	52.73	24.00	-64.25
5	58.82	24.25	-64.00
6	64.92	24.50	-63.75
7	71.01	24.00	-63.75
8	75.89	24.00	-63.00
9	77.11	26.00	-63.25
10	83.21	26.00	-63.25
11	89.30	25.00	-63.25
12	95.40	26.00	-63.00
13	101.49	25.00	-63.00
14	107.59	26.00	-62.25

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   F   - I N T E R V A L -    CORE  T- %       TYPI- QAL  TEX-  GRAIN        PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =   .  DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                          H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MT=METRIC FT=FOOTRIC)  ERY    O T       TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  I N T (  . )  O X TYPE  1  2 QM1  1  2 F F C A          1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                          ROCK   FR     RT    TM QM2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                          QUAL   AGE EM- O LC- 3     3  4 O     /         2    AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
Y  G                          DESIG      VIR    COL          R     C            STRUCTUR-2  A  A  A  A  A  A  A  A  A  A    2   2

R SVY     0.00     0.00       THE HOLE WAS DONE BY MULTI-SHOT, WITH 3 SINGLE SHOTS.  SO THEY
R SVY     0.00     0.00       WERE MERGED.  SINGLE SHOT TAKEN AT 59.13M WAS DROPPED DUE TO A
R SVY     0.00     0.00       LARGE DISCREPANCY IN THE AZIMUTH READING.

/ OVB     0.00    15.54  15.54          OVER                                P
L

/ WET    15.54    31.09  15.55          ARGL CR    SN= FX     O 3 = O 3     P                 <)                <+
L                                            1A                 9
R        15.54    31.09       THE INTERVAL IS SOFT AND HIGHLY WEATHERED.

/        31.09    32.31   1.22          LOST                                P
L

/        32.31    42.96  10.65          BRHM                        NR8     P                 <)                D+
L                                            4A CR              2   LN+
R        32.31    42.96       PYRITE OCCURS WITHIN THE SAND BANDS OF SILTY ARGILLITE FRAGMENTS
R        32.31    42.96       AND AS A REPLACEMENT MINERAL IN CHERT CLASTS.  THE ROCK IS
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PAN OCEAN OIL LTD.

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 G E O L O G                                   JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                               PAGE -  2
                                          DRILLHOLE/TRAVERSE --- 81-DH081 --- (CONTINUED)

 K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM MM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 Y  G                         R Q D  AGE EV RN LC TM MM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

 R          32.31   42.96       HIGHLY BROKEN.

 /          38.88   39.29   0.41        9 SAND      SN8      0 4 8 4      R   BD     65                 D1
 L                                        3A CR          BD 8
 R          38.88   39.29       THIS SANDSTONE BED IS POSSIBLY A BRECCIA FRAGMENT.
 R          42.96   43.51       PYRITE REPLACES CHERT FRAGMENTS.

 /          42.96   46.73   3.77          BRRT                     LN2   P              E(               R=
 L                                        3A CR                    KM1                                   R.

 /          42.96   43.51   0.55        X BRRT                     LN2   R              E(               R2
 L                                        3A CR                    KM1                                   R.

 /          46.73   67.67  20.94          BRRT      *S) F* G;      OU6   P                               R+
 L                                        5A        *C+      )     MP3
 R          46.73   67.67       PYRITE OCCURS AS A REPLACEMENT MINERAL IN CHERT CLASTS.  THE
 R          46.73   67.67       LARGER FRAGMENTS ARE SILTY ARGILLITES.  GRADING OF BOTH CHERT
 R          46.73   67.67       AND ARGILLITE FRAGMENTS INDICATES TOPS ARE POSSIBLY IN AN UPHOLE
 R          46.73   67.67       DIRECTION.

 /          67.67   79.92  12.25          BRRM CR                  LR6   P                    B(         D)
 L                                        2A             2         LN)

 / FLT      67.69   68.06   0.37        X BRRM CR   GG8            LR6   R                    B(         D+
 L                                        2A             2         LN)

 /          69.00   69.36   0.36        6 BRRT     CR              JK2   R                               R1
 L                                        3A             5         JK3

 /          70.50   71.27   0.77        8 BRXX      *C+ R* G;      KN4   R              <*               R1
 L                                              H* B* 4            KM5

 / FLT      71.37   74.37   3.00        X BRRM CR CR GG4           LR6   R              <+    B( <(      D)
 L                                        2A             2         LN)

 /          78.22   78.41   0.19        7 SAND     CR SN8    0 4 8 5      R                              D+
 L                                        3A        BD     8
 R          78.22   78.41       THIS COARSE SANDSTONE IS A PROBABLY A CLAST IN THE HOMOLITHIC
 R          78.22   78.41       BRECCIA, BUT THE BROKEN NATURE OF THE CORE MAKES POSITIVE
 R          78.22   78.41       IDENTIFICATION DIFFICULT.

 /          79.92   86.04   6.12          SILT CR   SIB 60 G; 1 2 8 4      P  2 BD      U65 <(        M*    D*
 L                                        2A        SN+ // BX 9
 R          79.92   86.04       THE BEDDING MEASUREMENTS VARY FROM 50' - 73', THEREFORE IT IS
 R          79.92   86.04       DIFFICULT TO DETERMINE WHETHER THE DARK, CARBONACEOUS SILTSTONES
 R          79.92   86.04       REPRESENT A DEPOSITIONAL CYCLE, OR IF THEY ARE LARGE CLASTS.
 R          79.92   86.04       THE BEDS OF MEDIUM GRAY SANDSTONES GRADING TO SILTSTONES, ARE
 R          79.92   86.04       UNDISTURBED AND RANGE FROM 2CMS - 24CMS.  THE BLACK CARBONACEOUS
 R          79.92   86.04       SILTSTONE ITSELF IS RELATIVELY MASSIVE.

 / SHR      81.11   82.92   1.81        6 BRRM     CR GG+          LN8   R              <=        <(    <+
 L                                        4A        SK BR 3        JK)
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K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                              R Q D  AGE EV RO LC TM OM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/      86.04   90.20   4.16            BRHT   SF       G;       LS6  P    V/     30 V1         <*     *+    B(
L                                        4A       ST CC 3       JN1                                         <.
R      86.04   90.20       THE SILICIFIED ARGILLITE FRAGMENTS SHOW REVERSE GRADING.  THEY
R      86.04   90.20       DECREASE IN AMOUNT GOING IN A DOWNHOLE DIRECTION, IN COMPARISON
R      86.04   90.20       TO THE CHERT WHICH SHOWS A SLIGHT INCREASE IN AMOUNT.

/      89.00   90.12   1.12          9 BRHT   SF *S)            LO3  R               V1         <*     *1    B*
L                                        4A            3   )    KN1                                         <+
R      89.00   90.12       PYRITE COMMONLY OCCURS AS CLASTS AND CONCRETIONS THROUGHOUT THE
R      89.00   90.12       INTERVAL.  GALENA IS OBSERVED TO OCCUR AS SMALL 2 - 3MM CUBES
R      89.00   90.12       WITHIN THE HETEROLITHIC MATRIX.  SPHALERITE IS A DARK RESINOUS
R      89.00   90.12       BROWN, AND APPEARS CONFINED TO QUARTZ VEINS.

/      90.12   90.20   0.08          9 ARGL CR BA          0 0   0       R  0 LM     59           <1     B1    B.
L                                        1A       LM     9                                                  B)
R      90.12   90.20       THIS SMALL ARGILLIC BED IS VERY SOFT AND CARBONACEOUS.
R      90.12   90.20       IT CONTAINS SMALL BARITIC LENSES, WHICH ARE RICH IN
R      90.12   90.20       PYRITE/MARCASITE.

K OM1  90.20   90.20   0.00

/ LSX  90.20   91.23   1.03            LMSX SF     CH5 LM               P  0 LM     65 <1         <+     L1    L=
L                                        8A       LC BR                                              <1  L=
R      90.20   91.23       THIS INTERVAL IS A LAMINATED CHERT, WITH THINLY LAMINATED, MORE
R      90.20   91.23       ARGILLIC LAYERS INTERCALATING WITH PYRITE, SPHALERITE AND GALENA
R      90.20   91.23       LAMINATIONS.  PYRITE/MARCASITE VEINING WAS ASSOCIATED WITH THE
R      90.20   91.23       BRECCIATION OF AN ARGILLIC BED, AT 91.12 METRES.  MINOR FAULT
R      90.20   91.23       OFFSETS ARE FILLED WITH QUARTZ.

/ FSX  91.23   92.52   1.29            FGSX SF        BR                P               L4               B2    *1
L                                        7R          LC                                                     *3
R      91.23   92.52       THE SULPHIDE IS HIGHLY FRAGMENTED AND BRECCIATED.  SILICIFIED
R      91.23   92.52       ARGILLITE CLASTS AMOUNTING TO 10% OF THE TOTAL INTERVAL ARE
R      91.23   92.52       INCLUDED WITH SULPHIDE CLASTS.  THE CLASTS CONTAIN LAMINATED
R      91.23   92.52       QUARTZ AND SPHALERITE IN EQUAL AMOUNTS.  THE OCCASIONAL, VERY
R      91.23   92.52       THIN LAMINATION OF VERY FINE GRAINED GALENA, IS ALSO OBSERVED.
R      91.23   92.52       GALENA IS MORE FREQUENTLY OBSERVED TO ASSOCIATE WITH
R      91.23   92.52       MARCASITE/PYRITE PATCHES, AND IN SILICIFIED REGIONS SURROUNDING
R      91.23   92.52       SULPHIDE FRAGMENTS.  SPHALERITE VARIES FROM PINK TO YELLOW, AND
R      91.23   92.52       IS FAIRLY FINE GRAINED.  CARBONACEOUS ARGILLITE FRAGMENTS ARE
R      91.23   92.52       PRESENT AT 91.81 METRES.  THESE UNCONSOLIDATED FRAGMENTS CONTAIN
R      91.23   92.52       SMALL PYRITE BLEBS AND QUARTZ MICROVEINS.

/      92.05   92.29   0.24          8 CHER SF     CH8                  R               M8               B+    D(
L                                        9                                                                  D(

/ LSX  92.52   93.42   0.90            LMSX           LC BR             P  1 LM     65 L4                      B1
L                                        8R             SS                                           <1  L3

/ FSX  93.00   93.23   0.23          7 FGSX           BR                R               *4                     B1
L                                        8R          SS LC                                           <2  *3
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```
K  F    F R O M - T O -  I N T RECOV  MD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                              R Q P  AGE EV RO LC TM OM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R          93.00   93.23        THE LAMINATED SULPHIDE IS HIGHLY DISRUPTED, RELUSTING IN HIGHLY
R          93.00   93.23        CONVOLUTED LAMINATIONS WHICH BECOME BRECCIATED TOWARDS THE
R          93.00   93.23        CENTRE OF THE INTERVAL.  ARGILLIC CLASTS (2 - 3CMS IN SIZE)
R          93.00   93.23        AMOUNTING TO 10% BY VOLUME OF THE TOTAL INTERVAL, ARE
R          93.00   93.23        INTERSPERSED WITH LAMINATED SULPHIDE FRAGMENTS.  WHERE THE
R          93.00   93.23        LAMINATIONS ARE CONVOLUTED BUT NOT BRECCIATED, THE ARGILLITE
R          93.00   93.23        INTERCALATES WITH THE SILICIOUS SULPHIDES.

/ LSX      93.42   94.78   1.36              LMSX SF        LC LM              P    LM       61 L3                     B1     B=
L                                                 7Y           BR                                                            L3
R          93.42   94.78        THE TOP PART OF THIS INTERVAL IS SILICIOUS, WITH FROM 15 - 20%
R          93.42   94.78        FINE GRAINED SPHALERTITE.  GOING DOWNHOLE THE AMOUNT OF
R          93.42   94.78        SPHALERITE INCREASES TO 40%.  THE CENTRAL 30CMS HAS BEEN REDUCED
R          93.42   94.78        TO A SOUPY MUSH, WITH NO DISTINGUISHABLE TEXTURES.  IN THE MORE
R          93.42   94.78        ARGILLIC REGIONS THE SPHALERITE LAMINATIONS ARE LIGHT BROWN IN
R          93.42   94.78        COLOUR.

/ FSX      94.78   95.70   0.92              FGSX SF        BR                 P                 C2                     B1     4+
L                                                 6A        SS                                                         B= C3
R          94.78   95.70        FRAGMENT ARGILLITE IS FOUND IN A SILICIOUS SULPHIDE MATRIX.
R          94.78   95.70        ARGILLITE FRAGMENTS TOTAL 20% BY VOLUME.  LAMINATE SULPHIDE
R          94.78   95.70        FRAGMENTS ARE INTERSPERSED AMOUNG THE ARGILLIC FRAGMENTS.
R          94.78   95.70        REMNANT BEDDING SUGGESTS THAT DISRUPTION IS LOCAL, WITH LITTLE
R          94.78   95.70        OR NO CLASTIC TRANSPORT.  PYRITE/MARCASITE BLEBS INCREASE N SIZE
R          94.78   95.70        AND AMOUNT IN THE LOWER REGION OF THE INTERVAL.  THE SPHALERITE
R          94.78   95.70        IS PREDOMINANTLY REDDISH BROWN AT THE TOP, VARYING TO LIGHT
R          94.78   95.70        YELLOW NEAR THE BOTTOM.

K LM1      95.70   95.70   0.00

/          95.70  109.73  14.03                   SILT       SI8 LM LC 1 2 8 3        P  0 LM      62 <(          <*    D+
L                                                 3A CR SN+ MX                                                               L=

/          95.70   96.00   0.30                 X SILT       SI8 BR LC 1 2 8 3        R  0 LM      62 <*          <+    D+
L                                                 3A CR SN+ MX                                                               C=
R          95.70  109.73        SLTY ARGL INTLAM + INTBD WITH CHT-BARITE LAM CONTAINING PYR + SL

/          96.00  104.55   8.55               4 SILT CR      SI6 LM LC 1 2 6 2        R  0 LM      64 L=          L(    L=
L                                                 1A           VG                                                            L+
R          96.00  104.55        CARBONACEOUS, LAMINATED SILTSTONE INTERCALATES WITH MORE MASSIVE
R          96.00  104.55        SILTSTONE IN BEDS THAT AVERAGE 10 - 35 CMS.  THESE SILTSTONES
R          96.00  104.55        PART ALONG LAMINATIONS TO GIVE THE CORE A PLATY APPEARANCE.
R          96.00  104.55        A CYCLIC REPITITION OF QUARTZ, PYRITE AND SILTSTONE LAMINATIONS
R          96.00  104.55        OCCURS IN THE REPEAT INTERVAL.  SPHALERITE DECREASES
R          96.00  104.55        DRAMATICALLY GOING DOWNSECTION.

/         104.55  106.01   1.46               4 SILT SF PY S16 LM LC 1 2 6 4          R    LM      70 L2                  L=
L                                                 6A    SN+ FD
R         104.55  106.01        THESE REPEAT INTERVALS ARE HIGHLY SILICIOUS AND PYRITIC. A
R         104.55  106.01        CYCLIC REPETITION OF QUARTZ, PYRITE AND SILTSTONE LAYERS IS
R         104.55  106.01        PRESENT.
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G E O L O G E D I T L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :81-DH082	COLLAR ELEVATION: 1363.11	AZIMUTH(DEG) : 30.00	GEOLOGGED BY : WJJ +
TOTAL DEPTH/LENGTH : 520.29	NORTHING(- IF S): 7004715.00	VERTICAL ANGLE : -75.00	DATE (YY/MM/DD): 810929
CORE/HOLE DIAMETER : NQWL	EASTING (- IF W): 432979.12	CO-ORD SYSTEM : UTM	PROJECT NUMBER : JASON

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	173.74	39.00	-73.50
2	185.93	39.50	-74.00
3	198.12	39.00	-73.50
4	210.31	41.00	-73.50
5	222.50	44.00	-73.25
6	234.70	46.00	-73.00
7	246.89	44.00	-72.50
8	259.08	44.00	-72.00
9	271.27	45.00	-71.50
10	283.46	43.00	-71.00
11	295.66	44.00	-70.75
12	307.85	44.00	-71.00
13	320.04	44.00	-70.50
14	332.23	46.00	-70.00
15	365.76	46.50	-70.50
16	396.24	48.00	-70.00
17	426.72	46.50	-70.00
18	460.55	49.00	-69.00
19	476.10	49.00	-69.00
20	487.68	46.50	-70.00
21	518.16	44.00	-69.66

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  F   - I N T E R V A L -    CORE  I- %        TYPI- QAL  TEX-  GRAIN         PGT   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K L (UNITS =    . DEC.PLACE)RECOV-  N M ROCK FYING MIN TURES CHARACS                          H  H  H  H  H ANY H  H  H ANY  ALT ORE
E A  (MT=METRIC FT=FOOTRIC)  ERY    O T       TM TM MAT TX TX F C % M ARG   /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y G  F R O M - T O -  T H T (  . )  D X TYPE   1  2 QM1  1  2 F F C A          1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K F                          ROCK    FR      RT     TM QM2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E L                          QUAL    AGE FN- 3 LC- 3      3  4 O      /           2    AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
Y G               .          DESIG       VIN    COL            R      C           STRUCTUR-2  A  A  A  A  A  A  A  A  A  A    2   2

R SVY  173.74  332.23      REPRESENTS MULTI-SHOT DATA.
R SVY  365.76  520.29      REPRESENTS SINGLE-SHOT DATA.

/        0.00    3.66   3.66             OVER                                  P
L

/        3.66   16.50  12.84             AKSI        SI= LM FS A F * H         P  1 LM       55                       L-
L                                             3A     SN+                            FS       55
R        3.66   16.50       HIGHLY FS NEAR TOP OF HOLE.

/       16.50   19.51   3.01             AKSN        SI1 SS (L A F 2 H         P  3 LM      U32                       B-
L                                             4A     SN3
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K  F   F R O M - T O -  I N T RECOV  NO % ROCK TM TM QM1 TX TX F C % M ARG   PI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R Q D  AGE EV RD LC TM QM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R        16.50   19.51       LOAD CASTING INDICATES TOPS UPHOLE.

/        19.51  143.20 123.69             ARSI       SI= LM FL A F 1 H       P  1 LM      62                    B-
L                                            3A      SN1 SC SS                  SC      70
R        19.51  143.20       SC EVIDENT IN ARG ONLY.  SS LIGHT.  PY OCCURS MAINLY IN SN.

/        37.12   37.58   0.46           X ARSN       SI2 BD SC A F 6 H       R  3 BD      62                    B*     B.
L                                            3A      SN4 SS                     SC      70

/        63.94   64.75   0.81           X ARSN       SI2 BD SS A F 5 I       R  3 BD      65                    B*
L                                            4A      SN3 FL

/        67.22   68.22   1.00           X ARSN       SI2 BD SS A F 6 I       R  3 BD      68 V=                 B*
L                                            4A      SN4                                                               <.

/        95.65   96.40   0.75           X ARSN       SI2 BD SS A F 7 I       R  3 BD      72 <+                 B*
L                                            5A      SN5

/        97.57   98.15   0.58           X ARSN       SI1 BD SS A F 5 I       R  3 BD      66                    B*
L                                            5A      SN4

/       116.35  122.10   5.75           X ARSI       SI= SS SC A F 1 H       R  1 CV 80   62 V-                 B-
L                                                        BD                     BD 18
R       116.35  122.10       SS STRONGER CAUSING DISRUPTION OF BEDDING.  BEDDING ANGLE IS
R       116.35  122.10       APPROXIMATED.  CV IN STRUC ID IS SC.

/       122.10  123.28   1.18           X ARSI       SI= SS SC A F 1 H       R  1 CV      85                    B-
L                                                        LM BD                  LM      50
R       122.10  123.28       SS STRONGER CAUSING DISRUPTION OF BEDDING.  CV IN COL 49 50 IS
R       122.10  123.28       SC.

/       128.73  130.88   2.15           X ARSI       SI= SS SC A F 1 H       R  1 CV      65                    B-
L                                                        LM BD                  LM      45
R       128.73  130.88       SS STRONGER CAUSING DISRUPTION OF BD LM.  LM LESS EFFECTED.  CV
R       128.73  130.88       IN COL 49 50 IS SC.

/       130.88  133.70   2.82           X ARSI       SI= SS SC A F 1 H       R  1 CV      85                    B-
L                                                        LM BD                  LM      26
R       130.88  133.70       SS STRONGER CAUSING DISRUPTION OF BD.  LM LESS EFFECTED.

/       133.70  136.08   2.38           X ARSI       SI= SS SC A F 1 H       R  1 CV      85                    B-
L                                                        LM                     LM      85

/       136.08  140.28   4.20           X ARSI       SI= SS SC A F 1 H       R  1 CV      85                    B-
L                                                        LM                     LM      45

/       140.28  143.20   2.92           X ARSI       SI= SS SC A F 1 H       R  1 CV      85                    B-
L                                                        LM BD                  LM      80

/       140.51  140.73   0.22           X GOUG                               R
L
```

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                                                         PAN OCEAN OIL LTD.
G E O L O G                                     JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                     PAGE - 3
                                        DRILLHOLE/TRAVERSE --- 81-DH082 --- (CONTINUED)

K  F  F R O M - T O - T O T RECOV  MD % ROCK TM TM OM1 TX TX F C % M ARG   RI  1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                        R Q D  AGE EV RO LC TM OM2 TX TX S C Q O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R      140.57  140.79      CORE BROKEN UP.  POSSIBLE FAULT ZONE.

/      143.20  317.72 174.52            ARSI       SI2 LM SS               P   2 LM      65                    B*
L                                            3A    SN1

/ VEN  143.20  143.55    0.35          3 VEIN       SO1 MX    A A   A       R                                        D-
L                                                                                                       >X          D-
R      143.20  317.72      INCREASE IN SI SN CONTENT.  LIGHT SHEARING MAY BE SS PARALLEL BD

/ VEN  145.45  145.95    0.50          X VEIN           MX    A A   A       R                <X
L
R      145.45  145.95      REDUCED TO NQ CORE SIZE AT 147.22M

/      150.32  153.68    3.36          X ARSN       SN4 BD SS A F 6 F       R   4 BD      70                    D-
L                                            5A    SI2                                               V=

/ VEN  156.36  156.83    0.53          6 VEIN           MX    A A   A       R                                  D*
L                                                                                                    >X

/ VEN  165.90  166.57    0.67          4 VEIN           MX    A A   A       R                                  D*    D.
L                                                                                                    >8

/      204.22  205.10    0.88          X ARSN       SN5 BD SS A F 7 G       R   4 BD      72 V+                 D.
L                                            5A    SI2
R      204.22  205.10      SN CONTAINS FINE SI LAMS.

/      269.53  270.53    1.00          X ARSN       SN3 BD SS A F 4 G       R   4 BD      55 >1                 D( D.
L                                            4A    SI1                                                          D*
R      269.53  270.53      SN BEDS CONTAIN FINE SI LAMS.

/      273.24  273.76    0.52          X ARSN       SN6 BD SS A F 8 G       R   5 BD      70                    D.
L                                            5A    SI2                                                          D*
R      273.24  273.76      SN BEDS CONTAIN FINE SI LAMS.

/      278.41  281.22    2.81          X ARSN       SI1 BD SS A F 5 G       R   2 BD      60                    D.
L                                            4A    SN4
R      278.41  281.22      SN BEDS CONTAIN FINE SI LAMS.

K FLT  312.90  312.90    0.00

/ FLT  312.90  314.25    1.35          X FAUL       GG9                     R
L

/      317.72  322.60    4.88            ARSN       SI1 BD SS A F 6 G       P   2 BD      60 <.                 D(
L                                            5A    SN5

K FLT  320.82  320.82    0.00

/ FLT  320.82  320.85    0.03          4 FAUL       GG4                     R     F/      60
L

/      322.60  324.53    1.93            ARSI       SI+ LM BD               P   1 LM      65 <-                 6(
L                                            4A    SN2 SS
```

```
K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R Q D  AGE EV RO LC TM OM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/      324.53  328.23   3.70          ARSN      SI1 BD SS A F 5 G       P  2 BD      60                  D(
L                                        5A     SN4
R      324.53  328.23      PY DISS MAINLY IN SI SN BEDS.

/      328.23  332.38   4.15          ARSI      SI+ LM BD A F 2 G       P  1 LM      68 <*               8*
L                                        4A     SN2    SS

/      332.38  333.15   0.77          SAND      SI1 MX    D F 9 H       P               V+      D-
L                                        6A     SN9
R      332.38  333.15      TRACE CA IN LOWER HALF OF UNIT.

/      333.15  337.87   4.72          ARSI      SI* LM BD A F 1 G       P  1 LM      60 <*      D-       D(
L                                        4A     SN1 SS

/      337.87  338.78   0.91          ARSN      SI1 BD LM A F 7 G       P  3 LM      50 <)               D*
L                                        5A     SN6 SS
R      337.87  338.78      SOME SAND BEDS HAVE SILT ARGL LAMS.

/      338.78  359.41  20.63          ARSI      SI+ LM BD A F 2 G       P  2 LM      70 V)               D*
L                                        4A     SN2 SS

/      343.20  345.13   1.93        X ARSI      SI+ LM BD A F 2 G       R  2 LM      85 >)               D*
L                                        4A     SN2 SS                                      <(

K FLT  354.14  354.14   0.00

/ FLT  354.14  354.63   0.49        X FAUL      GG8                     R
L

/      359.41  363.03   3.62          ARSN      SI1 BD LM A F 6 G       P  3 LM      58 <*               D*
L                                        5A     SN5 SS                                                          D-
R      359.41  363.03      SL OCCURS IN SAND BED, WITH PY.  SILT, ARG & LM IN SN BD.

/      363.03  373.30  10.27          ARSI      SI= SS LM A F 3 G       P  2 LM      55 >=               D*
L                                        5A     SN2 CG BD                                                       D-
R      363.03  373.30      OCCASIONAL CG DUE TO SS CAUSING DISRUPTION OF BEDS.  QTZ > HAVE
R      363.03  373.30      CAUSED MINOR BRECCIATION.  TRACE SL OCCURS IN THE QTZ.

/      373.30  375.76   2.46          ARSN      SI= BD SS A F 7 G       P  3                          V)     D*
L                                        5A     SN8

/      375.76  376.20   0.44          SAND          MX    F F 9 G       P                                    D-
L                                        6A

/      376.20  377.44   1.24          ARSN      SI= SS LM A F 4 G       P  2
L                                        4A     SN4                                           <*
R      376.20  377.44      SS OR SH HAS DISRUPTED THE BEDS GIVING A CG TEXTURE IN PLACES.

/      377.44  378.61   1.17          SAND AR   SI= MX    A F 9 G       P               V*      <.
L                                        6A     SN9
```

```
 K  F   F R O M - T O -  I N T RECOV  MD % ROCK IG IM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 Y  G                                  R O D  AGE EV RN LC IM OF2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

 /       378.61  380.28   1.67              ARSN        SI= LM BD                P  2 LM       60 V1        <.
 L                                              4A      SN3 SS
 R       378.61  380.28       SS OR SH HAS DISRUPTED BD GIVING AN OCCASIONAL CG TEXTURE.  LM
 R       378.61  380.28       VARIES FROM 50 TO 90 DEGREES.

 /       380.28  382.60   2.32              SAND AR     SI= GX     A F 9 G       P                                  D*
 L                                              6A      SN9                                               V)

 /       382.60  387.00   4.40              ARSN        SI= LM BD  A F 4 G       P    LM       70 V*                D*
 L                                              4A      SN3 SS
 R       382.60  387.00       PY DISS MAINLY IN VEINS AND SI OR SN.

 /       383.70  383.71   0.01          X ????                                   R    LM       90
 L

 /       386.99  387.00   0.01          X ????                                   R    LM       80
 L

 /       387.00  389.22   2.22              SAND AR     SI= MX LM A G 7 G        P  2 LM       40 >2        <-     SE D-
 L                                                      SN7                                                      S(
 R       387.00  389.22       ARG OCCURS AS LAMS.

 /       389.22  413.08  23.86              ARSI        SI= LM BD A F 2 G        P  2 LM       64 <-                D-
 L                                              4A      SN2 SS                                                                B.
 R       389.22  413.08       SL OCCURS AS A BLEB IN A QZ <.

 /       396.96  401.02   4.06          7 VEIN                                   R                >7               SE          B.
 L                                                                                                                S)          B-
 R       396.96  401.02       SL OCCURS AS BLEBS SCATTERED THROUGHOUT THE QZ.

 /       404.47  406.40   1.93          X ARSI          SI= LM BD A F 2 G        R  2 LM       90 <-                D-
 L

 /       407.73  408.60   0.87          X ARSI          SI= LM BD A F 2 G        R  2 LM       90 <-                D-
 L

 /       409.90  411.50   1.60          X ARSI          SI= LM BD A F 2 G        R  2 LM       90 <-                D-
 L

 /       413.08  414.64   1.56              SAND AR     SI= LM MX A F 9 G        P  1 LM       68           <*      D.
 L                                              6A      SN8                                               V)          B.
 R       413.08  414.64       SL OCCURS AS DISS BLEBS IN QS VEINS.  ARGL OCCURS AS STRETCHED
 R       413.08  414.64       LAMS.

 /       414.64  418.14   3.50              ARSI        SI= CG SS A F 3 G        P                                  D-
 L                                              4A      SN2                                               V+
 R       414.64  418.14       SH OR SS HAS DISRUPTED LM AND BD PRODUCING A STRETCHED PEBBLE
 R       414.64  418.14       CONGLOMERATE TEXTURE.  MINOR FAULT OCCURS AT 47.60M.

 /       418.14  419.70   1.56              SAND AR     SI1 MX     A F 9 G       P                                  D.
 L                                              6A      SN8                                               <*          B-
```

```
K  F   F R O M - T O -  I N T RECOV  RQ % ROCK TP TP QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                             R Q D  AGE EV RQ LC TM QM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R       418.14  419.70        ARGL OCCURS AS SHEARED DISRUPTED BEDS.  SL IS MAINLY ASSOCIATED
R       418.14  419.70        WITH QZ <.

/       419.70  430.26  10.56           ARSI        SI+ BD SS A F 2 G       P    BD       60                     D*
L                                              4A    SN2 CG
R       419.70  430.26        SH OR SS HAS DISRUPTED BD AND LM, PRODUCING A STRETCHED PEBBLE
R       419.70  430.26        CONGLOMERATE TEXTURE.  PY OCCURS MAINLY IN THE SN SI BEDS.

/       420.42  421.02   0.60         X SAND        SI1 MX    C F 9 G       R                                    D.
L                                              6A    SN9

/ VEN   425.50  426.35   0.85         6 VEIN AR     QZ6               AA3   R                                    D- B. B.
L                                              W     SN3                                                    >6       B-
R       425.50  426.35        SL, GL, CP OCCUR IN QZ.

/       430.26  431.47   1.21           SAND AR     SI2 MX    A F 7 G       P                   V)       <*
L                                              6A    SN7
R       430.26  431.47        ARGL OCCURS AS DISRUPTED LAMS.

/       431.47  433.14   1.67           ARGL        SI+ MX BD A F = G       P  3                                 D*
L                                              3A    SN+ SS                                                 V)
R       431.47  433.14        SI SN BEDS DISRUPTED BY SS SH.

/       433.14  435.30   2.16           SAND        AR= MX LM               P  1 LM          90                  D*
L                                              6A    SI2
R       433.14  435.30        LAMS FOLDD AND DISRUPTED DUE TO SS SH OBSCURING ORIGINAL SED
R       433.14  435.30        FEATURES.  LM ATTITUDE VARIES FROM 90 TO 60 DEGREES.
R       435.30  438.40        BEDDED WITH SI SN BEDS UP TO .60M THICK TMODE 3

/       435.30  443.96   8.66           ARSI        SI= LM BD A F 2 G       P  1 LM          64                  D(
L                                              3A    SN2 SS
R       440.60  442.57        LAMINATED WITH SI SN.  TMODE 1.

/       443.96  450.70   6.74           ARSN        SI= LM BD A F 4 G       P  2 LM          60                  D*
L                                              4A    SN3 SS
R       443.96  450.70        CLOSELY LAMINATED WITH LAMS .2CM TO 2CM APART.  FAINT ARGL LAMS
R       443.96  450.70        OCCUR IN THICKER (3CM) SI SN BEDS.

/       450.70  453.54   2.84           ARSI        SI+ MX LM A F 1 G       P  1 LM          75                  D-
L                                              3A    SN1 SS                                                 <-       B.
R       450.70  453.54        SL OCCURS IN QS <.

/       451.26  451.67   0.41         X SAND        SI1 MX LM D F 9 G       R    C1          80                  D*
L                                              6A    SN9                                                    <*       B.
R       451.26  451.67        SL OCCURS IN QS <. FAINT DISTORTED ARGL LAMS.

/ VEN   453.00  453.50   0.50         X VEIN        AR) MX VG A A   A       R
L                                              W     SD=

/       453.54  468.05  14.51           ARSN        SI1 LM BD A F 4 G       P  2 LM          68                  D-
L                                              4A    SN3 SS                                                 <*
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 K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TP QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
 E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
 Y  G                          R Q D  AGE EV RQ LC TM QM2 TX TX S C U O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

 /       454.43  455.06   0.63            X SAND       SI2 MX LM A F 9 G        R    C/       50                D*
 L                                              6A     SN7                           LM       60            <1
 R       454.43  455.06       FAINT ARGL LAMS.

 / VEN   455.20  455.33   0.13            X VEIN QZ SD      BR VG A N 2 N       R
 L                                              N                                                               D*
 R       455.20  455.33       FRAGS CONSIST OF ARGL SAND FROM WALLROCK.

 /       456.53  457.33   0.80            X SAND       SI1 MX    D F 8 G        R    C/       80                B.
 L                                              6A     SN7                                                  V2

 / VEN   463.72  463.97   0.25            X VEIN QZ SD      BR VG A O 1 O       R                               B*
 L                                                                                                              B.     B(
 R       463.72  463.97       FRAGS CONSIST OF ARGL SAND FROM WALLROCK.

 /       468.05  469.40   1.35              ARSN       SI1 BD LM A F 6 G        P  4 LM       62 V*             B*
 L                                              5A     SN7 SS LC                                                B.
 R       468.05  469.40       FINE ARGL LAMS, SOME CONVOLUTE, OCCUR IN THE SAND BEDS.

 /       469.40  503.77  34.37              ARSN       SI2 LM BD A D 5 G        P  2 LM       70                D* D.
 L                                              4A     SN3 SS                                               V)  B.     D.
 R       469.40  503.77       SILT OCCURS AS DISCREET LAMS AS OPPOSED TO BEING MIXED IN WITH
 R       469.40  503.77       THE SAND BEDS AS HAS BEEN THE CASE ABOVE.

 /       503.77  510.10   6.33              ARST       SI= BD LM A D 3 G        P  4 BD     U75 <*              D-
 L                                              4A     SN2 SS                                                 D.
 R       503.77  510.10       SILT OCCURS AS DISCREET LAMS IN ARGL AND SAND.  SHARP CONTACT
 R       503.77  510.10       BETWEEN SN AR ON DOWNHOLE SIDE OF SN BED AND FAINTLY GRADATIONAL
 R       503.77  510.10       CONTACT ON UPHOLE SIDE.  SOME SN BEDS FINE UPHOLE, OTHERS ARE
 R       503.77  510.10       MASSIVE.

 /       510.10  519.85   9.75              ARST       SI1 LM SS A D 2 G        P  2 LM       62                D*
 L                                              3A     SN1                                                  V-
 R       510.10  519.85       OCCASIONAL SAND BED UP TO 3CM GRADES UPHOLE.

 /       519.85  520.29   0.44              MISS                                P
 L
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G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

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DRILLHOLE/TRAVERSE :81-DH083    COLLAR ELEVATION:      1188.12      AZIMUTH( DEG ) :   355.00     GEOLOGGED BY : BHO +
TOTAL DEPTH/LENGTH :   332.23   NORTHING(- IF S):  7002421.00      VERTICAL ANGLE :   -77.00     DATE (YY/MM/DD): 810926
CORE/HOLE DIAMETER :      HQ    EASTING (- IF W):    436918.44      CO-ORD SYSTEM  :    UTM       PROJECT NUMBER : J-MAIN
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SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	41.76	357.00	-76.00
2	62.29	358.00	-76.25
3	75.90	2.00	-75.50
4	91.44	4.50	-75.00
5	106.37	4.00	-75.00
6	127.41	8.00	-74.00
7	151.79	15.00	-73.00
8	167.34	18.00	-72.00
9	185.01	20.00	-72.00
10	201.17	21.50	-71.50
11	217.02	23.00	-71.25
12	231.65	23.00	-71.00
13	246.89	23.00	-70.00
14	276.76	26.50	-69.00
15	294.74	28.00	-67.33
16	313.03	29.00	-67.25
17	328.27	30.00	-66.75

```
  F   - I N T E R V A L -      CORE   T- %        TYPI- QAL   TEX-  GRAIN        PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =    .  DEC.PLACE)RECOV-  M O ROCK FYING MIN TURES CHARACS                           H   H   H   H   H ANY H   H   H ANY  ALT ORE
E  A  (M=METRIC F=FOOTRIC)    ERY     O I        TR TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A   A   A   A   A MIN A   A   A MIN  - - - -
Y  G  F R O M - T O -  I N T (  .  )  D X TYPE  1  2 OR1  1  2 F F C A          1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                          ROCK    FN      KT    TN OR2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                          QUAL    AGE FG- N LC- 3      3  4 O     /           2    AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
Y  G                          DESIG       VIR   COL             R     C             STRUCTUR-2 A  A  A  A  A  A  A  A  A  A     2   2


/ OVB    0.00   13.60  13.60            OVER                            P
L

/        13.60   16.52   2.92           BRHM    CR                MP8   P                                              D+
L                                                 3A          SS 3      C JK*
R        13.60   16.52       PYRITE IS ALSO SEEN AS A REPLACEMENT OF THE CHART <1%.

/        16.52   31.15  14.63           BRHT    CR *C)     F*          MR+   P                                              R+
L                                                 3A          SS 3      C LN2
R        16.52   31.15       PYRITE OCCURS AS REPLACEMENT OF THE CHART.  THESE ARE ALSO
R        16.52   31.15       PYRITE ON BEDDING SURFACES WITHIN SOME OF THE FRAGMENTS.
R        16.52   31.15       LARGE ARGL DO HAVE SILT LAYERING.

/ SHR    30.23   31.15   0.92         X BRHT GR CR GG=     F*          MR+   R     FO       U80 7)                         <)
L
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PAN OCEAN OIL LTD.

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 G E O L O G                          JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                  PAGE -  2
                                    DRILLHOLE/TRAVERSE --- 81-DH083 --- (CONTINUED)

 K  F  F R O M - T O -  I N T RECOV  NO % ROCK TM TM ON1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 Y  G                         R Q D  AGE EV RQ LC TM ON2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD GS HA PR MT SL HA

 R       30.23   31.15      THIS INTERVAL APPEARS TO BE A POSSIBLE FAULT ZONE BECAUSE OF
 R       30.23   31.15      FAULT GOUGE MATERIAL AND FOLIATION OF THE MINERALS.

 /       31.15   37.52  6.37           BRSN    SF SN6 G; BD 2 4 8 7 K02   P            U80 V+                 D)
 L                                          6A    *H= F* BS       O KN2                          V.
 R       31.15   37.52      GRADING BEDDING INDICATES TOPS ARE UP THE DDH.

 /       31.68   32.49  0.81         X VEIN                MX             R                >7                 D(
 L
 R       31.68   32.49      THIS VEIN COINTAINS APPROX 20% ARGL FRAGMENTS AND 10% SANDSTONE.

 /       35.66   37.52  1.86         X BRSN    CR SN6 G; BD 2 4 8 7 K02   R            U80 >)            C.   D)
 L
 R       35.66   37.52      AT APPROX 36.03 M THERE IS A QZ VEIN WITH A LIGHT BLUE MINERAL
 R       35.66   37.52      COAT, POSSIBLE BARITE.  PYRITE ALSO OCCURS AS BLEB DUE TO
 R       35.66   37.52      REPLACEMENT OF THE CHERT.

 /       37.52   48.77 11.25           BRHT SF     SN+ F*            NS8   P                <(                 D+
 L                                          3A CR *C* SS R*       C LP1
 R       37.52   48.77      ARGL FRAGMENTS APPEARS TO DECREASE IN SIZE UP THE HOLE.
 R       37.52   48.77      THERE IS A BRIGHT DARK BLUE-PURPLE STAIN ON FRACTURE
 R       37.52   48.77      SURFACES, POSSIBLE DUE TO OIL.

 /       48.77   57.50  8.73           BRXX SF    *C* F* R*          L07   P                V+                 R+
 L                                          4A       R* SS        C KN2                          V.             V.
 R       48.77   57.50      50% OF THE ARGL FRAGMENTS ARE ELONGATED WITH MOST OF THEM
 R       48.77   57.50      ORIENTATED WITH THE LENGTH OF THE DRILL CORE.  SPHALERITE OCCURS
 R       48.77   57.50      IN VEIN TO FRACTURED ARGL CLAST.  SILIFICATION APPEARS TO
 R       48.77   57.50      INCREASE DOWN THE INTERVAL.  QUARTZ VEINING IS CONCENTRATED
 R       48.77   57.50      BETWEEN 56.25-56.96 M.  THE INTERVAL APPEARS TO BE COARSE AT
 R       48.77   57.50      BOTH THE TOP AND BOTTOM.

 /       57.50   62.79  5.29           BRRM SF    *C) F* R*          LR3   P                <*          C-     R)
 L                                          3A CR *S)       3   ) O K02                          C.
 R       57.50   62.79      IN THIS INTERVAL THE MATRIX IS A VERY FINE SILT AT THE BOTTOM
 R       57.50   62.79      BUT GRADUALLY CHANGES INTO A FINE SAND.  AT 61.03 M WE HAVE
 R       57.50   62.79      A GRAPHIC JOINT WHICH REPRESENT A MINOR SHEAR ZONE.
 R       57.50   62.79      THERE IS ALSOAPPROX 1% SANDSTONE FRAGMENTS.

 /       62.79   85.53 22.74           BRHM SF PY SI1 SS SC          NR8   P                                   L+
 L                                          3A CR                 C                              L*
 R       62.79   85.53      THE UPPER PART OF THIS INTERVAL HAS ABEDDING BUT SHOWS SLUMP
 R       62.79   85.53      CLEAVAGE AND SOFT SEDIMENT DEFORMATION.  THIS INDICATES THAT
 R       62.79   85.53      IT HAS BEEN TRANSPORTED BUT NOT VERY FAR.  ARGL FRAGMENTS
 R       62.79   85.53      ARE ELONGATED.  PYRITE ALSO OCCURS AS PATCHES.

 / FLT   74.63   75.53  0.90         X BRHM CR PY GG9 SS SC          NR8   R                                   L+
 L

 /       81.80   82.20  0.40         X BRHM GR PY SI1 SS SC          NR8   R                                   L+
 L
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K  F   F R O M - T O -  I N T RECOV  RD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R Q D  AGE EV RU LC TM OM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/       85.53  101.97  16.44           BRHT SF PY *C= R*            MT8   P                 <-        C.       R+
L                                          3A CR SI1    SS 3 = (    KD=                                  C-
R       85.53  101.97        THE ARGL FRAGMENTS HAS WELL DEFINED BEDDING SHOWN BY THE SILT
R       85.53  101.97        UNITS.  AT 90.92 WE HAVE A 20 CM BAND OF BRPM.

/      101.97  108.84   6.87           BRHM SF PY          SS       MR8   P                 <(                 L+
L                                          3A CR *C(    R*        C KN+                                              R.

/ SHR  105.64  107.59   1.95         X BRHM GR PY          SS       MR8   R                 <(                 L+
L                                          3A CR *C(    F*        C KN+                                              R.
R      105.64  107.59        WITHIN THE DITTO WE HAVE SEVERAL SMALL SHEAR ZONES CAUSED BY
R      105.64  107.59        SYN-TECTONIC DEFORMATION.
R      105.64  107.59        WITHIN THE PGI, PYRITE ALSO OCCURS AS REPLACEMENT OF THE CHERTS,
R      105.64  107.59        APPROX 1%.  MINOR SPHALERITE AT 107.23 M; REPLACEMENT FEATURE.

/      108.84  115.02   6.18           BRHT SF    *C= F* SS         LR8   P                 <*                 D*
L                                          3A CR SI=              C KM=

/      111.42  111.79   0.37         X SAND SF    SN6 LM   2 4 6 M      R    BD      80                        D)
L                                          4A PY SI3    LC 5
R      111.42  111.79        IN THIS PGI THERE APPEARS TO BE A MIXING OF A SLUMP BRECCIA
R      111.42  111.79        AND A TURBIDITE FACIES.  WE ALSO HAVE A FEW MINOR SHEAR ZONES.
R      111.42  111.79        THERE IS A 15 CM FRAGMENT OF A CGCP AT 113.86 M.

/      115.02  117.78   2.76           SAND SF GR SN6 LC    1 4 6 N       P                                    D)
L                                          5A CR SI2    SS 5
R      115.02  117.78        WE HAVE 5% ARGL AND 2% CHERT FRAGMENTS.

/ SHR  115.27  116.32   1.05         X SAND GR GR SN6 LC    1 4 6 N       R                                    D)
L
R      115.27  116.32        THERE ARE SEVERAL MINOR SHAER ZONES WITHIN THE INTERVAL.
R      115.27  116.32        PYRITE OCCURS ON THESE SLIPPAGE PLANES.  THIS PGI COULD BE
R      115.27  116.32        A LARGE FRAGMENT.

/      117.78  122.22   4.44           BRHT    SF *C+ R*            LS7   P                                    R)
L                                          4A CR SN1    SS     1 C KN1

/      121.20  122.22   1.02         X BRHM    CR      SS           LS9   R                                    D)
L                                          3A GR                    KN)

/      122.22  125.00   2.78           BRSM SF    *C2 F* R* 1 4 3 0 KO2   P                 >)                 R)
L                                          5A     *S+    H* 3   + 0 KO5
R      122.22  125.00        THERE IS SEVERAL ARGL FRAGMENTS WHICH APPEARS TO HAVE A REPLACEME
R      122.22  125.00        NT CORE OF CHERT.

/      125.00  151.70  26.70           BRHM SF CR SN1 SS SC         MS8   P                 <)                 L+ D.
L                                          3A PY *S+          + C LO+                                            R-
R      125.00  151.70        SAND CONTENT INCREASES TOWARDS THE BOTTOM OF THE INTERVAL.
R      125.00  151.70        SPHALERITE APPEARS TO BE A REPLACEMENT FEATURE OF THE CHART,
R      125.00  151.70        129.33 M. IT ALSO SEEN TO BE ASSOCIATED WITH FRACTURE AND
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 K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM GM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 Y  G                              R Q D  AGE EV RS LC TM GM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

 R         125.00  151.70       VEINING, 135.97 M.  SEVERAL MINOR SHEARS OCCURS WITHIN THIS
 R         125.00  151.70       INTERVAL.

 / FLT   135.54  135.94   0.40            X BRBM CR CR GG9 SS SC           MS8   R               <)                    L+ D.
 L                                                  CR
 ------------------------------------------------------------------------------------------------------------------------------
 /         151.70  152.40   0.70              ARSI SF    SN+ LM    0 2 9 L        P  1 BD      U70 <*                    D)
 L                                              2A    SI=    BS 8
 R         151.70  152.40       BEDDING IS VERY THINNLY LAMINATED AND APPEARS TO THE UPPER MOST
 R         151.70  152.40       PART OF A BOUMA SEQUENCE.
 ------------------------------------------------------------------------------------------------------------------------------
 /         152.40  153.90   1.50              SAND SF    SN6 // TM 1 4 6 M        P  3 BD      U65 L*                    D)
 L                                              5A    SI3 FU BS 6
 R         152.40  153.90       BEDDING IS WELL DEFINED NEAR BASE BUT IS DISRUPTED NEAR THE TOP.

 /         153.90  155.60   1.70              CGPS SF    SN5    BS 1 4 5 0        P                                     D)
 L                                              4A    SI2 FU OB 4
 ------------------------------------------------------------------------------------------------------------------------------
 R         153.90  155.60       THIS UNIT CONTAINS 20% ARGL FRAGMENTS AND 5% CHERT FRAGMENTS.
 R         153.90  155.60       THE CHARTS ARE MAINLY HYDROTHERMAL AND ARE FRACTURED.

 /         154.56  154.78   0.22            X CGPS GR CR SN5    BS 1 4 5 0        R                                     D)
 L
 ------------------------------------------------------------------------------------------------------------------------------
 /         155.60  161.83   6.23              CGBR SF    SN2 OB F* 1 3 2 R MR5    P                                     R)
 L                                              4A    *C2 R* FU 2      0 K03
 R         155.60  161.83       WITHIN THE INTERVAL 151.70 TO 161.83 M WITH HAVE A BOUMA
 R         155.60  161.83       SEQUENCE WHICH FINING UPWARDS.

 /         160.53  161.13   0.60            X CGBR GR CR SN2 OB F* 1 3 2 R MR5    R                                     R)
 ------------------------------------------------------------------------------------------------------------------------------
 L
 R         161.83  163.07       THERE IS APPROX 2% CHERT.  THERE ARE ALSO 2 MINOR SHEAR ZONES
 R         161.83  163.07       WITHIN THIS INTERVAL.

 /         161.83  185.28  23.45              BRHT SF    *C2 F* R*         LT5    P               >)                    R)
 L                                              4A    SN1    H* 2   = C KP3                           >.
 ------------------------------------------------------------------------------------------------------------------------------
 /         161.83  163.07   1.24            X ARSI SF    SI2 SS SC 0 3 = K        R                                     L+
 L                                             GR             7
 R         161.83  185.28       THIS PGT CONTINS ARGL FRAGMENTS UP TO 2 METERS AND BRSN
 R         161.83  185.28       FRAGMENTS UP TO 7 METERS.  IT ALSO CONTAINS ARSI FRAGMENTS
 R         161.83  185.28       WITH LAMINATED PYRITE UP TO 2.5%.
 ------------------------------------------------------------------------------------------------------------------------------
 /         174.26  174.91   0.65            X BRSN SF    SN3 SS SC 0 3 3 0 L05    R  2 BD      U65 <)                    D-
 L                                              3A    SI1 LM BS 5      0 JN)
 R         174.26  174.91       THIS APPEARS TO BE A LARGE FRAGMENT, BECAUSE OF SHARP CONTACTS.
 R         174.26  174.91       THE BOTTOM OF THIS INTERVAL IS WELL LALMINATED BUT THE UPPER
 R         174.26  174.91       SECTIO IS DISRUPTED.
 ------------------------------------------------------------------------------------------------------------------------------
 /         185.28  216.99  31.71              BRHT SF    *C= SS SC         MT7    P               V)                    D)
 L                                              3A PY SN1 F* H* 1   + C K01                       V)         B-
 R         185.28  216.99       WITHIN THIS INTERVAL SANDSTONE FRAGMENTS RANGE UP TO 0.4 M
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  K  F  F R O M - T O -  I N T RECOV  RQD % ROCK TN TN OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
  F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -.
  Y  G                             R Q D  AGE EV RN LC TN OM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

  R       185.28  216.99      AND SHOW GRADING.  PYRITE OCCURS AS A REPLACEMENT FEATURE0.03%.
  R       185.28  216.99      APPROX 20% IS ARSN FRAGMENTS.

  /       185.45  185.58   0.13          X VEIN SD SF *C= SS SC          MT7   R                >1                 D-
  L                                                                                                   >4           B-
  R       185.45  185.58      THIS INTERVAL CONTAINS TWO LARGE VEINS AND THE AREAS BETWEEN
  R       185.45  185.58      AND NEAR THEM CONTAIN NUMEROUS MICRO-VEINS.  IT IS HIGHLY FRACTU
  R       185.45  185.58      RED.  THE VEINS CONTAIN ARGL AND CHERT FRAGMENTS.

  /       188.11  188.72   0.61          X BRHT GR CR GG3                      R                <)                 R)
  L                                                                                                   <)

  /       216.99  220.20   3.21            BRPM SF     SN3 F*    0 4 2 P LP4   P           U    V)                 D)
  L                                            5A     *C= R* FU 4   =   KO4                          V-
  R       216.99  220.20      THE SAND CONTENT APPEARS TO INCREASE TOWARDS THE TOP THAT
  R       216.99  220.20      THE FRAGMENTS DECREASE IN SIZE TOWARDS THE TOP.
  R       216.99  220.20      QUARTZ VEINING APPEARS TO PRE NAD POST DATE BRECCIATION.

  /       220.20  228.89   8.69            BRHM SF     SI1 SS SC 0 4 1 U NU8   P                <)                 L)
  L                                            3A     SN= F* R*       )   KO+                        <.                 #*
  R       220.20  228.89      SPHALERITE IS CONCENTRATED AT 225.74 M AND APPEARS TO BE A
  R       220.20  228.89      RESULT OF BRECCIA FILLING.  THE ARGL FRAGMENTS ARE LARGE AND
  R       220.20  228.89      ARE COMPOSED MAINLY OF ARSI.  PYRITE ALSO OCCURS AS A
  R       220.20  228.89      REPLACEMENT FEATURE.

  /       228.89  233.53   4.64            BRPM SF     SI4 SS F* 0 5 1 R MR3   P                V-                 P)
  L                                            4A     SN1 R*    3   +   KP1                          <.

  /       233.53  235.10   1.57            ARSN SF     SN4 SS SC 0 5 4 M       P    BD      80 7-                  D)
  L                                            4A     SI2        6                                   >.
  R       233.53  235.10      THIS INTERVAL COULD POSSIBLY BE A FRAGMENT.  CONTACT IS RATHER
  R       233.53  235.10      SHARE AND THE BEDDING CHANGES BY APPROX 10%.  THE BEDDING
  R       233.53  235.10      IS DISRUPTED DUE TO SLUMPING.

  /       235.10  236.83   1.73            ARGL SF        LM                   P    BD      90 <-                  D)
  L                                            2A             NX
  R       235.10  236.83      THE UNIT IS MASSIVE, BUT FINALLY LAMINATED.
  R       236.83  239.88      THE UNIT IS COMPETENT, BUT THE SHEARING IS TAKING PLACE ON THE
  R       236.83  239.88      BEDDING SURFACES.  BARITE IS COUNTING THESE SHEARS.  THE BEDDING
  R       236.83  239.88      ANGLE CHANGES SLIGHTLY NEAR THE BASE.

  /       236.83  241.78   4.95            ARSN SF     SN4 SS SC 0 4 4 N       P                V)          C-     D) #. #.
  L                                            4A CR SI1       5                    BD      90           V.

  / SHR   236.83  239.88   3.05          X ARSN GR CR SN4 SS SC 0 4 4 N       R                V)          C-     D) #. #.
  L                                            4A CR SI1       5                    BD      90           V.

  / FLT   240.03  240.20   0.17          X ARGL CR     GGX                     R
  L                                            1A
  R       240.03  240.20      THE CORE BELOW THIS INTERVAL IS BROKEN UP FOR APPROX 3 M.

  /       241.78  245.54   3.76            ARGL    CR SI= SS BD                P  2 BD      65 <)                  L)
  L                                            2A SF                                                 <.
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 K  F  F R O M - T O -  I N T RECOV  RD % ROCK IM TM UM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 Y  G                                 R Q D  AGE EV RO LC TM UM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA


 /       245.54  248.87   3.33               BRHT SF    SN1 SS SC          NS6   P                >+                     D)
 L                                                3A    *S1    (F      1 C KN+                             <.
 R       245.54  248.87        SANDSTONE FRAGMENT AT 247.09 M CONTAINS FLUTE CAST.
 R       245.54  248.87        THE INTERVAL BETWEEN 245.67-246.89 M IS MODERATLY FRACTURED
 R       245.54  248.87        AND CONTAINS QUARTZ - SIDERITE VEINS.

 /       248.87  253.00   4.13               BRHT SF CR *C1 F* R*          LP5   P                >)                     R+
 L                                                4A GR SN=     SS      + C LP3

 /       252.50  253.00   0.50             X BRHT CR GR GG5                      R
 L
 R       252.50  253.00        THIS INTERVAL IS HIGHLY BROKEN UP AND ON BOTH SIDES IT IS
 R       252.50  253.00        MODERATLY BROKEN UP.

 /       253.00  264.57  11.57               ARGL CR    SN= SS LM                P    BD      50 V-                      L)
 L                                                3A GR SI+
 R       253.00  264.57        THE CORE BETWEEN 262.13-264.57 M IS BORKEN UP.  THIS APPEARS
 R       253.00  264.57        TO BE A RESULT OF SHEARING.  PYRITE APPEARS TO BE CONCENTRATED
 R       253.00  264.57        IN SAND LAYERS, POSSIBLE REPLACEMENT.

 /       264.57  277.26  12.69               ARGL       SN+ SS                   P  2 BD      70 <-                 C.    L)
 L                                                3A SF SI+                                                <.
 R       264.57  277.26        THE CORE HAS BEEN BROKEN UP AND ARRANGED IN THE WRONG ORDER.
 R       264.57  277.26        CONTACTS BETWEEN REPEATS INTERVALS ARE NOT CLEAR.  PYRITE IS
 R       264.57  277.26        LAMINATED AND APPEARS TO BE A REPLACEMENT OF THE SAND UNITS.

 /       265.57  266.12   0.55             X BRPM SF    SN1 SS     0 2 1 P LP5   R
 L                                                3A CR SI2        3     0 212                                       R)
 R       265.57  266.12        CONTACT NOT SEEN BUT APPEARS TO BE A DEPOSITIONAL FEATURE
 R       265.57  266.12        RATHER THAN A FRAGMENT.

 /       273.79  274.49   0.70             X BRHT SF    *C= R* R*          NP6   R                                       R)
 L                                                4A    SN1     SS         KM2

 /       277.26  281.33   4.07               BRPM SF    SN4 SS R* 1 5 3 P LP4    P  1 BD     U70 <-                 C.    D)
 L                                                      SI1 DB FU      O KM1                               <.
 R       277.26  281.33        THE AMOUNT OF SAND INCREASES TOWARDS THE TOP AND BEDDING IS
 R       277.26  281.33        WELL DEFINED.  AT THE BASE THE FRAGMENTS ARE COARSER AND BEDDING
 R       277.26  281.33        IS UNDEFINED.  CHERT CONTENT DECREASES TOWARDS THE TOP.
 R       277.26  281.33        AGAIN CONTACTS ARE NOT WELL DEFINED.

