

GEOLOGICAL, GEOCHEMICAL AND GEOPHYSICAL REPORT



ON THE

S M CLAIMS



LOCATED: 48 MILES N.E. OF WHITEHORSE, Y.T.
(60°58'N; 133°46'W) N.T.S. 105C-13

This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of \$ 4000.00

W.D. Sinclair BY
acting Resident Geologist or
Resident Mining Engineer

Considered as representation work under Section 53 (4) Yukon Quartz Mining Act.

[Signature] E.R. BAXTER
Supervising Mining Recorder
Commissioner of Yukon Territory



090005

B. TAYLOR (P.Eng.)

EL PASO MINING AND MILLING COMPANY

JULY 21 - AUGUST 1, 1975

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SUMMARY

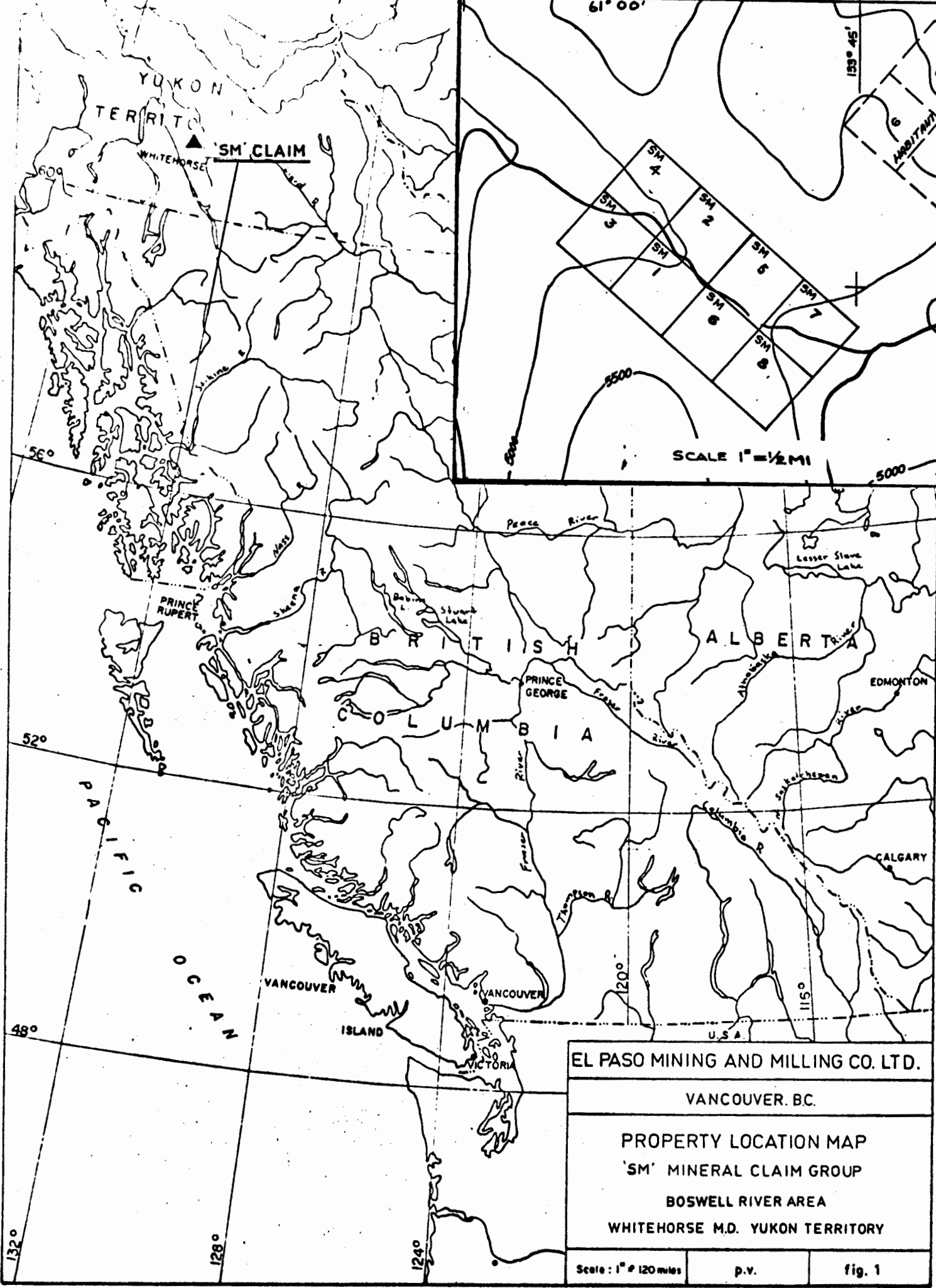
The SM 1 - 8 mineral claims were worked on by G. Noel, H. Jones and B. Taylor from July 21 - August 1, 1975. A survey grid was established and then used for geologic mapping, soil sampling and an electro-magnetic survey.

A series of dark coloured, fine textured argillites and schists of the Big Salmon formation of Mississippian Age underly the property. Sulfide mineral in place is sparse.

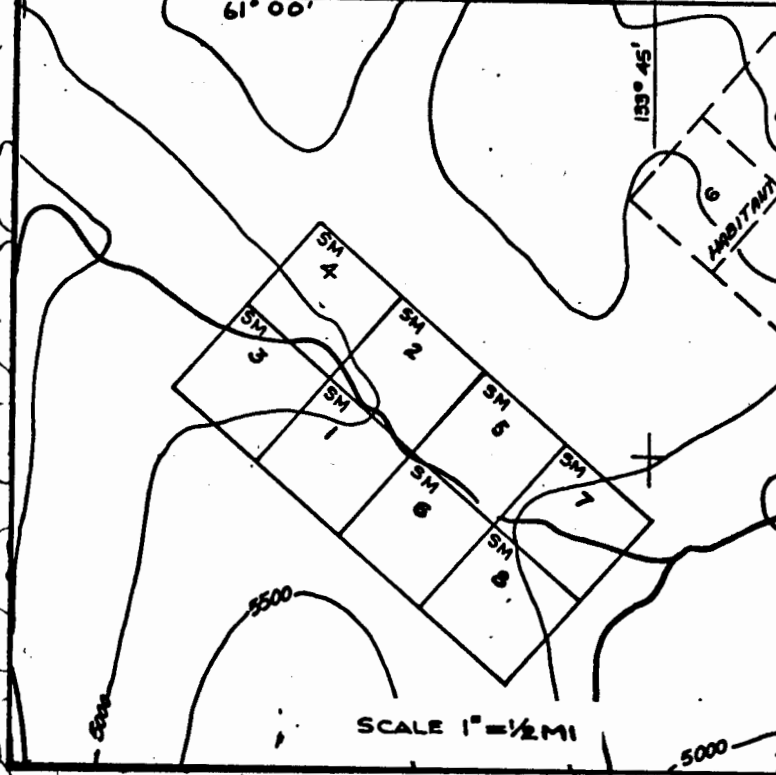
A number of soil anomalies were outlined for zinc, lead and silver. The strongest anomalies, roughly coincident for all the elements, cover a zone 3000 feet long and about 300 feet wide, with the width varying considerably.

The EM survey mainly reflected the stratigraphy and could not be considered diagnostic of mineralization.

Backhoe trenching of the soil anomalies is recommended. This can be followed by diamond drilling to check metal values at deeper horizons.



YUKON TERRITORY
 WHITEHORSE
 SM CLAIM



PRINCE RUPERT
 MASS
 SLACK
 BABINE L.
 STUART LAKE
 PEACE RIVER
 BRITISH COLUMBIA
 PRINCE GEORGE
 FRASER RIVER
 THOMPSON R.
 VANCOUVER ISLAND
 VANCOUVER
 VICTORIA
 ALBERTA
 LESSER STONE LAKE
 EDMONTON
 CALGARY
 COLUMBIA R.
 SUTKLOFF R.
 U.S.A.

56°
 52°
 48°
 132°
 128°
 124°
 120°
 115°

PACIFIC OCEAN

EL PASO MINING AND MILLING CO. LTD.
 VANCOUVER, B.C.
 PROPERTY LOCATION MAP
 'SM' MINERAL CLAIM GROUP
 BOSWELL RIVER AREA
 WHITEHORSE M.D. YUKON TERRITORY

Scale: 1" = 120 miles p.v. fig. 1

INTRODUCTION

The ground covered by the SM mineral claims was first staked prior to 1935. Subsequent staking in 1946 and 1966 held the ground for short periods of time. A stream sediment geochemical survey for silver, lead and copper was done by Barringer Research for Boswell River Mines in 1968. A minor amount of bulldozer trenching was done, incidental to road building on the nearby FOX group of claims. The ground was staked as the HM claims for El Paso Mining and Milling Company by Don Plaster in July, 1973. On August 30, 1974, the ground was staked by W. Kuhn as the SM 1 - 8.

Mineral claims covered are:

<u>Claim No</u>	<u>Tag No.</u>	<u>Claim Holder</u>
SM 1	Y90711	W. Kuhn
SM 2	Y90712	"
SM 3	Y90713	"
SM 4	Y90714	"
SM 5	Y90715	"
SM 6	Y90716	"
SM 7	Y90717	"
SM 8	Y90718	"

LOCATION

The SM 1 - 8 claim group is located on the NTS map sheet 105C-13 at 60°58'N, 133°46'W. The claims are 48 miles N67°E from the airport at Whitehorse. (See figures one, Property location map)

ACCESS

A bulldozed trail has been built to the area by Boswell River Mines. They extended an older trail along Sidney Creek which had its beginning on the Canol road some 20 miles from Johnson's crossing. As the trail has not been used for several years, it is unlikely that it is passable for even a 4-wheel drive vehicle at this time. For the work reported herein, a float plane was used from Whitehorse to Rosy Lake, and a helicopter from Rosy Lake for the 8 miles north to the campsite on the property.

