REPORT ON THE 1989 GEOLOGICAL, GEOCHEMICAL AND GEOPHYSICAL FIELDWORK ON THE TAKU ARM PROPERTY

(July 29 - Sept. 14, 1989)
Volume 2 of 2
Appendices

MINERAL CLAIMS: ICE 1, ICE 2, ICE 3, ICE 4, ICE 5, RICE

REVERTED CROWN GRANTS: ANNEX, SILVER KING 1, SILVER KING 2, SILVER KING 3, TYEE, GOLD BOTTOM, SILVER TIP, ENSIGN, INDEX, BLUE JACKET

Atlin Mining Division, B.C.

Location:
1. 35 km southwest of Atlin B.C.
2. NTS Sheet 104 M/8
3. Latitude 59° 28'
   Longitude 134° 20'

For:
Placer Dome Inc.
P.O. Box 49330
Bentall Postal Station
1600-1055 Dunsmuir St.
Vancouver, B.C., Canada
V7X 1P1

By:
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412-675 West Hastings Street
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March 16, 1990

APPENDIX A

Rock Sample Descriptions

TAKU ARM PROPERTY

Sample No.	Location	Description	Att.	Width	Au ppb	Ag ppm	As ppm	Cu ppm	Pb ppm	Zn ppm
NTS 104M/8		DATE: Aug-Sept/89	Samplers: R.H. & G.S.							
343951	On claim line S of ICE 1 (2N) elev. 1640 m near FEE gully	Malachite stained dark green, ser, chl, altered andesitic (?) rock. Found in contact with limestone unit (no lower contact) trending 060/30S, ~2% diss and stringers of fine grained cpy, tr py.	Float	Float	55	16	<2	0.78%	303	333
343952	In gully where ICE 1 L.C.P. should be at 1420 m elev.	Rusty, vuggy (5% vugs) qtz vein (visible for 50 m), tr pyrite, vein crosscuts a biotite schist/gneiss.	028/54N	<0.5m	20	3	5	18	81	11
343953 "J"	Grid: L5800N/5100W -old UKHM "J" occurrence (?) -old Rise Res. samp. # RI,L5, L3 & L7??	White to red-rusty (hem?) qtz (vein?). 5-10% vugs, local cockscombs, granular qtz xtals (or qtz bx) in qtz (<8 mm size avg is 4 mm), ~3% diss py, fine grained to brassy 2 mm cubes, <3% diss sp, <1% diss gn as 1 mm cubes and <3 mm blebs.	Float	Float	40	300	48	104	1.22%	0.56%
343901 "J"	5700N 5360W	Qtz boulder in moraine 10% sulfides pyrite/galena/ sphalerite, vuggy and rusty, 1 cm well formed xtals (qtz), boulder >0.5 m width.	Float	Float	150	1060	510	208	7.00%	6.00%
343902	5884N 5700W	Qtz vein, 2-3% pyrite occurring as brassy cubes, trace galena.	009/67W	3cm	3040	15	19	80	0.40%	1730
343903 "K"	o/c in middle of glacier northwest edge of o/c	Shear zone in gneiss, mod lime green clay alt, minor dark sooty sulfides (py/sph?), rusty/ vuggy qtz.	360/vert	30cm	<5	0.5	<2	200	29	46
343954 "L"	4794N 5425W	Alt limy schist with clast of highly metamorphosed rock, trace py cubes, 1 cm wide rusty fracture.	Float		70	1.1	<2	250	2080	840
343955 "L"	4796N 5425W	Highly silicified limestone, composed 90% of grey qtz, trace py, trace galena.	Float		60	1.2	<2	71	2760	800
343956 "L"	4860N 5440W	Dacite, 15 m dyke, 2% qtz eyes, trace pyrite cubes.	Grab		15	<0.2	<2	7	38	30

TAKU ARM PROPERTY
NTS 104M/8 Aug-Sept/89 Samplers: R.H. & G.S.

Sample No.	Location	Description	Att.	Width	Au ppb	Ag ppm	As ppm	Cu ppm	Pb ppm	Zn ppm
343957 "L"	4864N 5441W	Alt dyke? rock, qtz stringers 1 cm wide, 1 cm rusty zones.		grab	110	<0.2	9	14	17	62
343958	4410N 5205W	Qtz vein, weathered rusty, vuggy light grey, host rock is clay alt. foliated intrusive.	020/60W	75cm (grab)	340	20	133	312	1.63%	470
343959	4365N 5300W	Qtz vein in shear zone, vein is 10 to 30 cm wide, rusty and vuggy and associated with a basalt dyke.	100/60S	grab	455	7.0	<2	510	0.40%	800
343960	4440N 5200W	Rhyolite dyke with ~5 1-2 cm qtz veins, highly sheared, chip of top 2 m of ~5 m dyke.	~162/S	2m	10	1.1	<2	15	84	110
343961	UKHM "H" occurrence old trench	Rhyolite dyke with quartz veins, veins range from 2 to ~15 cm to numerous 2 cm splays, minor pyrite, minor galena noted in dump.	172/76S	1m	5	4.0	40	226	1470	64
343962	UKHM "H" occurrence old blast pit ~ ~50 m SE of #961	Shear zone with quartz vein, vein is 2-20 cm wide, rusty/ vuggy, azurite/malachite staining minor chalcopyrite, pyrite, trace galena, clay alteration in shear zone, highly sheared, host rock is qtz/carb alt metasediments.	143/80S	0.5m	5400	110	630	2240	0.40%	670
343963	5600N 5745W	Shear zone with qtz vein, 25 cm wide, moderately sheared gneiss, minor rust staining, vein is 2-3 cm, is parallel to zone, contains trace galena, minor pyrite.	017/72W	25cm	270	5.0	24	28	2800	760
343964	4850N 5625W	Qtz vein, drusy/vuggy/rust stained, sections composed of well formed 2 cm long qtz xtals, trace galena, minor pyrite.	036/40W	1.0m	20	0.9	69	22	66	67
343965 "L"	4800N 5475W	Rusty limy schist, numerous 1mm qtz(?) veinlets, no visible mineralization.	Float	Float	65	0.5	10	22	43	103

TAKU ARM PROPERTY
NTS 104M/8 Aug-Sept/89 Samplers: R.H. & G.S.

Sample No.	Location	Description	Att	Width	Au ppb	Ag ppm	As ppm	Cu ppm	Pb ppm	Zn ppm
343966 "L"	4870N 5475W	Rhyolite dyke, trace qtz eyes, trace pyrite (brassy cubes), trace Mn staining, moderately sheared.	trending NW	Grab	20	0.2	4	8	35	31
343967 "T"	4740N 4665W Old Rupert Vein #2?	Qtz vein in shear zone, includes qtz/pyrite altered host rock, altered on foot wall, 1-2 cm Mn rich zones, qtz is rusty/vuggy, contains minor pyrite/galena.	095/81S	1.5m	510	3.1	32	65	2030	580
343968 "T"	4765N 4665W	Qtz vein, same vein as #967, less developed alteration and shear, fewer visible sulfides, host rock is foliated intrusive.	116/87E	30cm	65	2.3	15	13	460	63
343969 "T"	4655N 4700W Rupert #1 Vein (?)	Shear zone with qtz vein zone, moderately sheared, minor clay alteration, minor pyrite/galena, vein is vuggy/rusty, white crystalline qtz.	166/80W	1.5m	55	1.9	9	19	500	111
343970 "T"	4635N 4710W	Sheared qtz vein, minor (<5 cm) clay rich highly sheared zone, slickensides, no visible sulfides	138/75W	1.5m	20	8.0	17	10	1310	172
343971 "T"	4625N 4705W	Shear zone and qtz/pyrite alteration, host rock and qtz vein in shear zone, minor Mn staining, minor rusty zones, qtz/pyrite, 5% brassy cubes.	131/65W	3m	20	2.4	10	39	253	490
343972 "T"	4950N 4825W	Qtz vein, altered gneiss, silicified, up to 1% pyrite.	020/50W slumped	15cm	65	2.0	510	41	366	144
343973	6020N 5600W	Qtz vein (30 cm) and adjacent shear zone (30 cm), drusy qtz up to 1.5 cm well formed xtals, trace galena, 5 cm blebs, minor pyrite, brassy cubes, host rock is banded gneiss.	020/65W	60cm	175	13	440	43	0.42%	91

TAKU ARM PROPERTY
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Sample No.	Location	Description	Att	Width	Au ppb	Ag ppm	As ppm	Cu ppm	Pb ppm	Zn ppm
343974	5970N 5625W	Qtz vein, drusy/vuggy/up to 2 cm well formed xtals, minor rust staining, minor earthy grey sulfide (galena?), some evidence of brecciation, 2 cm x 10 cm slivers of host rock in vein.	018/50W	20cm	55	2.9	87	20	240	108
343975 "L"	4868N 5480W	Qtz vein, limonite staining, minor pyrite (brassy cubes), trace galena, white crystalline qtz, minor clay alteration.	078/38W	25	100	6.0	410	78	2920	1060
343976 "L"	4868N 5480W	Host rock for the above qtz vein, chip sample of qtz altered host rock, qtz veinlets <1 cm wide, no visible mineralization.		1.0m	65	3.1	620	76	227	1430
343977	5800N 3850W	Qtz "vein" float, rusty weathering, 5-10% vugs (cubes), <1% diss galena as 3-4 mm cubes, crude ~2 cm cockscomb qtz bands.	Float	Float	2380	30	500	41	1.88%	161
343978 "L"	4850N 5175W	Qtz "vein" float: vuggy cockscomb qtz, weathered and leached, ~1-2% limonite as vug fillings, ~0.5-1% galena.	Float	Float	340	67	360	44	0.94%	122
343979 "L"	4850N 5500W	Limonite colored-weathering partially silicified (<20%), tan dolomite/marble, <0.5% diss pyrite, numerous pieces of banded/ bedded limestone in area.	Float	Float	1230	4.6	103	14	1960	82
343980 VOID										
343981 "K"	5800N 5775W	Float of qtz veining-massive qtz with 1-3% py to narrow qtz veinlets with 5% pyrite, 2% sphalerite, 1% galena and weathered limonite filled vugs ~5%, cockscomb textures.	Float	Float	<5	0.4	4	47	59	34
343982 "K"	5800N 5775W	Float of rusty weathering gneiss, fine-medium gr with heavy Fe stain coatings. Mostly qtz, feldspar, hornblende, 1-5% diss pyrite. Occasional narrow qtz and pyrite veinlets (1 mm).	Float	Float	<5	0.3	<2	96	20	58

TAKU ARM PROPERTY

NTS 104M/8		Aug-Sept/89	Samplers: R.H. & G.S.							
Sample No.	Location	Description	Att	Width	Au ppb	Ag ppm	As ppm	Cu ppm	Pb ppm	Zn ppm
343983 "J"	5700N 5425W	Quartz vein float and intrusive, 15% qtz veinlets and flooding in white sugary intrusive-bleached gneiss?? ~10% massive pyrite cubes <1 cm, ~1% diss sphalerite, cockscomb textures.	Float	Float	35	8	380	108	480	2.77%
343984	In gully 50m downslope of 4500N/5200W	Narrow discontinuous qtz veinlets parallel to strong jointing in Kgd host. Associated with anastomosing aplite-rhyolite dyklets <0.5 m wide. Approx 50% qtz, tr py.	176/90	~1.0	<5	1.2	4	8	74	245
343985	5m downslope in gully, from #343984	Narrow qtz veinlets <5 cm cutting bleached argillically altered Kgd - containing diss pyrite veinlets (<5% py). 15% qtz sometimes vuggy, fine grained, sometimes green.	176/90	2m	<5	1.1	<2	18	93	199
343986	At soil #475-002 located in gully downslope of baseline	Sample of Fe coated pyritized fractured Kgd, ~3% diss fine grained pyrite on micro fractures spaced <0.5 cm. No calcite or qtz veining, ~10% chloritized mafics, 5% epidote.	massive outcrop		<5	0.3	<2	16	36	84
343987	Collected at soil #475-003	Grab of outcrop and float: rusty weathering Kgd (as 343986), tr qtz veinlets, ~3% diss pyrite.	massive outcrop		<5	<0.2	<2	14	7	59

APPENDIX B

Analytical Methods and Results

GENERAL TEST.