 /       281.33  287.12   5.79               ARGL    CR SN+ SS SC                P  1 BD      65                    C.    D)
 L                                                3A SF SI+

 /       281.33  287.12   5.79             X ARGL CR GR GG= SS SC                R  1 BD      65                    C.    D)
 L                                                3A SF SI+
 R       281.33  287.12        CORE IS BORKEN UP DUE TO SHEARS.
 R       281.33  287.12        THE WHOLE INTERVAL IS SHEARED.  SOME PARTS WORSE THAN OTHERS.
 R       281.33  287.12        THERE IS ALSO A SMALL SANDSTONE UNIT AT 284.38 M.

 /       287.12  295.66   8.54               BRPM SF    SN5 SS DB 1 4 4 P KP3    P                                  C)    R)
 L                                                4A    SI1        5     O KM=
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K  F   F R O M - T O -  T N T RECOV  RQD % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                             R Q D  AGE FV RQ LC TM QM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD OS HA PR MT SL HA

R        287.12  295.66       BARITE OCCURS ON MOST SHEAR SURFACES.  MOST OF THE INTERVAL IS
R        287.12  295.66       BROKEN UP DUE TO SHEARING AND FAULTING.  BOTH THE UPPER & LOWER
R        287.12  295.66       CONTACTS ARE UNDEFINED.

/ FLT    293.62  294.02   0.40           X BRPM CR GR GG6                  R                                  D)
L

/        295.66  307.23  11.57             ARSN SF CR SN3 SS SC 1 4 3 M      P  1 BD       70 <-          C+    D)
L                                               3A    SI1      6

/        295.66  296.86   1.20           X ARSN SF CR SN3 SS SC 1 4 3 M      R  1 BD       80 <-          C+    D)
L                                               3A    SI1      6
R        295.66  307.23       THE BEDDING ANGLES CHANGE FROM TOP TO BOTTOM.  IT IS 80' NEAR
R        295.66  307.23       TOP, THEN 70', 60' AND BACK TO 80' NEAR BASE.  BARITE OCCURS
R        295.66  307.23       MAINLY ON FRACTURE SURFACES BUT ALSO OCCURS AS SMALL VEINS.
R        295.66  307.23       MOST OF THE INTERVAL IS SHEARED.

/        296.86  299.01   2.15           X ARSN SF CR SN3 SS SC 1 4 3 M      R  1 BD       70 <-          C+    D)
L

/        299.01  302.86   3.85           X ARSN SF CR SN3 SS SC 1 4 3 M      R  1 BD       60 <-          C+    D)
L

/        302.86  307.23   4.37           X ARSN SF CR SN3 SS SC 1 4 3 M      R  1 BD       80 <-          C+    D)
L

/        306.43  306.63   0.20           X ARSN CR GR GG8                  R                          D)    D)
L

K UM1    307.23  307.23   0.00

/ LSX    307.23  308.63   1.40             LMSX PY SF SI= LM LC 0 1 + J      P  1          80          C- L2    L4 C. L+
L                                               5A    CH3                                              L)          L+
R        307.23  308.63       CORE IS BROKEN UP CARBONATE CRYSTALS OCCURS ON FRACTURE SURFACES
R        307.23  308.63       PURPLE, BLUE STAINING DUE TO COPPER.  SPHALERITE AND GALENA
R        307.23  308.63       OCCURS MAINLY WITH THE LAMINATED CHERT.

/ FSX    308.63  309.08   0.45             FGSX SF BA     BR           MO3  P                 *)          *2    #3    *+
L                                               TA PY                                                             *1
R        308.63  309.08       THE ARGL. FRAGMENTS COMPOSE 30% OF THE INTERVAL AND ARE SILIFIED
R        308.63  309.08       THESE FRAGMENTS ALSO CONTAIN INTERSTITIAL BARITE.  THE SULPHIDE
R        308.63  309.08       FRAGMENTS ARE LAMINATED.  THE INTERVAL IS HIGHLY FRAGMENTED AND
R        308.63  309.08       BRECCIATED.  BOTH THE SPHALERITE AND GALENA ARE FINED GRAINED.

/ LSX    309.08  309.53   0.45             LMSX SF PY SI2 LM LC 0 1 1 N      P  2 BD       60             L5    B2 C. L)
L                                               YM BA     SC                                                      L=
R        309.08  309.53       SPHALERITE IS FINE GRAIN AND VARIES IN COLOUR FROM A YELLOW TO
R        309.08  309.53       PINKY-RED.  IN PLACES THE BEDDING IS DISLOCATED.  NEAR THE END
R        309.08  309.53       OF THE INTERVAL, THE ROCK IS CRUSHED, THEREFORE THE LENGTH OF
R        309.08  309.53       THE INTERVAL IS ESTIMATED.  BARITE IS WEATHERED THEREFORE LOW
R        309.08  309.53       S.G.
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K  F   F R O M - T O -  T N T RECOV  NO % ROCK TX TX NM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                          R Q D  AGE EV PO LC TM NM2 TX TX S C U O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/ LSX  309.53  310.47   0.94          LMSX SF PY SI1 LM LC            P  1 BD     80              L4    L3    L+
L                                          BA BA      SS                                                      L1
R      309.53  310.47     THE YY MINERAL IS WITHERITE WHICH IS YELLISH-RED IN COLOUR.
R      309.53  310.47     THERE IS APPROX. 5% LAMINATED, CHERT AND 10% SILIFIED SILT.  THE
R      309.53  310.47     WITHERITE OCCURS IN BANDS AND REPRESENTS 1% OF THE UNIT.  PYRITE
R      309.53  310.47     MARCASITE IS ASSOCIATED WITH FRACTURE FILLING.

/ LSX  310.47  310.85   0.38          LMSX SF PY      SS SC           P  0 LM     70              L4    L2    L+ WI
L                                          6A BA      TA LM                                                   L= L-
R      310.47  310.85     THIS INTERVAL CONTAIN APPROX 30% ARSI AND HAS INTERSTITAL BARITE
R      310.47  310.85     RANGING UP TO 40% OF THE TOTAL COMPOSITION.  THE SPHALERITE AND
R      310.47  310.85     GALENA IS FINE GRAINED AND IS THINLY LAMINATED.  THERE IS ALSO A
R      310.47  310.85     MINOR SHEAR ZONE WITHIN THIS UNIT.

/ LSX  310.85  311.74   0.89          LMSX BA PY      LM LC           P                           L5    L4    L+
L                                          6A                                                                 L=
R      310.85  311.74     THE LENGTH OF THIS INTERVAL IS ESTIMATED DUE TO LOST AND
R      310.85  311.74     GRINDING OF CORE.  PERCENTAGES DIFFICULT TO ESTIMATE.  THE
R      310.85  311.74     BARITE IS HIGHLY WEATHERED AND HAS A LOW S.G.I+ ALSO HAS A
R      310.85  311.74     SUGARY TEXTURE.

/ LSX  311.74  312.08   0.34          LMSX SF PY      LM LC           P  2 BD     70        L3          L3    L)
L                                          9A BA      SS SC                                                   L+
R      311.74  312.08     THERE IS APPROX. 35% ARSI WITHIN THIS UNIT AND CONTAINS 40%
R      311.74  312.08     BARITE.  BARITE OCCURS AS MICROVEINS.  MINOR BRECCIATION WITHIN
R      311.74  312.08     THE ARSI.

/ LSX  312.08  314.15   2.07          LMSX SF BA      LM LC           P  2 BD     70              L4    L3    L+
L                                          TW PX      SS SC                                                   L1
R      312.08  314.15     THERE IS APPROX. 10% ARSI, WHICH IS LAMINATED AND BEDDED.
R      312.08  314.15     GALENA IS FINE GRAINED AND OCCURS IN THIN LAMINATIONS.
R      312.08  314.15     SPHALERITE VARIES FROM A PINK TO AN ORANGE - RED.

/ LSX  314.15  315.53   1.38          LMSX SF PY      LM LS           P  1 LM     80              L2    L4    L)
L                                             BA      SS SC                                                   L+
R      314.15  315.53     TIS UNIT CONTAINS 35% SILIFIED ARSI.  THERE IS A SHEAR ZONE
R      314.15  315.53     WITHIN THE INTERVAL.  THESE SHEARING SURFACES ARE GRAPHIC.  NEAR
R      314.15  315.53     THE END OF THE INTERVAL, PYRITE INCREASES TO 60% OF THE ROCK.
R      314.15  315.53     THE ARSI IS LAMINATED.

/      315.53  320.77   5.24          ARSI SF PY SI2 LM CC 1 2 = M    P  1 LM     70              C=    L+    <.
L                                          3A BA SN= SS    7                                                  <-
R      315.53  320.77     THERE HAS BEEN MOVEMENT ALONG BEDDING PLANES.  ALONG THESE
R      315.53  320.77     SHEARED SURFACES, BARITE AND MINOR GRAPHITE HAS FORMED.
R      315.53  320.77     SPHALERITE AND GALENA OCCURS WITH BARITE IN MICROVEINS.  THE
R      315.53  320.77     LAST 3 METERS IN THIS INTERVAL IS HIGHLY FRAGMENTED.

/ LSX  320.77  321.81   1.04          LMSX PY BA      LM LC           P  3 BD     80 <-           L1    L7    L+
L                                                        PX                                 L.                L1
R      320.77  321.81     THIS UNIT IS COMPOSED OF MAINLY BEDDED PYRITE.  THERE IS ALSO
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                                                        PAN OCEAN OIL LTD.
G E O L O G                                    JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                   PAGE - 9
                                       DRILLHOLE/TRAVERSE --- 81-DH083 --- (CONTINUED)

K F  F R O M - T O -  I N T RECOV RD % ROCK TN TN GM1 TX TX F C % M ARG  RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                        R Q D  AGE EV RQ LC TN GM2 TX TX S C O O CHT    2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R     320.77  321.81      APPROX. 2% ARGI WHICH INCREASES TOWARDS THE BASE.

K LM1 321.81  321.81   0.06

/     321.81  330.71   8.90            SILT SF PY SN1 LM SS 0 2 1 K      P  1 LM      80 <)          <)    L)    <.
L                                           3A CR        SC 7                                  C.                <(
R     321.81  330.71      THE WHOLE INTERVAL IS HIGHLY SHEARED.  BARITE OCCURS AS MICRO
R     321.81  330.71      VEIN AND ON SHEAR SURFACES.  SPHALERITE OCCURS WITH THE QUARTZ
R     321.81  330.71      VEINS.

/ FLT 327.54  327.86   0.32          X SILT GR GR GG9                     R                        D)       D+
L

/     330.71  332.23   1.52            BRPM SF PY *C2 R* F* 1 4 3 P MP4  P               >)          C-    D+
L                                           LA    SN3       2     O KM2
R     330.71  332.23      THIS UNIT IS MODERATELY FRAGMENTED DUE TO FAULTING AND SHEARING
R     330.71  332.23      WITHIN THE ZONE.  T.D. AT 332.23M.
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090986

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :81-DH084
TOTAL DEPTH/LENGTH : 621.49
CORE/HOLE DIAMETER :

COLLAR ELEVATION: 1233.15
NORTHING(- IF S): 7002328.00
EASTING (- IF W): 436584.62

AZIMUTH(DEG) : 172.00
VERTICAL ANGLE : -85.25
CO-ORD SYSTEM :

GEOLOGGED BY : BHO +
DATE (YY/MM/DD): 810000
PROJECT NUMBER : JASON

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	12.00	171.30	-85.25
2	24.00	169.70	-85.25
3	37.00	167.60	-85.38
4	49.00	163.60	-85.38
5	61.00	158.60	-85.52
6	73.00	154.70	-85.42
7	85.00	151.90	-85.42
8	98.00	146.10	-85.50
9	110.00	138.90	-84.97
10	122.00	134.30	-82.83
11	134.00	132.50	-82.47
12	146.00	132.80	-81.75
13	159.00	131.00	-80.97
14	171.00	130.30	-80.05
15	183.00	130.40	-79.42
16	195.00	132.10	-78.83
17	207.00	131.30	-78.58
18	219.00	131.50	-78.38
19	232.00	121.40	-79.30
20	244.00	119.50	-79.03
21	256.00	117.70	-78.33
22	268.00	117.70	-77.42
23	280.00	113.90	-76.83
24	293.00	110.80	-75.17
25	305.00	109.80	-74.03
26	317.00	110.70	-71.75
27	329.00	111.50	-68.78
28	341.00	112.50	-68.38
29	354.00	111.50	-68.17
30	366.00	108.20	-67.03
31	378.00	107.20	-67.03
32	390.00	105.10	-67.17

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                         33        402.00      104.10      -66.80
                         34        415.00      103.00      -66.42
                         35        427.00      102.00      -66.17
                         36        439.00      106.20      -65.33
                         37        451.00      104.10      -64.50
                         38        463.00      104.30      -63.88
                         39        475.00      103.20      -63.53
                         40        488.00      102.00      -63.00
                         41        500.00      100.90      -62.67
                         42        512.00      101.90      -62.55
                         43        524.00      101.70      -62.03
                         44        536.00      101.20      -60.50
                         45        549.00      102.40      -58.27
                         46        561.00      102.00      -57.17
                         47        573.00      102.80      -56.42
                         48        585.00      102.60      -56.00
                         49        597.00      101.40      -56.00
                         50        610.00      100.20      -56.08
                         51        616.00      101.30      -56.05

  F   - I N T E R V A L -    CORE  T- %       TYPI- QAL  TEX-  GRAIN         PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K L (UNITS =   . DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                           H  H  H  H  H ANY H  H  H ANY  ALT ORE
E A  (MT=METRIC FT=FOOTRIC)  ERY    O I      TM TM MAT TX TX F C % M ARG   /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y G  F R O M - T O -  I N T (  . )  D X TYPE  1  2 OM1  1  2 F F C A           1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K F                         ROCK   FM     RT    TM OM2 TX TX S C O O CHT       T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E L                         QUAL   AGE EN- Q LC- 3      3  4 O      /          2    AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
Y G                         DESIG      VIR   COL             R      C            STRUCTUR-2  A  A  A  A  A  A  A  A  A  A    2   2

R SVY    0.00    0.00       DATA FROM GYROSCOPIC DIRECTIONAL SURVEY.  THE DATA REPRESENTED
R SVY    0.00    0.00       IN S000-S051 SHOULD BE USED FOR PLOTTING PURPOSES.

/ OVB    0.00   28.75  28.75            OVER                                   P
L

/ WET   28.75   45.11  16.36            BRHM CR      SI+ R* B*         MS9     P                                 D*
L                                            1A      *C.               LO+
R       28.75   45.11       MATRIX OF BRPN.

/ FLT   32.80   45.11  12.31          X BRHM CR      SI+ R* B*         MS9     R                                 D*
L                                                    GG3

/ FAL   37.49   38.00   0.51          X FAUL CR      GG9                       R                                 D*
L                                            R

/ FLT   45.11   51.30   6.19            BRHT CR      SI+ R* F*         NR7     P                                 B*
L                                            1A      *C) B*            NP3
R       45.11   51.30       ROCK HIGHLY FRACTURED, BUT VERY LITTLE GOUGE.

/       51.30   58.80   7.50            BRHT CR GR SI=                 NP9     P                                 R)
L                                            1A                        MD1
R       51.30   58.80       PYRITE REPLACES SILT IN ARSI CLASTS, AND CHERT FRAGMENTS.

/ FLT   52.00   52.43   0.43          X BRHT CR GR SI=                 NP9     R                                 R)
L                                                    GG3               LN

/ FLT   56.50   57.00   0.50          X BRHT CR GR SI=                 NP9     R                                 R)
L                                                    GG3               LN=

/ FLT   57.00   58.80   1.80          X BRHM         SI= SS SC                 R              <+          <)     7+
L                                            1A      GG4               LN+
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K  F   F R O M - T O -   T O T RECOV  MD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R Q D  AGE EV RQ LC TM OM2 TX TX S C U O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/         58.80   60.45   1.65            BRHT CR SF *C+ R* F*          NP6   P                #2              7+
L                                              2A                   1   L03
R         58.80   60.45      'OTHER' CLASTS ARE SAND.

/ FAL     60.45   73.50  13.05            BRHT CR GR GG6                MQ9   P                <)         <*   R+
L                                              5                        L0=
R         60.45   73.50      ARG AND CHT CLASTS ALIKE REDUCED TO GOUGE.

/         73.50   77.46   3.96            BRHT CR GR *C= SC F*          NR4   P                >+              R+
L                                              3A       B* R*    . . 0 MP4
R         73.50   77.46      MATRIX OF BRPM. QZ ALSO AS MICROVEINS.  MATRIX MOSTLY MUD.

/         77.46   81.50   4.04            BRHT                           P4   P                           HE
L                                                                   C    5                                R.

/         81.50   84.30   2.80            BRHT           1 G;           NP5   P          U
L                                                                   0 L03
R         81.50   84.30      MATRIX OF BRPM.  CRUDE GRADING OF CLASTS UPHOLE. CR CLASTS.
R         81.50   84.30      GR IN SHEARS.
R         82.60   82.60      REDUCE TO NQ IN AN ATTEMPT TO FLATTEN HOLE.

/         84.30   85.45   1.15            BRHT CR GR *C1    F*          NP5   P                V*              R+
L                                              2A SF    R* R*    . . C M05

/         85.45   90.50   5.05            BRHT CR GR *C2 B* F*          K03   P                <+              R+
L                                              4A       R*          C KP7
R         85.45   90.50      MUCH LESS MUD IN MATRIX- GRIT TO GRANULE SIZE COMMON.

/         90.50   95.40   4.90            BRHT CR GR                    MQ6   P                V1              R+
L                                              3A                   C LP4

/ FAL     95.00   95.40   0.40          X BRHT CR GR                    MQ6   R                V1              R+
L                                              3A    GG6            C LP4

/ FLT     95.40  100.50   5.10            BRPM CR GR SN1 VG SC 1 4  5 OR8   P                <)           WI R)
L                                              1A    GG2      4     0 LN+                                <*
R         95.40  100.50      LARGE ARGL CLASTS WITH PEBBLY SAND TO SANDY MUD AS MATRIX.
R         95.40  100.50      ARGL CLASTS ALSO INCLUDE ARSI AND ARSN.  SAND IS VUGGY.

/         98.45   98.95   0.50          X SAND            IM G; 3 4 4 5       R    IM     U30
L                                              3A             6
R         98.45   98.95      COARSE SAND TO GRIT PARTICLES ALL ARGL.

/        100.50  105.77   5.27            BRHM CR GR SN=          3 4   4 NR9   P                <)         <* WI 8+
L                                              1A                   ) C KN+                       <.     <* <.

/ FLT    105.77  106.98   1.21            BRHT       SN2 VG     3 4   5 NP6   P                <*           WI R+
L                                              2A    GG2            0 KN3                                <*

/ FLT    106.98  119.43  12.50            BRHT CR GR SN1 SC     3 4   5 NQ9   P                <)         <* WI R+
L                                              1A    GG2          )   LN=                     C.      <* <*
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                                                               PAN OCEAN OIL LTD.
G E O L O G                                          JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                    PAGE - 4
                                              DRILLHOLE/TRAVERSE --- 81-DH084 --- (CONTINUED)

K  F  F R O M - T O -  I N T RECOV  MD % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R Q D  AGE EV RQ LC TM QM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/      106.98  119.48  12.50           1 BRPM CP GR           0 1 6 3       R
L                                             1A
R      106.98  119.48      SOMETIMES OCCURS AS MATRIX FOR BRHM.

/      119.48  121.01   1.53             LOST                               P
L

/      119.48  119.49   0.01           X WEDG                               R
L
R      119.48  121.01      REAMED FOR WEDGE.
R      121.01  124.05      'G' SIZED ARGL CLASTS NEXT MOST ABUNDANT.

/ FLT  121.01  129.24   8.23             BRHM CR GR                   OS9   P               <)                R+
L                                             1A                    C KN+                         C.

/ FAL  121.01  124.05   3.04           X BRHM CR GR GG8               OS9   R               <)                R+
L                                             1A                    C KN+                         C.
R      121.01  129.24      MANY FRAGMENTS ARE ARSI OR ARSN.

/      126.25  126.45   0.20           X BRPM       *C) F* R* 1 3 3 6       R           U                     R1
L                                             2A        R* G; 4       KN1
R      126.25  126.45      CRUDE GRADED BEDDING.

/ FAL  129.24  133.20   3.96             BRHM CR GR                   MQ9   P               <)                R+
L                                             1A    GG4               JL)                         C.
R      129.24  133.20      CLASTS RANGE FROM ARGL TO ARSN.

/ FAL  133.20  138.00   4.80             BRHM CR GR                   MR9   P               <)                R+
L                                             1A    GG1               JL*                         C.

/ FAL  138.00  143.56   5.56             BRHM CR GR                   MQ9   P               <)                R+
L                                             1A    GG4               JL*                         C.

/ FAL  143.56  148.00   4.44             BRHM CR GR                   MR9   P               <)                R+
L                                             1A    GG2               JL.                         C.

/ FAL  148.00  155.14   7.14             BRHM CR GR    5              MP9   P               <)                R+
L                                             1A    GG1               JL.                         C.             <)

/ FLT  155.14  158.00   2.86             BRHM CR GR     R*            MR9   P               <)                R+
L                                             1A    GG=          .    JL)                         C.                R.
R      155.14  158.00      SL REPLACEMENT OF CHERT.

/ FLT  158.00  161.85   3.85             ARGL CR GR     SS SC 0 1   1       P               V1                8=
L                                              4 SF                                               C.                8.
R      158.00  161.85      HIGH CR, SF.  SL IN QZ.

/ FLT  159.00  159.10   0.10           X VEIN                               R               >X
L                                              A                                                     >.

/      159.10  159.41   0.31           X ARGL CR GP SL  SS SC 0 1   2       R               V1                8=
L                                             1A GR
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K  F   F R O M - T O -  I O T RECOV  MD % ROCK TX TN NO1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                        R Q D  AGE EV RO LC TN OM2 TX TX S C U O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/ FAL  159.41  161.85  2.44          5 SAND           SC VG 3 4   4      R                V1                  81
L                                            3A       MX IB                                                         B*

/ FLT  161.85  166.70  4.65            BRHM CR GR GG1 R*               NR9  P                <)           B*    7+
L                                            1A                  . )   KM)                          C.               <) D.
R      161.85  166.70         'OTHER' CLASTS ARE SAND.
R      166.70  167.50         WHILE THIS MAY BE A FRG, LITTLE EVIDENCE TO BE CONCLUSIVE.
R      166.70  167.50         EQUIVALENT BEDDING ANGLE TO ARSM IN NEXT 'REPEAT' SUGGESTS
R      166.70  167.50         QUIESCENT SEDIMENTATION.  CONTACTS HARD TO DISTINGUISH DUE TO
R      166.70  167.50         BROKEN CORE.

/      166.70  170.69  3.99            BRHM CR GR GG1 R*               MO9  P                <)           B*    7+
L                                                                *     JK

/ FRG  166.70  167.50  0.80          X ARSI CR    SI2 SS SC 0 1   2      R  2 BD      50                 <.
L                                            1A

/ FRG  168.55  169.40  0.85          X ARSM CR    SN4 G; IB              R  2 BD     U45 <.                     R)
L                                            2A                                                                    <*

/ FAL  170.69  173.74  3.05            FAUL CR GR GG9        0 1   1     P                               <.    D*
L                                            M

/      173.74  174.80  1.06            BRHT CR    *S) R*               MO9  P                                   R)
L                                            1A                        KM=                          C.

/ SHR  174.80  181.97  7.17            ARGL CR GR SN= //     0 1 9 2     P  2 BD      75 <.                     R)
L                                            1A   SI+                         CV      80

/ FAL  179.83  181.97  2.14          X ARGL CR GR SN= //     0 1 9 2     R  2 BD      75 <.                     R)
L                                            1A   GG3                         CV      80

/      181.97  192.33  10.36           BRHM       *C  R* H*            NO9  P                                   R+
L                                            1A   *S+                  KM+                          C.

/      192.33  194.16  1.83            BRPM          VG R*             KN1  P                                   R)
L                                            2A      F* B*             KO3                          C.

/      192.95  193.84  0.89          X CGBR SF    *C1 VG F*            LN3  R                <*                 R+
L                                            3A   *S) B* R*          C LN6                          C.
R      192.95  193.84         CONTACT WITH BRPM DEPOSITIONAL.

/      193.84  194.16  0.32          X SAND          BR VG 3 4 4 5       R                <2
L                                            3A            7
R      193.84  194.16         CONTACT WITH CGBR EROSIONAL.

/ FAL  194.16  238.35  44.19           BRHM CR GR *S+ BR R*            OR9  P                V)                 8+
L                                            1A   GG3                  KM)                          C*
R      194.16  238.35         PYRITE AS REPLACEMENT, AND VEIN WITH QZ.  GRAPHITIC IN SHEARS.
R      194.16  271.27         POSSIBLY A CONTINUOUS BRHM UNIT WITH THE ARSI PGI ABOVE BEING A
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K  F   F R O M - T O -  I N T RECOV  RD % ROCK TK TM QM1 TX TX F C % M ARG    RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----   --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                          R Q D  AGE EV RD LC TM QM2 TX TX S C U O CHT        2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R        194.16  271.27        LARGE CLAST.

/ FAL   197.00  197.50   0.50           X BRPM CR    *C= H* R*          LN1   R                                   R+
L                                              2A    GG2 DR             KM3                           C.

/       199.50  199.95   0.45           X BRHM CR GR *S+ BR R*          OR9   R                 V)                R+
L                                                    8

/       199.95  202.08   2.13           X BRHM CR GR *S+ BR R*          OR9   R                 V)                R+
L                                                    6

/       202.08  202.25   0.17           X SAND GR       SS MX 3 4 4 5         R                                   R=
L                                              2A             7                                       C.

/       202.25  203.91   1.66           X BRHM                                R
L                                                    7

/       208.80  209.30   0.50           X BRHM CR GR *S+ BR R*          OR9   R                 V)                R+
L                                                    7

/       212.30  217.32   5.02           X BRHM CR GR *S+ BR R*          OR9   R                 V)                R+
L                                                    8

/ FAL   223.90  224.30   0.40           X BRPM GR    *C= R*             KN2   R                 <*                R=
L                                                                       KN2                           C.
R       223.90  224.30       GR IN SHEARS.

/ FAL   227.60  227.70   0.10           X SAND CR       SS MX 3 4 4 5         R                                   R)
L                                              2A             7

/ FAL   227.70  227.90   0.20           X CGCP SF       R* H*           KN1   R                                   R+
L                                              3A    F*                 KO9
R       227.70  227.90       POOR RECOVERY MAKES DETERMINATIN DIFFICULT.  ONLY 10CM WERE
R       227.70  227.90       RECOVERED, OF WHICH 7CM IS A SINGLE CHERT CLAST.  MODERATELY
R       227.70  227.90       ROUND.

/ FLT   238.35  246.60   8.25             ARST CR    SI1 // SS 0 1   2        P  2 BD      70                     R)
L                                              1A    GG4                         1 LM      70             C*
R       238.35  246.60       SI LAMINATIONS IN ARGL BEDS.  POSSIBLE FRG.

/       239.60  242.93   3.13           X ARSI CR    SI1 // SS 0 1   2        R  2 BD      70                     R)
L                                                    1

/ FLT   246.60  271.27  24.67             BRHM CR GR *S+                OU9   P                 <)                R+
L                                              1A    GG1                JM*                           C.   <.
R       246.60  271.27       CLASTS MAINLY ARST.

/       260.10  260.30   0.20           X SAND             //     3 4 3 4     R  3 BD      30 <=                  R)
L                                              3A             8

/       262.77  268.40   5.63           X BRHM CR GR *S+                OU9   R                 <=                R+
L
```

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K  F  F R O M - T O - I N T RECOV  RD % ROCK TN TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                        R Q D  AGE EV RQ LC TM OM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/ FAL  268.40  268.83   0.43         X BRHM CR GR *S+                 OO9   R                <)                 R+
L                                                  8

/ FLT  271.27  302.06  30.79           ARSI CR    SN3 SS // 0 1 4 2        P  2 BD      70 <*              HE R)
L                                           1A        SC    6                 CV      70         C.        R*
R      271.27  302.06       HE REPLACEMENT OF SILT/SAND.  SILT/SAND 2 TO 15MM THICK.
R      284.38  284.38       REDUCED TO BQ.

/ FAL  302.66  304.00   1.94           ARSI CR    SN2 SS // 0 1 4 2        P  2 BD      90 >+              HE R)
L                                                 GG3                                 90

/ FAL  304.00  308.50   4.50           ARSI CR    SN1 SS // 0 1 4 2        P  2 BD      70 >+              HE R)
L                                                 GG3

/ SHR  308.50  309.90   1.40           ARSI       SI/ BR SS 0 2   2        P  2 BD                         HE 7)
L                                           1A        SC // 7                                    C.        R(
R      308.50  309.90       UNIT IS BORDERLINE BRHM.  EXTREME DEFORMATION.  PY REPLACEMENT
R      308.50  309.90       AND AS MICROVEINS.

/      309.90  311.51   1.61           ARSI CR    SI2 // SS 0 2   2        P  2 BD      30 <)              HE D)
L                                           1A        SC                                         C.        R(

/      311.51  316.20   4.69           BRHM CR    SI1                 NQ8   P                              HE R)
L                                           1A                                                   C.        R(
R      311.51  316.20       CLASTS ARE ARSI IN MUD MATRIX.  HIGHLY DEFORMED ARSI.

/ SHR  316.20  325.73   9.53           ARSI CR    SI1 // SS 0 2   2        P  2 BD      75 <*              HE R)
L                                           1A        SC BR                                      C.        R-

/ FAL  323.39  324.31   0.92         X ARSI CR    SI1 // SS 0 2   2        R  2 BD      75 <*              HE R)
L                                           1A    GG5 SC BR                                      C.        R-

/      325.53  325.73   0.20         X ARSI CR SF SI1 // SS 0 2   2        R  2 BD      75 <*              HE R) <. <.
L                                           1A        SC BR                                      C.        R-

/      325.73  332.90   7.17           ARSI CR    SI1 BR SS 0 2   2        P  2 BD      85 <*              HE R)
L                                           1A        SC //                       CV      85         C.        R-
R      325.73  332.90       LOCALLY INTENSE DEFORMATION.

/      332.90  335.58   2.68           ARSI CR    SI1 SS BR 0 2   2        P  2 BD      60 <*              HE R)
L                                                     SC //

/ FAL  335.00  335.58   0.58         X ARSI CR    SI1 // SS 0 2   2        R  2 BD      75 <*              HE R)
L                                                 GG4

/ FLT  335.58  394.72  59.14           ARSI CR    SI1 BR SS 0 2   2        P  2 BD         V+              HE R+ B. B.
L                                           1A    GG= SC //                                      C.        R.
R      335.56  394.72       STRONGLY DEFORMED.  BEDDING FROM 60 TO 90 DEGREES.  TRACES OF CP
R      335.58  394.72       AND GL IN QZ-VEINS.  MILDLY CR.

/ FAL  353.30  353.87   0.57         X ARSI CR    SI1 BR SS 0 2   2        R  2 BD         V+              HE R+ B. B.
L                                                  8
```

```
K F   F R O M - T O -  T O T RECOV MD  % ROCK TH TN QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R Q D  AGE EV RQ LC TF QM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/ FAL  361.49  361.70   0.21           X ARSI CR    SI1 BR SS 0 2   2       R  2 BD         V+             HE R+ B. B.
L                                                     6

/ SHR  361.70  365.20   3.50           X ARSI CR    SI1 BR SS 0 2   2       R  2 BD         V+             HE R+ B. B.
L                                                     )

/ FAL  365.20  365.60   0.40           X ARSI CR    SI1 BR SS 0 2   2       R  2 BD         V+             HE R+ B. B.
L                                                     8

/ SHR  365.60  367.28   1.66           X ARSI CR    SI1 BR SS 0 2   2       R  2 BD         V+             HE R+ 8. B.
L                                                     *
R      394.72  395.25      POORLY SORTED:  MATRIX OF CLAY TO SAND SIZE PARTICLES.

/ SHR  394.72  436.81  42.09             BRHM CR    *S= BR SS         NS9   P               <+                8)
L                                             1A    SI2 SC                                        C- <(

/      394.72  395.25   0.53           X BRPM       SN3 CU            3   R               <(                B)
L                                             3A    *C1                 3                         C.
R      394.72  436.81      UNIT IS ARSI CLASTS IN MUD MATRIX  BRECCIATED VERSION OF
R      394.72  436.81      PREVIOUS PGI.  OCCASIONAL QUARTZ MACROVEIN.

/ FLT  436.81  460.20  23.39             BRHT CR    *S) F* B*         MR4   P               #)                8)
L                                             2A    *C+ H* R*   )   C L03                         C.
R      436.81  460.20      GROUND VERY BLOCKY.  PY REPLACEMENT AND MICROVEINING.  MOST
R      436.81  460.20      CHERT CLASTS FROM 0.7 TO 2.0CM.  ARGL/ARSI CLAST MOSTLY 1.0 TO
R      436.81  460.20      3.0CM. RARELY >15.0CM.  MILDLY CR.  MUDDY MATRIX.

/ FLT  460.20  465.12   4.92             BRHT CR    *S= R* SC         MO8   P               <*                8)
L                                             1A                      KM=                         C.
R      460.20  465.12      PY AS REPLACEMENT AND MICROVEINS.  MUD MATRIX.
R      460.20  465.12      CONTACTS WITHIN THIS INTERVAL ARE ALL GRADUAL.

/      461.00  461.50   0.50           X BRPM       SN6 BR            LN3   R
L                                                                     JK)
R      461.00  461.50      CARBONATE MINERAL AS BRECCIA FILL:  MILD EFFERVESCENCE IN 10%
R      461.00  461.50      HCL SUGGESTS WITHERITE (BACO3).

/ FLT  461.50  463.30   1.80           X SAND       SN4 SS BR 0 2 3 3       R  2 BD      88                   B)
L                                             2A    SI3 // LC 3                                   C(
R      461.50  463.30      MUDDY SAND, LOCALLY DEFORMED TO BRPM.

/      463.30  465.12   1.62           X BRHT CR    *S= R* B*         MO7   R               <*                8)
L                                                       F*      1     LN1                               V+

/ FLT  465.12  467.20   2.08             CGBR CR    *S+ R* H*         LO4   P               <)                7+
L                                             3A        DB    4 *     KN4                         C.
R      465.12  467.20      UNIT IS BORDERLINE BRHT-CGBR:  ROUNDED CLASTS, YET POORLY
R      465.12  467.20      SORTED.  QZ MICROVEINS CUT BY SHEARS.  ONE 8CM SAND CLAST.
R      465.12  467.20      CONTACTS GRADATIONAL.  PY REPLACEMENT, MICROVEINS.

/ FLT  467.20  470.30   3.10             CGPS           DB FU 3 5 1 7       P               <)                7+
L                                             4A        M;    4                                   C.
```

```
K  F   F R O M - T O -  I N T RECOV  RD % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                           R Q D  AGE EV RQ LC TM QM2 TX TX S C U O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/       469.55  469.65   0.10          X VEIN                          R                >9                    B*
L                                            Y                                                      Q-

/ FLT   470.30  474.50   4.20            BRPM       SN3                LO3   P          <+                    7+
L                                          3A       *C=        +       LO2                     C(

/       470.30  470.92   0.62          X SAND          // SS 2 4 3 5         R  2 BD       75 <*                    D*
L                                          3A          SC    6                                 C.

/       471.83  474.50   2.67          X BRPM       SN3                LO3   R          >1                    7+
L                                          3A       *C=        +       LO2                     C(

/       474.00  474.50   0.50          X VEIN                          R                >9                    B+
L                                            Y                                                      Q1

/ SHR   474.50  475.70   1.20            CGBR       *S+ IB DB          LO6   P    IB       65                    8)
L                                          2A       *C1                KM3                     C.

/ SHR   475.70  476.30   0.60            CGPS       SH8 BR SS 2 4 4 5        P          V(                    R)
L                                                      DB CU 6                                 C.

/ SHR   476.30  477.30   1.00            BRPM       SN6 BR             LN1   P          <)                    R)
L                                          2A       *S+        +       LN2                     C.

/ SHR   477.30  479.20   1.90            SAND          SS SC 2 4 4 6         P  2 BD       75 <*                    B*
L                                          3A          G;    5

/ SHR   479.20  483.20   4.00            BRPM       SN6 BR             MP2   P          #1                    6)
L                                          2A                          KL1                     C.
R       479.20  483.20       PY AS REPLACEMENT BLEBS, MICROVEINS.  SOME QZ MACROVEINING

/       482.15  483.20   1.05          X BRPM SF    SN4 BR             LO2   R          <)                    B) Q(
L                                          3A       *S+                KN4                          <)
R       482.15  483.20       FRAGMENTS OF QZ-SD VEINS.  INTERVAL POSSIBLY FRG.

/ FLT   483.20  494.00  10.80            BRHT CR SF SN1 F* R*          MS7   P                                6+
L                                          2A       *S=           )    KN2                     C- B.
R       483.20  494.00       ARSI MAKES UP ARG.  FRAGMENTS FILLED BY HIGH CHERT MATRIX.
R       483.20  494.00       RARE ARGL/CR CLASTS WITH SD BLEBS.

/       489.20  489.30   0.10          X VEIN          BR              R                >9                HE <+
L                                            Y                                                      B+    R.

/ FRG   489.80  490.15   0.35          X SAND          MX CU 3 4 4 5         R                                B(
L                                          3A          G:                                      C.

/ FRG   493.00  493.30   0.30          X BRPM SF    SN4 F* R*          LO2   R          <)                    B) Q(
L                                          3A       *S+                LN3                          <)
R       493.00  493.30       IDENTICAL TO BRPM FRG.  482.15-483.20M.  ANGULIR TO SUBROUNDED
R       493.00  493.30       FRG.
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K  F  F R O M - T O -  T O T RECOV  NO % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                         R Q D  AGE EV RO LC IM QM2 TX TX S C U O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/ FAL  494.00  497.60   3.60         BRPM SF CR SN4 R* F*         M02   P           <+                   6= Q?
L                                         3A         B*           KN3                           <)
R      494.00  497.60      ANGULAR TO ROUNDED CHERT, ARGL CLASTS.  SOME ARGL/CR WITH SD-
R      494.00  497.60      BLEB IN EUHEDRAL CRYSTALS.

/ FAL  497.60  498.82   1.22         BRPM SF CR SN5               LN3   P           V=                   6)
L                                         1A                      KM=                       C. B-

/ FAL  498.82  502.10   3.28         BRPM SF CR SN4 R* F*         M02   P           >1                   6= Q?
L                                         3A         BR ST        KN3                           >1

/ FAL  502.10  504.00   1.90         BRHT CR         R*           MP9   P           >=                   6)
L                                         1A                      KM1                       C.

/ FAL  504.00  508.41   4.41         CGXX       SN1 DR VG 4 6 4 7       P           V+                   6+
L                                         3A         R* F* 3                                C- R+
R      504.00  508.41      SIDERITIC MATRIX.  PY REPLACEMENT, MICROVEINS.  CORE PITTED, BY
R      504.00  508.41      FLUIDS MOVING THROUGH FAULT.  SAND CLASTS ABSENT.

/ FAL  508.41  511.76   3.35         BRHT            R* F*        M09   P           >=                   7)
L                                         1A                      KM=                       C-

/ FAL  511.76  515.00   3.24         CGBR SF    SN3 DR VG         LN3   P           >+                   8+ B?
L                                         2A                      JL6                       C-
R      511.76  515.00      MOST ARGL CLASTS SILICIFIED.

/ FAL  515.00  534.92  19.92         BRHT CR    *S= R*            NR9   P           <*     V*     C-     8)
L                                         1A    *C=          =    LO=                       C*

/      515.00  534.92  19.92       = CGXX SF    SN3 DR    3 5 3 7       R                                R) R(
L                                         3A              3                                 C.
R      515.00  534.92      SERICITE VEINS.  LARGE ARGL/ARSI CLASTS IN HIGH CHERT, MUDDY OR,
R      515.00  534.92      RARELY, SANDY MATRIX.  CGXX CLASTS HAVE PY BLEBS.  NOTE THAT
R      515.00  534.92      PGI HAS MINIMUM AMOUNT OF CHERT FOR BRHT.
R      515.00  534.92      GENERALLY RANGE FROM 5 TO 30 CM.

/      534.92  553.52  18.60         BRHM CR    SN+ F* R*          S9   P           V+                   7+
L                                         1A    *S)               LO)                                       B.

/ FRG  534.92  553.52  18.60       = CGXX SF    SN3 DR R* 3 5 3 7       R                                R+ R.
L                                         3A         F* H* 3                                C.
R      534.92  553.52      INTERMITTANT CARBONACEOUS ARGL OR ARSI CLASTS IN MUDDY TO SANDY
R      534.92  553.52      MUD MATRIX.  RARE CHERT CLAST MATRIX.  MOST CHERT CLASTS
R      534.92  553.52      ISOLATED.  PY-D, R, BLEBS IN QZ-VEINS, AND VEINLETS.  RARE SL
R      534.92  553.52      BLEBS IN QZ.  POSSIBLE WITHERITE IN QZ-VEINS.
R      534.92  553.52      ONE FRAGMENT VUGGY.

/ FRG  553.00  553.30   0.30       X CGPS GR    SN4 DR    3 5 4 7       R                                R)
L                                         3A              3                                 C. D)
R      553.00  553.30      SIDERITIC MATRIX.
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K  F  F R O M - T O -  L N T RECOV  MD % ROCK TM TM GM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                              R Q D  AGE EV RQ LC TM GM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA


/      553.52  557.00   3.48             BRPM         *S+ R* B*           M02   P               V)                 8+
L                                                     SN2 F* DB           LP3                            R*
R      553.52  557.00      SO REPLACED CLASTS.  PY-R, VEINLETS.  ANGULAR TO SUBROUNDED.

/      557.00  590.00  33.00             BRHM CR SF *C) R*                OS9   P               V)                 6+
L                                              1A     *S+           =     LP+
R      557.00  590.00      ARGL FRAGS VARIABLY CR, AND SF.  MATRIX MUDDY WITH CHERT AND
R      557.00  590.00      ARGL FRAGMENTS.  PY VEINING, REPLACEMENT.

/      577.05  577.20   0.15           X BRHM CR SF *C) R* BR             OS9   R               #6                 6+
L

/      579.25  590.00  10.75           X BRHM CR SF *C) R*                OS9   P               V)                 6+
L                                                                                                     C-

/      590.00  601.50  11.50             CGBR SF          DB F*           LN3   P               V)                 8(
L                                              3A            R*           L07
R      590.00  601.50      LITTLE CHERT REPLACEMENT BY PY.

/      601.50  602.59   1.09             BRHT         SN1                 L09   P               <=                 7+
L                                              1A     *C=              C KL=
R      601.50  602.59      LARGE, ROUNDED ARGL CLASTS WITH CHERT IN MUDDY MATRIX.

/      602.59  603.70   1.11             CGXX         *C3 F*              KL2   P               <+                 6=
L                                              3A                      C LN7
R      602.59  603.70      POOR SORTING SHOWN BY MUDDY MATRIX.

/ FAL  603.70  606.55   2.85             VEIN CR          BR    0 1   2         P               #9                 #=
L                                               N
R      603.81  606.55      ROCK TYPE UNIDENTIFIABLE:  ONLY ARGL CAN BE SEEN IN THE RUBBLE.

/ FAL  606.55  608.99   2.44             FAUL CR GR GG9                         P               <=                 <+
L                                               N
R      606.55  608.99      ROCK TYPE UNIDENTIFIABLE.  PROBABLY BRHM.

/      608.99  621.49  12.50             BRHM CR GR SN=                   NQ9   P               V)                 7+
L                                               N SF                      KM)
R      608.99  621.49      PY-REPLACES SAND/SILT BEDS IN ARSI, AND AS VEINING.  VARIABLY
R      608.99  621.49      SF.

/      620.40  620.75   0.35           X BRHM CR GR SN= BR                NQ9   R               #1                 #6
L
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G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :81-00085	COLLAR ELEVATION: 1244.36	AZIMUTH(DEG) : 0.00	GEOLOGGED BY : JWP +
TOTAL DEPTH/LENGTH : 324.31	NORTHING(- IF S): 7002370.00	VERTICAL ANGLE : -90.00	DATE (YY/MM/DD): 811012
CORE/HOLE DIAMETER : 5050	EASTING (- IF W): 436553.06	CO-ORD SYSTEM : UTM	PROJECT NUMBER : J-S

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	12.00	49.80	-87.80
2	24.00	49.90	-87.58
3	37.00	67.80	-86.50
4	49.00	79.60	-86.92
5	61.00	92.50	-86.67
6	73.00	111.40	-86.50
7	85.00	103.30	-87.00
8	98.00	97.20	-86.17
9	110.00	99.10	-86.03
10	122.00	119.10	-86.25
11	134.00	118.00	-86.17
12	146.00	119.00	-85.75
13	159.00	113.00	-86.67
14	171.00	114.00	-86.83
15	183.00	108.00	-87.47
16	195.00	135.00	-85.50
17	207.00	146.00	-85.10
18	219.00	143.10	-84.92
19	232.00	155.10	-84.53
20	244.00	156.10	-84.25
21	256.30	166.30	-84.17
22	268.00	164.40	-84.05
23	280.00	159.50	-82.00
24	289.86	160.00	-83.25
25	302.06	156.00	-82.00
26	316.38	153.00	-81.00
27	323.29	148.00	-80.50

```
  F   - I N T E R V A L -    CORE  I- %     TYPI- QAL  TEX-  GRAIN        PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K L (UNITS =    . DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                      H  H  H  H  H ANY H  H  H ANY  ALT ORE
E A  (MT=METRIC FT=FOOTRIC)  ERY    O I      TM TM MAT TX TX F C % M ARG  /PI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y G  F R O M - T O -  T N T ( . )  O X TYPE  1  2 QM1  1  2 F F C A        1     AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- - - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K F                         ROCK   FM    RT   TM QM2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E L                         QUAL   AGE EN- O LC- 3    3  4 O    /           2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y G                         DESIG     VIR   COL           R     C             STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2   2
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```
R SVY    0.00    0.00      THIS DATA IS ASSUMED TO BE MORE ACCURATE AND SHOULD BE USED
R SVY    0.00    0.00      FOR PLOTTING THE SECTION.
R SVY    0.00    0.00      THE LAST PART OF THIS HOLE WAS NOT GYRO LOGGED SO SPERRY SUN
R SVY    0.00    0.00      SINGLE-SHOT DATA WILL BE USED TO COMPLETE THE PLOT.

/        0.00   21.95  21.95            OVER                          P
L
```

```
K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                        R Q D  AGE FV RQ LC TM OM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R        21.95   24.82         CLASTS RANGE FROM 1CM TO 4CM.  THIS IS THE SAME AS THE BEDDED
R        21.95   24.82         ARSI EXCEPT THE BEDDING IS CHAOTIC AND HAS BEEN BRECCIATED.
R        21.95   24.82         THIS COULD BE FROM DEWATERING AND OR SLUMPING.

/        21.95   66.03  44.13             ARSI        SN= BD SS A I = J        P  2 BD      63              D. L- HE D*
L                                      3A         SI+ //                                                L-     D-

/        21.95   24.82   2.87           X ARSI        *S1 BR SS                R                            D. L- HE D*
L                                      3A         SI=                                                   L-     D(
R        21.95   66.03         THE PY, HE CONC.  IN THE SAND AND SILT BEDS.  DIPS RANGE FROM 60
R        21.95   66.03         TO 65 DEGREES.  ALONG FRACTURES AND SHEAR PLANES A THIN, SOFT
R        21.95   66.03         WHITE TO PURPLISH MINERAL IS FOUND.  THERE IS SOME SLUMPING AND
R        21.95   66.03         BRECCIATED AREAS WHICH ARE REPEATED OUT.

/        34.09   35.61   1.52           X ARSI        *S1 BR SS                R                            D.        D*
L                                      3A         SI+                                                   D-
R        34.09   35.61         THIS IS THE SAME ARSI BUT WITH CHAOTIC BEDDING AND IS BRECCIATED
R        34.09   35.61         THE GROUND WAS BLOCKY HENCE POORER RECOVERY.  THIS SIMILAR TO
R        34.09   35.61         THE ABOVE.

/        37.97   45.55   7.58           X ARSI        *S1 BR SS                R                            D.     HE D)
L                                      3A         SI+                                                          D(
R        37.97   45.55         THE GROUND IS BLOCKY, THE CORE IS ALL SMALL CHUNKS.  A SOFT
R        37.97   45.55         WHITE, GREASY MINERAL IS FOUND AS A COATING ALONG FRACTURES.
R        37.97   45.55         THE HE AND PY ARE FOUND IN THE SAND CLASTS PREDOMINATLY.

/        46.63   52.42   5.79           X WEDG                                 R
L
R        46.63   52.42         A HALL AND ROWE STEEL WEDGE WAS USED TO STEEPEN THE HOLE.
R        46.63   52.42         THEREFORE THERE IS A REPEAT OF CORE FROM 46.63 TO 52.42M AND THE
R        46.63   52.42         BOTTOM OF THE WEDGE IS AT 52.42M.

/        53.20   53.44   0.24           X ARSI        *S2 BR SS                R                                      D-
L                                      3A

/        58.00   61.20   3.20           X ARSI        SN)                      R                 D-
L                                                 SI+

/        63.10   66.08   2.98           X ARSI        SN= BD SS A I = J        R  2 BD      63              D. L- HE D*
L                                                 GGX

/        66.08   71.63   5.55             ARSI        SN= // DB A I / J        P  2 BD      60              D-     HE D*
L                                      3A         SI= SS                                D.              D(     D(

/        67.09   70.10   3.16           X ARSI        SN= // DB A I / J        R  2 BD      89              D-     HE D*
L                                      3A         SI= SS                                D.              D(     D(

/        68.28   71.63   3.35           X WEDG                                 R
L
R        68.28   71.63         HALL AND ROWE STEEL WEDGE, FULL STEEPENING.  WEDGE POINT IS AT
R        68.28   71.63         71.63M AND THIS INTERVAL IS WHERE CORE WAS DUPLICATED.
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                                                                  PAN OCEAN OIL LTD.
G E O L O G                                                 JASON PB-ZN-AG-BA SIF DEPOSIT, Y.T.                                         PAGE -  3
                                                        DRILLHOLE/TRAVERSE --- 81-DH085 --- (CONTINUED)

K  F  F R O M - T O -  T O T RECOV  MO % ROCK TN TN QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                               R Q D  AGE EV RN LC TM QM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD OS HA PR MT SL HA

/        71.63  83.76  12.13                 ARSI       SN= //    A 1 1 J       P  2 BD      68          D. D- HE D*
L                                                 3A    SI+ DB SS                                        D-     D(
R        71.63  83.76      SOME PY IS SEEN AS REPLACEMENT CLASTS.

/        74.41  76.80   2.39               X ARSI       SN= BR DB               R                        D- D. HE D)
L                                                 3A    SI= SS                                                  D(
R        74.41  76.80      THE PY IS FOUND DISS. IN THE SANDY BEDS BUT ALSO AS CLASTS.

/        81.99  83.76   1.77               X WEDG                               R
L
R        81.99  87.78      HALL AND ROWE STEEL WEDGE, FULL STEEPING.  STARTED CORING AT
R        81.99  87.78      81.99 BOTTOM AT 87.78.  THE CORE IS REPEATED FROM 84.43 TO
R        81.99  87.78      87.78M.

/        83.76 115.68  31.92                 BRBM       *S2 DB R*         LR8   P    CL        90 <)       D- <) HE D)
L                                                           SS          2 0                          D.       C-     **

/        83.76  87.78   4.02               X WEDG                               R
L
R        83.76 115.68      THE SN CLASTS ARE ARSI.  THIS HAS CHAOTIC BEDDING AND SLUMPING
R        83.76 115.68      FEATURES.  THIS HAS NOT MOVED FAR FROM ITS SOURCE AND IS VERY
R        83.76 115.68      SIMILAR TO THE UNIT ABOVE IT.
R       106.50 109.60      BEDDING SHOWN BY SMALL SAND BEDS IS SEEN DIP IS 90 DEGREES.

/       115.68 126.49  10.81                 BRPM GR CR *S= SS R*         KN3   P                        D.     HE *(
L                                                       *C+           =   LO=                            D(     D.
R       115.68 126.49      THE FIRST CHERT CLASTS ARE FOUND HERE.  BEDDING IS CHAOTIC DUE
R       115.68 126.49      TO THE RESULT OF DEBRIS FLOWS.  SOME OF THE PY IS FOUND
R       115.68 126.49      REPLACING THE CHERT PEBBLES.  THE MATRIX IS MUDDY AND SANDY
R       115.68 126.49      WHICH MAKES GREATER THAN 50% OF THE ROCK.
R       117.04 121.31      THE CORE HAS BEEN DUPLICATED FOR THIS INTERVAL.

/       119.18 121.31   2.13               X WEDG                               R
L
R       119.18 121.31      HALL AND ROWE STELL WEDGE, HALF AZM RIGHT HALF STEEPENING.

/       126.49 139.18  12.69                 BRPM GR    *S2 *R SS         MT4   P               <-       <- C( HE D)
L                                                                     2   LN)                            D-     D-
R       126.49 139.18      LARGER AND MORE CHERT PEBBLES ARE FOUND.  THE SANDY-MUDDY MATRIX
R       126.49 139.18      IS LESS A LOT OF THE ARGL CLASTS ARE ACTUALL ARSI CLASTS.
R       137.46 137.46      CHANGED FROM HQ TO NQ CORE, BECAUSE NO HQ WEDGES LEFT.

/       139.18 149.08   9.90                 BRBT GR CR     *R SS         MP6   P               <(       <- C.     R)     D.
L                                                           H* G:         KO1                         C- D-

/       140.51 141.52   1.01               X WEDG                               R
L
R       140.51 141.52      CLAPPISON WEDGE, FULL STEEPENING.

/       143.17 143.41   0.24               X ARSN       SN3 LC    A F 3 G       R  1 BD      40                 L*
L                                                 4A    SI= SS
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                                                            PAN OCEAN OIL LTD.
 G E O L O G                                       JASON PB-ZN-AG-BA STF DEPOSTT, Y.T.                                    PAGE -  4
                                               DRILLHOLE/TRAVERSE --- 81-DH085 --- (CONTINUED)

 K  F  F R O M - T O -  I N T RECOV  MD % ROCK TM TM QN1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 Y  G                          R Q D  AGE EV RO LC TM QN2 TX TX S C G O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

 /      146.90  147.40   0.50           X ARSI       SI1 LM LC A E 1 F        R  1 BD       70                        HE D-
 L                                             3A    SN= SS                                                           D.

 /      148.26  149.08   0.82           X SAND          G:     F I 5 O        R                 <(                    HE D*
 L

 /      149.08  154.68   5.60             BRHT GR    *S1 SS R*          MO2   P                 <(       <-              D)
 L                                             7A    *C4 P*          1 C JN5                            C.
 R      149.08  154.68         PY IS FOUND IN THE MATRIX BUT ALSO IT IS SEEN STARTING TO
 R      149.08  154.68         REPLACE CHERT CLASTS.

 /      154.15  154.68   0.53           X BRHT GR    *S1 SS R*          MO2   R                 <(       <-              D)
 L                                                   GGX

 /      154.66  160.94   6.26             ARSI GR CH SI=     SS A F 1 G       P  2 BD       20 <-                            D)
 L                                             3A    SN)        7                  CV       90
 R      154.66  160.94         MICROFAULTS ARE SEEN DISRUPTING THE BEDS.

 /      156.36  157.88   1.52           X WEDG                                R
 L
 R      156.36  157.88         CLAPPISON WEDGE FULL STEEPENING

 /      160.65  160.80   0.15           X SAND                 E F 5 G        R                 <-                       D(
 L                                             8A               8

 /      160.94  174.03  13.09             BRPM GR    *S= SS R*          JP4   P                                          D(
 L                                             5A                       JN+                             C.    <*
 R      160.94  174.03         TRANSPORTATION OF THIS DEBRIS FLOW WAS IN A MUD, SHOWN BY THE
 R      160.94  174.03         MATRIX.  THE CLASTS ARE CHAOTICALLY DISTRIBUTED AND THE MUP
 R      160.94  174.03         FLOWS AROUND THE CLASTS.

 / FRG  174.03  183.84   9.81             BRHT GR          R* F*        LO1   P                                          D)    D.
 L                                             7A          R*           JO7                             C.    <)
 R      174.03  183.84         PY IS SEEN DISS.  BUT ALSO AS REPLACEMENT CLASTS.  GR IS FOUND
 R      174.03  183.84         ALONG SHEARS AND AT THE EDGE OF CLASTS.

 /      174.65  176.17   1.52           X WEDG                                R
 L
 R      174.65  176.17         CLAPPISON WEDGE FULL STEEPENING.

 /      183.84  186.73   2.89             ARSI       SI1 LM      A E 1 F      P  2 BD       55                           D)
 L                                             2A    SN+ SS     8                  CV       90

 /      186.73  195.56   8.83             BRHT GR    SN= R* R*   =      LT6   P                                          D+
 L                                             4A                       JO1                             C-
 R      186.73  195.56         LARGE CLASTS ARE PRESENT, ONE SUCH CLAST AT 192.55 TO 192.94M.
 R      186.73  195.56         SHOULD BE NOTED.  IT IS A CONGLOMERATE WITH A SANDY-PEBBLY
 R      186.73  195.56         MATRIX.

