DD-7

Indian and Northern Affairs / Affaires indiennes et du Nord

P.O. Box 269,
Watson Lake, Y.T.
YOA 1CO

1 May, 1979

Your file *Votre référence*

Our file *Notre référence*

REGIONAL DIRECTOR RESOURCES

Attention: Supervising Mining Recorder

REGISTERED MAIL

RESTRICTED

Enclosed, for your information, are two groups of diamond drilling logs as follows:

1.) Pelly Group, 105-G-14 - Kerr Addison Mines Limited
3 holes drilled on PELLY 62 and 73 mineral claims
Core is stored at Lily Lake Camp (Pelly 72)
443.5 metres drilled - total cost $33,699.30

2. Mel Group, 95-D-6 - St. Joseph Explorations Ltd.
6 holes drilled on JEAN 3 and 4 mineral claims
Core is stored at the Mel property
1526.35 metres drilled - total cost $60,000.00

Yours truly,

for V.W. Johanson
Mining Recorder
Watson Lake District

encl.
:dj

cc: Regional Geologist

091092

091092

March 16, 1979

Mining Recorder
Watson Lake.

Re: St Joseph Explorations
West Jean Mel and Sov Claims
95-D-6.

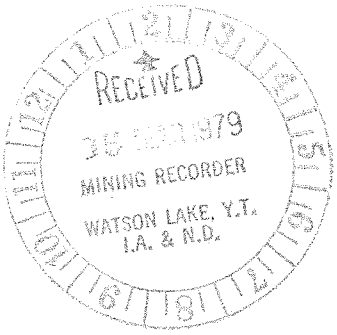
The present drilling program will be continuing until approximately April 10, 1979 ~~April~~ apr. An approximate cost analysis to March 9, 1979 has been filed. The report to accompany this work will not be written until the field work is finished and all assays and drafting of results can be completed. I suggest that six weeks after April 10th, that is approximately until May 25th 1979 will be required to write the report.

Please note more work will be filed on these claims as future invoices are received at the end of drilling.

David Hendry
St Joseph Explorations

St. Joseph Explorations Ltd.
970 Laval Crescent, #5
Kamloops, B.C.
V2C 5P5

March 9, 1979



Mining Recorder
Box 269
Watson Lake, Yukon
YOA 1CO

Dear Sir:

Re: Assessment Work, Mel Prospect, Yukon

As of this date we have completed the following B.Q. core valued as follows:

Jean 3 claim: 2100 feet x $15 = $31,500
Jean 4 claim: 1800 feet x $15 = $27,000 } #58,500

Based on this work the following assessment credits are applied for for the following groups of claims.

Group 1

Jean 4	Y72734	4 years	20 x 1	=	$ 20
Sov 1-6	YA28600-605	5 years	25 x 6	=	150
Jean 11-15	Y74418-22	4 years	20 x 5	=	100
Mel 11	Y22230	4 years	20 x 1		20
Mel 13	Y22232	4 years	20 x 1		20
Mel 15-16	Y22234-35	4 years	20 x 2		40
TOTAL - 16 claims					$ 350

Group 2

Jean 3	Y72733	4 years	20 x 1	=	$ 20
Mel 12	Y22231	4 years	20 x 1	=	20
Mel 14	Y22233	4 years	20 x 1	=	20
Wet 9-16	Y83317-24	4 years	20 x 8	=	160
Wet 28-32	Y83328-32	4 years	20 x 5		100
TOTAL - 16 claims					$ 320

...2

renewals #21,600

16 at 4 yrs

March 9, 1979

Group 3

Jean 3	Y72733	---	---		---
Jean 2	Y72732	4 years	20 x 1	= $	20
Jean 16	Y74423	4 years	20 x 1	=	20
Jean 18	Y74425	4 years	20 x 1	=	20
Jean 20	Y74427	4 years	20 x 1	=	20
Wet 1-8	Y83309-16	4 years	20 x 8	=	160
Wet 25-27	Y83325-27	4 years	20 x 3	=	60
TOTAL - 16 claims				$	300

Group 4

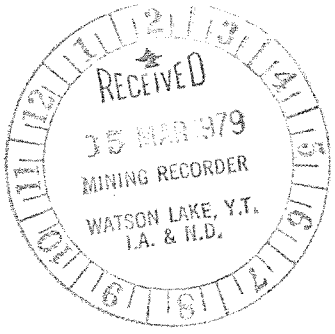
Jean 4	Y72734	---	---		---
Jean 1	Y72731	4 years	20 x 1	= $	20
Jean 17,19,21	Y74424,26,28	4 years	20 x 3	=	60
Jean 5-10	Y72961-66	1 year	5 x 6	=	30
TOTAL - ~~12~~ 11 claims				$	110

Enclosed herewith is our cheque in the amount of $1100 for $1080 filing fees plus $20 for four grouping certificates.

Yours very truly,

D.C. Miller
Senior Geologist

DCM:vg
encl. 2 claim sketches
4 applications for certificates of work IN DUPLICATE
4 GROUPINGS IN DUPL.



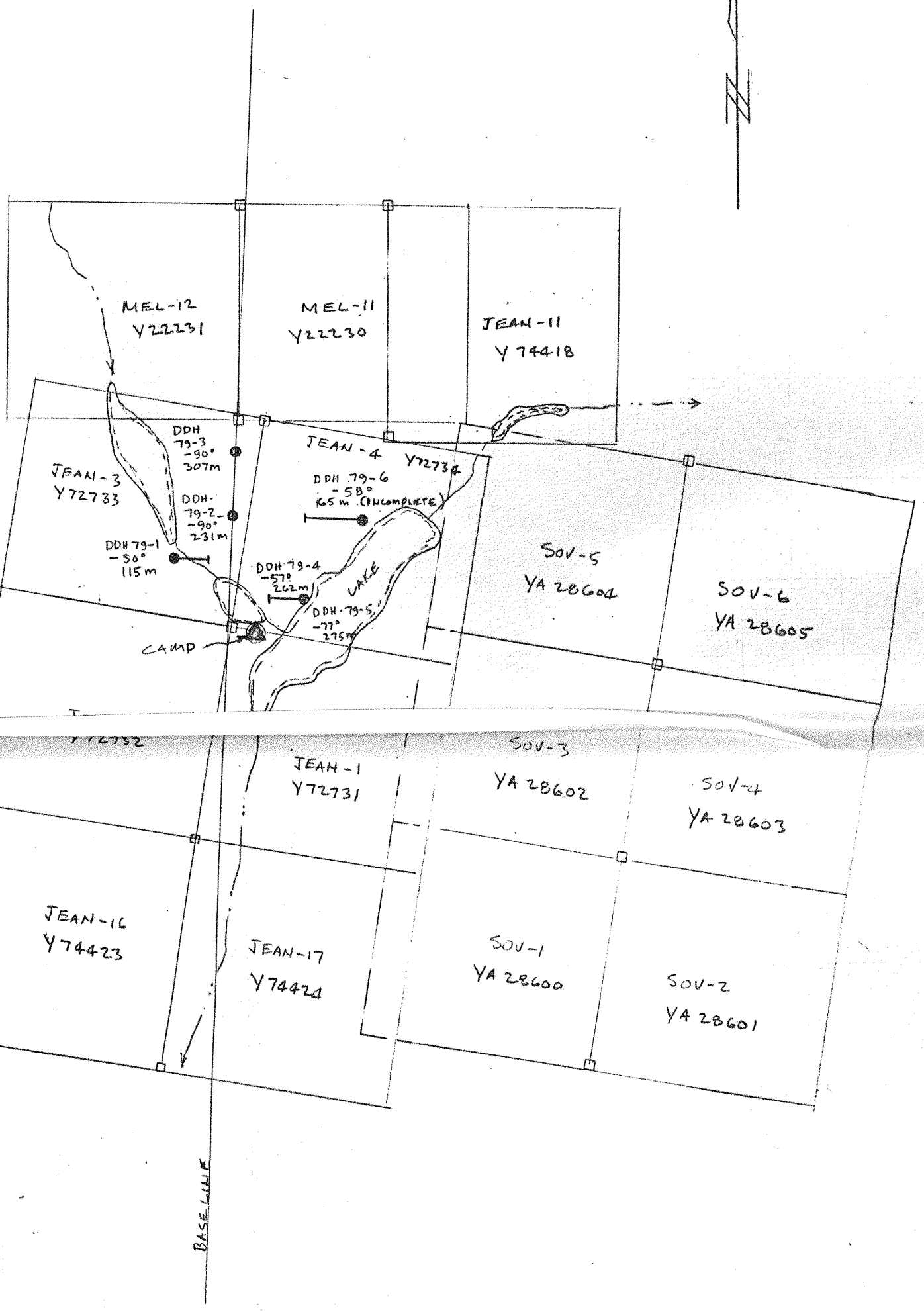
MEL PROSPECT

Claim Expiry Dates As Of

November 1, 1978

Claim Name	Grant No.	No of Claims	Expiry Date
WET 1	Y83309	1	April 3, 1983
WET 3	Y83311	1	April 3, 1983
WET 5-8	Y83313-16	4	April 3, 1983
WET 25-28	Y83325-28	4	April 3, 1983
WET 29	Y83329	1	April 3, 1983
WET 31	Y83331	1	April 3, 1983
WET 2	Y83310	1	April 3, 1984
WET 4	Y83312	1	April 3, 1984
WET 30	Y83330	1	April 3, 1984
WET 32	Y83332	1	April 3, 1984
WET 9-16	Y83317-24	8	April 3, 1982
JEAN 1-4	Y72731-34	4	April 3, 1984
JEAN 5-10	Y72961-66	6	April 5, 1981
JEAN 11-15	Y74418-22	5	Oct. 15, 1983
JEAN 16-21	Y74423-28	6	Oct. 15, 1983
MEL 11-13	Y22230-32	3	April 3, 1981
MEL 14-16	Y22233-35	3	April 3, 1981
*SOV 1-6	YA28600-605	6	April 26,1979
		TOTAL 57	

* Assessment work to be filed.



LEGEND

DIAMOND DRILL HOLE | VERTICAL | INCLINED ● ●—|

CLAIM POST ⊕

ST. JOSEPH EXPLORATIONS LIMITED

TORONTO, CANADA

LOCATION MAP

MEL PROJECT 1979 DIAMOND DRILLING

SCALE: 1: 10,000 0 200 400 600 METRES

APPROX. LAT. & LONG. OF LOWER RT. COR. OF DWG. ° ' " ___ ° ___ ' ___ " LATITUDE ___ ___ ___ LONGITUDE	PROJECT NO. 6250	SHEET NO. ___ OF ___
	REPORT NO. ___	N.T.S. 95D-6

ST JOSEPH EXPLORATIONS LIMITED — DRILL LOG — HOLE NO. 78-1

PROPERTY: Mel	TP OR AREA:	AZIMUTH: 092°	DATE STARTED: February 22, 1978	CORRECTED DIP TESTS: 400' -58°; 600' -59°
PROJECT: 250	LOT & CONC.	DIP: Collar -60°	DATE COMPLETED: February 23, 1978	
CLAIM NO.: Jean 16	CO-ORDINATES: (Metric) 94+00N	LENGTH: 707 Ft.	DRILLED BY: D.W. Coates	
GRID NO.:	99+35E (65W)	COLLAR ELEV.: 915 M. (Approx.)	LOGGED BY: D.C. Miller	

LOCATION SKETCH OF HOLE

FOOTAGE FROM	FOOTAGE TO	SECTION 1"=	DESCRIPTION
0	11		Overburden, B.Q. casing to 12', 5' of casing left in hole.
11	707		Limestone, light grey, very fine to crytograined, contains 5-10% irregular mudstone and limy clasts. Mudstone clasts are brown to grey and may contain very fine disseminated pyrite and occassional thin pyrite bands. These clasts are non calcareous but may contain fine talc mineralization along partings. They may be several inches in size but are commonly less than 2 inches and have an irregular, wavy, lenticular shape. Limy clasts are generally pale grey and more spherical in shape. They are generally less than 1 inch and may have an oolitic texture. Weak banding in limestone is generally present. White calcite veining, with veins generally less than 1/8", is present locally.
			(12-75) Fracture and breaks mainly @ 50-70° and are rusty colored from near surface weathering
			Prominent mud clasts @ (31-36), (38-41), and (59-61)
			Banding: 50° @ 59'
			Core recovery: 95% with broken core and loss at (24-25)

SAMPLE NO.	FROM	TO	LENGTH	ASSAYS Dip
	0	200	200	-60°
	200	500	300	-58°
	500	707	207	-59°
	Metric Summary:			
	Length = 215.5 M.			
	0	61.0	61.0	-60°
	61.0	152.4	91.4	-58°
	152.4	215.5	63.1	-59°
	0	3.4	Overburden	
	3.4	215.5	Limestone	
		18.0	Banding	@ 50°
		69.5	Banding	@ 50°
		131.0	Banding	@ 35°
		183.5	Banding	@ 45°
		214.6	Banding	@ 35°
	157.2	161.2	Fault zone, water circulation lost @ 158.5M.	

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. 78-1

FOOTAGE FROM	FOOTAGE TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
11	707		(75-125)					
			Core Recovery: 95-100%					
			Prominent mud clasts: 95.5' - 4" @ 30°, (97-101)					
			Banding: 45° @ 109'					
			(91-92) Brownish, partly dolomitized					
			(125-395)					
			Core recovery: 95-100%, broken @ 204-207					
			Prominent mudclasts: (125.5-126), (150-153), 161'-4" @ 60°, (179-182), (212-213), (217.5-219), (225-227), (246-253), (260-262), (264-265), (267-269), (271-272), (275-276), (297.5-301), (308-312), (322-325), (330-330.5), (354-356), (356-359.5), 366.5-4" @ 45°, (371-375), (383-385), (388-389.5), (393-394).					
			Banding: 42° @ 125.5, 56° @ 168', 45° @ 175', 50° @ 228', 50° @ 250', 55° @ 267', 50° @ 284'.					
			Fractures: (tight unless noted) several @ 35°-45° @ (125-126), 40° @ 157.5', 45° @ 180', 50-60° @ (195-196)', 45° @ 213', 50° @ 297.5', 40-60° @ (298-300), 50° @ 305', 45-60° @ 354-366.5, 50° @ 374, 45° @ 383'.					

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. 78-1

SHEET 2 OF 4

FOOTAGE FROM	FOOTAGE TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
11	707		(125-395) cont'd					
			1" limestone clast with cream colored haloe @ (125-126)					
			(395-463)					
			Core recovery: 100%					
			Prominent mud clasts: (400-405.5), (422-424), (435-441), (441-447)					
			Banding: 30-40°					
			Fractures: 50° @ 402', 30° @ 404', 40-45° @ (423.5-424.5), 45° @ 440', 30-60° @ (457-462), rusty discoloration along fractures.					
			(463-642)					
			Core recovery: (463-516) - 100%, (517-529) - 95% (530-567) - 95%, (568-607) - 100% (608-617) - 95%, (618-642) - 100%					
			Prominent mud clasts: (472-475), (488-491), (493-496), (503.5-506), (515-528.5), (536.5-542), (552-559), (571-572), (577-577.5), (584.5-591), (593.5-596), (597-598), (609-610), (617-625.5), (641-642)					
			Banding: 15° @ 464', 35° @ 504', 40° @543', 40° @ 572', 40° @ 598', 35° @607'.					