FIELDWORK

Fieldwork was done by G.A. Noel, 4553 Timberline Place, North Vancouver, B.C., H.M. Jones, 609 Tranquille Place, Richmond, B.C., and B. Taylor, 1981 Hyannis Dr, North Vancouver, B.C. from July 21 - August 1, 1975. It consisted of the establishment of a mapping grid on the ground, and the subsequent topographic and geologic mapping, a soil sampling program and a Very Low Frequency (EM-16) Electromagnetic survey.

SURVEY CONTROL

A control grid, approximately 2000 x 4000 feet in size, was established on the ground. An east-west baseline was marked on the ground, through the common corner of SM 1, 2, 5 and 6, which is the centre of the claim group. It was marked at 200 foot intervals. Cross-lines, running north and south were then measured off at 100 foot intervals to the apparent limits of the interesting ground. These points were all marked and numbered on blue plastic flagging. Lines were marked by orange flagging.

The Silva Ranger compass, corrected for the magnetic declination was used to give line direction. Distances were measured by nylon chain for the baseline and some of the cross-lines. The remainder were measured by Top-o-chaix. Corrections for slope were made by using a Suunto clinometer. Elevations were measured by aneroid barometer. A base elevation of 5000 feet at the camp was arbitrarily used. Topographic contours, as determined from the above information are plotted on the Geology map 105C-13-A8.

GEOLOGY

MAP 105-C-13-A8

The claim group is underlain by north-easterly dipping argillite, talc-chlorite-sericite schists and very minor, thin limestone. According to GSC Memoir 326, they are of Mississippian Age or earlier and have been designated as part of the Big Salmon complex.

The strike approximates $S70^{\circ}E$, but varies considerably locally. Dips average about 35° to the north, on the north side of the valley, and more irregularly, $20^{\circ} - 40^{\circ}$ to the south on the south side. An irregular anticline, with axis along the stream is indicated. Cleavage, parallel to the bedding, is pronounced, except in a few sandy and limy horizons.

Brecciation is present on 106E line at 4725N and is seen again at 99E 48N. It is cemented by carbonate. Both of these locations contain small amounts of mineral. Galena, in a contorted, leached 2" vein is present at the latter location and a white zinc efflorescence at the former.

No other appreciable mineralization was noted in the rock cuts along the bulldozed trail. A number of thin conformable white quartz lenses are present in the argillite and these are invariably barren.

Only two small outcrops of intrusive were seen on the property and are apparently a lamprophyre dike. However, a large dacite porphyry body approximately parallels the north-east boundary of the claims and about 500 feet beyond it. A short distance further north-east is the felsic gneiss containing up to 5% pyrite which was extensively explored by Boswell River Mines for molybd-

enum and copper. A quartz-hornblende gneiss parallels the south-western boundary also a few hundred feet outside the property.

GEOCHEMISTRY

Map 105-C-13-A5 Lead in ppm
Map 105-C-13-A6 Zinc in ppm
Map 105-C-13-A7 Silver in ppm

Four hundred and ninety soil samples were taken, essentially from the 'B' soil horizon. Sample depths varied down to one foot.

These samples were analyzed by Min-En Laboratory of 705 - West 15th St, North Vancouver, B.C. They were screened to -80 mesh. The fine material was digested in hot concentrated nitric acid, and the metal content determined by atomic absorption from the leachate. The results are attached as Appendix 'A'.

From a study of the histograms, Figures 2-4 inclusive, the following cut-offs were determined:

	<u>Pb ppm</u>	<u>Zn ppm</u>	<u>Ag ppm</u>
Median	39	120	1.2
Arithmetic mean	129	240	1.8
Background	100	250	2.3
Possibly Anomalous	100-175	250-370	2.3-3.6
Probably Anomalous	175-250	370-500	3.6-5.0
Definitely Anomalous	>250	>500	>5.0

LEAD

There are 11 areas which have anomalous lead values greater than 250 ppm. Three of these appear to be continuous enough to be of interest. They essentially are situated either near the valley bottom or along the north slope. The south portion of the property is essentially background. The largest anomaly is 1600 by 800 feet

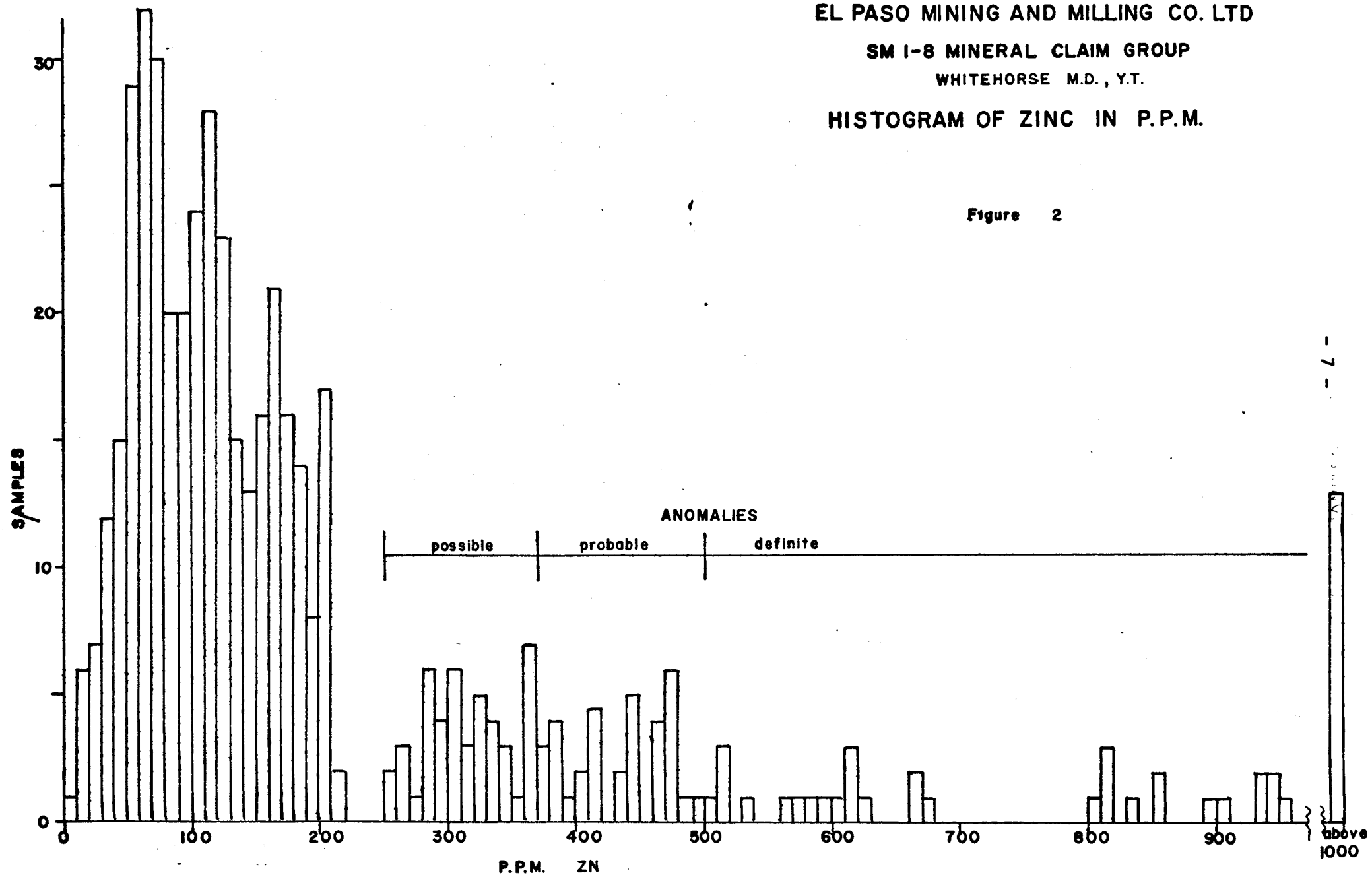
EL PASO MINING AND MILLING CO. LTD

SM 1-8 MINERAL CLAIM GROUP

WHITEHORSE M.D., Y.T.

HISTOGRAM OF ZINC IN P.P.M.