 /      192.94  194.46   1.52           X WEDG                                R
 L
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```
 K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 Y  G                         R Q D  AGE EV RQ LC TM QM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

 R       192.94  194.46        CLAPPISON WEDGE, FULL AZM RIGHT

 / FRG   195.56  209.70  14.14              ARSI        SI1        A E 1 F        P  2 BD       68                   L)
 L                                              3A      SM)
 R       207.87  211.23        HALL AND ROSE STEEL WEDGE, FULL AZM RIGHT.

 /       209.70  233.04  23.34              BRHM GR        R* H*           MT8    P                                  D)     D.
 L                                              3A         SS              IN+                         C-    <(
 R       209.70  233.04        IN THE QUARTZ SIDERITE VEINS MINOR GL WAS FOUND.  THE BRHM IS
 R       209.70  233.04        PROBABLY FORMED FROM LARGE SCALE SLUMPING OR SLIDES, SOFT
 R       209.70  233.04        SEDIMENT FEATURES ARE PRESENT.

 /       233.04  245.00  11.96              BRHM GR CB *S+ SS R*           LO7    P                               GR D*     D.
 L                                              4A                    +    JK*                         C-    <* D)          D.
 R       233.04  245.00        THE PY IS FOUND AS R* AND CONC.  IN THE *S BUT ALSO D THROUGHOUT
 R       233.04  245.00        THE MATRIX AND ARGL CLASTS.  THE GL CAN BE FOUND ALONG SHEARS.
 R       233.04  245.00        AS A COATING BUT IT IS ALSO AS SMALL FLAKES IN SPOTS.  WITHIN
 R       233.04  245.00        THE QS VEINS GL AND SL ARE FOUND DISSEMINATED.

 /       235.61  237.13   1.52            X WEDG                                  R
 L
 R       235.61  237.13        CLAPPISON WEDGE, FULL AZM RIGHT.

 /       245.00  260.41  15.41              BRHM GR        SS R*           KQ9    P                          D.      D*
 L                                              4A                         LM+                         C-    <+

 /       253.90  255.42   1.52            X WEDG                                  R
 L
 R       253.90  255.42        CLAPPISON WEDGE, FULL AZM RIGHT.

 /       260.41  267.31   6.90              BRHT GR     *B= SS R*          KU)    P                                  D)
 L                                              6A      *S+ F*        =    DO7                         C-    <(
 R       260.41  267.31        AT TOP OF THIS UNIT IT IS ALMOST ALL CHERT CLAST BUT TOWARDS THE
 R       260.41  267.31        BASE MORE SAND CLASTS AND CLASTS OF BRXX ARE PRESENT.

 /       267.31  293.80  26.49              BRHT GR     BR) SS R*          NT8    P                                  D*
 L                                              3A      SM)    F*     +    KO=                         C)
 R       267.31  293.80        THIS IS A CHAOTIC BRXX
 R       275.41  276.58        A LARGE ARSI CLASTS.

 /       293.80  295.80   2.00              BRPM           F* H*           LP2    P                                  D(
 L                                              6A                         KO4                         C-

 /       295.80  310.25  14.45              BRHT CR     SM= R* H*          OS8    P                  <.              R(
 L                                              2A      *S= R*             LO=                         C*
 R       295.80  310.25        CLASTS DOMINANTLY ARSI.

 / FRG   299.10  299.54   0.44            X CGXX SF        R* CU           LO2    R                  <.              B(
 L                                              7A                         LN8                            #1
 R       299.10  299.54        SIDERITIZED MATRIX.  SF OF ARGL ARSI CLASTS.

 /       299.54  310.25  10.71            X BRHT CR     SM+ R* H*          OT8    R                  <.              R(
 L                                              2A                    =    MO
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K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM NM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                              R N D  AGE EV RN LC TM NM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R        299.54  310.25        CHERT CLASTS GENERALLY ROUNDED, SAND SUBROUNDED, ARGL/ARSI
R        299.54  310.25        ANGULAR.  THREE LARGE (1.5 TO 2M) CLASTS:  2 ARGL SEPARATED BY
R        299.54  310.25        ABOUT 5CM OF LOW CHERT BRHT, AND ONE ARSI TO ARSN CLAST.

/        310.25  311.88   1.63             BRHT SF        G;             J01   P                                    D.
L                                               8A                            FN8                         C.    <.
R        310.25  311.88        THIS BRHT IS GRADED TOWARDS THE TOP OF THE HOLE.

/        311.88  324.31  12.43             BRHT GR     *S= R* H*          MU6   P                                    D(
L                                               GR          H*     1 =      LO2                         C.    <(

/ FRG    317.78  318.08   0.30          X CGXX SF                G K 5 M         R                                    D*
L                                               8A                5
R        317.78  318.08        END OF LITH. LOG
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G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :81AAH068	COLLAR ELEVATION: 1275.94	AZIMUTH(DEG) : 0.00	GEOLOGGED BY : BHO +
TOTAL DEPTH/LENGTH : 869.93	NORTHING(- IF S): 7002472.00	VERTICAL ANGLE : -90.00	DATE (YY/MM/DD): 810000
CORE/HOLE DIAMETER : HQNQ	EASTING (- IF W): 436496.25	CO-ORD SYSTEM : UTM	PROJECT NUMBER : J-S1

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	30.00	146.90	-89.47
2	61.00	169.10	-87.40
3	91.00	151.30	-85.47
4	122.00	131.50	-86.75
5	152.00	124.20	-86.42
6	183.00	121.80	-86.10
7	213.00	117.80	-86.00
8	244.00	117.20	-85.38
9	274.00	120.10	-84.13
10	305.00	132.80	-84.92
11	335.00	151.50	-84.20
12	366.00	164.00	-80.53
13	396.00	164.50	-77.00
14	427.00	157.50	-74.20
15	457.00	154.20	-69.00
16	488.00	154.30	-64.80
17	518.00	154.80	-58.13
18	549.00	158.60	-49.80
19	579.00	162.80	-46.00
20	610.00	166.30	-43.00
21	640.00	165.90	-40.50
22	671.00	166.60	-39.00
23	701.00	167.90	-37.33
24	724.00	167.30	-37.00
25	735.79	166.50	-37.50
26	747.98	165.00	-36.50
27	760.17	166.50	-36.50
28	772.36	167.00	-36.67
29	784.56	166.00	-36.50
30	796.75	165.00	-36.00
31	808.94	164.00	-36.00
32	821.13	166.00	-36.00

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                                     DRILLHOLE/TRAVERSE --- 81AWH068 --- (CONTINUED)
                    33               833.32            165.00            -35.00
                    34               845.52            166.50            -34.00
                    35               851.61            166.00            -33.75

R HED                    NO CORE

   F    - I N T E R V A L -     CORE  T- %       TYPI- QAL  TEX-  GRAIN        PGI    STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L  (UNITS =   .  DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                           H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MT=METRIC FT=FOOTRIC)  ERY     O 1       TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN  - - - -
Y  G  F R O M - T O -  I N T ( . )  D X TYPE  1  2 OM1  1  2 F F C A          1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                       ROCK    FM     RT     TM NM2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                       QUAL   AGE EN- N LC- 3       3  4 O     /           2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y  G                       DESIG      VIR   COL                R     C           STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2   2

R SVY     0.00     0.00      SURVEY DATA DONE BY GYROSCOPIC DIIRECTIONAL SURVEY
R SVY     0.00     0.00      SPERRY SUN OF CANADA.
R SVY     0.00     0.00       GYROSCOPIC DATA ENDS AT 724.00 M.  FROM 735.79 M TO 869.93 M
R SVY     0.00     0.00       WAS DONE BY SPERRY SUN MULTI-SHOT SURVEY.
R SVY   869.93   869.93       END OF WEDGED HOLE A.
R SVY     0.00     0.00       THE GYROSCOPIC DIRECTIONAL SURVEY IS CONSIDERED MORE ACCURATE
R SVY     0.00     0.00       THAN SPERRY SUN SINGLE AND MULTI-SHOT DATA.  THEREFORE THE
R SVY     0.00     0.00       SURVEY INFORMATION IN S000-S035 SHOULD BE USED FOR PLOTTING
R SVY     0.00     0.00       PURPOSES.
R SVY   735.79   851.61       10 DEGREES WAS ADDED TO ORIGINAL MULTI-SHOT DATA TO NULLIFY
R SVY   735.79   851.61       THE MAGNETIC DISCREPANCIES. ORIGINAL DATA MAY BE OBTAINED BY
R SVY   735.79   851.61       SUBTRACTING 10 DEGREES FROM THE AZIMUTH.

/          0.00   348.69 348.69           MISS                                   P

/        348.69   357.16   8.47           BRPM                        NO8        P
L                                    5A      *S-        2 ) )         LN=

/        354.50   357.16   2.66        X ARSI CB     SN= 80     0 3 = 3        R  2                             <)      D)
L                                    2A
R        354.50   357.16      FRAG CUT BY QS VNS WITH MNR PYR. PYR ALSO DISSEM IN
R        354.50   357.16      SAND LAYERS.

/        357.16   364.40   7.24           BRHT                        NP6        P                <.       <.        D(
L                                    6A      *S)        2    )        LP3

/        364.40   367.75   3.35           BRHT                        KG4        P                                  D-
L                                    6A                 5             IM6
R        364.40   367.75      SANDY INTERVAL(SANDY MTX).

/        367.75   379.30  11.55           BRHT                        OS7        P                        V.        D-
L                                    4A      *S+        2 ) +         MO2

/        379.30   391.00  11.70           BRHM CH GR                  RS9        P                                  D-
L                                    3A      *S)        2    )        LN)
R        379.30   391.00      SOME ARGL FRAGS ARE CARB(BLK)
R        379.30   391.00      A COUPLE OF NARROW (UP TO 5 CM) SAND ZONES ARE PYRITIZED.

/        379.60   383.15   3.55        X FAUL GR     GG1                     R
L
R        379.60   383.15      APPROX 60% OF INTV RUBBLY CORE-PROBABLE FAUL-LOCALLY GR(ALONG
R        379.60   383.15      SLIPS).

/        391.00   399.90   8.90           BRPM                        TT8        P                                  D.
L                                    4A                 3             JN1
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/        5??.??  ???.??   ?.??            X ?AHL         ???                         R
L
                                                  PAN OCEAN OIL LTD.
 G E O L O G                               JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                          PAGE -  3
                                     DRILLHOLE/TRAVERSE --- 81AWH068 --- (CONTINUED)

 K  F   F R O M - T O -   I N T RECOV  MD % ROCK TM IN GM1 TX TX F C % M ARG   RT 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
 E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
 Y  G                         R Q D  AGE EV RO LC TM OM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

 /       399.90  412.18  12.28            BRHT        *S)               SU8    P                                   D-
 L                                            5A                 3 ) )  KN=
 R       399.90  412.18       ARSI CLASTS SHOW SOFT SED. SLUMP TEXTURES.

 / SIG   410.05  411.80   1.75          X SAND            MX     3 4 1 4       R                                   D(
 L                                            7A                 8
 R       410.05  411.80       APPEARS TO BE IN PLACE SAND BED RATHER THAN A FRAGMENT.
 R       410.05  411.80       POSSIBLE MARKER BED. POSSIBLE LOAD STRUCTURES IN IRREGULAR
 R       410.05  411.80       ARGL PARTINGS INDICATES THAT TOPS ARE DOWN HOLE. POSSIBILITY
 R       410.05  411.80       THAT ARGL IS A FRAG HOWEVER, MAKES THIS UNCERTAIN.

 / SIG   412.18  420.32   8.14            BRHT        *S)               MT5    P                                   D-
 L                                            6A                 2   )  MP4
 R       412.18  420.32       TOP OF UNIT 2 EQUIV.-BRHT WITH CGCP FRAGS.

 /         0.00    0.00   0.00          X ARGL CR                              R                 #-       #+       #(
 L                                            3A                                                    #+
 R       412.18  420.32       BREC. TEX INFILLED WITH SERICITE & LESSER QTZ, CARB & PYR.

 /       420.32  426.60   6.28            BRHT                              GR3    P                                   D(
 L                                            6A      *S+        2 5 +  JO=                                  <*

 /       426.60  429.40   2.80            BRHT        *S*               MS9    P                                   D*
 L                                            4A                 3 ( *  KN+

 /       429.40  434.60   5.20            BRHT        *S=               NS3    P                                   D-
 L                                            5A                 2 2 =  MO3

 /       434.60  442.04   7.44            BRHT                              PQ2    P                                   D-
 L                                            7A      *S+        3 4 +  MO2

 /       442.04  451.60   9.56            BRHT                              OU5    P                                   D-
 L                                            5A      *S)        2 + )  MP4

 /       443.50  445.75   2.25          X ARGL        SN=                      R
 L                                            4A
 R       443.50  445.75       FRAGMENT.

 /       451.60  461.00   9.40            BRHT        S*.               OS2    P
 L                                            6A      *S=        2 * =  JO6
 R       451.60  461.00       MTX GENERALLY SANDY
 R       451.60  461.00       POSSIBLE SULFIDE FRAGMENT (2CMS) AT 454M CONTAINS GL, PY & CAR-
 R       451.60  461.00       BONATE (DOLOMITE?)
 R       451.60  461.00       POD OR FRAG OF BITUMEN AT 457M =RHOMBIC BITUM. GRAINS WITH
 R       451.60  461.00       INTESTICES FILLED BY QTZ (SEE SKETCH BELOW).

 /       461.00  475.00  14.00            BRHT                              NU7    P                                   D.
 L                                            5A                 2      LN 3                                              <.
 R       461.00  475.00       IRREGULAR VEINLET OF SL & CALCITE WITH MINOR PY AT 461.0M.
 R       461.00  475.00       MANY FRAGMENTS ARE ARSH.
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                                                                  PAN OCEAN OIL LTD.
 G E O L O G                                           JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                     PAGE -  4
                                                    DRILLHOLE/TRAVERSE --- 81AWH068 --- (CONTINUED)

K  F  F R O M - T O -  I N T RECOV RD % ROCK TM TM 001 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R O D AGE EV RU LC TM QM2 TX TX S C U O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R      451.00  475.00      FRAG OF ARGL(?) 462.6-4630 APPEARS TO BE HYDROTHERMALLY
R      451.00  475.00      ALTERED BLEACHED (LT GY) & LOCALLY SLIGHTLY SILICIFIED(?)
R      451.00  475.00      FRAG EXHIBITS INCIPIENT SOFT SED BRECCIATION.-
R      451.00  475.00      -CROSSCUT BY MINOR PY VEINLETS.

/      472.60  474.57   1.97          6 FAUL GR     GG1                     R
L

/      475.00  491.25  16.25            BRHT                           SU6   P                                 <-
L                                            6A                2 )   KN=

/      491.25  499.50   8.25            BRHM                           RU9   P                                 D-
L                                            4A              3 +     KN+

/      499.50  540.30  40.80            BRHM       SS1                 TWX   P               <.       <.       8*
L                                            4A              6
R      499.50  540.30      PREDOMINANTLY ARSI FRAGMENTS APPEARS TO BE A SLIGHTLY
R      499.50  540.30      DISTURBED ARSI UNIT CORE TO BEDDING ANGLES VARY FROM
R      499.50  540.30      0 TO 90 DEGREES. FRAGMENTS ARE TOUCHING WITH NO WELL DEFINED MTX
R      499.50  540.30      . LATE FRACTURES (0.1%) FILLED WITH A DRUSY GROWTH OF
R      499.50  540.30      DOLOMITE? (MEDIUM GREEN, RHOMBOHEDRAL) AND BARITE
R      499.50  540.30      (CLEAR, ACICULAR) XLS .

/      540.30  547.80   7.50            BRHT       *S+                 OT9   P               V-       V-       D-
L                                            5A              3 ) +   KN=

/      547.80  560.70  12.90            BRHT       *S1                 SU8   P               V-       V-       D-
L                                            5A              4 1 1   JL*

/ FRG  547.80  550.85   3.05          X ARSI       SN2        0 3 2 3       R
L                                            4A

/ FRG  553.65  554.80   1.15          X CGCP                                R
L                                            6A

/      560.70  580.00  19.30            ARSI       SN3 SS (L 0 3 2 3       P  1 BD      U40                   L-
L                                            5A                                        844

/      580.00  606.35  26.35            BRHM       *S)             )   TU9   P                        <-       L-
L                                            4A              7       KL*
R      580.00  606.35      UNIT APPEARS TO BE A SLIGHTLY DISRUPTED ARSI(20-30% SILT)
R      580.00  606.35      CONTAINS VERY LITTLE CHERT. ARSI FRAGS DOMINANT- THESE  SHOW
R      580.00  606.35      SOFT SED SLUMP TEX.

/      582.70  587.60   4.90          X FAUL GR                             R
L                                            4A
R      582.70  587.60      RUBBLY INTERVAL-LOCAL SLICKENSIDED GRAPHITIC SHEARS. NO FAUL GG.

/      606.35  619.02  12.67            BRHT                           MT2   P                                 D-
L                                            6A              3 6     LO2
R      606.35  619.02      EXACT SIGNIFICANCE UNCLEAR-MIDDLE OF INTV DOMINATED BY
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PAN OCEAN OIL LTD.

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G E O L O G                                       JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                       PAGE - 5
                                          DRILLHOLE/TRAVERSE --- 81AWH068 --- (CONTINUED)

K  F  F R O M - T O -  I N T RECOV  ND % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R Q D  AGE EV RQ LC TM QM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R      606.35  619.02      CGCP-UNCLEAR WHETHER CGCP IS ORIGINAL SEDIMENT OR FRAGS.
R      606.35  619.02      -PROBABLY FRAG.

/ FRG  609.50  615.54   6.04           X CGCP                               R
L
R      609.50  615.54      INTERVAL DOMINATED BY CGCP PROBABLE FRAG. POSSIBLY
R      609.50  615.54      SEVERAL FRAGS.

/      619.02  636.82  17.60             BRHM                         OU9   P               >+                D)
L                                             5A              3 + +   LO=
R      619.02  636.82      BRECCIATED INTV 626.67-627.79 INFILLED WITH QUARTZ.

/      636.82  641.82   5.60             BRHT SO    S*(               MQ4   P                                       D.
L                                                   *C) H*        (   KN6                          R*             D-

/ FGT  639.57  640.47   0.90           X ARSI                               R
L

/      641.12  641.82   0.70           X VEIN QZ                            R    V/      84                   D-    D-
L
R      636.82  641.82      BRECCIA MTX MATERIAL DOMINANTLY CONSISTS OF ANGULAR SAND TO
R      636.82  641.82      GRIT SIZE CHERT FGTS ALTERATION RIMS COMMON SOME SIDERITIZED
R      636.82  641.82      ANGULAR FGTS IN MTX TRACE SL AND GL IN MTX

/      641.82  656.40  14.58             SAND SO    *CI MX G; H K 4 O   3   P           U   >+                D.    D.
L                                             6A        8* F* 4         7                       D+             D-
R      641.82  656.40      THIS SEQUENCE MAY REPRESENT 2 BOUMA AB CYCLES. NOTABLE FEATURES
R      641.82  656.40      OF SAND UNITS INCLUDE 20% ANGULAR BLEACHED CH FRAGS.
R      641.82  656.40      ARGILLITE FRAGS & MTX PREFERENTIALLY SIDERITIZED.
R      641.82  656.40      MNR SL DISSEM LOCALLY IN MTX.
R      641.82  656.40      MNR SL, GL & PY IN QTZ VNS.

/      643.30  644.92   1.62           X CGXX SO                      MQ3   R
L                                             6A              8     C MN7                          D=
R      643.30  644.92      SIDERITE OCCURS AS DISSEM & ALSO AS VEINLETS CROSS-CUTTING FRAGS

/      646.00  646.90   0.90           X CGXX                         LN3   R                                 D.    D.
L                                             6A              6     C LN7                          D-

/      655.15  656.40   1.25           X CGXX                         LQ2   R                          D+       D+
L                                             6A              5     C LQ6

/      656.40  664.76   8.36             BRHT       *S=               QS6   P
L                                             5A              2   =   IN2                          D*       D+
R      656.40  664.76.     FINE MTX CONSISTS OF GRIT SIZE ANGULAR FGTS-BLEACHED RIMS COMMON
R      656.40  664.76      . PY SELECTIVELY COATS OR REPLACES PEBBLE SIZE CHT FRAGS.

/      664.76  669.06   4.30             BRHM CR                      QS9   P
L                                                                     JK)

/      669.06  678.70   9.64             BRHT                         QS7   P               <=                #1    #)
L                                                                     LO3                                           #)
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 K  F   F R O M - T O -  T W T RECOV  MD % ROCK TM TM WM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
 E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
 Y  G                           R O P  AGE EV RG LC TM WM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

 R        669.06  678.70      PY,GL,SL LOCALIZED IN CHT FRAG MTX,COMMONLY FORMING REPLACEMENT.

 /        678.70  684.20   5.50             BRHM SF         ST              OT9   P                V=        #+        #)     #*
 L                                               5A            4          LM)                                                   #*
 R        678.70  684.20      MTX BTWN BRX FRAGS CONTAINS PY GL SL & CA OF HYDROTHERMAL ORIGIN
 R        678.70  684.20      . MOSTLY INFILLING MTX & REPLACING CHT FRAGS. POSSIBLY A COUPLE
 R        678.70  684.20      OF SULFIDE FRAGS.

 K US1    684.20  684.20   0.00

 /        684.20  685.95   1.75             LMSX SL CB S*) BN LM               P  1 BD     T50 <(                   D+     L)
 L                                               GL CH6                                      B50                             L2
 R        684.20  685.95      SL LAM ALTERNATING WITH M & DK GY CHT BANDS UP TO 10 CMS. ZONE
 R        684.20  685.95      IS SILICEOUS. SL IS YW & L-M BN. PYR GENERALLY OCCURS AS DISSEM
 R        684.20  685.95      GRAINS. UPPER 20 CMS BRECCIATED & CONTAINS SULFIDE & BLK CHT
 R        684.20  685.95      CLASTS. ZONE V CALC. OCCASIONAL WAVY LAMINAE.

 /        685.95  687.14   1.19             MSSX SL GL CH4 MX                  P                  <(                    M1     M3
 L                                               CH                                                                          M3
 R        685.95  687.14      IRREG INTGWN SL GL PY CHT & CALC.

 /        687.14  690.44   3.30             LMSX SL GL CH5 BN LM               P  1 BD     T40 <*                   D+     L=
 L                                               CH     SS LC                                                                L3
 R        687.14  690.44      PRED LM & BN SL & CH. BDG IN PT SL CONVOLUTE, WAVY & DISCONT.
 R        687.14  690.44      LOCAL SLUMP FOLDING. SL RANGES IN COLOUR FROM YW TO M RD BN.

 /        690.44  691.55   1.11             BNSX SL GL CH8 ST                  P  2 BD     T60 <+        <+         D-     <*
 L                                                                                          B70                             L=
 R        690.44  691.55      PRIMARILY A CHT ZONE WITH SL BANDS(THESE BANDS CONTAIN ^20%SL).
 R        690.44  691.55      ZONE HAS BEEN SLIGHTLY FRACTURED SO THAT BEDDING IS TRUNCATED.
 R        690.44  691.55      & DISPLACED. NARROW QTZ & CALC VNS FILL THESE FRACTURES. VNS
 R        690.44  691.55      CONTAIN GL & MBN SL(AS OPPOSED TO EARLIER YW SL). MNR PYR OCCURS
 R        690.44  691.55      ALONG STYLOLITES.

 /        691.55  694.64   3.09             LMSX SL GL CH7 LM                  P  1 BD     T65 <)        <)         D)     L=
 L                                               CB                                          B50                             L1
 R        691.55  694.64      GENERALLY DELICATE LAMINATIONS-OCCASIONALLY WAVY & IRREGULAR.

 /        694.64  696.16   1.52             BNSX SL GL CH9 BN ST               P  2 BD     T70 V+        V+         D(     L*
 L                                               PY                                                                          L+
 R        694.64  696.16      PRED BANDED CHT (LT & M GY) OCCASIONAL SL-RICH & MNR GL-RICH
 R        694.64  696.16      LAM. SL, GL&PY ALSO OCCUR ALONG STYLOLITES. BANDS TEND TO BE
 R        694.64  696.16      IRREG & DISCONTINUOUS BECAUSE OF FRAC.

 /        696.16  702.59   6.43             LMSX SL GL CH7 LM BN               P  1 BD     T60 V+        V)         L)     L+
 L                                               PY                                                                          L2
 R        696.16  702.59      INTLAM SL & CHT(M-DK GY).SL GENERALLY DELICATELY LAM; OCC
 R        696.16  702.59      WISPY & DISCONTIN. LOCAL GL LAM.

 /        698.90  699.50   0.60           X FGSX SL GL CH6                    R                  <+        <+                #+
 L                                               PY                                                                          L1
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K  F  F R O M - T O -  I N T RECOV  MD % ROCK TM TM WM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R Q D  AGE EV RU LC TM GM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R     698.90  699.50        LOCAL ZONE OF INCIPIENT BRECCIATION FRAGS OF INTLAM CHT & SL.
R     698.90  699.50        BREC. PROBABLY DUE TO SLUMPING. INTERSTICES BTWN FRAGS INFILLED/
R     698.90  699.50        SL, GL, PY & CA. ALSO LATE QTZ-CA VNS.

/     698.58  700.30   1.72           X LMSX SL GL CH7 LM BN            R  1 BD      T80 V+        V)       L)    L+
L

/     700.30  702.59   2.29           X LMSX SL GL CH7 LM BN            R  1 BD      T60 V+        V)       L)    L+
L

/     702.59  705.31   2.72             BNSX BA SL CH1 LM BN            P  1 BD      T65 <(           L7    L1    L1
L                                          GL                              BD      B70                          L1
R     702.59  705.31        DISCONTINUOUS BANDING & LAM, OCC SOMEWHAT BRECCIATED, WITH
R     702.59  705.31        INTERSTICES INFILLED WITH GL (LATE).

/     705.31  711.71   6.40             BNSX SL PY CH6 BD ST            P  2 BD      T75 <+        <) L2    L1    L)
L                                          BA                                      B80                          L1
R     705.31  711.71        INTERBANDED CHT(DK GY) & BARITE. BARITE ZONES CONTAIN SL & PY
R     705.31  711.71        RICH LAM & OCC GL. PYR ALSO OCCURS AS DISSEM ROUNDED GRAINS.
R     705.31  711.71        CHT BANDS ARE CUT BY LATE QZ VNS WITH MNR CALCITE. THESE
R     705.31  711.71        TEND TO BE PERPENDICULAR TO BDG. STYLOLITES TEND TO DEVELOP
R     705.31  711.71        ALONG CONTACT BTWN CHT & BARITE/ SULFIDE BANDS, AND WITHIN
R     705.31  711.71        CHT BANDS. PYRITE OCCURS ALONG SOME STYLOLITES.

/     711.71  714.76   3.05             BNSX SL GL CH6 BD               P  2 BD      T80 <)        <*       L/    L2
L                                          PY                                      B80                          L1
R     711.71  714.76        INTBANDED M GY & BLK CHT & SILICEOUS ZONES RICH IN PY & GL WITH
R     711.71  714.76        LESSER SL- BANDS ARE WAVY & DISCONTINUOUS OCCASIONAL DISRUPTION
R     711.71  714.76        OF BEDDING & INFILLING BY GL

/     714.76  718.15   3.39             BNSX SL GL       ST BN          P  1 BD      T80 <+        <) L1    L=    L=
L                                          PY       LP                             B36                          L1
R     714.76  718.15        ZONE COMPRISES BANDS OF M&DK GY CHT ALTERNATING WITH INTERVALS
R     714.76  718.15        OF LAMINATED SL, PY,BA&GL. CHT BRECCIATED LOCALLY & INFILLED
R     714.76  718.15        WITH PY & GL&SL LOCAL STYLOLITES INFILLED WITH PYR. AN INTEREST-
R     714.76  718.15        ING FEATURE IS THE PRESENCE OF CHT GRIT IMMEDIATELY ALONG
R     714.76  718.15        CONTACT BETWEEN CHT BANDS & SULFIDE RICH BANDS. (SEE SKETCH IN
R     714.76  718.15        GEOFORM).
R     714.76  718.15           3 POSSIBLE ORIGINS:
R     714.76  718.15        (1) DETRITAL-UNLIKELY
R     714.76  718.15        (2) RIP-UP CLASTS - UNLIKELY AS THEY OCCUR ABOVE & BELOW CHT
R     714.76  718.15            BANDS.
R     714.76  718.15        (3) BRECCIA CLASTS FORMED DURING DEFORMATION BY DUCTILITY
R     714.76  718.15            CONTRAST BETWEEN CHT & SULFIDE.
R     714.76  718.15        DISSEM GL IN UPPER 10 CMS OF ZONE.
R     714.76  718.15        BDG HAS LOCALLY UNDERGONE COMPLEX FOLDING(SLUMPING?). BEDDING
R     714.76  718.15        PINCHES & SWELLS LOCALLY.

/     718.15  719.69   1.54             CHER             MY             P  1             <+                           #.
L                                        4A                                                            #*    #-
R     718.15  719.69        MOTTLED, LOCALLY BRECCIATED & INFILLED WITH MNR SL, PY & GL
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                                                            PAN OCEAN OIL LTD.
 G E O L O G                                         JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                  PAGE -  8
                                                DRILLHOLE/TRAVERSE --- 81AWH068 --- (CONTINUED)

 K  F  F R O M - T O -  I N T RECOV  MD % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
 E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
 Y  G                            R Q D  AGE EV RQ LC TM QM2 TX TX S C O O CHT        2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

 /      719.69  724.51   4.82             BNSX SL BA CH3 BN LM               P               <)       <) L4     L)    L=
 L                                                GL     LC                                                           L2
 R      719.69  724.51      BEDDING IN UPPER 0.5M HIGHLY DISTURBED-CONVOLUTE- REST OF
 R      719.69  724.51      INTV COMPRISES INTBANDED CHT&BARITE/SULFIDE BANDS, SULFIDE
 R      719.69  724.51      BANDS GENERALLY DELICATELY LAM INTERNALLY LOCALLY DISRUPTED.

 /      720.32  720.33   0.01           X BNSX SL BA CH3 BN LM               R    BD      55 <)       <) L4     L)    L=
 L

 /      721.10  721.11   0.01           X BNSX SL BA CH3 BN LM               R    BD      78 <)       <) L4     L)    L=
 L

 /      721.75  721.76   0.01           X BNSX SL BA CH3 BN LM               R    BD      68 <)       <) L4     L)    L=
 L

 /      722.35  722.36   0.01           X BNSX SL BA CH3 BN LM               R    BD      60 <)       <) L4     L)    L=
 L

 /      723.60  723.61   0.01           X BNSX SL BA CH3 BN LM               R    BD      70 <)       <) L4     L)    L=
 L

 /      724.51  730.52   6.01             BNSX BA SL CH4 LM BN               P  2 BD     T72             L4     L+    L=
 L                                                GL     ST                                                           L1
 R      724.51  730.52      ALTERNATING CHT&BARITE/SULFIDE BANDS, CHT LOCALLY BRECCIATED
 R      724.51  730.52      & INFILLED/ PYR, SL & GL. LOCALLY SLUMP FOLDING.

 /      726.30  726.31   0.01           X BNSX BA SL CH4 LM BN               R  2 BD     T58             L4     L+    L=
 L

 /      727.60  727.61   0.01           X BNSX BA SL CH4 LM BN               R  2 BD     T50             L4     L+    L=
 L

 /      730.00  730.01   0.01           X BNSX BA SL CH4 LM BN               R  2 BD     T30             L4     L+    L=
 L

 /      730.52  731.41   0.89             CHER           MX ST               P
 L                                             2A
 R      730.52  731.41      CHT POSSIBLY ARG OR CARB .

 /      731.41  734.40   2.99             BNSX SL GL CH6 LM BN               P  1 BD     T48 <+          L2     L=    L+
 L                                                 PY        ST                          B20                          L1
 R      731.41  734.40      INTBANDED CHT&SULFIDE/SULFATE LOCAL SLUMP FOLDING.

 K LS1  734.40  734.40   0.00

 /      734.40  736.70   2.30             ARGL SF CR     ST                  P  5 BD     T20 <)          B-     L*    L.
 L                                             4A                                        B54
 R      734.40  736.70      CONTAINS LOCAL BANDS OF LAM CHT& PYR WITH MNR GL.
 R      734.40  736.70      POSSIBLE SPOTTED BARITE 736.55-736.60.

 /      736.70  751.64  14.94             BRBR SF                      LL*   P               <)                 *)
 L                                             4A              3       ST9
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K  F   F R O M - T O -  T M T RECOV  MD % ROCK TN TM QM1 TX TX F C % M ARG   RT 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R Q D  AGE EV RN LC TM QM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R      736.70  751.64      ZONE IS SILICIFIED, PARTICULARLY UPPER HALF.

K US2  751.64  751.64  0.00

/      751.64  759.04  7.40            BNSX GL PY CH5 MX BN              P  4 BD    T70 <*          L=   Q1   X4
L                                        4A BA
R      751.64  759.04      ZONE IS MAINLY CHT&GL. LOCALLY BANDED, BUT OVERALL TEXTURE IS
R      751.64  759.04      QUITE MASSIVE. CHT BANDS ARE COMMONLY DEFORMED & BRECCIATED.
R      751.64  759.04      PULL APART STRUCTURES ARE COMMON IN CHT BDS, WITH INTERSTICES
R      751.64  759.04      INFILLED WITH COARSELY XL GL. (SEE DIAGRAM IN GEOFORM) . THIS
R      751.64  759.04      MAY SUGGEST RE-XL & RE-MOB OF GL DURING TECTONISM. PYRITE OCCURS
R      751.64  759.04      AS IRREGULAR PTCHS WITH GL, & LOCALLY AS NARROW BANDS IN CHT.

/      753.00  753.01  0.01          X BNSX GL PY CH5 MX BN              R  4 BD    T30 <*          L=   Q1   X4
L

/      754.99  755.00  0.01          X BNSX GL PY CH5 MX BN              R  4 BD    T72 <*          L=   Q1   X4
L

/      758.10  758.11  0.01          X BNSX GL PY CH5 MX BN              R  4 BD    T44 <*          L=   Q1   X4
L

/      752.76  753.66  0.90          X BNSX GL PY CH5 MX BN              R  2 BD    T70 <*          L=   X3   X3
L

/      759.04  760.75  1.71            BNSX BA GL CH3 BN LC              P    BD    T50             L5   L+   L1
L                                          PY                                 BD    B50
R      759.04  760.75      CONVOLUTE BEDDING-LOCALLY DISCONTINUOUS.
R      759.04  760.75      LOCALLY CALCAREOUS.

/      760.75  762.44  1.69            BNSX BA SL CH1 BN LM              P  2 BD    T60             L7   L+   L)
L                                          GL                                       B50                       L)
R      760.75  762.44      BEDDING WAVY, LOCALLY FOLDED, LOCALLY DISCONTINUOUS.
R      760.75  762.44      BARITIC ZONE.
R      760.75  762.44      LOCALLY CALCAREOUS.

/      762.44  764.13  1.69            BNSX BA GL CH3 BN LM              P  2 BD    T50 <(          L6   L+   L1
L                                          PY                                       B46
R      762.44  764.13      WAVY BANDS, LOCALLY DISPLACED BY MNR FAULTS. LOCAL PULL APART
R      762.44  764.13      STRUCTURES.

/      764.13  769.18  5.05            BNSX BA SL CH6 BN LM              P  2 BD    T40 <*       <( L3   L+   L*
L                                          PY                                       B40                       L=
R      764.13  769.18      ALTERNATING CHT & BARITE/SULFIDE BANDS. BANDING GENERALLY QUITE
R      764.13  769.18      REGULAR; LOCALLY SLIGHTLY DISTURBED.

/      769.18  771.49  2.31            MSSX GL PY CH1                    P    BD    T50             X4   X1   X4
L                                          BA                                       B50
R      769.18  771.49      GENERALLY MASSIVE; LOCALLY INTBND WITH CHT. LOCALLY CHT BANDS
R      769.18  771.49      ARE BRECCIATED & INFILLED WITH GL.

/      771.49  774.98  3.49            BNSX SL BA CH6 BN LM              P  2 BD    T56 <)       <( L3   L+   L*
L                                          PY                                       B50                       L1
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K  F   F R O M - T O -  T N T RECOV  RD % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                           R O D  AGE EV RO LC TM QM2 TX TX S C U D CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R      771.49  774.98       INTBANDED & INTLAM CHT, BA&SL WITH MNR GL, GENERALLY REGULAR BDG
R      771.49  774.98       ; LOCALLY SLIGHTLY DISTURBED.
R      771.49  774.98       MNR GL VEINLETS IN CHT BANDS- SUGGESTS RE-MOBILIZATION.
R      771.49  774.98       QTZ VNS RESTRICTED TO CHT BANDS.

/      774.98  798.66  23.68           BNSX SL BA CH7 BN LM           P  3 BD     T50 <)        <( L3     L)      L*
L                                                                                                               L=
R      774.98  798.66       SILICEOUS ZONE.

/      775.46  775.47   0.01         X BNSX SL BA CH6 BC LM           R  2 BD     T20 <)        <( L3     L+      L*
L

/      776.10  776.11   0.01         X BNSX SL BA CH6 BN LM           R  2 BD     T50 <)        <( L3     L+      L*
L

/      783.40  783.41   0.01         X BNSX SL BA CH6 BN LM           R  2 BD     T60 <)        <( L3     L+      L*
L

/      784.40  784.41   0.01         X BNSX SL BA CH6 BN LM           R  2 BD     T30 <)        <( L3     L+      L*
L

/      785.30  785.31   0.01         X BNSX SL BA CH6 BN LM           R  2 BD     T55 <)        <( L3     L+      L*
L

/      793.20  793.21   0.01         X BNSX SL BA CH6 BN LM           R  2 BD     T30 <)        <( L3     L+      L*
L

/      793.80  793.81   0.01         X BNSX SL BA CH6 BN LM           R  2 BD     T60 <)        <( L3     L+      L*
L

/      795.16  795.17   0.01         X BNSX SL BA CH6 BN LM           R  2 BD     T50 <)        <( L3     L+      L*
L

/      797.10  798.66   1.56         X BNSX SL BA CH6 BN LM           R  2 BD     T40 <)        <( L3     L+      L*
L                                                                                 B40

/      798.66  800.40   1.74           CHER PY        BN ST           P  2 BD     T60 <)        <*        #*      #)
L                                       4A                                        B70
R LIT  798.66  800.40       CHT BANDS LOCALLY BRECCIATED.INFILLED WITH PYR & A DK GY
R LIT  798.66  800.40       METALLIC MINERAL, SOME OF WHICH MAY BE GL. UNKOWN MINERAL IS
R LIT  798.66  800.40       STEEL GY, PRISMATIC, WITH PRONOUNCED VERTICAL STRIATIONS.
R LIT  798.66  800.40       HARDNESS^4. STREAK-GREY. MINERAL IS POSSIBLY STIBNITE. ALSO
R LIT  798.66  800.40       OCCURS IN LATE QTZ-CALCITE VEINS.
R      798.66  800.40       PYR ALSO OCCURS AS LAM.

/      800.40  802.73   2.33           BNSX SL PY CH9 BN              P  3 BD     T60 <+        L*        L+
L                                       4A                                        B40                           L)
R      800.40  802.73       LOCAL BRECCIATION AND MINOR FOLDING. UPPER 0.7 M BRECCIATED
R      800.40  802.73       AND INFILLED WITH PY AND GREY METALLIC MIN-POSSIBLY STIBNITE.
R      800.40  802.73       INTV COMPRISES ALTERNATING CHT & SULFIDE-RICH BANDS(PYR, SL,
R      800.40  802.73       CHT, CALCITE).
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  K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM WM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
  F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
  Y  G                             R Q D  AGE EV WO LC TM WM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

  K LS2  802.73  802.73   0.00

  /      802.73  806.75   4.02                  BRHM SF     SN=                       P                <)                L)
  L                                                 4A
  R      802.73  806.75        5 CM CHT BAND 806.70 - 806.75.
  R      802.73  806.75        DECREASING SILICIFICATION AWAY FROM ORE ZONE.
  R      802.73  806.75        PYR ALSO OCCURS IN NARROW VEINLETS.

  /      806.75  821.00  14.25                  ARSI CR         BD    0 3 = 3         P  2 BD     T58 V)       <-        <.
  L                                                 4A                                            B42
  R      806.75  821.00        BDG LOCALLY DISRUPTED, BRECCIATED.
  R      806.75  821.00        SLIGHTLY CARBONACEOUS.
  R      806.75  821.00        MINOR BANDS OF M GN GY MDSTN, POSSIBLY CHTY.

  /      821.00  825.02   4.02                  BRHM        *S)             ST9   P                            >+    D.
  L                                                 4A              4   )

  /      825.02  836.60  11.58                  SAND           MX G: 3 J 5 M        P          U                     #=
  L                                                 6A                                                   D+
  R      825.02  836.60        UPPER 30 CMS BRHT. LOCALLY BRECCIATED(SOFT SED?) FRACS INFILLED
  R      825.02  836.60        WITH PYR & SID. PYR AND SID CMT COM BTWN 830.5 & 836.60.
  R      825.02  836.60        BASE OF INTV EXHIBITS GRADING FROM CGXX TO SAND (OVER 65 CMS).

  /      836.60  849.86  13.26                  BRPM        *C) H* F*       RU7   P                                  <.
  L                                                 5A              2     O MN2                          D)
  R      836.60  849.86        PEBBLY MUDSTONE/SANDSTONE MTX; CHT-RICH.

  / FRG  841.04  847.12   6.08                X ARSA        SN3 LR                R  2
  L                                                 5A                                                         L.
  R SIG  841.04  847.12        5 CM GN GY CHT BAND 846.38-846.43 M CONTAINS V F DISSEM PR.
  R      841.04  847.12        SAND BAND 846.0-846.33 M.

  /      849.86  855.11   5.25                  CGXX        *C= R* F*        LO=   P  6            >+
  L                                                 6A              3     O KN7                          D-
  R      849.86  855.11        PEBBLY MUDSTONE/SANDSTONE MTX. MNR CHT CLASTS WITH NTERVAL
  R      849.86  855.11        REPLACEMENT BY PR.
  R      849.86  855.11        INTV COMPRISES THICKLY INTBD CGXX & SAND BEDS. SAND BEDS ARE
  R      849.86  855.11        MASSIVE, M-C GR. APPEARS TO BE 5 CYCLES RANGING FROM CGXX  TO
  R      849.86  855.11        SAND. CYCLES UP TO 1.8M THICK. POSSIBLE INVERSE GRADING OVER
  R      849.86  855.11        A FEW CM ALONG CGXX-SAND CONTACT.

  /      855.11  862.93   7.82                  CGXX PY     *B) F* H*        LO1   P                                  #=
  L                                                 6A      *C+          ) C LO8                         #)
  R      855.11  862.93        BRECCIA CLASTS COMPRISE SMALL (2 MM) ANGULAR & SHARD-LIKE FRAGS
  R      855.11  862.93        IN WH CHT CMT.
  R      855.11  862.93        LOCALLY V PYRITIC(CMT); OCCASIONAL SIDERITE IN MTX.