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. 78-1

FOOTAGE FROM	FOOTAGE TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
11	707		(463-642) cont'd					
			Fractures: 15° @ 491', 40-45° @(493-496), 50° @ 519', 45° @ 593.5', 15° @ 594', 45° @ 609', 15° @ 629'					
			Veining: White calcite 10-15%, heaviest @ (635-642) and (584-591).					
			General: (463-465) - broken discolored					
			(473-476) & (499-500) - partly silicified					
			*(516-529) - broken, leached, partly silicified. Water circulation lost @ 520', possible fault.					
			(642-707) End of hole.					
			Recovery: 100%					
			Prominent mud clasts: (665.5-667), (689-692), (695-698), (704-705.5)					
			Banding: 45° @ 602', 35° @ 704', generally absent.					
			Fractures: 35° @ 704'					
			Veining: 5-10% white calcite veining					
			Note: casing left in hole.					

ST JOSEPH EXPLORATIONS LIMITED — DRILL LOG — HOLE NO. Mel 78-2

SHEET 1 OF 1

PROPERTY	TP OR AREA	AZIMUTH	DATE STARTED
Mel		092°	February 24, 1978
PROJECT	**LOT & CONC.**	**DIP**	**DATE COMPLETED**
250		-45°	February 24, 1978
CLAIM NO.	**CO-ORDINATES.**	**LENGTH**	**DRILLED BY**
Jean 17	(Metric) 90+00N	152 Ft.	D.W. Coates
GRID NO.	99+25E (75W)	**COLLAR ELEV.** 900 M. (Approx)	**LOGGED BY**

CORRECTED DIP TESTS

		1	

LOCATION SKETCH OF HOLE

FOOTAGE FROM	FOOTAGE TO	SECTION 1"=	DESCRIPTION
0	152		Overburden, run out of casing, also stuck as well.
			All casing finally recovered except 20' BW 4' NW, 1 adapter BW to NW, and NW Tricone.

SAMPLE NO.	FROM	TO	LENGTH
Metric:			
	0	46.3	46.3

ASSAYS

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. Mel 78-3

SHEET 1 OF 1

PROPERTY	TP OR AREA	AZIMUTH	DATE STARTED
Mel Yukon		092°	February 26, 1978
PROJECT: 250	LOT & CONC.	DIP: -55°	DATE COMPLETED: February 26, 1978
CLAIM NO.: Jean 3	CO-ORDINATES. (Metric) 100+06N	LENGTH: 97'	DRILLED BY: D.W. Coates
GRID NO.	98+47.6E (152.4W)	COLLAR ELEV.: 926 M. (Approx)	LOGGED BY

CORRECTED DIP TESTS

LOCATION SKETCH OF HOLE

FOOTAGE FROM	FOOTAGE TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
0	97		Overburden, sand and large boulders					
			Casing too tight to continue, nearly stuck core barrel in boulder.					
			Moved 100 feet east to new location		Metric:			
					0	29.6	29.6	

ST JOSEPH EXPLORATIONS LIMITED — DRILL LOG — HOLE NO. 78-4

SHEET 1 OF 1

PROPERTY	TP OR AREA	AZIMUTH	DATE STARTED
Mel		092°	February 26, 1978
PROJECT	**LOT & CONC.**	**DIP**	**DATE COMPLETED**
250		-65°	March 1, 1978
CLAIM NO.	**CO-ORDINATES**	**LENGTH**	**DRILLED BY**
Jean 3	100+05N	981'	D.W. Coates
GRID NO.		**COLLAR ELEV.**	**LOGGED BY**
	98+78.1E (121.9W)	914 M. (Approx)	D. Miller

CORRECTED DIP TESTS

40'	085°	-66°
250'	074°	-64°
480'	066°	-62°
707'	063°	-58°
800'	063°	-58°
981'	067°	-57°

LOCATION SKETCH OF HOLE

Azimuth and Dip from Sperry-Sun single shot device.

FOOTAGE FROM	FOOTAGE TO	SECTION 1"=	DESCRIPTION
0	17		Overburden
0	22		BW Casing
22	981		Limestone, light grey, very f.g. to cryptograined, contains 5-10% wavy or irregular shaped mudstone clasts and some limy clasts concentrated in a repetetive and non distinctive sequence of beds. Mudstone clasts may be slightly metamorphosed and may contain fine dusty pyrite as well as coarser grains, and find local pyrite laminae. Larger mudstone clasts commonly show fine laminations. Banding in limestone is generally vague but present. Core recovery 95-100% except where noted. Local veining by white calcite, generally less than 1/8" in size.
			(22-247)
			Core recovery: (22-27) - 90% (93-103) - 90% (132-152) - 90%
			Sections containing several mudstone and limy clasts: (26-34), (36-38.5), (40-41.5), (46-51), (56-57), (63-66), (73-74), (76-77.5), (81-85), (97-98), (116.5-117.5), (122-124), 129.5-6", (132-151), (160-182.5), (206-211), (213-220), (230-237).
			(231-233) Solid grey laminated mudstone @ 15-30° with fine dusty py.

SAMPLE NO.	FROM	TO	LENGTH	AZ.	DIP	H.	V.	V. ACC
	FEET							
	0	20	20	092°	-65°	8.45	18.13	-
	20	145	125	085°	-66°	50.84	114.19	132.32
	145	365	220	074°	-64°	96.44	197.74	330.06
	365	593.5	228.5	066°	-62°	107.27	201.75	531.81
	593.5	753.5	160	063°	-58°	84.79	135.69	667.5
	753.5	890.5	137	063°	-58°	72.60	116.18	783.68
	890.5	981	90.5	067°	-57°	49.29	75.90	859.58
			981.0			469.68	859.58	
	METRIC SUMMARY							
	Length = 299 Metres							
	Metres							
	0	6.1	6.1	092°	-65°	2.6	5.5	5.5
	6.1	44.2	38.1	085°	-66°	15.5	34.8	40.3
	44.2	111.3	67.1	074°	-64°	29.4	60.3	100.6
	111.3	180.9	69.6	066°	-62°	32.7	61.5	162.1
	180.9	229.7	48.8	063°	-58°	25.8	41.4	203.5
	229.7	271.4	41.7	063°	-58°	22.1	35.4	238.9
	271.4	299.0	27.6	067°	-57°	15.0	23.1	262.0
			299.0			143.1	262.0	

ASSAYS

(22-247) cont'd (note: all angles from core axis)

Banding: 40° @ 26'
55° @ 34'
40° @ 91'
25°? @ 232'

Fractures: Tight unless noted, generally along mudstone clasts or white calcite stringers

50° @ 38', (3),
60° @ 46',
50° @ 53',
55° @ 57',
45° @ 60' with py., (Water circulation lost at 215')
60° @ 65',
80° & 30° @ 77',
50° @ 90',
0-5° @ 100',
30° @ 109',
50° @ 117.5',
40° @ 129', with brecciation,
40° @ 149',
45° @ 159',
30° @ 179', (2),
40° @ 181', (2) with rusty discol.
45° @ 231',
15° @ 232', with breccia and rust fault?
10° @ 237'

(141-142) Brown soft, muddy, broken, rusty fault?

Broken core: (22-24), (70,71), (73-74) rusty, (76-77.5) rusty, (84-88), (97-98), 104-110), (132-133), (138-139.5) rusty, (141-144) rusty, (149-150) rusty, (215-216) rusty.

Leaching along veining @ 157-159

METRIC SUMMARY CONT'D

Banding: (Metres)

6.7	75.3	- average =	40°
75.3	89.0		50°
89.0	102.7		35°
102.7	116.4		30°
116.4	130.7		32°
130.7	145.1		44°
145.1	160.0		30°
160.0	174.3		30°
174.3	188.4		20°
188.4	203.0		35°
203.0	217.0		45°
217.0	231.3		18°
231.3	237.7		30°
237.7	299.0		24°

Faults:

	65.5	Water circulation lost
	70.7	15° with breccia and rust
43.0	43.3	Soft, rusty broken
95.1	96.6	Broken, rusty, leached

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. 78-4 SHEET 3 OF 7

FOOTAGE FROM	FOOTAGE TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
22	981		(22 - 247)					
			Medium grey to buff dolomitic limestone at: (24-26), (192.5 - 196), (197-206), (151-155.5) with intense white calcite veining					
			(247-292)					
			Core recovery: 95-100%					
			Mudstone clasts: (247-270), (280-282), 284-6", 285-287, (291-292) Most clasts roughly aligned @ 30-60°					
			Banding: 50° @ 267' (mudstone partings)					
			Fractures: (tight)					
			30° @ 258, 40° @ 261, 50° @ 262, 45° @ 264, 60° @ 267, 60° @ 268, 30° @ 269 (270-286) Rusty discoloration and slight leaching					
			(292-337)					
			Core recovery: 95-100% except @ (312-317), broken, rusty, leached, 85% recovery, fault.					
			Mudstone clasts: 292.5-6", 294.5-6", (304-306), (312.5-327) Limy clasts (327-337) Some clasts with oolitic texture					
			Fractures: tight - 50° @ 303 (rusty), 20° @ 322, 30° @ 326, 30° @ 324.					
			Banding: 30° @ 300', 40° @ 336					

FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
22	981	(337-382) - Recovery 100%					
		Prominent clasts @ (337-349), (377-380)					
		Minor py @ (347-349)					
		Banding - 30° ?					
		Fractures (tight) 25° @ 344.5, 30° @ 353, 40° @ 365, 30° @ 368, 25° @ 371 & 374, 30° @ 378					
		(382-429) Recovery 100%, core in 2' pieces					
		Prominent clasts - (407-410) (419-427) minor white calcite veining throughout.					
		Banding: 20° @ 383 45° @ 397 30° @ 427 387 - few specks py. 415 - 4" heavy f.g. py. with limy clast					
		Fractures: 45° @ 383'					
		Core breaks: @ 70-80°					
		(429-476) 100% recovery, excellent core					
		Prominent clasts: (444-445), (450-457), (mudstone) (468-469), (472-474) some limy clasts throughout					
		Banding: 45° @ 434, 50° @ 469, 50° @ 471, 30° @ 476.					
		Fractures: 50° @ 465.5 (tight) Core breaks @ 45-80°, mainly 70°					

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. 78-4 SHEET 2 OF 2

FOOTAGE FROM	FOOTAGE TO	SECTION 1" =	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
22	981		(476-525) 100% Recovery, excellent core					
			Mudstone clasts: 490-8", (497-501), (503-505) (some limy) (515-522)					
			Banding: 30° @ 498					
			Fractures: Few tight @ 60-70°					
			Core break: 60-80°					
			White calcite veining: 10% mostly less than 1/8"					
			(525-572) 100% Recovery					
			Mudstone clasts: (535-538), (555-557), (565-566),					
			Limy clasts throughout.					
			Banding: 30° @ 532'					
			Fractures: few tight @ 30-80°, 30-45° predominate					
			Core breaks: 70-80°					
			White calcite veining: 10%					
22	981		(572-618) 100% recovery					
			Mudstone clasts: (578-579), (581-582), 583-584), (588-595), (597-600), (603-607).					
			Banding: 25° @ 577', 15° @ 593', 20° @ 607'					
			Core breaks: 70-80°					
			Fractures: few tight @ 30-50°					

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. 78-4

SHEET 2 OF 2

FOOTAGE FROM	FOOTAGE TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
22	981		(618-666) 100% recovery					
			Mudstone clasts: (629-631), (643-644), (652-655)					
			Some limy clasts					
			Banding variable: 50° @ 618', 20° @ 633'					
			Tight fractures: mainly @ 60-70', 20° @ 659'					
			(666-712) 100% recovery					
			Mudstone clasts: (667-669), (675-681), (691-692), (703.5-704.5), (708-712), some limy clasts as well.					
			Banding: 60° @ 677', 30° @ 684, 40-50° @ 682'					
			Fractures: 20-30° @ 45-70°, tight					
			Core breaks: 80°					
			Calcite veining: less 5%					
			(712-759) 100% recovery					
			Mudstone clasts: 720' - 4", only few limy clasts.					
			Banding: 5-30° difficult to see					
			Fractures: few tight @ 10-40°					
			Broken core: (745-747) associated with 10° fracture					
			White calcite veining: 5%					
			(741-759) - Dark mineral associated with small calcite healed brecciated					

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. 78-4

FOOTAGE FROM	FOOTAGE TO	SECTION 1" =	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
22	981		(759-780)					
			Mud clasts: (764-765), (770-772), (779-780)					
			Banding: 20-40° ?					
			Fractures: very few tight					
			Broken core: (774-776) associated with low angle 10° fracture					
			(780-981)					
			Mudclasts: (798-801), (811-817), (821-824), (826-827),					
			((872-873), (887-889), (904-905.5), (908-910),					
			((917-921), (926-932), (937-938), (950-951),					
			(968-971), (976-977)					
			Fractures: 45° @ 812', 30° @ 813', 30° @ 864', 30° @ 873',					
			40° @ 918', 30° @ 919', 45° @ 926', 50° @ 932',					
			50° @ 930', 40° @ 954', (888-889) - Breccia,					
			(971-974) - broken core associated with 15° fracture,					
			(964-967) 3 @ 50°, 974 - 2 @ 25°					
			Banding: 25-30° @ 801', 30° @ 840', 0-20° @ 863', 25° @ 892',					
			30° @ 938'					
			981 - End of hole					

ST JOSEPH EXPLORATIONS LIMITED — DRILL LOG — HOLE NO. 78-5

and azimuth Sperry-Sun

PROPERTY	TP OR AREA	AZIMUTH	DATE STARTED
M E L		103°	Mar. 3/78
PROJECT	**LOT & CONC.**	**DIP**	**DATE COMPLETED**
250		-50°	Mar. 3/78
CLAIM NO.	**CO-ORDINATES.** Metric	**LENGTH**	**DRILLED BY**
Jean 17	92 + 00N	336'	Coates
GRID NO.		**COLLAR ELEV.**	**LOGGED BY**
	99 + 85.2E (14.8W)	902 M	D. Hendry

CORRECTED DIP TESTS

30'	099°	-51.5°	
336'	093°	-54°	

LOCATION SKETCH OF HOLE

FOOTAGE FROM	FOOTAGE TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS AZ.	DIP	H	V	V acc.
0	7		O B									
0	12		Casing									
						FEET		AZ.	DIP	H	V	V acc.
10	287.3		Limestone, light grey, mottled locally, very fined grained to cryptograined (micritic);		0	15	15	103°	-50°	9.64	11.49	11.49
			contains medium grey to brown grey, mudstone clasts, approximately		15	183	168	099°	-51.5°	104.58	131.48	142.97
			5 - 10% of total section and up to 20% of section for lengths of 2 feet locally;		183	336	153	093°	-54°	89.93	123.78	266.75
			mudstone clasts are irregular in shape and size but give the impression of being generally from 30-45° to Core Axis, where measurable			Total	336			204.15	266.75	
			Banding in limestone is vague but speckled colour banding noted as below.			METRIC SUMMARY						
					Length		102.4					
			Irregularly oriented but usually planar, orange and white, medium grained,		0	4.6	4.6	103°	-50°	2.9	3:5	
			calcite veins less than .5 cm. but several up to 1 cm. are common.		4.6	55.8	51.2	99°	-51.5°	31.9	40.1	
					55.7	102.4	46.7	93°	-54°	27.4	37.8	
			Reddish (hematitic) stringers randamly oriented, usually very thin (stylalitic) are rare.				102.5			62.2	81.4	
			* All angles measured with respect to core axis.		0	2.1	2.1	O. B.				
			(10-67) Limestone		2.1	87.6	85.5	limestone				
					87.6	102.4	14.8	Shale				
			Broken Core (20-22') not fault guage but broken and weathered (i.e..no mylonite)			71.3		30°	Banding			
			(26.5) shattered & weathered mud clast			91.4		35°	Banding			
			(51-52) weakly weathered									
			(57-58) weakly weathered									

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. 78-5

SHEET 2 OF 2

FOOTAGE FROM	FOOTAGE TO	SECTION 1" =	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
10	287.3	con't	(10-67) Core Recovery (44'-54') - 95 - 100%					
			(64-74) - 100%					
			(26-34) 95 - 100%					
			Mudstone clasts greater than 10%					
			(26.5 - 28.5) 3 large, 1", dark, browny grey mudstone clasts with contorted surfaces.					
			(at 30.5)					
			(35.5 - 36.5)					
			(37 - 38)					
			(40 - 43.5) contorted shapes but suggestion of orientation of 40°					
			(44.5 - 48) suggests 35°, up to ½" thick					
			(49) 3" band, brown-grey mudstone					
			(51 - 54) mudstone clasts, contorted 40° to 0°					
			(at 56.5)					
			(57 - 58) mudstone and broken core (slightly)					
			(61 - 63.5) With up to 6" stretches of pure limestone (Breaks thru mud 50° & 35°)					
			(67 - 76) Recemented, Brecciated limestone with mudstone & Hematitic matrix					
			(67 - 68) orange, rusty weathered, mudstone clasts (no evident pyrite) white and orange calcite, clasts and stringers					
			(68 - 74.5) dark grey mudstone matrix with limestone fragments and unbrecciated limestone up to 2" not as classic breccia as below; mudstone swirls and stylalitic lines; with irregular, diffuse contacts; - minor orange calcite; many stylalitic mudstone stringers					
			(74.6 - 76) good breccia - less than 1" limestone fragments with no fabric; matrix is black, orange and Red (hematitic?) with swirls of mud and calcite; sharp boundaries; well cemented 95-100% recovery (74-84').					