GEOCHEM

GENERAL TEST

Elements: Mo Cu Zn Pb Cd Ni Co Ag Mn

Procedure:

1. Weigh 0.50 g of -80 mesh soil, sediment or -100 mesh pulverized rock into numbered 16 x 150 test tubes. Every tenth sample should be a duplicate sample or an internal known reference standard.

2. Add 1 mL of HNO_3 followed by 2 mL $HClO_4$. Samples containing carbonates may react vigorously at first so add 1 mL HNO_3 and let stand until the reaction stops before adding 2 mL $HClO_4$.

3. Place tubes in test tube block on hot plate at 160°C. The samples will boil vigorously at first and then decrease as the HNO_3 boils away. Organic samples should be watched to see that they do not foam. If they do foam, then take the test tube out of the block and gently tap the bottom of the tube on an asbestos pad. Highly organic soils can be handled by adding the acid and letting them stand overnight.

   The temperature of the hot plate should be set so that after the HNO_3 boils away (45 min ⟶ 1 h), then the $HClO_4$ boils gently and refluxes down the sides of the test tube. Total digestion time is 4 hours.

4. Cool the sample by adding 6 mL demineralized water and immersing the test tube rack in cold water for 2 min. After cooling, bring the volume up to 10 mL, cap, and shake.

5. Read on AA using air/acetylene flame for all elements except Mo which should be run using N_2O/acetylene flame. Background correction should be used on Pb, Cd, Ag. Turn burner head for Zn.

/ojt
1988-01-15

...../2

Mo, Cu, Zn, Pb, Ag
GEOCHEM.

Standards:

- all standards are made in 15% $HClO_4$
- factor is 20

	Standard Concentrate (µg/ml)	AA Setting (ppm)
Cu Zn Pb Co Ni Mn	5.0	100
	10.0	200
Mo	1.0	20
	2.0	40
	4.0	80
Cd	0.10	2.0
	0.50	10.0
	1.00	20.0
Ag	0.50	1.0
	0.10	2.0
	0.20	4.0

add 2 ml per 100 m
20% $AlCl_3$ to M
STD

Samples giving a reading above the high standard are diluted 1 to 10 with 15% $HClO_4$ and re-analyzed.

Wavelengths:

Mo	313.3	nm
Cu	324.7	
Zn	213.8	
Pb	283.3	
Cd	228.0	
Ni	232.0	
Co	240.7	
Mn	279.5	
Ag	328.0	

/ojt
1988-01-15

Au

GEOCHEM

GOLD TEST

Procedure:

1. Weigh 10.0 g sample into #07 crucible.
2. Heat in furnace for 1 1/2 h @ 600°C.
3. Cool, transfer to 150 mL glass beaker and add 30 mL Aqua Regia (3 parts HCl, 2 parts H_2O, add 1 part HNO_3).
4. Digest at just off the boil for 2 hours.
5. Cool, and bulk up to 110 mL mark on beaker.
6. Stir and leave overnight to settle.
7. Decant 50 mL of sample solution into 25 x 200 mm test tube.
8. Add 7 mL MIBK, cap, and shake in shaker for 3 min.
9. Read organic layer on A.A.

Standards:

1. In 250 mL separate funnel add 10 mL H_2O, 1 mL HCL, 2 drops of HNO_3 and the following amounts of Au:

   0.1 mL of 1000µg/mL Au standard = 1 ppm
   0.2 mL of 1000µg/mL Au standard = 2 ppm
   0.4 mL of 1000µg/mL Au standard = 4 ppm

2. Add 100 mL MIBK and shake for 3 min.
3. Drain aqueous layer.

   For higher samples, standards can be made in 30% aqua regia and the remaining half of the sample can be run in the aqueous phase.

/ojt
1987-11-24

Au ASSAY METHOD

DETERMINATION OF AU BY FIRE ASSAY & ATOMIC ABSORPTION

1. Weigh out 25 g sample into a 40 g fire assay crucible containing 150 g flux (2 parts PbO:1 part Na_2CO_3), and 25 g silica flour.

2. Add 1 1/2 tsp flour (~4.5 g) and 1 silver inquart.

3. Mix thoroughly with a large spatula until homogeneous and cover with a thin layer of flux.

4. Place the crucible in a preheated (2000^{o}F) furnace for 45 min.

5. Remove the molten assay from the furnace and pour into an iron mold. Allow to cool for ~20 min.

6. Break the slag from the lead button and hammer into a cube for cupellation.

7. Place the lead button on a preheated cupel.

8. When cupellation has been completed, the cupel is removed from the furnace and allowed to cool.

9. The prill is removed from the cupel and transferred to a graduated test tube.

10. 5 mL 25% HNO_3 is added to each test tube and the test tube rack is placed in a boiling water bath.

11. Continue heating until all Ag is in solution (no bubbling, and Au appears as black speck.)

12. Cool, decant off acid solution. Wash once with 10 mL deionized H_2O, and decant off H_2O.

13. To each test tube add 0.3 mL acid mixture (5 HCl:1 HNO_3) using a pipette.

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HCW/LDO:ojt
1988-09-16
File No. M-002

Au
ASSAY METHOD

14. Return test tube rack to water bath and heat until all Au is in solution.

15. Wash down the side of test tube, heat for another 15 min.

16. Remove, cool, and bulk to appropriate volume; making sure the final acid strength is 5% HCl and 1% HNO_3.

17. Stopper test tube & mix by shaking.

18. Run on Atomic Absorption instrument vs Au standards (0-15 ppm).

19. Calculate amount of gold present in sample.

$$\text{ppm Au} = \frac{(\text{AA Reading } [\mu g/mL]) \times (\text{Volume } [mL])}{\text{Wt Sample (g)}}$$

HCW/LDO:ojt
1988-09-16
File No. M-002

P L A C E R   D O M E   I N C   (V A N C O U V E R   L A B O R A T O R Y)

GEOCHEMICAL DATA LISTING: V246 TAKU ARM   DATE: 90:01:24

PDI lab data file: P9323
AREA: TAKU ARM
MAPSHEET NO:
VENTURE: V246
GEOLOGIST: G SMITH

PLEASE DISTRIBUTE RESULTS TO: GS RM LR EK MG RH LAB

REMARKS:
"RESULTS TO G SMITH & R HULSTEIN AT AURUM GEOLOGICAL CONSULTANTS"
"PO BOX 5179 WHITEHORSE YT Y1A 4S3"

STANDARD ANALYSIS METHODS USED BY PDI GEOCHEM LAB ARE LISTED BELOW:
ALL RESULTS EXPRESSED AS INDICATED IN UNITS COLUMN BELOW
ANY EXCEPTIONS FOR THIS PROJECT ARE NOTED ABOVE

REMARKS: INTERNAL LAB STANDARDS HAVE BEEN INCLUDED FOR REFERENCE.
SAMPLE NUMBERS FOLLOWED BY * ARE DUPLICATE ANALYSES.

	UNITS	WT.G	ATTACK USED	TIME	RANGE	METHOD
AG	PPM	0.5	HCLO4/HNO3	4HRS	0.2-20	A.A. BACKGROUND COR
AS	PPM	0.5	AQUA REGIA	3HRS	2-2000	DC PLASMA
AU1	PPB	10.0	AQUA REGIA	3HRS	5-4000	A.A. SOLVENT EXTRACT.
CU	PPM	0.5	HCLO4/HNO3	4HRS	2-4000	ATOMIC ABSORPTION
PB	PPM	0.5	HCLO4/HNO3	4HRS	2-3000	A.A. BACKGROUND COR.
ZN	PPM	0.5	HCLO4/HNO3	4HRS	2-3000	ATOMIC ABSORPTION

PDI GEOCHEM SYSTEM: Data From: V246 TAKU ARM

GRID	SAMPLE	PROJECT	Ag PPM	As PPM	Au1 PPB	Cu PPM	Pb PPM	Zn PPM
	343901	9323	1060	510	150	208	7.00%	6.00%
	343902	9323	15	19	3040	80	0.40%	1730
	343951	9323	16	<2	55	0.78%	303	333
	343952	9323	3.0	5	20	18	81	11
	343953	9323	300	48	40	104	1.22%	0.56%
	343953*	9323	310	46	50	105	1.23%	0.56%
test	STD PB-ZN	9323					0.84%	0.51%
test	STD CU	9323				0.42%		

GRID	SAMPLE	PROJECT	Ag PPM	As PPM	Au1 PPB	Cu PPM	Pb PPM	Zn PPM
	343903	9425	0.5	<2	<5	200	29	46
	343954	9425	1.1	<2	70	250	2080	840
	343955	9425	1.2	<2	60	71	2760	800
	343956	9425	<0.2	<2	15	7	38	30
	343957	9425	<0.2	9	110	14	17	62
	343957*	9425	<0.2	7	105	16	18	67

GRID	SAMPLE		PROJECT	Ag PPM	As PPM	Au1 PPB	Cu PPM	Pb PPM	Zn PPM
104M8W		343958	9426	20	133	340	312	1.63%	470
104M8W		343959	9426	7.0	<2	455	510	0.40%	800
104M8W		343960	9426	1.1	<2	10	15	84	110
104M8W		343960*	9426	1.0	<2	<5	14	77	104
test	STD PB-ZN		9426					0.81%	
test	STD AG		9426	42					