  /      862.93  869.93   7.00                  ????                              P
```

A	UMM				RQD	SP.GR.
A	TYP				CM	SG
A	MTH				B-B	WEIGH
A	LAB				FLD	FLD
R	ASY	0.00	0.00	RCOV=RECOVERY(C17-20) IS MEASURED IN CM BLOCK TO BLOCK(B-B)		
R	ASY	0.00	0.00	RQD=ROCK QUALITY DESIGNATOR(C27-32)MEASURED IN CM BLOCK TO BLOCK		
R	ASY	0.00	0.00	RQD IS THE TOTAL LENGTH (BETWEEN BLOCKS) OF PIECES OF CORE		
R	ASY	0.00	0.00	AT LEAST 2-1/2 TIMES DIAMETER OF CORE TO NEAREST CM, DIVIDED		
R	ASY	0.00	0.00	BY LENGTH OF INTERVAL = BLOCK(TO) MINUS BLOCK(FROM)TIMES 100		
R	ASY	0.00	0.00	CM INDICATES THAT MEASUREMENTS ARE IN CM'S WHICH ARE TO BE RIGHT		
R	ASY	0.00	0.00	JUSTIFIED AGAINST THE DOUBLE VERTICAL LINE AT RIGHT MARGIN		
R	ASY	0.00	0.00	OF EACH FIELD.		
R	ASY	0.00	0.00	B-B=BLOCK-TO-BLOCK (DRILLERS BLOCKS). ENTER METRAGE OF ONE BLOCK		
R	ASY	0.00	0.00	AS THE TO OF ANY INTERVAL AND THE METRAGE OF THE NEXT BLOCK.		
R	ASY	0.00	0.00	ADDITIONAL POINTS (FROM-TO'S) CAN BE ESTABLISHED BETWEEN		
R	ASY	0.00	0.00	BLOCKS TO BRACKET SPECIFIC INTERVALS OF LOCALIZED POOR		
R	ASY	0.00	0.00	RECOVERY. B-B IS ENTERED RIGHT JUSTIFIED IN EACH FIELD IN		
R	ASY	0.00	0.00	THE AMTH HEADER.		
R	ASY	0.00	0.00	THE FIRST INTERVAL, THROUGH THE OVERBURDEN, WITH ZERO RECOVERY,		
R	ASY	0.00	0.00	SHOULD BE ENTERED FIRST -- SEE BELOW.		
A	100	348.69	350.22	153	156	
A	100	350.22	351.74	152	143	
A	100	351.74	355.09	271	166	
A	100	355.09	358.14	252	72	
A	100	358.14	361.49	298	228	
A	100	361.49	364.85	278	113	
A	100	364.85	366.37	00	00	
A	100	366.37	368.20	134	78	
A	100	368.20	369.72	102	13	
A	100	369.72	372.77	267	110	
A	100	372.77	375.82	189	99	
A	100	375.82	378.56	240	97	
A	100	378.56	379.78	82	12	
A	100	379.78	381.30	121	27	
A	100	381.30	383.13	130	00	
A	100	383.13	385.57	143	51	
A	100	385.57	387.10	00	00	
A	100	387.10	388.32	69	00	

A UMM					RQD	SP.GR.
A TYP					CM	SG
A MTH					R-R	WEIGH
A LAB					FLD	FLD
A 100	388.32	389.84	68		00	
A 100	389.84	392.28	192		105	
A 100	392.28	395.33	262		37	
A 100	395.33	396.85	119		31	
A 100	396.85	397.76	78		19	
A 100	397.76	399.90	172		42	
A 100	399.90	402.95	263		145	
A 100	402.95	405.99	282		147	
A 100	405.99	407.52	153		117	
A 100	407.52	408.74	00		00	
R ASY	407.52	408.74		WEDGE		
A 100	408.74	409.65	53		26	
A 100	409.65	411.18	132		63	
A 100	411.18	413.61	192		70	
A 100	413.61	416.66	295		192	
A 100	416.66	418.95	218		92	
A 100	418.95	419.71	48		00	
A 100	419.71	420.32	7		00	
A 100	420.32	421.84	149		66	
A 100	421.84	423.76	184		98	
A 100	423.76	425.81	172		58	
A 100	425.81	426.42	54		17	
A 100	426.42	428.85	210		91	
A 100	428.85	431.90	305		198	
A 100	431.90	432.51	35		00	
A 100	432.51	434.22	171		140	
A 100	434.22	434.40	18		00	
A 100	434.40	436.78	234		78	
A 100	436.78	439.83	298		207	
A 100	439.83	441.05	118		100	
A 100	441.05	441.96	00		00	
A 100	441.96	442.87	75		15	
A 100	442.87	444.40	143		106	
A 100	444.40	447.90	303		210	
A 100	447.90	451.10	305		170	
A 100	451.10	453.24	182		117	
A 100	453.24	456.29	305		116	
A 100	456.29	459.33	304		179	
A 100	459.33	462.17	250		126	
A 100	462.17	465.28	311		207	
A 100	465.28	468.48	302		80	
A 100	468.48	470.31	181		69	
A 100	470.31	472.74	231		96	
A 100	472.74	473.35	46		00	
A 100	473.35	473.66	22		00	
A 100	473.66	474.57	44		00	
A 100	474.57	475.18	46		00	
A 100	475.18	477.01	181		27	
A 100	477.01	477.47	46		25	
A 100	477.47	480.36	289		198	
A 100	480.36	483.41	292		192	

					RQD	SP.GR.
A	UMM					
A	TYP				CM	SG
A	MTH				B-B	WEIGH
A	LAB				FLD	FLD
A	100	483.41	485.55	214	59	
A	100	485.55	486.77	119	00	
A	100	486.77	487.98	98	13	
A	100	487.98	489.20	110	33	
A	100	489.20	489.81	53	32	
A	100	489.81	492.25	224	61	
A	100	492.25	493.17	85	00	
A	100	493.17	494.08	68	00	
A	100	494.08	495.91	162	65	
A	100	495.91	498.95	295	159	
A	100	498.96	502.01	296	179	
A	100	502.01	505.05	291	114	
A	100	505.05	508.10	283	141	
A	100	508.10	510.24	191	89	
A	100	510.24	513.28	297	215	
A	100	513.28	516.33	300	146	
A	100	516.33	518.16	183	138	
A	100	518.16	519.63	124	43	
A	100	519.68	522.12	202	72	
A	100	522.12	523.95	159	57	
A	100	523.95	526.39	244	164	
A	100	526.39	529.44	305	221	
A	100	529.44	531.83	244	107	
A	100	531.88	534.01	196	105	
A	100	534.01	537.06	289	120	
A	100	537.06	540.11	305	178	
A	100	540.11	543.15	301	139	
A	100	543.15	545.59	221	65	
A	100	545.59	548.64	273	140	
A	100	546.64	550.77	205	94	
A	100	550.77	553.21	214	89	
A	100	553.21	553.82	61	39	
A	100	553.82	554.43	59	59	
A	100	554.43	556.87	241	207	
A	100	556.87	559.92	294	240	
A	100	559.92	562.97	295	260	
A	100	562.97	566.01	291	242	
A	100	566.01	569.06	290	216	
A	100	569.06	572.11	295	266	
A	100	572.11	575.16	294	257	
A	100	575.16	578.21	291	229	
A	100	578.21	581.25	286	188	
A	100	581.25	583.39	176	224	
A	100	583.39	584.30	78	28	
A	100	584.30	584.91	40	21	
A	100	584.91	585.52	49	00	
A	100	585.52	586.13	28	00	
A	100	586.13	586.44	31	13	
A	100	586.44	587.35	91	38	
A	100	587.35	588.87	137	132	
A	100	588.87	590.40	133	121	

A UMM					RQD	SP.GR.
A TYP					[illegible]	SG
A MTH					[illegible]	WEIGH
A LAB					FLD	FLD
A	100	590.40	593.14	239	164	
A	100	593.14	596.19	297	263	
A	100	596.19	599.24	303	218	
A	100	599.24	602.28	303	176	
A	100	602.28	604.42	214	150	
A	100	604.42	606.86	224	96	
A	100	606.86	609.90	302	184	
A	100	609.90	613.26	298	243	
A	100	613.26	614.78	136	68	
A	100	614.78	615.39	61	15	
A	100	615.39	616.31	92	59	
A	100	616.31	617.52	87	39	
A	100	617.52	619.05	132	67	
A	100	619.05	620.57	126	57	
A	100	620.57	622.10	148	57	
A	100	622.10	623.62	136	81	
A	100	623.62	625.14	102	14	
A	100	625.14	626.67	153	133	
A	100	626.67	627.89	96	15	
A	100	627.89	628.80	60	00	
A	100	628.80	630.33	147	51	
A	100	630.33	631.85	151	37	
A	100	631.85	633.37	149	136	
A	100	633.37	634.90	153	36	
A	100	634.90	636.12	97	34	
A	100	636.12	637.95	167	78	
A	100	637.95	639.47	152	109	
A	100	639.47	640.84	116	62	
A	100	640.84	642.44	147	119	
A	100	642.44	644.35	153	115	
A	100	644.35	645.87	141	69	
A	100	645.87	647.40	145	79	
A	100	647.40	648.92	143	41	
A	100	648.92	650.44	144	81	
A	100	650.44	651.97	150	134	
A	100	651.97	653.49	152	108	
A	100	653.49	655.02	153	78	
A	100	655.02	656.54	152	78	
A	100	656.54	658.06	130	00	
A	100	658.06	659.59	143	56	
A	100	659.59	660.81	112	24	
A	100	660.81	662.33	152	124	
A	100	662.33	663.85	152	120	
A	100	663.85	665.38	148	78	
A	100	565.38	666.90	142	29	
A	100	666.90	667.51	43	00	
A	100	667.51	668.43	74	00	
A	100	668.43	669.95	144	80	
A	100	669.95	671.47	129	97	
A	100	671.47	672.69	122	101	
A	100	672.69	674.22	125	97	

GEOLOG

PAN OCEAN OIL LTD.

JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

DRILLHOLE/TRAVERSE --- 81AWH068 --- (CONTINUED)

A UMM A TYP A MTH A LAB				RQD CM R-B FLD	SP.GR. SG WEIGH FLD
A 100	674.22	675.74	152	116	
A 100	675.74	677.27	142	62	
A 100	677.27	678.79	142	74	
A 100	678.79	680.31	152	129	
A 100	680.31	680.62	24	24	
A 100	680.62	682.14	152	148	
A 100	682.14	683.67	152	123	
A 100	683.67	685.19	148	118	
A 100	685.19	686.41	122	97	
A 100	686.41	687.93	146	111	
A 100	687.93	689.46	146	135	
A 100	689.46	690.98	149	119	
A 100	690.98	691.59	61	36	
A 100	691.59	693.12	153	81	
A 100	693.12	694.64	152	120	
A 100	694.64	696.16	145	99	
A 100	696.16	697.69	150	101	
A 100	697.69	699.21	151	71	
A 100	699.21	700.74	141	31	
A 100	700.74	702.26	144	95	
A 100	702.26	703.78	148	65	
A 100	703.78	705.31	153	113	
A 100	705.31	706.98	143	96	
A 100	706.98	708.66	145	107	
A 100	708.66	710.18	122	70	
A 100	710.18	711.71	153	118	
A 100	711.71	713.23	146	142	
A 100	713.23	714.76	151	109	
A 100	714.76	716.28	142	108	
A 100	716.28	718.41	213	193	
A 100	718.41	721.46	305	242	
A 100	721.46	724.51	286	162	
A 100	724.51	727.56	303	149	
A 100	727.56	730.61	305	166	
A 100	730.61	733.65	301	213	
A 100	733.65	736.70	294	223	
A 100	736.70	739.75	300	256	
A 100	739.75	741.58	175	126	
A 100	741.58	743.10	146	91	
A 100	743.10	744.93	172	40	
A 100	744.93	745.24	30	00	
A 100	745.24	747.37	188	114	
A 100	747.37	748.89	132	00	
A 100	748.89	751.94	289	141	
A 100	751.94	754.99	294	265	
A 100	754.99	758.04	297	244	
A 100	758.04	761.09	286	137	
A 100	761.09	764.13	304	247	
A 100	764.13	767.18	300	279	
A 100	767.18	770.23	281	260	
A 100	770.23	773.28	305	269	

A UMM				RQD	SP.GR.
A TYP				CM	SG
A MTH				B-B	WEIGH
A LAB				FLD	FLD
A 100	773.26	776.33	305	238	
A 100	776.33	779.37	304	269	
A 100	779.37	782.42	280	159	
A 100	782.42	785.47	305	249	
A 100	785.47	788.52	305	227	
A 100	788.52	791.57	296	280	
A 100	791.57	794.61	304	279	
A 100	794.61	797.66	301	255	
A 100	797.66	800.40	272	198	
A 100	800.40	803.45	305	251	
A 100	803.45	806.50	292	184	
A 100	806.50	809.55	283	143	
A 100	809.55	812.60	268	167	
A 100	812.60	815.95	313	186	
A 100	815.95	819.00	305	251	
A 100	819.00	821.44	207	78	
A 100	821.44	824.48	304	95	
A 100	824.48	827.53	305	202	
A 100	827.53	828.45	92	84	
A 100	828.45	831.19	239	157	
A 100	831.19	834.24	299	216	
A 100	834.24	836.98	267	229	
A 100	836.98	838.20	122	111	
A 100	838.20	840.33	203	101	
A 100	840.33	843.38	305	270	
A 100	843.38	846.43	301	193	
A 100	846.43	849.48	295	195	
A 100	849.48	852.53	285	201	
A 100	852.53	853.74	121	69	
A 100	853.74	855.57	160	118	
A 100	855.57	858.62	305	233	
A 100	858.62	861.71	302	157	
A 100	861.71	862.93	120	83	

R SUM TARGET: SOUTH ZONE, APPROX 615M BENCH LEVEL, 64M WEST OF DDH 56B

R SUM . IMPRESSIONS ON MINERALIZED ZONES.

R SUM (1) BANDED SL GENERALLY TENDS TO BE YW AND LIGHT BROWN. A LATE

R SUM PHASE OF SL OCCURS IN LATE VEINS WITH QTZ AND CALCITE AND IS

R SUM M-DK BN IN COLOR. THIS LATE SL(REMOBILIZED IS MINOR).

R SUM (2) GALENA OCCURS IN 3 PRINCIPLE MODES

R SUM A. LAMINAE

R SUM B. LATE VEINS WITH QTZ AND CALCITE-MINOR.

R SUM C. BRECCIA FILLING ASSOCIATED WITH BRECCIATED CHT BANDS.

R SUM	-THIS MAY SUGGEST THAT GL IS REMOBILIZED.
R SUM	(3) PYR OCCURS AS LAMINAE (CLUSTERS OF XLS PARALLEL TO BANDING)
R SUM	AND AS DISSEM GRAINS THROUGHOUT MINERALIZED ZONES.
R SUM	(4) STYLOLITES OCCUR OCCASIONALLY, PARTICULARLY IN CHT BANDS. PY
R SUM	, GL, AND SL COMMONLY OCCUR ALONG STYLOLITES(REMOBILIZED).
R SUM	(5) AN UNIDENTIFIED GREY MINERAL OCCURS TOWARDS THE BASE OF THE
R SUM	SECOND ORE ZONE. MINERAL IS STEEL GY, PRISMATIC XLS, WITH
R SUM	VESTICAL STRIATIONS, HARDNESS APPROX 4, STREAK GY. OCCURS WITH
R SUM	PYRITE AS FILLING IN BRECCIATED CHT ZONE, AND ALSO IN LATE VEINS
R SUM	WITH QTZ AND CALCITE. XLS MAY FORM RADIATING AGGREGATES.
R SUM	POSSIBLY STIBNITE. LESSER POSSIBILITY IS RUBY SILVER.
R SUM	(6) CHT BANDS UNDERGO BRITTLE DEFORMATION ARE OCCASIONALLY
R SUM	BRECCIATED. TENSION FRACTURES ARE COMMON AND ARE GENERALLY
R SUM	FILLED WITH QTZ VEINS WITH MNR CALCITE. FRACTURES ARE GENERALLY
R SUM	PERPENDICULAR TO BDG.

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :81ANH070	COLLAR ELEVATION: 1296.71	AZIMUTH(DEG) : 171.20	GEOLOGGED BY : PCH + JWP
TOTAL DEPTH/LENGTH : 910.44	NORTHING(- IF S): 7002575.00	VERTICAL ANGLE : -80.10	DATE (YY/MM/DD): 810827
CORE/HOLE DIAMETER : NQ	EASTING (- IF W): 436528.81	CO-ORD SYSTEM : UTM	PROJECT NUMBER : J-S3

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	30.00	165.90	-80.53
2	61.00	168.40	-80.30
3	91.00	172.90	-79.73
4	122.00	168.50	-78.50
5	152.00	166.30	-77.10
6	183.00	165.90	-75.65
7	213.00	160.60	-75.50
8	244.00	158.80	-74.77
9	274.00	156.00	-74.02
10	305.00	152.20	-73.43
11	335.00	150.50	-72.18
12	366.00	149.30	-70.37
13	396.00	149.20	-68.42
14	427.00	150.30	-67.95
15	440.44	148.80	-67.75
16	455.98	147.00	-66.50
17	460.25	149.00	-66.50
18	482.50	151.00	-65.50
19	491.34	148.00	-64.75
20	501.70	149.00	-64.25
21	517.25	148.00	-64.50
22	531.88	148.50	-63.50
23	549.86	145.00	-63.75
24	561.44	144.00	-63.50
25	579.12	145.00	-63.50
26	591.31	142.00	-63.50
27	620.88	152.00	-59.50
28	639.17	155.00	-55.75
29	643.43	157.00	-54.50
30	666.29	157.50	-52.25
31	693.42	152.00	-50.50
32	710.79	148.00	-50.00

DRILLHOLE/TRAVERSE --- 81AWH070 --- (CONTINUED)

33	732.43	152.00	-47.00
34	748.59	152.00	-45.25
35	760.48	150.00	-44.00
36	793.09	142.00	-39.00
37	798.88	146.00	-39.00
38	804.67	146.00	-38.50
39	819.91	146.00	-38.00
40	835.15	146.00	-37.00
41	850.39	143.50	-36.00
42	865.63	145.00	-36.00
43	880.87	148.00	-35.00
44	896.11	143.00	-35.00

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   F    - I N T E R V A L -     CORE  1- %        TYPI- QAL  TEX-  GRAIN          PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =    .  DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                            H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MT=METRIC FT=FOOTRIC)  ERY     O I       TM TM MAT TX TX F C % M ARG   /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  I N T (  . )   D X TYPE  1  2 QM1  1  2 F F C A            1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                          ROCK    FM     RT    TM QM2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                          QUAL   AGE EN- O LC- 3       3  4 O      /         2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y  G                          DESIG      VIR   COL            R      C            STRUCTUR-2  A  A  A  A  A  A  A  A  A  A    2   2

R SVY    0.00    0.00      DATA FROM GYROSCOPIC DIRECTIONAL SURVEY
R SVY    0.00    0.00      THIS DATA IS CORRECT AND WILL BE USED FOR PLOTTING THE SECTION
R SVY  440.44  910.44      ONLY SPERRY SUN SINGLE-SHOT.  DATA IS AVAILABLE FOR BRANCH HOLE
R SVY  440.44  910.44      70A AND THIS WILL BE USED TO COMPLETE THE SURVEY FILE.
R SVY  440.44  440.44      BEGINNING OF WEDGED HOLE A.
R SVY  440.44  440.44      HALL AND ROWE STEEL WEDGE, FULL AZM LEFT.
R SVY  910.44  910.44      END OF WEDGED HOLE A.

/          0.00  440.44 440.44           MISS                               P

/        440.44  445.70   5.26           SAND        CH2 G;     J L 1 M     P
L                                            5A                 7     C

/        440.44  442.40   1.96         X SAND        CH2 G;     J L 1 M     R                V=
L                                            5A                 7     C                                    V)

/        445.70  453.26   7.56           BRHT                          NS8  P
L                                                               2 =   C MN1

/        453.26  457.39   4.13           BRBM                           S9  P
L                                            3A                       C JL=

/        457.39  459.33   1.94           ARSI        SI1 LM                 P  1
L                                            3A

/        459.33  460.18   0.85           ARSN        SN4 //     F I 2 J     P
L                                            5A                       C

/ CON    460.18  461.58   1.40           BRHT        SN=               NP8  P    CN      66
L                                                               2   = C KN1

/        461.58  472.84  11.26           BRBM CR                2      OTX  P
L                                            2A                       C JM)                      C*                V*
R        461.58  472.84        SL VEINLET (REDDISH BROWN COLOUR) WITH SILICIFIED ENVELOPE
R        461.58  472.84        AT 466.8 M.

/        463.60  465.12   1.52         X WEDG                               R
L

/        [illegible]                                                   008  P
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 /      477.04  477.37   4.50              BRHT                       R*          UR9    P                                   R*
 L                                                                 H*    1     C LM)                                          R*
                                                                   PAN OCEAN OIL LTD.
  G E O L O G                                              JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                            PAGE -  3
                                                   DRILLHOLE/TRAVERSE --- 81AWH070 --- (CONTINUED)

 K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
 E -I- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
 Y  G                                 R N D  AGE EV RO LC TM OM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

 /      477.30  463.95   6.65              BRHT                                   OR8    P
 L                                                                             C

 /      483.95  503.50  19.55              BRHT         *S=                       OR8    P
 L                                                                         = = C LO1

 /      503.50  521.30  17.80              BRHB CR          SS                    NR9    P
 L                                                                                IL=                          C)
 R      503.50  521.30        BADLY BROKEN INTERVAL FROM 504.14 TO 519.38 M.

 / SHR  516.04  517.86   1.82            X BRHB                                          R
 L

 /      521.30  527.10   5.80              BRHT CR      H*=                       NQ8    P
 L                                                                                MO1                                 H*     R*
 R      521.30  527.10        COARSE FRAGS CONSIT OF MASS CARBONAC ARGL (SAME AS PGI ABOVE).

 /      527.10  545.10  18.00              BRHT              M; FU                OS6    P
 L                                                                       5     C MO4
 R      527.10  545.10        GRADED FLOW SEQUENCE WITH LARGE ARSI INTRACLASTS.

 /      545.10  554.54   9.44              BRHT         *S1                       NQ4    P
 L                                                                          1     LN2

 /      554.54  563.15   8.61              BRHT         *C2                       NQ3    P
 L                                                                             C LN5                       #)
 R      554.54  563.15        10% WISPY ARGL CLASTS WITH SIG MUD CONTENT (20%) IN MATRIX.
 R      554.54  563.15        OCCASIONAL SIDERITIZED BLACK ARGL CLASTS 1%.

 /      563.15  564.79   1.64              ARSI SC                                       P
 L
 R EDT  564.79  564.79        CHANGED INTERVAL TO MATCH P.
 R      564.79  564.79

 /      564.79  566.32   1.53              WEDG                                          P
 L

 /      566.32  567.52   1.20              CGPM                      G K 2 N             P
 L                                                                   5     O
 R      566.32  567.52        INCREASING MUD CONTENT IN DOWNHOLE DIRECTION.  GRAD'L CONTACT
 R      566.32  567.52        AT BASE.

 /      567.52  584.10  16.58              BRPM         *S+ B*                   OO3     P
 L                                                      *C3             + O LO7
 R      567.52  584.10        DISTINCTIVE CONGLOMERATIC MATRIX CONTAINING WELL ROUNDED ARGL
 R      567.52  584.10        CLASTS (10%) - POSSIBLY CORRELATIVE WITH SIMILAR INTERVALS
 R      567.52  584.10        IN DDH 70 (562.70 M) AND DDH 68 (567.54 M).

 /      584.10  629.72  45.62              ARSI         SI1 LM                           P
 L                                            3A                                                          C*
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K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R Q D  AGE EV RO LC TM QM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/       595.00  611.50  16.50         X ARSN       SI3 LR SC              R  2 LM      U52
L                                                  SN+                       4 BD

/       604.72  605.94   1.22         X WEDG                              R
L

/       620.40  628.92   8.52         X BRHM                        NOX   R
L                                                                   KK(

/       628.92  629.72   0.80         X SAND          //     F H 8 H      R    BD      40
L                                                            9   C

/       629.72  661.70  31.98           ARSI       SI2 LM                 P  2 BD
L

/       639.17  639.17   0.00         X ARSI       SI2 LM                 R  2 BD      40

/       644.35  644.35   0.00         X ARSI       SI2 LM                 R  2 BD      45

/       646.18  647.70   1.52         X WEDG                              R
L

/       654.10  654.10   0.00         X ARSI       SI2 LM                 R  2 BD      47

/       656.95  661.70   4.75         X BRHM       *B+                  OT9   R
L                                                              +    JN+

/       661.70  663.15   1.45           CGPS       *C2 B* F* H L 3 N      P
L                                                        R* 3    O

/       663.15  664.85   1.70           MISS                              P
L
R EDT   663.15  664.85      MISSING INTERVAL.

/       664.85  667.70   2.85           CGPS          B* F* H L 3 O       P
L                                                        R* 3    O
R       664.85  667.70      BOTH CGPS UNITS APPEAR TO REPRESENT SEPARATE DEPOSITIONAL
R       664.85  667.70      GRAVITY FLOW EVENTS OF SIMILAR CHARACTER - MAY HAVE INCORPORATED
R       664.85  667.70      ANGULAR ARGL CLASTS.

/       667.70  671.64   3.94           BRHM       *S2                  PS9   P
L                                          5A                  2    KM+

/       671.64  672.96   1.32           BRHT                            OP6   P                                  B-
L                                                                   LN2

/       672.96  674.89   1.93           CGXX                 D M 4 N      P
L                                          7A            4   C
R       672.96  674.89      CHARACTERIZED BY BLACK WELL ROUNDED MED SIZE PEBBLES
R       672.96  674.89      (DEPOSITIONAL CONTACTS).
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K  F  F R O M - T O -  I N T RECOV  MD % ROCK TM TM NM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R O D  AGE EV RG LC TM NM2 TX TX S C O O CHT         2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/    673.30 674.83  1.53         X WEDG                       R
L

/    674.89 677.35  2.46           CGPS GR           H L 3 P  P
L                                                    3   O                          **
R    674.89 677.35     MINOR AMOUNT OF BLACK ROUNDED CLASTS AT 675.30 M.

/    677.35 682.22  4.87           ARSI        LM    A F 1 F  P 1 LM     37                  L.
L                                      5A

/    682.22 684.27  2.05           CGXX        FD B* I M 6 N  P                              D-   J.
L                                      7A            2   C                          D*
R    682.22 684.27     WELL ROUNDED CARBONACEOUS CLASTS PRESENT DEPOSITIONAL ARGL
R    682.22 684.27     CONCENTRATED AT THE BOTTOM.

/    684.27 685.30  1.03           ARGL        LM    A G = J  P   LM     38                  Q(
L                                      3A                                                         R-

/    685.30 690.13  4.83           BRHT     *S1              LP6  P                          D(   #*
L                                                            LN3                            #( #.
R    685.30 690.13     IN INTERVAL 688.73-688.89 M THE GL AND SL ARE FOUND CONCENTRATED
R    685.30 690.13     IN THE MATRIX BUT ARE ALSO FOUND IN FRAGMENTS IN LESSER AMOUNTS.
R    685.30 690.13     IT IS FOUND PREDOMINANTLY IN THIS AREA AND COULD BE THE RESULT
R    685.30 690.13     OF SLUMPING PRIOR TO LITHIFICATION.
R    685.30 690.13     IN INTERVAL 689.45-689.80 M  LM ARGL DIP 45 DEGREES; FINE SAND
R    685.30 690.13     LAMINATIONS SHOW THE DIP.

/    690.13 696.30  6.17           ARGL        LM SS A G = G  P             <(               <(
L                                      3A
R    690.13 696.30     LAMS ARE FINE SAND.

/    690.39 690.39  0.00         X ARGL        LM SS A G = G  R   LM     65 <(               <(

/    692.34 692.34  0.00         X ARGL        LM SS A G = G  R   LM     80 <(               <(

/    695.60 695.60  0.00         X ARGL        LM SS A G = G  R   LM     20 <(               <(

/    696.30 703.04  6.74           BRHT     *S1   H*         OS6  P                          D*   #(
L                                              F*     2 1    MN1                                  D.

/    703.04 708.29  5.25           BRHT     *S1                OP6  P                          D.   #(
L                                                       1    LN2                                  D.
R    705.31 705.31     GL OCCURS AS BRECCIA F*LI.

/    708.29 712.02  3.73           CGBR        G; H* G N 6 P  P
L                                      5A      H*    3   C
R    708.29 712.02     WELL ROUNDED CARBONACEOUS CLASTS. ARGL INCREASING AND
R    708.29 712.02     INTERSTITIAL DOWN HOLE.  CH CLASTS MORE PREVALENT DOWN HOLE.

/    712.02 724.12 12.10           ARSN        LM BD A H 2 H  P   LM     35                  D-
L                                      4A
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K  F  F R O M - T O -  I N T RECOV  MD % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                           R Q D  AGE EV RW LC TM QM2 TX TX S C U O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/      724.12  728.36   4.24             BRHT       *S1 SS            OP4   P                                 D-    R.
L                                                               1 =   MN2                                     R-

/      726.36  733.20   4.84             BRHM       SN=               LM1   P                                 B.       GR
L                                                   *S1               LM+                                              D.

/      733.20  744.43  11.28             BRHM       *S+               NP4   P               <.                B.
L                                                                     LO1

/      733.65  735.17   1.52           X WEDG                               R
L

/      744.25  744.43   0.23           X CGCP           H*    J L 4 N       R                                 R*    R-
L

/      744.48  748.79   4.31             ARSN           SS    A H 3 O       P               <.                8.
L

/      748.79  760.02  11.23             BRHM       *S2               RS6   P               V-                R*
L                                                                 2   MO1                                     P)    R.

/      760.02  765.95   5.93             BRHT       *S1               OP7   P                                 D-    *)
L                                                   SI1           2   MN1                                     R+    *)
R      760.02  765.95     GL AND SL CONCENTRATED AT 762.30-762.45 M UP TO 20% PR, 10% GL,
R      760.02  765.95     10% SL.

/      763.52  765.05   1.53           X WEDG                               R
L

/      765.95  767.88   1.93             BRHT       SN4 BS //         KO2   P    LM      50
L                                                       FD            KN4                                     R*    D)
R      765.95  767.88     CHAOTIC BRECCIA AT BOTTOM, FINING AND SORTING UP.  POSSIBLE
R      765.95  767.88     BOUMAAB SEQUENCE.

/      767.88  768.51   0.63             BRHM       SN+ SS            QR9   P               <.                D.    R*
L                                             2A                      NO=                                     R-    R.
R      767.88  768.51     SAND MAINLY IN LAST 25 CM.

/      768.51  780.62  12.11             BRHM       SI4               QR5   P                                 D.
L                                                                     NO2                                     R.
R      768.51  780.62     GL 60% FROM 770.47-770.58 M.
R      768.51  780.62     CGCP FROM 775.66-775.78 M AND 778.53-778.83 M.

/      780.62  795.42  14.60             ARSN       SN2 BD LM A F 4 N       P    80      35 C.                D)
L                                             4A    SI2 SS (L                  2                              B-
R      788.60  788.84     CGCP OCCURS.
R      788.84  795.42     THIS AREA HAS SOFT SEDIMANT SLUMPING PRESENT AND BECOMES
R      788.84  795.42     SILICIFIED IN THE LOWER 2 M.

/      793.80  795.22   1.42           X MISS                               R
L
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K  F  F R O M - T O -  I N T RECOV  MD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -I- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R Q D  AGE FV RU LC TA OM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

K US1  795.42  795.42   0.00

/      795.42  797.80   2.38             FGSX SX PY         ST         NO2   P                 <*      <( P=    D+    Q=
L                                                                      MP3                                              Q1
R      795.42  797.80      A SLIGHT BN IS PRESENT BUT IS FRAGMENTED.  SL IS COMMON.

/      797.80  807.83  10.03             BNSX BA SL CH= BN LM                P  2 BD     T70 <*      <( L5    D+    L+
L                                             GL       ST          NO=            BD     B55         <(                L1
R      797.80  807.83      WELL BN-LM UNIT, BECOMES SILICIFIED TOWARDS THE BASE.

/      804.16  804.98   0.82          X LOST                                 R
L

/      807.83  808.77   0.94             CHER PY SF      MX                  P  0 LM      60              L)    D+
L                                                     LM
R      807.83  808.77      MASSIVE CHER PRESENT SLIGHT LM AT THE BOTTOM WHERE BA IS PRESENT

/      808.77  813.41   4.64             BNSX BA SL CH4 BN LM                P  3 BD     T50         <( X3    D+    L+
L                                             GL                   NP4            BD                 <*                L1
R      808.77  813.41      BEDDING WELL DEVELOPED, THE DIP IS CONSIST AT THE TOP BUT
R      808.77  813.41      SHALLOWS AT THE BOTTOM.  THIS IS BA RICH WITH ASSOCIATED SL-GL.
R      808.77  813.41      THIS UNIT BECOMES SILICIFIED TOWARDS THE BASE WITH THE INCREASE
R      808.77  813.41      OF CHERT.

/      811.37  811.68   0.31          X MISS                                 R
L

/      813.41  813.82   0.41             MSSX CH    CH8 MY                   P                           <-          <)    <*
L
R      813.41  813.82      THIS IS TOTALLY SILICIFIED AND MASSIVE MICROVEINS OF PY ARE
R      813.41  813.82      PRESENT WITH SOME GL ALSO.

/      813.82  815.54   1.72             FGSX CH BA CH7 R*                   P                           <( P1    R)    C(
L                                             CH S*+               LN7                                  D*             P*
R      813.82  815.54      THIS UNIT IS SILICIFIED CHERT RICH.  PARTLY IS PRESENT WITH
R      813.82  815.54      PY-SL-GL IN < AND R*.  NO BEDDING IS SEEN DUE TO    BEING
R      813.62  815.54      FRAGMENTED.

/      815.54  819.31   3.77             LMSX BA    CH5 BN LM                P  1 BD     T15 D=      8* X3    6)    8+
L                                                  ST              MP5            BD     B55         P(                8+
R      815.54  819.31      THIS UNIT IS WELL BEDDED AND IS RICH IN SL-GL.  TOWARDS THE
R      815.54  819.31      BASE IT IS LESS SILICIFIED.

/      816.40  816.58   0.18          X MISS                                 R
L

/      817.42  817.78   0.36          X LOST                                 R
L

/      818.01  818.31   0.30          X LOST                                 R
L
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```
 K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM QM1 TX TX F C % M ARG   RT 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 Y  G                            R Q D  AGE EV RQ LC TM QM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA


 K LS1  819.31  819.31   0.00

 /      819.31  825.60   6.29                 ARSI GR CR SIF BD LM A F = F       P  1 BD  35      <(           B-    8( D(
 L                                                3A PY SN1 CL BS                  1 LM  47
 R      819.31  825.60        THE ARST IS TOTALLY SILICIFIED. SI AND SN BEDS ARE SEEN
 R      819.31  825.60        WITH PY DISS IN THEM.  THESE COULD BE POSSIBLE BOUMA SEQ DE'S.
 R      819.31  825.60        THE BEDDING IS CONVOLUTED IN SOME SEQUENCES.
 R      819.31  825.60        A PYRITIC SAND BED; 30% PY IS PRESENT WITH 10%GL.

 /      825.60  837.72  12.12                 BRHT         SN2 BS FU        LM4  P  2 BD      45 <-       <-       R(    D.
 L                                                         P*      2   KL1
 R      825.60  837.72        CHAOTIC BRECCIA'S ARE SEEN FINING AND BECOMING SORTED UPWARDS.
 R      825.60  837.72        THIS ARE BOUMA SEQUENCES AB TYPE.  BEST EXAMPLE OF ABE SEQUENCE
 R      825.60  837.72        IS FROM 825.86 TO 826.69 M. THIS UNIT HAS A GREATER DEGREE
 R      825.60  837.72        OF SILIFICATION TOWARDS THE BOTTOM.

 /      837.72  849.00  11.28                 ARSI SF CR SI2        A E 2 F      P  1 BD     T40 <-       <-       6*
 L                                                4A    SN=                        2 BD     B45
 R      837.72  849.00        THE PY CONCENTRATES IN THE COARSER BEDS.  TWO AGES OF QZ-CP
 R      837.72  849.00        VEINING WAS FOUND.  THE PY WAS ALSO FOUND PRESENT IN THE FIRST
 R      837.72  849.00        WHICH WAS CROSS-CUT BY BARREN QZ-CB VEINS.

 K US2  849.00  849.00   0.00

 /      849.00  849.83   0.83                 MSSX GL SL CH1 BN LM               P  1 BD      52                   D=    M7
 L                                                   PY                                                                L1
 R      849.00  849.83        THE GL AND SL ARE LM OR BN WITH A GREATER % OF GL PRESENT.

 /      849.83  851.74   1.91                 LMSX BA GL CH2 LM LC               P  1 BD      50          <( L6    61    L=
 L

 /      851.74  852.03   0.29                 FGSX BA GL CH7                     P                        8( L1    D1    D=
 L                                                   SL                LN7                                             L+
 R      851.74  852.03        THE FRAGMENTS ARE LM BUT ROTATED.  THIS IS WHERE THE SL IS
 R      851.74  852.03        FOUND.  GL IS DISS THROUGHOUT.  THIS AREA IS HIGHLY SILICIFIED.

 /      852.03  853.30   1.27                 BNSX SF BA CH8 BN LM               P  2 BD     T31          8( L=    L=    D+
 L                                                   PY                              BD     B68                        D+
 R      852.03  853.30        WELL LAMINATED TO BANDED. THE PY IS MOST VISABLE BUT SL-GL ARE
 R      852.03  853.30        PRESENT.  THIS HAS BEEN TOTALLY SILICIFIED.

 /      853.30  853.77   0.47                 FGSX SF BA CH8                     P                        8* Q=    8=    D=
 L                                                   PY                MO8                                             D+
 R      853.30  853.77        CLASTS ARE LM BUT ARE NOW ROTATED.  SILIFICATION IS PERVASIVE.

 /      853.77  854.90   1.13                 GDSX SF CA CH5 BN LM               P  2 BD     T18             L4    L=    D=
 L                                                   PY    LC                               B40                        D+
 R      853.77  854.90        WELL BANDED AND LESS SILICEOUS.  BANDING IS SLIGHTLY CONVOLUTED.

 /      854.90  857.54   2.64                 FGSX BA PY CH6 SS                  P                        8( P2    8=    D1
 L                                              QS                     MP6                                             D=
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< F  F R O M - T O -  T N T RECOV  MD % ROCK TM TM NM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y G                             R Q D  AGE EV RO LC TM NM2 TX TX S C U O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R     854.90  857.54      THE BEDDING PRESENT HAS BEEN DISTURBED BY SS.  THIS IT IS
R     854.90  857.54      FRAGMENTED.  THIS IS BARITIC AND THE BARITE IS SEEN IN LM.
R     854.90  857.54      GL-SL-PY ARE DISSEMINATED THROUGHOUT CONC ALONG LM PRESENT.

/     855.78  856.31  0.53         X FGSX BA PY CH6 SS                R  2 BD     58          8( P2   8=   D1
L
R     855.78  856.31      THIS AREA THE BD HAS NOT BEEN DESTROYED BY SS.

/     857.54  858.57  1.03           BNSX SF GL CH7 LM BN             P  2 BD    T47          8) L=   D+   D1
L                                                  SS                    2 BD    B65                       L-

/     858.57  859.27  0.70           FGSX SF GL CH5 SS                P                       8* L2   D=   D1
L                                          SL              L05                                   B(        L1
R     858.57  859.27      THIS WAS WELL BEDDED BUT SS HAS FRAGMENTED IT.

/     859.27  860.36  1.09           LMSX SF BA CH7 LM BN             P  1 BD     70 <(       8( L1   D=   D=
L                                          PY      LC

/     860.36  861.00  0.64           BNSX SF SX CH7 BN                P  2 BD     48             L=   D)   L1
L                                                                                                          L=

/     861.00  870.81  9.81           BNSX SF SX CH6 BN LM             P  1 BD    T38 <-       D- L2   D=   L1
L                                          PY      SS LC                 2 BD    B64                       L=
R     861.00  870.81      LESS SILIFICATION AT THE BOTTOM OF THIS UNIT.  IT IS WELL
R     861.00  870.81      BEDDED WITH SOME CONVOLUTED BEDS.  THE GL IS PRESENT THROUGHOUT
R     861.00  870.81      BUT IS FOUND CONC IN PATCHES.

/     870.81  875.62  4.81           LMSX SF SX CH4 LM LC             P  1 BD    T35          8( L2   D=   L1
L                                          PY         SS                 1 BD    B65                       L2
R     870.81  875.62      THIS IS WELL LM SL AND GL.  THE GL IS A PALE ORANGISH COLOUR.

/     875.62  877.52  1.90           LMSX SX SF CH4 LM LC             P  1 BD    T15             L1   D1   #2
L                                          PY      SS                      BD    B40                       L2
R     875.62  877.52      HERE THE ORIGINAL BD IS SHOWN BY THE BA-SL LM BUT A SECONDARY
R     875.62  877.52      SLUMPING EVEN HAS CREATED AREAS WHERE GL HAS ENTERED AS A
R     875.62  877.52      DEPOSITIONAL EVENT.

/     877.52  889.84 12.32           LMSX SX SF CH3 LM LC             P  2 BD    T40          D) L3   D1   L1
L                                          PY         SS                         B70                       L2
R     877.52  889.84      THIS SECTION IS WELL LM.  IT IS LESS SF AND THE BA-SL SHOW UP
R     877.52  889.84      AS WHITE AND PALE ORANGISH LM.

/     889.84  890.73  0.89           BNSX SX SF CH5 LM                P  2 BD     72          8* L1   D+   L2
L                                                  LC SS                                                   L1

/     890.73  893.06  2.33           BNSX SF SX CH7 LM LC             P  3 BD     70 <(       8* L1   D+   L=
L                                                                                                          L1

/     893.06  894.09  1.03           LMSX SF SX CH6 LM                P  2 BD     57          8( L1   D=   X2
L                                                                                                          L1

/     894.09  897.28  3.19           LMSX SF SX CH5 LM LC             P  2 BD     56             L2        L1
L                                                                                                          L2
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K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                           R Q D  AGE FV RQ LC TM QM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

K LS2  897.28  897.28   0.00

/      897.28  901.33   4.05             LMSX SF SX     LM LC               P  1 BD      65         D) L1    D+    L1
L                                                CB                                                               L1

/      897.28  901.33   4.05           6 SILT SF CB     LM LC               R  1 BD      65         D*     GR D+
L                                                CB                                                     C(
R      897.28  901.33      THIS IS DIRECTLY BELOW THE ORE ZONE.  SOME SILT BEDS RANGE UP
R      897.28  901.33      TO SEVERAL CM THICK.  GRAPHITE OCCURS ALONG FRACTURES, AND LT
R      897.28  901.33      IS ALL CARBONATED.

/      901.33  910.44   9.11             SILT SF PY SN= LM //               P  1 BD      58         <-       D+
L                                                                                               C-    <(
R      901.33  910.44      THERE ARE A FEW INTERBEDDED SANDY LAYERS RICH IN PYRITE.

R SUM

R SUM                       TARGET

R SUM                       THE TARGET OF DDH 81-70A WAS THE 600 M BENCH LEVEL OF THE SOUTH

R SUM                       ZONE. PURPOSE OF THIS HOLE WAS TO HAVE A 50 M STEP-OUT

R SUM                       FROM HOLE 70, AND TO PROVE UP MORE ORE.

R SUM

R SUM                       RESULTS

R SUM                       MINERALIZATION WAS INTERSECTED BUT BELOW THE TARGET POINT.

R SUM                       HOLE 70A ACTUALLY INTERSECTED THE ORE ZONE AT THE 580 M LEVEL.

R SUM                       THE HOLE WAS REDUCED TO BQ SIZE AT 754.08 M, BUT DID NOT FLATTEN

R SUM                       TWO ORE ZONES WERE INTERSECTED, S-1 FROM 795.49-819.31 M

R SUM                       AND S-2 FROM 849.00-897.28 M.  THE TRUE THICKNESS OF S-1 IS

R SUM                       19.51 M, USING AN AVERAGE CORE ANGLE OF 55 DEGREES TO CALCULATE

R SUM                       THE TRUE THICKNESS.  TRUE THICKNESS OF S-2 IS 36.98 M, USING

R SUM                       A CORE ANGLE OF 50 DEGREES TO CALCULATE THE TRUE THICKNESS.

R SUM

R SUM                       THE AVERAGE GRADES ARE:

R SUM
```

R SUM SOUTH ZONE 1 BA 32.85%
R SUM PB 3.49%
R SUM ZN 7.55%
R SUM
R SUM SOUTH ZONE 2 BA 21.86%
R SUM PB 10.89%
R SUM ZN 12.22%
R SUM
R SUM CORE REVUVERY WAS EXELLENT THROUGHOUT BOTH ORE ZONES.
R SUM IT WAS APPROXIMATELY 98% IN BOTH ZONES.
R SUM
R SUM
R SUM SPECIAL REMARKS
R SUM
R SUM DRILLING
R SUM THIS HOLE, 70A WAS WEDGED OFF OF HOLE 70 AT 440.44 M.
R SUM A TOTAL OF10 WEDGES WERE UTILIZED IN THE DRILLING AND COMPLETION
R SUM OF THIS HOLE. AT 754.08M THE HOLE WAS REDUCED FROM NQ TO BQ
R SUM SIZE TO REDUCE TORQUE ON THE DRILL RODS.
R SUM
R SUM MINERALIZATION
R SUM MINERALIZATION WAS MAINLY BARITIZATION A LARGE DEGREE OF
R SUM SILIFICATION. SOME MINOR FOLDS WERE SEEN, BUT MAINLY THE BEDS
R SUM AND LAMINATIONS WERE CONVOLUTED. IN S-1 THE BEDDING DIP VARIED
R SUM GREATLY BUT IN S-2 THE BEDDING DIPS WERE MORE CONSISTANT.
R SUM

R SUM	CONCLUSIONS
R SUM	THIS HOLE WAS SUCCESSFUL IN HITTING THE ORE ZONE AND PROVING UP
R SUM	THE ORE.

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

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DRILLHOLE/TRAVERSE :81AJH078      COLLAR ELEVATION:       1296.37      AZIMUTH( DEG ) :  355.00     GEOLOGGED BY : JDK + JWP
TOTAL DEPTH/LENGTH :  181.79      NORTHING(- IF S):    7002568.00      VERTICAL ANGLE :  -83.00     DATE (YY/MM/DD): 810922
CORE/HOLE DIAMETER :     NQ       EASTING (- IF W):     436555.31      CO-ORD SYSTEM  :   UTM       PROJECT NUMBER : J-MAIN
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SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	27.43	0.00	-81.50
2	88.39	5.00	-81.25
3	118.26	6.00	-81.25
4	134.42	10.50	-80.30
5	143.26	13.00	-79.00
6	158.50	14.00	-79.00
7	173.43	14.00	-78.50
8	180.14	14.00	-78.50

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R HED                     HOLE ABANDONED DUE TO WEDGE PROBLEMS AT 182.27M.

   F   - I N T E R V A L -     CORE  T- %      TYPI- QAL  TEX-  GRAIN          PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =    .  DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                           H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MT=METRIC FT=FOOTRIC)   ERY     O I      TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  I N T (  . )    D X TYPE  1  2 QM1  1  2 F F C A          1     AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                          ROCK    EM     RT    TM QM2 TX TX S C U O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                          QUAL   AGE EN- Q LC- 3       3  4 O     /          2     AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y  G                          DESIG      VIR   COL            R     C            STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2   2

R SVY  134.42  134.42        BEGINNING OF WEDGED HOLE A.
R SVY  134.42  134.42        HALL AND ROWE STEEL WEDGE, FLATTENING.
R SVY  182.27  182.27        CLAP RETRIEVABLE WEDGE LOST IN HOLE.
R SVY  181.79  181.79        END OF WEDGED HOLE A.

/         0.00  131.76 131.76            MISS                          P

/       131.76  132.61   0.85            BRHM PY GR *S1 F* R*       NQ7  P                                              8+
L                                              1A            2 1   O KM2

/       132.61  137.77   5.16            SAND PY GR     SS FU 4 5 4 5      P  2 BD     U72                              8=
L                                              4A             5     C

/       132.61  137.77   5.16          2 BRHT PY        F* R*       NP5  R  3 BD                                        8+
L                                              3A            2      C MN5

/       133.29  133.59   0.30          X BRHT PY        F* R*       NP5  R                                              8+
L                                              3A            2      C MN5

/       135.46  135.94   0.48          X SAND PY GR     SS FU 2 3 2 3      R  2 BD     U70                              8.
L                                              2A
R       135.46  135.94      CORE IS BADLY BROKEN.
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PAN OCEAN OIL LTD.

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G E O L O G                                  JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                     PAGE - 2
                                        DRILLHOLE/TRAVERSE --- 81AKH078 --- (CONTINUED)

K  F   F R O M - T O -  I N T RECOV  RD % ROCK TM TM OM1 TX TX F C % M ARG    RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                          R Q D  AGE EV RO LC TM OM2 TX TX S C O O CHT        2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/       137.77  157.51  19.74             BRHM PY GR      F*              QS9   P                6.       <.       6*
L                                              1A CR               2 1    C                               6.

/ FLT   143.43  149.75   1.32           X FAUL QZ CR                            R                66       6)       6)
L                                              8A SD                                                      6*

/       157.51  159.11   1.60             BRHT PY         B* F*           QP4   P                                  8+
L                                              5A         R* H* 2 2    C QP5

/       159.11  162.54   3.43             ARSI PY GR ST2 SS // 2 4 4 4          P  3 BD      U70                   6+
L                                              1A SD SN1           3 3                                    6.

/       159.11  159.85   0.74           X BRHM PY GR      B* F*           PQ6   R                <)       <)       6+
L                                              2A SD      R*       2   1  003                             6.

/       162.54  170.03   7.49             BRHM PY GR SN1                  PR8   P                                  6)
L                                              1A    SI1             2 C                               C.

/       168.55  169.77   1.22           X LOST                                  R
L

/       170.03  174.35   4.32             BRHT PY GR      B* R*           PQ6   P                         <)       6)
L                                              3A CB      F*       2 1    C OP3                        C.
R       170.03  174.35        CORE IS BADLY BROKED

/       174.35  178.74   4.39             BRHM PY         B* R*           PR8   P                                  8*
L                                              1A                  2   =  MN=
R       174.35  178.74        CORE IS BADLY BROKEN.

/       178.74  179.90   1.16             ARSN PY GR SN3 // SS 2 3 5 3          P  2 BD       75                   8)
L                                              4A    SI1           6
R       178.74  179.90        POSSIBLE FRAGMENT.

/       179.90  181.79   1.89             BRHM PY GR SN4                  QR5   P                                  B)
L                                              2A                  2   5
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G E O L O G E D I T L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :81AVH085
TOTAL DEPTH/LENGTH : 620.27
CORE/HOLE DIAMETER : HQNC

COLLAR ELEVATION: 1244.36
NORTHING(- IF S): 7002370.00
EASTING (- IF W): 436553.06

AZIMUTH(DEG) : 0.00
VERTICAL ANGLE : -90.00
CO-ORD SYSTEM : UTM

GEOLOGGED BY : JWP +
DATE (YY/MM/DD): 811101
PROJECT NUMBER : J-S1

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	12.00	49.80	-87.80
2	24.00	49.90	-87.58
3	37.00	67.80	-86.50
4	49.00	79.60	-86.92
5	61.00	92.50	-86.67
6	73.00	111.40	-86.50
7	85.00	103.30	-87.00
8	98.00	97.20	-86.17
9	110.00	99.10	-86.03
10	122.00	119.10	-86.25
11	134.00	118.00	-86.17
12	146.00	119.00	-85.75
13	159.00	113.00	-86.67
14	171.00	114.00	-86.83
15	183.00	108.00	-87.47
16	195.00	135.00	-85.50
17	207.00	146.00	-85.10
18	219.00	143.10	-84.92
19	232.00	155.10	-84.53
20	244.00	156.10	-84.25
21	256.00	166.30	-84.17
22	268.00	164.40	-84.05
23	280.00	159.50	-82.00
24	293.00	160.50	-81.08
25	305.00	164.50	-80.08
26	317.00	171.50	-79.42
27	329.00	171.50	-78.58
28	341.00	168.70	-79.00
29	354.00	170.70	-79.33
30	366.00	171.00	-79.08
31	378.00	170.10	-79.00
32	390.00	168.10	-78.75

33	402.00	164.20	-78.07
34	415.00	168.20	-77.78
35	427.00	162.30	-77.00
36	439.00	158.40	-76.03
37	451.00	157.50	-75.83
38	463.00	156.50	-75.33
39	475.00	154.60	-75.05
40	488.00	154.60	-74.75
41	500.00	152.60	-74.50
42	512.00	151.70	-73.42
43	524.00	149.80	-71.50
44	536.00	149.80	-70.47
45	549.00	147.00	-69.83
46	561.20	146.20	-68.58
47	573.00	147.10	-68.38
48	585.00	147.20	-68.17
49	597.00	148.20	-68.63
50	610.00	145.50	-68.47
51	616.00	145.50	-68.43

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   F   - I N T E R V A L -     CORE  T- %        TYPI- QAL  TEX-  GRAIN         PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =   . DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                               H  H  H  H  H ANY H  H  H ANY  ALT ORE
F  A  (MT=METRIC FT=FOOTRIC)  ERY    O I        TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  I N T (  . )  O X TYPE  1  2 MM1  1  2 F F C A            1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                          ROCK    FM     RT    TM QM2 TX TX S C O O CHT        T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                          QUAL   AGE EN- N LC- 3     3  4 O      /            2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y  G                          DESIG      VIR   COL             R      C              STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2   2
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R	SVY	0.00	0.00	DATA FROM GYROSCOPIC DIRECTIONAL SURVEY.		
R	SVY	0.00	0.00	THIS DATA IS ASSUMED TO BE MORE ACCURATE AND SHOULD BE USED.		
R	SVY	282.55	282.55	THIS IS THE POINT WHERE THE BRANCH WEDGE FOR DDH 81-85A IS.		
R	201	27.74	45.72		40.00-87.50	7298.50
R	202	45.72	52.12		74.00-85.33	9772.67
R	203	52.12	64.31		79.00-85.25	11636.75
R	SVY	52.43	52.42	HALL AND ROWE STEEL WEDGE FULL STEEPENING.		
R	204	64.31	71.02		89.00-86.50	13535.50
R	205	71.02	85.34		94.00-85.75	15644.25
R	SVY	71.63	71.63	HALL AND ROWE STEEL WEDGE FULL STEEPENING.		
R	206	85.34	106.98		108.00-85.50	19254.50
R	SVY	87.78	87.78	HALL AND ROWE STEEL WEDGE FULL STEEPENING.		
R	207	106.98	134.11		104.00-85.80	24127.20
R	SVY	121.31	121.31	HALL AND ROWE STEEL WEDGE HALF AZM RIGHT, HALF STEEPENING.		
R	208	134.11	137.16		118.00-86.00	27159.00
R	209	137.16	148.44		118.00-66.25	28591.75
R	SVY	137.16	137.16	REDUCE FROM HQ TO NQ.		
R	SVY	140.51	140.51	CLAPPISON RETRIEVABLE WEDGE HALF AZM RIGHT, HALF STEEPENING.		
R	210	148.44	169.47		123.00-85.50	31828.50
R	SVY	156.36	156.36	CLAPPISON RETRIEVABLE WEDGE FULL STEEPENING.		
R	211	169.47	185.01		137.00-86.25	35498.75
R	SVY	174.65	174.65	CLAPPISON RETRIEVABLE WEDGE FULL STEEPENING.		
R	212	185.01	192.63		102.00-87.25	37778.75
R	213	192.63	202.69		114.50-87.25	39559.25
R	SVY	192.94	192.94	CLAPPISON RETRIEVABLE WEDGE FULL AZM RIGHT.		
R	214	202.69	210.31		138.00-85.33	41352.67
R	SVY	207.87	207.87	HALL AND ROWE STEEL WEDGE FULL AZM RIGHT.		
R	215	210.31	219.76		125.00-85.50	43046.50
R	216	219.76	225.86		146.00-84.75	44623.25
R	217	225.86	234.70		141.00-85.00	46112.00
R	218	234.70	245.36		147.00-85.00	48068.00
R	SVY	235.61	235.61	CLAPPISON RETRIEVABLE WEDGE FULL AZM RIGHT.		

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K  F  F R O M - T O -  T O T RECOV  MD % ROCK TM TM QM1 TX TX F C % M ARG   RT 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R Q D  AGE EV RQ LC 1M QM2 TX TX S C U O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R 219  245.36  252.07             161.00-84.50    49988.50
R 220  252.07  264.57             157.00-84.50    51736.50
R SVY  253.90  253.90      CLAPPISON RETRIEVABLE WEDGE FULL AZM RIGHT.
R 221  264.57  274.62             170.00-84.50    54004.50
R 222  274.62  282.55             177.00-84.00    55597.00
R SVY  282.55  282.55      BRANCH WEDGE A.
R SVY  282.55  282.55      HALL AND ROWE STEEL WEDGE, FULL FLATTENING.  THIS IS THE BRANCH
R 223  282.55  297.48             174.50-83.50    57706.50
R 224  297.48  315.77             169.80-81.50    61243.50
R SVY  301.14  301.14      CLAPPISON RETRIEVABLE WEDGE, HALF AZM RIGHT, HALF FLATTENING.
R 225  315.77  337.41             164.00-80.00    65402.00
R SVY  320.04  320.04      CLAPPISON RETRIEVABLE WEDGE, FULL AZM RIGHT.
R 226  337.41  346.56             175.00-78.75    68493.25
R 227  346.56  364.85             171.00-78.25    71233.75
R SVY  351.43  351.43      CLAPPISON RETRIEVABLE WEDGE, FULL AZM RIGHT.
R 228  364.85  367.59             170.00-79.25    73334.75
R 229  367.59  374.29             173.00-79.33    74291.67
R 230  374.29  388.92             171.00-79.00    76413.00
R 231  388.92  397.46             172.00-79.00    78731.00
R 232  397.46  407.21             171.00-78.75    80559.25
R SVY  401.12  401.12      THE STANDARD CORE BARREL WAS PUT ON TO TRY AND FLATTEN THE HOLE
R 233  401.12  401.12
R 234  416.05  434.00      4      164.00-78.00    85095.00
R SVY  418.80  418.80      CLAPPISON RETRIEVABLE WEDGE, HALF AZM RIGHT, HALF FLATTENING.
R SVY  418.80  418.80      THE STRAIGHT HOLE EQUIPMENT WAS PUT BACK ON SINCE AZM WAS LOST
R SVY  418.80  418.80      WITH THE STANDARD BARREL ON.
R 235  434.04  446.84             165.00-77.50    88175.50
R 236  446.84  463.60             162.00-76.25    91129.75
R 237  463.60  474.57             156.00-76.00    93897.00
R 238  474.57  488.90             155.00-75.25    96426.75
R 239  488.90  492.86             153.00-75.25    98253.75
R 240  492.86  502.15             153.00-75.00    99580.00
R 241  502.15  510.84             153.00-74.66   101378.34
R 242  510.84  518.46             151.00-74.66   103006.34
R 243  518.46  529.13             151.50-74.00   104984.50
R 244  529.13  537.06             151.50-73.25   106697.25
R 245  537.06  584.30             151.50-71.75   112215.75
R 246  584.30  620.27             142.50-68.25   120531.25

/          0.00  285.29 285.29          MISS                         P
L

/        285.29  294.07   8.78          BRHT      *S+ R*        NQ8  P                                 R*
L                                         4A         2  +   LO=                      C-
R        265.29  294.07      STARTED CORING PAST THE BRANCH WEDGE OFF OF DDH 81-85.
R        285.29  294.07      IT WAS A HALL AND ROWE STEEL WEDGE, FULL FLATTENING.

/        294.07  295.83   1.81          BRP4         F* R*      MQ1  P                                 D(
L                                         7A         2      KN5                      C-

/        295.88  313.26  17.38          BRHT GR   *B) R* F*     LT8  P   V/      85 >(          D.   D)   D.
L                                         5A      *S+ SS   2 ) +   J01     CV      90       C-
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PAN OCEAN OIL LTD.

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G E O L O G                                  JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                          PAGE -  4
                                        DRILLHOLE/TRAVERSE --- 81AWH085 --- (CONTINUED)

K  F  F R O M - T O -  I O T RECOV  RD % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R Q D  AGE EV RO LC TM QM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R     295.38  313.26    A LOT OF VARYING CLASTS ARE PRESENT PRESENT IN THIS CHAOTIC
R     295.88  313.26    BRECCIA.

/     301.14  302.67  1.53        X WEDG                          R
L
R     301.14  302.67    CLAPPISCON WEDGE, HALF AZM RIGHT, HALF FLATTENING.

/     309.30  310.19  0.89        9 VEIN QZ                       R    V/      85           Q*   D(   Q-
L
/     313.26  315.73  2.47         ARSN GR   SN1 //   A I 3 J     P  2 BD      65                B*
L                                      3A    SI2      7                CV      90     C-  <-
R     313.26  316.90    APPEARS TO BE DEPOSITIONAL SEQUENCE WITH DEPOSITIONAL
R     313.26  316.90    CONTACTS BETWEEN THE UNITS.

/     315.73  315.77  0.04         ARGL               A A   A     P
L                                      2A

/     315.77  316.90  1.13         CGBR         F* B* J M 4 O LO2   P          <(      <-      Q.
L                                      7A             4     KN3

/     316.90  318.29  1.39         BRXX GR    *S) IM R*        KO2   P  2 BD      52                R*
L                                      5A      (L //    ) )  KN1
R     316.90  318.29    THIS BRXX IS A DEBRIS FLOW.  BEDDING CAN BE SEEN, THE CLASTS
R     316.90  318.29    OF SAND AND CONG ARE IN VARIOUS BEDS.  THE TRANSPORTING MEDIUM
R     316.90  318.29    WAS PROBABLY MUD FLOW.

/     318.29  319.35  1.06         CGBR GR      F* B* K M 4 O KN3   P          <-          <-  B.
L                                      6A             4     KO4                   C-

/     319.35  321.56  2.21         BRBT GR    *S) R* F*        LP6   P                          Q(
L                                      4A      SS       1 )  KO2                   C-

/     320.04  321.56  1.52        X WEDG                          R
L
R     320.04  321.56    CLAPPISON WEDGE, FULL AZM RIGHT.

/     321.56  376.42 54.86         ARSI GR    SI= (F // A F = G    P  1 BD      68 <(             B*
L                                      3A    GG+                                  C-  <(         R.
R     321.56  376.42    THIS IS IN A DISTAL ENVIROMENT, WHERE IT WAS RELATIVELY QUIET
R     321.56  376.42    TO GET NICKLY FORMED BEDS.

/     341.99  346.10  4.11        X ARSI GR    SI= (F // A F = G    R  1 BD      90 <(             B*
L

/     346.10  347.47  1.37        X ARSI GR    SI= (F // A F = G    R  1 BD      68 <(             B*
L                                            GGX

/     350.96  351.43  0.47        X BRPM GR       TM           JN4   R    BD      70                Q*
L                                      3A

/     351.43  352.96  1.53        X WEDG                          R
L
```

```
 K  F  F R O M - T O -  I N T RECOV  MD % ROCK TM TM GM1 TX TX F C % M ARG   RT 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
 E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
 Y  G                          R O D  AGE FV RG LC TM GM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

 R       351.43  352.96      CLAPPISON WEDGE, FULL AZM RIGHT.

 /       358.75  359.25   0.50            1 VEIN QZ                            R     V/       55              D(    Q*    B(
 L                                                                                                                       B.

 /       369.06  369.31   0.25            X BRBM GR     *S= SS          =   LM4    R                          C-          D.
 L                                               3A                                                               <(

 /       376.42  391.45  15.03              BRBT        GG7 R*              J07    P                               C-    Q-
 L                                               3A                                 JN1                         C(

 / FAL   376.42  384.96   8.54            X BRBT        GGX R*              J07    R                               C-    Q-
 L                                               3A                                 JN1                         C(
 R       376.42  391.45      THIS BRECCIA IS THE START OF A LARGE DEBRIS FLOW PACKAGE.

 /       391.45  395.00   3.55              ARSI GR     SI2 //                     P  1 BD       60                     Q)
 L                                                      SN)                           CV       90        C-    <(
 R       391.45  395.00      THE ARGL IS BRITTLE AND BREAKS EASILY ALONG CLEAVAGE PLANES.

 /       395.00  457.64  62.64              BRBT GR     *B3 R* F*           MU4    P                               Q(    Q)
 L                                               5A         R* B* 2 = 3     L02                         C-    <*
 R       395.00  457.64      THIS BRBT IS MADE UP OF LARGE CLASTS OF CGXX, ARGL, ARSI, BRPM,
 R       395.00  457.64      WHICH ARE SLUMPED DOWN TO FORM A LARGE DEBRIS FLOW PACKAGE.

 / FRG   396.10  397.45   1.35            X BRPM GR         F* B*           MO2    R                                     B)    B.
 L                                               6A         R* R* 4         K03                               <)
 R       396.10  397.45      THE MATRIX IS SANDY.
 R       401.11  401.11      THE STANDARD CORE BARREL WAS PUT ON TO TRY AND FLATTEN THE HOLE.

 / FRG   408.18  408.64   0.46            X CGBR SF         R*      I L 4 M KM3    R                                     Q*
 L                                               5A                 6       JL2
 R HLT   408.18  408.64      WELL ROUNDED CARBONACEOUS CLASTS ARE PRESENT.

 / FRG   410.11  412.70   2.59            X BRPM SF         R* F*           KP2    R                                     Q*
 L                                               6A         R*     4        J04

 / FRG   417.88  418.75   0.87            X ARSA        SN5         A J 6 K        R                               C-    B)
 L                                               4A     SI1         7                                   C-

 /       418.80  420.32   1.52            X WEDG            //                     R  2 BD       75
 L
 R       418.80  420.32      CLAPPISON WEDGE, HALF AZM RIGHT, HALF FLATTENING.
 R       418.80  420.32      STRAIGHT HOLE EQUIPMENT WAS PUT BACK ON.

 / FRG   429.03  429.39   0.36            X SAND SF                 E I 5 J        R                                     D(
 L                                               7A                 7                                           <-

 / FRG   430.33  433.20   2.87            X ARSI        SN+ //      A H = H        R  3 BD       80                     B*
 L
 R HLT   430.33  433.20      THE PY OCCURS AS BLEBS ALONG THE BEDS.  THE CLEAVAGE CAN BE SEEN
 R       430.33  433.20      CROSS CUTTING THE BEDDING.
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```
K  F   F R O M - T O -   I N T RECOV  MD % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                                 R Q D  AGE EV RU LC TM QM2 TX TX S C O O CHT        2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/       457.64  482.32  24.68               BRHT GR     GG1 R* F*           MQ3    P                               C.     Q)
L                                                6A     *R+          1      KP4                              C-     <(     <(
R       457.64  482.32       THIS BRHT HAS MORE MUD AND SLATE IN THE MATRIX.  THE CHERT
R       457.64  482.32       FRAGMENTS SEEN ARE SUB-ROUNDED TO ANGULAR AND IN SOME PLACES
R       457.64  482.32       THEY APPEAR IMBRICATED.

/       482.32  501.68  19.36               BRPM SF     *S) F*              KT2    P                                      B(     Q.
L                                                7A                 ( )     JP5                              C-
R       482.32  501.68       THE TOP OF THIS UNIT  THE BRPM HAS A SANDY MATRIX AND IS CLOSED
R       482.32  501.68       GOING TOWARDS THE BASE MORE ARGL CLASTS ARE SEEN AND THE BRPM
R       482.32  501.68       OPEN.

/ FRG   501.06  501.36   0.30             X CGHR SF         F* H* I M 4 N KN2    R                                      B*     *(
L                                                7A                4     C JN3

/       501.68  505.90   4.22               CGCP SF     *S( FU H* I R 6 N JN2    P                   <.                Q(     D+
L                                                7A     *C2 R* F* 7    ( O HN4                               C- C-
R HLT   501.68  505.90       HERE ARE TWO IMMATURE BOUMA SEQUENCES, AD AB-TYPE.  THEY ARE
R       501.68  505.90       SEPARATED BY A PERIOD OF QUIESCENCE.  THE GALENA IS FOUND
R       501.68  505.90       THROUGHOUT AS REPLACEMENT CLASTS AND AS CLASTS IN THE MATRIX.
R HLT   501.68  505.90       ROUNDED CARBONACEOUS CLASTS ARE PRESENT ALSO.  THIS IS CONC.
R       501.68  505.90       AT THE TOP OF FU SEQUENCE.

/       505.90  514.20   8.30               BRHT GR     *S= F* H*           FR4    P                                      R)     *(
L                                                4A     *C+ R* IM       +   HN2                              C-     <)            *-
R       505.90  514.20       THIS BRECCIA HAS MORE MUD AND SAND IN THE MATRIX.
R       505.90  514.20       AT THE BASE OF IT CLASTS OF GALENA AND SL ARE FOUND.

/ FRG   512.34  514.20   1.86             X BRPM SF     *C= H* F*           KO1    R                                      R(
L                                                6A         R*       )   O IO4                               C-     <-

/       514.20  540.26  26.06               BRPM GR SF *S* SS               MT9    P                               C(     Q*
L                                                3A CB        R*       *    KM)                                     <-
R       514.20  540.26       THIS BECOMES MORE SILICIFIED TOWARDS THE BASE.

/ FRG   514.80  516.10   1.30             X ARSI SF     SI= //      A D = E        R  2 BD        68                   C-     D(
L                                                3A                 7                                        C-     <-

/ FRG   516.35  518.37   2.02             X ARSI SF     SI= //      A D = E        R  2 BD        78                   C-     D(
L                                                3A                 7                                        C-     <-

/ FRG   518.37  519.99   1.62             X ARSI SF     SI= //      A D = E        R  2 BD        70                   C-     D(
L                                                3A                 7                                        C-     <-

/ FRG   520.25  520.55   0.30             X ARSI SF     SI= //      A D = E        R  2 BD        85                   C-     D(
L                                                3A                 7                                        C-     <-

/ FRG   528.69  529.94   1.25             X ARSI SF     SI= //      A D = E        R  2 BD        80                   C-     D(
L                                                3A                 7                                        C-     <-

/ FRG   529.94  539.80   9.86             X ARSI SF CB  SI= //      A D = E        R  2 BD        30                   C-     D(
L                                                3A                                                          C-     <-
```

```
K  F  F R O M - T O -  I N T RECOV  RQD % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R Q D  AGE EV RQ LC TM QM2 TX TX S C O U CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/      540.26  543.03   2.77             BRHT SF    *C= F* R*          L01   P                                 D+
L                                                       H*       6     JN3

/ FRG  542.04  542.42   0.38           X CGXX SF    *C+ R* R*  T L 4 N JN2   R                                 D)
L                                             6A                   4 0 KL2
R HLT  542.04  542.42      ROUNDED CARBONACEOUS CLASTS ARE PRESENT.

/      543.03  550.48   7.45             BRHM SF CB *S) SS R*          LS9   P                                 Q)    D.
L                                             4A        H*         )   KM+                       C.
R      543.03  550.48      THIS UNIT IS SF AND BECOMES CB TOWARDS THE BASE.

/      550.48  555.17   4.69             BRPM SF    *C1 F* H*          L01   P                                 R)
L                                             6A        5* R* 2      0 KN3
R      550.48  555.17      THE MATRIX IS VERY SANDY.  THE CLASTS GIVE THE APPEARANCE
R      550.48  555.17      OF BEING IBRICATED.

/      555.17  575.13  19.96             BRHT SF CB *S+ R*          LP7   P               <-          C-    Q+    R-
L                                             3A    *3)            +   LL)                       C.    Q+    R-
R      555.17  575.13      THIS IS NOT THE USUAL BRHT.  IT IS DISTINCT BECAUSE THE MATRIX
R      555.17  575.13      IS SILTY AND IT IS CARBONACEOUS.  THERE ARE CLASTS WITH GL
R      555.17  575.13      AND SL IN THE CENTRE, SURROUNDED BY PY.

/      575.13  599.16  24.03             BRHM SF    ST+                MT9   P               <-          C-    Q)    *.
L                                             7A                   +                             C.    <-          *.
R      575.13  599.16      THIS BECOMES SILICIFIED TOWARDS THE BASE.
R      575.13  599.16      A FIBROUS MINERAL  IS FOUND ALONG SOME FRACTURES.  IT IS THOUGH
R      575.13  599.16      TO BE CHRYSOTILE.
R      575.13  599.16      THE BEDDING IN THE ARGL AND ARSI CLASTS VARY FROM 90 TO 50
R      575.13  599.16      DEGREES.