ST JOSEPH EXPLORATIONS LIMITED — DRILL LOG — HOLE NO. 78-5

FOOTAGE FROM	FOOTAGE TO	SECTION 1" =	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
10	287.3		(76 - 115.5) limestone; - but more mudstone clasts and calcite; mudstone up to 40% for 2', generally mudstone approximately 10% - 15% (total average)					
			(76 - 81) limestone, but with less than 1/16" thick, black, stylalitic mudstone swirls; also orange, medium grain, calcite patches & lines. - stylalites suggest 40° orientation but are irregular and variable.					
			(81 - 87) stronger mudstone zones, aver. approximately 30 - 40% mudstone 60 - 70% limestone up to 2" thick mudstone clasts, very contorted and no obvious core angle					
			(86 - 87) Orange patches of Calcite; Patches of pyrite with up to 1/32" grains less than 2%; spatially associated with mudstone clasts at this point, bleached pale brown.					
			(87 - 101) limestone, but with approximately 5 - 10% pink colouring up to 4" blotches and ½" stringers of medium grain calcite less than 1% fine grained pyrite grains.					
			Core Recovery 95% (84.6 - 95)					
			Broken Core at (85, 94, 98, 100, 101)(not major- just shattered for less than 1")					
			(101 - 106) limestone					
			(106 - 115.5) as (87 - 101), but less intense mudstone and no large, pink patches					
			weathered core 1" at (106' & 107.5 & 110)					

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. 78-5

FOOTAGE FROM	FOOTAGE TO	SECTION 1" =	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
10	287.3		(115.5 - 287.5) Good, light grey, very fine grained to crypto grained limestone, with approximately 5% grey - brown mudstone clasts;					
			locally, orange calcite stringers less than ¼"					
			approaching (287.5) mudstone appears as planar beds, possibly, and not clasts. core angle as noted below					
			very consistant core, no specific beds of mudstone or calcite, except as below					
			Core Recovery (134 - 143) 95 - 100% (174 - 184.5) 95 - 100% (224 - 234) 95 - 100% (274 - 284.5) 95 - 100%					
			Mudstone clasts at (133) (136 - 138) (147 - 149) up to 2" (159 - 160) (162 - 164) (187 - 188)					
			(193 - 194) solid 4 - 5" brown mudstone, possibly bed not clast, core angle approximately 25°					
			(195) (197 - 197.5) (203) (210 - 211.5) (212 - 212.5) (215 - 219) (224) (225) (238) (241)					
			Planar mudstone bands could be beds at (244) 3" thick (242.5) 3 bands ½" thick					

FOOTAGE FROM	FOOTAGE TO	SECTION 1" =	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
10	287.3		(115.5 - 287.5) Contd.					
			More mudstone clasts at (246 - 249) (254) (264) (265 - 266)					
			(115.5 - 287.3) Limestone; Mudstone clasts at (273 - 274) (278 - 279.5)					
			In limestone, thin black streaks give banding					
			30° at (234)					
			30° at (285)					
			35° - 40° at (218)					
			Fractures at: (118') - 50° weathered					
			(120') - 10° smooth					
			(125') - 40° & 50° smooth thru calcite					
			(129') - 80° weathered					
			(132') - 45°					
			(28')- 30° calcite (142') - 10 - 20°					
			(29')- 35° mud (146') - 30°					
			(30')- 70° calcite (153') - 60°					
			(31')- 30° calcite (155') - 65°					
			(32')-65° (167') - 40°					
			(40')- 35° calcite (170') - 30°					
			(47')- 40° mud (172') - 25°					
			(54')-20° (173') - 35°					
			(55')- 40° (175') - 40°					
			(56')- 45° (179') - 40°					
			(61')- 60° (186') - 60°					
			(62')- 35° (187') - 50°					
			(64')- 50° (192') - 40°					
			(93')- 50° (194') - 30°					
			(100)- 2 at 50 (100° between the two sets) (197') - 40°					
			(198') - 40°					
			(205') - 45°					

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. 78-5

FOOTAGE FROM	FOOTAGE TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
10	287.3		(115.5 - 287.3) Limestone Contd.					
			(206') - 50°					
			(208') - 55°					
			(215') - 40°					
			(218') - 50°					
			(217') - 30°					
			(219') - 40° & 30°					
			(222') - 30°					
			(226') - 25°					
			(229') - 25°					
			(234') - 50°					
			(239') - 75°					
			(242') - 40°					
			(243') - 20°					
			(249') approximately 50°					
			(252') - 35° & 50°					
			(257') - 35°					
			(258') - 40°					
			(263') - 75° & 20°					
			(265') - 40°					
			(268') - 35°					
			(269') - 35°					
			(271') - 40°					
			(274') - 40°					
			(276') - 35°					
			(279') - 65° & 20°					
			(283') - 40°					
			(283') - 10°					
			(285') - 40°					
			(286') - 45°					
			Broken Core - (106) (107) (121) (130) (141) (144.5) (171) (188) - very small breaks with slight weathering					
			½" white calcite veins at 255' - 45° at this point banding is 30° at 257' - 35°					

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. 78-5

SHEET ___ OF ___

FOOTAGE FROM	FOOTAGE TO	SECTION 1" =	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
287.3	- 336		Banded Calcareous Shale					
			Banded light and dark grey, phyllitic near contact;					
			light colour bands are more calcareous than dark bands; fine, dark laminae occur in light coloured bands and light laminae occur in dark coloured bands;					
			Very uniform looking section except for some structural warps.					
			Core Angle 25 - 40° averaging 35°					
			small microfractures at steep angles to banding, shift bands less than 1/32"					
			End of hole 336					

ST JOSEPH EXPLORATIONS LIMITED — DRILL LOG — HOLE NO. 78-6

PROPERTY: Mel Yukon	TP OR AREA:	AZIMUTH:	DATE STARTED: March 6
PROJECT: 250	LOT & CONC.	DIP: -90°	DATE COMPLETED: March 7
CLAIM NO.: Jean 3	CO-ORDINATES: 100 + 05.9N	LENGTH: 656'	DRILLED BY: Coates
GRID NO.	99 + 62.5E	COLLAR ELEV.: 910 M (Approx.)	LOGGED BY: Dave Hendry

CORRECTED DIP TESTS

footage	azimuth	dip
150'	038°	-85.5°
305'	044°	-80.9°
455'	042°	-84.0°
656'	041°	-83.0°

LOCATION SKETCH OF HOLE: Sperry Sun Compass

FOOTAGE FROM	FOOTAGE TO	SECTION 1"=	DESCRIPTION
			12' of casing total
			Bedrock at collar (* 10'of casing and shoe stuck in hole)
0	76.3		Limestone; - light grey to white, very fine grained to crypto-grained, contains contorted, irregular shaped and variable sized mud clasts, (medium to dark brown), some dark brown mud clasts contain fine grained pyrite, average less than 10% mud clasts throughout, minor orange or white calcite stringers, approximately 1/8 - 1/4".
			Core Recovery (47 - 57') - 100%
			(67 - 77') - 100%
			Broken and rusty core (67 - 77') also silicified
			Fractures
			14' - (50° & 60°) tight
			17' - 30° rust
			23' - 70° broken over 1/4"
			25' - 30° tight & calcite
			30' - 50° tight & calcite
			34' - 70° rust & Silica
			31.5' - 60° rust & Silica
			50' - 80° thru mudstone and rust
			55' - 40° tight & calcite
			56' - 40° tight & calcite
			66' - 40° tight & calcite rust
			68' - 75° tight & calcite
			69' - 30° & 35° tight & calcite rust
			72' - 35° tight & calcite

SAMPLE NO.	FROM	TO	LENGTH	AZ	DIP	H.	V.
Survey Data (ft)							
	0	75	75	-	-90°	-	75
	75	227.5	152.5	038°	-85.5°	12.0	152.0
	227.5	380.0	152.5	044°	-80.9°	24.1	150.6
	380.0	555.5	175.5	042°	-84.0°	18.3	174.5
	555.5	656.	100.5	041°	-33.0°	12.2	99.8
			656.			66.6	651.9
Metres							
	0	22.9	22.9	-	-90°	-	22.9
	22.9	69.3	46.4	038°	-85.5°	3.6	46.3
	69.3	115.8	46.5	044°	-80.9°	7.4	45.9
	115.8	169.3	53.5	042°	-84.0°	5.6	53.2
	169.3	199.9	30.6	041°	-83.0°	3.7	30.4
						20.3	198.7

METRIC SUMMARY

0	23.3	Limestone	
23.3	45.8	Mineralized Zone	
45.8	166.2	Shale	
166.2	191.3	Mineralized Zone	
191.3	199.9	Limestone	

FOOTAGE FROM	FOOTAGE TO	SECTION 1"=	DESCRIPTION
0	76.3		Concentrations of mudstone clasts, or very large clasts at:
	Contd.		
			22', (23-24'), 26', 29', (31-33), (36-38 rusty and broken), (46-48), (54-56), (64-65).
			darker grey mud clasts: (57-58) plus pyrite (61-62) rusty blebs
76.3	150.3		Mineralized; with either barite, sphalerite or galena in varying grades
			(76.3-86.2) breccia; (Post-ore), medium brown-grey mud matrix, with fragments of barite, mineralized barite and quartz;
			one barite fragment, 2" thick, contains grains of sphalerite up to 1/16", average aproximately 6% Zn; fine grained pyrite occurs as grains and blebs in mud matrix, less than 2%; some sphalerite grains up to 1/4", pyrite, but no spahlerite in 1st foot (76.3-77.3'), average less than 1% Zn over full length, several small galena grains.
			(86.2-98.5) Sphalerite and galena in barite (coarse, crystalline and white), minor grey mud clasts less than 1", some mud associated spatially with sphalerite and galena; @ (96.4') 5" of mud (?bed or large clast),
			up to 6" bands of unmineralized barite.
			Spahlerite grains are 1/16-1/4" and rarely 1/2", some clots of several grains up to 1", Pb occurs as small grains and clots up to 1/2", last 6" is best galena grade
			Sphalerite is deep reddish brown, except for small areas where it is yellow-green-brown (as noted).

SAMPLE NO.	FROM	TO	LENGTH
		Metric	Summary Cont'd
	Banding:	(metres)	average core angle
	46	67	21 40°
	67	101	34 5-10°
	101	123	22 40°
	123	128	5 0-20°
	128	160	32 25°
	160	166	6 40°
	* Upper ore section used for metallurgical work.		
	Estimated grades only		
	less than 1% Zn, Pb much less than 1%		
	4-5% Zn, Pb less than 1%		

ASSAYS

FOOTAGE FROM	FOOTAGE TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
76.3	150.3	Contd.	(98.5 - 109.5) lower grade than previous section, barite and negligible mud throughout					
			higher grade:at (101.3 - 103) approximately 3% Pb:Zn, Pb= Zn and at (105.2 - 108.2) approximately coarse grained sphalerite much greater than Pb, approximately 3% Zn, also sphalerite grain orientation roughly 45°	Estimated Grades 3% Pb-Zn				
			(109.5 - 111.0) very coarse grained sphalerite, (approximately 1" thick band at core angle 40°) also large galena blebs	6% Zn, 4% Pb				
			(111 - 119.6) barite, with very minor mud, contd. large blebs sphalerite and galena.					
			higher grade					
			(114') 3" at core angle 35°, 30% Pb-Zn					
			(115.8) 1" of 25% Pb-Zn, core angle 30°	approximately 5% Pb-Zn				
			(116.5) 3" of 40% Pb, 20% Zn, core angle 70-90°					
			(118) 8" of 10% Pb, 10% Zn					
			Average less than .5% Pb-Zn outside of these 4 areas except for isolated large blebs					
			(119.5 - 123.7) sphalerite up to ½", aver. 1/16 - 1/4", in swirls and clusters of grains. up to 3" lengths of unmineralized barite	5 - 6% Zn				
			(123.7 - 125) mainly mudstone, laminated, but contorted, at core angle roughtly 65°, some silicification of laminae, approximately 1% Zn, fine grained and very fine grained pyrite	1% Zn				

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. 78-6 SHEET 1 OF 2

FOOTAGE FROM	FOOTAGE TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
76.3	150.3	Contd.	(125 - 127) Sphalerite and galena, with some silicification, minor mud in barite lost	5% Zn				
			(127 - 128) coarse grain galena and sphalerite in barite	10% combined				
			(128 - 135.8) barite, with minor mud and local silicification, Silica band at core angle = 30°					
			(130') Fracture (tight) healed by galena, core angle 35°, also associated Silicification	1 - 2% Pb, 1% Zn				
			at (134.2') high grade galena and sphalerite					
			at (131') coarse sphalerite band less than 1"					
			(135.8 - 145.3') banded light grey mudstone, brecciated, with barite, sphalerite and galena in matrix, up to 5" mud fragments.					
			most frag. barren, except for edge cracks					
			some mud contains galena and sphalerite as fine grained streaks at core angle = 65°	1% Zn				
			Zn much greater than Pb					
			(138 - 139) not brecciated, perhaps just very large mud clast					
			(145.3 - 150.3') crackle breccia					
			network of thin Barite, sphalerite, galena and silicification in open channels, between mud fragments, that show no obvious movement or rotation,	3% Pb Zn				
			one 4" section approximately 10% Pb-Zn					
150.3	545.3		Footwall; banded, calcareous shale					
			Regular and continuous section of approximately ¼", alternating bands, of dark and light, limy mudstone.					
			Light bands are more limy than dark.					
			On magnified scale dark bands have fine, light laminae and the light bands have fine, dark laminae.					