Figure 2



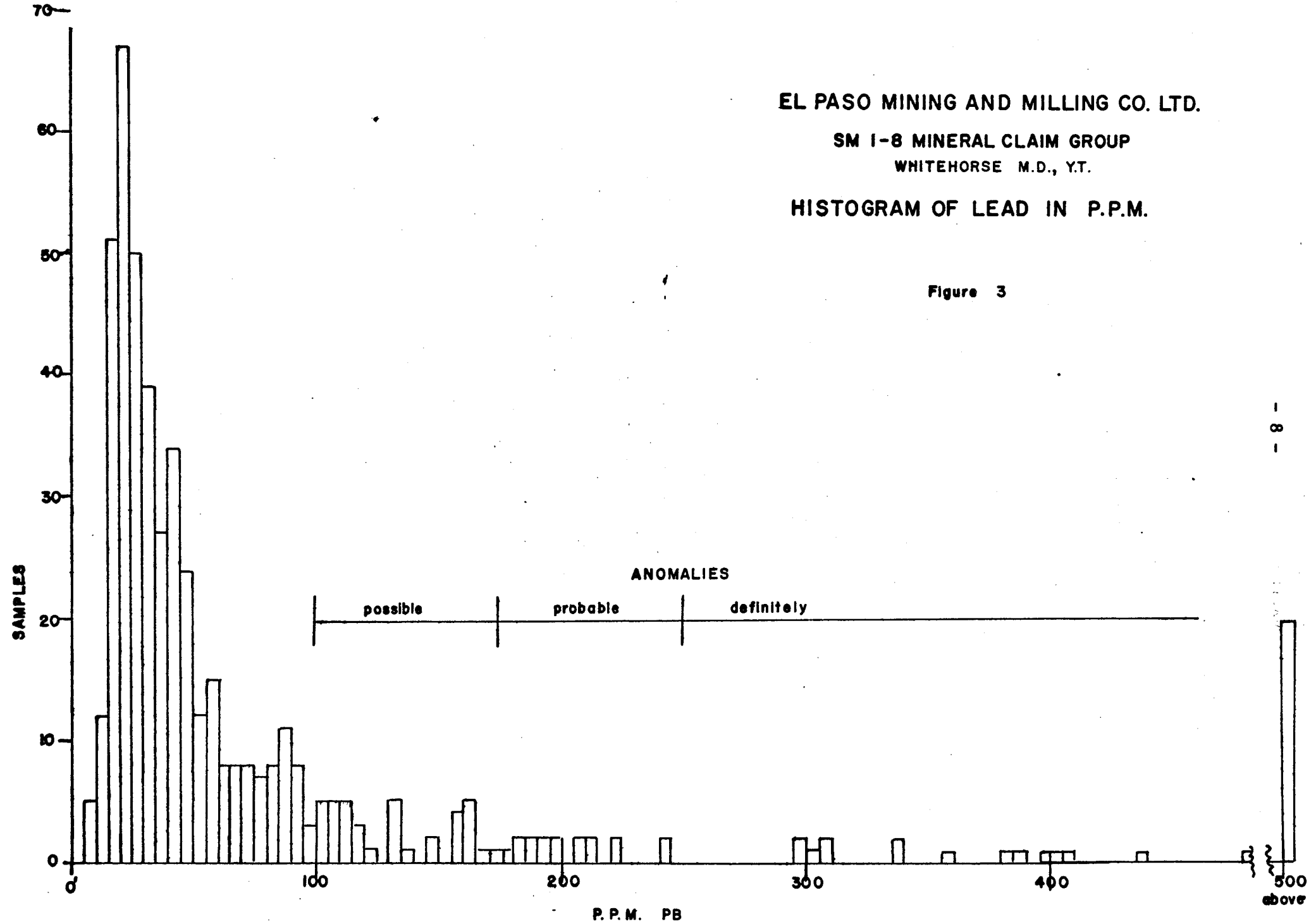
EL PASO MINING AND MILLING CO. LTD.

SM 1-8 MINERAL CLAIM GROUP

WHITEHORSE M.D., Y.T.

HISTOGRAM OF LEAD IN P.P.M.

Figure 3



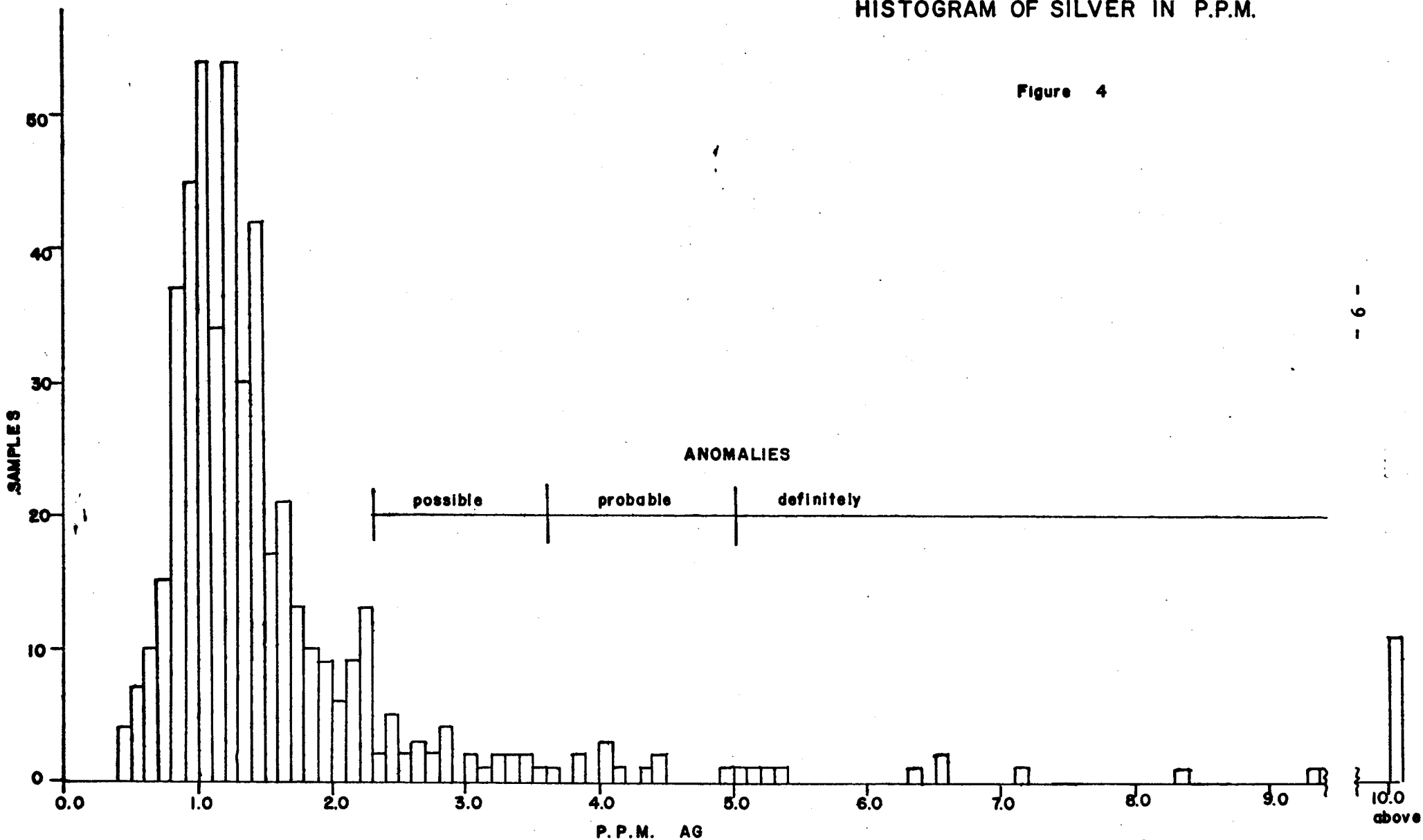
EL PASO MINING AND MILLING CO. LTD.

SM 1-8 MINERAL CLAIM GROUP

WHITEHORSE M.D., Y.T.

HISTOGRAM OF SILVER IN P.P.M.

Figure 4



maximum dimensions, but quite irregular in outline. It appears to extend under the ponds.

By including some material of possible anomalous values, the dimensions can be increased to 3000 by 900 feet maximum.

Z I N C

There are 13 separate areas which have values greater than 500 ppm zinc. Of these only 4 show two or more contiguous values. The remaining 9 presumably are scattered values and are of secondary interest at this time.

The largest anomaly is centred at on 102E at 50N, and is quite irregular in outline. Maximum dimensions are 1500 feet long by 700 feet wide. It lies largely on the north slope of the valley, and probably extends under the ponds. Further east, after a 200 foot gap another anomalous area 700 by 200 foot maximum lies on strike. To the west a smaller anomaly 400 by 100 foot maximum also lies along the valley bottom. These 3 anomalous zones, with only slight interruptions, form a zone 3000 feet long. The fourth anomaly at 89E and 47N lies close to the widest part of the largest anomaly.

Rock geochemical sampling here gave zinc values up to 2700 ppm. No zinc was seen in place, but a white efflorescence might indicate zinc oxides. Since no quartz veins with zinc has been found, a stratigraphic origin for the zone seems most probable.

The zinc soil anomaly coincides very closely with lead soil anomaly previously described.

SILVER

There are nine separate areas which have anomalous values of greater than 5.0 ppm. The largest one, 1300' x 500' maximum lies like a scaled down version of the largest zinc anomaly, along the north shore of the ponds. By lowering the anomalous limits to 2.3 ppm silver, an area 3000' long x 800' wide maximum can be outlined and it is coincident with the extended zinc anomaly.

DISCUSSION

The three metals show essentially coincident larger anomalies. The erratic scattering of the smaller ones indicate more restricted mineralized areas surrounding the main area. The fact that most of these are along the north side of the valley suggests that the known intrusives may have remobilized the metals into more discrete entities. Zinc, known for its mobility is the most widespread, and silver the least.

The three generally coincident anomalies thus provide a good target for deeper exploration.

GEOPHYSICS
Map 105-C-13-A4

The claim group was surveyed by a VLF-EM receiver along grid lines 400 feet apart.

Instrumentation

Station NPG, located at Jim Creek, Washington, broadcasting at a frequency of 18.6 kilohertz was the radiation source used.

The receiver was a Ronka EM16, equipped with plug-in crystals for station selection. A small speaker was used for null detection. The attitude of the in-phase component of the signal was measured in % as a tilt angle. The out-of-phase component (quadrature), was also read in %, from a graduated dial.

Procedure

Readings were taken at 50 foot intervals. All readings were taken with the transmitter on the observer's right, and the arithmetic sign as well as the numerical value were noted.

Data Processing

The observed tilt angles and quadrature readings are plotted as cross-sections for only two lines, 92E and 100E. The filtered tilt angles are also plotted for comparison.

All of the observed tilt angles have been transformed from data suitable only for cross-sectioning into contourable data by filtering, which can be expressed as $(S_1+S_2)-(S_3+S_4)$. That is, the observed tilt angles from a station (S_1, S_2 etc), and read from south to north along each line, are filtered in turn. On the map only positive values have been outlined, because negative quantities are considered to represent the flanks of conductors.

DISCUSSION

The % tilt contours approximately parallel the strike of the sediments and also the topographic contours. One exception to the parallelism with the topographic contours is in the south-west corner. The positive % tilt contours are considered to be an indication of the strike of the sediments more than a reflection of the topography.