/ FSX  599.16  601.83   2.67             FGSX SL GL S*4                MN4   P                                 #3    #1
L                                             6A SF                                                                  #2
R      599.16  601.83      THIS REPRESENTS A LARGE BRECCIA FRAGMENT WHICH HAS BEEN
R      599.16  601.83      MINERALIZED AND HAS SLUMPED DOWN INTO THE BRECCIA PACKAGE.
R      599.16  601.83      THERE ARE CLASTS OF LMSX PRESENT ALONG WITH THE SX D THROUGHOUT.

/      601.83  602.95   1.12             BRHM SF    ST) SS             NP8   P               <*                      Q*
L                                             6A                   )   JM)

/      602.95  604.99   2.04             BRPM SF    *C+ R* H*          KM1   P               <)                            **
L                                             6A        F* H*          JN2                                                 R)
R      602.95  604.99      TOWARDS THE BOTTOM IT BECOMES CHERT RICH AND SILTIER.

/      604.99  612.34   7.35             BRHM SF        SS             LP9   P               <)                      R)    *-
L                                             6A                       JL)                          <                      R(
R      604.99  612.34      AT 609.9 M CORE WAS LOST.  THE RODS DROPPED 2.44 M WITH
R      604.99  612.34      NO RESISTANCE.

/      612.34  620.27   7.93             MSSX GL SL     MX VG                P                                 Q2    X5
L MSX                                         6A PY                                                                  X3
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K  F   F R O M - T O -  I N T RECOV  RQ % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                             R Q D  AGE EV RQ LC TM OM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

K US1   612.34  612.34   0.00
R EDT   612.34  620.27      ASSUMED THAT ROCK TYPE IS  MSSX (=MASSIVE SULPHIDES).
R       612.34  620.27      THE RODS WERE STILL GOING DOWN WITH NO RESISTANCE.
R       612.34  620.27      45 CM OF MSSX WAS CORED.  THIS COULD BE A LARGE CAVERN
R       612.34  620.27      OR A FAULT OR THE ORE ZONE WHICH IS NOT WELL FORMED.
R       612.34  620.27      THE ACTUAL LOCATION OF THE CORE IS UNCERTAIN.
R END   620.27  620.27      END OF LITH LOG.
```

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :8135H066
TOTAL DEPTH/LENGTH : 806.81
CORE/HOLE DIAMETER : HQNG

COLLAR ELEVATION: 1275.94
NORTHING(- IF S): 7002472.00
EASTING (- IF W): 436496.25

AZIMUTH(DEG) : 0.00
VERTICAL ANGLE : -90.00
CO-ORD SYSTEM : UTM

GEOLOGGED BY : DWB +
DATE (YY/MM/DD): 810000
PROJECT NUMBER : J-S2

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	30.00	146.90	-89.47
2	61.00	169.10	-87.40
3	91.00	151.30	-85.47
4	122.00	131.50	-86.75
5	152.00	124.20	-86.42
6	183.00	121.80	-86.10
7	213.00	117.80	-86.00
8	244.00	117.20	-85.38
9	274.00	120.10	-84.13
10	305.00	132.80	-84.92
11	335.00	151.50	-84.20
12	366.00	164.00	-80.53
13	396.00	164.50	-77.00
14	427.00	157.50	-74.20
15	457.00	154.20	-69.00
16	488.00	154.30	-64.80
17	518.00	154.80	-58.13
18	549.00	158.60	-49.80
19	579.00	162.80	-46.00
20	610.00	166.30	-43.00
21	640.00	165.90	-49.50
22	671.00	166.60	-39.00
23	681.84	165.80	-38.25
24	685.80	165.50	-37.00
25	697.99	166.00	-37.00
26	710.18	166.00	-36.50
27	722.37	166.00	-36.25
28	734.57	166.00	-36.00
29	746.76	166.50	-35.00
30	758.95	166.50	-35.00
31	771.84	166.50	-35.00
32	783.34	166.50	-35.00

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                              33              795.53          166.50          -34.50

  F   - I N T E R V A L -    CORE  I- %       TYPI- GAL  TEX-  GRAIN        PGI    STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K L (UNITS =   . DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                           H  H  H  H  H ANY H  H  H ANY  ALT ORE
E A  (MI=METRIC FI=FOOTRIC)  ERY    O I       TM TM MAI TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y G  F R O M - T O -  I N T (  . )  D X TYPE  1  2 MM1  1  2 F F C A          1     AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K F                        ROCK   FM     RT     TM OM2 TX TX S C O O CHT        T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E L                        QUAL   AGE EN- D LC- 3     3  4 O     /              2    AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
Y G                        DESIG      VIR   COL              R     C              STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2   2

R SVY     0.00  681.84      DATA FOR UPPER PART OF HOLE OBTAINED FROM GYROCOMPASS SURVEY OF
R SVY     0.00  681.84      DDH 81-68A.  REMAINDER OF HOLE FROM SPERRY SUN MULTI-SHOT.
R SVY     0.00  681.84      THE GYROCOMPASS DATA IS CONSIDERED MORE ACCURATE, AND SHOULD BE
R SVY     0.00  651.84      USED FOR PLOTTING PURPOSES. NO SPERRY SUN READINGS EXIST FOR
R SVY     0.00  681.84      DDH 81-68B ABOVE ITS BRANCH POINT: 681.84 M.  SPERRY SUN DATA
R SVY     0.00  681.84      FOR PILOT HOLE CAN BE FOUND IN LOG FOR DDH 81-68.
R SVY   681.84  681.84      BEGINNING OF WEDGED HOLE B.
R SVY   681.84  681.84      HALL AND ROWE STEEL WEDGE - FULL FLATTENING.
R SVY   681.84  806.31      REMAINDER OF SURVEYS FROM SPERRY SUN.
R SVY   685.80  783.34     THESE AZIMUTH VALUES REPRESENT 10 DEGREES ADDED TO THE ORIGINAL
R SVY   685.80  783.34     MULTI-SHOT DATA TO COMPENSATE FOR MAGNETIC INTERFERENCE.
R SVY   685.80  783.34     TO OBTAIN ORIGINAL SURVEY DATA SUBTRACT 10 DEGREES FROM THE
R SVY   685.80  783.34     AZIMUTH.

/         0.00  680.01 680.01              MISS                        P

/       680.01  681.85   1.84              BRHM SF        ST        PS9  P                V=              #)    R-
L                                               5A           3       JO)                                        R-
R       680.01  681.85      HIGHLY SILICIFIED.  MINOR DK BN SL QTZ UN AT 680.65M.  SL, GL AND
R       680.01  681.85      PY ALL OCCUR AS REPLACEMENTS WITHIN CHERT FRAGMENTS AND TO A
R       680.01  681.85      LESSER EXTENT DISSEM IN BRECCIA MTX.

/       681.85  683.88   2.03              ARSI SF        LM ST          P  2 BD    T45 V+              L*
L                                               5A                                 B45
R       681.85  683.88     PROBABLY DEPOSITIONAL AS CORE:  BDG ANGLE PARALLELS THAT OF
R       681.85  683.88     UNDERLYING LMSX.  BOTTOM CONTACT IS SLIGHTLY DISRUPTED HOWEVER.

K US1   683.88  683.88   0.00

/       683.88  685.52   1.64              BNSX SL GL CH8 BN LM            P  2 BD    T45 <(         <(     D*    L+
L                                               CB                                 B40                         L1
R       683.88  685.52     VERY SILICEOUS ZONE-SULFIDES ARE INTIMATELY IN TGWN WITH LT GY
R       683.88  685.52     CHT.  OCCASIONAL THICK BANDS OF DK GY CHT.  SULFIDE-RICH BANDS
R       683.88  685.52     ARE CALCAREOUS.

/       685.52  686.66   1.14              BNSX GL SL CH2 MX               P                        <(     M2    M3
L                                               C8                                                             M2
R       685.52  686.66     MASSIVE.  LOCALLY CRUDELY BEDDED WITH IRREGULAR CONVOLUTE AND
R       685.52  686.66     DISCONTINUOUS BDG.  INTV DOMINATED BY IRREGULAR SL, GL & PY-RICH
R       685.52  686.66     PATCHES.  CONTAINS OCCASIONAL SULFIDE AND CHT FRAGS.  INTV IS
R       685.52  686.66     PROBABLY THE RESULT OF SOFT SED SLUMPING OF BNSX.

/       686.66  689.28   2.62              BNSX GL SL CH8 LM BN            P  2 BD    T70 <*          L)    L*    L=
L                                               C8    LC                           T40                         L2
R       686.66  689.28     VERY SILICEOUS ZONE.  ALTERNATING SULFIDE-RICH BANDS AND CHT
R       686.66  689.28     BANDS.  SULFIDES ARE INTIMATELY INTGWN WITH CHT AND MAY BE
R       686.66  689.28     LAMINATED IN PART.  SULFIDE-RICH BANDS ARE CALCAREOUS.  BEDDING
R       686.66  689.28     LOCALLY EXHIBITS SLUMP FOLDING.

/       689.28  691.90   2.62              BNSX SL GL CH9 LM BN            P  2 BD    T60 <*         <.     L*    L)
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K E Y | F L G | F R O M - T O - I N T RECOV R Q D | MD % ROCK TM TM OM1 AGE FV RO LC TK OM2 | TX TX F C % M ARG TX TX S C D D CHT | RI 1 ID AZM DIP 2 ID AZM DIP | QZ FL CY CA BA XX PY CP GL YY MG MU CL SD QS HA PR MT SL HA | A 1 A 2

KEY	FROM	TO	INT			
R	689.28	691.90		SILICEOUS; LOCALLY MASSIVE WITH MOTTLED TEX. BEDDING LOCALLY		
R	689.28	691.90		DISRUPTED AND BRECCIATED. SULFIDES INTIMATELY INTGWN WITH CHT.		
R	689.28	691.90		SULFIDE-RICH ZONES SLIGHTLY CALCAREOUS. GL, PY AND MINOR SL		
R	689.28	691.90		OCCUR ALONG STYLOLITES.		
/	691.90	692.92	1.02	BNSX SL GL CH8 LM BN	P 2 BD T60	<+ D* L)
L				PY	B58	L=
R	691.90	692.92		MINOR FAULTING & FOLDING PROBABLY RELATED TO SOFT SED SLUMPING.		
R	691.90	692.92		LOCALLY SLIGHTLY CALCAREOUS. UNIDENTIFIED WH MIN INTIMATELY		
R	691.90	692.92		INTGWN WITH CH-POSSIBLY WH SL OR BARITE? COMPRISES ^10% OF INTV		
/	692.92	694.03	1.11	LMSX SL CE CH3 LM	P 1 BD T48	<+ L4 L+ L+
L				BA	B65	L2
R	692.92	694.03		LOCALLY BANDED. MINOR FOLDING. TOP HALF OF INTV IS BARITE-		
R	692.92	694.03		RICH; BOTTOM HALF IS CHT-RICH. SULFIDES OCCUR IN LAM		
R	692.92	694.03		INTIMATELY INTGWN WITH CHT AND BARITE. INTV IS CALCAREOUS.		
/	694.03	696.70	2.67	CHER CH9 MX BN	P	<+ D+ L(
L				ST		L)
R	694.03	696.70		RANGES FROM BANDED TO BRECCIATED AND MASSIVE. BRECCIATED INTVS		
R	694.03	696.70		APPEAR TO BE THE RESULT OF SLUMPING. COLOR RANGES FROM WHITE TO		
R	694.03	696.70		BUFF TO M K DK GY.PYR DISSEM THROUGHOUT. MINOR SL & GL IN LAM		
R	694.03	696.70		AND ALONG STYLOLITES. LOCALLY SLIGHTLY CALCAREOUS.		
/	696.70	698.18	1.48	BNSX SL GL CH9 BN ST	P 2 BD T70	<(<(D* D*
L				CB	B55	L=
R	696.70	698.18		BANDS TEND TO BE BRECCIATED AND DISCONTINUOUS. MINERALIZED		
R	696.70	698.18		ZONES MODERATELY CALC.		
/	698.18	700.90	2.72	LMSX SL BA CH2 LM IC	P 1 BD T60	L6 L) L)
L				CB	B70	L2
R	698.18	700.90		DELICATE LAMINAE, LOCALLY SLIGHTLY CONVOLUTE. BARITIC ZONE-		
R	698.18	700.90		INTLAM BARITE, SL, GL, PYR AND CHT. DISSEM PYR COMMON.		
/	700.90	702.28	1.38	BNSX BA SL CH4 BN ST	P 2 BD T60	<) L5 D* L+
L				CB LM	B70	L+
R	700.90	702.28		INT BANDED CH & BA WITH OCCASIONAL SULFIDE LAM. CHT BANDS TEND		
R	700.90	702.28		TO BE RELATIVELY THICK IE. 10-15CMS. CONTACT BTWN CHT & BARITE		
R	700.90	702.28		TENDS TO BE STYLOLITIC. GL CONCENTRATED IN BTM 50CMS. BDG SL		
R	700.90	702.28		CONVOLUTE.		
/	702.28	703.37	1.09	BNSX GL PY CH= BN	P 2 BD T65	L4 L3 L2
L				CB	B75	L=
R	702.28	703.37		BANDS TEND TO BE WISPY AND IRREGULAR. GL AND PY INTIMATELY		
R	702.28	703.37		INTGWN.		
/	703.37	704.55	1.18	BNSX SL GL CH1 BN	P 2 BD T70	L8 L) L+
L				BA	B54	L1
R	703.37	704.55		ZONE IS V SLIGHTLY CALC LOCALLY. MINOR SLUMP FOLDING.		
/	704.55	708.30	3.75	BNSX SL BA CH6 BN	P BD T60	<) L3 L* L*
L					B55	L1

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K  F  F R O M - T O -  I N T RECOV  MD % ROCK TW TM OM1 TX TX F C % M ARG   RT 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R Q D  AGE EV RU LC IM OM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R      704.55  708.30      CHT-RICH ZONE-ALTERNATING BANDS OF M GY CHT AND CHT INTIMATELY
R      704.55  708.30      INTGWG WITH SL.  OCCASIONAL BARTIE LAM.  BDG LOCALLY SLIGHTLY
R      704.55  708.30      DISRUPTED.  QTL VNS ARE APPARENTLY CONTROLLED BY TENSION
R      704.55  708.30      FRACTURES PERPENDICULAR TO BDG IN CHT BANDS.

/      708.30  709.27   0.97             CHER       CH9 MX                  P                                 L*
L                                             SA                                                                    L*
R      708.30  709.27      IRREGULAR 1CM SL-PYR BAND AT 708.80M

/      709.27  710.50   1.23             BNSX SL BA CH3 BN LC               P  2 BD      T65          <* L6  L)    L+
L                                                CB                                                                 L1
R      709.27  710.50      SLIGHTLY CONVOLUTE LAMINAE LOCALLY.

/      710.50  714.60   4.10             BNSX GL SL CH9 BN LC               P  4 BD      T70 <=          L+    L*    L+
L                                             SA CB         ST                         B70                          L+
R      710.50  714.60      ESSENTIALLY A CHT ZONE WITH LOCAL SULFIDE AND SULFIDE-BARITE
R      710.50  714.60      BANDS.  MINERALIZED BANDS ARE CONVOLUTED & PINCH & SWELL.  CHT
R      710.50  714.60      BANDS ARE FRACTURED & INFILLED WITH WHITE CHT & QTZ.

/      714.60  716.80   2.20             BNSX SL GL CH4 BN LC               P    BD      T65 <)          L4    L+    L=
L                                                CB     LM                             B65                          L2
R      714.60  716.80      VARIABLE CORE:  BDG ANGLE DUE TO SLUMP FOLDING.  BDG COMMONLY
R      714.60  716.80      DISRUPTED & IRREGULAR BECAUSE OF SLUMPING.  LOCAL SMALL SCALE
R      714.60  716.80      FAULTING.  CONVOLUTE BDG IN BOTH SULFIDE & CHT BANDS.  LOCALLY
R      714.60  716.80      LAMINATED.

/      716.80  718.41   1.61             CHER           MX                  P                <=       <)          D-
L                                             SA                                                                    D.
R      716.80  718.41      TEXTURE IS GENERALLY MASSIVE.  BASE IS LAMINATED BUT LAMINAE
R      716.80  718.41      HAVE BEEN DISPLACED BY FAULTING RELATED TO FORT SED DEFORM N.
R      716.80  718.41      UPPER PART OF INTV EXHIBITS BRECCIA TEX, WITH ROUNDED CHT FRAGS
R      716.80  718.41      IN CHT MTX-DUE TO SLUMPING.  LATE TECTONIC FRACTURING AND
R      716.80  718.41      INFILLING BY QTZ VNS WITH MNR CALCITE.  TR GL IN MTX OF SLUMP
R      716.80  718.41      BRECCIA.

/      718.41  719.64   1.23             BNSX SL GL CH4 BN ST               P  3 BD      T55 <*          <4    <+    <=
L                                                CB                                    B55                          <2
R      718.41  719.64      UPPER HALF OF INTV IS CHT-RICH;  LOWER PART IS BARITE-RICH.

/      719.64  728.62   8.98             BNSX SL GL CH4 BN LM               P  2 BD      T62             L5    L)    L*
L                                                CB     ST                             B50                          L1
R      719.64  728.62      BANDS ARE GENERALLY RELATIVELY UNDISTURBED.  LOCAL MINOR FOLDING
R      719.64  728.62      HOWEVER.

/      720.80  720.85   0.05           X BNSX SL GL CH4 BN LM               R  2 BD      T75             L5    L)    L*
L

/      722.16  722.21   0.05           X BNSX SL GL CH4 BN LM               R  2 BD      T55             L5    L)    L*
L

/      723.00  723.05   0.05           X BNSX                               R    BD       75
L
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K  F  F R O M - T O -  I N T RECOV  MD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R O D  AGE EV RO LC TM OM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/     725.80  725.85   0.05            X BNSX SL GL CH4 BN LM                R  2 BD     T55                L5   L)   L*
L

/     728.62  729.52   0.90              BNSX SL BA CH1 BN LM                P  2 BD     T50                L7   L1
L                                                 CH                                     B40                          L2
R     728.62  729.52       IRREGULAR BANDS WHICH HAVE UNDERGONE MINOR SLUMP FOLDING.
R     728.62  729.52       PYRITE OCCURS AS BANDS;  ALSO AS OVOID BLEBS.  PYRITE BANDS TEND
R     728.62  729.52       TO BE LENTICULAR-POSSIBLY BOUDINED (DIAGRAM BELOW).

/     729.52  730.20   0.68              CHER            MX ST               P                <+                   D.
L                                              5A
R     729.52  730.20       MINOR LAM OF WH CHT.

/     730.20  733.50   3.30              BNSX SL BA CH3 LM LC                P  2 BD     T80 <+             L5   K*   L=
L                                                 CB      ST BN                          B25                          L2
R     730.20  733.50       ZONE IS MODERATELY CALCAREOUS.  BDG HAS LOCALLY UNDERGONE SLUMP
R     730.20  733.50       FOLDING.

/     730.61  730.66   0.05            X BNSX SL BA CH3 LM LC                R  2 BD     T52 <+             L5   K*   L=
L

/     733.40  733.45   0.05            X BNSX SL BA CH3 LM LC                R  2 BD     T38 <+             L5   K*   L=
L

K LS1 733.50  733.50   0.00

/     733.50  749.16  15.66              BRHM        *S*           ST9   P                V=             B.   D+   D.
L                                              4A                *

/     733.50  735.85   2.35            X BRHM SF     *S*           ST9   R                V=             B.   D+   D.
L                                              4A                *
R     733.50  749.15      QTZ STOCKWORKS AT 740.0 - 742.20, 740.80 - 741.70 AND 744.15 -
R     733.50  749.16      744.50M.  POSSIBLE SULFIDE FRAG AT 734.20M;  GL CORE;  PYR RIM.
R     733.50  749.16      POSSIBLE BARITIC BLEBS (SPOTTED BARITE?) IN ARGL AT 743.80M.

K US2 749.16  749.16   0.00

/     749.16  750.00   0.84              MSSX SL GL CH2 MX BN                P  2 BD     T35                     M=   M6
L                                                 CB                                     B48                          L=
R     749.16  750.00      UPPER PT OF INTV (749.16 - 749.50) IS BNSX WITH ALTERNATING CHT
R     749.16  750.00      AND SULFIDE (SL, GL, PY) -RICH BANDS.  CHT BANDS EXHIBIT MNR
R     749.16  750.00      FOLDING AND ARE BRECCIATED.  SULFIDES HAVE INFILLED BRECCIA
R     749.16  750.00      INTERSTICES.  LOWER PT OF INTV (749.50 - 750.00) IS MASSIVE GL.

/     750.00  750.50   0.50              LMSX SL SF      LM LC               P  1 BD     T48 <-                  L*
L                                                 CB      BN                             B48                          L+
R     750.00  750.50      LAMINAE ARE LOCALLY CRENULATED DUE TO SOFT SED DEFORMATION LOCAL
R     750.00  750.50      SLUMP CLEAVAGE.  APPEARS TO BE AN ARSI UNIT-ALTERNATING ARGL,
R     750.00  750.50      SND AND SULFIDE-RICH LAMINAE.  SULFIDE LAMINAE COMPRISE SL, CB
R     750.00  750.50      AND QTZ.  STRONG SILICIFICATION HAS OBSCURED ORIGINAL TEXTURES
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K  F  F R O M - T O -  T O T RECOV  MD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                        R Q D  AGE EV RO LC TA OM2 TX TX S C O D CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R      750.00  750.50        TO SOME EXTENT.

/      750.50  751.30  0.80            BNSX GL PY CH7 BD LM             P  3 BD    T50 <*             L1   L2
L                                                CB                               B10                       L*
R      750.50  751.30        CHT BANDS AE BRECCIATED SLIGHTLY TOWARDS BASE, AND INTERSTICES
R      750.50  751.30        ARE INFILLED WITH SULFIDES.  INTV COMPRISES ALTERNATING CHT AND
R      750.50  751.30        SULFIDE BANDS COMPRISE LAMINAE OF M AND DK GY CHT.  LOCAL SLUMP
R      750.50  751.30        FOLDING-SMALL SCALE.

/      751.30  752.76  1.46            FGSX GL PY CH3 MY LC             P                        L+ L2   #1   #3
L                                                CB     BN
R      751.30  752.76        INTV WAS ORIGINALLY BNSX BUT HAS BEEN HIGHLY BRECCIATED.  GL AND
R      751.30  752.76        PY OCCUR AS BRECCIA FILLING BTWN CHT FRAGMENTS.  THE ORIGINAL
R      751.30  752.76        BANDED TEXTURE IS PRESERVED ONLY LOCALLY.  AN INTERESTING NG
R      751.30  752.76        FEATURE IS THE PRESENCE OF SEVERAL CALCITE LAMINAE AT 751.80M.

/      752.76  753.76  1.00            LMSX SL BA CH4 LM BN             P  1 BD    T30             L5   L)   L)
I                                                CB     LC                        B40                       L1
R      752.76  753.76        ALTERNATING CHT AND BA BANDS.  SULFIDES GENERALLY OCCUR AS LAM
R      752.76  753.76        WITHIN BA BANDS, BUT LOCALLY OCCUR WITH CHT.  LAM ARE LOCALLY
R      752.76  753.76        SLIGHTLY CONVOLUTE AND CRENULATED BUT TO SOFT SED SLUMPING (?).

/      753.76  755.10  1.34            BNSX SL BA CH= BN MX             P  2 BD                    L8   D)   D)
L                                                CB                               B60                       L2
R      753.76  755.10        IN PT BANDED;  IN PART MASSIVE.

/      755.10  757.73  2.63            BNSX SL BA CH3 BN LC             P  2 BD    T40 <.          L5   L(   D-
L                                                CB     ST                        B40                       L1
R      755.10  757.73        QTZ VNG RESTRICTED TO CHT BNDS.  BDG HIGHLY CONVOLUTE-CORE TO
R      755.10  757.73        BDG ANGLES VARY WIDELY.

/      756.20  756.25  0.05          X BNSX SL BA CH3 BN LC             R  2 BD    T72 <.          L5   L(   D-
L

/      757.73  759.33  1.60            LMSX SL GL CH3 LM BN             P  1 BD    T50             L5   D=   L=
L                                                CB     LC                        B50                       L=
R      757.73  759.33        CONVOLUTE LAM:  CORE TO BDG ANGLE VARIES SOMEWHAT.  UPPER 60CMS
R      757.73  759.33        SL-RICH.  LOWER SECTION PY & GL-RICH.

/      759.33  764.64  5.31            BNSX SL GL CH5 LM BN             P  2 BD    T60 <)          L5   L)   L*
L                                                CB     LC                        B40                       L1
R      759.33  764.64        CORE TO BDG ANGLES VARY.  QTZ VNS RESTRICTED TO CHT BANDS,
R      759.33  764.64        APPROX PERPENDICULAR TO BDG.

/      759.60  759.65  0.05          X BNSX SL GL CH5 LM BN             R  2 BD    T65 <)          L5   L)   L*
L

/      760.30  760.35  0.05          X BNSX SL GL CH5 LM BN             R  2 BD    T40 <)          L5   L)   L*
L

/      760.80  760.85  0.05          X BNSX SL GL CH5 LM BN             R  2 BD    T60 <)          L5   L)   L*
L
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K  F   F R O M - T O -   I N T RECOV  RD % ROCK TM TM NM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                             R Q D  AGE EV RQ LC TM QM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/       761.09  763.50   2.50            X BNSX SL GL CH5 LM BN              R  2 BD     T70 <)          L5    L)    L*
L

/       763.50  764.64   1.14            X BNSX SL GL CH5 LM BN              R  2 BD     T40 <)          L5    L)    L*
L

/       764.64  767.64   3.00              FGSX SL PY CH9    LC              P               V+                #)    #)
L                                                   CM                                                             #+
R       764.64  767.64       INTV ORIGINALLY BANDED BUT HAS BEEN HIGHLY BRECCIATED AND
R       764.64  767.64       DISRUPTED.  SULFIDES GENERALLY OCCUR IN INTESTICES BTWN CHT
R       764.64  767.64       FRAGS, BUT ARE OCCASIONALLY PRESERVED AS IRREGULAR LAMINAE.

/       767.64  769.64   2.00              BNSX GL SL CH2 BN LC              P  2 BD     T38             L5    D)    L2
L                                                   CB     LM                            B45                     L1
R       767.64  769.64       BANDING RANGES FROM SLIGHTLY TO HIGHLY CONVOLUTE AND BRECCIATED.
R       767.64  769.64       CORE TO BDG ANGLES VARY SOMEWHAT.

/       769.64  773.28   3.64              LMSX SL GL CH7 BN LM              P  1 BD     T40 <*          L3    L)    L)
L                                                   BA        ST                         B38                     L=
R       769.64  773.28       ALTERNATING CHT BANDS UP TO SEVERAL CMS AND LAMINATED ZONES
R       769.64  773.28       COMPRISING LAM OF CHT, BA, SL, PY AND GL.  SULFIDE ZONES V
R       769.64  773.28       SLIGHTLY CALC.  BDG IS LOCALLY SLIGHTLY FOLDED.  CHT BANDS ARE
R       769.64  773.28       FRACTURED.

/       770.23  771.18   0.95            X LMSX SL GL CH7 BN LM              R  1 BD     T60 <*          L3    L)    L)
L

/       773.28  774.12   0.84              CHER PY          BN LM            P  2 BD     T55 V1          L1    L=
L                                                SA                                      B40
R       773.28  774.12       LOCALLY BRECCIATED.
R LIT   773.28  774.12       UNIDENTIFIED BLK ACICULAR XLS OCCUR IN QTZ VNS.  THESE OCCUR IN
R       773.28  774.12       FIBROUS MATS.

/       774.12  775.42   1.30              LMSX SL CB CH8 LM BN              P  1 BD     T48             L1    L)    L)
L                                                   GL                                   B50                     L=
R       774.12  775.42       ALTERNATING CHT BANDS AND INTVS OF LMSX CONSISTING MAINLY OF SL
R       774.12  775.42       AND BA WITH MNR PYR AND GL.  CHT BANDS LOCALLY BRECCIATED AND
R       774.12  775.42       INFILLED WITH SULFIDES.

/       775.42  789.70  14.28              LMSX SL CB CH5 LM BN              P  1 BD     T30 <)          L4    L*    L*
L                                                   BA      LC                           B60                     L=
R       775.42  789.70       ALTERNATING CHT BANDS AND BANDS CONSISTING OF LAMINATED BH AND
R       775.42  789.70       SL WITH MINOR PYR AND GL.
R SIG   775.42  789.70       UNIDENTIFIED BLK ACICULAR XLS OCCUR IN MNR AMOUNTS IN QTZ
R       775.42  789.70       VNS-OCCUR IN FIBROUS MATS.
R       775.42  789.70       QTZ VNS ARE RESTRICTED TO CHT BANDS AND ARE ORIENTED APPROX
R       775.42  789.70       PERPENDICULAR TO BDG-PROBABLY FILL TENSION GASHES. CHT BANDS
R       775.42  789.70       LOCALLY SLIGHTLY CONVOLUTE AND OCCASIONALLY BRECCIATED CORE TO
R       775.42  789.70       BDG ANGLES VARY SOMEWHAT.

/       776.33  777.90   1.57            X LMSX SL CB CH5 LM BN              R  1 BD     T50 <)          L4    L*    L*
L
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K  F  F R O M - T O - T O T RECOV  MD % ROCK TH TM OM1 TX TX F C % M ARG    RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                        R Q D  AGE EV RO LC TH OM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/      777.90  780.80  2.90           X LMSX SL CB CH5 LM BN               R  1 BD     T60 <)          L4    L*    L*
L

/      780.80  782.42  1.62           X LMSX SL CB CH5 LM BN               R  1 BD     T30 <)          L4    L*    L*
L

/      782.42  785.00  2.58           X LMSX SL CB CH5 LM BN               R  1 BD     T50 <)          L4    L*    L*
L

/      785.00  789.70  4.70           X LMSX SL CB CH5 LM BN               R  1 BD     T60 <)          L4    L*    L*
L

/      789.70  790.48  0.78             CHER           LM BN               P  2 BD     T60 <+                L4
L                                            6A                                        B48                         L*

/      790.48  794.40  3.92             LMSX SL GL CH7 BN LM               P  1 BD     T60 <)       <- L3    L+    L(
L                                               BA                                     B35                         L=
R      790.48  794.40     ALTERNATING CHT BANDS AND LAM BA-CHT-SL-PY-GL.
R SIG  790.48  794.40     QTZ-CARB VNS CONTAIN AN UNIDENTIFIED BLK FIBROUR MINERAL;
R      790.48  794.40     ALSO MNR GL.

/      794.40  795.55  1.15             CHER CB SL     BN                  P  2 BD     T60 <=          L1    L*
L                                            6A BA                                     B45                         L-
R SIG  794.40  795.55     MINOR UNIDENTIFIED BLK ACICULAR MIN IN QTZ VNS AS ABOVE.

/      795.55  796.20  0.65             LMSX SL GL CH6 LM BN               P  1 BD     T30 <)          L3    L)    L+
L                                               CB                                     B30                         L=
R      795.55  796.20     ALTERNATING CHT BANDS & LAM SL - GL - BA - PYR.
R      795.55  796.20     BDG LOCALLY SLIGHTLY DISRUPTED.  UNIDENTIFIED BLK ACICULAR MIN
R      795.55  796.20     IN QTZ VNS AS ABOVE (MINOR).

/      796.20  798.59  2.39             CHER SL CB CH9 BN LM               P  2 BD     T40 <=          L=    L)
L                                            6A                                        B55                      L)
R      796.20  798.59     CHER WITH MNR BA-SL LAM.  LOWER 0.5M POSSIBLY SOMEWHAT
R      796.20  798.59     ARGILLACEOUS.

K LS2  798.59  798.59  0.00

/      798.59  801.02  2.43             ARGL SF SL     LM ST               P  1 BD     T50 V=                L(
L                                            6A    CH)                                 B50                         L(
R      798.59  801.02     SILICIFICATION HAS OBSCURED ORIGINAL TEXTURES TO SOME EXTENT.
R      798.59  801.02     ESSENTIALLY A SILICIFIED ARGL UNIT WITH OCCASIONAL BANDS ( <1CM)
R      798.59  801.02     OF CHT, PYR & SL).  THESE BANDS PARALLEL BDG & ARE SL CALC.

/      801.02  806.31  5.79             ARGL       SN+ BD SS               P  2 BD     T50 <*       <*       <(
L                                            5A                                        B50
R      801.02  806.31     BTM 1.5M BECOMES ARSI (^10% SND).  THIS INTV HAS UNDERGONE
R      801.02  806.31     SLIGHT TO MODERATE SOFT SED DEFORMATION PARTICULARLY IN BTM
R      801.02  806.31     0.5M.  SD VNS ARE CONCENTRATED HERE.
R      801.02  806.31     LOCAL INTVS OF BUFF-COLORED PYRITIC MUDSTONE (UP TO 5 CMS).
```

PAN OCEAN OIL LTD.

GEOLOG — JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

DRILLHOLE/TRAVERSE --- 81BWH068 --- (CONTINUED)

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K  F  F R O M - T O -  I N T RECOV  MD % ROCK TM TM QM1 TX TX F C % M ARG   RT 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R Q D  AGE EV RO LC TM QM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/      801.02  802.02   1.00          X ARGL SF    SO+ BD SS               R  2 BD     T50 <*       <*       <(
R      801.02  802.02       SF DECREASES IN INTENSITY AWAY FROM ORE ZONE.

R ASY  681.84  685.80       CHECK AZIMUTH - IT IS CALCULATED FROM EXISTING DATA.
```

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :81BWH076	COLLAR ELEVATION: 1296.37	AZIMUTH(DEG) : 355.00	GEOLOGGED BY : JER + JDK
TOTAL DEPTH/LENGTH : 376.85	NORTHING(- IF S): 7002568.00	VERTICAL ANGLE : -83.00	DATE (YY/MM/DD): 810926
CORE/HOLE DIAMETER : HQQQ	EASTING (- IF W): 436555.31	CO-ORD SYSTEM : UTM	PROJECT NUMBER : J-MAIN

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	27.43	0.00	-81.25
2	88.39	5.00	-81.25
3	118.26	6.00	-81.25
4	134.42	10.50	-80.34
5	143.25	13.00	-79.00
6	156.50	14.00	-79.00
7	170.99	16.30	-79.30
8	185.93	19.00	-79.75
9	200.56	19.00	-79.75
10	220.06	25.00	-80.10
11	231.65	21.50	-78.30
12	246.58	21.00	-78.00
13	259.99	23.50	-77.80
14	270.66	22.00	-78.00
15	285.90	22.00	-78.25
16	301.14	20.50	-77.66
17	313.64	25.00	-78.50
18	328.57	25.00	-78.66
19	344.78	26.00	-78.25
20	359.05	27.00	-78.30

```
  F   - I N T E R V A L -     CORE  T- %       TYPI- QAL  TEX-  GRAIN          PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =    . DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                          H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MT=METRIC FT=FOOTRIC)  ERY     O I       TM TM MAT TX TX F C % M ARG   /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  I N T ( . )  D X TYPE  1  2 QM1  1  2 F F C A          1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                       ROCK   FM     RT    TM QM2 TX TX S C O O CHT      T ID STK DIP MG MU CL SD QS HA PR MT SL HA
F  L                       QUAL   AGE EN- N LC- 3      3  4 O     /          2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y  G                       DESIG      VIR   COL             R     C            STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2   2

R SVY  134.42  134.42      BEGINNING OF WEDGED HOLE A.
R SVY  134.42  134.42      HALL AND ROWE STEEL WEDGE FLATTENING.
R SVY  170.99  170.99      BEGINNING OF WEDGED HOLE B.
R SVY  170.99  170.99      HALL AND ROWE STEEL WEDGE.
R SVY  202.08  282.08      CLAP RETRIEVABLE WEDGE, FLATTENING
R SVY  233.78  233.78      CLAP RETRIEVABLE WEDGE.  WEDGE WAS BROKEN, NO EFFECT.
R SVY  376.85  376.85      END OF WEDGED HOLE B.

/        0.00  173.71 173.71              MISS                           P

/      173.71  174.74   1.03              BRHT PY GR      F* B*        NP2    P                            6*
L                                              3A         R*    2    C N08
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PAN OCEAN OIL LTD.

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G E O L O G                         JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                              PAGE - 2
                              DRILLHOLE/TRAVERSE --- 81BWH078 --- (CONTINUED)

K  F   F R O M - T O -  T O T RECOV  NO % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R Q D  AGE EV RO LC TM OM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/      174.74  178.41   3.67            BRHM PY GR                   GP9   P                            7*
L                                            1A              2   1 C
R      174.74  178.41      CORE IS BADLY FRACTURED.
R      174.74  178.41      MINOR SILT (<1%) BANDS IN ARGILLITE FRAGMENTS.

/      178.41  181.05   2.64            ARSN PY GR SI1 SS // 2 4 4 4       P  2 BD    U75              8*
L                                            4A    SN3    DB 4

/      181.05  208.84  27.79            BRHT PY GR SI1 F* B*          NQ7   P                            6*
L                                            2A              2   1 C MN2
R      181.05  208.84      SOME PYROBITUMINE PRESENT.

/      187.35  189.72   2.37         X BRHT PY GR SI1 F* B* 3 4   4 PR6   R                            6.
L                                            3A    SN3       2   3 C MN*

/      194.16  195.07   0.91         X BRHT PY GR SI1 B* F*          JL1   R                            6*
L                                            3A       B*           C MQ9

/      195.66  195.98   0.30         X BRHT PY GR SI1 B* F*          573   R                            6.
L                                            3A                    C 577

/      196.29  197.21   0.92         X BRHT PY GR SI1 B* F*          JK2   R                            6*
L                                            3A                    C KM8

/      199.64  201.10   1.46         X BRHT PY GR SI1 B* F*          J01   R            <+              6*
L                                            3A       B* R*        C MN9

/      202.08  203.61   1.53         X WEDG                                R
L
R      202.08  203.61      WEDGE.

/      203.83  205.01   1.18         X BRHT PY GR SI1 B* F*          JP2   R                            6.
L                                            3A                      J08

/      205.94  206.65   0.71         X BRHT PY GR SI1 B* F*          KP2   R                            6*
L                                            3A       B*             K08

/      206.86  208.23   1.37         X BRHT PY GR SI1 B* F*          LQ2   R                            6*
L                                            3A                      JN8

/      208.84  212.85   4.01            SAND PY GR     SS // 3 4 4 4       P  2 BD    U72              8*
L                                            5A             4 3   C
R      208.84  212.85      SANDSTONE MAY REPRESENT A SLUMP STRUCTURE INTO A CHANNEL,
R      208.84  212.85      SINCE THIS UNIT IS NOT PRESENT IN DDH 81-78 AT THE PERSPECTIVE
R      208.84  212.85      DEPTH.  NOTE ALSO THAT THE CHARACTER OF THE SAND IS SIMILAR TO
R      208.84  212.85      THAT SEEN IN THE INTERVAL 178.41 TO 181.05 M.

/      212.85  216.85   4.00            ARSI PY    SI1 SS // 3 4 5 4       P  2 BD    U80 <*           8*
L                                            2A    SN2      4 3   C
R      212.85  216.85      AT 214.77 M THERE IS A 10 CM CONCENTRATION OF QUARTZ VEINS
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K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R Q D  AGE EV RN LC IN OM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R      212.85  216.85      THAT HAD CONTAINED A CARBONATE, WHICH HAS BEEN LEACHED OUT.

/      216.85  219.59   2.74          ARSN PY    SI1       3 5 4 5       P                <)                8*
L                                         3A     SN3       4 3   C
R      216.85  219.59      LEACHED QUARTZ CARBONATE CAVETIES AND VEINS.
R      216.85  219.59      CROSS CUTTING QUARTZ VEINS COMMON.

/ FAL  219.59  231.52  11.93          FAUL                                P                <)                6*
L
R      219.59  231.52      UP TO 226.77 M FAULT GAUGE APPEARS TO BE ARSN.
R      219.59  231.52      FROM 226.77 M TO 231.28 M GAUGE IS BRHT WITH LESS THAN 10% CHERT

/      231.52  232.28   0.76          ARSN PY    SI2 BS G; 2 5 1 8       P  3 BD     U55                       8.
L                                         2A     SN1 //      6     C
R      231.52  232.28      AN UPPER BOUMA SEQUENCE.

/      232.28  233.78   1.50          SAND PY    SI2 BS G; 3 5 9 6       P  3 BD     U54                       8*
L                                         2A     SNB //      6     C
R      232.28  233.78      UPPER BOUMA SEQUENCE INTO A MIDDLE SEQUENCE.

/      233.78  241.78   8.00          BRHT PY         BS G;          OQ2  P                                     8*
L                                         4A                 6     C OP8
R      233.78  241.78      LOWER BOUMA SEQUENCE FOR INTERVAL 232.28 - 241.78 M.
R      233.78  241.78      IN THE INTERVAL BETWEEN 231.52 M - 241.78 M REPRESENTS
R      233.78  241.78      1 COMPLETE BOUMA SEQUENCE AND 1 PARTIEL SEQENCE.

/ FAL  241.78  263.35  21.57          ARST CR GR GG4 // SS 0 1    3       P  2 BD          <*        <)       D)
L                                        N BA SI+

/ FAL  241.78  263.35  21.57        3 SILT CR GR SI8 // SS 0 2    3       R  2 BD          <*        <)       R+
L                                        1A BA GG4

/ FAL  241.78  263.35  21.57        1 SAND CR GR GG4 // SS 2 3 4 4       R  2 BD          <*        <)       R+
L                                        2A BA           7
R      241.78  263.35      PYRITE MAINLY AS FINE SAND REPLACEMENT IN BEDDING.
R      241.78  263.35      FAULT DISRUPTION MAKES ACCURATE DESCRIPTION DIFFICULT.
R      241.78  263.35      MEAGER EVIDENCE SUGGESTS THREE ROCK TYPES CONFORMABLE;
R      241.78  263.35      SAND OFTEN ALONG BEDDING PLANES, AND SILT-ARGL OFTEN INTERBEDDED

/ FRG  253.29  253.59   0.30        X CGSN PY    SN8 G; IN 4 5 3 7       R                <*                R1
L                                         3A        R*     5 .

/      263.35  267.00   3.65          CGSN BA    SN7 DB SS 3 4   6       P                          J2       R=
L                                         3A     *C5 R*    5

/      265.00  267.00   2.00        X BRPB            FU   3 4   5 OQ8   R                          <*       D)
L                                         1A
R      265.00  267.00      LARGER CLASTS  LOWER IN INTERVAL, WITH DECREASE IN SAND MATRIX.

/      267.00  277.88  10.88          ARGL CR GR SN) SS    0 1   3       P  2 BD          <+        <+       D.
L                                        N BA          7                                      <.                  <.
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                                                       PAN OCEAN OIL LTD.
G E O L O G                                    JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                PAGE -  4
                                           DRILLHOLE/TRAVERSE --- 818WH078 --- (CONTINUED)

K  F   F R O M - T O -  T O T RECOV  MD % ROCK TM TM MM1 TX TX F C % M ARG  RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                              R Q D  AGE EV NO LC TM MM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R      267.00 277.88          SAND OCCURS AS CONFORMABLE LAMINATIONS, AND SINGLE INJECTION.

/      269.34 269.44  0.10           X SAND          DB   3 4  5      R                                B)
L                                         3A
R      269.34 269.44          RIP-UP CALSTS.  GROUND CORE REDUCES RECOVERY.

/ FAL  270.00 277.39  1.68           X ARGL CR GR SH) SS   0 1  5      R  2 BD        V+           <+    R)
L                                              GG4                                                         #=

/      277.88 281.94  4.06             BRHT CR   *C) R* B*        OQ8   P              #=                 B+
L                                         2A        F*         C KO2                          #)                #.

/      281.94 282.95  1.01             BRPM      SN3 CU   3 4  7 MP5   P
L                                         3A              5    O KM2
R      281.94 282.95          THIS INTERVAL CONTINUOUS WITH UPPER BRHT: ARGL AMOUNT AND SIZE
R      281.94 282.95          DECREASES, CHERT CLASTS ABSENT, SAND 70% ANGULAR CHERT GRAINS.
R      281.94 282.95          PEBBLE SIZED CLASTS.

/      282.95 285.50  2.55             ARGL CR GR     //    0 1  1      P  2 BD     80              <)    D*
L                                          N BA           8                CN     80

/      284.99 285.50  0.51           X BRPM CR GR SA2     3 4  4 MQ8   R                             <*    D*
L                                         1A                   C JK+
R      284.99 285.50          MATRIX FINE SAND, MUD.

/      285.50 288.00  2.50             BRHT CR   *C) R* B*        OQ8   P              #=                 B+
L                                         2A        F* H*      C KO2                          #)                #.
R      285.50 288.00          HF IN MATRIX, SI BANDS.  BITUMENS IN MATRIX.

/      288.00 291.81  3.81             BRPM      SN4              MR5   P                               HE
L                                                SI1           O KM=                                    R)

/      291.81 293.83  2.02             BRPM      SN9 DB   3 4  4 MO1   P                               HE B=
L                                         2A              7                                             R)

/      293.83 306.10 12.27             BRHT CR GR *C) R* B*       OQ8   P              <+           <+    B+
L                                         2A        F*         C KO2                          <*

/ FAL  294.20 294.60  0.40           X BRHT CR GR *C) R* B*       OQ8   R              <+           <1    B+
L                                         2A    GG7 F*         C KO2                          <*

/      294.60 300.84  6.24           X BRHT CR GR *C) R* B*       OQ8   R              #1           <=    B+ B.
L                                         2A        F*         C KO2                          <*           V)

/      300.84 301.45  0.61           X BRHT CR GR *C) R* B*       OQ8   R              #1           <=    B+
L                                         2A        F*         C KO2                          <*

/      301.45 303.50  2.05           X BRHT CR GR *C) R* B*       OQ8   R              #1           <=    B+ B.
L                                         2A        F*         C KO2                          <*
R      306.10 307.75          MINOR SAND CLASTS.
R EDT  306.10 307.75          INTERVAL CHANGED TO MATCH WITH THE MAIN INTERVAL.
```

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K  F   F R O M - T O -  I N T RECOV  MD % ROCK TX TM DM1 TX TX F C % M ARG    RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L-  -----.-- -----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R Q D  AGE EV RQ LC TM DM2 TX TX S C O O CHT        2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/       306.10  312.75   6.65            BRPM CR GR SN1 F* B* 0 1   3 MO4   P                                  R)
L                                             2A     *C+ R* H*      0 KO3

/       306.10  307.75   1.65          X BRPM CR GR SN1 F* B* 0 1   3 MQ6   R                               HE R)
L                                             2A     *C+ R* H*    * C KM2                                   R*
R       306.10  312.75       INTERVAL CHANGED TO MATCH WITH PREVIOUSLY INTERVAL.

/ CON   312.75  314.35   1.60            SAND        SN8 SS // 3 5   7          P  1 LM      U   <*         <* HE R)
L                                             3A        DB G;                      CN        45               R*
R       312.75  314.35       INTERVAL CONTAINS 3 SEPARATE DEPOSITIONAL EVENTS: UPPER CON
R       312.75  314.35       IS GRAD W/ SS FOLLOWED BY // THEN DB (BOUMA AB) TO 312.55 M.
R       312.75  314.35       SECOND (TO 312.75 M) BOUMA AB.  REMAINDER IS BOUMS AB.

/       314.35  315.66   1.31            CGSN CR        G; SS 3 4   7           P                               HE R+
L                                             3A        VG MX 5                                                 R)
R       314.35  315.66       WELL SORTED MED-COARSE SAND GRADES DOWN TO PEBBLES.
R       314.35  315.66       ARGL AT TOP SQUEEZED INTO LOWER SAND.

/       315.66  316.66   1.00            CGSN        SN8 G; SS 0 5      MP1   P                                 HE R+
L                                                       MX     2       LO+                                      <)
R       315.66  316.66       DURING QUIESCENT PERIOD?

/       316.66  318.10   1.44            CGSN        SN4 F* B* 3 4   6 LO2   P                 <.           <. HE R+
L                                             3A        R*                KM4                                   R*

/ FRG   318.10  319.13   1.03            ARGL CR GR S1+        0 1   2        P                             <.   D.
L                                             6

/       319.13  327.65   8.52            CGSN GR     SN3 F* B* 3 4   5 MP2   P                 <.              HE 8+
L                                             3A     *C+ R* G;      0 MP5                                       R.
R       319.13  327.65       GRAPHITIC IN MINOR SHEARS.  GENERAL NORMAL GRADING.

/       327.65  334.10   6.45            CGSN GR     SN4 F* B* 3 4   5 MP1   P                 <.              HE R+
L
R       327.65  334.10       CGSN INTERVALS DIVIDED ON BASIS OF GRADED SEQUENCES,
R       327.65  334.10       POSSIBLY INDICTING DISCRETE EVENTS.  PRESUMED CONTACTS GRAD.

/       334.10  341.20   7.10            CGSN GR     SN5 F* B* 3 4   5 LP1   P                 <.              HE R)
L                                                                     LN4

/       341.20  342.30   1.10            CGSN        SN8 MX     3 5 5 6       P                                    R)
L                                             3A                5

/       342.30  354.65  12.35            CGSN        SN4 MX G; 3 4   6 LO2   P                 <.           <. HE 8+
L                                             3A     *C+ F* B*      0 LP4                                       R.

/       354.65  356.85   2.20            CGSN        SN1    F* 3 4 6 5 LO3   P                 <.           <*    8*
L                                             3A     *C1 B*         C LO7

/       354.65  354.85   0.20          X CGSN           9     RU        JM=   R
L                                                          6            JM=
```

```
K  F  F R O M - T O -  I N T RECOV  MD % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R Q D  AGE EV RU LC TM QM2 TX TX S C O D CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R      354.65  356.85      INTERVAL IS APPARENTLY CONFORMABLE SEQUENCE VARYING IN AMOUNT
R      354.65  356.85      OF CLASTS. SAND AS CLAST MATRIX SAME AS SAND IN LOW CLAST
R      354.65  356.85      SEGMENTS. RIP-UP CLASTS IN SAND.

/      355.70  355.90   0.20           X CGSM       SN9    RU 3 4 6 5 JM=   R               <.          <*    B*
L                                                             6       JM=

/      356.20  356.35   0.15           X CGSM       SN9    RU 3 4 6 5 JL=   R               <.          <*    B*
L                                                             6       JM=

/      356.20  356.85   0.65           X CGSM       SN9    RU 3 4 6 5 JK+   R               <.          <*    B*
L                                                             6       KM1

/      356.85  359.51   2.66             CGSM       SN6 G; MX 3 4 5 /       P           U   <*          <*    D)
L                                             3A              5     0
R      356.85  359.51      CRUDE GRADED BEDDING IN PLACES

/      359.51  360.58   1.07             CGSM       SN1 MX F* 3 4 6 5 LO3   P               <.          <*    D)
L                                             3A    *C1 B* IM       C MO7        IM      30

/      360.58  363.10   2.52             BRPM       SI6       0 1 6 2 LP1   P                  <*       <)    B+
L                                             2A                    0 LN4
R      360.58  363.10      LARGE CLASTS ARE SILT OR ARSI IN CLOSED AND OPEN STRUCTURE WITH
R      360.58  363.10      BRPM MATRIX

/      361.00  361.30   0.30           X BRPM       SI3       0 1 6 2 LP=   R               #5 <*       <)    6= <*
L                                                                       2                                        <=
R      361.30  363.63      LOW RECOVERY MAY BE PRONOUNCED IN FGSX. SULPHIDE CONTENT BASED
R      361.30  363.63      ON FRAGMENTED CORE. SO IS NOT RELIABLE OVER ENTIRE INTERVAL
R      361.30  376.70      POOR RECOVERY THROUGHOUT ORE ZONE, BUT IMPROVED NEARER TO THE
R      361.30  376.70      END OF HOLE. BEST RECOVERY WITHIN INTERBEDDED SULPHIDE/ATE
R      361.30  376.70      AND SILTSTONE. THE SAME TYPE OF MINERALIZATION IS SEEN BENEATH
R      361.30  376.70      THE MAIN ORE BODY IN DDH 81-784 BUT IS HIGHER GRADE, AND MORE
R      361.30  376.70      EXTENSIVE IN THIS HOLE.

/      363.00  363.10   0.10           X SAND       SN3 VG LC 0 2 4 3       R  2 BD      40             <2    81
L                                             2A    SI2 SS    5                  CN      40                      <1

/ FAL  363.10  363.63   0.53             FGSX SL SF CH2 OR VG         KM1   P                           *3    B2 B) *1
L                                             TA GL                                                                 *2

/ FRG  363.10  363.63   0.53           2 ARGL SF        SS    0 1   1       R                           <2    <2
L                                             1A                                                                 <2

/ FAL  363.63  366.67   3.04             MSSX PY                            P                           <1    >5 <)
L                                             YU BA                                                              >5

/ FAL  363.63  366.67   3.04           1 BRPM       SI1       0 1   2 JL2   R                                 D)
L                                             2A                      KM5
R      363.63  366.67      THIS INTERVAL INFERRED FROM 5 CM FRAGMENT LOCATED UPHOLE FROM
R      363.63  366.67      MSSX.
```

G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-76-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :	81BA4085	COLLAR ELEVATION:	1244.36	AZIMUTH(DEG) :	0.00	GEOLOGGED BY :	DWB + JER
TOTAL DEPTH/LENGTH :	669.04	NORTHING(- IF S):	7002370.00	VERTICAL ANGLE :	-90.00	DATE (YY/MM/DD):	810000
CORE/HOLE DIAMETER :	NQ	EASTING (- IF W):	436553.06	CO-ORD SYSTEM :		PROJECT NUMBER :	J-S2

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	12.00	49.80	-87.80
2	24.00	49.90	-87.58
3	37.00	67.80	-86.50
4	49.00	79.60	-86.92
5	61.00	92.50	-86.67
6	73.00	111.40	-86.50
7	85.00	103.30	-87.00
8	98.00	97.20	-86.17
9	110.00	99.10	-86.03
10	122.00	119.10	-86.25
11	134.00	118.00	-86.17
12	146.00	119.00	-85.75
13	159.00	113.00	-86.67
14	171.00	114.00	-86.83
15	183.00	108.00	-87.47
16	195.00	135.00	-85.50
17	207.00	146.00	-85.10
18	219.00	143.10	-84.92
19	232.00	155.10	-84.53
20	244.00	156.10	-84.25
21	256.00	166.30	-84.17
22	268.00	164.40	-84.05
23	280.00	159.50	-82.00
24	293.00	160.50	-81.08
25	305.00	164.50	-80.08
26	317.00	171.50	-79.42
27	329.00	171.50	-78.58
28	341.00	168.70	-79.00
29	354.00	170.70	-79.33
30	366.00	171.00	-79.08
31	378.00	170.10	-79.00
32	390.00	168.10	-78.75

DRILLHOLE/TRAVERSE --- 81BWH085 --- (CONTINUED)