FOOTAGE FROM	FOOTAGE TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
150.3	545.3	Contd.	Variations are primarily caused by structure ie:					
			- brecciated zones					
			- boudinaged bands					
			- Dolomite filled fractures					
			- fine fractures with approximately 1/8" displacement give a wavy appearance					
			- tight folding varies the attitude and produces contorted banding in the hinge zone.					
			Fracture surfaces parallel with banding, have a phyllitic sheen and soft feeling.					
			(150.3 - 160) light grey, limy mudstone similar to the mud in the ore section, no dark banding. core angle 35° at footwall					
			Core angles of banding					
			(151') 35° (156') 0° & breccia (166') 40° (180') tight fold nose (180 - 184') core angle contorted (182') 45° (192') 45° (202') 45° (212') 40° (220') 30° (224') 20° (232') 5 - 10° (242') 5° (255') 0° (267') less than 5° (270') 0° (277') less than 5° (282') 0° (287') 0° (297') 0° (302') 5-10° (307') 15°					
			(312') 10° (317') 5° (330') 15° (332') 20° (337') 25° (346') 30° (353') 30° (364') 40° (374') 30° (384') 50° (389') 60° (393') 55° (399') 35° (404') 20° (408') 0° (416') 20° (425') 25° (432') 25° (439') 35° (448') 25° (455') 30° (468') 30°					
			(475') 30° (485') 25-30° (500-510') 10-15° (512') 25° (525') 30° (530') 35° (538') 45° (542') 40° (544') 40°					

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. 78-6

FOOTAGE FROM	FOOTAGE TO	SECTION 1" =	DESCRIPTION	SAMPLE NO.	FROM (feet)	TO (feet)	LENGTH (feet)	ASSAYS Pb %	Zn %	Ag oz/ton	Ba %
150.3	545.3	(cont'd)	Coarse calcite - (184') - 1/2" CA 75°, 30° & 0°								
			(209') - aproximately CA 40°	M78-6-1	545.3	548	2.7	7.01	0.06	0.03	50.56
			(276') - aproximately CA 60° 1/2"								
			(387') - 10" broken	M78-6-2	548	552	4.0	0.03	<0.01	<0.01	57.45
			(512-516)								
			Boudinaged bands (310-317)	M78-6-3	552	556	4.0	0.01	<0.01	<0.01	57.11
			(334-345)								
			(467)	M78-6-4	556	559	3	0.99	0.64	0.02	47.09
			Fractures are primarily parallel to banding and difficult to distinquish from breaks due to drilling.	M78-6-5	559	563	4	<0.01	<0.01	<0.01	55.94
545.3	627.5		Lower mineralized section, with barite, galena and sphalerite.	M78-6-6	563	566	3	0.17	5.31	0.03	43.81
			(545.3-545.8) high grade galena, in large blebs, minor sphalerite, plus barite, possibly a breccia fragment, some silicification. (444-454') 100% recovery	M78-6-7	566	569	3	0.03	2.96	0.19	38.54
				M78-6-8	569	572	3	1.05	1.70	0.16	51.11
				M78-6-9	572	575	3	0.69	2.77	0.01	49.49
			(545.8-555.7) Coarse, white and grey barite, negligible sulphides, no mud (454-464') 100% recovery	M78-6-10	575	578	3	0.06	1.43	0.01	38.99
			(557.7-558.9) Coarse grain sphalerite and galena, in white barite, no mud, tight fracture healed by galena, CA 50°								
			(558.9-563.3) Coarse, white and light grey barite, no visible sulphide.								
			(563.3-564.9) Coarse grain sphalerite, galena and pyrite, also silicification, pyrite less than 1/16" 65° orientation of blebs of fine grained sphalerite and galena								
			(564.9-566) barren, coarse, white barite								
			(566-571.4) Coarse, white barite, no mud, silica and fine pyrite grains associated with sphalerite and galena, sphalerite % much greater than galena								

ST JOSEPH EXPLORATIONS LIMITED — DRILL LOG — HOLE NO. 78-6

FOOTAGE FROM	FOOTAGE TO	SECTION 1"=	DESCRIPTION
545.3	627.5	(cont'd)	(571.4-572.5) barren barite
			(572.5-573.8) Coarse sphalerite and galena in barite sphalerite % = galena
			(573.7-575.5) barren barite
			(575.5-577) abundant silica, mostly as fragments in barite, pyrite rims silica fragments.
			(577-577.9) barren, coarse, white barite
			(577.9-580.3) abundant light grey to white fine grained silica, dark mud associated with silica, sphalerite % much greater than galena, sphalerite is coarse grained. @580' 2" true thickness band, grey-brown mud, with coarse grain sphalerite and silica.
			(580.3-582) barren, coarse, white barite
			(582-583) very coarse sphalerite, aproximately 12%, roughly in the form of band, CA aproximately 30°, very minor mud.
			(583-585.7) mud: barite, aproximately 50:50, high grade bands of sphalerite, up to 1" across with CA roughly 30°, also coarse galena, mud is medium grey.
			(585.7-588) barren barite
			(588-590.5) barite, minor mud and silica, local very coarse grained galena, coarse sphalerite also.
			(590.5-592) barren barite
			(592-592.9) coarse sphalerite associated with mud and silica, in barite mud appears to envelop sphalerite grains

SAMPLE NO.	FROM (feet)	TO (feet)	LENGTH (feet)	Pb %	Zn %	Ag oz/ton	Ba %
M78-6-11	578	582	4	0.01	2.61	<0.01	47.89
M78-6-12	582	585	3	0.01	2.04	<0.01	42.00
M78-6-13	585	588	3	0.64	0.12	0.02	55.67
M78-6-14	588	591	3	0.11	5.14	<0.01	51.00
M78-6-15	591	594	3	0.01	1.64	<0.01	54.59
M78-6-16	594	597	3	0.03	6.30	0.03	33.53
M78-6-17	597	600	3	5.88	10.3	0.02	41.80
M78-6-18	600	604	4	5.29	10.7	0.01	38.86
M78-6-19	604	607	3	22.2	2.60	0.02	35.70
M78-6-20	607	610	3	2.38	5.32	0.01	46.10
M78-6-21	610	614	4	4.55	1.88	0.01	50.69

FOOTAGE FROM	FOOTAGE TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	(feet) FROM	(feet) TO	(feet) LENGTH	ASSAYS Pb %	Zn %	Ag oz/ton	Ba %	* % cd
545.3	627.5	Contd.	(592.9 - 593.9) barren barite									
			(593.9 - 597) mud: barite 50:50 sulphides coarse grain; Sphalerite % much greater than galena	M78-6-22	614	617	3	0.03	2.37	<0.01	54.09	
			possible laminae, approximately 45° core angle mud up to 3", plus mud swirls between sphalerite grains.	M78-6-23	617	621	4	0.03	8.86	<0.01	47.97	
				M78-6-24	621	625	4	0.05	13.0	<0.1	42.44	
			(597 - 604) very coarse grained sphalerite and galena in Barite less mud than above (20%)	M78-6-25	625	627.5	2.5	0.03	15.9	<0.01	9.39	
			(604 - 607) coarse grained galena and sphalerite, with minor mud in Barite. Galena %greater than sphalerite									
			(607 - 614) coarse grained sphalerite and galena, minor mud sphalerite % = galena									
			(614 - 617.4) Sphalerite and galena in barite with minor mud, sphalerite % much greater than galena									
				*Cadmium composite from lower sections of holes 78-6 and 78-7=								0.023
			(617.4 - 627.5) barite host, mud associated with sphalerite, sphalerite in this section is yellow-green-brown and occurs as poorly defined grains within large blebs, mixed with brown mud. Some red-brown sphalerite in this section also.									
					AVERAGES (Feet)							$BaSO_4$
627.5	629		(627.5 - 629) primarily brown mud, very minor barite and sphalerite		588	627.5	39.5	3.33	7.05	0.01	42.88	72.87
					545.3	588	42.7	0.70	1.44	0.03	49.42	83.98
					563	627.5	64.5	2.16	5.24	0.02	44.10	74.94
			Fractures (545.2 - 627.5) difficult to distinguish unless healed by sulphides or thru mud		545.3	627.5	82.2	1.96	4.14	0.02	46.25	78.60
					545.3	563.0	17.7	1.25	0.12	0.008	54.22	92.14
					AVERAGES (Metres)							
			(585') 45° thru mud									
			(588') 55°		179.2	191.3	12.1	3.33	7.05	0.01	42.88	72.87
			(601') 25°		166.2	179.2	13.0	0.70	1.44	0.03	49.42	83.98
			(604') 60°		171.6	191.3	19.7	2.16	5.24	0.02	44.10	74.94
					166.2	191.3	25.1	1.96	4.14	0.02	46.25	78.60
			Core recovery - 100% throughout		166.2	171.6	5.4	1.25	0.12	0.008	54.22	92.14

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. 78-6

FOOTAGE FROM	FOOTAGE TO	SECTION 1" =	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
629	656		(629 - 631.3) mud approximately 60%, (broken and shattered) limestone approximately 40% limestone is light grey and fine grained, as at top of hole.					
			(631.3 - 649) limestone, with approximately 20% mud clasts, up to 6"					
			(649 - 656) limestone, with minor mud clasts					
			Broken core (630 - 631)					
			No obvious fracturing except in mud clasts, where it is difficult to interpret if they are caused by drilling,					
			No core angle, mud is contorted and poorly laminated.					
			656 End of Hole					

ST JOSEPH EXPLORATIONS LIMITED — DRILL LOG — HOLE NO. 78-7

PROPERTY: Mel Yukon	TP OR AREA:	AZIMUTH:	DATE STARTED: March 7
PROJECT: 250	LOT & CONC.	DIP: 90°	DATE COMPLETED: March 8
CLAIM NO.: Jean 3	CO-ORDINATES: 99 + 28.3 N	LENGTH: 517'	DRILLED BY: Coates
GRID NO.:	99 + 58.9 E	COLLAR ELEV.: 906 M. approx.	LOGGED BY: Dave Hendry

CORRECTED DIP TESTS

		Azim	Dip
150'		021°	-87.8°
300'		011°	-87.5°
500'		011°	-84°

LOCATION SKETCH OF HOLE

Sperry Sun Compass

FOOTAGE FROM	FOOTAGE TO	SECTION 1"=	DESCRIPTION
			OB approximately 2' casing 10'
			(2 - 31)
2	172		Limestone; light grey, very fine grained, to cryptograined, with mudstone clasts, irregular and contorted shapes of variable size up to 3", mudstone less than 10%.
			very short core pieces approximately 2"
			weathered brecciated mud zone and broken core at (14 - 15.5), not mylonite.
			also at (18 - 19')
			Broken core at (21)
			(24 - 25) slight rust
			Mud clast concentrations at (14 - 15.5)
			(18 - 21)
			(23 - 25)
			at (29) approximately 6 - 8" large clast or bed
			(31 - 97) limestone as above, but longer core pieces
			Mud Clasts:
			((30 - 36) approximately 20%
			(50 - 52)
			(70 - 71) 8" band, core angle 0° looks like banded footwall shale
			(78 - 81)
			(87 - 97) dappled with approximately 15% mud
			(96) 10" clast or bed of mudstone
			(96 - 97) breccia with mudstone matrix

SAMPLE NO.	FROM	TO	LENGTH
	SURVEY	DATA	(FEET)
	0	75	75
	75	225	150
	225	400	175
	400	517	117
		(Metres)	
	0	22.9	22.9
	22.9	68.6	45.7
	68.6	121.9	53.3
	121.9	157.6	35.7
		(Metric Summary)	
	0	0.6	
	0.6	52.4	
	52.4	57.9	
	57.9	58.5	
	58.5	128.1	
	128.1	148.4	
	148.4	157.6	

ASSAYS

Az°	Dip°	H.	V.
0°	-90	0.0	75'
021	-87.5	6.5	149.9'
011	-87.5	7.6	174.8'
011	-84	12.2	116.4
		26.3	516.1
0	-90	0.0	22.9
021	-87.5	2.0	45.7
011	-87.5	2.3	53.2
011	-84	3.7	35.5
		8.0	157.3

Overburden

Limestone

Upper Mineralized Zone

Silicified Mudstone

Shale

Lower Mineralized Zone

Limestone

ST JOSEPH EXPLORATIONS LIMITED — DRILL LOG — HOLE NO. 78 - 7

FOOTAGE FROM	FOOTAGE TO	SECTION 1" =	DESCRIPTION
2	172	Contd.	(97 - 167) limestone as above
			Mudstone concentrations;
			(97 - 101) less than 5% mud
			(101) 10" irregular shaped clast
			(106 - 113) approximately 10% mud in thin contorted clasts, large clasts (112.5 & 111)
			(114.5)
			(116 - 121) wispy stringers of mud approximately 1/6" apart, core angle 40°, small clusters of limestone grains between the stringers
			(130.5 - 139) mud clasts with fine grained rusty spots around pyrite grains
			(139 - 147) mud in this section is very black, with orange (rusty) blebs
			-fine grained rusty spots in mud:
			(106 - 113)
			(126 - 147)
			Fractures:
			(24) - 25° rusty; (102) - 50° rusty
			(20) - 40° rusty; (105) - 65°
			(28) - 30° rusty; (116) - 40° calcite & rusty
			(45) - 70° rusty; (117) - 40° mud
			(47) - 60° calcite; (121) - 40° mud
			(51) - 50° mudstone; (122) - 60° calcite
			(53) - 25°; (123) - 50° calcite & rusty
			(58) - 40° Calcite and rust; (125) - 30° calcite
			(63) - 30° calcite and rust; (128) - 50° calcite
			(68) - 20° calcite and rust; (133) - 55° calcite
			(73) - 40 & 35°; (152) - 65° calcite & rusty
			(78) - 20° calcite; (154) - 50° calcite and rusty
			(85) - 55° calcite; (165) - 40° calcite
			(87) - 5° calcite; (167) - 45° calcite
			(89) - 50° calcite

SAMPLE NO.	FROM	TO	LENGTH
			Metric
			Banding:
	(metres)		
	58.5	62.5	4
	62.5	67.0	4.5
	67.0	72.5	5.5
	72.5	78.6	6.1
	78.6	102.1	23.5
	102.1	108.2	6.1
	108.2	111.3	3.1
	111.3	123.4	22.1
	123.4	128.0	4.6

ASSAYS

Summary Cont'd

(average core angle)

	48°
	15
	< 5
	20
	< 5
	20
	5
	25
	30

ST JOSEPH EXPLORATIONS LIMITED — DRILL LOG — HOLE NO. 78-7

FOOTAGE FROM	FOOTAGE TO	SECTION 1" =	DESCRIPTION
2	172		(167-172) limestone; white-light grey, very fine grained to crypto grained, no mud.
			Fractures (168') 50°
			(169') 05°
			(171') 60°
			(172') 65°
172	190		Upper mineralized zone
			(172-173.5) coarse grained, white and light grey barite, several small galena blebs, minor mud bands with core angle approximately 40°
			(173.5-178) mottled texture of mud (light grey-brown) and barite, with fine grained sphalerite and galena 1-2% Pb-Zn
			(178-185) barite, with 5% mud spatially associated with coarse sphalerite and galena, 3% sphalerite, galena 3%
			(185-187.5) barite, coarse grain and white, minor sphalerite grains up to 1/4", 1% Zn
			(187.5-188.9) coarse grained sphalerite and galena in barite, with approximately 1% pyrite in blebs, 4% sphalerite and 1% Pb.
			(188.9-190) mostly silicified, was originally probably mud, approximately 25° core angle fine grained pyrite, minor sphalerite and galena, 1% Pb-Zn.
			Fractures in ore (173.5) broken core, orientation unknown
			(178) 65°
			(182) 35°
			(182.5) 50°
			@ (173.5 & 182.5) talc with silica on fractures