GRID	SAMPLE		PROJECT	Ag PPM	As PPM	Au1 PPB	Cu PPM	Pb PPM	Zn PPM
104M8W		343961	9489	4.0	40	5	226	1470	64
104M8W		343962	9489	110	630	5400	2240	0.41%	670
104M8W		343963	9489	5.0	24	270	28	2800	760
104M8W		343964	9489	0.9	69	20	22	66	67
104M8W		343965	9489	0.5	10	65	22	43	103
104M8W		343966	9489	0.2	4	20	8	35	31
104M8W		343967	9489	3.1	32	510	65	2030	580
104M8W		343968	9489	2.3	15	65	13	460	63
104M8W		343969	9489	1.9	11	60	19	510	113
104M8W		343969*	9489	1.9	9	55	19	500	111
104M8W		343970	9489	8.0	17	20	10	1310	172
104M8W		343971	9489	2.4	10	20	39	253	490
104M8W		343972	9489	2.0	510	65	41	366	144
104M8W		343973	9489	13	440	175	43	0.42%	91
104M8W		343974	9489	2.9	87	55	20	240	108
104M8W		343975	9489	6.0	410	100	78	2920	1060
104M8W		343976	9489	3.1	620	65	76	227	1430
test	STD P1		9489	0.3	22		23	50	120
test	STD PB-ZN		9489					0.82%	
test	STD AG		9489	42					
test	STD AU5		9489			50			

GRID	SAMPLE		PROJECT	Ag PPM	As PPM	Au1 PPB	Cu PPM	Pb PPM	Zn PPM
104M8W		343977	9534	30	500	2380	41	1.88%	161
104M8W		343978	9534	67	360	340	44	0.94%	122
104M8W		343979	9534	4.6	103	1230	14	1960	82
104M8W		343981	9534	0.4	4	<5	47	59	34
104M8W		343982	9534	0.3	<2	<5	96	20	58
104M8W		343983	9534	8.0	380	35	108	480	2.77%
104M8W		343984	9534	1.2	4	<5	8	74	245
104M8W		343985	9534	1.1	<2	<5	18	93	199
104M8W		343986	9534	0.3	<2	<5	16	36	84
104M8W		343986*	9534	0.3	<2	<5	15	34	79
104M8W		343987	9534	<0.2	<2	<5	14	7	59
104M8W		343988	9534	0.3	7	<5	5	240	16
104M8W		343989	9534	2.4	7	105	23	404	156
104M8W		343990	9534	13	<2	15	19	0.88%	670
104M8W		343991	9534	0.2	26	<5	10	33	47
test	STD P1		9534	0.3	16		22	57	135
test	STD AU5		9534			440			

END OF LISTING - 58 RECORDS PRINTED Run on: 90:01:24 at 12:34:24

P L A C E R   D O M E   I N C   (V A N C O U V E R   L A B O R A T O R Y)

GEOCHEMICAL DATA LISTING: V246 TAKU ARM   DATE: 90:01:24

PDI lab data file: P9512
AREA: TAKU ARM
MAPSHEET NO: 104M8W
VENTURE: V246
GEOLOGIST: G SMITH

PLEASE DISTRIBUTE RESULTS TO: GS LR EK MG RH LAB

REMARKS:
"RESULTS TO AURUM GEOLOGICAL CONSULTANTS: WHITEHORSE YT"

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	UNITS	WT.G	ATTACK USED	TIME	RANGE	METHOD
AG	PPM	0.5	HCLO4/HNO3	4HRS	0.2-20	A.A. BACKGROUND COR
AS	PPM	0.5	AQUA REGIA	3HRS	2-2000	DC PLASMA
AU1	PPB	10.0	AQUA REGIA	3HRS	5-4000	A.A. SOLVENT EXTRACT.
CU	PPM	0.5	HCLO4/HNO3	4HRS	2-4000	ATOMIC ABSORPTION
PB	PPM	0.5	HCLO4/HNO3	4HRS	2-3000	A.A. BACKGROUND COR.
ZN	PPM	0.5	HCLO4/HNO3	4HRS	2-3000	ATOMIC ABSORPTION

GRID	SAMPLE		PROJECT	Ag PPM	As PPM	Au1 PPB	Cu PPM	Pb PPM	Zn PPM
	L5700N	4750W	9322	<0.2	11	10	16	19	46
	L5700N	4775W	9322	0.3	24	<5	26	37	86
	L5700N	4800W	9322	0.3	18	10	31	29	87
	L5700N	4825W	9322	0.2	33	15	30	47	112
	L5700N	4850W	9322	0.3	21	<5	27	30	88
	L5700N	4875W	9322	<0.2	6	10	20	18	65
	L5700N	4900W	9322	0.3	8	10	16	15	54
	L5700N	4925W	9322	<0.2	8	<5	18	19	62
	L5700N	4950W	9322	<0.2	4	5	13	13	51
test	STD P1		9322	0.2	18		22	51	118
	L5700N	4975W	9322	0.5	11	<5	17	33	57
	L5700N	5000W	9322	<0.2	9	15	21	23	70
	L5700N	5025W	9322	<0.2	16	10	24	27	78
	L5700N	5050W	9322	0.3	9	<5	29	27	95
	L5700N	5125W	9322	0.2	7	15	23	24	70
	L5700N	5150W	9322	<0.2	7	10	25	33	80
	L5700N	5175W	9322	<0.2	8	<5	24	30	97
	L5700N	5200W	9322	<0.2	4	<5	24	38	91
	L5700N	5225W	9322	<0.2	7	<5	28	41	98
	L5700N	5225W*	9322	<0.2	6	<5	30	42	103
	L5700N	5250W	9322	<0.2	29	50	32	46	110
	L5700N	5275W	9322	0.3	25	20	65	61	145
	L5700N	5300W	9322	0.2	3	5	35	61	118
	L5700N	5325W	9322	<0.2	6	25	33	70	114
	L5800N	4750W	9322	<0.2	9	15	22	23	62
	L5800N	4775W	9322	<0.2	9	10	18	20	68
	L5800N	4800W	9322	<0.2	8	<5	26	21	68
	L5800N	4825W	9322	<0.2	13	<5	30	25	75
	L5800N	4850W	9322	<0.2	6	<5	15	18	57
	L5800N	4850W*	9322	<0.2	6	<5	15	18	57
	L5800N	4875W	9322	<0.2	18	<5	30	33	85
	L5800N	4900W	9322	<0.2	8	<5	23	27	66
	L5800N	4925W	9322	<0.2	9	<5	22	30	66
	L5800N	4950W	9322	<0.2	3	<5	20	36	80
	L5800N	4975W	9322	<0.2	<2	<5	20	15	52
	L5800N	5000W	9322	<0.2	7	<5	20	18	63
	L5800N	5025W	9322	<0.2	5	<5	22	23	67
	L5800N	5050W	9322	<0.2	5	<5	18	22	56
	L5800N	5075W	9322	<0.2	5	<5	34	48	126
	L5800N	5075W*	9322	<0.2	3	<5	35	50	130
	L5800N	5100W	9322	<0.2	7	<5	22	21	69
	L5800N	5125W	9322	0.3	7	<5	26	35	82
	L5800N	5150W	9322	0.3	11	5	30	35	86
	L5800N	5175W	9322	0.2	8	<5	23	31	107
	L5800N	5200W	9322	0.2	8	<5	24	44	82
	L5800N	5225W	9322	0.2	11	10	28	33	90
	L5800N	5250W	9322	0.3	15	<5	30	86	159
	L5900N	4650W	9322	0.2	14	<5	24	25	68
	L5900N	4675W	9322	0.2	7	10	16	14	48
	L5900N	4675W*	9322	0.2	9	<5	17	15	51
	L5900N	4700W	9322	<0.2	12	<5	25	21	73
	L5900N	4725W	9322	<0.2	13	<5	29	23	77
	L5900N	4750W	9322	<0.2	6	<5	22	18	66
	L5900N	4775W	9322	<0.2	4	<5	18	17	63
	L5900N	4800W	9322	<0.2	9	<5	16	14	54
	L5900N	4825W	9322	<0.2	8	<5	20	18	62
	L5900N	4850W	9322	<0.2	11	<5	21	21	64

PDI GEOCHEM SYSTEM: Data From: V246 TAKU ARM

GRID	SAMPLE		PROJECT	Ag PPM	As PPM	Au1 PPB	Cu PPM	Pb PPM	Zn PPM
	L5900N	4875W	9322	0.2	9	<5	20	22	64
	L5900N	4900W	9322	0.2	7	<5	26	26	77
test	STD P1		9322	0.2	19		22	53	120
	L5900N	4925W	9322	<0.2	12	25	27	31	88
	L5900N	4950W	9322	<0.2	6	<5	16	25	66
	L5900N	4975W	9322	<0.2	5	15	20	23	66
	L5900N	5000W	9322	<0.2	2	<5	17	18	61
	L5900N	5025W	9322	0.6	11	<5	33	92	180
	L5900N	5050W	9322	0.2	10	10	23	108	155
	L5900N	5075W	9322	0.8	2	<5	12	48	116
	L5900N	5100W	9322	0.2	6	20	25	37	95
	L5900N	5125W	9322	0.4	11	20	24	36	95
	L5900N	5125W*	9322	0.4	9	25	23	34	93
test	STD AU5		9322			450			
test	STD AU5		9322			475			