33	402.00	164.20	-78.07
34	415.00	168.20	-77.78
35	427.00	162.30	-77.00
36	439.00	158.40	-76.03
37	451.00	157.50	-75.83
38	463.00	156.50	-75.33
39	475.00	154.60	-75.05
40	488.00	154.60	-74.75
41	500.00	152.60	-74.50
42	512.00	151.70	-73.42
43	524.00	149.80	-71.50
44	536.00	149.80	-70.47
45	549.00	147.00	-69.83
46	561.00	146.20	-68.58
47	573.00	147.10	-68.38
48	585.00	147.20	-68.17
49	594.66	145.40	-68.00
50	657.45	134.00	-68.00
51	666.60	135.00	-68.00

```
   F   - I N T E R V A L -     CORE  T- %       TYPI- QAL  TEX-  GRAIN         PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =    . DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                            H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MT=METRIC FT=FOOTRIC)  ERY    O I       TM TM MAT TX TX F C % M ARG   /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  I N T (  . )  O X TYPE  1  2 OM1  1  2 F F C A           1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                          ROCK   FM     RT    TM QM2 TX TX S C O O CHT       T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                          QUAL   AGE FN- O LC- 3      3  4 O     /           2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y  G                          DESIG      VIR   COL              R     C            STRUCTUR-2  A  A  A  A  A  A  A  A  A  A    2   2

R SVY    0.00  585.00      DATA FROM GYROSCOPIC DIRECTIONAL SURVEY.  THIS DATA IS ASSUMED
R SVY    0.00  585.00      TO BE CORRECT AND MOST ACCURATE SO IT WILL BE USED TO PLOT
R SVY    0.00  585.00      DRILL SECTION.
R SVY  594.66  594.66      BEGINNING OF WEDGED HOLE B.
R SVY    0.00    0.00      HALL AND ROWE STEEL WEDGE, PUT IN BLIND.  THE PURPOSE OF THI
R SVY    0.00    0.00      WEDGE WAS TO GO THROUGH THE ORE ZONE A SECOND TIME AND TRY A
R SVY    0.00    0.00      GET BETTER RECOVERY.
R SVY  594.66  669.04      SPERRY SUN SINGLE-SHOT DATA WILL BE USED TO COMPLETE THE SURVEY
R SVY  594.66  669.04      DATA FOR PLOTTING PURPOSES SINCE THE BOTTOM PART OF THE HOLE
R SVY  594.66  669.04      WAS NOT GYRO LOGGED.

/        0.00  594.66 594.66          MISS                               P
L

/      594.66  597.41   2.75          LOST                               P
L
R      594.66  597.41      REAMED FOR HALL AND ROWE STEEL WEDGE.

/      597.41  598.70   1.29          ARSN SF    SN3 BD BD L C 0 4 34    P  1 BD      85                 L(
L                                          4A        LM
R      597.41  598.70      UNIT CONTAINS A LARGE AMOUNT OF SAND WHICH DOESN'T GENERALLY
R      597.41  598.70      OCCUR IN DISCRETE BEDS TYPICAL OF ARSN IE.   UNIT IS ESSENTIALLY
R      597.41  598.70      A SANDY ARGILLITE.  BEDDING IS SOMEWHAT IRREGULAR + COMMONLY
R      597.41  598.70      COMPRISES ELONGATE DISCONTINUOUS + LENTICULAR MASSES OF SANDY
R      597.41  598.70      ARGILLITE SEPARATED BY CLAY.  THESE SANDY LENSES TEND TO BE
R      597.41  598.70      CLOSELY PACKED.  TEXTURE APPEARS TO SUGGEST INCIPIENT SLUMPING
R      597.41  598.70      OF SANDY ARGILLITE UNIT.  CORE:  BDG ANGLE AS MEASURED FROM LONG
R      597.41  598.70      AXES OF SAND-RICH LENSES, PARALLELS THAT MEASURED FROM
R      597.41  598.70      ESSENTIALLY UNDISTURBED BEDS.  INTV IS MODERATELY TO HIGHLY
R      597.41  598.70      SILICIFIED.

/      598.70  602.72   4.02          BRHM SF CB *C. R*          N07   P              <-          L+    L)    L+
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K  F   F R O M - T O -  I N T RECOV  MD % ROCK TP TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP OZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L-  ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R Q D  AGE EV RO LC TM OM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R        598.70  602.72      INTV CONSISTS PRED OF ARGL FRAGS IN A CALCAREOUS CLAY MTX.
R        598.70  602.72      PYRITE COMMONLY OCCURS SISSEM THROUGHOUT THIS MTX.  MINOR CHT
R        598.70  602.72      AND UP TO 10% LMSX FRAGS ARE PRESENT.  CHERT FRAGMENTS ARE
R        598.70  602.72      SLIGHTLY CALCAREOUS AND HENCE RELATIVELY SOFT.  THEY ARE
R        598.70  602.72      REPLACED BY PYRITE.  GL WAS IDENTIFIED IN ONE INSTANCE IN THE
R        598.70  602.72      CORE OF A CHT CLAST.  FROM 598.85 TO 599.10M IS A FRAGMENT OF
R        598.70  602.72      INTERLAMINATED ARGL AND CHERT.  CHERT LAM CONTAIN PYR.  INTV IS
R        598.70  602.72      MOD TO HIGHLY SILICIFIED.  A FRAG OF LMSX IS REPEATED BELOW.

/ FRG    600.75  601.33   0.58          X LMSX SL GL CH1 LM LC              R                         L3    L1    L2
L                                              50 C8                                                              L2
R        600.75  601.33      A FRAG OF LMSX WITHIN ABOVE BRHM FRAGMENT IS HIGHLY CALCAREOUS.
R        600.75  601.33      BDG IS SLIGHTLY DISRUPTED AND CONVOLUTE.  BARITE BANDS HAVE
R        600.75  601.33      LOCALLY UNDERGONE TENSION PARTING POSSIBLY DUE TO SLUMPING.
R        600.75  601.33      FRACTURES HAVE BEEN INFILLED WITH GL (REMOBILIZATION).

/        602.72  604.25   1.53          BRPN SF SL SN4 ST           LO2  P                 V*               #)
L                                         7A     S*+         3      O KM2                                         #+
R        602.72  604.25      A BRECCIA CONTAINING GENERALLY PEBBLE SIZE FRAGMENT OF CHT, ARGL
R        602.72  604.25      AND MINOR SULFIDE (ESPECIALLY SL) IN A MTX OF CHT SAND AND CLAY.
R        602.72  604.25      HIGHLY SILICIFIED.  PYR OCCURS DISSEM THROUGHOUT MTX.  SL OCCURS
R        602.72  604.25      AS BLEBS AND SMALL GRAINS WITHIN THE MTX.  MOST OF THESE ARE
R        602.72  604.25      PROBABLY FRAGS, ALTHOUGH SOME MAY BE DUE TO REPLACEMENT.  SL
R        602.72  604.25      ALSO OCCURS REPLACING CHT CLASTS.

/        604.25  609.60   5.35          BRHM SF SL S*) ST           OS8  P                 V+         L(    D)    L(
L                                         4A GL              3      LM=                                          L(
R        604.25  609.60      INTV IS IMMEDIATE HANGINGWALL OF SZ#1 AND IS VERY HIGHLY
R        604.25  609.60      SILICIFIED.  SL+GL OCCUR PRINCIPALLY AS LAM WITHIN SULFIDE
R        604.25  609.60      FRAGMENTS.  THESE FRAGS ARE PARTICULARLY CONCENTRATED BTWN
R        604.25  609.60      604.25 AND 605M.  PYRITE OCCURS IN SULFIDE FRAGS, REPLACING CHT
R        604.25  609.60      FRAGS, AND IN THE MTX BTWN BRECCIA FRAGMENTS.  CHT IS
R        604.25  609.60      CONCENTRATED BTWN 606.93 AND 607.10M.  PYR IS PARTICULARLY
R        604.25  609.60      CONCENTRATED IN BOTTOM 0.10M OF INTV.
R US1    609.60  609.60      CORE RECOVERY IN SZ#1 IS VERY POOR (15% OF OVERALL) WHICH MAKES
R        609.60  609.60      LOGGING & DESCRIPTION HIGHLY INTERPRETIVE.  INTERVALS OF AS MUCH
R        609.60  609.60      AS 6M HAVE 0% RECOVERY.  MUCH OF THE CORE WHICH WAS RECOVERED
R        609.60  609.60      HAS CLEARLY UNDERGONE PREFERENTIAL LEACHING, POSSIBLY OF
R        609.60  609.60      CARBONATES (?).  THIS LEACHING HAS LOCALLY RESULTED IN A VUGGY
R        609.60  609.60      TEXTURE.  IT CAN BE INFERRED THAT SZ#1 HAS BEEN CUT BY A MAJOR
R        609.60  609.60      FAULT WHICH BRECCIATED THE ROCK AND PERMITTED GROUNDWATER ACCESS
R        609.60  609.60      (AND HENCE LEACHING).  IT CAN BE INFERRED FROM AVAILABLE CORE
R        609.60  609.60      THAT THE UPPER PART OF THE ZONE (609.60 - 616.31) IS SULFIDE
R        609.60  609.60      RICH (3% RECOVERY) AND THE LOWER PART (616.31 - 629.05) IS A
R        609.60  609.60      CHT-BARITE FACIES (LOW GRADE), WITH SLIGHTLY HIGHER CORE
R        609.60  609.60      RECOVERY (12%).

K US1    609.60  609.60   0.00

/        609.60  611.12   1.52          LOST                        P
L
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```
K  F  F R O M - T O -  I N T RECOV  RD % ROCK TN TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -I- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R Q D  AGE EV RO LC TM OM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R       609.60  611.12      0% RECOVERY.

/       611.12  612.65  1.53            BNSX SL GL      BN LM              P                     L=     L3     L2
L                                           40 PY       SS LC                                                   L3
R       611.12  612.65      BEDDING IS HIGHLY CONVOLUTE, DISCONTINUOUS & LOCALLY BRECCIATED,
R       611.12  612.65      PROBABLY DUE TO SLUMPING.  CORE RECOVERY IS POOR (29%) AND CORE
R       611.12  612.65      IS LEACHED AND VUGGY.  MINOR PB OXIDE (MINIUM) IS DEVELOPED
R       611.12  612.65      LOCALLY IN VUGS.  AN UNIDENTIFIED LIGHT GREEN MINERAL (SOFT,
R       611.12  612.65      WITH GRANULAR TEXTURE) IS ALSO PRESENT IN MINOR AMOUNTS IN VUGS
R       611.12  612.65      POSSIBLY SERICITE).

/       612.65  613.26  0.61            BNSX SL GL      BN LM              P                     L=     L3     L2
L
R       612.65  613.26      CORE VUGGY WITH POOR RECOVERY (18%).

/       613.26  614.78  1.52            LOST                               P
L
R       613.26  614.78      0% RECOVERY.

/       614.78  616.31  1.53            MSSX GL SL                         P                     P1     P1     P+
L                                           40 BA                                                               P3
R       614.78  616.31      LOGGING HIGHLY INTERPRETIVE AS INTV IS ONLY REPRESENTED BY 2
R       614.78  616.31      PEBBLE-SIZED PIECES OF CORE WHICH ARE HIGHLY LEACHED AND POROUS.
R       614.78  616.31      RELIC MINERALS ARE DK BN SL PYR BA AND LESSER GL WHICH IS HIGHLY
R       614.78  616.31      OXIDIZED.  A SOFT, LIGHT GN GRANULAR MINERAL (SERICITE ?) IS
R       614.78  616.31      COMMON IN VUGS.  PERCENTAGES GIVEN ABOVE TAKE VOID SPACE INTO
R       614.78  616.31      ACCOUNT IE % ARE OF ENTIRE ROCK PRIOR TO LEACHING (OF GANGUE ?
R       614.78  616.31      MINERALS).  ASSAYS SHOULD BE SOMEWHAT HIGHER THAN THESE
R       614.78  616.31      ESTIMATES, AS THE SAMPLES, POST-LEACHING, ARE APPROX. 80% SL.

/       616.31  617.83  1.52            BMSX BA         LM //              P  1                  L8     D(     D(
L                                           BY                                                                  L/
R       616.31  617.83      POOR RECOVERY (8%) - RUBBLY-HENCE CAB COULD NOT BE MEASURED.

/       617.83  619.35  1.52            LMSX BA PY      LM //              P  1 BD       50      L9     L1     L=
L                                           BA                                                                  D*
R       617.83  619.35      POOR RECOVERY (3%)

/       619.35  620.88  1.53            LMSX BA GL      LM //              P  1 BD       05      L9     D+     L1
L                                           7A                                                                  D+
R       619.35  620.88      INTV CONTAINS APPROX 1% SCATTERED SMALL (*1MM) GRAINS OF A SOFT
R       619.35  620.88      GREEN MATERIAL.  THESE TEND TO BE PELLETAL OR CIRCULAR, BUT MAY
R       619.35  620.88      BE TABULAR AND ANGULAR - POSSIBLY ALTERED (CHLORITIZED/
R       619.35  620.88      SERICITIZED ?)  ARGILLITE FRAGMENTS - ESSENTIALLY CLAY MINERALS.

/       620.88  626.97  6.09            LOST                               P
L
R       620.88  626.97      0% RECOVERY.

/       626.97  627.58  0.61            LMSX        CH8 LM //              P  1                         D.
L                                                                                                               L1
```

```
 K  F  F R O M - T O -  I N T RECOV  MU % ROCK TM TH OM1 TX TX F C % M ARG   RT 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 Y  G                          R Q D  AGE EV RO LC TM OM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

 R       626.97  627.58       POOR RECOVERY (7%).  VERY RUBBLY CORE.  ALTERNATING BANDS OF
 R       626.97  627.58       SALMON-COLOURED (SL-RICH) AND LT GY CHT.

 /       627.58  629.10  1.52          BNSX BA GL CH7 LC BD              P  3                         L1    L*    L=
 L                                          7A SF     SS                                                           L)
 R       627.58  629.10       PRED ALTERNATING BANDS OF CHT, ARG CHT AND POSSIBLY HIGHLY
 R       627.58  629.10       SILICIFIED ARGL.  BEDS ARE CONVOLUTE AND LOCALLY BRECCIATED.
 R       627.58  629.10       GL OCCURS LOCALLY IN BRECIA INTERSTICES (REMOBILIZED ?).  BASAL
 R       627.58  629.10       PART OF INTV APPEARS TO BE PARTICULARLY ARGILLACEOUS AND IS
 R       627.58  629.10       PROBABLY GRADATIONAL WITH UNDERLYING ARGL.

 /       629.10  631.76  2.66          ARGL SF    ST=      0 3 = 3       P  1 BD     70 V=             <*    L-
 L                                          5A    CH)                                                              D.
 R       629.10  631.76       VERY HIGHLY SILICIFIED.  BOTTOM 0.2M CONTAINS THIN CHT-PYR BANDS
 R       629.10  631.76       AND IS GRADATIONAL INTO UNDERLYING UNIT.
 R       631.76  631.76       EXCELLENT CORE RECOVERY CORE GENERALLY VERY COMPETENT.

 /       631.76  634.64  2.88          BNSX BA GL CH1 LM LC              P  1 BD    T70                L7    L=    L1
 L                                            CB                            BD    B65                              L1
 R       631.76  634.64       MODERATELY CALCAREOUS.  BDG MODERATELY CONVOLUTE BECAUSE OF
 R       631.76  634.64       SLUMPING.  HENCE CAB VARIES.  GL TENDS TO OCCUR IN BEDS UP TO
 R       631.76  634.64       3CMS (RELATIVELY MASSIVE).  SL+PYR TEND TO OCCUR IN LESS MASSIVE
 R       631.76  634.64       FORM, DISSEM WITHIN BARITE BANDS.

 /       633.90  633.98  0.08        X BNSX BA GL CH1 LM LC              R  1 BD    T32                L7    L=    L1
 L

 /       634.64  637.69  3.05          BNSX GL SL CH7 LC SS              P  2 BD    T75                L1    D-    L=
 L                                            CB    LM                          B85                              L1
 R       634.64  637.69       SLIGHTLY CALCAREOUS.  ALTERNATING YW AND LT-M GY CHT BANDS.
 R       634.64  637.69       BANDS ARE CONVOLUTE, DISCONTINUOUS AND LOCALLY BRECCIATED,
 R       634.64  637.69       PROBABLY DUE TO SLUMPING.  GL COMMONLY OCCURS IN BRECCIA
 R       634.64  637.69       INTERSTICES (REMOBILIZED).

 /       637.69  638.69  1.00          BNSX SL GL CH9 BD                 P  2 BD     80 <+             L=    L-    L)
 L                                          5A                                                                     L+
 R       637.69  638.69       ESSENTIALLY CHT WITH LOCAL BARITE-SULFIDE LAM.  LOCALLY
 R       637.69  638.69       BRECCIATED.  INTERSTICES INFILLED WITH SL+PYR.  QTZ-FILLED
 R       637.69  638.69       TENSION GASHES ARE COMMON.

 /       638.69  640.14  1.45          BNSX GL SL CH8 BD LM              P  3 BD    T45                L=    L+    L=
 L                                            CB    LC SS                       B60                              L1
 R       638.69  640.14       BANDS & LAM TEND TO BE WAVY, CONVOLUTE & DISCONTINUOUS;  HENCE
 R       638.69  640.14       CAB VARIES.  LOCALLY BRECCIATED.  SULFIDES TEND TO BE INTIMATELY
 R       638.69  640.14       INTERGROWN WITH CHT.  GL OCCURS LOCALLY AS LAM & AS BLEBS WITHIN
 R       638.69  640.14       CHT.  PYR & SL OCCUR LOCALLY IN BRECCIA INTERSTICES.  AT 639.30M
 R       638.69  640.14       IS A BAND OF DISSEM DK GRAINS APPROX 2MM IN DIAMETER.  THESE ARE
 R       638.69  640.14       ANGULAR, SILICIOUS AND EXHIBIT RHOMBIC AND HEXAGONAL FORMS.  THE
 R       638.69  640.14       VARIETY OF SHAPES APPEARS TO BE DUE TO CROSS-CUTTING RANDOMLY
 R       638.69  640.14       ORIENTED QTZ XLS.  THE FACT THAT QTZ HAS HAD THE FREEDOM TO FORM
 R       638.69  640.14       EUHEDRAL XLS MAY HOLD GENETIC IMPLICATIONS WHICH CAN BE
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K  F  F R O M - T O -  I N T RECOV  MD % ROCK TM TM NM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R Q D  AGE EV RO LC TM NM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R        638.69  640.14       INVESTIGATED LATER.

/        640.14  643.17   3.03             CHER        CH9 ST BD              P  3 BD     T20 <=                   L)
L                                              6A        LM                               B80                            L)
R        640.14  643.17       CHT WITH MINOR LOCAL BARITE-SULFIDE BANDS.  CHT IS LOCALLY
R        640.14  643.17       BRECCIATED & INFILLED WITH MNR PYR & SL.  TENSION GASHES
R        640.14  643.17       INFILLED WITH QTZ ARE COMMON.

/        643.17  645.42   2.25             BNSX SL     CH8 BN LM              P  2 BD     T60                      D-
L                                                        LC SS                            B80                            L1
R        643.17  645.42       BANDS ARE CONVOLUTE, DISCONTINUOUS, LOCALLY BRECCIATED &
R        643.17  645.42       INFILLED WITH GY CHT.

/        645.42  646.50   1.08             CHER            BN LM              P  2 BD      80                      L*
L                                              7A

/        646.50  648.27   1.77             BNSX BA SL CH3 BN LM               P  1 BD     T60               L5     L)     L)
L                                                                                         B60                            L1
R        646.50  648.27       RELATIVELY UNDISTURBED BDG.

/        648.27  649.05   0.78             BNSX BA SL CH1                     P  2 BD      80               L8
L                                                                                                                        L1
R        648.27  649.05       SLIGHTLY CONVOLUTE & DISRUPTED BDG.  VERY SLIGHTLY CALCAREOUS.

/        649.05  650.00   0.95             LHSX BA SL      LM BN              P  1 BD      80               L9           L+
L                                                                                                                        L1
R        649.05  650.00       BARITE WITH ALTERNATING WHITE & YELLOW BANDS.  YELLOW BANDS ARE
R        649.05  650.00       SL-RICH.

/        650.00  655.40   5.40             BNSX SL PY CH4 LM BN               P  1 BD     T80 <(            L4     L1     L+
L                                              BA     LC ST                                                              L1
R        650.00  655.40       VERY CALCAREOUS.  BDG IS CONVOLUTE, DISRUPTED, AND BRECCIATED,
R        650.00  655.40       PARTICULARLY NEAR THE BASE.  INTV IS LOCALLY VUGGY, WITH DRUSY
R        650.00  655.40       QTZ IN VUGS.  BOTTOM 20CMS OF INTV BECOMES ARGILLACEOUS,
R        650.00  655.40       GRADATIONAL WITH UNDERLYING UNIT.

K LS1    655.40  655.40   0.00

/        655.40  658.17   2.77             ARGL SF SL CH2 LM LC 0 3 = 3       P  1 BD     T60 <)                   <=     D-
L                                              5A PY                                      B70                            L+
R        655.40  658.17       INTV IS IMMEDIATE FOOTWALL OF SZ-2 AND IS GRADATIONAL TO
R        655.40  658.17       UNDERLYING ARGILLACEOUS ROCKS.  THIS GRADATION IS BROUGHT ABOUT
R        655.40  658.17       BY THE OCCASIONAL PRESENCE OF MINERALIZED CHT BANDS & LAM WITHIN
R        655.40  658.17       THE ARGL.  INTV IS VERY HIGHLY SILICEOUS.  LAMINAE ARE CONVOLUTE
R        655.40  658.17       SO THAT CAB VARIES.

/        658.17  669.04  10.87             BRPH SF PY *S=                 OR7  P              <)                   D+
L                                              4A               2   = O JL+
R        658.17  669.04       QTZ VNS CONCENTRATED IN UPPER 2M OF INTV.  IN GENERAL
R        658.17  669.04       SILICIFICATION RANGES FROM INTENSE AT TOP OF INTV TO MODERATE AT
R        658.17  669.04       THE BASE.  MTX IS CLAY WITH SOME SAND.
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K  F   F R O M - T O -  I N T RECOV  MO % ROCK TO TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                             R Q D  AGE EV RQ LC TN QM2 TX TX S C O O CHT     2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R      363.63  366.67      OVER 90% IRON SULPHIDE: MASIVE TO EUHEDRAL. LIKELY A LARGE VEIN
R      363.63  366.67      WITHIN THE FAULT. RECOVERY VERY POOR: 20CM OVER 3M RUN, LACK OF
R      363.63  366.67      GOUGE MAY BE DUE TO ITS BEING WASHED OUT (SPLIT CORE BARREL WAS
R      363.63  366.67      USED). ROUNDED CORE FRAGMENTS ALSO INDICATE GRINDING.

/ FAL  366.67  370.67  4.00              SILT        ST4        1 2   3       P                 #2          #1   #2     /
L                                           2A                  6                                                   #1   /

/ FAL  370.67  374.60  3.93              SILT        SI5        1 2   3       P                 #2          #3   #1     /
L                                                               6                                                   #=   /

K UM1  374.60  374.60  0.00

/      374.60  376.85  2.25              LMSX SL GL CH1 LC IB           01      P  1 LM      60 <=          B4   L1     L1
L                                           7A BA SI1                               1 LM      90                           L2

/      374.60  376.85  2.25            4 SILT SF CR     IB             12      R  2 BD      60 <=          <1
L                                           1A GR

/      376.64  376.70  0.06            X ARGL CR GR                    01      R                 <=          <1   D+
L                                           N SF

/      376.84  376.85  0.01            X LMSX SL GL CH1 LC IB          01      R  1 LM      60 <=          B4   L1     L1
L                                           7A BA SI1                               1 LM      90                           L2

K LM1  376.85  376.85  0.00
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G E O L O G E D I T L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6802

DRILLHOLE/TRAVERSE :81CNH068
TOTAL DEPTH/LENGTH : 726.34
CORE/HOLE DIAMETER : HQNQ

COLLAR ELEVATION: 1275.94
NORTHING(- IF S): 7002472.00
EASTING (- IF W): 436496.25

AZIMUTH(DEG) : 0.00
VERTICAL ANGLE : -90.00
CO-ORD SYSTEM : UTM

GEOLOGGED BY : DWB +
DATE (YY/MM/DD): 810000
PROJECT NUMBER : J-S3

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	30.00	146.90	-89.47
2	61.00	169.10	-87.40
3	91.00	151.30	-85.47
4	122.00	131.50	-86.75
5	152.00	124.20	-86.42
6	183.00	121.80	-86.10
7	218.24	124.90	-85.70
8	231.34	126.00	-85.50
9	251.46	141.00	-85.50
10	287.12	160.00	-84.25
11	304.80	168.00	-82.75
12	326.14	170.00	-80.50
13	346.86	170.00	-77.75
14	382.83	168.00	-73.25
15	395.63	169.00	-72.67
16	408.12	168.00	-72.25
17	435.56	164.50	-70.25
18	454.15	164.00	-67.67
19	466.34	163.50	-67.34
20	481.58	162.00	-64.50
21	494.69	162.00	-64.00
22	508.71	162.00	-62.50
23	523.95	161.50	-61.25
24	538.89	161.50	-60.00
25	557.78	161.50	-59.00
26	575.77	160.00	-59.00
27	581.86	161.00	-58.75
28	593.45	160.00	-58.25
29	594.66	160.00	-58.50
30	606.25	160.00	-58.50
31	618.44	160.00	-58.00
32	630.63	160.00	-59.00

PAN OCEAN OIL LTD.

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G E O L O G                          JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                  PAGE -  2
                                  DRILLHOLE/TRAVERSE --- 81CWH068 --- (CONTINUED)
                           33            642.82           161.00          -57.50
                           34            655.02           161.50          -57.25
                           35            667.21           162.00          -57.00
                           36            679.40           162.00          -57.00
                           37            691.50           163.00          -56.75
                           38            703.78           163.00          -56.75
                           39            715.98           163.00          -56.34
                           40            725.12           163.50          -55.50

   F    - I N T E R V A L -    CORE  T- %       TYPI- QAL  TEX-  GRAIN        PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K  L (UNITS =   .  DEC.PLACE)RECOV-  M U ROCK FYING MIN TURES CHARACS                          H  H  H  H  H ANY H  H  H ANY  ALT ORE
E  A  (MT=METRIC FT=FOOTRIC)  ERY    O I       TM TO MAT TX TX F C % M ARG  /RT T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y  G  F R O M - T O -  I N T (  . )  D X TYPE  1  2 OM1  1  2 F F C A           1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K  F                         ROCK   FM     RT    TM OM2 TX TX S C O O CHT       T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E  L                         QUAL   AGE FM- J LC- 3     3  4 O     /           2    AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
Y  G                         DESIG     VIR  COL            R       C            STRUCTUR-2  A  A  A  A  A  A  A  A  A  A    2   2

R SVY     0.00  218.24        READINGS FOR UPPER PART OF HOLE FROM GYROCOMPASS SURVEY OF
R SVY     0.00  218.24        DDH 81-68A.  REMAINDER FROM SPERRY SUN MULTI-SHOT.
R SVY     0.00  218.24        THESE SURVEY DATA (S000-S040) SHOULD BE USED FOR PLOTTING
R SVY     0.00  218.24        PURPOSES.
R SVY   218.24  218.24        BEGINNING OF WEDGED HOLE C.
R SVY   218.24  218.24        HALL AND ROWE STEEL WEDGE - FULL AZIMUTH RIGHT.
R SVY    99.97   99.97        HALL AND ROWE STEEL WEDGE - FULL STEEPENING.
R SVY   218.24  726.34        SURVEY DATA FROM SPERRY SUN MULTI-SHOT.
R SVY   235.31  235.31        CLAP RETRIEVABLE WEDGE -     FULL AZIMUTH TO RIGHT.
R SVY   255.12  255.12        CLAP RETRIEVABLE WEDGE -     FULL AZIMUTH TO RIGHT.
R SVY   270.56  270.56        CLAP RETRIEVABLE WEDGE -     FULL AZIMUTH TO RIGHT.
R SVY   288.65  288.65        CLAP RETRIEVABLE WEDGE -     HALF AZIMUTH TO RIGHT
R SVY   288.65  288.65                                     AND HALF FLATTENING.
R SVY   305.71  305.71        CLAP RETRIEVABLE WEDGE -     FULL FLATTENING.
R SVY   328.83  328.83        CLAP RETRIEVABLE WEDGE - DIP 1.50 TO FLATTEN.
R SVY   413.92  413.92        CLAP RETRIEVABLE WEDGE - DIP 1.50 TO FLATTEN.
R SVY   437.99  437.99        CLAP RETRIEVABLE WEDGE - DIP 1.50 TO FLATTEN.
R SVY   467.56  467.56        CLAP RETRIEVABLE WEDGE - DIP 1.50 TO FLATTEN.
R SVY   726.34  726.34        END OF WEDGED HOLE C.
R SVY   351.13  351.13        CLAP RETRIEVABLE WEDGE - DIP 1.50 TO FLATTEN.

/          0.00  217.32 217.32              MISS                            P

/        217.32  220.55   3.23              ARSI       SN1 BD SS 0 3 1 3    P  2 BD     T55 <.               D.
L                                                3A                                     B50
R        217.32  220.55        BDG OCCASIONALLY SLIGHTLY DISRUPTED BY SOFT SED SLUMP.

/        220.55  235.75  15.20              BRHT       *C= B* F*       OT6  P
L                                                5A    *S+        2   +  M04

/        235.75  256.95  21.20              BRPM       *C* F* B*       QT4  P                             R.
L                                                4A    *S-        4 - - O L02
R        235.75  256.95        MNR PYR ASSOCIATED WITH CHT CLASTS.

/        252.38  252.60   0.22            X SAND         G; BD 3 J 5 K      R  2 BD     U45
L                                                7A                6
R        252.38  252.60        NARROW SAND ZONE-IN PLACE-GRADES UPWARD INTO OVERLYING
R        252.38  252.60        CLAY-RICH BRPM MIX.

/        256.95  262.43   5.48              BRPM       *S+             PS8  P                             D.
L                                                4A               5   +  LL)

/        262.43  273.30  10.87              BRPM                       QT7  P                             D.
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                                                              PAN OCEAN OIL LTD.
 G E O L O G                                         JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                   PAGE -  3
                                                 DRILLHOLE/TRAVERSE --- 81CWH068 --- (CONTINUED)

 K  F  F R O M - T O -  I N T RECOV  RD % ROCK TM TG OM1 TX TX F C % M ARG   RT 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- -- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 Y  G                         P Q D  AGE EV RW LC TG OM2 TX TX S C O D CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

 R      262.43  273.30      2 LARGE (10-20 CM) SS+PEBBLY SS FRAGS.

 /      273.30  301.75  28.45          BRRM                        QT9    P                               D-
 L                                          4A     *S)        4   )   KN*
 R      273.30  301.75      LOCALLY BRPM.

 /      297.40  298.80   1.40       X FAUL CR GR                          R
 L                                          4A
 R      297.40  298.80      RUBBLY INTERVAL WITH GRAPHITIC SHEARS-NO FAUL GG.

 /      300.53  301.75   1.22       X FAUL CR GR                          R
 L                                          4A
 R      300.53  301.75      RUBBLY INTV WITH GRAPHITIC SHEARS-NO FAUL GG.

 /      301.75  323.55  21.80          BRRT                        QS9    P                               D-
 L                                          4A     *S*        3 ) *   LO1
 R      301.75  323.55      LOCALLY BRPM.

 /      301.75  302.60   0.85       X FAUL                                R
 R      301.75  302.60      RUBBLY CORE WITH GRAPHITIC SHEARS.

 /      306.93  309.96   3.03       X SAND           BD G: I K 6 N   1    R  3        U44 <-              D-
 L                                          7A                5      9
 R      306.93  309.96      3 ZONES OF CHT SAND RANGING FROM 50CMS TO 1M.ZONES ARE SEPARATED
 R      306.93  309.96      BY SHALE PARTINGS. BOTTOM ZONE COMPRISES SEVERAL CYCLES OF
 R      306.93  309.96      INTBD FINE & COARSER SAND.MIDDLE ZONE (50 CMS)EXHIBITS GRDG FROM
 R      306.93  309.96      BRBT AT BASE TO SAND AT TOP. UPPER ZONE EXHIBITS CRUDE BEDDING
 R      306.93  309.96      WHICH IS ALMOST PARALLEL TO CORE AXIS. UPPER ZONE(306.93-308.48,
 R      306.93  309.96      RECOV APPOX. 1M) MAY BE A LARGE CLAST. LOWER 2 ZONES ARE
 R      306.93  309.96      DEPOSITIONAL.

 /      323.55  351.13  27.58          BRRM                        UV9    P                               <-
 L                                          4A                4       LO)                                      R.
 R      323.55  351.13      TRACE SL IN CORE OF CHT CLAST.

 /      325.90  327.00   1.10       X FAUL                                R
 L                                          4A
 R      325.90  327.00      RUBBLY INTV WITH GRAPHITIC SHEARS.

 /      327.50  328.88   1.38       X BRXX                J M 4 0 MO+    R               <-      <-       D.
 L                                          6A                4     0 JN9
 R      327.50  328.88      CONSISTS PREDOMINANTLY OF SUBRD-SUBANG CHT FRAG IN A MTX OF
 R      327.50  328.88      CLY & CHT SND. MINOR ARGL FRAGS.

 /      348.55  350.25   1.70       X BRPM                         PQ7    R
 L                                          5A                  6     JN3
 R      348.55  350.25      ARGL FRAGS IN A MTX OF CHT SAND.

 /      351.13  362.94  11.81          BRRT                        PU5    P               <.              D.
 L                                          5A     *S)        3   )   LN4

 /      356.30  360.50   4.20       X BRPM                         OR2    R               <-
 L                                          6A                4       JM8
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 K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM QM1 TX TX F C % M ARG    RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
 F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
 Y  G                          R Q D  AGE EV RN LC TM QM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

 R       356.30  360.50       ESSENTIALLY A PEBBLY CHT SAND WITH SCATTERED ARGL FRAGS.

 / FRG   361.40  362.94   1.54           X ARGL       SN= RD     0 2 = 2        R  1 BD       T75 <.        <.
 L                                             4A                                             B75
 R       361.40  362.94       TOP OF THICK SEQUENCE OF DEBRIS FLOWS CHARACTERIZED BY
 R       361.40  362.94       CGCP CLASTS.

 K UDF   362.94  362.94   0.00

 /       362.94  373.90  10.96            BRHT                            RS8   P                                       D.
 L                                             5A     *S*        2 1 *    LN1
 R       362.94  373.90       LOCAL BRPM.
 R       362.94  373.90       INTV BTWN 363.00 & 365.76M SLIGHTLY RUBBLY WITH LOCAL
 R       362.94  373.90       SHEARING-MINOR FAULT.

 /       373.90  395.30  21.40            BRHM                            SU9   P                                       D.
 L                                             4A     *S*        3 + *    MO)
 R       373.90  395.30       SLIGHTLY DISRUPTED ARSI WITH MINOR CHT & CGCP FRAGS-CONTAINS 2
 R       373.90  395.30       LARGE CGCP FRAGS 30-40 CMS IN LENGTH.

 /       373.90  381.40   7.50           X FAUL GR                              R
 L                                             4A
 R       373.90  381.40       RUBBLY INTV, GRAPHITIC; LOCALLY SHEARED.

 /       395.30  404.06   8.76            BRHT        *S= F*              PR5   P                                       D*
 L                                             6A     *C=        2   -    MO3
 R       395.30  404.06       LOCALLY BRPM.

 /       404.06  411.80   7.74            CGSR        *S* F* H* J M 6 P LO1   P                               D=
 L                                             7A     *C=        5   * O MP8
 R       404.06  411.80       UNIDENTIFIED CARBONATE OCCURS IN SMALL AMOUNTS IN MTX, AND
 R       404.06  411.80       REPLACING ARGL CLASTS-POSSIBLY FE-RICH CALCITE. ARGL CLASTS ARE
 R       404.06  411.80       SILICIFIED IN PART. CHT CLASTS ARE OCCASIONALLY BRECCIATED AND
 R       404.06  411.80       INFILLED WITH LIGHT-COLORED CHT VEINS. CGL HAS A SANDY MTX.
 R       404.06  411.80       406.06-407.52M FRAMEWORK-SUPPORTED;407.52-411.80M MTX-SUPPORTED.
 R       404.06  411.80       UNIT REPRESENTS A DEPOSITIONAL EVENT - NOT A FRAGMENT.

 /       411.80  419.10   7.30            BRHT                            OP8   P                    <*                 D*
 L                                             5A     *S+        3 + +    MO1
 R       411.80  419.10       BTM 0.5M PRED CHT-GRADATIONAL INTO UNDERLYING UNIT.

 K SIG   419.10  419.10   0.00

 /       419.10  420.50   1.40            CGSN SF     *C) B*      J M 2 P MP2   P                    <)        B=       D*
 L                                             6A                6     O JN8
 R       419.10  420.50       A DISTINCTIVE UNIT CONSISTING OF GENERALLY
 R       419.10  420.50       WELL ROUNDED & OVOID PEBBLES OF ARGL (AND MINOR CHT) IN A
 R       419.10  420.50       CHT SND MTX, MTX-SUPPORTED. SD OCCURS IN MTX AS IRREGULAR
 R       419.10  420.50       BLEBS.
 R LIT   419.10  420.50       MAY BE A GOOD MARKER BED BECAUSE OF DISTINCTIVE TEXTURE.
 R LIT   419.10  420.50       UNCLEAR WHETHER THIS IS A FRAGMENT OR A TURBIDITE EVENT.
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PAN OCEAN OIL LTD.

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G E O L O G                                JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                       PAGE -  5
                                     DRILLHOLE/TRAVERSE --- 81CWH068 --- (CONTINUED)

K   F   F R O M - T O -   I N T RECOV  NO % ROCK TM TM QM1 TX TX F C % M ARG    RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
F  -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y   G                         R Q D  AGE EV RQ LC TM QM2 TX TX S C O O CHT        2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R       419.10  420.50     HOWEVER.

/       420.50  427.20  6.70             BRCG                     OP1    P                 <*                    D.
L                                               6A     *S1      3 5 1 C MO=
R       420.50  427.20     INTV IS V CHT-RICH. IT HAS BEEN INTERPRETED AS A BRHT WITH
R       420.50  427.20     ABNT CGCP AND PEBBLY SS FRAGS RANGING FROM A FEW TO 90 CMS.
R       420.50  427.20     SMALLER SND & CGL FRAGS CAN BE READILY IDENTIFIED. IT IS
R       420.50  427.20     DIFFICULT TO DETERMINE WHETHER LARGER CONGLOMERATIC INTVS ARE
R       420.50  427.20     FRAGMENTS OR ARE THE RESULT OF A TURBIDITE EVENT, HOWEVER.

/       427.20  441.15  13.95            BRPM                     PR2    P                                       D-
L                                               6A     *S(      2   (   KN6
R       427.20  441.15     CHT-RICH BRX WITH SAND & CLY-RICH MTX; V P SRT. SOME OF MORE
R       427.20  441.15     CONGLOMERATIC INTVS MAY BE FRAGS BUT THIS IS NOT CLEAR.
R       427.20  441.15     GENERALLY A CHT-RICH BRX CHARACTERIZED BY SAND-RICH MTX.

/       441.15  450.43  9.28             BRHT          *C* F*     PQ3    P                 <+                    D-
L                                               6A     *S)      2 2 )   MO3
R       441.15  450.43     INTV CHARACTERIZED BY ABNT CGCP & PEBBLY SS WITH FRAGS.

/ FRG   442.36  443.36  1.00           X CGCP                 J M 4 O LO9    R                                   D.
L                                               7A              4     O MN1
R       442.36  443.36     PROBABLE FRAG-BASAL CONTACT AMBIGUOUS.

/       445.50  447.75  2.15           X FAUL CR GR                          R
L                                               3A

/       450.43  453.00  2.57             SAND            BD     3 K 2 O LN)    P  2 BD     U55                     D-
L                                               6A     *S. SS G; 5   . ( 309                B50
R       450.43  453.00     BOTTOM 40 CMS MASSIVE.
R       450.43  453.00     INTV COMPRISES ALTERNATING FINE AND COARSER SAND BEDS. NORMAL
R       450.43  453.00     GRADING IS DEVELOPED LOCALLY.
R       450.43  453.00     BEDDING IS LOCALLY SLIGHTLY CONVOLUTE AND APPEARS TO
R       450.43  453.00     HAVE  UNDERGONE SOFT SED DEFORMATION.
R       450.43  453.00     INTV BTWN 450.73 & 451.13 CONTAINS ABNT LRG CHT CLASTS (APPROX.
R       450.43  453.00     0.5 CMS) IN A SAND MTX AND IS THEREFORE CONGLOMERATIC.

/       453.00  456.25  3.25             BRHT                     NQ5    P                 V-        V(          D.
L                                               5A              3 )     MO3
R       453.00  456.25     TOP 25 CMS OF INTV BECOMES SANDY-GRADATIONAL INTO OVERLYING
R       453.00  456.25     UNIT.

/       456.25  478.10  21.85            BRPM                     QU5    P                                       D-
L                                               4A     *S)      3 ( ) O JO3
R       456.25  478.10     MTX IS CHT SAND AND CLAY.
R       456.25  478.10     BASE OF THICK SEQUENCE OF DEBRIS FLOWS CHARACTERIZED
R       456.25  478.10     BY CGCP CLASTS.

/ FRG   458.64  462.99  4.35           X ARSI CR GR SN2 LM    O 3 2 3        R                                   D(
L                                               4A
R       458.64  462.99     PROBABLE FRAGMENT. BDG EXHIBITS PRONOUNCED SLUMP CLEAVAGE;
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K  F   F R O M - T O -  I N T RECOV  MD % ROCK  FM TM OM1 TX TX F C % M ARG   RT 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L-  ----.--  ----.--  ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                              R Q D  AGE EV RU LC TM OM2 TX TX S C O O CHT     2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R        458.64  462.99        ALSO LOCAL SMALL SCALE FOLDS. CORE TO BDG ANGLE VARIES WIDELY.
R        458.64  462.99        MINOR LOCAL SHEARING.

K LDF    478.10  478.10   0.00

/        478.10  490.12  12.02             BRBM CR GR                 TU9   P                  V.        V.        D.
L                                               4A    *S-       5   -   KL-
R        478.10  490.12        A SLIGHTLY SLUMPED ARSI UNIT. 10-15% SND LAM. CORE TO BDG
R        478.10  490.12        ANGLES VARY MARKEDLY.
R        478.10  490.12        MINOR LOCAL GRAPHITIC SHEARS.

/ SHR    490.12  492.68   2.56             BRBM CR GR                 OP5   P                  <=        <=
L                                               5A              3       LN2
R        490.12  492.68        RUBBLY INTV WITH LOCAL GRAPHITIC SHEARS
R        490.12  492.68        ABNT QTZ-CARB VEINING.

/ SHR    492.68  513.10  20.42             BRBM GR CR                 RT9   P                  <(        <-        D(
L                                               4A    *S(       3 ) (   KM*
R        492.68  513.10        RUBBLY INTV WITH LOCAL GRAPHITIC SHEARS.
R        492.68  513.10        QTZ CARB VNS CONCENTRATED IN UPPER 50 CMS, CONTINUOUS WITH
R        492.68  513.10        THOSE IN OVERLYING UNIT.
R        492.68  513.10        FRAGS PRED ARGL FROM 492.68 TO 499.80 M; PRED ARSI FROM 499.80
R        492.68  513.10        TO 513.10 M.

/        503.60  504.14   0.54           X SAND           G; BD 0 K 1 L KI2   R  2 BD    T12 <*        <*        D)
L                                               5A              6 *    C 4K6
R        503.60  504.14        UNCLEAR WHETHER THIS IS A FRAGMENT OR A DEPOSITIONAL EVENT.
R        503.60  504.14        UPPER CONTACT IS PARALLEL TO BEDDING IN SAND, BUT OVERLYING
R        503.60  504.14        ARSI IS UNCONFORMABLE. BASAL CONTACT OF SAND IS IRREGULAR
R        503.60  504.14        AND POORLY DEFINED BECAUSE OF RUBBLY CORE. FAVOURED INTER-
R        503.60  504.14        PRETATION IS THAT THIS IS A TURBIDITE.
R        503.60  504.14        INTV CONTAINS APPROX 20% ARGL CLASTS.

/        513.10  531.00  17.90             ARSI CR     SN2 LM (L 0 3 2 3        P  1 BD    U40            V-      L*      V.
L                                               5A                                          B30
R        513.10  531.00        SAND/SILT LAMINAE INCREASE FROM APPROX 15% IN UPPER PART OF
R        513.10  531.00        INTV (513.10-523.10) TO 25% IN LOWER PART (523.10-531.00)
R        513.10  531.00        PYR OCCURS PRINCIPALLY AS DISSEM GRAINS IN SAND/SLT BANDS.
R        513.10  531.00        SAND/SLT BEDS ARE LOCALLY LENTICULAR.
R        513.10  531.00        1 CM QTZ-SID VNS AT 520.80 M, 529.80 M, AND 530.70 M. THESE
R        513.10  531.00        CONTAIN MNR GL AND PY.

/        531.00  544.25  13.25             BRBT CR GR                 ST9   P                  >)                  D*
L                                               4A              3 +     LU+
R        531.00  544.25        VERY ARSI-RICH BRECCIA, WITH 1 LRG CGCP CLAST NEAR BASE.
R        531.00  544.25        MTX IS IN PT PEBBLY MUDSTONE.
R        531.00  544.25        INTV IS LOCALLY RUBBLY, SLIGHTLY SHEARED, AND GRAPHITIC.
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K  F  F R O M - T O -  I N T RECOV  MD % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                                 R Q D  AGE EV RQ LC TM QM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R       532.00  533.10      CONTAINS MNR PYR.

/       533.90  534.24  0.34            X SAND BD              3 J = J      R  2 BD      30 <)                 D*
L                                             6A               7     C

/ FRG   542.50  542.62  0.32            X CGCP                 L N 5 O      R                                  D=
L                                             7A               3     C MO9

/       544.25  563.96  19.71             CGBR SF     *S- MX ST K M 6 O MN1 P                  <)              D+
L                                             7A      *C) F* R* 3   - C MO9                                          R.
R       544.25  563.96      BOUNDARIES BTWN CLASTS ARE OCCASIONALLY SUTURED DUE TO
R       544.25  563.96      PRESSURE SOLUTION.
R       544.25  563.96      PYR IS LOCALLY QUITE CONCENTRATED & IN SOME CASES APPEARS TO
R       544.25  563.96      BE A CMT BTWN CGL CLASTS-PYR ALSO OCCURS ALONG STYLOLITES.
R       540.25  563.96      SL OCCURS IN MINOR AMNTS ASSOCIATED WITH WHITE CHT CLASTS
R       544.25  563.96      (REPLACEMENT)-OCCURS PARTICULARLY TOWARDS BASE OF INTV.

/       563.96  568.15  4.19              ARGL CR        MX    1 1   1      P                  <)              D+
L                                             2A               9

/       563.96  568.15  4.19            2 BRPM          LC            KO2   R                  <)              C=
L                                             3A               2 )    JK=
R       563.96  563.15      THE BRPM BEDS INTERCALATE WITH THE MASSIVE, CARBONACEOUS
R       563.96  568.15      ARGILLIC UNIT. BEDS RANGE FROM 2 TO 15 CMS. IN THICKNES. THE TOP
R       563.96  568.15      BEDS HAVE PYRITE FILLING THE INTERSTITIAL SPACES AS A
R       563.96  568.15      REPLACEMENT MINERAL.

/ SHR   568.15  575.72  7.57              BRBM GR                     MU6   P                  V)          <)  R+
L                                             3A               2      JL=                            <)
R       568.15  575.72      SLICKEN-SIDE SURFACES ALONG SHEARED CONTACTS ARE GRAPHITIC,
R       568.15  575.72      INDICATING POSSIBLE FAULT MOVEMENT. THE BOTTOM OF THE P.G.I.
R       568.15  575.72      GRADES INTO A DARK CARBONACEOUS PEBBLY MUDSTONE.

/       575.72  583.37  7.65              SAND SF        G: MX 1 3 8 5      P   LM       U45 <(                R=
L                                             5A CR      G; LM 8                                                     B*
R       575.72  583.37      THE SANDSTONE IS SILICIOUS WITH A CARBONACEOUS ARGILLITE
R       575.72  583.37      FILLING THE INTERSTITIAL SPACES BETWEEN THE COARSE SAND-SIZED
R       575.72  583.37      GRAINS. THE SANDSTONE IS GRADED WITH THICK BRECCIA
R       575.72  583.37      SEQUENCES. SEVERAL GRADING CYCLES WERE OBSERVED IN THIS
R       575.72  583.37      INTERVAL, TYPIFYING A TURBIDITE SEQUENCE, BOTH REVERSE AND
R       575.72  583.37      NORMAL GRADING OCCUR.

/       575.72  583.37  7.65            3 BRBT SF     *C+ B* G:       KP3   R                  <(              R=
L                                             5A         F*    3      KN3                                            R(
R       575.72  583.37      THE BRECCIA BEDS VARY FROM MATRIX TO FRAMEWORK SUPPORTED. THE
R       575.72  583.37      GARDE INTO THE SANDSTONE BEDS AND RANGE FROM 1 METRE TO .4
R       575.72  583.37      METRES IN THICKNESS. SPHALERITE IN THE SANDSTONE OCCURS IN
R       575.72  583.37      BLEBS, AND ALONG SMALL QUARTZ FRACTURES WITHIN THE CHERT
R       575.72  583.37      BRECCIA.

/       583.37  688.89 105.52             BRBT                        MU8   P                                  R=    R*
L                                             3A               2      KQ1                                            H*
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K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM NM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R Q D  AGE EV RJ LC TM NM2 TX TX S C O D CHI      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R       583.37  688.89      REPLACEMENT OF CHERT BY PYRITE, GALENA AND SPHALERITE IS
R       583.37  688.89      COMMONLY OBSERVED. IN SOME CHERT FRAGMENTS GALENA REPLACES THE
R       583.37  688.89      CENTRE, WHEREAS PYRITE IS SPECIFIC TO THE OUTER RIM. SPHALERITE
R       583.37  688.89      IS COLOURED DARK REDDISH-BROWN.
R       583.37  688.89      AN UNKNOWN GREEN MINERAL OCCURS WITH BARITE CRYSTALS IN A VEIN
R       583.37  688.89      ASSOCIATED WITH THE SILTY ARGILLITE BRECCIA.
R SPC   583.37  688.89      SAMPLE D.G.268 TAKE AT 285.45 METRES.

/       588.69  601.98  13.09          CGBR       *S) R* F*        LO2   P          <+                      B*
L                                        5A       *C+ H* CC 3   ) C LO6                            R=      R)
R       588.69  601.98      THE BOUNDARIES BETWEEN CHERT CLAST OCCASSIONALLY BECOME
R       588.69  601.98      FRAGMENTED. THE CLASTS ARE MODERATELY ANGULAR TO INTERMEDIATE.
R       588.69  601.98      NEAR THE BOTTOM OF THIS INTERVAL THE CGBR BECOMES MATRIX
R       588.69  601.98      SUPPORTED, FOR THE LAST 50 CMS.

/       590.40  592.45   2.05        9 CGSM       SNS    R*        KO1   R          <)          <(     R=      B*
L                                        4A       *C) F* B*      O LP3                                     R)

/       598.98  601.02   2.04        9 BRBM SF    SIS              NO5   R    V/       40 <=             R=      <(
L                                        6A                                                 <+                 <*
R       598.98  601.02      THE ARGILLIC BRECCIA IS SURROUNDED BY A SILTSTONE MATRIX.

/       601.98  603.13   1.15          BRBM SF PY                  LP5   P          <=          B=     B1      B)
L                                        6A              3                                                     B*
R       601.98  603.13      PYRITE OCCURS AS A REPLACEMENT MINERAL IN THE ARGILLITE MATRIX,
R       601.98  603.13      AND AS .7 CMS BANDS WITHIN THE ARGILLIC BRECCIA.

K US1   603.13  603.13   0.00

/       603.13  605.30   2.17          SXFG SF PY *C1    R*        LP3   P          <=          B1     R1      R+
L                                        5A          H*    2 )     KO1                                         L+
R       603.13  605.30      GALENA AND SPHALERITE ASSOCIATE WITH CARBONATE BLEBS IN THE
R       603.13  605.30      MATRIX. SULPHIDES OCCUR PREDOMINANTLY AS HALO OR CORE
R       603.13  605.30      REPLACEMENT OF ARGILLITE AND CHERT FRAGMENTS.

/       604.60  605.30   0.70        9 SXFG BA PY *C1 VG MX        LP3   R          M4          B1 B=  R1      R+
L                                                                                                              L+
R       604.60  605.30      THIS INTERVAL IS EXTREMELY BROKEN, WITH BARITIC BLEBS THAT
R       604.60  605.30      AVERAGE 2-3 MM. IN SIZE.

/       605.30  606.61   1.31          FGSX CB PY CH= MX BN              P          B= D)       Q3 <=  M3      M2
L                                        5Y                                                                    Q=
R       605.30  606.61      DISCONTINUOUS LENSES OF SPHALERITE AND MASSIVE PYRITE AND GALENA
R       605.30  606.61      WITHIN A CARBONACEOUS MATRIX. THIS INTERVAL IS SEMI-MASSIVE
R       605.30  606.61      WITH CRUDE BANDING OF PYRITE AND SPHALERITE. THE TOP 5 CMS. OF
R       605.30  606.61      THIS INTERVAL IS A MASSIVE CHERT. SECONDARY FLUORITE WITH
R       605.30  606.61      BARITE.

/       606.61  607.32   0.71          BOSX             BN MX            P          B= D.       Q2     X2      M3
L                                        6T             BR                                                     L1
R       606.61  607.32      BANDS OF PYRITE, CALCITE AND SPHALERITE ALTERNATE WITH MORE
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                                                     PAN OCEAN OIL LTD.
G E O L O G                                   JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                      PAGE -  9
                                       DRILLHOLE/TRAVERSE --- 81CWH068 --- (CONTINUED)

K F  F R O M - T O - T N T RECOV MD % ROCK TM TM QM1 TX TX F C % M ARG  RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                             R Q D  AGE EV RQ LC TM QM2 TX TX S C O O CHT     2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R     606.61  607.32      MASSIVE REGIONS CONSISTING OF PYRITE AND GALENA. FRAGMENTED
R     606.61  607.32      SULPHIDES OCCUR DUE TO MINOR FAULTING AND SOFT SEDIMENT
R     606.61  607.32      DEFORMATION. FLUORITE ASSOCIATED WITH BARITE.

/     607.32  611.30  3.98            LMSX SL GL CH7 LC LM              P  1 LM      60          L1 L)    B)    L+
L                                          TA CB CB1 SS SC                                                      L1
R     607.32  611.30      INTERVAL IS VARIOUSLY LAMINATED PARALLEL OR CONVOLUTE WITH
R     607.32  611.30      ISOCLINAL MICROFOLDS. CHERT IS UBIQUITOUS AS BANDS,
R     607.32  611.30      LAMINATIONS, PERVASIVE WITHIN SL LAMINATIONS, OR AS RARE BLEBS.
R     607.32  611.30      CB CONTENT VARIES: 100% IN LM, UP TO 10% WITH CHERT, SULPHIDES.

/     611.30  614.30  3.00            SXFG GL CB CH7                    P               <+       <) C.          8=
L                                          3A SL                 C                                              L+
R     611.30  614.30      GALENA OCCURS AS LM WITHIN FRAGMENTS, AND AS HALOS AROUND CLASTS
R     611.30  614.30      AND AS MINOR VEINING. QZ OCCURS IN GASH VEINS AT 45 DEGREES TO
R     611.30  614.30      CORE, AND AS CRACKLE BRECCIA FILL.

/     612.06  612.53  0.52          X SXFG GL CB CH6                    R               <+       L1 C.          8+
L                                                                                                                )

/     611.30  614.30  3.00          5 ARGL SF    CH1 VG ST              R               V=       V1       D)    B.
L                                          1A                                                                   B.
R     611.30  614.30      ARGILLITE ALSO AS FRAGMENTS WITH CA AND MINOR QZ AS BRECCIA FILL
R     611.30  614.30      AND GASH VEINING. PYRITE ALSO SEEN AS SELVAGES AND ENVELOPES
R     611.30  614.30      ABOUT DOMINATELY CA VEINING.

/     614.30  615.10  0.80            ARSI SF PY SI1 BD LM 2 3 1 3      P  1 LM     U65 <=       <* L1    6)
L                                          5A CB   BD SS                   2 BD     U65          D)
R     614.30  615.10      CROSS CUTTING QUARTZ CARBONATE MICROVEINS COMMON.

/ VE1 614.57  614.60  0.03          X VEIN BA QZ                        R               <8       6. L1    61    D.
L                                          9A CB                                                 D)

/     614.80  614.90  0.10          X BNSX BA PY     LM SS              R  2 BD     U65             L8    81    L.
L                                          9A CB                           1 LM     U65          D)
R     614.80  614.90      ONE SIDE OF BNSX IS PIRITIC IN CONTACT WITH ARSI. PYRITE RICH
R     614.80  614.90      BANDS ALTERNATE WITHIN THE BARITE LAMINATIONS AND BANDS.

/     615.10  615.87  0.77            BNSX BA PY     LM SS              P  1 LM     U65             L6    83    L1
L                                          AS CB     VG                    2 BD     U65          D)             L)
R     615.10  615.87      ALTERNATING LAMINATIONS, PYRITE RICH, GALENA - BARITE, BARITE.
R     615.10  615.87      SOME VERY GALENA RICH LAMINATIONS.

/     615.87  621.12  5.25            BNSX BA PY     LM SS              P  1 LM     U67             L7    81    L1
L                                          9A CB     VG                    2 BD     V67          D)             L=
R     615.87  621.12      PYRITE LAMINATIONS ALTERNATING WITH BARITE BANDS.
R     615.87  621.12      LOCAL SILICIFIED ZONES.
R     615.87  621.12      SOME INTERBEDDED BLACK CHERT, BEDS AVERAGE 2 CM WIDTH, AND
R     615.87  621.12      COMPRISE < OR = 5 % OF THIS PG1.

/     621.12  621.67  0.55            CHER PY BA CH8 DR KR              P               <=          D)    8+    D*
L                                          5A
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K  F   F R O M - T O -  I O T RECOV  RQ % ROCK TM TM RM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                              R R D  AGE EV RD LC TM RM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R        621.12  621.67      THE CRACKLED TEXTURE REPRESENTS A SYNDEPOSITIONAL EVENT.

/        621.67  623.01   1.34             BMSX SF BA       LM BN                 P  1 LM     U60            L7    81    L1
L                                               3A GL       SS KR                    2 BD     U60         D=                D.
R        621.67  623.01      INTERBEDDED CHERT CONTENT IS 10 % OF THIS PGI.

/        623.01  630.44   7.43             BMSX PY BA       LM BN                 P  1 LM     U65            L5    62    L2
L                                               BA GL       SS                       2 BN     U65         L1                D.
R        623.01  630.44      INTERBEDDED CHERT CONTENT IS 5 % IN THIS INTERVAL.
R        623.01  630.44      LAMINATED GALENA CONCENTRATION AT CONTACT WITH CHERT.
R        623.01  630.44      CARBONATE PRESENT IN BLEBS AND STRINGERS.

/        624.75  625.15   0.40           X CHER PY     PY4 BN SS                 R                          61    64    L)
L                                               TR

/        630.44  631.24   0.80             CHER PY BA CH5 L4 DB                   P  1 LM     U65 <=         L3    62    6=
L                                               3A GL       SS

/        631.24  633.43   2.19             CHAR SF PY       DB SS                 P               <1               61    D.
L                                               2A
R        631.24  633.43      EXTENSIVE MICROVEINING OF QUARTZ IN THIS INTERVAL.

/        631.24  633.43   2.19           2 ARSN SF PY SI2 DB SS 2 4 4 4          R               <1               61
L                                               3A    SN4
R        631.24  633.43      INTERBEDDED SAND.
R        633.43  633.43      END SAMPLE INTERVALS FOR SOUTH ZONE 1.

K LS1    633.43  633.43   0.00

/        633.43  634.43   1.00             CHAR SF PY       DB SS                 P               <1               61
L                                               2A
R        633.43  634.43      EXTENSIVE QZ MICROVEINING.

/        633.43  634.43   1.00           2 ARSN SF PY SI2 DB SS 2 4 4 4          R               <1               61
L                                               3A    SN4
R        633.43  634.43      INTERBEDDED SAND.

/        634.43  637.44   3.01             ARSN SF PY SI2 LM SS 2 4 4 4          P               <1               61
L                                               5A    SN4 DB BN
R        634.43  637.44      FROM 634.39 - 634.89 LAMINATIONS DISPLAY INTENSE DEFORMATION.

/        635.84  636.14   0.30           X ARGL BA SF BA1 DB                     R               <=         B1    D*
L                                               2A
R        635.84  636.14      BLEBBY BARITE HORIZON.

/        636.14  640.81   4.67             BRBM SF          F* R*         PQ9     P               <+               8)
L                                               4A          R*            JJ+
R        636.14  640.81      CHERT CONTENT HARD TO ESTIMATE DUE TO SILICIFICATION.

/        640.81  641.01   0.20             SAND PY SF       BS G:         258     P                                8+
L                                               5A          R* F*         122
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K  F   F R O M - T O -  I N T RECOV  MO % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                           R Q D  AGE EV RO LC TM OM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R       640.81  641.01       THIS REPRESENT A COMPLETE BOUMA SEQUENCE JUST ABOVE A BLEBBY
R       640.81  641.01       BARITE HORIZON.

/       641.01  641.41  0.40          ARSN BA SF BA4        2 3 3 3        P                             B4    D*
L                                         5A    SM3
R       641.01  641.41       BLEBBY BARITE HORIZON.

/       641.41  642.47  1.06          ARGL SF PY     //                    P  3 BD     U75 <)                  D*
L                                         1A

/       642.47  655.93  13.46         BRBT SF PY                   QS7     P              <)                   8=
L                                         5A           1   3 C                                        <=
R       655.93  655.93       BEGIN ASSAY INTERVAL FOR SZ-S.

/       655.93  657.93  2.00          BRXX SF PY SI6        2 4 4 4        P              <*                   D=
L                                         5A    SM4
R       655.93  657.93       BRECCIA IS COMPOSED OF SANDSTONE FRAGMENTS.

/       657.93  658.69  0.76          ARSN SF PY SI5 //     2 4 3 4        P  1 LM     U56 <+        <* <*     D=
L                                         5A CB SM3

/       658.69  661.30  2.61          ARSN SF QZ SI5 // OB 2 4 3 4         P  1 LM     U56 <1        <= <)     8+    B.
L                                         6A    SM3
R       658.69  661.30       INTENSE QUARTZ-CARBONATE-BARITE MICROVEINING, 20% OF PGI.
R       658.69  661.30       GALENA BLEBS OCCUR WITHIN QUARTZ-CARBONATE-BARITE VEINS.

K US2   661.30  661.30  0.00

/       661.30  661.66  0.36          BNSX SF CH CH5 // OB                 P  1 LM     U65 <)           L3     81    6*
L                                         3A     SS                           2 BD     U65           L*              L.
R       661.30  661.66       GALENA CONCENTRATION OCCURS WITHIN A BRECCIATED CHERT-QUARTZ
R       661.30  661.66       VEIN.

/       661.66  666.57  4.91          LMSX BA CB CH3 // SS                 P  1 LM     U85           81 L5     81    B)
L                                         5A GL     DB BN                     2 BD     U85           8) <=           L.
R       661.66  666.57       CHERT OCCURS AS BEDS (BANDS) UP TO 3 CM WIDE.

/       666.57  673.42  6.85          BNSX BA SF CH2 OB BR                 P  1 LM     U85              65     81    6=
L                                         7A CB     SS LM                                            8)              6.
R       666.57  673.42       LAMINA AND BANDS OF BARITE HAVE BEEN TECTONICALLY BRECCIATED AND
R       666.57  673.42       PYRITE IS ACTING AS A MATRIX LOCALLY. BRECCIATION IS LOCALIZED
R       666.57  673.42       THROUGHOUT THIS INTERSECTION.

/ BSX   673.42  678.48  5.06          BNSX BA SF CH6                       P  1 LM     U65    D.        L2     L1    L1
L                                         7A CB                               3 BD     U65           L.
R       673.42  678.48       CHERT BANDS RANGE UP TO 4 CM IN WIDTH. CHERT BANDS ARE SEPARATED
R       673.42  678.48       BY 3 CM BANDS OF LAMINATED SULPHIDES. GALENA LAMINATIONS ARE
R       673.42  678.48       CONCENTRATED AT THE CONTACT WITH THE CHERT BANDS.

/       678.48  682.51  4.03          BRXX SF CB CH8 BR OB                 P              <)            6=     6=    6=
L                                         5A                   MP8                                   6)              D.
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K  F   F R O M - T O -  T H T RECOV  RD % ROCK TM TM RM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                         R Q D  AGE EV RQ LC TM RM2 TX TX S C U O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R       678.48  682.51      SULPHIDES - SULPHATES ACTING AS MATRIX TO CHERT FRAGMENTS.
R       678.48  682.51      GALENA CONCENTRATIONS AROUND CHERT FRAGMENTS.

/       682.51  683.97  1.46           CHER PY CB CH8 LM                P  1 LM      U60 <)       <(        L1      L)
L                                           4A                             2 BD      U60
R       682.51  683.97      POSSIBLE STIBNITE CRYSTALS ALONG SOME OF THE LAMINA.

/       683.97  685.47  1.50           BNSX CB PY CH6 SS BN             P  2 BD      U70 <)          L2     62      L)
L                                           4A BA                          1 LM      U70          L+                D.
R       683.97  685.47      WITHERITE PRESENT, LESS THAN 5%.
R       683.97  685.47      ALTERNATING CARBONATE RICH BANDS.

/       685.47  688.56  3.09           LMSX GL CB CH4 LM DB             P  1 LM      U75          L+ L3     62      61
L                                           5A BA      SS                  2 BD      U75          L+                D.
R       685.47  688.56      CARBONATE RICH BANDS.

/       688.56  690.06  1.50           LMSX GL CB CH2 LM SS             P  1 LM      U50 <)       L+ L3     61      62
L                                           5A BA                          2 BD      U50          L2                D+
R       688.56  690.06      CARBONATE RICH BANDS.

/       690.06  690.37  0.31           CHER PY    CH7                   P                            L1     L=      D=
L                                           4A

/       690.37  694.12  3.75           LMSX CB GL CH3 LM SS             P  1 LM          <*          L4     L1      L1
L                                           5A BA                          2 BD                   L1                L)

/       694.12  695.00  0.88           CHER PY    CH8                   P  1 LM      U76 <)       <.        81      D.
L                                           3A                             2 BD      U76                            D.

/       695.00  695.60  0.60           LMSX CB PY CH5 LM SS             P  1 LM      U65 <)       <)        L2      L1
L                                           5A SF                                                 L+                L1
R       695.00  695.60      WELL DEVELOPED SPHALERITE CRYSTALS OCCUR ALONG QUARTZ VEINS.

/       695.60  695.90  0.30           LMSX CB PY CH6 LM SS             P  1 LM      U67                    62      L1
L                                           4A SL                                                                   D1
R       695.60  695.90      CARBONATE OCCURS IN BANDS.

K LS2   695.90  695.90  0.00

/       695.90  700.65  4.75           ARSN PY SF SI4 // LM 2 3 2 3     P  1 LM      U65 <)       <)        D2      D*
L                                           2A    SN2 SS                                                            D*
R       695.90  700.65      CROSS CUTTING QUARTZ, CARBONATE VEINS WHICH CONTAIN SPHALERITE
R       695.90  700.65      AND GALENA.

/       700.65  702.96  2.31           ARSN SF QZ SI4 // LM 2 3 2 3     P  1 LM      U60 <2                 D2      D.
L                                           3A    SN2 SS                                                            D.
R       700.65  702.96      HEAVILY QUARTZ VEINED, INCLUDE SIDERITE.

/       702.96  706.11  3.15           ARSI SF PY SI2 // LM 2 3 1 3     P  1 LM      U55 <)                 D1
L                                           3A    SN1
R       702.96  706.11      MINOR QUARTZ VEINS.
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K  F   F R O M - T O -  T O T RECOV  MD % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                        R Q D  AGE EV RO IC TM QM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/       706.11  709.30   3.19             ARSM SF PY SI3 // LM 2 3 4 3       P  1 LM     U65 <)                  61    D)
L                                              3A    SM4                        2 BD     U65                           D)

K US3  709.30  709.30   0.00

/       709.30  712.17   2.87             LMSX CH BA CH2 LM SS               P  1 LM     U65             L5      L1    L1
L                                              5A SF     OB                     2 BD     U65          L+               L1

K LS3  712.17  712.17   0.00

/       712.17  718.85   6.68             ARSI SF PY SI2       2 3 1 3       P  1 LM     U68 <=          L=      61    D.
L                                              2A    SM1                                                               D.
R       712.17  718.85       CARBONATE OCCURS IN LAMINA. CROSS CUTTING QUARTZ VEINS.

/       718.85  726.34   7.49             ARGL SF    SI+       2 2 + 2       P  3 BD     U60 <(                  61
L                                              2A
```