SAMPLE NO.	FROM	TO	LENGTH

ASSAYS

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. 78-7

FOOTAGE FROM	FOOTAGE TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
190	192		Silicified mudstone; light grey, poor banding, no obvious calcite, minor pyrite, no galena or sphalerite.					
192	420.3		Footwall, banded, calcareous shale; bands aproximately 1/4", alternating light and dark grey, made up of very thin laminae of light and dark mud in varying concentrations.					
			Calcite stringers at: (245') 10" calcite and quartz parallel to bedding (254') 1" calcite parallel to bedding (300') 1" calcite perpendicular to bedding (320') 2" calcite parallel to bedding (335-338) calcite and quartz, core angle = 0°, parallel to bedding (395') 1/4" at 30° to bedding, core angle = 30°					
			Core angle of bedding: (193') 55° (260') 0° (367') 15° (202') 40° (258-278) aproximately 0° (370') 25° (207') 20° (292') 30° (375') 25° (210') 0° (298') minor fold nose (380') 25° (215') 25° (304-334) aproximately 0°, wavy (385') 30° (222') 5° (340') 25° (388') minor fold nose (232') 0° (345') 25° (392') 25° (236') 0° (347') 15° (398') 25° (238') 15° (352') 30° (406') 0° (245') 25° (357') 0-5° (411') 35° (255') 20° (360') 5° (417') 20° (418') 35° (420') 30-35°					
			Broken core (211-214), (219-220), (332-335)					
			Boudinaged bands (353-367) moderate					

ST JOSEPH EXPLORATIONS LIMITED — DRILL LOG — HOLE NO. 78-7

FOOTAGE FROM	FOOTAGE TO	SECTION 1"=	DESCRIPTION
420.3	487		-Lower mineralized section, barite, galena and sphalerite
			(420.3-421.7) contorted, brecciated, limy, light grey mud, with minor galena, no lamination
			(421.7-422.2) higher grade, silcified, fracture approximate core angle 5° with galena and talc? on fracture
			(422.2-432.7) barite; coarse, white with negligible mud, good grade, pyrite in blebs up to 1/2", very coarse sphalerite and galena.
			core recovery 100%
			(432.7-443.9) mostly barren barite, with minor mud and pyrite, coarse grain sphalerite at (447) less than 1% sphalerite
			(443.9-454) coarse grain sphalerite and galena, minor mud, usually associated with mineralization, some wispy, very fine grained galena stringers. core angle 25-30°
			(454-455) barren barite
			(455-461) barite; with coarse grain sphalerite and galena, mud and silicification surround sphalerite and galena, 5" mud band at (455')
			(461-462.3) barren barite
			(462.3-464) sphalerite in barite, sphalerite is yellow-green-brown (altered looking), minor reddish brown sphalerite

SAMPLE NO.	FROM	TO	LENGTH	ASSAYS Pb %	Zn %	Ag oz/ton	Ba %
M78-7-1	421	423.5	2.5	4.85	2.16	0.01	32.38
M78-7-2	423.5	426.5	3	3.18	9.96	0.01	38.55
M78-7-3	426.5	429.5	3	9.02	4.32	0.08	43.05
M78-7-4	429.5	432.8	3.3	16.2	9.06	0.15	31.97
M78-7-5	432.8	437	4.2	0.05	0.06	<0.01	57.53
M78-7-6	437	440	3	0.03	0.32	<0.01	57.19
M78-7-7	440	443.8	3.8	0.05	0.04	<0.01	56.71
M78-7-8	443.8	447	3.2	4.44	5.69	0.01	47.43
M78-7-9	447	450	3	0.11	7.30	<0.01	46.57
M78-7-10	450	453	3	1.44	6.62	0.02	46.50
M78-7-11	453	457	4	0.77	4.11	<0.01	44.53
M78-7-12	457	460	3	0.23	5.22	<0.01	40.28
M78-7-13	460	463	3	0.03	2.12	<0.01	53.62

ST JOSEPH EXPLORATIONS LIMITED — DRILL LOG — HOLE NO. 78-7

FOOTAGE FROM	FOOTAGE TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS Pb %	Zn %	Ag oz/ton	Ba %	$BaSO_4$
420.3	487	(cont'd)	464-470) mud in barite									
			25-35% mud in fragments, (no bands), coarse									
			sphalerite and galena; sphalerite % much greater than	M78-7-14	463	466	3	0.03	11.8	0.01	36.94	
			galena, 6" mud band at 469.5									
				M78-7-15	466	469	3	0.05	4.11	0.01	34.90	
			(470-472) barite, with minor mud, fine grained sphalerite									
			associated with silica fragments, mud in matrix also	M78-7-16	469	472	3	2.04	8.80	0.05	36.64	
			with fine grained sphalerite and galena.									
				M78-7-17	472	475	3	0.15	7.16	0.02	35.96	
			(472 - 483) 10 - 30% Silica fragment in barite, pyrite									
			association with Silica fragment,	M78-7-18	475	478	3	0.14	5.74	<0.01	12.58	
			mud in matrix also with fine grained sphalerite and									
			galena	M78-7-19	478	481	3	0.24	4.26	<0.01	18.85	
				M78-7-20	481	484	3	0.24	4.43	<0.01	0.64	
			(483 - 487) barite less than 20%									
			mainly mud and Silica fragment,	M78-7-21	484	487	3	0.45	2.44	<0.01	0.55	
			medium grain sphalerite and galena,									
			approximately 1% pyrite associated with silica fragment									
					AVERAGES (Feet)							
487	517		Limestone; light grey to white,		421	432.8	11.8	8.66	6.62	0.07	36.55	62.11
			very fine grained to cryptograined,		432.8	443.8	11.0	0.04	0.12	<0.01	57.15	97.12
					443.8	487.0	43.2	0.76	5.66	0.01	32.92	56.01
			containing variable amounts of brown to grey brown		421.0	487.0	66	2.05	4.91	0.02	37.61	63.91
			mud.									
			(487 - 492)									
			limestone: with approximately 25% mud, up to		AVERAGES (Metres)							
			3" fragments.									
					128.3	131.9	3.6	8.66	6.62	0.07	36.55	62.11
			(492 - 517) limestone; with minor mud and minor pyrite grains		131.9	135.3	3.4	0.04	0.12	<0.01	57.15	97.12
			less than 1/16"		135.3	148.4	13.1	0.76	5.66	0.01	32.92	56.01
			Core angle in mud (485') - 35°		128.3	148.4	20.1	2.05	4.91	0.02	37.61	63.91
			(495') - 40°									
			(496') - 40°									

ST JOSEPH EXPLORATIONS LIMITED — DRILL LOG — HOLE NO. 78-7

FOOTAGE FROM	FOOTAGE TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
487	517		Fractures (499') 25° & 35°					
			(515') 20°					
			(517') 40°					
	517		End of Hole 517					

ST JOSEPH EXPLORATIONS LIMITED — DRILL LOG — HOLE NO. 79-1 091092

PROPERTY: Mel	TP OR AREA:	AZIMUTH: 90° Grid	DATE STARTED: February 14/79	CORRECTED DIP TESTS: 100 m / -50°
PROJECT: 6250	LOT & CONC.	DIP: -50°	DATE COMPLETED: February 16/79	
CLAIM NO.: Jean-3	CO-ORDINATES: 10,003.5	LENGTH: 114.9 m	DRILLED BY: E. Caron	
GRID NO.	9879.6	COLLAR ELEV.: 912.9	LOGGED BY: D.C. Miller	

LOCATION SKETCH OF HOLE

METREAGE FROM	METREAGE TO	SECTION 1"=	DESCRIPTION BQ CORE	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
0	6.1		Overburden, no core					
6.1	86.2		Limestone, pale grey, f.g., 5% brown muddy clasts and bands at various angles but mostly at 60-80°, muddy clasts with some fine grained pyrite, also about 3% medium-grey limy clasts					
			(6.1 - 12.5 m) broken core 7 cm or smaller, breaks mainly @ 80° minor rusty discoloration, 90% recovery					
			9.1 m - prominent fracture @ 80° with 2 cm of gouge					
			banding 85° @ 12 m					
			(12.1 - 18.8 m) as above but better core, 90% recovery, prominent medium grey limestone clast @ 14.2 m (3 cm),					
			12 cm of grey-brown mudstone @ 16.0 m, rusty fractures @ 50° @ 16.1 m - rusty, leached, broken					
			(18.8 - 25.3 m) 95% recovery, core in pieces to 16 cm, 85° banding @ 23 m, 10 cm mudstone @ 22.8 m, 70° banding, 5% rusty discoloration, core breaks mainly @ 50-80°, broken @ 22.5 m with 5 cm mudstone					
			(25.3 - 32.3 m) 95% recovery, core in pieces to 30 cm, no visible banding, leaching and rusty discoloration along fractures and breaks mainly @ 50-80° but some @ 20-30°, prominent fracture @ 70° with 2 cm leached @ 25.4 m					
			(32.3 - 38.7 m) 95% recovery, good core as above, 70° banding, discolored, leached fractures @ 36.5, dark grey dolomitized limestone @ (37.0 - 37.5 m).					

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. 79-1

METREAGE FROM	METREAGE TO	SECTION 1" =	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
6.1	86.2		(38.7 - 45.6 m) 95% recovery, good core, some leaching and					
(cont'd)			discoloration on fractures, dolomitic at (43.9 - 44.4 m), vague 70° banding					
			(45.6 - 52.4 m) 99% recovery, good core, minor leaching and discoloration on fractures, 60° banding					
			(52.4 - 59.1 m) 95% recovery, core more broken, leached and discolored (rusty), vague 70° banding					
			(59.1 - 65.8 m) as preceding, 60° banding, 95% recovery					
			(65.8 - 72.7 m) as preceding, 60° banding broken, rusty and leached @ (71.8 - 72.1 m)					
			(72.7 - 86.2 m) 95% recovery, limestone as preceding, minor leaching and rusty discoloration, 60-70° banding, fracture @ 79.4 m 60° with 1 cm of mudstone, 10 cm of mudstone @ 80.0, otherwise few clasts					
86.2	114.5		Ore Zone:					
			Barite, mudstone and quartz, variably mineralized with sphalerite, galena and minor fine grained pyrite. Sphalerite is red-brown and is locally altered to grey-brown Smithsonite. Some core is vuggy, discolored (rusty) and broken					
			86.2 m - contact with limestone @ 55° with 2 cm calcite vein, possibly some fine barite veining in limestone					
			(86.2 - 88 m) fine grained white quartz and brown mudstone, good galena-sphalerite, galena locally rimming sphalerite, locally vuggy and rusty					
			(88.0 - 89.6 m) discolored limestone with large mudstone clasts and weak mineralization					

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. 79-1

METREAGE FROM	METREAGE TO	SECTION 1" =	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
86.2	114.5		(89.6 - 94.0 m) coarse white barite with very coarse (3 cm) sphalerite altering to smithsonite, vuggy, leached, discolored, broken					
(cont'd)			(94.0 - 95.0 m) white barite, coarse grained, minor sphalerite, good core					
			(95.0 - 96.0 m) coarse grained white barite, 30% sphalerite					
			(96.0 - 101.2 m) coarse grained white barite, sparse sphalerite, good core					
			(101.2 - 103.9 m) brown mudstone, minor barite, 25% coarse grained sphalerite, minor galena, good core					
			(103.9 - 105.0 m) coarse grained white barite, very sparse galena-sphalerite, good core					
			(105.0 - 105.9 m) barite and white fine grained quartz, fair galena-sphalerite, good core					
			(105.9 - 106.5 m) pale grey cherty quartz, brecciated, fair galena-sphalerite, good core					
			(106.5 - 107.0 m) pale grey mudstone, some mineralization, broken core					
			(107.0 - 113.3 m) pale grey chert-white barite breccia, fair sphalerite, minor galena, good core					
			(113.3 - 114.5 m) silicified shale, minor barite, minor sphalerite-galena, broken, 60° banding, broken					

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. 79-1

SHEET 4 OF 4

FROM	TO	SECTION 1"=	DESCRIPTION	METRES SAMPLE NO.	FROM	TO	LENGTH	ASSAYS				
86.2	114.5		Ore Zone (cont'd)							*		
(cont'd)								% Pb	% Zn	oz/ton Ag	% Ba	% Barite
			Recovery %									
			70	88251A	86.2	89.0	2.8	0.23	2.69	L0.01	0.05	
			95	52A	89.0	92.0	3.0	0.01	13.90	L0.01	27.93	
			90	53A	92.0	95.0	3.0	0.01	5.74	L0.01	45.10	
			95	54A	95.0	98.0	3.0	0.01	7.16	0.01	45.69	
			95	55A	98.0	101.0	3.0	0.01	0.97	L0.01	55.41	
			100	56A	101.0	104.0	3.0	1.14	13.90	0.02	22.09	
			100	57A	104.0	106.0	2.0	0.51	0.78	0.01	44.46	
			90	58A	106.0	108.0	2.0	1.19	1.43	0.01	26.34	
			100	59A	108.0	110.0	2.0	0.05	1.34	L0.01	40.85	
			95	60A	110.0	112.0	2.0	1.28	0.85	0.01	29.35	
			95	88261A	112.0	114.5	2.5	1.47	0.30	L0.01	39.45	
114.5	114.9		Shale, grey laminated, fissile, broken, calcareous, 90% recovery		AVERAGE		28.3	0.49	5.02	0.01	34.26	58.2
			END OF HOLE (drill rods starting to sand in)									
			Acid test at 100 m -50° corrected									
			Hole cemented over lower 50 m									
										*L DENOTES LESS THAN		
										%Barite= %Ba X1.6994		

ST JOSEPH EXPLORATIONS LIMITED — DRILL LOG — HOLE NO. 79-2

SHEET ___ OF ___

09102

PROPERTY	TP OR AREA	AZIMUTH	DATE STARTED	CORRECTED DIP TESTS			
Mel		-----	February 16, 1979	228 m	-84°		
PROJECT 6250	LOT & CONC.	DIP -90°	DATE COMPLETED February 19, 1979				
CLAIM NO. Jean 3	CO-ORDINATES. 10,087.6 N	LENGTH 231.3	DRILLED BY E. Caron				
GRID NO.	9998.9 E	COLLAR ELEV. 918 m	LOGGED BY D.C. Miller				

LOCATION SKETCH OF HOLE

METREAGE FROM	METREAGE TO	SECTION 1"=	DESCRIPTION B.Q. Core 0.0 - 0.6 = O.B.	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS % Pb	% Zn	% Ba	oz/ton Ag.	% Barite
					METRES							
0.6	7.4		Mineralized shale:									
			Grey, finely laminated at 35 - 45°, weak fine grained galena-pyrite mineralization parallel to and cross-cutting laminae, minor barite mineralization to 4.5 m, badly broken and ground core to 3 m.									
			Recovery 40%	88262A	0.6	3.6	3.0	1.75	0.32	5.23	0.01	
			95%	88263A	3.6	7.4	3.8	0.40	0.02	3.05	0.01	
7.4	26.0		Shale: Average		0.6	7.4	6.8	1.0	0.15	4.01	0.01	6.81
			Similar to above, becomes increasing calcareous away from mineralization, minor fine grained pyrite mineralization, fair core in pieces to 10 cm.									
			(7.4 - 16.9 m) Recovery 90%, banding 35-40° rock alternating bands of shale and limestone, some white quartz-calcite veining, minor fine grained pyrite, core in 3 cm pieces, broken with gouge at (12.7 - 12.8), (12.9-13.1), (13.5-13.6) and (14.6-14.7) m.									
			(16.9 - 23.3 m) 95% recovery, similar to preceding but increasingly carbonaceous, intensely deformed @ (16.9-18.0m), banding 20-30°.									
			(23.3 - 26.0 m) 95% recovery, becoming increasingly carbonaceous.									