GRID	SAMPLE		PROJECT	Ag PPM	As PPM	Au1 PPB	Cu PPM	Pb PPM	Zn PPM
	L5700N	4875W	9424	0.9	9	55	49	151	186
	L5700N	4925W	9424	0.3	20	30	45	145	226
	L5700N	4950W	9424	0.7	31	20	51	180	196
	L5700N	4975W	9424	1.0	34	35	55	173	226
	L5700N	5000W	9424	0.4	16	<5	34	61	114
	L4800N	5025W	9424	1.1	33	<5	50	560	302
test	STD P1		9424	0.2	17		23	53	120
	L4800N	5050W	9424	2.1	48	105	122	470	403
	L4800N	5075W	9424	1.9	99	25	92	810	1130
	L4800N	5100W	9424	3.4	1.20%	605	550	248	0.32%
	L4800N	5125W	9424	0.4	31	<5	48	123	175
	L4800N	5150W	9424	0.2	17	<5	44	154	173
	L4800N	5175W	9424	0.3	<2	20	38	92	280
	L4800N	5200W	9424	1.4	22	15	42	610	580
	L4800N	5225W	9424	0.4	21	25	39	140	318
	L4800N	5250W	9424	<0.2	15	<5	32	43	162
	L4800N	5250W*	9424	<0.2	16	20	32	42	164
	L4800N	5300W	9424	<0.2	15	<5	30	63	148
	L4800N	5325W	9424	0.5	18	30	56	115	183
	L4800N	5350W	9424	0.4	11	10	48	192	178
	L4800N	5375W	9424	2.1	22	3200	66	247	193
	L4800N	5400W	9424	2.0	75	300	74	280	357
	L4800N	5425W	9424	5.0	75	665	131	950	480
	L4800N	5450W	9424	3.6	147	200	114	750	510
	L4800N	5475W	9424	0.2	51	5	42	42	127
	L4800N	5475W*	9424	0.2	49	<5	40	43	123
	L4800N	5500W	9424	0.4	19	<5	50	33	152
	L4800N	5525W	9424	0.6	60	<5	75	58	192
	L4800N	5550W	9424	0.4	25	<5	71	140	185
	L4800N	5575W	9424	<0.2	21	25	58	61	125
	L4800N	5600W	9424	0.2	29	<5	104	33	163
	L4800N	5625W	9424	0.4	24	10	43	52	110
	L4800N	5650W	9424	1.6	29	50	67	141	198
	L4800N	5675W	9424	0.2	8	30	34	54	127
	L4800N	5700W	9424	0.2	21	25	36	57	91
	L4800N	5700W*	9424	0.2	19	75	38	60	96
	L4800N	5725W	9424	0.7	18	<5	69	125	235
	L4800N	5750W	9424	<0.2	12	<5	35	34	71
	L4800N	5775W	9424	0.2	3	<5	69	50	64
	L4800N	5800W	9424	<0.2	9	20	68	41	134
	L4800N	5825W	9424	<0.2	14	<5	35	42	98
	L4800N	5850W	9424	0.2	26	<5	70	40	178
	L4800N	5875W	9424	0.4	78	15	54	108	206
	L4800N	5900W	9424	0.5	74	<5	69	142	183
	L4850N	5000W	9424	0.3	18	15	35	125	178
	L4850N	5000W*	9424	0.3	19	20	35	122	173
	L4850N	5025W	9424	0.5	14	<5	45	158	198
	L4850N	5050W	9424	0.2	10	<5	32	156	210
	L4850N	5075W	9424	0.6	16	10	48	213	274
	L4850N	5100W	9424	0.6	18	5	46	350	348
	L4850N	5125W	9424	1.4	23	20	41	344	283
	L4850N	5150W	9424	8.0	51	75	148	0.32%	1620
	L4850N	5200W	9424	7.0	66	190	68	2340	500
	L4850N	5225W	9424	6.0	320	50	60	1150	580
	L4850N	5225W*	9424	5.0	310	65	61	1180	600
	L4850N	5250W	9424	0.2	9	<5	38	51	211
	L4850N	5275W	9424	0.6	10	25	40	108	314

GRID	SAMPLE		PROJECT	Ag PPM	As PPM	Au1 PPB	Cu PPM	Pb PPM	Zn PPM
	L4850N	5300W	9424	0.2	74	65	36	60	132
	L4850N	5325W	9424	0.8	14	25	54	118	138
	L4850N	5350W	9424	0.3	6	<5	38	79	137
	L4850N	5375W	9424	2.0	14	75	84	570	273
	L4850N	5400W	9424	2.5	23	400	69	247	215
	L4850N	5425W	9424	1.0	45	365	52	306	216
	L4850N	5450W	9424	7.0	77	830	171	960	850
	L4850N	5450W*	9424	7.0	77	630	174	940	870
	L4850N	5475W	9424	1.7	114	40	80	288	288
	L4850N	5500W	9424	0.4	34	<5	67	73	190
	L4850N	5525W	9424	0.7	110	10	115	81	290
	L4850N	5550W	9424	1.1	85	40	98	141	308
	L4850N	5575W	9424	1.0	55	<5	66	64	217
	L4850N	5600W	9424	10.0	250	<5	163	230	251
	L4850N	5625W	9424	0.2	34	<5	46	90	174
	L4850N	5650W	9424	<0.2	4	150	34	32	89
	L4850N	5675W	9424	0.4	8	<5	35	52	102
test	STD P1		9424	0.2	16		24	54	125
	L4850N	5700W	9424	0.3	2	30	34	28	80
	L4850N	5725W	9424	0.2	2	<5	36	73	96
	L4850N	5750W	9424	<0.2	4	<5	32	35	93
	L4850N	5775W	9424	0.2	13	<5	46	62	138
	L4850N	5800W	9424	0.3	10	<5	91	31	123
	L4850N	5825W	9424	0.2	14	<5	68	80	135
	L4850N	5850W	9424	0.2	25	<5	77	40	205
	L4850N	5875W	9424	1.1	380	90	90	307	381
	L4850N	5900W	9424	1.6	61	<5	95	610	580
	L4850N	5900W*	9424	1.7	63	<5	100	600	610
	L4850N	5925W	9424	1.5	480	<5	120	245	1000
	L4900N	5050W	9424	0.7	39	<5	67	42	383
	L4900N	5075W	9424	0.5	27	<5	49	188	146
	L4900N	5100W	9424	0.7	15	10	42	192	160
	L4900N	5125W	9424	0.3	13	<5	36	61	92
	L4900N	5150W	9424	0.3	8	<5	37	57	88
	L4900N	5175W	9424	0.2	8	<5	38	52	83
	L4900N	5200W	9424	0.2	18	<5	44	50	91
	L4900N	5200W*	9424	0.2	16	<5	44	50	92
	L4900N	5225W	9424	<0.2	7	<5	27	31	87
	L4900N	5250W	9424	0.2	6	<5	40	42	90
	L4900N	5275W	9424	0.3	10	20	33	36	152
	L4900N	5300W	9424	0.2	8	400	49	68	118
	L4900N	5325W	9424	0.3	9	<5	47	60	93
	L4900N	5350W	9424	0.5	11	190	65	130	126
	L4900N	5375W	9424	1.5	9	20	52	200	150
	L4900N	5400W	9424	1.9	21	95	108	294	293
	L4900N	5425W	9424	2.7	42	320	101	371	600
test	STD P1		9424	0.2	16		24	55	118
	L4900N	5475W	9424	0.3	12	<5	58	45	106
	L4900N	5500W	9424	0.2	16	30	41	40	96
	L4900N	5525W	9424	0.3	16	<5	49	50	122
	L4900N	5550W	9424	0.2	13	30	50	33	88
	L4900N	5575W	9424	0.2	10	<5	55	37	84
	L4900N	5600W	9424	<0.2	17	<5	48	33	75
	L4900N	5625W	9424	0.3	11	<5	33	23	53
	L4900N	5650W	9424	0.3	17	390	54	49	81
	L4900N	5650W*	9424	0.3	15	425	53	47	81
	L4900N	5675W	9424	0.2	10	15	47	35	90
	L4900N	5750W	9424	<0.2	13	<5	36	35	93

GRID	SAMPLE		PROJECT	Ag PPM	As PPM	Au1 PPB	Cu PPM	Pb PPM	Zn PPM
	L4900N	5775W	9424	0.2	17	<5	32	68	200
	L4900N	5800W	9424	0.7	17	<5	54	114	228
	L4900N	5825W	9424	0.3	19	<5	61	40	156
	L4900N	5875W	9424	0.7	240	<5	85	183	470
	L4900N	5875W*	9424	0.6	230	<5	86	181	480
	L4900N	5900W	9424	0.4	116	<5	63	44	143
	L4900N	5925W	9424	0.3	190	<5	64	53	150
	L4900N	5950W	9424	0.3	10	<5	75	62	154
	L4900N	6025W	9424	<0.2	5	<5	36	22	94
	L4900N	6050W	9424	0.2	6	<5	50	48	100
	L4900N	6075W	9424	0.2	4	<5	32	20	78
	L5000N	5025W	9424	0.4	23	35	53	140	226
test	STD P1		9424	0.2	16		23	53	125
	L5000N	5100W	9424	0.3	10	<5	32	38	88
	L5000N	5125W	9424	0.3	13	<5	43	39	88
	L5000N	5150W	9424	0.2	5	<5	32	67	68
	L5000N	5175W	9424	0.3	9	<5	28	31	70
	L5000N	5200W	9424	0.4	21	<5	40	34	93
	L5000N	5225W	9424	0.3	20	260	40	43	91
	L5000N	5250W	9424	0.2	13	<5	40	40	90
	L5000N	5250W*	9424	0.3	16	20	41	41	98
	L5000N	5275W	9424	0.2	10	<5	32	26	64
	L5000N	5300W	9424	0.8	15	<5	38	29	78
	L5000N	5325W	9424	0.2	17	<5	31	27	70
	L5000N	5350W	9424	0.3	21	<5	48	57	108
	L5000N	5375W	9424	0.2	14	<5	40	38	94
	L5000N	5425W	9424	0.3	24	<5	47	33	136
	L5000N	5450W	9424	0.2	44	<5	32	35	107
	L5000N	5500W	9424	<0.2	14	<5	46	29	102
	L5000N	5525W	9424	0.2	14	<5	35	21	73
	L5000N	5575W	9424	1.5	59	<5	123	121	470
test	STD P1		9424	0.3	16		23	50	116
	L5000N	5825W	9424	0.2	7	<5	63	24	116
	L5000N	5875W	9424	0.4	310	<5	65	36	126
	L5000N	5900W	9424	0.2	50	<5	63	30	109
	L5000N	5925W	9424	0.2	12	<5	54	75	118
	L5000N	5925W*	9424	0.3	12	<5	58	80	127
	L5000N	5950W	9424	<0.2	10	<5	47	29	85
	L5000N	5975W	9424	<0.2	10	<5	47	27	80
	L5000N	6000W	9424	0.2	11	<5	74	20	100
	L5000N	6025W	9424	0.2	<2	<5	52	20	100
	L5000N	6075W	9424	<0.2	7	<5	31	16	68
	L5000N	6100W	9424	<0.2	5	<5	38	25	78
	L5100N	4750W	9424	0.2	8	<5	36	40	67
	L5100N	4775W	9424	0.2	4	<5	28	81	68
	L5100N	4775W*	9424	0.2	6	<5	25	78	67
	L5100N	4825W	9424	0.3	7	<5	29	35	76
	L5100N	4850W	9424	<0.2	12	<5	27	32	68
	L5100N	4875W	9424	0.2	16	<5	32	33	68
	L5100N	4900W	9424	0.2	31	<5	41	34	94
	L5100N	4925W	9424	0.2	15	<5	33	71	115
	L5100N	5000W	9424	0.2	26	<5	35	29	83
	L5100N	5000W*	9424	0.2	24	<5	37	32	88
	L5100N	5100W	9424	0.2	28	<5	25	25	67
	L5100N	5125W	9424	0.2	46	<5	26	27	70
	L5100N	5250W	9424	0.5	96	<5	45	49	165
	L5100N	5325W	9424	<0.2	19	20	28	36	67