The small weak zone at 47N on 100E line is the only place that sulfide mineralization could be the cause.

CONCLUSION

The best evidence for mineralization is the widespread coincidence of the zinc, lead and silver soil anomalies.

The EM work did not produce useful results, other than confirming the strike of the sediments.

Observed galena at 4700N 100E is sufficient to explain that one reading, but the remaining areas are not explained. The zinc present in the rock at 48N 106E indicates stratigraphic zinc. This may be a large enough source to explain the zinc anomaly, but better values can likely be found elsewhere along strike.

The possibility, though slight, still exists that the mineral is present in a series of small, scattered veins.

RECOMMENDATION

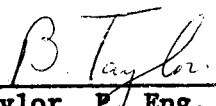
A deeper look at the ground underneath the major anomaly is warranted. In view of the possibility of reasonable road access, a crawler tractor with a backhoe and a dozer blade could be employed.

The recommended program is:-

1. Five trenches to look at surface material.

(1) from 54N, 101.5E to 50.5N 100.5E	370'
(2) from 49N, 108.E to 47N 107E	230'
(3) from 46N, 118E to 43N 117E	240'
(4) from 56N, 95E to 54N 94.5E	200'
(5) from 48.5N, 90.5E to 46N 90E	<u>200'</u>
	1,240'

2. A diamond drilling follow-up program beneath the trenches, would provide a deeper, longer cross-section. Preferred orientation is from north to south at -45° . Holes double the length of the trenches proposed are required.



B. Taylor, P. Eng.

APPENDIX 'A'

GEOCHEMICAL ASSAYS

PROJECT No.: _____

MIN - EN Laboratories Ltd.

DATE: Aug 16,

Attn: Mr. Noel

1975.

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppm				
6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
500300			160	370			4.1					.				
01			91	185			1.6					.				
02			2100	2000			19.0					.				
03			650	1700			17.0					.				
04			84	130			2.1					.				
05			41	132			1.0					.				
06			66	370			1.4					.				
07			46	136			1.3					.				
08			57	164			1.2					.				
09			178	320			2.1					.				
10			2500	1020			19.0					.				
11			88	410			2.3					.				
12			78	250			2.0					.				
13			27	184			1.4					.				
14			48	110			1.0					.				
15			31	150			1.4					.				
16			37	142			1.5					.				
17			46	116			0.9					.				
18			114	166			1.7					.				
19			300	370			2.8					.				
20			820	660			4.4					.				
21			240	300			1.6					.				
22			2100	680			17.8					.				
23			162	200			1.3					.				
24			87	118			1.2					.				
25			84	162			1.3					.				
26			28	82			0.9					.				
27			86	170			1.6					.				
28			132	280			1.7					.				
500329			56	144			1.1					.				

- 16 -

Attn: Mr. Noel

1975.

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppm				
6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
500330			80	280			16					.				
31			28	57			12					.				
32			77	490			26					.				
33			77	200			10					.				
34			38	126			07					.				
35			114	114			14					.				
36			54	200			14					.				
37			33	98			12					.				
38			48	164			12					.				
39			860	940			66					.				
40			9	16			05					.				
41			36	132			12					.				
42			27	92			10					.				
43			107	180			14					.				
44			86	460			20					.				
45			90	178			22					.				
46			43	153			13					.				
47			38	60			10					.				
48			17	18			09					.				
49			48	290			13					.				
50			73	156			14					.				
51			146	102			32					.				
52			65	176			16					.				
53			31	126			13					.				
54			35	148			13					.				
55			36	118			12					.				
56			22	77			08					.				
57			62	146			13					.				
58			440	370			51					.				
500359			152	176			19					.				

PROJECT No.: _____

MIN - EN Laboratories Ltd.

DATE: Aug 16,
1975.

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Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppm			
6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	160
500360			112	200			17					.			
61			56	62			22					.			
62			160	340			15					.			
63			18	68			05					.			
64			21	124			07					.			
65			16	56			05					.			
66			17	76			08					.			
67			18	106			09					.			
68			21	160			09					.			
69			24	138			09					.			
70			33	810			13					.			
71			17	80			08					.			
72			20	114			09					.			
73			28	440			07					.			
74			20	290			12					.			
75			19	172			10					.			
76			26	360			13					.			
77			24	94			09					.			
78			15	29			08					.			
79			20	42			10					.			
80			28	106			08					.			
81			19	108			09					.			
82			21	110			07					.			
83			109	590			33					.			
84			1140	860			64					.			
85			240	118			49					.			
86			340	820			24					.			
87			42	72			13					.			
88			87	100			13					.			
500389			3300	900			210					.			

PROJECT No.: _____

MIN - EN Laboratories Ltd.

DATE: Aug 16,
1975.

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6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	
Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppm				
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
500390			2900	5400			180					.				
91			2000	820			102					.				
92			1180	940			66					.				
93			340	510			38					.				
94			52	320			17					.				
95			26	71			07					.				
96			27	70			08					.				
97			23	60			07					.				
98			21	52			06					.				
99			22	70			06					.				
400			7	8			04					.				
01			16	124			09					.				
02			16	164			10					.				
03			17	131			09					.				
04			17	166			11					.				
05			33	380			11					.				
06			18	94			08					.				
07			22	340			10					.				
08			8	26			07					.				
09			16	78			08					.				
10			36	184			12					.				
11			31	154			12					.				
12			49	360			22					.				
13			41	160			11					.				
14			16	56			08					.				
15			21	92			10					.				
16			22	60			08					.				
17			20	250			09					.				
18			12	70			06					.				
500419			23	200			10					.				

CERTIFIED BY L M Jue

PROJECT No.: _____

MIN - EN Laboratories Ltd.

DATE: Aug 16,

Attn: Mr. Noel

1975.

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppm				
6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
500420			25	290			0.9					.				
21			19	86			0.8					.				
22			16	62			1.0					.				
23			12	38			0.9					.				
24			19	130			1.2					.				
25			16	98			1.1					.				
26			18	186			0.8					.				
27			22	160			1.7					.				
28			16	97			0.7					.				
29			21	166			0.9					.				
30			19	53			0.6					.				
31			17	50			0.8					.				
32			23	190			1.2					.				
33			25	146			0.9					.				
34			42	200			1.5					.				
35			400	820			5.0					.				
36			70	104			0.9					.				
37			30	162			1.0					.				
38			38	164			0.9					.				
39			22	106			0.6					.				
40			17	52			0.8					.				
41			35	470			1.2					.				
42			22	94			0.8					.				
43			46	280			1.1					.				
44			39	200			1.5					.				
45			24	200			1.1					.				
46			31	570			1.5					.				
47			17	86			0.8					.				
48			24	97			1.2					.				
500449			22	78			1.1					.				

PROJECT No.: _____

MIN - EN Laboratories Ltd.

DATE: Aug 16,
1975.

Attn: Mr. Noel

Sample. Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppm	70	75	80	
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
500450			20	127			0.9					.				
51			30	100			0.8					.				
52			31	178			1.2					.				
53			48	460			1.9					.				
54			51	77			1.4					.				
55			46	82			1.0					.				
56			130	200			1.4					.				
57			160	620			2.3					.				
58			192	620			2.6					.				
59			104	182			1.4					.				
60			42	75			1.1					.				
61			37	59			1.1					.				
62			29	81			1.2					.				
63			52	440			1.6					.				
64			44	96			1.3					.				
65			104	154			2.2					.				
66			156	460			4.0					.				
67			104	200			2.6					.				
68			118	620			2.0					.				
69			48	89			0.9					.				
70			42	98			1.1					.				
71			68	126			1.5					.				
72			36	118			1.2					.				
73			37	96			0.9					.				
74			34	77			1.0					.				
75			37	101			1.0					.				
76			48	86			1.1					.				
77			36	87			1.1					.				
78			34	74			1.1					.				
500479			33	102			1.2					.				

7 m 7

PROJECT No.: _____

MIN - EN Laboratories Ltd.

DATE: Aug 16,

Attn: Mr. Noel

1975.

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppm				
6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
500510			61	580			16					.				
11			34	79			12					.				
12			94	470			22					.				
13			38	107			12					.				
14			60	142			13					.				
15			32	134			14					.				
16			27	79			08					.				
17			54	156			10					.				
18			56	200			12					.				
19			30	156			08					.				
20			18	40			06					.				
21			35	108			10					.				
22			43	140			12					.				
23			71	118			14					.				
24			58	108			18					.				
25			188	380			22					.				
26			146	162			17					.				
27			104	115			19					.				
28			116	200			16					.				
29			10	17			04					.				
30			27	44			06					.				
31			410	270			30					.				
32			40	126			33					.				
33			43	64			10					.				
34			27	56			09					.				
35			20	35			06					.				
36			17	30			04					.				
37			47	126			13					.				
38			30	88			11					.				
500539			34	104			10					.				

7 m 7

PROJECT No.: _____

MIN - EN Laboratories Ltd.

DATE: Aug 16,
1975.

Attn: Mr. Noel

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppm			
6 81	10 90	15 95	20 100	25 105	30 110	35 115	40 120	45 125	50 130	55 135	60 140	65 145	70 150	75 155	80 160
500540			25	35			09					.			
41			32	110			12					.			
42			32	77			12					.			
43			30	164			13					.			
44			28	54			11					.			
45			27	54			11					.			
46			28	53			14					.			
47			26	39			19					.			
48			10	16			05					.			
49			31	77			10					.			
50			32	130			13					.			
51			12	18			06					.			
52			30	98			11					.			
53			27	61			10					.			
54			40	176			14					.			
55			25	66			09					.			
56			24	57			11					.			
57			19	35			09					.			
58			26	72			13					.			
59			26	47			12					.			
60			360	430			32					.			
61			86	117			16					.			
62			12	21			05					.			
63			73	190			21					.			
64			320	470			54					.			
65			92	132			21					.			
66			180	200			21					.			
67			86	260			22					.			
68			78	260			14					.			
500569			56	92			12					.			