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. 79-2

METREAGE FROM	METREAGE TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
26.0	212.9		Wavey Banded Limestone:					
			(26.0 - 32.9 m) 95% recovery, medium to light grey, comprises light grey limestone bands and nodules surrounded by darker shaly limestone bands, contact with previous shale gradational.					
			(32.9 - 36.9 m) 95% recovery, dark grey shaly limestone, lighter bands subordinate, 20-30° banding.					
			(36.9 - 51.1 m) 95% recovery, now lighter bands predominate, 40° banding, occasional 3 cm white calcite vein cross-cutting or parallel to banding, folded, broken and leached at (49.8-50.7)m.					
			(51. - 66.0 m) similar, 95% recovery, 40° banding, some core in pieces to 0.5 m, minor fine grained pyrite.					
			(66.0 - 79.9 m) similar, 99% recovery, 40° banding.					
			(79.9 - 93.5 m) similar, 99% recovery, 40-50° banding, fault at 82 m at 40° with 5 cm brecciation and local 0° banding over 10 cm.					
			(93.5 - 114.3 m) similar, 99% recovery, banding steepens to 55° at (95-102 m), 45° at 103 m, 30° at 104 m, 10-15° at (104-113m), 0° at 114 m.					
			(114.3 - 128.5 m) similar, 99% recovery, 0° banding, fault at 10° at 121.8 m with minor brecciation.					

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. 79-2

METREAGE FROM	METREAGE TO	SECTION 1" =	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
26.0	212.9		(128.5 - 142.2 m) similar, 0-5° banding massive pale grey at					
(cont'd)			(137.0-137.5 m), 95% recovery.					
			(142.2 - 156.5 m) similar, 0-30° banding, mostly 5-15°, 95% recovery.					
			(156.5 - 170.4 m) similar, 0-10° banding, 99% recovery, banding steepens to 30° at (168.5-170.4m).					
			(170.4 - 183.0 m) similar, variable banding, 50° and 171 m, 30° at 176 m, 15° at 179 m, 30° at 180 m, 15° at 182 m, 95% recovery.					
			(183.0 - 197.0 m) similar, folded and broken banding 80° at 183 m, 45° at 185.3 m, 80° at 192 m, 50° and 195.5 m, local intense folding, 95% recovery.					
			(197.0 - 212.9 m) similar, banding averages 70°, core commonly breaks in small pieces parallel to banding, 95% recovery.					
			(201.2 - 202.7 m) white calcite vein.					
			202.4 m fault at 70° with minor gouge.					
			210.1 m intense folding over 0.1 m.					
			212.9 m fault at 60° with 1 cm of gouge.					
212.9	222.0		Calcareous shale:					
			Dark grey with some pale grey limestone nodules and bands, gradational with preceding unit, intense folding, brecciation, and calcite veining at (212.9-213.1 m), minor fine grained pyrite, banding consistent at 60-70° from (213.1-222.0 m), darker bands in shale also calcareous, 95% recovery.					

ST JOSEPH EXPLORATIONS LIMITED — DRILL LOG — HOLE NO. 79-2

METREAGE FROM	METREAGE TO	SECTION 1"=	DESCRIPTION	METRES SAMPLE NO.	METRES FROM	METRES TO	METRES LENGTH	ASSAYS % Pb	ASSAYS % Zn	ASSAYS Oz/ton Ag	ASSAYS % Ba	ASSAYS % Barite
212.9	222.0		(221.6 - 222.0 m) bleached pale grey and silicified, contact with ore zone at 60°.									
(cont'd)												
222.0	230.4		Ore Zone:									
			Barite, grey cherty quartz, reddish brown coarse grained sphalerite and galena, minor pyrite, good core.									
			(222.0 - 222.8 m) mainly pale grey cherty quartz with good galena, fair sphalerite and minor barite.									
			(222.8 - 224.1 m) mainly white coarse grained barite with good coarse grained sphalerite and galena.									
			222.8 m - fracture at 70° healed by 1 cm galena and brown mudstone.									
			223.3 m - fracture at 80° with 5 cm of brown mudstone and minor galena.									
			(224.1 - 230.4 m) approximately 30% pale grey quartz, 25% barite, 30% pale brown mudstone and 15% sulphides mainly sphalerite, less galena, best sphalerite at (224.1-227.5 m), minor pyrite, core slightly leached and pitted.									
			Recovery 95%	88264A	222.0	223.0	1	5.73	4.78	0.02	17.40	
			100%	265A	223.0	226.0	3	2.00	14.80	0.05	17.30	
			95%	266A	226.0	229.0	3	0.71	17.60	0.07	17.60	
			95%	267A	229.0	230.4	1.4	0.26	7.94	0.03	2.72	
			98%	88268A	230.4	231.3	0.9	0.06	0.58	0.01	0.03	
230.4	231.3		Limestone:	Average	222.0	230.4	8.4	1.69	13.5	0.05	15.0	25.5
			Pale grey, crypto-grained, mostly massive but some 50° partings, fracture at 50° at 231.0 m with minor sphalerite, galena and brecciation, contact with ore zone broken.									
			END OF HOLE									
			Acid test at 228 m, -84° corrected.									
			Lower 30 m of hole cemented, casing pulled.									

ST JOSEPH EXPLORATIONS LIMITED — DRILL LOG — HOLE NO. 79-3

09092

PROPERTY: Mel	TP OR AREA:	AZIMUTH:	DATE STARTED: February 20/79 5:00 pm	CORRECTED DIP TESTS
PROJECT: 6250	LOT & CONC.	DIP: -90°	DATE COMPLETED: February 29779 10:00 pm	137.16 71° 077°*
CLAIM NO.: Jean 3	CO-ORDINATES: 10213.4N	LENGTH: 306.6 m	DRILLED BY: Caron D.D.	265.17 70° 085°*
GRID NO.:	10002.3E	COLLAR ELEV.: 942.1 m	LOGGED BY: Hendry, Binney	

LOCATION SKETCH OF HOLE

* Grid Azimuth which is 2° east of true azimuth

METREAGE FROM	METREAGE TO	SECTION 1"=	DESCRIPTION BQ CORE
0	3.1		Over burden
3.1	22.05		Limestone: light grey, mottled, fine grained, massive, structureless, with irregular shaped, dark grey to brown mud clasts, occupying less than 5%
			(3.1 - 7.00) very mottled, with white and orange calcite bands and blotches, rare mud except at 5.5 m
			(7.00 - 22.05) mostly uniform grey limestone, with 0.5 cm white banding from (10.20 to 11.20), core angles roughly 60°, mud band 5 cm thick at 13.90
22.05	28.90		Mineralized Zone: barite, galena, sphalerite, silica
			(22.05 - 24.15) very mottled, patchy white, grey and grey-brown, fine grained intermixed silica, limestone & mud; with sphalerite grains averaging 1 mm speckled throughout. Galena as 1 mm grains and up to 1 cm patches is less frequent than sphalerite. Weakly mineralized, sphalerite: galena = 4:1, Silica: Limestone: Mud: = 70:10:20. Limestone more common near hanging wall, mud is patchy and has an affinity to mineralization. Less than 1% fine grained pyrite in the mud.
			(24.15 - 28.90) mainly massive, white (faint grey speckling) barite, variable grade; sphalerite, galena and mud zones as follows.
			(24.15 - 25.10) mainly sphalerite and mud in massive barite. Sphalerite is granular and mud associated with it is sericitized galena occurs as small irregularly distributed patches.

SAMPLE NO.	FROM	TO	LENGTH

ASSAYS

EASTMAN SURVEY COORDINATES (from collar)

FROM	TO	Grid Azim.	Dip	Vert. Accum.	Coordinates E	Coordinates N
0	68.58	0	-90	-68.58	0	0
68.58	201.17	77	-71	-193.95	42.06	9.71
201.17	292.91	85	-70	-280.15	73.32	12.45
292.91	301.12	85	-70	-287.87	76.12	12.69
301.12	306.62	85	-70	-293.04	77.99	12.85

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. 79-3

FROM	TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS				
										oz/ton		
								% Pb	% Zn	Ag	% Ba	% $BaSO_4$
22.05	28.90		Sphalerite: Galena 4:1 moderate mineralization.									
(cont'd)												
			(25.10 - 25.40) Barite									
			(25.40 - 26.00) Barite with large irregular patches of galena and minor sphalerite, rare mud. Galena: Sphalerite = 3:1, well mineralized									
			(26.00 - 26.35) Sphalerite mixed with sericitized mud with minor galena in barite host. Sphalerite:Galena = 4:1, very well mineralized									
			(26.35 - 27.80) Mainly barite with with large high grade galena and sphalerite in mud, patches Galena: Sphalerite = 2:1, moderately mineralized.									
			(27.80 - 28.90) Barite host, well mineralized, large patches of coarse galena, less sphalerite and mud. Silica occurs with the well mineralized patches and separately in barite with minor sphalerite.									
			Footwall contact is gradational over 7 cm. Banded calcareous light grey mudstone is weakly mineralized with sphalerite, galena and pyrite over this 7 cm, with abundant silica									
			Recovery									
			90%	88269	22.05	23.90	1.85	0.78	4.78	0.06	0.03	0.05
			100%	88270	23.90	25.90	2.00	5.07	6.41	0.03	40.1	68.2
			100%	88271	25.90	28.90	3.00	6.27	2.92	0.08	38.5	65.4
			Average		22.05	28.90	6.85	4.44	4.44	0.06		48.6

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. 79-3

FROM	TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
28.90	74.20		Banded light and dark grey, calcareous, mudstone. Partings parallel to banding have a phyllitic character. Local boudinage effect from tiny fractures at steep angles to banding. Rare local fine grained pyrite parallel to banding. Sometimes dark bands are less calcareous than light bands, but not in all cases.					
			(28.90 - 46.80) as above					
			10 cm poorly recemented breccia at 44 m					
			Core Angles 28.90 m 70°					
			30 15°					
			31 25°					
			32 40°					
			37 30°					
			45 35°					
			(46.80 - 60.70) as above					
			Core Angles 48.5 m 45°					
			53.3 m 35°					
			57 m 55°					
			60 m 50°					
			(60.70 - 74.20) as above, some tendency towards more frequent, thicker, light colored calcareous bands, especially (60.70 - 67)					
			Core Angles 61 m 45°					
			68 m 45°					
			71 m 40°					
			74 m 40°					
			Broken core and calcite veining at 70.70 m. Calcite veining (white) approximately 45° - 90° to banding shows stages, some pre-dates axial plane and bedding transport, some post-dates.					

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. 79-3

FROM	TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
74.20	251.80		Wavy banded limestone: A gradational change is seen in which light grey calcareous bands become thicker and predominate. Dark bands surround light nodules and bands. Locally dark banding is absent or appears as anastomosings wisps or stylolites.					
			(74.20 - 87.70) Core broken in smaller pieces, parallel with banding. Light grey calcareous band predominates. Large calcite veins (10-30 cm) at: (77.0 to 77), (79.5) and (85.7 to 87.70). Core is contorted and broken near calcite.					
			Core Angles 75 m 35° 80 m 35° 83 m 35° 85.5 m 35°					
			(87.70 - 100.9) as above; no large calcite veins, good boudinage effect from anastomosing dark material around light nodules.					
			Core Angles 88 m 45° 92 m 40° 96 m 60° 99 m 50°					
			(100.9 - 115.50) as above; calcite veining (105.1 to 105.3 m) and (110.0 to 110.85 m). Small gauge zones at 103.50, 104.20, 105.40, 105.80 and 109.40.					
			Core Angles 102 m 50° 105 m 40° 109 m 40° 113 m 10° 115.5 m 25°					

FROM	TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
74.20	251.80		(115.50 - 130.00) as above;					
(cont'd)								
			Core Angles 116 m 5°					
			119 25					
			125 25					
			128 25					
			Fold Nose (minor warps, open folding) 121.00 m					
			and 125.5 m					
			(130.00 - 144.10) as above;					
			Core Angles 131 m 20°					
			135 25					
			139 30					
			144 25					
			(144.10 - 158.2) as above; granulated light grey boudinaged					
			limestone in dark matrix is common;					
			*except for (148.3-149.7) where massive light					
			grey limestone with dark stylolites occurs.					
			*This unit was also found in later holes and					
			may constitute a marker horizon.					
			Core Angles 145 m 30°					
			150 30					
			154 0					
			156 30					
			(158.20 - 172.2) textures as above; however darker colored due					
			to abundance of dark banding. Still wavy					
			anastomosing texture.					
			Core Angles 159 m 15°					
			164 20					
			167 20					
			172 0					

FROM	TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
74.20	251.80		(172.2 - 186.15) as above; abundant cataclastic boudinage texture. Gouge zone at 181 m and 182.10 m. Calcite filled fractures at 181.80 m. Extensive length of core angles of 0° from (183 to 186.15).					
(cont'd)								
			Core Angles 173 m 0-15°					
			177 m 10°					
			(183 to 186.15) 0°					
			(186.15 - 199.00) as above; section marked by shaly gouge zones at (191.0 - 191.3) and (192.2 - 192.6). Calcite veins at 197 and 198. Abundant cataclastic boudinage texture.					
			Core Angles 187 m 5°					
			190 m 0°					
			194 m 0°					
			199 m 5°					
			(199.00 - 213.50) as above; larger calcite veins at 200.90 and 204.40. Beds parallel to core angles from (204-207).					
			Core Angles 200 m 40°					
			202 m 35°					
			(204-207) 0°					
			211 m 20°					
			(213.50 - 227.70) as above; gouge zones at 219, 221.7 and 224.7. Large (5cm) carbonate veins associated with gouge zone at 219, also carbonate in gouge zone at 221.7.					
			At 217 m and (222 -226 m) numerous small (1-3 mm) calcite veinlets at 80-90° to core axis and 30-70° to bedding.					
			Core Angles 214 m 15°					
			217 m 20°					
			222 m 20°					
			227 m 65°					

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. 79-3

FROM	TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
74.20	251.80		(227.70 - 240.40) as above; carbonate veins at 229, (232.5-232.9), 234.65, (235.0-235.4) and 237.9. Local area of fault breccia at 233.80.					
(cont'd)								
			Core Angles 228 m 55°					
			234 m 60°					
			237 m 60°					
			240 m 60°					
			(240.40 - 251.80) as above; calcite veins at 248.20, 250.70, 251.40 and 251.76. Gouge zones at 249.70 and 251.60. Section is transitional to banded light and dark grey calcareous mudstone, bedding is highly contorted in the transition from (248 m) to 251.80 m). The number of light calcareous bands decreases from +70% to -30% over the transition interval.					
			Core Angles 242 m 40°					
			247 m 65°					
			250 m 60°					
251.80	283.00		Banded light and dark grey, calcareous mudstone; light grey calcareous beds are frequently boudinaged due to low angle, cross-cutting fractures; rare local fine-grained pyrite. Unit can be distinquished from wavy banded limestone above by predominace of dark calcareous mudstone in section.					
			(251.80 - 255.45) as above;					
			Core Angles 252 m 40°					
			255 m 25°					
			(255.45 - 269.55) as above;					
			Core Angles 256 m 30°					
			261 m 50°					
			264 m 60°					
			267 m 10°					
			269 m 60°					

FROM	TO	SECTION 1" =	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS				
251.80	283.00		(269.55 - 283.00) as above; from 277 to 283 there is a predominance of light grey calcareous beds which are sub-parallel to the core axis, with fold noses at 280 and 280.40. Calcite sealed breccia zones at 270 m, 275 m.									
(cont'd)												
			Core Angles 270 m 50°									
			273 35									
			276 25									
			280 0									
283.00	288.74		Fault Gouge: dark grey, argillaceous gouge, intensely brecciated with fragments less than 5 mm in size in a pastey clayey matrix. Non-calcareous.									
288.74	292.91		Dark grey to black mudstone with indistinct irregular banding, with thin, white, siliceous and/or calcite stringers, possibly some barite stringers (not positively identified).									
			Local weak sphalerite and galena mineralization as grains and patches, associated with silica and calcite stringers and fracture fillings. Very weak disseminated mineralization occurs locally also.									
			Mineralized siliceous stringers are intensely folded.									
			Recovery					% Pb	%Zn	% Ba	% Ag	% $BaSO_4$
			283.00-285.59 = 100%	88272	283	285	2.00	0.41	4.78	0.07	0.03	
			285.59-288.64 = 5%	88273	285	288.74	3.74	0.86	1.55	0.06	0.02	
			288.64-291.69 = 100%	88274	288.74	292.91	4.17	1.08	1.11	0.18	0.02	
			291.69-292.91 = 50%									
			Averages		283	292.91	9.91	0.86	2.02	0.11	0.02	0.19
			Pyrite is also associated with siliceous stringers and preferentially occurs along only one side of these stringers.									