GRID	SAMPLE		PROJECT	Ag PPM	As PPM	Au1 PPB	Cu PPM	Pb PPM	Zn PPM
	L5100N	5350W	9424	<0.2	25	30	40	29	103
	L5100N	5375W	9424	0.2	53	45	41	31	115
	L5200N	4750W	9424	<0.2	18	35	32	35	78
	L5200N	4800W	9424	<0.2	10	35	34	28	74
	L5200N	4800W*	9424	<0.2	12	30	35	28	76
	L5200N	4825W	9424	0.2	20	<5	43	57	109
	L5200N	4875W	9424	<0.2	14	35	35	42	78
	L5200N	4925W	9424	<0.2	13	10	25	21	54
	L5200N	4975W	9424	0.2	13	50	26	24	61
	L5200N	5000W	9424	0.2	9	20	18	17	36
	L5200N	5025W	9424	<0.2	29	60	33	32	74
	L5200N	5025W*	9424	<0.2	27	15	35	33	77
	L5200N	5050W	9424	<0.2	4	<5	21	71	44
	L5200N	5075W	9424	<0.2	14	10	21	27	60
	L5200N	5100W	9424	<0.2	46	5	45	54	121
	L5200N	5125W	9424	<0.2	25	20	34	30	79
	L5200N	5150W	9424	<0.2	12	<5	35	32	91
	L5200N	5200W	9424	0.2	32	<5	42	30	86
	L5200N	5225W	9424	0.2	35	<5	43	44	114
	L5200N	5250W	9424	0.2	30	<5	37	33	98
test	STD P1		9424	0.2	16		24	54	120
	L5200N	5275W	9424	<0.2	22	5	27	24	80
	L5200N	5300W	9424	0.2	33	<5	42	33	105
	L5300N	4750W	9424	0.3	38	15	41	40	100
	L5300N	4775W	9424	0.2	19	10	36	23	82
	L5300N	4800W	9424	0.2	21	10	35	30	77
	L5300N	4825W	9424	<0.2	4	<5	153	14	80
	L5300N	4875W	9424	0.2	19	25	32	20	77
	L5300N	4900W	9424	<0.2	23	15	31	25	75
	L5300N	4900W*	9424	<0.2	23	<5	30	23	74
	L5300N	4925W	9424	<0.2	17	<5	31	23	73
	L5300N	4950W	9424	<0.2	20	<5	27	20	70
	L5300N	4975W	9424	<0.2	21	<5	32	22	75
	L5300N	5000W	9424	0.3	18	<5	25	16	53
	L5300N	5025W	9424	<0.2	32	20	34	21	72
	L5300N	5050W	9424	<0.2	37	<5	38	23	82
	L5300N	5075W	9424	<0.2	18	20	35	18	73
	L5300N	5100W	9424	<0.2	25	<5	33	23	74
	L5300N	5125W	9424	<0.2	18	<5	32	20	75
	L5300N	5125W*	9424	<0.2	14	<5	32	20	73
	L5300N	5150W	9424	0.2	28	<5	30	22	75
	L5300N	5175W	9424	<0.2	62	<5	32	36	93
	L5300N	5200W	9424	<0.2	22	<5	28	20	70
	L5300N	5225W	9424	0.3	18	<5	52	28	114
	L5400N	4750W	9424	0.2	20	<5	26	17	60
	L5400N	4775W	9424	<0.2	26	<5	32	26	82
	L5400N	4800W	9424	<0.2	27	<5	30	22	87
	L5400N	4825W	9424	0.3	42	15	47	46	132
	L5400N	4850W	9424	0.2	34	<5	34	30	97
test	STD P1		9424	0.3	19		23	52	116
	L5400N	4875W	9424	0.2	24	10	30	27	78
	L5400N	4900W	9424	0.2	26	10	30	29	80
	L5400N	4925W	9424	0.3	26	<5	36	45	100
	L5400N	4950W	9424	0.2	23	<5	28	31	73
	L5400N	4975W	9424	0.2	17	<5	24	23	60
	L5400N	5000W	9424	0.3	13	<5	23	30	58
	L5400N	5025W	9424	0.2	33	<5	35	32	85

GRID	SAMPLE		PROJECT	Ag PPM	As PPM	Au1 PPB	Cu PPM	Pb PPM	Zn PPM
	L5400N	5050W	9424	0.2	30	<5	35	32	80
	L5400N	5075W	9424	0.3	39	<5	38	35	100
	L5400N	5075W*	9424	0.3	40	<5	41	39	108
	L5400N	5100W	9424	0.3	49	<5	45	46	131
	L5400N	5125W	9424	0.4	34	<5	44	40	130
	L5400N	5200W	9424	0.2	9	<5	14	17	54
	L5400N	5225W	9424	0.2	38	<5	29	22	75
	L5400N	5250W	9424	0.3	22	<5	45	46	122
	L5500N	4750W	9424	0.2	22	5	45	32	93
	L5500N	4775W	9424	0.2	32	<5	36	35	94
	L5500N	4775W*	9424	0.2	34	<5	37	36	96
	L5500N	4825W	9424	0.2	11	<5	19	24	59
	L5500N	4875W	9424	0.2	15	<5	22	24	80
	L5500N	4900W	9424	<0.2	7	<5	14	11	48
	L5500N	4925W	9424	0.2	8	<5	13	15	50
	L5500N	4950W	9424	0.3	26	<5	28	31	112
	L5500N	4975W	9424	0.2	16	20	20	21	67
	L5500N	5000W	9424	0.2	23	<5	20	24	78
test	STD P1		9424	0.2	16		21	52	125
	L5500N	5025W	9424	0.3	10	<5	17	60	54
	L5500N	5050W	9424	0.2	27	<5	29	33	102
	L5500N	5075W	9424	0.2	25	15	25	28	97
	L5500N	5100W	9424	0.3	38	5	30	40	116
	L5500N	5125W	9424	0.2	24	<5	25	29	88
	L5500N	5150W	9424	0.6	32	<5	28	57	128
	L5500N	5175W	9424	1.6	63	20	36	130	262
	L5500N	5200W	9424	0.4	17	<5	18	43	63
	L5500N	5225W	9424	0.3	15	<5	19	29	74
	L5500N	5225W*	9424	0.3	14	<5	17	28	77
	L5500N	5250W	9424	0.2	14	<5	20	31	82
	L5500N	5275W	9424	1.0	70	<5	30	152	204
	L5500N	5300W	9424	1.1	73	<5	34	100	235
	L5500N	5325W	9424	1.5	120	5	29	187	285
	L5600N	4625W	9424	0.3	10	20	31	116	157
	L5600N	4650W	9424	0.5	8	25	45	201	188
	L5600N	4675W	9424	0.7	7	15	63	183	250
	L5600N	4725W	9424	0.5	5	10	59	68	126
	L5600N	4725W*	9424	0.4	3	20	59	67	126
	L5600N	4750W	9424	0.3	8	<5	27	60	80
	L5600N	4800W	9424	0.2	9	<5	33	52	112
	L5600N	4825W	9424	0.2	9	<5	28	57	93
	L5600N	4875W	9424	0.3	25	<5	43	90	140
	L5600N	4900W	9424	0.5	26	100	46	135	180
	L5600N	4925W	9424	0.3	7	<5	38	95	103
test	STD P1		9424	0.3	16		23	50	122
	L5600N	4975W	9424	0.2	11	35	22	20	65
	L5600N	5000W	9424	0.6	8	50	54	200	142
	L5600N	5025W	9424	1.2	10	150	61	322	180
	L5600N	5050W	9424	0.2	5	110	31	72	111
	L5600N	5075W	9424	0.2	4	95	45	135	110
	L5600N	5100W	9424	0.5	8	160	42	100	112
	L5600N	5125W	9424	0.7	12	160	61	353	153
	L5600N	5150W	9424	0.7	15	105	50	122	118
	L5600N	5175W	9424	1.7	12	95	56	143	147
	L5600N	5175W*	9424	1.7	11	90	56	140	148
	L5600N	5200W	9424	0.2	8	<5	29	30	74
	L5600N	5225W	9424	0.3	13	<5	31	83	153

GRID	SAMPLE		PROJECT	Ag PPM	As PPM	Au1 PPB	Cu PPM	Pb PPM	Zn PPM
	L5600N	5250W	9424	1.3	15	65	55	130	160
	L5600N	5275W	9424	0.3	15	20	47	100	133
	L5600N	5300W	9424	0.3	29	<5	42	114	126
	L5600N	5325W	9424	0.4	37	60	41	131	125
	L5600N	5350W	9424	0.4	28	25	55	88	135
	L5600N	5375W	9424	1.3	38	60	102	530	377
	L5600N	5700W	9424	0.7	26	40	60	80	140
test	STD PB-ZN		9424		0.11%				0.51%
test	STD AU5		9424			370			
test	STD AU5		9424			390			
test	STD AU5		9424			360			
test	STD AU5		9424			540			
test	STD AU5		9424			390			
test	STD AU5		9424			450			
test	STD AU5		9424			585			
test	STD AU5		9424			510			
test	STD AU5		9424			555			