7 m 7

PROJECT No.: _____

MIN - EN Laboratories Ltd.

DATE: Aug 16,
1975.

Attn: Mr. Noel

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppm	70	75	80	
6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
500570			118	300			19					.				
71			120	260			14					.				
72			106	168			10					.				
73			82	520			21					.				
74			79	330			16					.				
75			46	118			08					.				
76			37	146			09					.				
77			41	106			22					.				
78			48	166			09					.				
79			56	128			10					.				
80			42	104			12					.				
81			46	96			17					.				
82			8	14			04					.				
83			28	41			07					.				
84			29	62			10					.				
85			24	67			10					.				
86			22	55			08					.				
87			24	57			10					.				
88			14	50			09					.				
89			29	190			12					.				
90			42	300			13					.				
91			8	21			05					.				
92			20	50			07					.				
93			19	43			08					.				
94			24	126			13					.				
95			22	52			14					.				
96			18	28			08					.				
97			16	31			09					.				
98			18	120			09					.				
500599			19	42			11					.				

7 m 7

PROJECT No.: _____

MIN - EN Laboratories Ltd.

DATE: Aug 16,

1975.

Attn: Mr. Noel

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppm				
6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
500600			1440	1650			100					.				
01			1200	1580			84					.				
02			158	360			14					.				
03			2900	960			170					.				
04			420	1500			35					.				
05			47	152			18					.				
06			24	61			09					.				
07			26	96			10					.				
08			27	184			09					.				
09			21	72			08					.				
10			24	120			10					.				
11			24	130			10					.				
12			39	62			11					.				
13			32	100			14					.				
14			28	330			12					.				
15			44	670			10					.				
16			25	330			09					.				
17			37	390			08					.				
18			34	172			11					.				
19			42	190			13					.				
20			16	31			05					.				
21			196	410			23					.				
22			110	280			17					.				
23			310	610			31					.				
24			47	380			12					.				
25			160	440			14					.				
26			48	110			14					.				
27			101	178			14					.				
28			48	88			08					.				
500629			78	148			13					.				

CERTIFIED BY L M Jue

COMPAN

El Paso Mining

GEOCHEMICAL ANALYSIS DATA SHEET

FILE No. 2289

PROJECT No.: _____

MIN - EN Laboratories Ltd.

DATE: Aug 16,

Attn: Mr. Noel

1975.

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppm				
6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
500630			132	151			12					.				
31			54	107			10					.				
32			70	186			11					.				
33			40	114			12					.				
34			94	170			16					.				
35			16	24			08					.				
36			156	360			15					.				
37			54	940			15					.				
38			380	630			20					.				
39			3500	950			240					.				
40			1300	860			72					.				
41			82	154			16					.				
42			66	196			12					.				
43			41	146			12					.				
44			27	187			10					.				
45			36	840			15					.				
46			22	108			10					.				
47			32	192			12					.				
48			26	142			10					.				
49			24	88			10					.				
50			26	110			10					.				
51			26	180			11					.				
52			23	78			11					.				
53			15	42			07					.				
54			24	84			10					.				
55			24	280			14					.				
56			40	200			18					.				
57			26	160			12					.				
58			23	115			10					.				
500659			18	54			07					.				

- 27 -

CERTIFIED BY *T. M. Jones*

PROJECT No.: _____

MIN - EN Laboratories Ltd.

DATE: Aug 16,
1975.

Attn: Mr. Noel

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppm			
81	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
500660			23	68			10					.			
61			31	124			09					.			
62			36	126			08					.			
63			22	39			08					.			
64			67	176			15					.			
65			52	146			11					.			
66			60	152			13					.			
67			108	140			12					.			
68			1600	1540			94					.			
69			26	74			12					.			
70			92	410			22					.			
71			69	78			14					.			
72			46	72			15					.			
73			44	98			12					.			
74			28	290			12					.			
75			84	114			14					.			
76			186	300			14					.			
77			42	64			09					.			
78			86	102			18					.			
79			80	460			13					.			
80			76	184			15					.			
81			34	128			11					.			
82			58	192			10					.			
83			46	124			10					.			
84			58	1000			20					.			
85			520	440			34					.			
86			174	470			28					.			
87			32	110			14					.			
88			98	320			18					.			
500689			20	44			09					.			

7 m 7

PROJECT No.: _____

MIN - EN Laboratories Ltd.

DATE: **Aug 16**

Attn: Mr. Noel

1975.

6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppm			
81	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
500690			26	121			09					.			
91			17	81			09					.			
92			24	118			10					.			
93			57	480			24					.			
94			40	210			10					.			
95			20	70			07					.			
96			32	360			28					.			
97			14	56			06					.			
98			10	46			08					.			
99			16	69			12					.			
700			19	134			10					.			
01			28	65			40					.			
02			72	400			43					.			
03			64	590			21					.			
04			19	68			10					.			
05			23	88			10					.			
06			18	58			08					.			
07			24	68			09					.			
08			20	88			08					.			
09			16	46			08					.			
10			18	48			08					.			
11			21	68			09					.			
12			16	50			09					.			
13			24	62			10					.			
14			28	66			08					.			
15			480	310			28					.			
16			70	164			17					.			
17			96	380			24					.			
18			310	430			40					.			
500719			26	54			15					.			

7 m 7

PROJECT No.: _____

MIN - EN Laboratories Ltd.

DATE: Aug 16,
1975.

Attn: Mr. Noel

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppm				
6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
500720			156	178			19					.				
21			46	150			14					.				
22			210	400			38					.				
23			58	114			18					.				
24			220	320			25					.				
25			64	136			16					.				
26			560	310			36					.				
27			220	470			14					.				
28			114	132			18					.				
29			134	174			18					.				
30			85	520			22					.				
31			54	280			16					.				
32			205	164			18					.				
33			132	160			12					.				
34			94	150			14					.				
35			138	480			44					.				
36			198	186			27					.				
37			40	76			19					.				
38			27	78			14					.				
39			28	114			15					.				
40			22	118			11					.				
41			54	186			15					.				
42			66	520			15					.				
43			24	1260			12					.				
44			22	84			17					.				
45			20	56			18					.				
46			28	130			13					.				
47			15	66			09					.				
48			12	64			07					.				
500749			14	76			09					.				

→ m 7

PROJECT No.: _____

MIN - EN Laboratories Ltd.

DATE: Aug 16,

Attn: Mr. Noel

1975.

6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
Sample. Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppm			
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	160
500750			13	99			08					.			
51			16	54			09					.			
52			20	63			12					.			
53			38	160			13					.			
54			32	86			11					.			
55			21	50			11					.			
56			210	200			19					.			
57			60	154			13					.			
500758			166	190			21					.			
500800			18	40			12					.			
01			24	68			14					.			
02			30	154			14					.			
03			25	76			12					.			
04			24	48			10					.			
05			74	540			20					.			
06			20	54			10					.			
07			30	124			16					.			
08			20	52			12					.			
09			43	108			15					.			
10			30	82			14					.			
11			26	64			11					.			
12			40	102			14					.			
13			48	152			14					.			
14			205	440			25					.			
15			86	300			24					.			
16			210	310			22					.			
17			34	68			12					.			
18			57	340			16					.			
19			105	118			12					.			
500820			40	68			08					.			

A P P E N D I X ' B '

S T A T E M E N T O F C O S T S

STATEMENT OF COSTS

JULY 21 - AUGUST 1, 1975 - 12 DAYS

<u>SALARIES</u> - G.A. Noel	- 11 days @ \$75.32 per day	= \$828.53	
	H.M. Jones	- 12 days @ \$61.91 per day	= 742.88
	B. Taylor	- 12 days @ \$57.83 per day	= <u>693.96</u>
			\$2,265.37
<u>ASSAY COSTS</u> - Soils and rocks		=	1,426.75
<u>TRANSPORTATION</u> - Fixed wing and helicopter		=	1,057.36
<u>CAMP COSTS</u> - at \$17.00 per day		=	204.00
<u>REPORT PREPARATION</u>		=	<u>150.00</u>
	TOTAL		<u><u>\$5,103.48</u></u>

B. Taylor

ACCOUNT NUMBER: **8607**

INVOICE DATE: _____

AREA B.C. YUKON NWT ALTA.

CHARTERER: **EL PASO MINING**

A/C TYPE: **C185** AIRCRAFT REGISTRATION: **FZLU**

BILLING ADDRESS: **570-885 DUNSMUIR ST VANCOUVER BC**

FLIGHT DATE: **310775**

PURCHASE ORDER NO.:

CHARTERER: **EL PASO MINING & MILLING CO**

BILLING ADDRESS: **570-885 DUNSMUIR ST VANCOUVER BC**

FUEL & OIL-TNTA CUST.

TNTA FUEL USED: _____

HRS.-GALS.: **1.0**

FROM: **XY**

FROM	MILES	HOURS	ZONE	FREIGHT LBS.	NO. OF PASS. - REMARKS
Whitehorse					
TO Rosy LK-	50		L	100	3pass
Whitehorse	50		L	100	3pass

SUB-ACCOUNTS

186-2n2 | **162n2 03** | **13** | **1259**

Aug 7 5 Original sent to MAIN OFFICE

SUB	G.L.	AMOUNT

TERMS: ONE PERCENT INTEREST PER MONTH WILL BE CHARGED ON ALL INVOICES NOT PAID WITHIN 30 DAYS OF DATE ISSUED.

[Signature]
 CHARTERER'S SIGNATURE

PILOT'S SIGNATURE

ENGINEER'S NAME

TOTAL \$ 90.00

FLIGHT REPORT CUSTOMER COPY

Copy

ACCOUNT NUMBER: **13323**

INVOICE DATE: _____

AREA B.C. YUKON NWT ALTA.