G E O L O G E D I T L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6B02

DRILLHOLE/TRAVERSE :81DAH068 COLLAR ELEVATION: 1275.94 AZIMUTH(DEG) : 0.00 GEOLOGGED BY : DWB +
TOTAL DEPTH/LENGTH : 750.31 NORTHING(- IF S): 7002472.00 VERTICAL ANGLE : -90.00 DATE (YY/MM/DD): 810000
CORE/HOLE DIAMETER : HQNQ EASTING (- IF W): 436496.25 CO-ORD SYSTEM : PROJECT NUMBER : J-S2

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	30.00	146.90	-89.47
2	58.52	145.20	-89.34
3	78.94	144.00	-85.33
4	100.58	164.00	-83.00
5	118.87	130.00	-82.00
6	137.16	119.00	-80.00
7	152.40	114.00	-78.00
8	167.64	137.00	-76.67
9	176.48	114.00	-76.00
10	198.12	121.00	-75.00
11	222.20	122.00	-74.00
12	246.27	129.00	-71.67
13	265.17	132.00	-70.00
14	274.01	133.00	-69.25
15	295.65	137.00	-67.25
16	310.59	139.00	-66.00
17	327.35	143.00	-64.00
18	344.11	146.00	-63.00
19	359.35	150.00	-61.50
20	374.90	150.00	-60.50
21	392.58	151.00	-59.00
22	411.48	151.50	-58.00
23	432.51	152.00	-56.00
24	455.37	154.00	-55.00
25	475.18	153.50	-53.50
26	503.22	154.50	-50.00
27	521.20	152.00	-48.00
28	532.48	150.50	-47.00
29	551.69	152.00	-44.50
30	581.66	153.00	-41.00
31	609.60	156.00	-37.50
32	641.91	156.50	-33.50

33	643.74	156.50	-32.50
34	655.93	156.50	-31.00
35	660.50	156.50	-30.75
36	668.12	156.50	-30.50
37	680.31	155.70	-30.50
38	692.51	155.20	-30.50
39	704.70	154.60	-30.00
40	708.05	154.50	-30.00
41	716.89	155.80	-28.50
42	729.08	157.50	-28.00
43	741.27	157.50	-27.50
44	747.37	157.50	-27.00
45	748.89	157.50	-27.00

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     F    - I N T E R V A L -    CORE  1- %       TYPI- UAL  TEX-  GRAIN        PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K    L (UNITS =    . DEC.PLACE)RECOV-  % N ROCK FYING MIN TURES CHARACS                    H  H  H  H  H ANY H  H  H ANY  ALT ORE
E    A  (MI=METRIC FT=FOOTRIC)  ERY     O I      TN TN MAT TX TX F C % M ARG    /RT T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y    G  F R O M - T O -  L N T (  . )   O X TYPE  1  2 SM1  1  2 F F C A             1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- - - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K    F                   ROCK    FM     RT    TM SM2 TX TX S C O O CHT        T ID STK DIP MG MU CL SD QS HA PR MT SL HA
E    L                   QUAL   AGE EN- O LC- 3       3  4 O       /           2    AZM  RT H  H  H  H  H  H  H  H  H  H    1   1
Y    G                   DESIG      VTR   COL              R       C          STRUCTUR-2 A  A  A  A  A  A  A  A  A  A     2   2

R SVY    0.00    0.00        ALL READINGS BY SPERRY SUN SINGLE-SHOT AND MULTI-SHOT, EXCEPT
R SVY    0.00    0.00        FOR S001 WHICH WAS DONE BY GYROSCOPIC DIRECTIONAL SURVEY.
R SVY   58.52   58.52        BEGINNING OF WEDGED HOLE D.
R SVY   58.52   58.52        HALL AND ROWE STEEL WEDGE-FULL AZIMUTH TO THE RIGHT.
R SVY  181.66  181.66        CLAP RETRIEVABLE WEDGE-FULL AZIMUTH TO THE RIGHT.
R SVY  200.25  200.25        CLAP RETRIEVABLE WEDGE-FULL AZIMUTH TO THE RIGHT.
R SVY  230.43  230.43        CLAP RETRIEVABLE WEDGE-FULL AZIMUTH TO THE RIGHT.
R SVY  249.63  249.53        CLAP RETRIEVABLE WEDGE-FULL AZIMUTH TO THE RIGHT.
R SVY  276.45  276.45        CLAP RETRIEVABLE WEDGE-FULL AZIMUTH TO THE RIGHT.
R SVY  376.43  376.43        CLAP RETRIEVABLE WEDGE-FULL AZIMUTH TO THE RIGHT.
R SVY  750.31  750.31        END OF WEDGED HOLE D.

/         0.00    60.66  60.66          MISS                                 P

/        60.66    63.20   2.54          BRHT CP                         MO4   P                                R+
L                                             3A            3           JM2

/        62.03    62.60   0.57        7 SAND CR     SN5 G; MX 1 3 5 6         R                                D+
L                                             3A    SI3          7
R        62.03    62.60       THE HETEROLITHIC BRECCIA GRADES INTO A SILTY-SANDSTONE.

/        62.95    63.20   0.25        X BRHT CK           BR            MO4   R             V4                 B+
L                                                   SK

/        63.20    63.43  20.23          BRHM     CR       SS            MP9   P                         <*
L                                             3A            3           KN)
R        63.20    83.43       BARITE AND A DULL RED MINERAL ARE ASSOCIATED IN VEINS AT THE TOP
R        63.20    83.43       OF THE INTERVAL.  CHERT FRAGMENTS OCCUR I.

/        83.43    94.20  10.77          BRHT     CK *S+    G;           LTS   P             <*                 D)
L                                             4A    *C+ F* B* 2    +    KO3
R        83.43    94.20       PYRITE OCCURS AS DISSEMINATIONS IN THE ARGILLITE MATRIX, AS
R        83.43    94.20       SMALL NODULES WITH QUARTZ ENVELOPES AND AS A REPLACEMENT MINERAL
R        83.43    94.20       TO CHERT CLASTS.  THE INTERVAL'S FRAMEWORK SUPPORTED.  CHERT
R        83.43    94.20       CLASTS APPEAR TO GRADE NORMALLY, INDICATING THAT TOPS ARE IN A
R        83.43    94.20       UPHOLE DIRECTION.  TWO LARGE SANDSTONE CLASTS OCCUR BETWEEN 86
R        83.43    94.20       AND 88.75 METRES.

/        94.20   105.97  11.77          [illegible]    CR *C)    [illegible]     MO4   P                                D)
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 K  F   F R O M - T O -   I N T RECOV  MD % ROCK TM TM NM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
 E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
 Y  G                               R O D  AGE FV RO LC TM NM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

 R          94.20   105.97        LARGE SILTY ARGILLITE CLASTS ARE RAFTED IN A PEBBLY MUDSTONE
 R          94.20   105.97        MATRIX.

 /         105.97   205.20   99.23             BRHM        SM1                 LV9    P                  <)                    D)
 L                                                  6A                  2
 R         105.97   205.20        ESSENTIALLY A DISRUPTED ARSI UNIT.

 / FLT     126.90   142.21   15.31          5 BRHM GR    GG1                 LV9    R                  <+                    <)
 L                                                                                                            <.
 R         126.90   142.21        THIS INTERVAL IS VERY GRAPHITIC AND MILDLY SHEARED DUE TO
 R         126.90   142.21        FAULTING.  QUARTZ AND PYRITE VEINING IS ALSO PREVALENT.

 / SHR     161.95   165.02    3.07          X BRHM       GG1                 LV9    R                  <)                    D)
 L                                                                                                            <.

 / SHR     172.52   181.66    9.14          X BRHM       GG=                 LV9    R                  <+                    D)
 L                                                                                                            <.

 /         181.66   183.18    1.52          X WEDG                                  R
 L
 R         181.66   183.18        WEDGE.

 /         183.18   187.76    4.58          X BRHM       SM1                 LV9    R                  <+                    D)
 L                                                                                                            <.

 /         194.45   195.20    0.75          X BRHM       SM1                 LV9    R                  <)                    #.
 L                                                                                                                      #1
 R         194.45   195.20        INTV IS BRECCIATED + INFILLED WITH QTZ-CARB (SID?).

 /         205.20   207.87    2.67             BRHT      *S) F*              MO6    P                                        D=
 L                                                  5A      *C)         2    )     MO2

 /         207.87   217.30    9.43             BRPG      *C( M; H* I L 5 R KR2    P                  >2                    D.
 L                                                  6A                  5     C KN5                                >.
 R         207.87   217.30        INTV IS FAIRLY COMPLEX - ESSENTIALLY A SAND ZONE-EXBIBITS
 R         207.87   217.30        WELL-DEFINED NORMAL GRADING FROM PEBBLE SIZE (LESS THAN 1CM)
 R         207.87   217.30        ARGL+CHT CLASTS AT BASE TO MED. SAND AT TOP. BOTTOM 3.33M
 R         207.87   217.30        (213.97 - 217.30M) COMPRISES.  A SAND/PEBBLE MTX, WITH FRAGS OF
 R         207.87   217.30        ARGL AS MUCH AS 3CMS LONG (IE ESSENTIALLY A BRHT).  UPPER 6.1M
 R         207.87   217.30        (207.87 - 213.97M) IS ESSENTIALLY A SANDSTONE COMPRISING ARGL +
 R         207.87   217.30        CHT GRAINS, WITH NO LARGE CHT FRAGS.  UPPER 4M IS CUT BY TWO
 R         207.87   217.30        LARGE QTZ VN SYSTEMS WITH MNR CARB (SID?)

 /         208.85   210.92    2.07          9 VEIN            ST MX                     R                  >9                    D.
 L                                                  8A

 /         211.50   212.00    0.50          5 BRPG      *C( M; H* I L 5 R KR2    R                  >5                    D.
 L                                                  7A
 R         211.50   212.00        SANDSTONE AS ABOVE, CUT BY PROMINENT QTZ STOCKWORK.

 /         213.97   217.30    3.33          X BRPG      *C( H* M;             LR5    R                                        D.
 L                                                  6A                  3     KN4
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K  F   F R O M - T O -  L N T RECOV  OD % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                           R Q D  AGE EV RQ LC TM QM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/      217.30  246.40  29.10            BRHT       *S)                RV7   P                                  D-
L                                            5A    *C+ F*    2   )    MO2
R      217.30  246.40       UPPER PART OF INTV APPEARS TO BE CONTINUOUS WITH OVERLYING UNIT.

/ FRG  222.40  228.45   6.05          X ARSI       SN2 LM    0 3 2 3        R  1 BD      87                   L*
L                                            4A

/ SHR  243.15  244.75   1.60          X FAUL       GG1                      R
L                                            4A
R      243.15  244.75       RUBBLY INTV;  LOCAL GOUGE.

/      246.40  252.68   6.28            BRHM       *S+                PR8   P
L                                            4A                3   +  KM+
R      246.40  252.68       LOCALLY BECOMES BRPM.

/      252.68  259.60   6.92            BRPM       *S) F*             OQ3   P                                  D.
L                                            5A    *C-         2   ) O NP2
R      252.68  259.60       LOCALLY BECOMES BRHT

/      259.60  267.70   8.10            BRHM       *S*                PQ7   P                                  D.
L                                            4A                    *  KN+
R      259.60  267.70       LOCALLY BRPM.

/      267.70  295.00  27.30            BRHT       *S) F* B*          OT4   P               <(                 D.
L                                            5A    *C) B*          )  NO5

K UDF  295.00  295.00   0.00
R UDF  295.00  295.00       POSSIBLE TOP OF THICK SEQUENCE OF DEBRIS FLOWS CHARACTERIZED

K UDF  295.00  295.00   0.00
R UDF  295.00  295.00       BY CGCP CLASTS.

/      295.00  305.50  10.50            CGBR       *S+                RT5   P               <(                 D.    D.
L                                            5A                3 +    LO=
R      295.00  305.50       INTV MAY REPRESENT TOP OF BRCG UNIT AS NOTED ABOVE.  ALTHOUGH
R      295.00  305.50       CGCP FRAGS ARE QUITE ABNT IN THIS INTV HOWEVER, THEY ARE
R      295.00  305.50       RELATIVELY RARE BENEATH THIS ZONE IE CGBR UNIT IS NOT AS WELL
R      295.00  305.50       DEVELOPED IN DDH 68D AS IN 68, 68A AND 68C.  IN A COUPLE OF
R      295.00  305.50       INSTANCES, IT IS UNCLEAR WHETHER CGCP INTERVALS ARE FRAGMENTS OR
R      295.00  305.50       REPRESENT A DEPOSITIONAL EVENT.

/ SHR  297.70  298.40   0.70          X CGBR GR    *S+                RT5   R               <(                 D.    D.
L                                            4A
R      297.70  298.40       RUBBLY INTV (SHR), GRAPHITIC.

/ FRG  298.90  300.45   1.55          X CGSN SF        MX     I L 3 O       R                          B.      D-    D.
L                                            6A               4   O
R      298.90  300.45       UNCLEAR WHETHER THIS IS A FRAGMENT OR IS DEPOSITIONAL-PROBABLE
R      298.90  300.45       FRAGMENT.

/      305.50  327.80  22.30            BRHM       *S+                RT9   P                                  D.
L                                            4A                    +  LN)
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K  F   F R O M - T O -  I N T RECOV  OD % ROCK TM TM OM1 TX TX F C % M ARG   RT 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                        R Q D  AGE EV RG IC TM OM2 TX TX S C G O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R        305.50  327.80        LOCALLY BRPM.  INTV CONSISTS PREDOMINANTLY OF ARSI FRAGMENTS
R        305.50  327.80        CONTAINING 15-20% SAND LAM.

/ SHR    326.30  327.80   1.50           X BRHM        *S+                RT9   R                               D.
L
R        326.30  327.80        RUBBLY INTV.
R        327.80  328.75        PROBABLY DEPOSITIONAL 2 GRADED CYCLES FROM PEBBLES AT BASE TO
R        327.80  328.75        FINE SAND AT TOP.  15CM ZONE FROM 327.85M TO 328.0M COMPRISES
R        327.80  328.75        ARGL AT BASE (CONFORMABLE WITH UNDERLYING SAND, AND BRHT AT TOP.

/        327.80  330.00   2.20             BRPM                           LR3   P             <)      <)
L                                             6A                          KP6

/        327.80  328.75   0.95           X SAND           G;     I K 2 L        R             V=
L                                             7A                 6

/        329.90  330.00   0.10           X SAND                  I K 2 N        R  2 BD     40 <+
L                                             7A                 5
R        329.90  330.00        TURBIDITE; ALTERNATING RELATIVELY FINE + RELATIVELY COARSE SAND
R        329.90  330.00        BEDS.  UPPER HALF CONTAINS APPROX 20% SHALE FRAGS UP TO 1CM.

/        330.00  365.20  35.20             BRHM        *C. B*             5V9   P                               D.
L                                             5A       *S(       3 1 (    LU*                   Q-
R        330.00  365.20        INTV HAS A VERY LOW CHT CONTENT AND IS EFFECTIVELY A BRHM EXCEPT
R        330.00  365.20        FOR THE PRESENCE OF SEVERAL PEBBLY SANSTONE ZONES RANGING FROM
R        330.00  365.20        10CMS TO 1.70MS.  THE MAJOR PEBBLY SAND ZONES ARE 331.7 - 331.94
R        330.00  365.20        (FRAG), 337.7 - 337.9 (PROBABLE FRAG), 358.28 - 358.75 (FRAG)
R        330.00  365.20        AND 365.2 - 366.98M (PROBABLE FRAG).  INTV IS LOCALLY RUBBLY. A
R        330.00  365.20        PATCH OF SIDERITIZED ARGL APPROX. 10CMS LONG OCCURS AT 358.80M.
R        330.00  365.20        THIS IS A POSSIBLE FRAGMENT.

/ FLT    334.15  337.41   3.26           X FAUL                                 R
L                                             5A
R        334.15  337.41        RUBBLY INTV.

/        358.30  358.75   0.45           X CGSN        *C+ F* B* J L 3 N   +    R
L                                             7A                 3    O    9
R        358.30  358.75        PROBABLE FRAGMENT, BUT DIFFICULT TO BE SURE.

/ FLT    361.26  365.20   3.94           X FAUL        GG1 B*             5V9   R                               D.
L                                             5A
R        361.26  365.20        RUBBLY INTV WITH LOCAL FAUL GOUGE.

K UDF    365.20  365.20   0.00
R UDF    365.20  365.20        PROBABLE FRAG, BUT DIFFICULT TO BE SURE.

/        365.20  366.98   1.78             CGSN        *C= B* B* J L 4 O   1    P                               D.
L                                             7A          F*     3    C    9

/        366.98  381.61  14.63             BRHT                           OT9   P             <.                D.
L                                             4A                 3 )      LM=
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K  F   F R O M - T O -  I N T RECOV  RD % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                             R Q D  AGE EV RJ LC TM QM2 TX TX S C U O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R         366.98  381.61        LOCALLY BRPM.

/         378.36  378.92   0.56            X SAND          8D G; 3 J = K       R  2          U    <)
L                                               7A                7
R         378.36  378.92        PART OF AN ARSN FRAG WHICH EXTENDS FROM 376.43 TO 380.20M.

/         379.30  381.61   2.31            X FAUL                          OT9  R                 <.                    D.
L
R         379.30  381.61        RUBBLY INTV.

/         381.61  384.05   2.44              BRPM                          NO3  P                                       D.
L                                               6A                         JL3
R         381.61  384.05        BRHT WITH SAND/CLAY MIX.
R         381.61  384.05        RUBBLY INTV.
R         384.05  392.60        VERY RUBBLY INTV.

/         384.05  408.90  24.85              BRHT CB    *C( B* F*          SU8  P                                       D.
L                                               4A      *S-      2 1 -     LP)

/ FLT     384.05  392.60   8.55            X FAUL GR    *C( B* F*          SU8  R                                       D.
L                                               4A      *S-      2 1 -     LP)
R         384.05  408.90        INTV HAS A VERY LOW CHT CONTENT BUT CONTAINS SEVERAL INTVS OF
R         384.05  408.90        CGCP AND CGSN.  THESE RANGE UP TO APPROX 1.1M AND ARE PROBABLY
R         384.05  408.90        FRAGMENTS.  TOP + BTM APPROX. 8M ARE VERY RUBBLY, AND FAULTED,
R         384.05  408.90        WITH OCCASIONAL FAULT GOUGE (SEE DITTO'S BELOW).  FAULTING MAKE
R         384.05  408.90        IT DIFFICULT TO DETERMINE SIZE OF ARGL FRAGS.

/ FRG     390.87  391.20   0.33            X CGSN       *C= H* R* I M 5 M       R                 <)
L                                               6A          MX   4    C

/ FRG     392.74  393.50   0.76            X CGSN       *C= H* B* I L 6 N       R                 <)
L                                               5A          F* MX 4   C

/ FRG     398.60  398.90   0.30            X CGCP       *C+ H* F* K M 6 N       R                                       D-
L                                               6A          MX   5    C

/ FRG     400.26  400.66   0.38            X CGSM       *C) B* MX J L 3 N       R
L                                               6A               3    O

/ FLT     400.90  406.91   6.01            X FAUL GR    GG1 B* F*          SU8  R                                       D.
L                                               4A
R         400.90  406.91        VERY RUBBLY INTV.

/         408.90  425.10  16.20              BRBM       *S)                ST9  P                                       D.
L                                               5A               4   )     LN-
R         408.90  425.10        ESSENTIALLY A SLIGHTLY DISTRUPTED ARST CONTAINING APPROX. 15%
R         408.90  425.10        SAND.

/         425.10  430.80   5.70              BRHT       *S-                PS8  P                          #-           D.
L                                               5A               3 - -     LO2

/         430.80  442.87  12.07              BRBM       *S)                ST9  P                          #-           D.
L                                               4A               3   )     IJ(
```

```
K  F  F R O M - T O -  I N T RECOV  MD % ROCK TN TM UM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R N D  AGE EV RN LC TN UM2 TX TX S C U O CHT        2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/       442.87  451.30   8.43          BRHT       *C* H* F*        PS4   P                              D-
L                                          5A     *S=        2   1  LO2                            V.
R       442.87  451.30        ARSN FRAGMENTS ARE COMMON (CONTAINING APPROX. 30% SN) MATRIX IS
R       442.87  451.30        LOCALLY SANDY.

/ FRG   446.10  446.37   0.27         X SAND           BD G; 3 4 3 4       R  2                         D*
L                                          7A                8
R       446.10  446.37        SAND INTERVAL OCCURS AT TOP OF ARSN FRAG WHICH WXTENDS FROM
R       446.10  446.37        446.10 TO 446.90

/       448.20  448.54   0.34         X SAND           BD DB 2 5 2 6       R  2 BD     40               D.
L                                          6A                6
R       448.20  448.54        UNCLEAR WHETHER THIS IS A TURBITE OR FRAG.  BUT IS PROB. A
R       448.20  448.54        TURBIDITE.

/       451.30  461.88  10.58          BRHT       *S+ H* F*        PS4   P                              #(
L                                          4A     *C( H*     2 * +  KO2
R       451.30  461.88        MATRIX IS COMMONLY SANDY (IE. COARSE SAND AND CLAY MATRIX).

/ SHR   460.67  461.70   1.03         X FAUL GR   GG= H* F*        PS4   R                              D(
L                                                                                        C.
R       460.67  461.70        RUBBLY INTERVAL WITH GOUGE.

/       461.88  467.24   5.36          CGBR       *S+                NP+   P                  <.
L                                          5A                2 8 +  KM+
R       461.88  467.24        SECTION CONTAINS EXTENSIVE ZONES OF CGCP WHICH APPEAR TO BE
R       461.88  467.24        CLASTS AS OPPOSED TO TURBIDITE SEQUENCES (THESE WILL BE
R       461.88  467.24        DESCRIBED AS REPEAT INTERVALS).

/ FRG   462.18  462.92   0.74         X CGCP      *C= F* H* J N 3 O        R                            D-
L                                          6A         MX     5   O

/ FRG   463.40  463.69   0.29         X CGCP      *C( F* H* K L 4 M        R                            D-
L                                          6A            4   O

/ FRG   463.74  464.11   0.37         X CGCP      *C) H* F* J M 4 N        R                            D.
L                                          6A            5   C

/ FRG   464.63  465.83   1.20         X CGCP      *C) H* F* J L 3 P        R                  V*        D-
L                                          6A     *S+        5  + O

/ FRG   466.11  467.24   1.13         X CGCP      *C- F*     K L 4 N       R                            D-
L                                          6A            2   C

/       467.24  483.63  16.39          BRHT       *S= F*          PS5   P                   <.          R(
L                                          4A     *C(        2 2 =  LN1                       C.
R       467.24  483.63        SECTION CONTAINS SEVERAL ZONES OF CGSN WHICH APPEAR TO BE FRAGS.
R       467.24  483.63        BUT MAY POSSIBLY BE TURBIDITES.

/ FRG   470.43  470.79   0.36         X CGSN                 J L 4 M       R                            D.
L                                          6A            3   C
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                                                          PAN OCEAN OIL LTD.
G E O L O G                                      JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                    PAGE -  8
                                         DRILLHOLE/TRAVERSE --- 81DWH068 --- (CONTINUED)

K  F  F R O M - T O -  T H I RECOV  MP % ROCK TN TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.--  -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                             R Q D  AGE EV RO LC TM OM2 TX TX S C U O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/ FRG  472.53  473.75   0.93           X CGSN                 J L 3 O       R                                 R-
L                                             6A              4     O

/ FRG  477.20  478.68   1.68           X CGSN                 J L 3 N       R                V)               D.
L                                             6A              4     O

/ FRG  477.20  478.83   1.68           X FAUL GR    GG= F*            PS5   R                <.               R(
L                                             6A
R      477.20  478.83      RUBBLY INTV WITH LOCAL FAULT GOUGE.
R      483.63  488.09      QTZ.  VEINS ARE COMMON, ESPECIALLY IN BOTTOM .7M OF INTERVAL.
R EDT  483.63  488.09      ( IN COLUMN 40 WAS NOT ENTERED BECAUSE IT WAS NOT DEFINED IN THE
R      483.63  488.09      MICROGEOLOG TABLES.

/      483.63  490.02   6.39             BRBM                         OS6   P                <-               R)
L                                             4A              5       LP)

/ SHR  483.63  488.09   4.46           X FAUL GR    GG4               OS6   R                >+               R)
L                                             3A              5       LP)                         C(
R      483.63  490.02      UPPER 5.0M OF INTERVAL IS RUBBLY WITH LOCAL GOUGE AND QTZ VEINS.

/      490.02  506.70  16.68             BRBT       *S=               OS5   P                                 R-
L                                             4A    *C- F*    2 1 =   MP2
R      490.02  506.70      SECTION CONTAINS SEVERAL INTERVALS WHICH APPEAR TO BE CGSN FRAGS
R      490.02  506.70      AS OPPOSED TO TURBIDITE SEQUENCES.  INTERVAL IS LOCALLY QUITE
R      490.02  506.70      SANDY (EG. 493.40 - 494.10M).

/ FRG  494.67  495.72   1.05           X CGSN       *C- F* H* J M 4 P LO+   R                                 D.
L                                             6A              4     O
R      494.67  495.72      INTV CONTAINS MNR ARGL FRAGS.

/ FRG  495.91  496.51   0.60           X CGSN SD    *C- F* R* J M 4 N       R                        R.       D.
L                                             6A              3     O
R      495.91  496.51      INTV IS DEFINATELY A FRAG.  TRACE SIDERITE OCCURS WITH PYRITE AS
R      495.91  496.51      A REPLACEMENT OF BLK CHT.

/ FRG  505.60  506.00   0.40           X CGSN       *S( R* H* J M 3 N LM*   R                                 D.
L                                             6A              3   ( O
R      505.60  506.00      INTV CONTAINS MNR ARGL FRAGS.

/      506.70  513.80   7.10             BRPM       *S1 F* H*         OO5   P                                 R.
L                                             5A    *C.       2 ( -   MO3                         C.
R      506.70  513.80      INTERVAL CONTAINS AT LEAST ONE TURBIDITE INTERVAL WHICH IS
R      506.70  513.80      GRADATIONAL WITHIN THE BR INTERVAL.

/ FRG  508.10  508.34   0.24           X CGCP PY    *C- F* H* J N 3 O       R                                 D-
L                                             6A    *S-       3   - C
R      508.10  508.34      CONTAINS UP TO 10% ARG FRAG., SOME OF WHICH ARE SILICIFIED.

/      512.11  512.37   0.26           X SAND PY        BD G; I J 2 M       R  ?        U40                   D.
L                                             6A              7
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```
K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                             R O D  AGE EV RJ LC TM QM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R       512.11  512.37      INTERVAL IS DEFINITELY A TURBIDITE AND IS GRAD AT TOP AND BOTTOM

/       513.80  525.58  11.78            BRHT PY    *S1                PT6   P                               D.
L                                           4A    *C. F* H* 3 . 1    MP2
R       513.80  525.58      INTERVAL IS LOCALLY QUITE SANDY.

/       525.58  527.66  2.08             CGPS PY    *C( G: F* I K 1 P        P          U                    C-
L                                           5A    *S9 BS    4    O                                    #(
R       525.58  527.66      UPPER AND LOWER CONTACTS ARE DEPOSTIIONAL-INTERVAL IS A
R       525.58  527.66      TURBIDITE INTERVAL IS COARSING UPWARDS BOTTOM OFINERUAL IS CGSN
R       525.58  527.66      AND IS REPEATED BELOW.

/       526.09  526.91  0.82           X CGSN PY    *C. F* H* I M 7 O        R                               D.
L                                           6A              3    O
R       526.09  526.91      INTERVAL CONTAINS ABOUT 20% ARG CLASTS.

/       527.66  531.67  4.01             CGPS            BS G; I J * O        P  6        U30
L                                           5A         IM LM 8    O
R       527.66  531.67      UPPER PART OF INTERVAL IS FINE GRADED SAND-LOWER PART IS A
R       527.66  531.67      COARSE CGSN WHICH IS ALSO GRADED-TOGETHER.  THEY FORM A
R       527.66  531.67      TURBIDITE, THE CGSN IS REPEATED.

/       528.81  531.67  2.86           X CGSN       SN2 G:    K M 6 P        R
L                                           6A    *C) F* H* 4    O
R       528.81  531.67      LOCAL CLOSED BUT GENERALLY FLOATING IN SANDY MATRIX.
R       531.67  531.97      MAY BE A LARGE FRAGMENT.

/       531.67  537.34  5.67             BRHT PY         F* B*          OQ3   P                               D.
L                                           6A          R*             NO7

/       531.67  531.97  0.30           X BRPM PY                        NO2   R                               D.
L                                           2A                     O

/       533.27  533.44  0.17           X BRPM PY         F* H*          IJ1   R                               D.
L                                           2A                          IJ1
R       533.27  533.44      MAY BE A LARGE FRAGMENT.

/       537.34  539.04  1.70             BRHT PY GL *C- F*              PR7   P                               R-     D.
L                                           3A    *S)         3 = )    MN2
R       537.34  539.04      INTERVAL IS A BRHT WITH A LARGE ARG FRAG.

/       539.04  540.85  1.81             CGSP            IM LM I L 2 P        P          U50
L                                           4A    *S+ BS     3   * O
R       539.04  540.85      INTERVAL APPEARS TO REPRESENT A BOUMA SEQUENCE WITH A-D
R       539.04  540.85     .INTERVALS PRESENT.  THE INTERVAL GRADES FROM A BRHT WITH ARG,
R       539.04  540.85      CGCP AND SAND CLASTS INTO LAMINATED MUDSTONE.

/       540.85  541.83  0.98             CGCP PY    *C= F* H* K M 7 P        P                               C.
L                                           6A              3    C
R       540.85  541.83      INTERVAL MAY BE PART OF UPPER TURBIDITE.

/       541.83  545.93  4.10             BRHT       S*=                OR6   P
L                                           4A    *C- H* F* 3 + =     MN2
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K  F   F R O M - T O -  I N T RECUV  RQD % ROCK TM TM QM1 TX TX F C % M ARG   RT 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L-  ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                               R Q D  AGE EV RU LC TM QM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R       541.83  545.93      INTERVAL CONTAINS AT LEAST ONE LARGE CG FRAG.

/       545.93  561.83  15.90             BRPM PY    SN3                 NS1    P                                  D.
L                                              4A               2   3 O N06
R       545.93  561.83      INTERVAL IS MODERATELY SANDY WITH A SANDY MATRIX AND SAND BANDS
R       545.93  561.83      UP TO .2M  ALSO ARG FRAGS UP TO .8M ARE PRESENT AND ARE REPEATED
R       545.93  561.83      CORE IS LOCALLY RUBBLY.

/ FRG   556.05  556.83   0.78           X ARGL       SN) LM     A F + F        R
L                                              3A    SI)        8

/ FRG   557.52  557.72   0.20           X ARGL SF               A A   A        R               <(
L                                              6A               9
R       557.52  557.72      FRAG IS STRONGLY SILICIFIED AND HAS A FEW QTZ VEINLETS

/       561.83  566.22   4.39             BRHM       SN=                 QT9    P
L                                              4A               3   = C KM)
R       561.83  566.22      INTERVAL CONSIST OF SEVERAL LARGE LAM ARGL CLASTS WITH MINOR
R       561.83  566.22      CHERT AT TOP OF INTERVAL.

/       566.22  575.51   9.29             BRHT       SN+                 NR3    P
L                                              5A               2 + +    L05
R       566.22  575.51      INTERVAL IS LOCALLY SANDY.

/       575.51  588.97  13.46             BRHM       SN=                 QT9    P                     <.
L                                              4A               5   = C    O                       C.
R       575.51  588.97      FRAGS ARE LARGE WITH ONLY A FEW SMALLER FRAGS.

/       588.97  601.20  12.23             BRHT PY    SN= F* B*           QS4    P                                  D.
L                                                    *C)        2 + =    M04
R       588.97  601.20      INTERVAL IS LOCALLY SANDY-ALSO SOME SAND CLASTS PRESENT

K LDF   601.20  601.20   0.00

/       601.20  613.32  12.12             ARSI PY GR SI1 // LM                  P  1 LM     U58 <.                 8+
L                                              2A    SN2 SS IB

/       602.33  602.91   0.58           X BRHT PY        IB F*           N09    R  5                               6=
L                                              3A                        LM1

/       604.97  605.11   0.14           X SAND PY    SI2 IB BD                  R  2 BD     U50                    81
L                                              5A    SN8 //

/       609.55  609.72   0.17           X SAND PY    SI3 IB BD                  R  2 BD     U50                    81
L                                              5A    SN7 //

/       610.60  611.62   1.02           X BRHT PY    SN1 IB F*           N05    R                                  6+
L                                              3A        DB         1    K04
R       610.60  611.62      SANDSTONE FRAGMENTS MAKE UP 10% OF THIS REPEAT UNIT.

/       613.32  626.15  12.83             BRHM PY        F* R*           PT7    P                                  8)
L                                              2A                   7    LN1
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K  F  F R O M - T O -  T H T RECOV  MD % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.--  ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R Q D  AGE EV RW LC TG QM2 TX TX S C U O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R      615.32  625.15        COMPOSED OF 70% ARSN FRAGMENTS.

/      615.04  615.61  0.57           X ARSN PY    SI3        2 3 5 3        R                                   L+
L                                          3A    SN5
R      615.04  615.61        PROBABLE LARGE FRAGMENT.

/      622.35  626.15  3.80           X ARGL PY                              R  2 BD     U83                      D*
L                                          1A
R      622.35  626.15        PROBABLE LARGE FRAGMENT.

/      626.15  649.37  23.22            BRHT PY                     QS9      P                                   8+
L                                          2A                       JJ+

/      629.96  630.41  0.45           X SAND PY    SI2        2 4 8 4        R                                   D)
L                                          4A    SN8          2
R      629.96  630.41        PROBABLE FRAGMENT.

/      631.86  632.41  0.55           X ARSI PY    SI2 LM // 1 2 1 2         R  1 LM     U53                      L=
L                                          3A    SN1 SS
R      631.86  632.41        PROBABLE FRAGMENT.

/      644.35  645.10  0.75           X BRHT PY       F*            LP8      R                                   D+
L                                          3A                       JL2                               <)
R      644.35  645.10        PROBABLE FRAGMENT.

/      647.40  648.45  1.05           X ARGL PY       MX                     R                <(                  D+
L                                          1A
R      647.40  648.45        PROBABLE FRAGMENT.

/      649.37  650.44  1.07             BRHT PY       F* H*         NP4      P                                   8+
L                                          4A                  3    LN3
R      649.37  650.44        ARSN FRAGMENTS MAKE UP 30% OF THIS INTERVAL.

/      650.44  652.54  2.10             SAND PY GR SI2 BS IN 2 4 7 5         P                                   8=
L                                          5A    SN7          5
R      650.44  652.54        AN UPPER SEQUENCE OF A BOUMA SEQUENCE\ INCLUDES LOCAL LARGE
R      650.44  652.54        ARGILLITE FRAGMENTS, 5% OF PGI.  IMBRICATED AT 50% UP HOLE.

/      652.54  656.86  4.32             BRHT PY GR      BS          NP4      P                                   8+
L                                          5A                  2    JM4
R      652.54  656.86        LOWER PORTION OF BOUMA SEQUENCE, THAT EXTENDS FROM 650.44 TO
R      652.54  656.86        656.86.  ARSN FRAGMENTS MAKE UP 20% OF THIS PGI.

/      656.86  665.00  8.14             BRHT PY       F* H*         PR6      P                <)                  6=
L                                          3A         H*       3    MN1                     C/

/      656.86  665.00  8.14           3 BRXX PY    SI2        2 3 4 3        R                                   6=
L                                          4A    SN4
R      656.86  665.00        MAINLY ARSN FRAGMENTS.

/      665.00  665.40  0.40             CGCP PY                              P                                   6+    6*
L                                          5A
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K  F    F R O M - T O -   I N T RECOV  NO % ROCK TM IM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
F -L-  ----.--  ----.--  ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                            R Q D  AGE EV RQ LC IN OM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/       665.40   666.60    1.20               BRBA PY GL    F* R*       M09   P                                        62    6+
L                                                  3A        H*         JK1                        C.

K US1   666.60   666.60    0.00

/ MSX   665.60   666.88    0.28               MSSX PY GL    BR MX             P                               B*       63    62
L                                                  A$ SL                                                                     6+
R       666.60   666.88      START OF FIRST ORE ZONE.  LOCALLY SILICEOUS.

/ MSX   666.88   667.30    0.42               MSSX PY GL    BR MX             P                B1             B*       64    65
L                                                  TS SL                                                                     6=
R       666.88   667.30      SILGHTLY CALCAREOUS ALONG FRACTURES.

/ MSX   667.30   667.90    0.60               MSSX PY GL    BR MX             P                <1       B)    B*       64    63
L                                                  TS SL                                                D(                   61
R       667.30   667.90      CARBONATE OCCURS LOCALLY IN BLEBS AND VUG FILL.  SPHALERITE
R       667.30   667.90      CONCENTRATIONS OCCUR AS WAVEY BANDS.

/ BSX   667.90   668.25    0.35               BMSX PY GL    BR                P                81             L3       62    63
L                                                  3A SL                                                D*                   6=
R       667.90   668.25      BARITE APPEAR TO BE SILICIFIED.

/ BSX   668.25   668.48    0.23               BMSX PY SL    BM                P                6=       6= D* B*       D=    61
L                                                  6A GL                                                                     63
R       668.25   668.48      CARBONATE AND QTZ OCCUR TOGETHER AS PRIMARY CRYSTALS AS WELL AS
R       668.25   668.48      LAMINATIONS WITH MINOR BARITE.

/ BSX   668.48   668.92    0.44               BMSX PY GL *C= BU F*            P                B=       B1                62    65
L                                                  5A SL                                                                     62

/ MSX   668.92   669.47    0.55               MSSX GL SL    MX LM             P                81       B+                61    64
L                                                  TS PY    BR                                          D.                   64
R       668.92   669.47      LAMINATIONS ARE VISABLE WITHIN THE MASSIVE SPHALERITE ZONES.

/ BSX   669.47   670.85    1.38               FGSX PY GL    MX BR             P                82       62                63    62
L                                                  6A CB    VG LM                                       L+                   6+
R       669.47   670.85      SOME LOCALIZED PODS OF PYRITE, MAY REPRESENT FRACTURE FILL.

/       670.85   673.65    2.80               FGSX GL PY    BR                P                <1       61    63          82 <. 62
L                                                  7A CB                                                61                   D.

/       673.65   674.62    0.97               FGSX PY GL    BR                P                <+       61    65          61    62
L                                                  5A CB                                                D+                   6*

/       674.62   675.29    0.67               FGSX PY GL    BR                P                <+       62    64          61    62
L                                                  5A CB                                                61                   D*

/       675.29   676.35    1.06               FGSX PY CB    BR                P                         61    64          61 B. 62
L                                                  5A GL                                             8* 61 <1                8)
R       675.29   676.35      QUARTZ-SIDERITE VEINS CONTAIN THE MAJORITY OF THE SPHALERITE.
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K  F   F R O M - T O -  I N T RECOV  RD % ROCK TM TR OM1 TX TX F C % M ARG   RT 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                            R Q D  AGE EV RO LC TO OM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/ MSX  676.35  676.58   0.23             MSSX GL PY                   P                          61    82    85
L                                             6A SL                                 <+    8* 6=              8+
R      676.35  676.58        LOCALLY CARBONACEOUS.

/ MSX  676.58  677.28   0.70             MSSX PY GL    BR LM          P  1 LM     U40 <*    61    63    62    83
L                                             5A CB    VG                                 8. L)              8*

/ MSX  677.28  678.79   1.51             MSSX GL SL    BR LM          P               <*          62    61    65
L                                             5A CB    MX                                    L1 <+           61

/ MSX  678.79  679.56   0.77             MSSX GL PY    MX BR          P                           <+    81    86
L                                             6A CB                                          D* <)           8=
R      678.79  679.56        QUARTZ-CARBONATE-BARITE-SIDERITE VEINS LOCALLIZED THROUGHOUT.

/ MSX  679.56  680.10   0.54             MSSX GL PY    MX BR          P               <*    81    81    81    86
L                                             6A SL                                          8=              <+

/ BSX  680.10  681.08   0.98             BNSX GL SL    LM SS          P  1 LM     U60       L1    L1          67
L                                             5A CB                      2 BD     U60          D.             61
R      680.10  681.08        MAY REPRESENT A FAGMENT.  BARITE IS SUCROSIC IN APPEARANCE.
R      680.10  681.08        SULPHIDES HAVE NOT BEEN REMOBILIZED AS IN PREVEOUS INTERVALS.
R      680.10  681.08        CARBONATE APPEARS AS ALTERNATING BANDS.

/ BSX  681.08  681.56   0.46             BNSX GL SL    BN LM          P  1 LM     U65       D*    L1    6+    65
L                                             6A PY    VG                3 BD     U65          D*             64

/ MSX  681.56  682.12   0.56             MSSX GL SL    LM BR          P                     6+    61    61    64
L                                             4A PY    VG                                 C. D+ <1           63
R      681.56  682.12        INTERVAL IS CALCAREOUS, FINELY DECCEMINATED THROUGHOUT.
R      681.56  682.12        A BRIGHT RED-BROWN RUST STAIN ALSO OCCURS LOCALLY.

/      682.12  682.45   0.33             FGSX GL SL    BR MX          P               8+    D1    D1    81    84
L                                             4A CB    VG                                    D*              83
R      682.12  682.45        STRONGLY CALCAREOUS.  THE BRIGHT RE-BROWN RUST STAIN NOTED ABOVE
R      682.12  682.45        IS ALSO PRESENT HERE.  THE CORE HAS A PITTED AND WEATHERED
R      682.12  682.45        APPEARANCE, AS IF FROM A SOLUTION FILLED FAULT.

/ LMX  682.45  683.75   1.30             LMSX GL SL    MX LM          P  1 LM     U43 <+    D+    L=    D+    68
L                                             4A                         2 BD     U43          D*             61

/ LMX  683.75  687.54   3.79             LMSX GL SL    LM VG          P  1 LM     U43 <+          62    D+    66
L                                             4A                         2 BD     U43          L1             61
R      683.75  687.54        CORE IS BADLY BROKEN AND HAS A PITTED AND WEATHERED APPEARANCE
R      683.75  687.54        AS IF FROM A FAULT ZONE, DUE TO SOLUTIONS.

K LS1  687.54  687.54   0.00

/      687.54  691.29   3.75             BRHT PY GR    F* BR     OP6  P               <)    D*    6+    81    D*
L                                             4A CB          3 C JM1                                         D.
R      687.54  691.29        CORE IS BADLY BROKEN OVER THIS INTERVAL.  MAY REPRESENT A FAULT
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K  F  F R O M - T O -  I N T RECOV  MD % ROCK TO TO NM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                         R O D  AGE EV RO LC TH NM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R      687.54  691.29      ZONE.  30% OF FRAGMENTS IN THIS INTERVAL ARE ARSN.

/      691.29  693.35   2.06             BRHT PY GR     F* P*         OP8   P                           C)    D+
L                                             2A                    C JM2

/      693.35  694.07   0.72             SAND PY GR SI2 4X    2 5 8 6       P                           C*    D)
L                                             6A    SN8       5

/      694.07  703.73   9.66             BRHT PY GR     F* R*         NP5   P               <*          C)    6+
L                                             4A        H* B*     4 C JN1                         C*
R      694.07  703.73      30% OF THIS INTERVAL IS ARSN FRAGMENTS.

/      695.95  696.15   0.20           X CGCP PY        F* R*         KN1   R                     D.          83
L                                             7A        H* F*         LN6                         8)
R      695.95  696.15      PYRITE IS REPLACING MATRIX MATERIAL.

/      698.14  698.34   0.20           X CGCP PY GL     F* P*         1K1   P    IM     U45                   8+    D.
L                                             7A        H* IM         IN9

/      700.63  700.78   0.15           X CGCP PY GL     F* B*         JL1   R                                 81    8)
L                                             7A        R*            MP8
R      700.63  700.78      PYRITE IS REPLACING MATRIX MATERIAL.

/      703.73  706.44   2.71             CGCP PY GL     F* R*         IK+   P                                 81    81
L                                             7A        R* H*         JN7
R      703.73  706.44      SOME CHERT PEBBLES ARE BEING REPLACED BY GALENA.  GALENA IS ALSO
R      703.73  706.44      INTERSITIIAL WITHIN THE MATRIX.

/      706.44  708.68   2.24             BRHM PY GR     DB            OP8   P                                 81    8*
L                                             1A                    C JJ+                   <*    C.

/      708.68  709.08   0.40             CGCP           IM F*         JL1   P    IM     U43                   8=    8=
L                                                       R* R*         KP8
R      708.68  709.08      GALENA IS ALSO FOUND WITHIN.

/      709.08  710.68   1.60             BRHT PY GR                   OP6   P               <*                81    8*
L                                             3A                  3 C NO1                         C*
R      709.08  710.68      30% OF THESE FRAGMENTS ARE ARSN.

/      710.68  711.58   0.90             CGCP PY GL     F* F*         JP1   P                                 8=    8.
L                                             6A        H*          C LN8                         C*

/      711.58  712.88   1.30             BRHT PY GR                   NO3   P               <*                8+
L                                             2A                  3 C LN4                         C*
R      711.58  712.88      30% OF THESE FRAGMENTS ARE ARSN.

/      712.68  715.95   3.07             CGCP PY GL     F* R*         JN=   P                                 81    8+
L                                             6A        H*            LN8                         C* 8+
R      712.68  715.95      GALENA IS FOUND IN THE MATRIX, ACTING AS A REPLACEMENT MINERAL.

/      715.95  720.69   4.74             BRHT PY GR     F*            OO8   P               <+                D)
L                                             2A                      KM1                         C.
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090986

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K  F  F R O M - T O -  T O T RECOV  RQ % ROCK TM TM OM1 TX TX F C % M ARG   RT 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -I- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                           R Q D  AGE EV RN LC TM OM2 TX TX S C O O CHT        2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/      720.69  724.51   3.82             ARSN PY    SI1 DB LM 2 3 4 3       P  1 LM    U65                C.    81    8.
L                                             4A    SM4 BD SS                  2 BD    U65
R      720.69  724.51      BARITE OCCURS ON SOME FRACTURE SURFACES.

/      724.51  725.13   0.62             CHER PR        BR LM               P  1 LM    U78                      8=
L                                             5A        SS                                                      81
R      724.51  725.13      PYRRHOTITE IS BOTH LAMINATED AND INJECTED.

/      725.13  728.06   2.93             MSSD SD IB SD8                     P  7 BD    U70 <+                   D=    D+
L                                             TS                                                   M8           8)
R      725.13  728.06      MASSIVE BEDDED SIDERITE.  INTERBEDDED WITH MINOR CHERT BEDS,
R      725.13  728.06      WHICH MAKING UP 10% OF THE INTERVAL.

/      728.06  728.33   0.27             ARSI PY    SI2 LM SS 2 3 1 4       P  1 LM    U65                      D.
L                                             2A    SM1

/      728.33  728.86   0.53             MSSD SD    SD7 MX IB               P                                   6=    8)
L                                             TS    CH2                                            66              D.
R      728.33  728.86      INTERBEDDED WITH A CHERT BED.

/      728.86  730.61   1.75             BRHT           DB           PQ5    P              >2         C.    81
L                                                                 1  PQ2
R      728.86  730.61      BADLY DISTURBED BEDDING DUE TO QUARTZ VEINING.

/ V/1  728.98  729.44   0.46           R VEIN 17    QZ8                     R              >8
L                                             9A

/      730.61  731.31   0.70             CHER PR SD     DB SS               P              <(                   81    8.
L                                             7A        IB                                         61           8+
R      730.61  731.31      PYRRHOTITE IS MIXED IN WITH THE SIDERITE.  SIDERITE IS INTERBED
R      730.61  731.31      WITH THE CHERT.

/      731.31  733.10   1.79             BRHT PY PR                  PQ2    P                                   8=    8.
L                                             4A                  1  PN6                                        8=
R      731.31  733.10      10% OF THIS INTERVAL IS ARSN FRAGMENT.  CHERT CONTENT IS
R      731.31  733.10      REPRESENTITIVE OF DISTURBED CHERT BEDS.

/      733.10  734.96   1.86             MSSD SD PR SD6 IB SS               P  4 BD    U65                      6+
L                                             TS PY     DB                                         65           L+ 8*

/      733.10  734.96   1.86           4 CHER PY PR     IB SS               R  1 LM    U65
L                                             7A        DB

/      734.16  734.46   0.30           X ARSI PY    SI3 SS LM 2 3 1 3       R  1 LM    U65                      D.
L                                             6A    SN1 //
R      734.16  734.46      SECTION REMOVED FOR CORE LIBRARY.  PYRRHOTITE OCCURS PRIMARILY
R      734.16  734.46      AS A LAMINATION AT THE CHERT-ARSN INTERFACE AND BLEBS WITHIN THE
R      734.16  734.46      SIDERITE.