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. 79-3

FROM	TO	SECTION 1"=	DESCRIPTION
292.91	301.12		Banded light and dark grey slightly calcareous mudstone-siltstone, banding is irregular in the upper part of the section from (292.91-297.85). From (297.85-298.20) bedding is regular - core angles 70°; from (298.20-301.12) there is extensive brecciation and some silica, primarily in veins. Coarse white calcite as a matrix to the breccia zone is cut by silica veins; massive coarse calcite from (300.41 to 301.0). Mineralization comprises galena and sphalerite with very minor pyrite; galena is more abundant than sphalerite and occurs as patches irregularly distributed in the core. In the breccia, galena and sphalerite are associated with white calcite matrix and are higher grade than in non-brecciated material. In non-brecciated material the mineralization is conformable with the banding. Highest grade mineralization is from 299.90 m to 300.41 m. Recovery 292.91-295.35 100% 295.35-297.48 85% 297.48-300.53 100%
301.12	306.62		Limestone: Light grey, fine grained, massive structureless limestone with irregular shaped mud clasts and stylolites, minor pyrite associated with the mud.
306.62			END OF HOLE

SAMPLE NO.	FROM	TO	LENGTH	% Pb	% Zn	% Ba	% Ag	% $BaSO_4$
88275	292.91	295.5	2.59	0.34	0.04	0.06	0.01	0.10
88276	295.5	298	2.50	0.32	0.01	0.06	0.01	0.10
88277	298	300.41	2.41	1.06	0.62	0.06	0.02	0.10
88278	300.41	301.41	1.00	0.31	0.89	0.06	0.01	0.10
Averages	292.91	301.44	8.50	0.53	.30		0.01	0.10

ST JOSEPH EXPLORATIONS LIMITED — DRILL LOG — HOLE NO. 79-4

091092

PROPERTY: MEL	TP OR AREA:	AZIMUTH: grid W	DATE STARTED: February 26, 1979
PROJECT: 6250	LOT & CONC.	DIP: -57°	DATE COMPLETED: March 1, 1979
CLAIM NO.: Jean 4	CO-ORDINATES: 9931.8	LENGTH: 262.12 m	DRILLED BY: Caron
GRID NO.:	10,145.0	COLLAR ELEV.: 903.2 m	LOGGED BY: W.P.B., D.H.

CORRECTED DIP TESTS

54.8m	-55°	273°	*
109.7m	-51°	266°	*
216.4m	-47°	252°	*

LOCATION SKETCH OF HOLE

Grid azimuth which is 2° east of true azimuth

METREAGE FROM	METREAGE TO	SECTION 1"=	DESCRIPTION
0	3.05		Casing - Overburden
3.05	91.10		Wavy banded limestone; light grey limestone with irregular wispy, at times anastomosing interlayers of dark fine grained calcareous mud. Light material is predominant. Occasional white coarse calcite bands up to 2 cm with minor pyrite cubes. Rare pyrite in patches.
			(3.05 - 17.46) wavy banded limestone;
			Core Angles 5.5 m 20°
			9 20
			13 0-5
			15 0
			(17.46 - 31.40) as above; from (29.0 to 31.4) open space fracture filling by coarse white calcite
			Core Angles 19 m 5°
			22 10
			25 0
			30 0-5
			(31.40 - 45.45) as above; from (37.85 to 39.55) coarse, white, calcite vein with accompanying brecciation of limestone
			Core Angles 32 m 0°
			35 0
			40 5
			45 0-5

SAMPLE NO.	FROM	TO	LENGTH

ASSAYS

EASTMAN SURVEY COORDINATES (from collar)

Grid Azim.	Dip	Vert. Accum.	Coordinates E	Coordinates N
270	-57	-22.98	-14.92	0
273	-55	-67.91	-46.34	1.65
266	-51	-130.70	-97.07	-1.90
252	-47	-191.87	-151.31	-19.53
252	-47	-198.70	-157.37	-21.50
252	-47	-203.16	-161.32	-22.78

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. 79-4

FROM	TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
3.05	91.10		(45.45 - 59.10) as above; calcite vein at 57.2					
(cont'd)								
			Core Angles 47 m 0°					
			50 10					
			54 0					
			59 0-5					
			Core breaks in small pieces (48.5 to 53) usually less than 5 cm plates.					
			(59.10 - 72.80) as above; 68 to 70.40 core is broken into smaller pieces					
			Core Angles 61 m 10°					
			65 0-5					
			68 0-5					
			71 0					
			(72.80 - 87.20) as above; small calcite filled fracture zone at 80.40 m, broken zone from 72.80 to 74.20.					
			Core Angles 75 m 0°					
			80 10					
			83 0					
			86 10					
			(87.20 - 91.10) as above;					
			Core Angles 88 m 20°					
			90 15					

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. 79-4

FROM	TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
91.10	105.9		Limestone; light grey, fine grained, stylolitic, with local areas of argillaceous partings. Fresh surfaces are medium grey. Stylolitic surfaces are variably oriented.					
			Core Angles 96 m 25° 99 40 102 0-5					
			Rare pyrite patches.					
105.9	221.55		Wavy band limestone (as previously described);					
			(105.9 - 115.3) as above; calcite veins at 108.5, 112, 112.5, 115					
			Core Angles 107 m 45° 109 10 111 70 114 0					
			(115.3 - 130.1) Wavy banded limestone; large number of calcite veins from (115.3 to 116). Large sections of massive limestone with stylolites, broken core from 122 to 125; not typical wavy banded limestone because of poor definition of wavy banding; no discrete light grey limestone pods.					
			Core Angles 118 m 50° 121 60 126 70 129 55					

FROM	TO	SECTION 1" =	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
105.9	221.55 (cont'd)		(130.1 - 144.1) Wavy banded limestone; several small calcite veins.					
			Core Angles 131 m 55°					
			134 55					
			138 55					
			144 55					
			(144.1 - 158.1) as above; variable amounts of light and dark grey calcareous material, large calcite veins at 144.5, 153, 155 and 156.5, gouge at 156.2.					
			Core Angles 145 m 65°					
			148 90					
			151 70					
			158 70					
			(158.1 - 173.5) as above; large calcite vein (159 to 160 m) and 169.7 section contains larger proportion of soft argillaceous material from (170.4 to 172.2 m).					
			Core Angles 161 m 70°					
			165 85					
			169 90					
			173 40					
			(173.5 - 188.5) as above; large calcite-quartz veins at 178 to 178.7, 179.2, 177.5 and 177.1, strong, local intralayer folding.					
			Core Angles 174 m 55°					
			179 60					
			183 85					
			188 90					

FROM	TO	SECTION 1" =	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
105.9	221.55 (cont'd)		(188.5 - 202.0) as above; brecciated calcite vein roughly conformable at 201 m and 199.5 m. Abundant argillaceous interbeds from (199.7 - 201).					
			Core Angles 190 m 90° 193 80 197 80 202 85					
			(202.0 - 215.8) as above; quartz-carbonate veins at 204, 205.7, 206 and 212.8; argillaceous interbeds comprise about 30% of the section.					
			Core Angles 205 m 55° with kink folds 208 80 211 75 215 75					
			(215.8 - 221.55) as above; quartz-carbonate veins at 221 and 221.4.					
			Core Angles 216 m 75° 219 90					
221.55	246.68		Banded light and dark grey, calcareous mudstone. As in other sections the unit is delineated by a large proportion (greater than 40%) of dark grey calcareous mudstone; wavy banded texture is still obvious in more calcareous areas.					
			(221.55 - 229.7) as above; quartz-carbonate veins at 225 and 227					
			Core Angles 223 m 80° 227 85					

FROM	TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
221.55	246.68		(229.7 - 244.1) as above; pronounced wavy banding texture in light calcareous layers.					
(cont'd)								
			Core Angles 230 m 80°					
			234 85					
			239 80					
			243 75					
			(244.1 - 246.68) as above; larger number of calcareous beds than unit in general. A 10 cm siliceous (sand?) bed occurs at the base of the section, directly above the ore.					
			Core Angles 244 m 80°					
			246.4 90					
			246 90					

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. 79-4

FROM	TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
246.68	256.03		Ore Zone - massive, barite-galena-sphalerite, with muddy sections siliceous patches and very minor calcite. Grade varies from barren barite through barite and galena or sphalerite, to high grade barite, galena and sphalerite zones.					
			(246.68 - 247.20) Mainly a barite host with moderate sphalerite and galena; includes a 5 cm thick well mineralized mud band; upper contact with overlying mudstone is very sharp					
			Core Angle 70° at contact					
			(247.20 - 247.58) Grey-green, fine grained mudstone, non-calcareous with fine grained siliceous interlayers, weak sphalerite and galena mineralization.					
			(247.58 - 247.93) Barite-chert host with moderate mineralization, predominately sphalerite					
			(247.93 - 248.66) Massive barite; most of section is barren of sulphides however from (248.40 to 248.66) there are large patches of sphalerite and galena.					
			(248.66 - 249.26) Siliceous section with sphalerite and minor galena, mineralization weak.					
			(249.26 - 250.00) Massive barite host; to the base of the section at 249.75 there is some included chert and large patches of sphalerite with very minor galena.					
			(250.00 - 256.03) Massive barite with high grade patches of galena and sphalerite, commonly associated with grey-green mudstone. From (250.25 to 250.45) large band of grey-green mudstone From (254.80 to 255.80) large patches of grey-green sericitized mudstone, small areas of sphalerite throughout mudstone. Generally well mineralized throughout.					

ST JOSEPH EXPLORATIONS LIMITED — DRILL LOG — HOLE NO. 79-4

FROM	TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS % Pb	% Zn	% Ba	oz/ton Ag	% $BaSo_4$
			Recovery									
				88279A	246.68	247.80	1.12	2.82	2.77	14.4	0.01	24.5
			246.68 to 249.6 100 %	88280A	247.80	250.0	2.20	1.72	3.21	43.6	0.01	74.1
			249.6 to 252.83 100 %	88281A	250.0	252.90	2.90	5.40	7.40	35.5	0.09	60.3
			252.83 to 256.03 95 %	88282A	252.90	255.80	2.90	1.54	9.93	41.9	0.03	71.2
			256.03 to 256.82 80 %	88283A	255.80	256.82	1.02	0.03	0.50	0.10	0.01	0.17
256.03	262.12		Limestone - massive light grey crytocrystalline with irregular wisps and patches of grey-green calcareous mudstone, minor galena in the limestone at the base of the ore.	Average	246.68	255.80	9.12	2.97	6.63	36.9	0.04	62.7
262.12			END OF HOLE									

ST JOSEPH EXPLORATIONS LIMITED — DRILL LOG — HOLE NO. 79-5

091092

PROPERTY: MEL	TP OR AREA:	AZIMUTH: Grid W	DATE STARTED: March 2, 1979	CORRECTED DIP TESTS: 106 m -78° 286° *; 213 m -62° 267° *
PROJECT: 6250	LOT & CONC.	DIP: -77°	DATE COMPLETED: March 5, 1979	
CLAIM NO.: Jean 4	CO-ORDINATES: 9931.8 N	LENGTH: 275.23 m	DRILLED BY: Caron Diamond Drilling	
GRID NO.	10145.0 E	COLLAR ELEV.: 903.2	LOGGED BY: WPB, DH	

LOCATION SKETCH OF HOLE

* Grid Azimuth which is 2° east of true azimuth

METREAGE FROM	METREAGE TO	SECTION 1"=	DESCRIPTION
0	1.52		Overburden
1.52	234.4		Wavy banded limestone; light and dark grey calcareous mud with general predominance of light colored bands. Dark material forms thin, wispy, anastomosing bands around larger, light colored, elongate limestone pods. Rare pyrite and thin white calcite or calcite-quartz veins throughout the section. Occasionally dark material is rare over sections up to 0.5 m.
			(1.5 - 16.8) as above; Core Angles: 9 m 25°; 12 35; 15 35
			(16.8 - 30.5) as above; at 17.5, calcite vein 10 cm thick. Core Angles: 18 m 15°; 20 20; 23 20; 27 15; 30 0
			(30.5 - 44.8) as above; at 44 m brecciation of host rock, sealed by calcite veins Core Angles: 32 m 0°; 34 20; 39 40; 43 10

SAMPLE NO.	FROM	TO	LENGTH	ASSAYS

EASTMAN SURVEY COORDINATES (from collar)

FROM	TO	LENGTH	Dip	Grid Azim.	Vert. Accum.	Coordinates E	Coordinates N
0	53	53	-77	270	-51.64	-11.92	0
53	159.5	106.5	-78	286	-155.81	-33.21	6.10
159.5	260.25	100.75	-62	267	-244.77	-80.44	3.63
260.25	269.30	9.5	-62	267	-253.16	-84.90	3.39
269.30	275.23	5.93	-62	267	-258.40	-87.68	3.25

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. 79-5

FROM	TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
			(44.8 - 59.3) as above; quartz-calcite veins (approximately 2 cm thick) at 45.3 m, 47.8 and 52.3					
			(59.3 - 73.8) as above; section has a larger proportion of dark bands then wavy limestone in general; quartz-carbonate veins at 68.4 m and smaller calcite veins from (72.5 to 73.8); intraformational folding, sharp kink bands and small calcite veinlets at 90° to bedding in core from (72 to 73.8)					
			Core Angles: 62 m 25°					
			65 15					
			68 30					
			73 25					
			(73.8 - 87.9) as above; with slightly higher proportion of dark beds then wavy limestone, from (73.8 to 76.0) extensive quartz-carbonate veining and again from (85.4 to 87.5)					
			Core Angles: 78 m 5°					
			82 20					
			85 60					
			87 75					
			(87.9 - 101.4) as above; complete section is noted for the abundance of, from 1 mm to 10 cm, calcite veins, which comprise 5-10% of the section, and are associated with tectonic disturbance of beds (brecciation and tight folding).					
			Core Angles: 90 m 40°					
			95 60					

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. 79-5

FROM	TO	SECTION 1" =	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
			(101.4 - 116.3) as above; typical wavy banded limestone, carbonate vein sub-parallel to core axis from (115 to 116.3)					
			Core Angles: 102 m 50°					
			107 60					
			113 65					
			116 0-5					
			(116.3 - 131.1) as above; carbonate vein at 118 m and 124 m					
			Core Angles: 118 m 15°					
			123 0-5					
			125 25					
			130 30					
			(131.1 - 145.5) as above; quartz-carbonate vein from (144.8 to 145.5), carbonate veining at 134.5 and 144; broken core and minor brecciation in limestone from (144 to 145.5)					
			Core Angles: 132 m 20°					
			136 20					
			140 10					
			144 20					
			(145.5 - 151.0) as above; quartz-carbonate veins at 147					
			Core Angles: 146 m 0-5°					
			148 10					
			(151.0 - 152.4) Mainly massive light to medium grey limestone with some stylolites; minor number of thin dark shaley partings cut by carbonate vein at 151.5 m					
			(152.4 - 159.3) Wavy banded limestone as described previously, section contains a higher proportion of light grey beds than typical wavy limestone, small tensional calcite veinlets occur throughout this section.					
			Core Angles: (153 to 154.2 m) 0-5°					
			155 m 40					
			159 30					

ST JOSEPH EXPLORATIONS LIMITED — DRILL LOG — HOLE NO. 79-5

SHEET ___ OF ___

FROM	TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
			(159.3 - 172.9) wavy banded limestone; quartz-calcite veins at 160.6, 161, 168.6 and 169 and associated with gouge zone at 169.9. Small calcite veinlets perpendicular to bedding throughout section.					
			Core Angles: 160 m 45°					
			164 40					
			167 45					
			172 40					
			(172.9 - 187.1) as above; whole section contains small calcite veinlets, cutting darker beds at steep angle to bedding.					
			Core Angles: 174 m 40°					
			178 40					
			182 40					
			186 40					
			(187.1 - 201.6) as above; small calcite veinlets at 90° to core axis cutting all dark bands.					
			Core Angles: 188 m 45°					
			194 50					
			197 50					
			201 45					
			(201.6 - 216.1) as above; small calcite veinlets oriented from perpendicular through 45° to bedding					
			Core Angles: 203 m 50°					
			206 45					
			216 55					

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. ____

FROM	TO	SECTION 1" =	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
			(216.1 - 230.3) as above; small calcite veinlets as in previous sections do not appear below approximately 217 m					
			Core Angles: 217 m 55°					
			220 55					
			224 55					
			228 55					
			(230.3 - 234.4) as above;					
			Core Angles: 231 m 50°					
			234 55					
234.4	256.6		Banded light and dark grey, calcareous mudstone. Unit contains greater than 40% dark grey, calcareous mudstone and is gradational over at least 10 m with the wavy limestone; minor carbonate veining.					
			(234.4 - 244.7) as above; carbonate vein at 239.6					
			Core Angles: 236 m 60°					
			239 70					
			243 60					
			(244.7 - 256.6) as above;					
			Core Angles: 245 m 65°					
			251 70					
			255 65					
256.6	260.25		Green to grey, laminated siliceous mudstone; not calcareous. Unit consists of greenish chloritic (?) beds intercalated with bluish-grey siliceous beds; has minor pyrite stringers conformable to bedding.					
			Core Angles: 257 m 80°					
			258 70					
			260 75					
			(259.56 - 260.25) barite veins and stringers make up 10% of rock giving slight brecciated appearance. Minor pyrite and sphalerite as fine grains (less than 1 mm) appear with the barite. Very weak mineralization.					