CHARTERER: **EL PASO Mining**

A/C TYPE: **H-500** AIRCRAFT REGISTRATION: **GEOX**

BILLING ADDRESS: **500-885 DUNSMUIR VANCOUVER**

FLIGHT DATE: **310775**

PURCHASE ORDER NO.:

CHARTERER: **EL PASO Mining**

BILLING ADDRESS: **500-885 DUNSMUIR VANCOUVER**

FUEL & OIL-TNTA CUST.

TNTA FUEL USED: **1.7**

HRS.-GALS.: **hrs**

FROM: **XY**

FROM	MILES	HOURS	ZONE	REMARKS - NO. OF PASS. - FREIGHT LBS.
XY				
- Slate Mountain		0.4		
- St. Mount Local		0.5		2 Taps, Camp Move
- Slate Mount. XY		0.8		Sling camp gear

SUB-ACCOUNTS

186-2n2 | **162n2 03** | **13** | **1259**

Aug 7 5 Original sent to MAIN OFFICE

SUB	G.L.	AMOUNT

TERMS: EIGHTEEN PERCENT INTEREST PER ANNUM WILL BE CHARGED ON ALL INVOICES NOT PAID WITHIN 30 DAYS OF DATE ISSUED.

MR. B. TAYLOR

[Signature]
 CHARTERER'S SIGNATURE

PILOT'S SIGNATURE

ENGINEER'S NAME

TOTAL \$ 450.16

FLIGHT REPORT CUSTOMER COPY

Copy

MIN-EN LABORATORIES LTD.
705 WEST 15TH STREET
NORTH VANCOUVER, B.C.
Phone: 980-5814

RECEIVED
AUG 22 1975
El Paso Mining & Milling Co.

DATE Aug. 21 / 75.
YOUR ORDER NO.

TO . El Paso Mining & Milling
. 500-885 Dunsmuir St.,
. Vancouver, B.C.

OUR ORDER NO.	TERMS	F.O.B.	Mr. Joel	
2299				
QUANTITY	STOCK NUMBER/DESCRIPTION	UNIT PRICE		AMOUNT
490	soil geochem - Pb,Zn,Ag	2	25	1102 50
490	soil sample preparation		35	171 50
5	rock geochem - Zn,Ag	1	75	8 75
1	rock geochem - Cu		50	50
4	rock geochem - Pb		50	2 00
5	rock sample preparation	1	50	7 50
2	assays - MoS ₂	6	50	13 00
1	assay - Cu	4	00	4 00
1	assay - Pb	5	00	5 00
5	assays - Zn	5	00	25 00
8	assays - Ag	5	00	40 00
7	assays - Au	5	00	35 00
8	assays - sample preparation	1	50	12 00
		TOTAL		7425 75

THESE ARE PROFESSIONAL SERVICES AND PAYABLE WHEN RENDERED.

~~_____~~
~~_____~~

A P P E N D I X 'C'

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, Bertram Taylor, of the District of North Vancouver, in the Province of British Columbia, hereby certify that:

1. I am a geologist residing at 1981 Hyannis Drive, North Vancouver District, B.C.
2. I graduated from the University of Saskatchewan in 1941 with the degree of Bachelor of Science in Geological Engineering.
3. I am a member of the Corporation of Professional Engineers of Quebec (1952) and of the Association of Professional Engineers of the Province of British Columbia (1971)
4. I am a member of the Canadian Institute of Mining and Metallurgy (1964) and of the Geological Association of Canada (1953)
5. I have practised my profession as a geologist for 31 years in Quebec, Newfoundland and British Columbia.
6. The present report is based on an examination of zinc, lead soil anomalies on the SM group, Whitehorse, Y.T., July 21 - August 1, 1975, and a study of existing information on the area.
7. The examination was made and this report written as part of my employment by El Paso Mining and Milling Company.


B. Taylor, P. Eng.

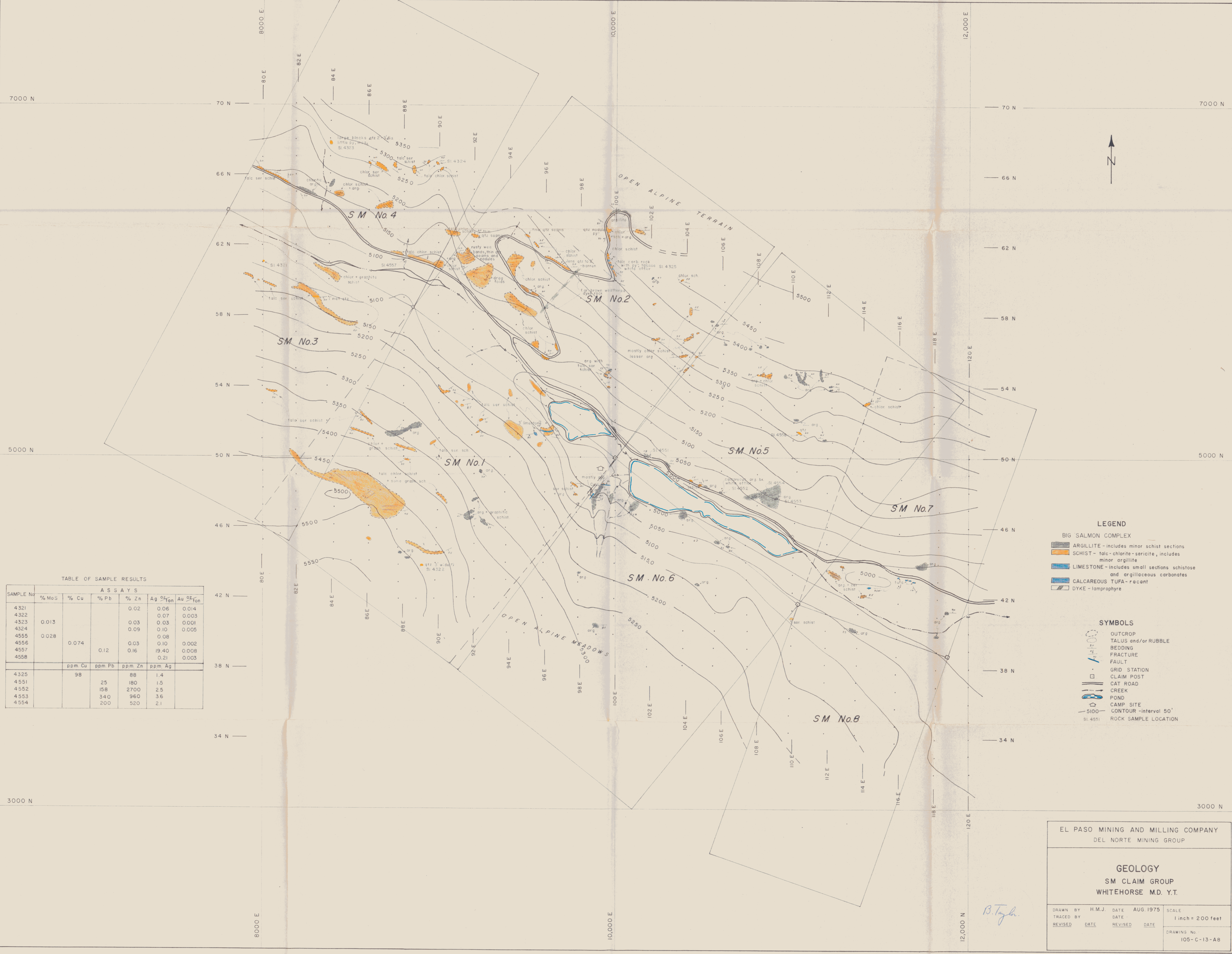


TABLE OF SAMPLE RESULTS

SAMPLE No	ASSAYS					
	% MoS	% Cu	% Pb	% Zn	Ag $\frac{Oz}{Ton}$	Au $\frac{Oz}{Ton}$
4321				0.02	0.06	0.014
4322				0.03	0.07	0.003
4323	0.013			0.03	0.03	0.001
4324				0.09	0.10	0.005
4555	0.028			0.08		
4556		0.074		0.03	0.10	0.002
4557			0.12	0.16	19.40	0.008
4558					0.21	0.003
		ppm Cu	ppm Pb	ppm Zn	ppm Ag	
4325		98	88	1.4		
4551			25	180	1.5	
4552			158	2700	2.5	
4553			3.40	960	3.6	
4554			200	520	2.1	

LEGEND

BIG SALMON COMPLEX

- ARGILLITE - includes minor schist sections
- SCHIST - talc-chlorite-sericite, includes minor argillite
- LIMESTONE - includes small sections schistose and argillaceous carbonates
- CALCAREOUS TUFA - recent
- DYKE - lamprophyre