/      734.96  736.00   1.04             CHER PY PR     IB //               P  1 LM    U80                      6+    D.
L                                             7A SD     LM SS                                      L+           8* D.
```

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K  F  F R O M - T O -  T O T RECOV  MR % ROCK TM TG GM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                        R Q D  AGE EV RW LC IM OR2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/      734.96  736.00   1.04          3 ARGL PY         IB //                R  1 LM     U80                         D.
L                                          7A          LM SS
R      734.96  736.00       MINOR SIDERITE INTERBEDDED
-------------------------------------------------------------------------------------------------------------------------
/      736.00  736.44   0.44             MSSD SD PR SD6 IB LM                P  1 LM     U88                         D+
L                                          TS PY        // SS                   3 BD     U88             65          L) 8*

/      736.00  736.44   0.44          4 CHER            IB LM                R  1 LM     U88
L                                          7A           // SS                   3 BD     U88
-------------------------------------------------------------------------------------------------------------------------
/      736.44  738.84   2.40             ARGL PY        IB LM                P  1 LM     U78                         D.
L                                          2A           // SS                   3 BD     U78             L1          L( D.

/      736.44  738.84   2.40          4 CHER            IB LM                R  1 LM     U78
L                                          7A           // SS                   3 BD     U78
-------------------------------------------------------------------------------------------------------------------------
/      737.74  738.04   0.30          6 MSSD SD PR SD6 IB LM                R  3 BD     U65                         L(
L                                          TS           // SS                                        L6          L+ D(

/      737.74  738.04   0.30          4 CHER            IB LM                R  3 BD     U65
L                                          7A           // SS
-------------------------------------------------------------------------------------------------------------------------
K US2  737.00  737.00   0.00

/      738.84  739.34   0.50             MSSD SD PR SD6 MX                   P                   <2                        <*
L                                          TS                                                        66          6)

/      738.84  739.34   0.50          2 CHER            DB                   R
-------------------------------------------------------------------------------------------------------------------------
L                                          7A

/      739.34  739.65   0.31             ARSI PY GR SI1 LB BD 2 3 2 3        P  1 LM     U82 <+                      61
L                                          4A     SN2 SS                        2 BD     U82

/      739.65  739.95   0.20             ARSI PY GR SI1 DB BR 2 3 2 3        P               <=    C*                62
-------------------------------------------------------------------------------------------------------------------------
L                                          4A     SN2 LM SS
R      739.65  739.85       MAY REPRESENT A SHEAR ZONE, DUE TO THE BRECCIATED NATURE OF THE
R      739.65  739.85       INTERVAL.

/      739.85  740.14   0.29             MSSD SD PR SD5 IB LM                P  1 LM     U35                         6=    D*
L                                          TS PY        SS                      3 BD     U35             65          8=
-------------------------------------------------------------------------------------------------------------------------
/      739.85  740.14   0.29          4 ARGL PY         IB LM                R  1 LM     U35
L                                          4A           SS                      2 BD     U35
R      739.85  740.14       PYRITE LAMINATIONS AT SIDERITE-ARGL CONTACT.

K LS2  740.14  740.14   0.00
-------------------------------------------------------------------------------------------------------------------------
/      740.14  740.54   0.40             CHER PY        LM //                P  1 LM     U65 <*                      8+
L                                          7A           SS                                                           8)

/      740.54  741.21   0.67             ARGL PY        LM SS                P  1 LM     U57                         6=
L                                          5A           DB
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K  F   F R O M - T O -   I N T RECOV  MD % ROCK TM TM QM1 TX TX F C % M ARG    RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                           R Q D  AGE EV RO LC TM QM2 TX TX S C O O CHT        2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/ SHR  741.21  741.36   0.65             FAUL QZ    UZ3                     P               >3                81
L                                             6A                                                     63        8*

/ MSD  741.86  746.05   4.19             MSSD SD PR S06 IB BD               P  5 BD      U60 <)                6=    8=
L                                             TS GL       // SS                                      66        8+ D.

/      741.86  746.00   4.14           2 CHER           IB BD               R  1 LM      U60
L                                             5A          // SS                3 BD      U60                      <*
R      741.86  746.05      GALENA IS CONCENTRATED IN THE SIDERITE.

/ MSD  745.85  746.05   0.20           X MSSD SD PR                         R                                D=
L                                             TS GL                                                  68        61
R      745.85  746.05      REMOVED FOR CORE LIBRARY.

/ CON  746.00  746.01   0.01           X MISS                               R            U55
L
R      746.00  746.01      PHYRRHOTITE LAMINATIONS AT THE SIDERITE-ARSI INTERFACE.

/      746.05  747.87   1.62             ARSC PY PR SI2 LM BD 2 3 1 4       P  1 LM      U65                C.     D*
L                                             3A GR SN1 IB SS                  2 BD      U65                       8+

/      746.05  747.87   1.62           1 CHER           IB LM               R  1 LM      U65
L                                             5A

/      747.87  750.31   2.44             CHER PY PR     IB LM               P  1 LM      U85                C*     D*
L                                             5A          OB SS                2 BD      U85                       8+

/      747.87  750.31   2.44           2 ARGL PY        IB LM               R  1 LM      U85                       D.
L                                             4A          OB SS                2 BD      U85

/      747.97  747.98   0.01           X CHER PY PR     IB LM               R  1 LM      U85                C*     D*
L                                             5A          OB SS                2 BD      U85                       8+

/      748.53  749.71   1.18           X CHER PY PR PY1 OB                  R                                      81
L                                             IS                                                               82

/      748.53  749.71   1.18           X CHER PY PR PY1 OB                  R                                      81
L                                             IS    PR2                                                        82
R      748.53  749.71      POSSIBLE FRACTURE FILL OF THE DISORGANIZED BEDS AT THIS POINT.

/      749.02  749.03   0.01           X CHER PY PR     IB LM               R  1 LM      U70                C*     D*
L                                                                              2 BD      U70

/      749.02  749.03   0.01           X CHER PY PR     IB LM               R  1 LM      U70                C*     D*
L                                                                              2 BD      U70

/      749.80  749.81   0.01           X CHER PY PR     IB LM               R  1 LM      U68                C*     D*
L                                                                              2 BD      U68
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G E O L O G   E D I T   L I S T I N G

SYSTEMS ENGINEERING BY
INTERNATIONAL GEOSYSTEMS CORP.

PAN OCEAN OIL LTD.
JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.

FORMAT VERSION : 6B02

DRILLHOLE/TRAVERSE :81EWH066
TOTAL DEPTH/LENGTH : 980.54
CORE/HOLE DIAMETER : HQWG

COLLAR ELEVATION: 1275.94
NORTHING(- IF S): 7002472.00
EASTING (- IF W): 436496.25

AZIMUTH(DEG) : 0.00
VERTICAL ANGLE : -90.00
CO-ORD SYSTEM : UTM

GEOLOGGED BY : JDK +
DATE (YY/MM/DD): 811009
PROJECT NUMBER : JASON

SEQ. NO OF SURVEY DATA	LENGTH FROM COLLAR TO SURVEY POINT	AZIMUTH (DEG)	VERT. ANGLE (DEG)
1	30.00	146.90	-89.47
2	58.52	145.00	-87.25
3	78.94	144.00	-85.33
4	100.58	164.00	-83.00
5	118.87	130.00	-82.00
6	137.16	119.00	-80.00
7	152.40	114.00	-78.00
8	167.64	137.00	-76.67
9	176.48	114.00	-76.00
10	198.12	121.00	-75.00
11	222.20	122.00	-74.00
12	246.27	129.00	-71.67
13	260.27	129.00	-71.67
14	280.72	128.00	-69.67
15	306.92	125.00	-68.75
16	327.96	127.00	-68.25
17	350.82	127.00	-67.67
18	369.72	124.00	-66.50
19	383.13	128.00	-66.00
20	389.84	130.00	-60.50
21	403.86	132.00	-65.50
22	420.93	132.00	-65.25
23	424.89	132.00	-64.75
24	434.34	134.25	-64.25
25	445.31	136.00	-63.00
26	466.95	133.00	-61.00
27	489.51	136.00	-56.67
28	503.53	134.00	-55.50
29	528.32	137.00	-53.66
30	544.07	137.00	-53.33
31	559.00	137.00	-53.25
32	573.63	139.00	-52.00

33	587.65	137.00	-51.50
34	602.59	139.00	-50.50
35	618.74	136.00	-50.33
36	632.76	136.00	-50.33
37	646.78	137.00	-51.00
38	665.99	137.50	-50.00
39	689.76	133.00	-47.00
40	696.16	133.00	-46.75
41	711.10	133.00	-45.00
42	726.34	131.00	-47.50
43	744.32	134.00	-44.75
44	748.28	133.00	-44.25
45	760.47	129.00	-44.50
46	772.67	129.00	-44.50
47	784.86	129.00	-44.50
48	797.05	128.50	-44.00
49	809.24	128.50	-43.50
50	821.43	128.00	-42.75
51	833.63	127.50	-42.50
52	845.82	127.00	-42.33
53	858.01	127.50	-42.00
54	870.20	127.50	-42.00
55	882.40	127.00	-41.00
56	894.59	127.00	-40.50
57	906.78	126.50	-39.00
58	918.97	126.50	-38.75
59	931.16	126.50	-38.00
60	943.36	126.50	-37.25
61	955.55	126.50	-37.00
62	967.74	126.50	-36.75
63	979.93	126.50	-36.75

```
  F   - I N T E R V A L -    CORE  T- %      TYPI- QAL  TEX-  GRAIN       PGI   STRUCTUR-1 ALTERATION MINS  ORE-TYPE MINS SUMMARY
K L (UNITS =   . DEC.PLACE)RECOV-  M M ROCK FYING MIN TURES CHARACS                   H  H  H  H  H ANY H  H  H ANY  ALT ORE
F A  (MT=METRIC FT=FOOTRIC)  ERY    U T      TM TM MAT TX TX F C % M ARG  /RI T ID STK DIP  A  A  A  A  A MIN A  A  A MIN - - - -
Y G  F R O M - T O -  I N T (  . )  D X TYPE  1  2 OM1  1  2 F F C A          1    AZM  RT QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
- --- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
K F                          ROCK   FM    RT    TM QK2 TX TX S C O O CHT       T ID STK DIP MG MU CL SD QS HA PR MT SL HA
F L                          QUAL   AGE FN- O LC- 3     3  4 O     /          2    AZM  RT H  H  H  H  H  H  H  H  H  H   1   1
Y G                          DESIG      VIR   COL              R     C           STRUCTUR-2 A  A  A  A  A  A  A  A  A  A    2   2
```

R	SVY	0.00	0.00	READING BY SPERRY SUN SINGLE SHOT AND MULTI-SHOT, EXCEPT FOR
R	SVY	0.00	0.00	S001 WITH WAS DONE BY GYROSCOPIC DIRECTIONAL SURVEY.
R	SVY	58.52	58.52	BEGINNING OF WEDGED HOLE D.
R	SVY	58.52	58.52	HALL AND ROWE STEEL WEDGE - FULL AZIMUTH TO THE RIGHT.
R	SVY	181.66	181.66	CLAP RETRIEVABLE WEDGE - FULL AZIMUTH TO THE RIGHT.
R	SVY	200.25	200.25	CLAP RETRIEVABLE WEDGE - FULL AZIMUTH TO THE RIGHT.
R	SVY	230.43	230.43	CLAP RETRIEVABLE WEDGE - FULL AZIMUTH TO THE RIGHT.
R	SVY	249.63	249.63	CLAP RETRIEVABLE WEDGE - FULL AZIMUTH TO THE RIGHT.
R	SVY	260.27	260.27	END OF WEDGED HOLE D.
R	SVY	260.27	260.27	BEGINNING OF WEDGED HOLE E.
R	SVY	260.27	260.27	HALL AND ROWE STEEL WEDGE - FULL AZIMUTH TO THE RIGHT.
R	SVY	383.13	389.84	AZIMUTH FOR S019 HAS NOT BEEN USED DUE TO MAGNETICS.
R	SVY	389.84	420.93	SURVEY S020 AND S021 ALSO HAVE BEEN AFFECTED BY MAGNETICS,
R	SVY	389.84	420.93	AND THERE AZIMUTH HAS BEEN EXTRAPOLATED.
R	SVY	470.00	470.00	1/2+1/2 WEDGE TO THE RIGHT.
R	SVY	503.53	503.53	CLAP RETRIEVABLE WEDGE - FULL AZIMUTH TO THE RIGHT.
R	SVY	673.91	673.91	CLAP RETRIEVABLE WEDGE - FULL AZIMUTH TO THE RIGHT.
R	SVY	0.00	0.00	THE FIRST AND THIRD READINGS BELOW ARE FROM SINGLE SHOT
R	SVY	0.00	0.00	SURVEYS AND ARE LESS ACCURATE THAN THE GYROSCOPIC SURVEY.
R	SVY	0.00	0.00	THEREFORE THEY SHOULD NOT BE USED IN PLOTTING THE HOLE.

PAN OCEAN OIL LTD.

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G E O L O G                              JASON PB-ZF-AG-BA STF DEPOSIT, Y.T.                                          PAGE -  3
                                  DRILLHOLE/TRAVERSE --- 81FWH068 --- (CONTINUED)

K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                        R O D  AGE EV RN LC TM NM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R SVY   24.38   30.48                    49.00-69.50
R SVY   30.48   48.77                   146.90-69.47   GYROSCOPIC SURVEY DATA
R SVY   48.77   58.52                   119.00-89.67

 /        0.00 262.74 262.74                MISS                          P

 /      262.74  267.16   4.42                BRBM PY        B* F*        008    P                                D)
 L                                             3A                2   2   JM+
 R      262.74  267.16        20% OF THIS INTERVAL IS REPRESENTED BY SANDSTONE AND ARSN
 R      262.74  267.16        FRAGMENTS.

 /      267.16  295.88  28.72                BRHT PY        B* F*        MQ6    P                <.              D)
 L                                                              2   2    JP2                          C. D. <.

 /      267.16  267.84   0.68              X CGCP PY        F*           LN9    R                <*              D*
 L                                             7A              3 5       JM1

 /      286.00  287.27   1.27              X BRPM PY                     NP3    R                                D)
 L                                             2A                                                        D.

 /      287.27  294.64   7.37              X CGBR PY        F*           NQ5    R                                D)
 L                                             7A              3 4       NP5
 R      287.27  294.64        10% OF THIS INTERVAL IS REPRESENTED BY SANDSTONES AND ARSN
 R      287.27  294.64        FRAGMENTS.

 /      295.88  317.70  21.82                SBHT PY        F* B*        NS5    P                <*              D)
 L                                             4A               1 2      J03                      6*
 R      295.88  317.70        20% OF THIS INTERVAL IS REPRESENTED BY SANDSTONE AND ARSN
 R      295.88  317.70        CONGLOMERATIC MUDSTONE FRAGMENTS.  CHERT CONTENT DECREASING DOWN
 R      295.88  317.70         HOLE.

 / FRG  297.50  298.40   0.90              X CGPS                        LN3    R
 L                                                                       LM4

 /      309.27  311.19   1.92              X BRHT PY        F*           NP5    R                <*              D)
 L                                             3A                  4     JL1                      C.
 R      309.27  311.19        40% OF THIS INTERVAL IS REPRESENTED BY SANDSTONE AND ARSN
 R      309.27  311.19        FRAGMENTS.

 /      317.70  320.60   2.90                BRPM PY        IM           JN4    P    IM    075                   D)
 L                                             2A                      O JN+
 R      317.70  320.60        IMBRICATION REPRESENTS FLOW FABRIC.

 /      320.60  330.30   9.70                BRHM PY     *S1 F* B*       008    P                                D)
 L                                             3A           B*       +   JM+

 /      321.66  322.01   0.35              X SAND PY     ST2       3 4 6 5      R                <.              D)
 L                                             8A        SM6                                             6)

 /      330.30  332.23   1.93                CGSH PY        F* B*        NP4    P                                D(
 L                                             5A                        JG6
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K  F   F R O M - T O -  I N T RECOV  RD % ROCK TM TM UM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R Q D  AGE EV RO LC TM UM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/       332.23  339.25   7.02          BRHT PY GR      F*                PR5   P                                 D)
L                                           3A                    3 C JN1                          C.

/       335.12  335.75   0.63        X BRPM PY                           JK2   R                                 D(
L                                           4A                           JK3

/       339.25  349.97  10.72          BRHM PY                           QP9   P                                 D)
L                                           2A                           LN*                           C.

/       349.97  391.36  41.39          ARSI PY     SI= // BD                   P  1 LM       U55 <(              8+
L                                           2A     SN= LM SS                      2 BD       U55       C.

/       363.93  363.96   0.03        X ARSI PY     SI= // BD                   R  1 LM       U60 <(              8+
L                                           2A     SN= LM SS                      2 BD       U60       C.

/       371.50  371.60   0.10        X ARSI PY     SI= // BD                   R  1 LM       U82 <(              8+
L                                           2A     SN= LM SS                      2 BD       U82       C.

/       379.63  379.73   0.10        X ARSI PY     SI= // BD                   R  1 LM       U80 <(              8+
L                                           2A     SN= LM SS                      2 BD       U80       C.

/       385.27  385.37   0.10        X ARSI PY     SI= // BD                   R  1 LM       U81 <(              8+
L                                           2A     SN= LP SS                      2 BD       U81       C.

/       389.20  389.30   0.10        X ARSI PY     SI= // BD                   R  1 LM       U80 <(              8+
L                                           2A     SN= LM SS                      2 BD       U80       C.

/       391.36  392.62   1.26          BRHM PY     *C* F* B*             NQ8   P                                 D.
L                                           1A                           KN=                           C.

/       392.62  398.80   6.18          SAND PY     SN7 R* F* 3 J 3 N           P             <(                  D*
L                                           6A                5    C

/       398.80  423.78  24.98          BRBT PY         F*                PR7   P                                 D.
L                                           3A                    2 C J01                          C.

/ FRG   401.01  402.21   1.20        X SAND PY     SI4 LC G: 2 4 6 5           R  3 BD       D43                 D.
L                                           5A     SN6 FU //
R       401.01  402.21          SEVERAL FU CYCLES / TOPS DOWN HOLE=SLUMPED TURBIDITE SEQUENCE.
R       401.01  402.21          THESE CYCLES FORM PART OF COARSENING UPWARD MEGASEQUENCE
R       401.01  402.21          INDICATED BY INCREASING THICKNESS OF COARSE CLAST INTERVLAS

/       423.78  430.99   7.21          ARSI PY     SI1 // SS 2 3 1 3           P  1 LM       U70                 D*
L                                           3A     SN1 LM PH                      2 BD       U7        C.

/       430.99  434.63   3.64          BRHM PY CP *S4 F* H*              PQ5   P                                 D)
L                                           3A                    4 C JL=                          C.
R       430.99  434.63          40% OF THIS INTERVAL IS REPRESENTED BY SANDSTONE AND ARSN
R       430.99  434.63          FRAGMENTS.

/       434.63  436.64   2.01          ARSI PY GP SI1 PH // 2 3    3           P  1 LM       U85                 D*
L                                           2A         SS LM                  2 BD       U85       C.
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K  F  F R O M - T O -  I N T RECOV  MD % ROCK TM TM GM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R Q D  AGE EV RO LC TM GM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/      436.64  437.39   0.75             BRBB PY    *S4              OP6   P                                      D*
L                                             3A                       0                              C.

/      437.39  442.67   5.28             ARSI PY GR SI1 LM BD 2 4 1 4      P  1 LM     U50                        D)
L                                             4A    SM1 SS PH                 2 BD     U50            C.

/      442.67  445.92   3.25             BRBM PY                     OQ8   P                                      D*
L                                             3A                  2    0                              C.
R      442.67  445.92       20% OF THIS INTERVAL IS REPRESENTED BY SANDSTONE AND ARSN
R      442.67  445.92       FRAGMENTS.

/      445.92  449.28   3.36             ARSM PY    SI1 LM BD 2 4 1 4      P  1 LM     U55                        D*
L                                             4A    SM2 // SS                 2 BD     U55            C.

/      449.28  453.50   4.22             BRBP PY    *S=              PR9   P                                      D)
L                                             2A                     JK=                              C.

/      453.50  474.50  21.00             BRPI PY    SM2 F* R*        NS4   P             <*                       8)
L                                             4A       H* B*    +   O LM3                             C.    <(    D)   8.
R      453.50  474.50       SPHALERITE OCCURS WITHIN FRACTURED CHERT PEBBLES BEING
R      453.50  474.50       CONTROLLED BY QUARTZ VEINING.
R      453.50  474.50       SIMILAR SPHALERITE ASSOCIATIONS WERE SEEN IN 81-68C, WELL ABOVE
R      453.50  474.50       THE ORE ZONE.  INCREASING SAND CONTACT BASE (DOWNHOLE).

/      470.00  471.83   1.83           X WEDG                              R
L

/      474.50  484.68  10.18             BRBI PY    SM3 M; B*        OQ3   P                                      D*
L                                             6A       H* R*         MQ4
R      474.50  484.68       BASE OF SEQUENCE GRADES TO BRPM LOCALLY.

/      484.68  491.57   6.89             BRBM PY       DB            RS9   P                                      8)
L                                             2A

/      491.57  497.18   5.61             BRBM PY    *S= F* R*        OR8   P                                      D)
L                                             3A       H*            KM=

/      497.18  533.29  36.11             ARSI PY    SI2 LM BD 2 3 1 4      P  1 LM     U40                 <.     D* D. D.
L                                             3A    SM1 SS DR                 2 BD     U40            C.    <*         D.
R      497.18  533.29       TOWARDS THE TOP OF THIS INTERVAL BEDS ARE DISTURBED AND SLIGHTLY
R      497.18  533.29       FRAGMENTED; FRAGMENTS ARE NOT ROTATED.
R      497.18  533.29       STIBNITE ALSO OCCURS WITHIN QUARTZ-SIDERITE.
R      497.18  533.29       THE INTERVAL IS ALSO PHYLLITIC LOCALLY.

/      500.00  500.01   0.01           X ARSI PY    SI2 LM BD 2 3 1 4      R  2 BD     U90                 <.     D* D. D.
L

/      502.00  503.53   1.53           X WEDG                              R           U72
L                                                                                      U72

/      505.05  505.06   0.01           X ARSI PY    SI2 LM BD 2 3 1 4      R  2 BD     U80                 <.     D* D. D.
L
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 K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
 F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
 Y  G                            R Q D  AGE EV RO LC TC OM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD OS HA PR MT SL HA

 /       509.63  509.64   0.01            X ARSI PY    SI2 LM BD 2 3 1 4        R  1 LM     U64         <.       D* D. D.
 L                                                                                 2 BD     U64

 /       514.50  514.51   0.01            X ARSI PY    SI2 LM BD 2 3 1 4        R  1 LM     U54         <.       D* D. D.
 L                                                                                 2 BD     U54

 /       519.99  520.00   0.01            X ARSI PY    SI2 LM BD 2 3 1 4        R  1 LM     U61         <.       D* D. D.
 L                                                                                 2 BD     U61

 /       525.17  525.18   0.01            X ARSI PY    SI2 LM BD 2 3 1 4        R  1 LM     U66         <.       D* D. D.
 L                                                                                 2 BD     U66

 / FLT   525.50  525.55   0.05            X GAUG       GG*                      R
 L                                             2A

 /       527.00  527.01   0.01            X ARSI PY    SI2 LM BD 2 3 1 4        R  1 LM     U68         <.       D* D. D.
 L                                                                                 2 BD     U68

 /       529.00  529.01   0.01            X ARSI PY    SI2 LM BD 2 3 1 4        R  1 LM     U40         <.       D* D. D.
 L                                                                                 2 BD     U40

 /       530.00  530.01   0.01            X ARSI PY    SI2 LM BD 2 3 1 4        R  1 LM     U40         <.       D* D. D.
 L                                                                                 2 BD

 /       533.29  535.17   1.88              ARGL       SI1 MX    0 3 1 3        P                                D.
 L                                             2A                                                      C.

 /       535.17  551.69  16.52              ARSI OS       LM DB 0 4 = 4         P  1 BD     T50                  D.
 L                                             3A         SS BD                    3 BD     B20        C.    >( C.
 R       535.17  551.69          BEDS ARE LOCALLY DISTURBED, POSSIBLY DUE TO DEWATERING.
 R       535.17  551.69          THERE IS A CHANGE IN CORE TO BEDDING ANGLES FROM TOP TO BOTTOM
 R       535.17  551.69          OF INTERVAL -ALSO THERE ARE LOCAL FRAGMENTS- HOWEVER,
 R       535.17  551.69          DEFORMATION APPEARS TO BE LOCAL SLUMPING AND IS NOT WIDESPREAD
 R       535.17  551.69          ENOUGH TO BE A RRBM.

 /       548.62  549.25   0.63            3 VEIN OS                             R    V/      90 >3                   D-
 L
 R       548.62  549.25          VEIN IS PARALLEL TO CORE AXIS - IT COMPRISES 30% OF INTERVAL
 R       548.62  549.25          WITH OTHER 70% BEING ARSI.

 /       549.25  549.25   0.00            X ARSI OS       LM DB 0 4 = 4         R  2 BD     T55                  D.

 /       550.44  551.19   0.75            2 VEIN OS                             R    V/      90 >2                   D-
 L
 R       550.44  551.19          VEIN IS PARALLEL TO CORE AXIS - IT COMPRISES 20% OF INTERVAL
 R       550.44  551.19          WITH OTHER 80% BEING ARSI.

 /       551.40  551.40   0.00            X ARSI OS       LM DB 0 4 = 4         R  1 BD     T60                  D.

 /       551.69  564.56  12.87              ARSI PY    SM= SS    0 2 2 2        P                                D-
 L                                             4A      SI2       2                                     C.    V-
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K  F   F R O M - T O -  T O T RECOV  RD % ROCK TM TM QM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.--  ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R Q D  AGE EV RG LC TG QM2 TX TX S C O O CHT       2 ID AZM DIP MG MD CL SD QS HA PR MT SL HA

R      551.69  564.56      INTERVAL IS LOCALLY RUBBLY-MINOR QS VEINS WITH LOCAL BRECCIA-
R      551.69  564.56      TION.  INTERVAL IS COMPRISED MAINLY OF A NUMBER OF LARGE ARSI
R      551.69  564.56      BLOCK VARIATIONS IN CORE TO BEDDING ANGLES AND SMALL FRAGS
R      551.69  564.56      INDICATE MINOR DISTURBANCE.

/      553.00  553.00  0.00          X ARSI PY     SM= SS     0 2 2 2        R    BD              90          D-

/      555.00  555.00  0.00          X ARSI PY     SM= SS     0 2 2 2        R    BD        80                D-

/      564.00  564.00  0.00          X ARSI PY     SM= SS     0 2 2 2        R    BD        60                D-

/      564.56  576.09  11.53           BRBR PY     *S.                 QS9   P                  <-           D.
L                                        4A                 2 - .      MD-                           C.
R      564.56  576.09      THE MAJORITY OF THE CLASTS ARE ARSI - VARRYING CORE TO BEDDING.
R      564.56  576.09      ANGLES INDICATE THAT THESE ARE CLASTS AS OPPOSED TO DEPOSITIONAL
R      564.56  576.09      UNITS.  CORE IS LOCALLY RUBBLY.  A NUMBER OF IRREGULAR QUARTZ
R      564.56  576.09      VEIN-LETS ARE PRESENT.  THIS INTERVAL IS MORE DISRUBTED AND
R      564.56  576.09      DEVELOPED THAN THE ABOVE INTERVAL.

/      564.00  564.01  0.01          X BRBR PY     *S.                 QS9   R    BD        60 <-           D.

K UDF  576.09  576.09  0.00

/      576.09  583.44  7.35            BRPM PY     *C. F* B*           QS8   P                               R.
L                                        4A        *S+      2 = * 0 MO1                           C.
R      576.09  583.44      INTERVAL IS GRADATIONAL FROM A BRBT TO A BRPM AT THE TOP.
R      576.09  583.44      ONE LARGE CARBONACEOUS ARGL FRAGMENTS IS PRESENT.

/ FRG  579.98  580.85  0.87          X ARGL CB PY             0 3 = 3        R                               <-
L                                        2A                                                          C.

/      583.44  591.43  7.99            CGXX PY     SM1 B*              OP2   P            U  >-           D.
L                                        5A        *C. F*   2          NO6
R      583.44  591.43      THE SERIES OF TURB SEQUENCES CONSIST OF CLOSE PACKED LARGE
R      583.44  591.43      PEBBLES AT BASE SEPARATED BY ARSI INTERVALS.  3 DISTINCT
R      583.44  591.43      CGXX/ARSI PAIRINGS HAVE BEEN RECOGNIZED.  THE ARSI BEDS ARE
R      583.44  591.43      BOUNDED BY A SHARP PLANAR CONTACT AT BASE AND AN IRREGULAR
R      583.44  591.43      CONTACT (LOAD CASTING?) AT THE TOP OF THE BED. THE ARSI UNITS
R      583.44  591.43      MAY ALSO BE INTERPRETED AS FRAGMENTS WITHIN THE CGXX FLOW UNIT.
R      591.43  602.24      NUMEROUS QUARTZ AND PYRITE VEINS ARE FOUND THROUGHOUT THE
R      591.43  602.24      INTERVAL.  INTERVAL IS LOCALLY RUBBLY.  A CONG CLAST WITH
R      591.43  602.24      ROUNDED PEBBLES IS FOUND IN THIS INTERVAL, THIS IS A POSSIBLE
R      591.43  602.24      MARKER.

/      591.43  619.70  28.27           BRBT        *C. R*              PU4   P                               D-
L                                        4A        SM2 B*   2 +        LO5

/      591.43  602.24  10.81         X BRBT        *S-                 NT7   R                V-            V.
L                                        4A                 2 ( -      MO2                           C.
R      591.43  619.70      INTERVAL IS DISTINCTIVE TO THAT.  THE MATRIX IS SANDY;
R      591.43  619.70      ONE LARGE ARGL FRAG IS REPEATED.  INTERVAL CONTAINS AT LEAST
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K  F  F R O M - T O - T O T RECOV RD % ROCK TX TX MM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                               R Q D  AGE EV RO LC TX MM2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R     591.43  619.70     THREE CONG FRAGS WITH ROUNDED CLASTS.  SEVERAL CHERT FRAGS
R     591.43  619.70     HAVE BEEN ALMOST COMPLETELY REPLACED BY PYRITE.

/ FRG 604.98  607.86  2.88          X ARGL                0 3 / 7      R              <.               <.
L                                          4A
R     604.98  607.86     INTERVAL IS COMPRISED OF ONE LARGE AND AT LEAST THREE SMALLER
R     604.98  607.86     FRAGS SEPARATED BY NARROW BRPM INTERVALS; LARGE FRAG IS 2 M LONG

/     619.70  653.49 33.79            BRPM GR    SA2 F* H*        PS6   P              <.               D-
L                                          4A    *C- H*    2      MO2                         C.
R     619.70  653.49     RUBBLY BROKEN CORE.  INCREASING SAND CONTACT NEAR BASE OF INTERV
R     619.70  653.49     AL (TWO SANDY INTERVALS).

/     636.00  637.00  1.00          X SAND                3 3 0 4      R
L                                          6A

/ SHR 642.00  653.49 11.49          X BRPM GR    GG2 F* H*        PS6   R              <.               D-
L
R     653.49  655.08     VEINS MAINLY QUARTZ WITH SOME CALCIC DOLOMITE.  THE VEIN HAS
R     653.49  655.08     BRECCIATED THE MOST ROCK.  LOCALLY, SOME ARGL FRAGS HAVE BEEN
R     653.49  655.08     SILICIFIED.

/     653.49  663.70 10.21            BRBT       *C. H*           QT9   P              V=               R(
L                                          3A    *S. R*           MO=                         C.

/     653.49  655.08  1.59          7 VEIN SF PY                        R              V7      V.       D.
L                                          4A
R     653.49  663.70     UPPER PART OF INTERVAL (APPROX 3 4) IS CUT BY NUMEROUS QUARTZ
R     653.49  663.70     WITH MINOR CARBONATE VEINS; THE LARGEST OF THESE (1 M LONG) HAS
R     653.49  663.70     BRECCIATED THE INTERVAL AND IS REPEATED.

/     663.70  673.91 10.21            CGCP       *C. H* H*        MO1   P              V.               D.
L                                          6A       F*            MO8                         C.
R     663.70  673.91     INTERVAL IS POORLY SORTED.  TIGHLY PACKED CHERT AND ARGL FRAG
R     663.70  673.91     AT ABOUT 616 M.  THERE IS AN ABRUPT CHANGE TO A SANDY MATRIX AND
R     663.70  673.91     LARGER ARGL FRAGS IN CONTACT WITH ABOVE UNIT.

K LDF 673.91  673.91  0.00

/     673.91  668.54 14.63            PRBO       *S- F*           PT9   P              <.               D.
L                                          4A    *C. H*      - -  MP1                         C.

/     673.91  675.44  1.53          X BEDG                              R
L

/ FRG 677.28  680.32  3.04          X ARGL                0 3 1 3      R              <.               D.
L                                          4A                                                 C.
R     677.28  680.32     APPEARS TO BE A LARGE FRAG.

/     684.46  686.94  2.48          X ARGL                0 3 1 3      R              <.               D.
L                                          4A                                              C.
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K  F  F R O M - T O -  T O T RECOV  RD % ROCK TM TM NM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
F -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                             R Q D  AGE EV RW LC TM NM2 TX TX S C O D CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R      684.46  686.94     APPEARS TO BE A LARGE FRAG.

/      686.54  723.59 35.05           ARGL GR    GG2 LM               P  1 LM      90 <.                D-
L                                       3A                                                 C.
R      688.54  723.59     BADLY BROKEN CORE.  DRILLING PARALLEL TO STRONG BEDDING
R      688.54  723.59     FOLIATION.

/ FLT  689.39  693.42  4.12         X FAUL       GG9                  R
L

/ SHR  720.24  722.38  2.14         / VEIN GR                         R             >7                  D)
L                                       6A
R      720.24  722.38     INTERVAL IS COMPLETELY BROKEN AND IS HARD TO DESCRIBE,
R      720.24  722.38     IT IS A LARGE QUARTZ VEIN INTRUDED INTO ARGL.

/ FLT  722.38  723.59  1.21         X FAUL CR    GGX                  R
L                                       2A
R      722.38  723.59     INTERVAL IS CARBONACEOUS GOUGE,IT APPEARS TO HAVE BEEN A ARGL.

/      723.59  726.15  2.56           CGBR PY    SN4 F*          NR2  P             <-                  <.
L                                       5A      *C2 B*    3      M08                           C.
R      723.59  726.15     INTERVAL IS LARGELY CHART FRAGS WITH SOME ARGL FRAGS IN A MATRIX
R      723.59  726.15     OF ANGULAR CHERT GRIT.

/      726.15  735.11  8.96           BRHT       *S- F* R*       QR4  P             <.                  R.
L                                       4A      *C. B*    2 + -  M04                     C.       C.
R      726.15  735.11     INTERVAL IS A HETEROGENEOUS BRECCIA WITH CHERT, ARGL, LARGE CONG
R      726.15  735.11     AND SAND FRAGS.  SEVERAL ARGL FRAGS EXHIBIT SILIFICATION PRIOR
R      726.15  735.11     TO DEPOSITION.  SOME PY REPLACEMENT OF CHERT IS EVIDENT.

/      735.11  747.90 12.79           ARGL CR        MX    0 3 = 3    P             <-                  <-
L                                       2A                                               C-       C.
R      735.11  747.90     INTERVAL IS A MASSIVE BLACK ARGL.  THERE IS EXTENSIVE QUARTZ
R      735.11  747.90     MICROVEINING.  OFTEN THE VEINS ARE PYRITIC, AS WELL LOCALLY THE
R      735.11  747.90     VEINLETS HAVE BRECCIATED THE ARGL.  AT 739.75 M, 10 CM OF BRHT
R      735.11  747.90     IS PRESENT, HOWEVER THE ENDS OF THE FRAG DO NOT APPEAR TO MATCH
R      735.11  747.90     THE ADJOINING CORE.

/      747.90  751.00  3.10           BRHM CR        SS          OQ9  P             <.                  R.
L                                       3A              2 .      JM-                     C.       C.
R      747.90  751.00     INTERVAL IS LOCALLY BROKEN.  CONSEQUENTLY IT IS SOMETIMES
R      747.90  751.00     DIFFICULT TO OBSERVE THE NATURE OF THE CORE.  AT TOP OF INTERVAL
R      747.90  751.00     THERE ARE SOME CHART AND CONGLOMERATE FRAGS, THE REST OF
R      747.90  751.00     INTERVAL IS ARGL BRECCIA (BRHM).

/      751.00  757.20  6.20           BRHT PY GR SH1 F* B*       PS6  P             <.                  R(
L                                       3A         B*   2        LO3                     C.
R      751.00  757.20     MOST OF THE CHERT OCCURS IN FRAGMENTS OF SAND.

/      757.20  763.00  5.80           BRHM                       RS9  P                                 D(
L                                       2A
```

```
                                                             PAN OCEAN OIL LTD.
  G E O L O G                                        JASON PB-ZN-AG-BA STF DEPOSIT, Y.T.                                           PAGE - 10
                                                DRILLHOLE/TRAVERSE --- 81FWH068 --- (CONTINUED)

K  F  F R O M - T O -  I N T RECOV  MD % ROCK IM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                          R J D  AGE EV RO LC IM GM2 TX TX S C O O CHT      2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/      763.00  775.18  12.18             BRHM CR PY                   OP8   P               <.               D)
L                                             3A                      LN+                       C.    <. C.
R      763.00  775.18     BRECCIA IS COMPOSED OF ARSI FRAGMENTS. CORE IS VERY RUBBLY.

/ FLT  775.13  775.18   0.05           X FAUL                               R
L                                             34

/      775.18  779.15   3.97             BRHT PY     S 3 F* B*            PO7   P                                D)
L                                             4A         R*       3       LO3
R      775.18  779.15     CHERT OCCURS IN SANDSTONE FRAGMENTS.

/      779.15  789.02   9.87             BRHM PY CR     CC                OP9   P                           C.   8+
L                                             2A                      JK+                                    C.

/      789.02  807.42  18.40             BRHT PY                          OO6   P                                8+
L                                             4A                  +       LO3                         <) C.

/      792.26  792.50   0.22           X BRXX SD PY     VG                MO8   R               <+               8=
L                                             4A                                                      <+

/      794.11  796.82   2.71           X ARGL CR        MX                      R                                D.
L                                             1A
R      794.11  796.82     LARGE FRAGMENT.  CORE BROKEN BETWEEN 794.33 - 795.22 M.

/      807.42  814.81   7.39             BRHM CR GR     B* F*             OP9   P               <.               6)
L                                             4A         R*         =     KM=                         <)
R      807.42  814.81     MANY OF THE ARGILLITE FRAGMENTS ARE CARBONACEOUS.

/      814.81  827.25  12.44             BRHM PY SF     B* F*             PQ9   P               <)               <)
L                                             2A         H* R*      +     LN+                         <)
R      814.81  827.25     MANY OF THE ARGILLITE FRAGMENTS ARE SILICIFIED.

/ FLT  822.60  822.95   0.15           X GAUG                               R
L

/      827.25  829.97   2.72             BRHM GR SF *S= F* R*             NO9   P               <.          C.   R*     6.
L                                             4A         B*               JK=                       6*   C.          6*
R      827.25  829.97     5% OF THIS UNIT IS COMPOSED OF SANDSTONE FRAGMENTS WHICH ARE
R      827.25  829.97     PYRITE RIMED AND CORE AREAS ARE REPLACED BY SPHALERITE AND
R      827.25  829.97     SIDERITE.

/      829.97  833.72   3.75             ARGL PY     SI2                    P  1            <.          C.   D*
L                                             4A                                                      <. C.
R      829.97  833.72     MAY REPRESENT A LARGE FRAGMENT OF SILTY ARGL COMPOSED OF FN SILT
R      829.97  833.72     MEDIUM GRAINED SAND.

K OS1  833.72  833.72   0.00

/      833.72  843.60   9.88             FGSX CR HA CR* SS BR                P               <+          C*   #=     D*
L                                             4A PY         LM                                                       #+
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```
K  F   F R O M - T O -  I N T RECOV  MD % ROCK TO TM OC1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                            R N D  AGE EV RG LC TM OC2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R        833.72  843.60        UNIT IS DOMINANTLY ARGILLITE WITH LOCAL LAM SULPHIDES.
R        833.72  843.60        UNIT HAS SUBSEQUENTLY UNDERGONE SOFT SEDIMENT DEFORMATION
R        833.72  843.60        RESULTING IN SLUMP TEXTURES AND BRECCIATION.
R        833.72  843.60        SULPHIDE MUD HAS BEEN REWORKED INTO BRECCIA INTERSTICES - STRONG
R        833.72  843.60        OVERPRINTINGHAS RESULTED IN BRECCIATION AND IN FILLING BY QZ/BA
R        833.72  843.60        VEINING WITH MINOR SL, GL AND PY.  HIGH APPARENT S.G OF ARGL AND
R        833.72  843.60        PRESENCE OF BARITE SLIPS SUGGEST A HIGH BARIUM CONTENT IN THE
R        833.72  843.60        ARGILLITE ALTHOUGH THIS IS NOT EVIDENT MEGASCOPICALLY.
R        833.72  843.60        NO DISCRET BARITE BANDS ARE PRESENT. DISRUPTED CHERT BANDS
R        833.72  843.60        OCCUR LOCALLY.

/        841.33  841.65  0.32          X ARGL CR     ST1 MX                      R
L

/        841.65  842.54  0.89          X LMSX        PY1 SS BR                   R                                      L1
L                                                                                                                            L=
R        841.65  842.54        THIS INTERVAL EXHIBITS STRONG LAMINATED CHARACTER.
R        841.65  842.54        EXCELLENT PRIMARY TEXTURES SHOW DISTURBED BEDDING FEATURES.

K LS1    843.60  843.60  0.00

/        843.60  853.50  9.90            BRHM PY                          QS9   P                   <.          C.     D*
L                                          4A                                                                     C.
R        843.60  853.50        THE ARGILLITE IS AN ARST WITH 10% SILT AND SAND.

/ SHR    852.27  853.50  1.23          X FAUL        G 2                         R
L                                          2A

/        853.50  859.84  6.34            BRHM PY     *S3                  PQ6   P                   <*       <. C.      D)
L                                          4A                          1
R        853.50  859.84        10% OF THIS INTERVAL IS INTERBEDDED CHERT.

/ SHR    859.74  859.84  0.10          X FAUL                                    R
L                                          2A

/        859.84  866.24  6.40            ARST PY CR     LM BD                    P  1 LM     U50 <(                    6*
L                                          4A           SS                          2 BD     U50
R        859.84  866.24        UNIT IS SLIGHTLY CARBONACEOUS.  AN UNKNOWN BLACK MINERAL OCCURS
R        859.84  866.24        IN SOME OF THE QUARTZ VEINS. PYRITE ALSO OCCURS WITHIN THE
R        859.84  866.24        CENTRAL PART OF THE QUARTZ VEINS.

/        866.24  870.72  4.48            SAND PY        MX BD                    P  2 BD     U55                       D)
L                                          7A

/        866.24  866.34  0.10          X BRHT PY        R* B* 3 4 5 4 LN5        R                                      D+
L                                          6A           F*            LM5

/        868.00  868.00  0.00          X SAND PY        MX BD                    R  2 BD     U60                       D)

/        870.00  870.00  0.00          X SAND PY        MX BD                    R  2 BD     U60                       D)

/        870.72  879.79  9.07            BRHM PY     *S5                  QR5   P                   <.                 D+
L                                          4A                                                            <.
```

```
K  F   F R O M - T O -  T N T RECOV  MD % ROCK TM TM OM1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L-  ----.--  ----.--  ---.--  ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R Q D  AGE EV RQ LC TM OM2 TX TX S C O O CHT        2 TD AZM DIP MG MU CL SD QS HA PR MT SL HA

/       879.79  899.11  19.32       BRHM PY                       QR9   P                                  D)
L                                     3A                                                 D-     C.
R       879.79  899.11      10% OF THIS INTERVAL IS REPRESENTED BY SANDSTONE FRAGMENTS

/       899.11  899.61   0.50       ARSN PY    SI2 LM SS 3 4 2 4        P  1 LM     U55                     D*
L                                     6A       5 2 BD    6                 2 BD     U55

/       899.61  900.29   0.68       ARSI PY        LM //                P  1 LM     U50 <-                  D)
L                                     2A           SS

K US2   900.29  900.29   0.00

/ SIG   900.29  900.77   0.48       BRHT SL PY SI3 H* F*          MN5   P               <.                 62      6+
L                                     7A GL GL+ H* R*             KM2                                              61 62
R       900.29  900.77      UNIT IS SLIGHTLY CALCAREOUS.

/       900.77  901.01   0.24       BRHT CB SL *S2 B* F*           P3   P               <.       D-        D) D. 6+
L                                     7A GL      H* R*             M3                                              6= 62

/       901.01  901.62   0.61       BRHT CB SL     B* F*          OP6   P                        D.        D)      8(
L                                     7A GL      H* R*            MO3                            D.                6)

/ MSX   901.62  901.92   0.30       FGSX SL GL                          P                        D.•       D=      6- PU
L                                     TS PY                                                      D.•               63 6.
R       901.62  901.92      THIS UNIT HAS BEEN SATURATED BY SPHALERITE, MAY INDICATE THE
R       901.62  901.92      CLOSE PROXIMITY OF THE ORE ZONE.  SL & GL OCCUR AS BRECCIA
R       901.62  901.92      MATRIX FILLING; FRAGS IN BRECCIA ARE SIMILAR TO UNITS ABOVE.

K LS2   901.92  901.92   0.00

/       901.92  902.38   0.46       BRHM PY    *S=                OP9   P                                  D-
L                                     2A                                                  C.

/       902.38  902.59   0.21       BRPM           F* B*                P               <.                 D.      D.
L                                     6A           H* R*        0 LO4                                              D.

/       902.59  921.41  18.82       BRHM PY                       PQ9   P               <*          C.     D)      6.
L                                     5A                      1                           C- D( <)                 6.
R       902.59  921.41      THIS UNIT IS A BRECCIATED ARSI, WITH 10% OF IT BEING REPRESENTED
R       902.59  921.41      BY THE SAND CONTENT.  THE MAJORITY OF THE CORE IS BADLY BROKEN.
R       902.59  921.41      SPHALERITE AND GALENA OCCUR WITHIN QUARTZ-SIDERITE VEINS AND IN
R       902.59  921.41      SANDSTONE UNITS.

/       904.71  905.13   0.42     X SAND PY SL           3 4 6 4        R               <=                 D=      D*
L                                     7A GL              6                                                         D)
R       904.71  905.13      FRAGMENT CONTAINING DISSEMINATED SPHALERITE.

/       906.48  906.73   0.25     X FAUL Q7                             R               <5                 D*
L                                     7A
R       906.48  906.73      QUARTZ FILLED SHEAR ZONE.
```

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K  F   F R O M - T O -  I N T RECOV  MD % ROCK TM TM     TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY   A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ----  --- - -- --- --- -- -- -- -- -- -- -- -- -- --   - - - -
Y  G                           R Q D  AGE EV RD LC TM QQ2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

/      909.14  909.31   0.17             X FAUL QZ                              R                  <5                  D*    D.
L                                                  7A                                                                            D.
R      909.14  909.31      QUARTZ FILLED SHEAR ZONE.

/      916.84  917.75   0.91             X FAUL                                 R                  <*                  D-    D-
L                                                                                                         C*     <=              D-
R      916.84  917.75      SPHALERITE AND GALENA OCC   WITHIN QUARTZ-SIDERITE VEINS.

/      921.41  932.27  10.86               ARSO PY           TB SS 3 4 7 4       P  1 LD      U65 <-                     D*
L                                                  6A        LC    6                   3 BD      U65                 <*
R      921.41  932.27      LOCALIZED AREAS BRECCIATED  Y QUARTZ-SIDERITE VEINS.

/      932.27  939.54   7.27               ARSN PY           TB SS 3 4 2 4       P  1 LD      U45 <(          6.          D-
L                                                  5A          \    6              5  B D      U45      C .    < (

/      936.34  938.57   0.23             X CHER              TB                  R  4 BD      U40
L                                                  7A

/      936.97  939.00   0.03             X CHER              TB                  R  3 BD      U40
L                                                  7A
R      938.97  939.00      SIMILAR CHART BANDS OCCUR I  DDH 81-68 BETWEEN 876.91 AND
R      938.97  939.00      878.06 M.  STILL UNABLE TO DETERMINE EXACT STRATIGRAPHIC
R      938.97  939.00      LOCATION OF 68E IN RELATION TO OTHER SOUTH ZONE HOLES WITH
R      938.97  939.00      REFERENCE TO ORE ZONE LOCATIONS AND WHETHER OR NOT WE ARE BELOW
R      938.97  939.00      THE THIRD ORE ZONE.

/      939.54  943.00   3.46               BRBM PY                       PQ8    P                  <-                  6)
L                                                  4A                     2                                  C.     <-
R      939.54  943.00      20% OF THIS UNIT IS REPRESENTED BY SANDSTONE AND ARSN FRAGS.

/      943.00  947.01   4.01               CGPS PY      *S1              OP2    P                                      D.
L                                                  7A                   LN7                                  C.

/      947.01  956.16   9.15               SRPR PY      *S1 F* H*        PQ5    P                  <.                  D)
L                                                  6A        R* B* 3 1 1 0 JM=                              C-     <-
R      947.01  956.16      INTERVAL IS MAINLY ARSN & CGCP CLASTS.

/      956.16  968.04  11.88               CGCP PY                       MO3    P                  <-                  6)
L                                                  6A            2        MO7                                      6-
R      956.16  968.04      SIMILAR ARGILLITE FRAGMENTS THAT HAVE BEEN PYRITE REPLACED AS
R      956.16  968.04      FOUND IN 81-68 FROM 873.86 - 879.96 M.  BIMODAL SORTING IS
R      956.16  968.04      APPARENT THROUGHOUT THIS INTERVAL.

/      968.04  972.10   4.06               CGBR GR           SH          MQ5    P
L
R      968.04  972.10      GRADATIONAL WITH ABOVE CGCP, CONTAINTS HIGHER CONTENT OF
R      968.04  972.10      ARGILLITE FRAGS'.

/      972.10  980.54   8.44               BRBM PY           F* B*       PQ6    P                  <.                  6)
L                                                  4A        B*        3  LN)                               C.                D.
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K  F  F R O M - T O -  I N T RECOV  MD % ROCK TM TM C 1 TX TX F C % M ARG   RI 1 ID AZM DIP QZ FL CY CA BA XX PY CP GL YY  A 1 A 2
E -L- ----.-- ----.-- ---.-- ---.-- -- - ---- -- -- --- -- -- - - - - ---- --- - -- --- --- -- -- -- -- -- -- -- -- -- --  - - - -
Y  G                         R Q D  AGE EV RQ LC TM S 2 TX TX S C O O CHT       2 ID AZM DIP MG MU CL SD QS HA PR MT SL HA

R       972.10  980.54      SPHALERITE FOUND AS A REPLACEMENT MINERAL WITHIN SOME CHERT
R       972.10  969.54      CLASTS.  THIS UNIT ALSO CONTAINS 30% SAND IN SANDSTONE FRAGMENTS
R       972.10  980.54      AND IN ARSN FRAGMENTS.  CORE IS BROKEN OVER THE ENTIRE INTERVAL.

R ASY    58.52   78.94       CHECK AZIMUTH VALUE.
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CORDILLERAN ENGINEERING

1981 DIAMOND DRILL SUMMARY RECORD

PROPERTY: JASON

N.S. - Not Surveyed

HOLE No.	NORTHING	EASTING	ELEV'N	SECTION	INCLINATION	AZIMUTH	CASING	CLAIM	% REC'Y	DATE START	DATE FINISH	REMARKS	HOLE LENGTH	TOTAL
81-68	700 2472.41	436 496.30	1275.94		-90°		12.19	Jason 57		May 17D	June 30N	HQ 228.30 NQ 743.09	971.39	971.39
81-69	700 2950.93	436 447.97	1347.38		-80°	180°	17.37	Jason 21		May 20D	Aug 13D	HQ 170.08 NQ 431.29 BQ 441.96	1043.33	2014.72
81-70	700 2575.52	436 528.84	1296.71		-80°	177°	5.49	Jason 57		June 7D	Aug 12D	HQ 54.25 NQ 793.40	847.65	2862.37
81-71	700 2550.10	436 733.96	1253.00		-50°	020°	15.24	Jason 55	76.7	June 8D	June 15N	HQ 108.20	108.20	2970.57
81-72	700 2550.10	436 733.96	1253.00		-75°	020°	8.84	Jason 55	87.2	June 16D	June 23N	HQ 203.00	203.00	3173.57
81-73	700 2474.33	436 718.67	1236.10		-70°	020°	3.66	Jason 55		June 25D	June 26D	HQ 24.99	24.99	3198.56
81-74	700 2473.89	436 718.43	1236.10		-80°	020°	3.66	Jason 55	77.7	June 26D	July 11D	HQ 274.93	274.93	3473.49
81-68A					BRANCH		---	Jason 57		July 6D	Aug 9N	NQ 345.95w to 862.89	516.94	3990.43
81-75	700 2472.54	436 719.52	1235.54		-82°	018°	4.27	Jason 55		July 11N	Aug 19D	HQ 486.77 NQ 67.05	553.82	4544.25
NS 81-76	700 2568.49	436 555.34	1296.37		-59°	005°	3.05	Jason 57		Aug 14N	Aug 25N	HQ 168.25	168.25	4712.50
81-70A					BRANCH		---			Aug 17D	Sept 30N	NQ 437.69w to 910.44	472.75	5185.25
81-68B					BRANCH		---			Aug 14D	Aug 19D	NQ 677.57w to 806.80	129.23	5314.48
81-77	700 2472.73	436 719.94	1235.53		-76°	018°	4.24	Jason 55		Aug 21N	Sept 6N	HQ 121.01 NQ 177.08	298.09	5612.57
81-78	700 2568.19	436 555.34	1296.37		-83°	355°	5.79	Jason 57		Aug 26N	Sept 17N	HQ 338.94 NQ 89.61	428.55	6041.12
Caron 81-79	700 4716.64	432 979.60	1362.88		-60°	210°	3.28	Jason 155		Sept 4D	Sept 16D	HQ 137.27 NQ 266.59	403.86	6444.98
81-68C					BRANCH		---			Aug 20N	Sept 10D	NQ 214.58w to 726.34	511.76	6956.74
81-80	700 2524.25	436 837.19	1219.65		-83.5°	015°	16.99	Jason 55		Sept 7N	Sept 15D	HQ 249.02	249.02	7205.76
81-68D					BRANCH		---			Sept 11D	Oct 2N	HQ 58.52w to 67.67 = 9.15	690.37	7896.13
												NQ 681.22		
81-81	700 2524.55	436 837.19	1219.65		-65°	025°	15.76	Jason 55		Sept 16D	Sept 23N	HQ 109.73	109.73	8005.86

CORDILLERAN ENGINEERING

NS - Not Surveyed 1 9 8 1

DIAMOND DRILL SUMMARY RECORD

PROPERTY: JASON

8005.86

	HOLE No.	NORTHING	EASTING	ELEV'N	SECTION	INCLINATION	AZIMUTH	CASING	CLAIM	% REC'Y	DATE START	DATE FINISH	REMARKS	HOLE LENGTH	TOTAL
	81-78A					BRANCH		---			Sept 19D	Sept 24D	HQ 129.44w to 137.77 = 8.53 NQ 44.20	52.73	8058.59
	81-78B							----			Sept 24N	Oct N	NQ 170.99w to 376.73	205.74	8264.33
NS	Caron 81-82	700 4715.59	432 979.18	1363.11		75°	030°	13.41	Jason 155		Sept 17D	Oct 4D	HQ 147.22 NQ 373.07	520.29	8784.62
NS	81-83	700 2421.64	436 918.45	1188.12		77°	355°	13.72	Jason 55		Sept 24N	Oct 5N	HQ 332.23	332.23	9116.85
NS	81-84	700 2328.46	436 584.68	1233.15		-85°	173°	28.35	Jason 58		Oct 3N	Nov 16D	HQ 82.60 NQ 201.78 BQ 337.11	621.49	9738.34
NS	81-85	700 2370.44	436 553.07	1244.36		-90°		21.95	Jason 57		Oct 6D	Oct 27N	HQ 137.46 NQ 186.85	324.31	10062.65
	81-68E							----			Oct 3D	Nov 6D	NQ 259.99w to 980.54	720.55	10783.20
	81-85A							----			Oct 28D	Nov 23D	NQ 282.55w to 669.04	386.49	11169.69

OGILVIE JOINT VENTURE
MINERAL CLAIMS
JASON PROPERTY
MACMILLAN PASS AREA (N.T.S. 105 O-1)
MAYO AND WATSON LAKE MINING DISTRICTS, YUKON TERRITORY
200 100 0 200 400 600 800
SCALE IN METERS
BY
CORDILLERAN ENGINEERING
1418 - 355 BURRARD STREET
VANCOUVER, B.C. V6C 2G8
DECEMBER 1981
PLATE 1
RECEIVED
18 DEC 1981
MINING RECORDER
MAYO, Y.T.
LEGEND
LOCATION TARGETED 1981
IP 230 DENOTES IRON POST SET WITH TAGGED TRAVERSE NUMBER (McELHANNEY ASSOCIATES)
L.P. DENOTES LOCATION POST
T.H. 233 DENOTES TAGGED TRAVERSE HUB, HUBS ARE 8" SPIKES OR WOODEN HUBS
(60 SW, 15 NW) DENOTES GRID LINE LOCATIONS
D.H. 34 DENOTES DIAMOND DRILL HOLE
48 DENOTES PREVIOUSLY SURVEYED LOCATION LINE POINT NUMBER (HOSFORD, IMPEY & WELTER LIMITED)
HIW 1, HIW 6 DENOTES CONTROL STATIONS
Fr. DENOTES FRACTIONAL MINERAL CLAIM
B/L DENOTES BASELINE
WT. DENOTES WITNESS
D.H. 1 — D.H. 7 DRILLED IN 1975
D.H. 8 — D.H. 20 DRILLED IN 1976
D.H. 21 — D.H. 26 DRILLED IN 1977
D.H. 27 — D.H. 43 DRILLED IN 1978
D.H. 44 - D.H. 52 DRILLED IN 1979
D.H. 53 - D.H. 67 DRILLED IN 1980
D.H. 68 - D.H. 85 DRILLED IN 1981
EXPIRY YEAR
1982
1983
1984
1985
1986
1987
1988
1989
1992
1995-1997
2000-2005
NOTE: ALL CLAIMS HAVE COMMON EXPIRY DATE OF DEC. 31.
GROUP
1
2
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10
11
12
13
MAYO MINING DISTRICT
WATSON LAKE MINING DISTRICT
HUDSON BAY MINING AND SMELTING CO. LTD.
TOM CLAIMS
COMINCO NIDD 361 NIDD 359 CLAIMS
CANOL ROAD
N