GRID	SAMPLE		PROJECT	Ag PPM	As PPM	Au1 PPB	Cu PPM	Pb PPM	Zn PPM
104M8W	L4300N	5000W	9427	0.2	9	25	24	36	85
104M8W	L4300N	5025W	9427	<0.2	7	10	42	69	127
104M8W	L4300N	5050W	9427	0.5	6	<5	57	85	305
104M8W	L4300N	5075W	9427	0.3	7	50	59	94	347
104M8W	L4300N	5100W	9427	0.3	5	5	70	116	318
104M8W	L4300N	5125W	9427	0.5	9	25	103	156	335
104M8W	L4300N	5150W	9427	0.8	15	35	190	182	266
104M8W	L4300N	5175W	9427	0.2	12	35	68	160	202
104M8W	L4300N	5200W	9427	0.3	11	20	55	131	180
104M8W	L4300N	5200W*	9427	0.4	13	20	57	134	188
104M8W	L4300N	5225W	9427	0.3	11	10	56	150	164
104M8W	L4300N	5250W	9427	0.6	7	30	76	157	169
104M8W	L4300N	5275W	9427	1.4	15	135	126	393	320
104M8W	L4300N	5300W	9427	1.6	19	100	165	334	580
104M8W	L4300N	5325W	9427	0.5	5	30	43	53	123
104M8W	L4300N	5350W	9427	0.4	11	20	46	48	95
104M8W	L4300N	5375W	9427	0.3	11	20	40	40	108
104M8W	L4300N	5400W	9427	0.2	10	5	37	49	104
104M8W	L4300N	5425W	9427	0.2	12	10	35	50	93
104M8W	L4300N	5425W*	9427	0.2	12	10	36	50	94
104M8W	L4300N	5450W	9427	0.2	7	<5	39	53	97
104M8W	L4300N	5475W	9427	0.5	8	25	44	73	116
104M8W	L4300N	5500W	9427	0.6	3	20	63	53	98
104M8W	L4400N	5350W	9427	0.4	5	5	42	46	126
104M8W	L4400N	5375W	9427	0.2	6	<5	38	27	84
104M8W	L4400N	5400W	9427	<0.2	8	<5	33	29	65
104M8W	L4400N	5425W	9427	0.3	<2	<5	27	28	74
104M8W	L4400N	5450W	9427	0.2	5	<5	36	33	78
104M8W	L4400N	5475W	9427	<0.2	8	<5	21	13	44
104M8W	L4400N	5475W*	9427	<0.2	8	<5	21	13	43
104M8W	L4400N	5500W	9427	0.3	4	10	25	23	67
104M8W	L4400N	5525W	9427	0.6	12	25	61	142	184
104M8W	L4400N	5550W	9427	1.1	8	75	61	154	155
104M8W	L4400N	5575W	9427	0.6	7	35	42	84	106
104M8W	L4400N	5600W	9427	0.2	10	15	40	72	102
104M8W	L4400N	5625W	9427	0.3	9	25	41	82	98
104M8W	L4400N	5650W	9427	0.3	20	10	48	48	94
test	STD P1		9427	0.2	18		23	48	112
104M8W	L4500N	5050W	9427	<0.2	6	15	38	114	150
104M8W	L4500N	5075W	9427	0.7	5	90	54	211	208
104M8W	L4500N	5125W	9427	0.2	6	20	45	82	131
104M8W	L4500N	5150W	9427	0.3	6	10	48	98	155
104M8W	L4500N	5175W	9427	0.5	11	25	50	141	250
104M8W	L4500N	5200W	9427	0.5	6	40	53	171	303
104M8W	L4500N	5225W	9427	1.1	46	120	67	258	213
104M8W	L4500N	5250W	9427	0.5	6	25	62	55	117
104M8W	L4500N	5250W*	9427	0.5	5	15	61	54	118
104M8W	L4500N	5275W	9427	0.2	8	10	43	105	164
104M8W	L4500N	5300W	9427	0.2	10	10	32	91	120
104M8W	L4500N	5325W	9427	<0.2	4	5	13	33	140
104M8W	L4500N	5350W	9427	<0.2	14	5	34	87	123
104M8W	L4500N	5375W	9427	0.4	9	5	60	208	364
104M8W	L4500N	5400W	9427	0.7	5	35	38	130	153
104M8W	L4500N	5425W	9427	1.1	3	50	38	350	170
104M8W	L4500N	5450W	9427	1.2	12	15	44	143	105
104M8W	L4500N	5475W	9427	0.3	11	15	37	58	90
104M8W	L4500N	5475W*	9427	0.6	11	20	35	55	90

GRID	SAMPLE		PROJECT	Ag PPM	As PPM	Au1 PPB	Cu PPM	Pb PPM	Zn PPM
104M8W	L4500N	5500W	9427	<0.2	5	10	24	32	61
104M8W	L4500N	5525W	9427	0.2	15	25	35	48	110
104M8W	L4500N	5550W	9427	0.2	10	30	40	106	204
104M8W	L4500N	5575W	9427	0.5	54	15	53	104	830
104M8W	L4500N	5600W	9427	1.0	28	55	43	480	190
104M8W	L4500N	5625W	9427	0.5	12	65	54	72	163
104M8W	L4500N	5650W	9427	0.3	12	55	47	61	102
104M8W	L4500N	5675W	9427	0.2	11	60	40	40	89
104M8W	L4500N	5700W	9427	0.4	9	70	51	55	102
test	STD P1		9427	0.2	18		21	47	114
104M8W	L4500N	5725W	9427	0.6	16	50	51	123	104
104M8W	L4700N	5025W	9427	0.3	14	50	27	145	157
104M8W	L4700N	5050W	9427	<0.2	8	10	31	112	420
104M8W	L4700N	5075W	9427	0.4	6	20	34	75	314
104M8W	L4700N	5100W	9427	0.4	4	20	53	61	125
104M8W	L4700N	5125W	9427	0.4	10	25	45	36	130
104M8W	L4700N	5175W	9427	0.9	8	25	35	66	133
104M8W	L4700N	5200W	9427	<0.2	14	5	21	80	262
104M8W	L4700N	5200W*	9427	<0.2	15	5	21	81	264
104M8W	L4700N	5225W	9427	<0.2	11	10	29	27	104
104M8W	L4700N	5250W	9427	<0.2	15	<5	32	42	126
104M8W	L4700N	5275W	9427	0.2	9	10	37	35	80
104M8W	L4700N	5300W	9427	0.8	29	270	50	126	137
104M8W	L4700N	5325W	9427	0.2	15	15	29	52	87
104M8W	L4700N	5350W	9427	0.2	19	20	45	66	176
104M8W	L4700N	5375W	9427	1.2	30	70	68	88	138
104M8W	L4700N	5400W	9427	0.4	24	25	64	70	136
104M8W	L4700N	5425W	9427	0.8	38	40	76	137	160
104M8W	L4700N	5425W*	9427	0.8	37	75	78	142	164
104M8W	L4700N	5450W	9427	1.5	58	640	106	200	310
104M8W	L4700N	5475W	9427	1.0	53	105	122	135	287
104M8W	L4700N	5500W	9427	1.6	53	40	162	94	344
104M8W	L4700N	5525W	9427	0.3	20	5	188	29	156
104M8W	L4700N	5550W	9427	0.5	24	10	500	34	142
104M8W	L4700N	5575W	9427	0.4	47	30	131	58	172
104M8W	L4700N	5600W	9427	0.6	17	65	82	105	90
104M8W	L4700N	5625W	9427	0.3	27	10	43	42	91
104M8W	L4700N	5650W	9427	0.5	32	60	73	152	141
test	STD P1		9427	0.2	16		23	50	120
104M8W	L4700N	5675W	9427	0.8	15	60	54	140	120
104M8W	L4700N	5700W	9427	0.5	21	50	50	107	117
104M8W	L4700N	5725W	9427	0.4	24	110	44	81	103
104M8W	L4700N	5750W	9427	0.8	60	50	62	114	142
104M8W	L4700N	5775W	9427	0.5	21	40	44	58	83
104M8W	L4700N	5800W	9427	0.2	23	30	62	35	146
104M8W	L4700N	5825W	9427	0.3	54	15	58	96	155
104M8W	L4800N	4600W	9427	1.8	6	25	37	205	122
104M8W	L4800N	4625W	9427	0.3	5	20	30	62	116
104M8W	L4800N	4625W*	9427	0.3	5	20	31	61	117
104M8W	L4800N	4650W	9427	0.3	7	15	28	47	67
104M8W	L4800N	4675W	9427	0.8	21	45	35	118	134
104M8W	L4800N	4700W	9427	0.8	24	60	37	160	177
104M8W	L4800N	4725W	9427	0.5	15	70	30	121	125
104M8W	L4800N	4750W	9427	0.4	9	40	29	80	120
104M8W	L4800N	4775W	9427	0.2	8	5	30	70	86
104M8W	L4800N	4800W	9427	0.3	8	15	92	70	82
104M8W	L4800N	4825W	9427	0.5	24	90	90	126	141

GRID	SAMPLE		PROJECT	Ag PPM	As PPM	Au1 PPB	Cu PPM	Pb PPM	Zn PPM
104M8W	L4800N	4850W	9427	0.7	12	55	113	86	85
104M8W	L4800N	4850W*	9427	0.8	11	60	113	87	84
104M8W	L4800N	4875W	9427	2.1	5	190	78	140	137
104M8W	L4800N	4900W	9427	0.3	5	45	42	87	128
104M8W	L4800N	4925W	9427	2.3	33	75	67	450	560
104M8W	L4800N	4975W	9427	2.2	40	125	57	217	362
104M8W	L4800N	5000W	9427	0.3	49	40	39	196	254
104M8W	L4900N	4650W	9427	<0.2	3	25	28	32	53
104M8W	L4900N	4675W	9427	<0.2	4	15	26	33	75
104M8W	L4900N	4700W	9427	0.2	20	10	92	57	98
test	STD P1		9427	0.2	12		24	50	124
104M8W	L4900N	4725W	9427	<0.2	3	15	22	37	91
104M8W	L4900N	4750W	9427	0.4	11	20	27	52	94
104M8W	L4900N	4775W	9427	1.0	26	40	39	187	185
104M8W	L4900N	4800W	9427	1.2	30	45	38	210	244
104M8W	L4900N	4825W	9427	0.5	25	20	35	123	160
104M8W	L4900N	4850W	9427	0.2	10	<5	30	61	100
104M8W	L4900N	4875W	9427	0.5	14	15	37	95	133
104M8W	L4900N	4900W	9427	1.5	30	55	27	147	297
104M8W	L4900N	4925W	9427	1.2	147	60	46	197	222
104M8W	L4900N	4925W*	9427	1.1	140	60	46	190	214
104M8W	L4900N	4950W	9427	1.4	78	45	61	330	363
104M8W	L4900N	4975W	9427	1.4	57	120	54	420	345
104M8W	L4900N	5000W	9427	1.7	36	80	43	88	570
104M8W	L5000N	4750W	9427	0.3	8	15	37	48	90
104M8W	L5000N	4775W	9427	0.3	13	10	35	68	121
104M8W	L5000N	4800W	9427	0.3	18	<5	30	72	128
104M8W	L5000N	4825W	9427	0.3	14	10	29	77	106
104M8W	L5000N	4850W	9427	0.7	27	115	31	185	250
104M8W	L5000N	4875W	9427	3.0	48	290	64	680	550
104M8W	L5000N	4875W*	9427	3.1	49	140	64	680	560
104M8W	L5000N	4900W	9427	0.8	25	90	40	220	163
104M8W	L5000N	4925W	9427	0.7	27	110	35	98	134
104M8W	L5000N	4975W	9427	0.4	12	35	49	32	89
104M8W	L5000N	5000W	9427	0.7	13	25	149	34	131
104M8W	L5600N	4525W	9427	0.5	<2	15	24	52	96
104M8W	L5600N	4550W	9427	0.4	6	10	30	85	108
104M8W	L5600N	4575W	9427	0.3	5	10	25	52	118
104M8W	L5600N	4600W	9427	0.2	4	15	24	72	120
104M8W	L5600N	4600W*	9427	0.2	3	10	23	68	117
104M8W	L5600N	4625W	9427	<0.2	18	<5	25	21	75
104M8W	L5600N	4650W	9427	<0.2	21	<5	29	21	73
104M8W	L5600N	4675W	9427	<0.2	30	<5	43	41	103
104M8W	L5600N	4725W	9427	<0.2	28	<5	36	32	100
104M8W	L5600N	4750W	9427	0.2	33	40	37	31	105
104M8W	L5600N	4775W	9427	0.2	16	<5	27	18	78
104M8W	L5600N	4800W	9427	<0.2	25	<5	26	32	83
104M8W	L5600N	4825W	9427	0.2	41	<5	30	38	100
104M8W	L5600N	4825W*	9427	0.2	39	10	30	37	104
104M8W	L5600N	4850W	9427	<0.2	29	<5	31	31	95
104M8W	L5600N	4875W	9427	<0.2	41	<5	31	38	111
104M8W	L5600N	4900W	9427	<0.2	15	<5	23	17	70
104M8W	L5600N	4925W	9427	<0.2	10	<5	18	14	60
104M8W	L5600N	4950W	9427	<0.2	11	<5	15	14	52
104M8W	L5600N	4975W	9427	0.2	6	15	41	128	146
104M8W	L5600N	5000W	9427	0.3	32	<5	30	38	107
104M8W	L5600N	5025W	9427	0.2	25	<5	30	30	90