SYMBOLS

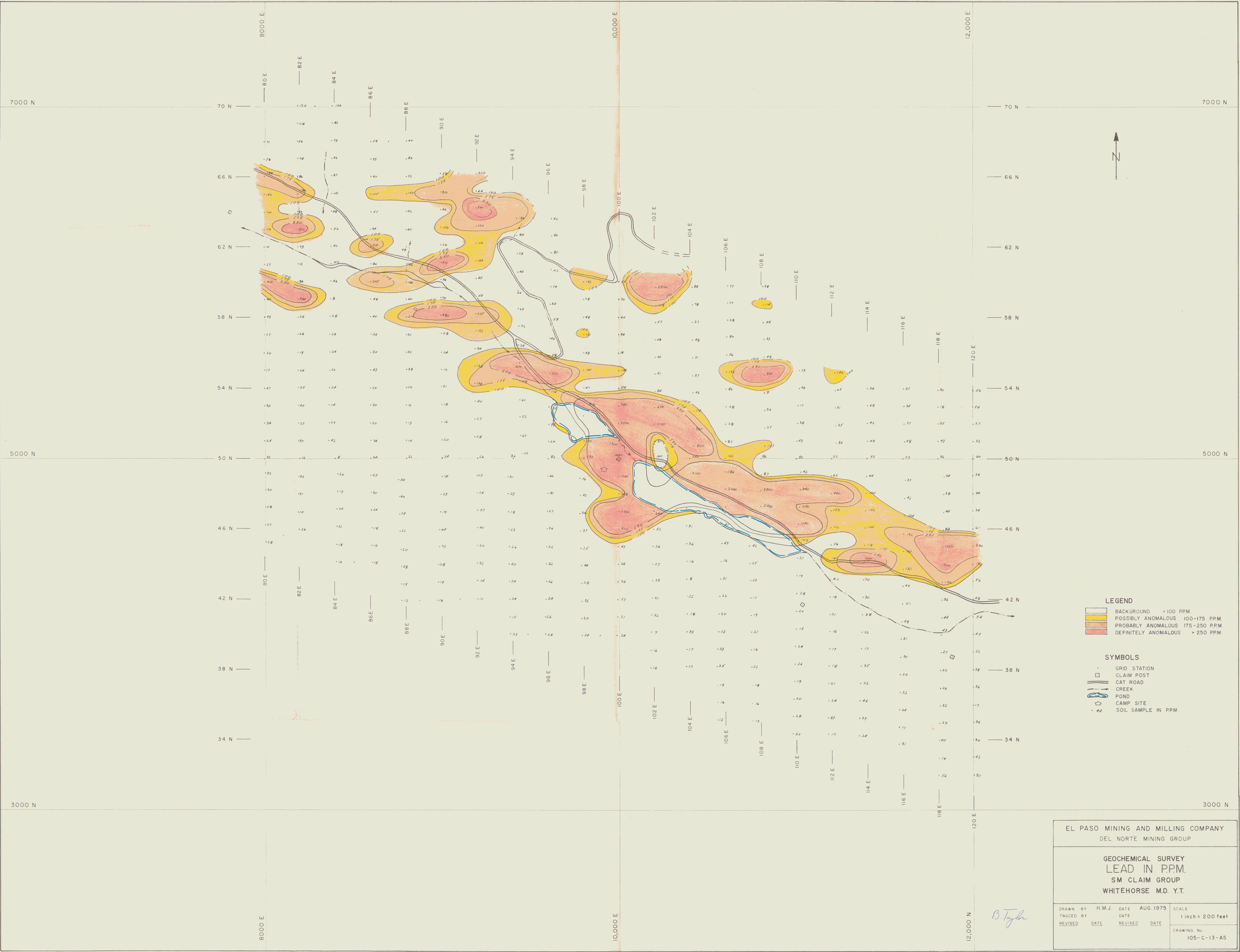
- OUTCROP
- TALUS and/or RUBBLE
- BEDDING
- FAULTURE
- FAULT
- GRID STATION
- CLAIM POST
- CAT ROAD
- CREEK
- POND
- CAMP SITE
- CONTOUR - interval 50'
- SI 4551
- ROCK SAMPLE LOCATION

EL PASO MINING AND MILLING COMPANY
DEL NORTE MINING GROUP

GEOLOGY
SM CLAIM GROUP
WHITEHORSE M.D. Y.T.

DRAWN BY H.M.J. DATE AUG 1975 SCALE
TRACED BY DATE DATE 1 inch = 200 feet
REVISED DATE REVISED DATE
DRAWING No. 105-C-13-AB

B. Taylor



LEGEND

	BACKGROUND	< 100 P.P.M.
	POSSIBLY ANOMALOUS	100-175 P.P.M.
	PROBABLY ANOMALOUS	175-250 P.P.M.
	DEFINITELY ANOMALOUS	> 250 P.P.M.

SYMBOLS

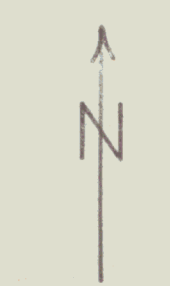
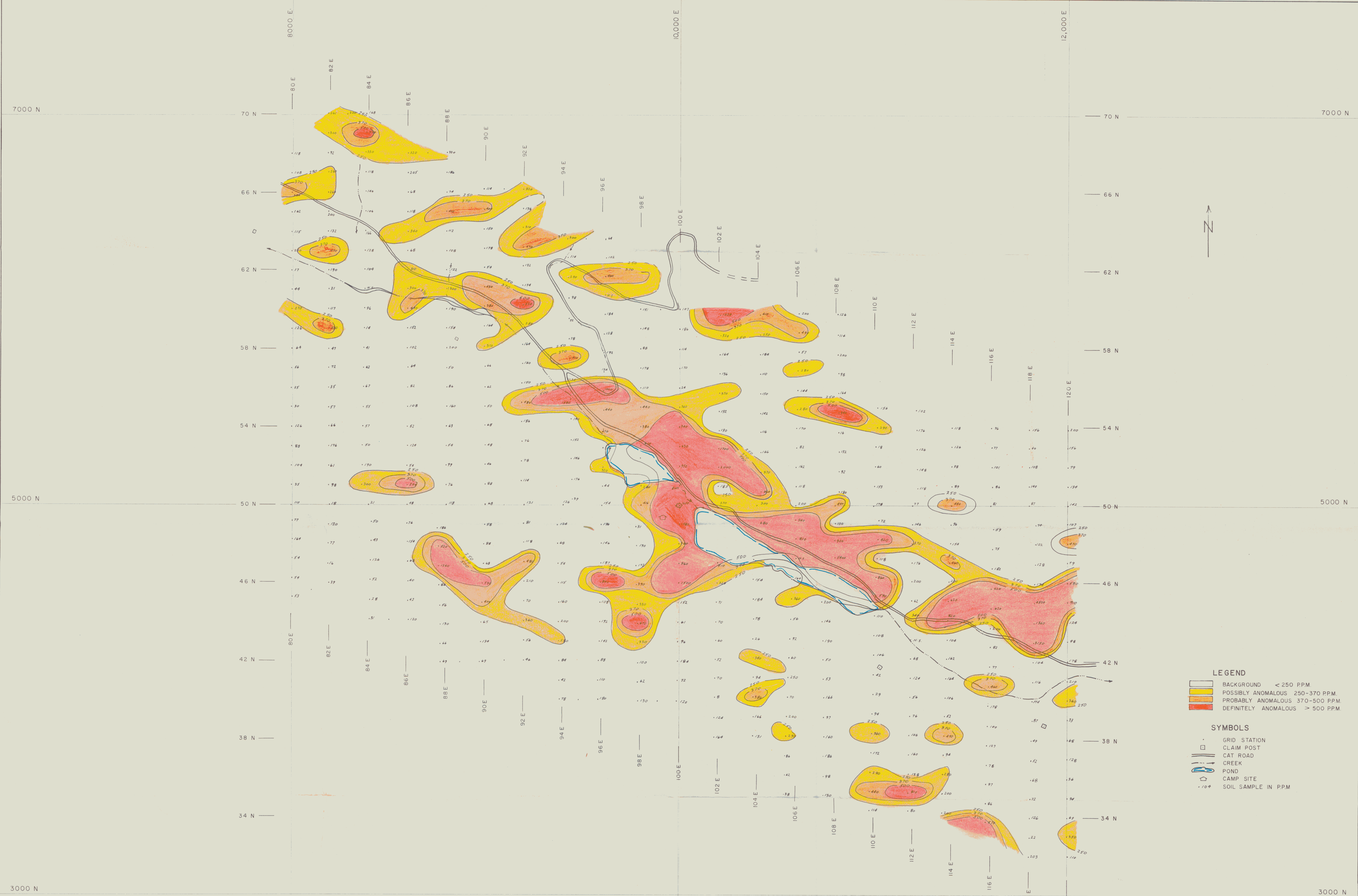
	GRID STATION
	CLAIM POST
	CAT ROAD
	CREEK
	POND
	CAMP SITE
	SOIL SAMPLE IN P.P.M.