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. 79-5

SHEET 6 OF 7

FROM	TO	SECTION 1" =	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
260.25	269.30		Mineralized Zone - brecciated, green, siliceous, laminated, mudstone (non calcareous) with a barite matrix. Barite contains weak sphalerite as grains less than 1 mm, occuring in patches with brownish sericitized mud and weak pyrite also occurs.					
			(260.25-264.75) Well brecciated with fragments of laminated, siliceous, non-calcareous mudstone predominating. Fragments are up to 40 cm in core although less than 10 cm fragments are more common. Fragments show obvious rotation in some cases. Others are just separated by barite or barite/sphalerite stringers.					
			Sphalerite grains make up approximately 1-2% of the barite matrix; but overall grade is much lower because of large unmineralized mudstone fragments.					
			(264.75 - 266.35) Mainly massive barite with several mudstone fragments (less than 5 cm). Weak sphalerite mineralization occurs with the barite between (264.75 - 265.15) and from (266.00 - 266.35). The intervening interval is unmineralized barite primarily.					
			(266.35 - 268.00) Mudstone breccia fragments make up 20-30% of the core in a barite matrix. Wispy light brown mud stringers occur in the barite. Sphalerite grains, usually as patches, are moderately abundant in the barite.					

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. 79-5

FROM	TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS				
			(268.00 - 269.30) Barite, with light brown mud patches (not same as earlier fragment) generally well mineralized with sphalerite as less than 1 mm grains and patches. Patches have yellow brown appearance as sphalerite is associated with sericitized mud.									
			At 268.5 a 2 cm long black, hard, cherty, non-calcareous, irregular shaped fragment occurs.									
											Oz/ton	
			Core Recoveries:					Pb%	Zn%	Ba %	Ag	BaS_4
			(259.38-262.43) 95%	88284	259.25	260.25	1.00	< 0.01	0.33	3.53	0.01	6.00
			(262.43-263.04) 60%	88285	260.25	262.58	2.33	< 0.01	1.08	19.4	0.01	33.0
			(263.04-265.78) 95%	88286	262.58	264.75	2.17	< 0.01	3.15	22.5	0.01	28.2
			(265.78-268.98) 95%	88287	264.75	266.35	1.60	< 0.01	1.51	45.5	0.01	77.3
				88288	266.35	269.30	2.95	< 0.01	5.92	29.8	0.02	50.6
269.30	275.23		Limestone; light grey, cryptocrystalline homogeneous, massive limestone, with 5% irregular bands and patches of light brown mud.	Average	260.25	269.30	9.05	< 0.01	3.23	28.15	0.01	47.84
275.23			END OF HOLE									

ST JOSEPH EXPLORATIONS LIMITED — DRILL LOG — HOLE NO. 79-6

09 1092

PROPERTY	TP OR AREA	AZIMUTH	DATE STARTED
MEL		Grid W	March 6, 1979
PROJECT	**LOT & CONC.**	**DIP**	**DATE COMPLETED**
6250		-58°	March 13, 1979
CLAIM NO.	**CO-ORDINATES.**	**LENGTH**	**DRILLED BY**
Jean 4	10072.56 N	336.2 m	Caron
GRID NO.	10252.80 E	**COLLAR ELEV.** 904.18	**LOGGED BY** P. Binney & D. Hendry

CORRECTED DIP TESTS

155 m	-56°	294°	*
232 m	-48°	273°	*
308 m	-41°	265°	*

LOCATION SKETCH OF HOLE

* Grid Azimuth which is 2° east of true azimuth

METREAGE FROM	METREAGE TO	SECTION 1"=	DESCRIPTION
0	53.9		Overburden
53.9	190.3		Wavy Banded limestone; light and dark grey, calcareous mud with light grey bands & pods predominating. The lighter colored limestone occurs in elongate pods enclosed in the dark grey calcareous mud. Locally there is only light grey limestone in massive sections up to 0.5 m long. Rare pyrite and thin calcite and quartz-calcite veins occur throughout the section.
			(53.9 - 67.7) as above; core lightly broken with small calcite veins common throughout.
			Core Angles (54 to 62 m) irregular due to folding 64 m 75° 67 50
			(67.7 - 82.6) as above; strong boudinage of light colored calcareous bands at (82.2 - 82.6) in predominately dark matrix. Extensive calcite stringers, small scale folding with fold noses and warping of beds throughout.
			Core Angles 68 m 65° 73 0-5 76 folded 82 35
			(82.6 - 96.2) as above; core is less broken, more dark material than commonly found in wavy banded limestone.
			Core Angles 83 m 35° 85 35 90 40 94 40

SAMPLE NO.	FROM	TO	LENGTH

EASTMAN SURVEY COORDINATES (from collar)

Dip	Grid Azim.	Vert. Accum.	Coordinates E	Coordinates N
-58	270	-65.72	-41.07	0
-56	294	-161.89	-100.33	26.38
-48	273	-218.74	-151.45	29.06
-41	265	-257.32	-195.65	25.19
-41	265	-259.09	-197.68	25.02
-41	265	-262.17	-201.22	24.71

ASSAYS

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. 79-6

SHEET 2 OF 4

FROM	TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
53.9	190.3							
(cont'd)								
			(96.2 - 109.6) as above; sealed breccia zone at 105 m, 15 cm long, small calcite veins throughout section, thicker light bands from (106.3 - 109.6)					
			Core Angles 97 m 40°					
			102 20					
			104 50					
			108 40					
			(109.6 - 123.8) as above; broken core (not gouge) (112.5 - 114.3), extensive section of 0-5° core angles from (114.3 - 123.8), at 112 m 40° core angle					
			(123.8 - 138.4) as above; section contains about 80% light grey calcareous beds and is slightly more massive than wavy limestone in general					
			Core Angles 124 m 20°					
			129 20					
			133 35					
			138 30					
			(138.4 - 153.7) as above; section also shows dominance of light grey calcareous beds, open carbonate vein at 140.8 m					
			Core Angles 139 m 40°					
			143 60					
			148 60					
			153 65					

FROM	TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
53.9	190.3 (cont'd)		(153.7 - 168.8) as above; carbonate veins with minor quartz veins at 163.4 and 167 m					
			Core Angles 156 m 55° 161 65 163 65 168 60					
			(168.8 - 183.1) as above; carbonate vein at 175.2 m, small carbonate veinlets perpendicular to bedding in dark calcareous mud at 175 m					
			Core Angles 171 m 60° 174 65 179 55 182 70					
			(183.1 - 190.3) as above; small calcite veinlets from (188.7 - 190.3) occur in the darker bands					
			Core Angles 186 m 55° 190 65					
190.3	194.8		Stylolitic limestone; light to medium grey, stylolites unevenly distributed throughout. Some parts of the section show fine dark grey argillaceous partings.					
194.8	289.0		Wavy banded limestone as described previously.					
			(194.8 - 197.3) as above; section has more light grey material than is typical for the wavy banded limestone					
			Core Angles 197 m 60°					

FROM	TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
194.8	289.0		(197.3 - 211.7) as above; massive carbonate section with some stylolites at 201 m. Large quartz-carbonate vein from (209.7 - 210 m), small carbonate veins throughout section, from 197.3 to 208 m the section contains more light carbonate beds than wavy limestone in general. The darker beds tend to be very thin and form a "chicken wire" texture about the light, limy nodules. From (208 - 211.7 m) the dark beds are much thicker than above and folding is observed.					
(cont'd)			Core Angles 198 m 50° 203 50 207 50 211 45					
			(211.7 - 225.7) as above; shows many variations on shape of light and dark mud bands and pods. Also variable ratio of light to dark material. Not mappable units however and changes are gradational. Several quartz-carbonate veins (5 cm thick). White stringers and veinlets of calcite at steep angles to bedding occur only in dark argillaceous material. It gives the core a "tiger stripe" appearance from (220 - 225.7).					
			Core Angles 212.5 m 45° 217 50 221 65 60					

FROM	TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
194.8	289.0 (cont'd)		(225.7 - 240.6) as above; calcite vein at 230 m, tiny white veinlets in dark bands ("tiger texture") from (234.5 - 237) and (240 - 240.6)					
			Core Angles 227 m 55°					
			231 65					
			236 55					
			240 65					
			(240.6 - 255.0) as above; section contains 10 cm thick light grey limestone beds at 240.7, 241 and 251.5 m. There is a predominance of light grey limestone in this section. Dark bands contain a minor number of cross-cutting calcite veinlets.					
			Core Angles 242 m 55°					
			246 60					
			251 60					
			254 60					
			(255.0 - 269.4) as above;					
			Core Angles 256 m 60°					
			261 60					
			264 65					
			269 60					
			(269.4 - 283.6) as above; massive stylolitic limestone (274.6 - 274.9 m). Elsewhere in this section the proportion of dark to light bands has increased and some sections have the appearance of dark calcareous mudstone, although overall this is still the wavy banded limestone.					
			Core Angles 270.5 m 60°					
			274 80					
			279 80					
			282 75					

FROM	TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
194.8	289.0		(283.6 - 289.0) as above;					
(cont'd)								
			Core Angles 285 m 70°					
			288 85					
289.0	328.84		Dark and light grey, banded fine-grained calcareous mudstone. Section shows transport of material, principally light grey beds, parallel to cleavage. This unit can be distinquished from the wavy banded limestone by the increased proportion of dark material (averaging +60%).					
			(298.0 - 298.1) as above;					
			Core Angles 290 m 75°					
			294 75					
			297.5 0					
			(298.1 - 312.5) as above; from (305 - 308 m) there is a higher proportion of light material than the unit in general					
			Core Angles 305 m 85°					
			306 85					
			310 80					
			(312.5 - 326.5) as above; fine pyrite in bands parallel to bedding					
			Core Angles 313 m 85°					
			317 90					
			323 80					
			326 85					
			From 324.1 m (approximately) to the end of the box (326.5) and continuing in the next box fine grain pyrite laminae occur parallel with the laminated muds. This pyrite is very conspicuous under a hand lense and probably comprises 2% of the rock.					

FROM	TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
289.0	328.84		(326.5 - 328.84) Dark and light banded calcareous mudstone. The ratio of dark to light material is about 2:1. Light bands are broken and shifted slightly along tiny cleavage fractures that curve across bands at a steep angle. There is considerable fine-grain pyrite as laminae parallel with banding and also filling most tiny fractures in the core. Pyrite content is variable but 2-5% seems most common. Only one band near the bottom of this section appears to contain silica. A trace of galena was found within rare calcite stringers.					
(cont'd)			Core Angles 327 m 80° 328 80					
328.84	331.52		Mineralized zone; this zone begins with the introduction at 328.8 m of light grey to white microcrystalline silica, with galena and minor sphalerite. This is accompanied by a reduction of black argillaceous material to zero over the 15 cm above 328.8 The mineralized zone is characterized by three distinct sections; an upper silica and galena section with lesser amounts of sphalerite, a middle very high grade galena - sphalerite zone with silica and calcite host and a lower sphalerite, galena and mud section with lesser amounts of silica and calcite. Banding is absent except in the upper 15 cm of the section. Pryite is rare. Core recovery is 100%.					

FROM	TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS % Pb	% Zn	% Ba	oz/ton Ag	% $BaSO_4$
			(328.84 - 329.63) The predominant constituent of this section is silica, microcrystalline in the upper portion giving way to massive white quartz for the last 13 cm. Galena occurs as large patches in the silica with minor amounts of mud associated with it. The grade is very good. Sphalerite as distinct grains is weakly scattered throughout except for several small patches of clusters of grains.	88289	328.84	329.63	0.79 m	10.4	1.70	1.13	0.10	1.92
			Mud bands at 328.84 have 70° core angles. Carbonate bands occur with the mud. Carbonate is rare below 329.90 m.									
			100% recovery.									
			(329.63 - 330.57) Very high grade galena and sphalerite mineralization. Galena: Sphalerite ratio is approximately 1.5:1. Galena occurs as large patches, whereas sphalerite occurs as up to 1 cm grains and clusters of grains. Grey mud patches comprise 40% of the section. Locally mud and galena intermixed provide a matrix around the large sphalerite grains. Silica and rare calcite also appear as matrix. The lower boundary of this zone is taken as the lower limit of large galena patches. Very strong sericitic alteration of mud from (330.67 - 330.93) giving the ore an extremely friable nature.	88290	329.63	330.57	0.94	12.5	20.2	1.79	0.18	3.04
			Core recovery 100%.									
			(330.57 - 331.52) Weak galena, sphalerite and pyrite occur in mud, silica and minor calcite. Sulfides occur as discreet grains. Mud bands and patches appear to surround silica patches. Some silica occurs as fragments. Mud: silica ratios increase from 1:3 near the top of the section to 2:1 at the bottom. The lower contact is a very sharp transition to limestone. The contact has a 77° core angle. Recovery is 100%.	88291	330.57	331.52	0.95	1.17	0.49	2.50	0.03	4.24
				average	328.84	331.52	2.68	7.86	7.76	1.85	0.10	3.14

ST JOSEPH EXPLORATIONS LIMITED DRILL LOG HOLE NO. 79-6

FROM	TO	SECTION 1"=	DESCRIPTION	SAMPLE NO.	FROM	TO	LENGTH	ASSAYS
331.52	336.2		Limestone; light grey cryptocrystalline massive, with patches and stylolitic lines of grey mud. Minor fine grain pyrite occurs with the mud.					
336.2			END OF HOLE					