GRID	SAMPLE		PROJECT	Ag PPM	As PPM	Au1 PPB	Cu PPM	Pb PPM	Zn PPM
104M8W	L5600N	5050W	9427	0.4	32	<5	30	42	114
104M8W	L5600N	5050W*	9427	0.4	29	<5	30	41	117
104M8W	L5600N	5075W	9427	0.3	23	<5	27	34	101
104M8W	L5600N	5100W	9427	0.3	25	<5	25	39	116
104M8W	L5600N	5125W	9427	0.3	20	<5	31	27	117
104M8W	L5600N	5150W	9427	0.5	52	<5	35	65	164
104M8W	L5600N	5175W	9427	0.6	91	<5	30	127	235
104M8W	L5600N	5200W	9427	1.2	53	<5	25	72	143
104M8W	L5600N	5225W	9427	<0.2	13	<5	37	20	83
104M8W	L5600N	5250W	9427	0.2	16	<5	36	39	127
104M8W	L5600N	5275W	9427	1.2	17	<5	45	91	135
104M8W	L5600N	5275W*	9427	1.2	19	<5	44	90	135
104M8W	L5600N	5300W	9427	0.2	12	<5	33	42	125
104M8W	L5600N	5325W	9427	0.3	26	<5	33	47	100
104M8W	L5600N	5375W	9427	0.2	35	<5	35	22	93
104M8W	L5600N	5400W	9427	0.3	32	5	40	152	217
104M8W	L5600N	5425W	9427	0.6	46	190	67	174	228
104M8W	L5600N	5450W	9427	0.2	39	20	48	187	194
104M8W	L5600N	5475W	9427	1.6	60	90	69	180	208
104M8W	L5600N	5500W	9427	0.8	35	40	118	102	180
test	STD P1		9427	0.2	16		24	52	127
104M8W	L5600N	5525W	9427	<0.2	48	110	49	192	193
104M8W	L5600N	5550W	9427	0.7	310	335	80	164	315
104M8W	L5600N	5575W	9427	1.7	73	230	89	336	440
104M8W	L5600N	5600W	9427	1.0	98	90	64	164	145
104M8W	L5600N	5625W	9427	6.0	470	240	68	1180	650
104M8W	L5600N	5650W	9427	0.4	24	20	57	56	97
104M8W	L5600N	5675W	9427	0.5	15	60	67	68	118
104M8W	L5600N	5700W	9427	1.8	20	90	131	550	550
104M8W	L5600N	5725W	9427	0.3	14	35	52	43	95
104M8W	L5600N	5725W*	9427	0.3	17	90	51	44	94
104M8W	L5600N	5750W	9427	0.5	10	25	59	211	131
104M8W	L5600N	5775W	9427	0.7	56	50	70	114	167
104M8W	L5700N	4550W	9427	0.6	25	130	62	70	373
104M8W	L5700N	4575W	9427	<0.2	9	5	26	37	65
104M8W	L5700N	4600W	9427	0.6	13	15	36	81	124
104M8W	L5700N	4625W	9427	11.0	35	1830	137	2530	870
104M8W	L5700N	4650W	9427	0.2	14	<5	35	218	318
104M8W	L5700N	4675W	9427	2.2	17	10	60	460	285
104M8W	L5700N	4700W	9427	0.8	10	10	83	194	245
test	STD P1		9427	0.2	22		24	52	125
104M8W	L5700N	4725W	9427	0.8	10	15	78	214	214
104M8W	L5700N	4750W	9427	0.6	26	35	90	123	157
104M8W	L5700N	4775W	9427	<0.2	7	<5	27	30	47
104M8W	L4400N	5000W	9427	<0.2	9	<5	26	40	95
104M8W	L4400N	5025W	9427	<0.2	8	5	81	57	140
104M8W	L4400N	5050W	9427	0.2	5	10	36	52	100
104M8W	L4400N	5075W	9427	0.2	6	5	34	26	163
104M8W	L4400N	5125W	9427	0.6	13	15	296	167	185
104M8W	L4400N	5150W	9427	0.6	6	20	480	245	267
104M8W	L4400N	5175W	9427	1.1	11	65	62	174	175
104M8W	L4400N	5200W	9427	0.5	10	55	221	115	640
104M8W	L4400N	5225W	9427	0.2	9	10	50	22	186
104M8W	L4400N	5250W	9427	2.2	9	490	98	227	263
104M8W	L4400N	5275W	9427	1.5	2	180	52	122	140
104M8W	L4400N	5300W	9427	0.3	8	10	71	81	175
104M8W	L4400N	5325W	9427	0.7	6	25	184	70	183

GRID	SAMPLE		PROJECT	Ag PPM	As PPM	Au1 PPB	Cu PPM	Pb PPM	Zn PPM
104M8W	L4400N	5325W*	9427	0.7	4	30	184	70	181
test	STD AU5		9427			520			
test	STD AU5		9427			415			
test	STD AU5		9427			475			
test	STD AU5		9427			480			
test	STD AU5		9427			585			
test	STD AU5		9427			440			

GRID	SAMPLE		PROJECT	Ag PPM	As PPM	Au1 PPB	Cu PPM	Pb PPM	Zn PPM
104M8W	475	001	9512	0.4	3	10	34	61	93
104M8W	475	002	9512	0.4	7	10	71	88	197
104M8W	475	003	9512	<0.2	4	<5	53	31	61
104M8W	475	004	9512	<0.2	<2	<5	34	23	34
104M8W	475	005	9512	<0.2	4	<5	67	43	164
104M8W	475	006	9512	<0.2	<2	<5	76	25	65
104M8W	475	007	9512	<0.2	<2	<5	40	44	100
104M8W	475	008	9512	0.7	4	5	62	73	390
104M8W	475	009	9512	0.8	113	10	99	56	370
104M8W	475	009*	9512	0.9	114	10	103	58	380
104M8W	475	010	9512	<0.2	4	<5	38	20	40
104M8W	475	011	9512	<0.2	4	<5	40	26	74
104M8W	475	012	9512	0.3	10	10	90	121	178
104M8W	475	013	9512	0.3	3	5	38	149	43
104M8W	475	014	9512	1.0	3	25	42	147	85
104M8W	475	015	9512	<0.2	149	<5	23	16	54
104M8W	475	016	9512	0.2	140	5	26	37	106
104M8W	475	017	9512	1.2	149	50	68	145	197
104M8W	475	018	9512	0.5	210	15	61	36	127
test	STD P1		9512	0.3	17		25	50	131
104M8W	53+50N	41+25W	9512	0.2	37	<5	7	41	120
104M8W	53+75N	41+00W	9512	<0.2	24	5	13	20	58
104M8W	54+00N	40+75W	9512	1.8	51	150	11	99	178
104M8W	54+25N	40+50W	9512	0.2	32	20	2	22	79
104M8W	54+50N	40+25W	9512	<0.2	20	<5	8	18	56
104M8W	54+75N	40+00W	9512	<0.2	15	10	13	17	96
104M8W	55+00N	39+75W	9512	0.2	9	<5	15	18	75
104M8W	55+25N	39+50W	9512	0.2	17	15	17	28	64
104M8W	55+50N	39+25W	9512	0.3	20	310	14	28	41
104M8W	55+50N	39+25W*	9512	0.3	22	45	14	26	40
104M8W	55+75N	39+00W	9512	0.4	14	<5	22	38	81
104M8W	56+00N	38+75W	9512	0.2	4	<5	14	17	42
104M8W	56+25N	38+50W	9512	<0.2	29	<5	32	36	87
104M8W	56+50N	38+25W	9512	0.6	130	10	28	39	125
104M8W	56+75N	38+00W	9512	0.4	107	10	29	41	106
104M8W	57+00N	37+75W	9512	0.4	41	10	36	39	98
104M8W	57+25N	37+60W	9512	0.3	7	<5	18	20	65
104M8W	57+50N	37+50W	9512	0.4	15	<5	21	33	74
104M8W	57+75N	37+75W	9512	0.3	12	10	27	26	73
104M8W	57+75N	37+75W*	9512	0.2	10	10	26	28	74
104M8W	58+00N	37+75W	9512	0.9	31	10	55	77	130
104M8W	58+25N	37+50W	9512	0.5	8	<5	34	34	77
104M8W	58+50N	37+50W	9512	0.6	18	20	52	50	110
104M8W	58+75N	37+75W	9512	0.5	6	15	40	59	95
104M8W	59+00N	37+75W	9512	0.3	19	5	37	31	85
104M8W	59+25N	36+50W	9512	1.4	6	<5	35	52	105
104M8W	59+50N	36+50W	9512	0.5	3	5	13	26	68
104M8W	59+75N	36+50W	9512	1.1	3	<5	7	22	27
104M8W	60+00N	36+50W	9512	0.3	3	<5	11	19	53
test	STD P1		9512	0.3	17		25	50	132
104M8W	60+25N	36+50W	9512	0.3	<2	10	12	21	44
104M8W	60+50N	36+50W	9512	0.2	6	<5	15	28	64
104M8W	60+75N	36+50W	9512	0.2	17	5	36	34	82
104M8W	61+00N	36+50W	9512	0.3	17	<5	43	40	107
104M8W	57+00N	40+00W	9512	0.3	240	<5	45	46	126
104M8W	57+25N	39+75W	9512	0.3	25	<5	36	35	83
104M8W	57+50N	39+50W	9512	0.2	25	50	39	30	83
104M8W	57+75N	39+25W	9512	0.2	17	335	33	30	74

GRID	SAMPLE		PROJECT	Ag PPM	As PPM	Au1 PPB	Cu PPM	Pb PPM	Zn PPM
104M8W	58+00N	39+25W	9512	0.3	24	<5	41	32	81
104M8W	58+00N	39+25W*	9512	0.2	23	<5	40	33	79
104M8W	58+25N	39+00W	9512	0.4	22	<5	48	34	77
104M8W	58+50N	39+00W	9512	0.4	22	<5	36	28	77
104M8W	58+75N	38+85W	9512	0.2	26	<5	31	79	104
104M8W	59+00N	38+75W	9512	0.2	27	<5	30	34	83
104M8W	59+25N	38+75W	9512	0.2	21	<5	25	30	81
104M8W	59+50N	38+75W	9512	0.2	19	<5	29	34	87
104M8W	59+25N	38+75W	9512	0.3	38	<5	36	31	85
104M8W	60+00N	38+75W	9512	<0.2	11	20	20	13	52
104M8W	60+25N	38+70W	9512	0.2	18	<5	25	14	68
104M8W	60+25N	38+70W*	9512	0.2	12	<5	25	15	66
104M8W	60+50N	38+65W	9512	0.2	19	<5	23	15	72
104M8W	60+75N	38+60W	9512	0.3	21	20	24	21	70
104M8W	61+00N	38+65W	9512	0.2	21	<5	25	17	65
104M8W	61+00N	38+65W*	9512	0.2	22	5	25	18	70
test	STD AU5		9512			520			
test	STD AU5		9512			650			