EL PASO MINING AND MILLING COMPANY
DEL NORTE MINING GROUP

**GEOCHEMICAL SURVEY
LEAD IN P.P.M.
SM CLAIM GROUP
WHITEHORSE M.D. Y.T.**

DRAWN BY	H.M.J.	DATE	AUG. 1975	SCALE	1 inch = 200 feet
TRACED BY		DATE			
REVISED		DATE			
				DRAWING No.	105-C-13-A5

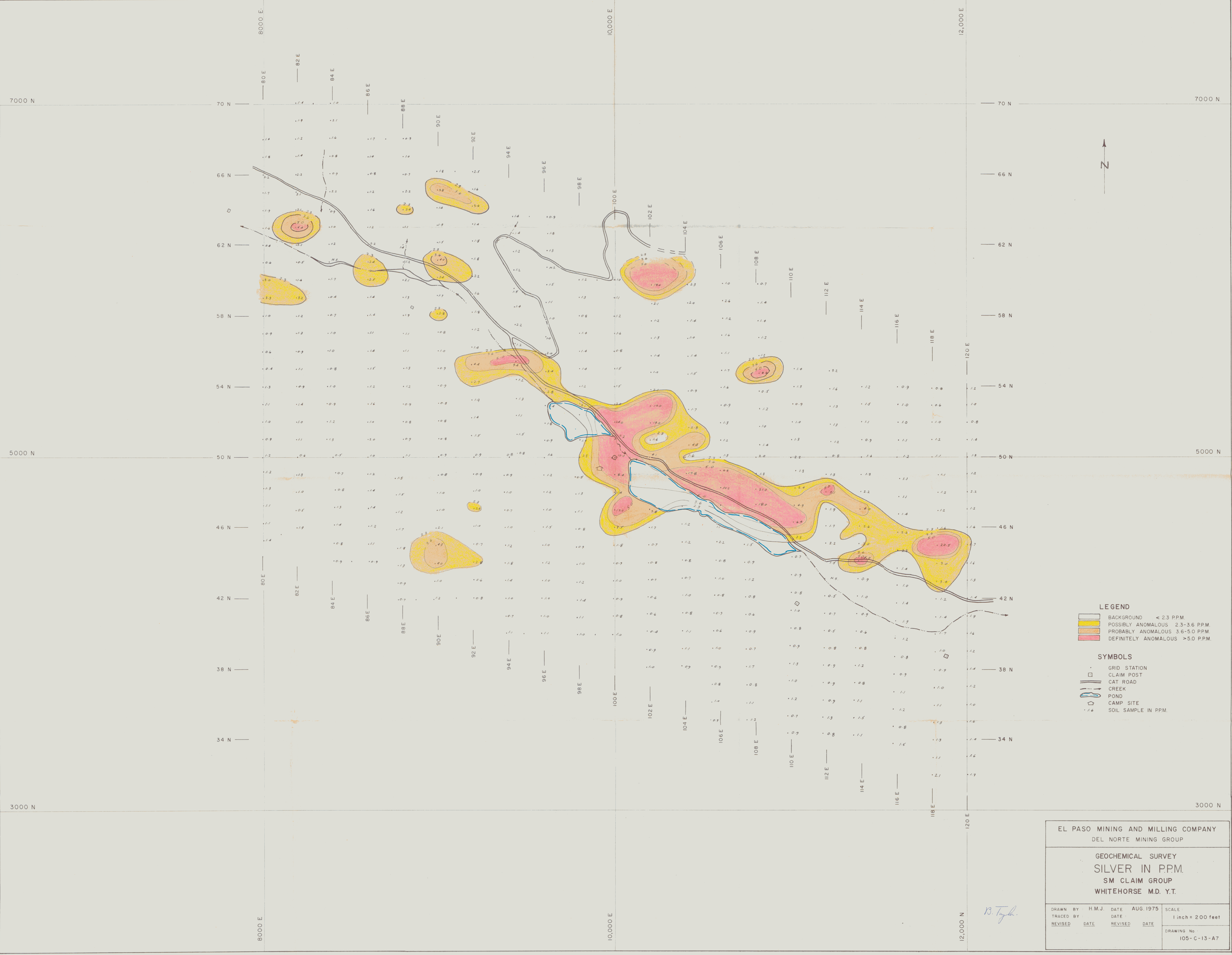
B. Taylor



- LEGEND**
- BACKGROUND < 250 PPM
 - POSSIBLY ANOMALOUS 250-370 PPM
 - PROBABLY ANOMALOUS 370-500 PPM
 - DEFINITELY ANOMALOUS > 500 PPM
- SYMBOLS**
- GRID STATION
 - CLAIM POST
 - CAT ROAD
 - CREEK
 - POND
 - CAMP SITE
 - SOIL SAMPLE IN PPM

EL PASO MINING AND MILLING COMPANY			
DEL NORTE MINING GROUP			
GEOCHEMICAL SURVEY			
ZINC IN P.P.M			
SM CLAIM GROUP			
WHITEHORSE M.D. Y.T.			
DRAWN BY	H.M.J.	DATE	AUG 1975
TRACED BY		DATE	
REVISED	DATE	REVISED	DATE
			SCALE
			1 inch = 200 feet
			DRAWING No
			105-C-13-A6

B. Taylor



LEGEND

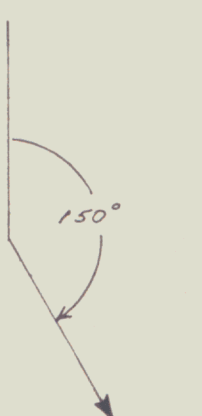
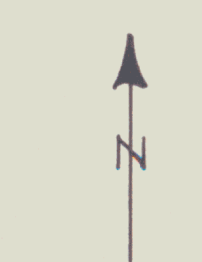
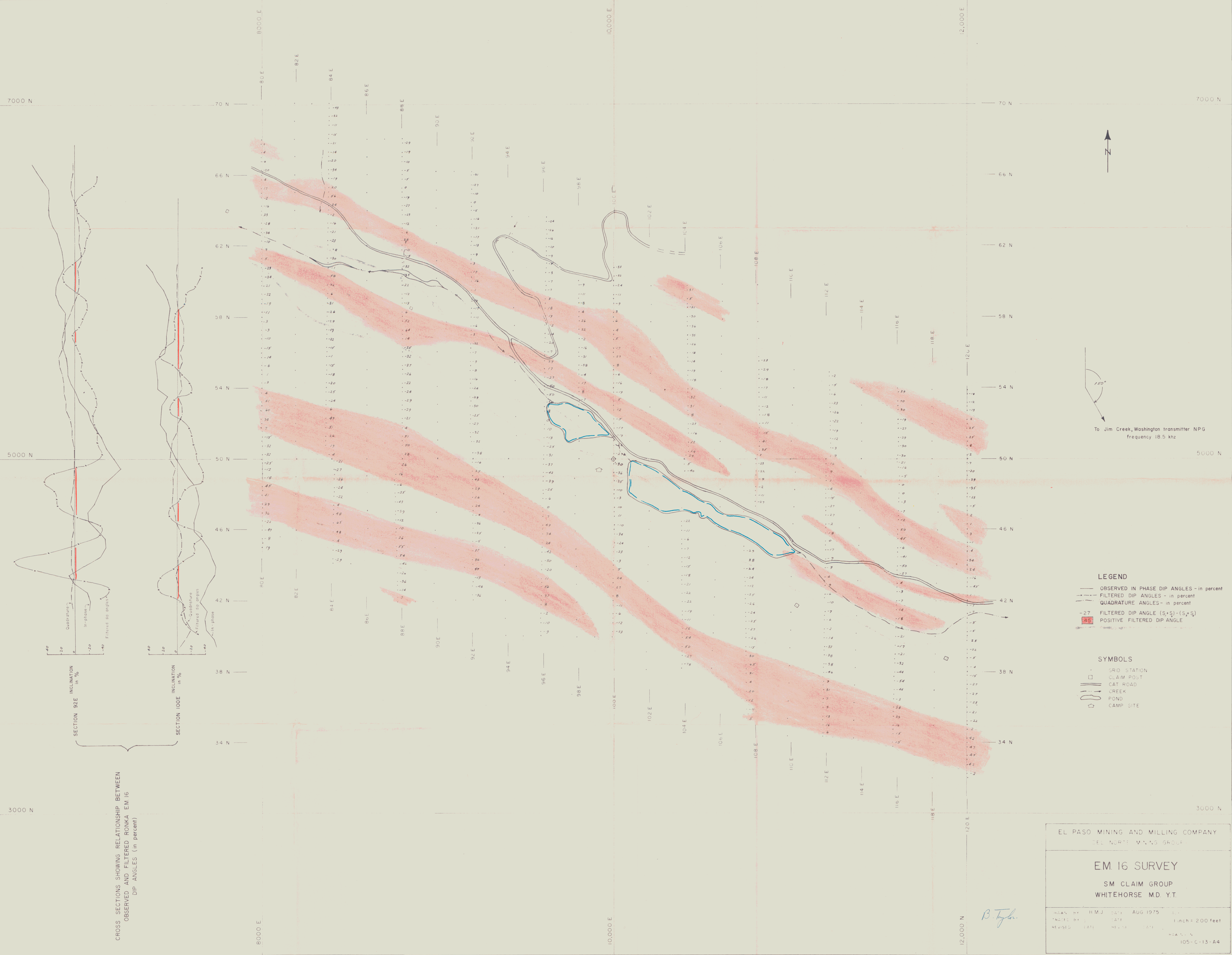
- BACKGROUND < 2.3 PPM
- POSSIBLY ANOMALOUS 2.3-3.6 PPM
- PROBABLY ANOMALOUS 3.6-5.0 PPM
- DEFINITELY ANOMALOUS >5.0 PPM

SYMBOLS

- GRID STATION
- CLAIM POST
- CAT ROAD
- CREEK
- POND
- CAMP SITE
- SOIL SAMPLE IN PPM

EL PASO MINING AND MILLING COMPANY DEL NORTE MINING GROUP			
GEOCHEMICAL SURVEY SILVER IN PPM. SM CLAIM GROUP WHITEHORSE M.D. Y.T.			
DRAWN BY H.M.J.	DATE AUG. 1975	SCALE	1 inch = 200 feet
TRACED BY	DATE	REVISED	DATE
REVISED	DATE	REVISED	DATE
DRAWING No.			105-C-13-A7

B. T. T. T.



To Jim Creek, Washington transmitter NPG
frequency 18.5 khz

LEGEND

- OBSERVED IN PHASE DIP ANGLES - in percent
- - - FILTERED DIP ANGLES - in percent
- - - QUADRATURE ANGLES - in percent
- 27 FILTERED DIP ANGLE (S+S) - (S+S)
- 45 POSITIVE FILTERED DIP ANGLE

SYMBOLS

- GRID STATION
- CLAIM POST
- ||| CAT ROAD
- ~ CREEK
- POND
- ⊠ CAMP SITE

SECTION 92E
INCLINATION in %
Quadrature
In-phase
Filtered dip angles

SECTION 100E
INCLINATION in %
Quadrature
Filtered dip angles
In-phase

CROSS SECTIONS SHOWING RELATIONSHIP BETWEEN
OBSERVED AND FILTERED DIP ANGLES (in percent)

EL PASO MINING AND MILLING COMPANY
DEL NORTE MINING GROUP

EM 16 SURVEY

SM CLAIM GROUP
WHITEHORSE M.D. Y.T.

DRAWN BY H.M.J. DATE AUG 1975
CHECKED BY DATE
REVISED DATE REVISION DATE

1 inch = 200 feet

95A N. N.
105-C-13-A4

B. Taylor