END OF LISTING - 687 RECORDS PRINTED Run on: 90:01:24 at 12:34:24

APPENDIX C

Geochemistry Statistics

PLACER DOME INC: GEOCHEM ASSAY SYSTEM ROCK SAMPLES

Following elements needed some values adjusted:

ELEMENT	NSS	LOW	HI	%	BLNK	NVAL
AG	0	3	0	0	0	126
AS	0	12	0	0	0	126
AU1	0	9	0	0	0	126
CU	0	0	0	1	0	126
PB	0	0	0	10	0	126
ZN	0	0	0	3	0	126

15 records skipped: tests, duplicate analyses

SUMMARY OF GEOCHEM DATA: V246 TAKU ARM

ITEM	# VALUES	MISSING	MINIMUM	MAXIMUM	AVERAGE	STD. DEV.
GRID	33	10	104M8W	104M8W		
SAMP	0	43				
PROJ	43	0	9323	9534		
AG	43	0	0.10	1060.00	39.98	166.47
AS	43	0	1.00	630.00	117.58	197.66
AU1	43	0	2.50	5400.00	358.31	987.50
CU	43	0	5.00	7800.00	302.37	1220.42
PB	43	0	7.00	70000.00	4030.88	11172.96
ZN	43	0	11.00	60000.00	2474.67	9935.70

END OF SCAN: DATE: 90:01:24 time: 12:34:24 43 RECORDS PROCESSED

PLACER DOME INC: GEOCHEM ASSAY SYSTEM SOIL SAMPLES

Following elements needed some values adjusted:

ELEMENT	NSS	LOW	HI	%	BLNK	NVAL
AG	0	127	0	0	0	1654
AS	0	9	0	1	0	1654
AU1	0	268	0	0	0	1654
PB	0	0	0	1	0	1654
ZN	0	0	0	1	0	1654

91 records skipped: tests, duplicate analyses

SUMMARY OF GEOCHEM DATA: V246 TAKU ARM

ITEM	# VALUES	MISSING	MINIMUM	MAXIMUM	AVERAGE	STD. DEV.
GRID	272	324	104M8W	104M8W		
SAMP	596	0	475	L5900N		
PROJ	596	0	9322	9512		
AG	596	0	0.10	11.00	0.54	0.97
AS	596	0	1.00	12000.00	46.97	492.64
AU1	596	0	2.50	3200.00	41.25	169.24
CU	596	0	2.00	550.00	47.91	44.53
PB	596	0	11.00	3200.00	105.42	226.58
ZN	596	0	27.00	3200.00	154.61	186.33

END OF SCAN: DATE: 90:01:24 time: 12:34:24 596 RECORDS PROCESSED

PLACER DOME INC.
EXPLORATION DEPARTMENT

MEMORANDUM: FAX

TO: Roger Halstein   Date: January 17, 1990

FROM: Stewart Nimmo

RE: Stats on Taku soils

Here are the histograms of the elements from the soil samples submitted to the Placer Dome Lab. There is two histograms for each element, one including all the samples and a second (some case a third) histogram with the high values removed. Also I have included a correlation matrix of all the elements.

Regards

Stewart Nimmo

Stewart Nimmo

P L A C E R   D O M E   I N C .

PDI Data Analysis System - STATS

run on 90:01:17 at 9:08:17

Current directory: /placer1_1e/expl/taku/gchm

V246 TAKU ARM

Summary of data from file : soils

This data file contains an internal header: (5 records)
Data grouped into 11 fields
with format: (3A8,A4,A2, 6F6.0)

Character ID fields:
GRID SAMP SMP2 PROJ TYPE

Coordinate fields:

Other data fields:
AG AS AU1 CU PB ZN

Missing data indicated by NULL value 99999.0

BASIC STATISTICS OF SELECTED DATA FIELDS:

NAME	NDATA	NULLS	MINIMUM	MAXIMUM	MEAN	STD. DEV.	GEOM. MEAN	DISPERSION	
AG	596	0	0.100000	11.0000	0.538759	0.973563	0.310326	0.123779	0.778016
AS	596	0	1.00000	12000.0	46.9664	492.642	15.6192	5.69693	42.8232
AU1	596	0	2.50000	3200.00	41.2500	169.244	9.51709	2.15110	42.1063
CU	596	0	2.00000	550.000	47.9111	44.5288	39.6192	22.4395	69.9516
PB	596	0	11.0000	3200.00	105.421	226.577	58.5474	23.2445	147.467
ZN	596	0	27.0000	3200.00	154.614	186.331	121.027	65.9236	222.189

CORMAT: RUN ON 90:01:17 AT 9:08:17

Data from file: soils

V246 TAKU ARM

Correlation matrix for 596 records with 6 variables

	AG	AS	AU1	CU	PB	ZN
LOG:	1	1	1	1	1	1
AG	1.000	0.397	0.556	0.541	0.789	0.708
AS	0.397	1.000	0.193	0.332	0.323	0.473
AU1	0.556	0.193	1.000	0.402	0.589	0.466
CU	0.541	0.332	0.402	1.000	0.594	0.669
PB	0.789	0.323	0.589	0.594	1.000	0.829
ZN	0.708	0.473	0.466	0.669	0.829	1.000

Number of data pairs contributing to correlation

	AG	AS	AU1	CU	PB	ZN
AG	596	596	596	596	596	596
AS	596	596	596	596	596	596
AU1	596	596	596	596	596	596
CU	596	596	596	596	596	596
PB	596	596	596	596	596	596
ZN	596	596	596	596	596	596

```
HISTO:                      V246 TAKU ARM                           RUN ON 90:01:17  AT   9:57:44

File: soils                      Field name: AG      LOG = 0  REPVAL =   0.00100
                                             ----
 596 SAMPLES WITH AG     MINIMUM:  0.100000          MAXIMUM:  11.0000

 596 VALUES PLOTTED:     0 NOT IN RANGE  0.100000     to  11.0000

    MEAN:        0.538759        STD. DEV.: 0.973563       Median 0.300000

  SCALE OF HISTOGRAM IS   4.00 COUNTS /PRINT POSITION    # = 5,50,95%

   N   MIDPOINT  PERCENT  0        40        80        120       160       200       240       280       320       360       400
                         I---------I---------I---------I---------I---------I---------I---------I---------I---------I---------I
 127      0.      # 21.31 I********************************                                                                    I
 330  0.40000     # 55.37 I***********************************************************************************                 I
  70  0.80000       11.74 I******************                                                                                  I
  25   1.2000        4.19 I******                                                                                              I
  20   1.6000     #  3.36 I*****                                                                                               I
   7   2.0000        1.17 I**                                                                                                  I
   5   2.4000        0.84 I*                                                                                                   I
   2   2.8000        0.34 I*                                                                                                   I
   0   3.2000        0.00 I                                                                                                    I
   2   3.6000        0.34 I*                                                                                                   I
   0   4.0000        0.00 I                                                                                                    I
   0   4.4000        0.00 I                                                                                                    I
   1   4.8000        0.17 I                                                                                                    I
   0   5.2000        0.00 I                                                                                                    I
   0   5.6000        0.00 I                                                                                                    I
   2   6.0000        0.34 I*                                                                                                   I
   0   6.4000        0.00 I                                                                                                    I
   2   6.8000        0.34 I*                                                                                                   I
   0   7.2000        0.00 I                                                                                                    I
   0   7.6000        0.00 I                                                                                                    I
   1   8.0000        0.17 I                                                                                                    I
   0   8.4000        0.00 I                                                                                                    I
   0   8.8000        0.00 I                                                                                                    I
   0   9.2000        0.00 I                                                                                                    I
   0   9.6000        0.00 I                                                                                                    I
   1   10.000        0.17 I                                                                                                    I
   0   10.400        0.00 I                                                                                                    I
   1   10.800        0.17 I                                                                                                    I
   0   11.200        0.00 I                                                                                                    I
   0   11.600        0.00 I                                                                                                    I
   0   12.000        0.00 I                                                                                                    I
   0   12.400        0.00 I                                                                                                    I
   0   12.800        0.00 I                                                                                                    I
   0   13.200        0.00 I                                                                                                    I
   0   13.600        0.00 I                                                                                                    I
   0   14.000        0.00 I                                                                                                    I
   0   14.400        0.00 I                                                                                                    I
   0   14.800        0.00 I                                                                                                    I
   0   15.200        0.00 I                                                                                                    I
   0   15.600        0.00 I                                                                                                    I
   0   16.000        0.00 I                                                                                                    I
-----                     I---------I---------I---------I---------I---------I---------I---------I---------I---------I---------I
 596                      0        40        80        120       160       200       240       280       320       360       400
```

```
HISTO:                    V246 TAKU ARM                              RUN ON 90:01:17  AT   9:08:17

File: soils                    Field name: AG      LOG = 0  REPVAL =   0.00100
                                           ----
 596 SAMPLES WITH AG     MINIMUM:  0.100000          MAXIMUM:  11.0000

 576 VALUES PLOTTED:    20 NOT IN RANGE  0.100000     to  2.00000

    MEAN:        0.400521        STD. DEV.: 0.383235      Median 0.300000

  SCALE OF HISTOGRAM IS   2.00 COUNTS /PRINT POSITION   # = 5,50,95%

  N   MIDPOINT  PERCENT  0        20        40        60        80       100       120       140       160       180       200
                        I---------I---------I---------I---------I---------I---------I---------I---------I---------I---------I
127  0.10000   # 22.05  I****************************************************************                                    I
  0  0.15937     0.00   I                                                                                                    I
149  0.21875    25.87   I***************************************************************************                         I
101  0.27812   # 17.53  I***************************************************                                                 I
  0  0.33750     0.00   I                                                                                                    I
 43  0.39687     7.47   I**********************                                                                              I
  0  0.45625     0.00   I                                                                                                    I
 37  0.51563     6.42   I*******************                                                                                 I
 22  0.57500     3.82   I***********                                                                                         I
  0  0.63437     0.00   I                                                                                                    I
 21  0.69375     3.65   I***********                                                                                         I
  0  0.75313     0.00   I                                                                                                    I
 15  0.81250     2.60   I********                                                                                            I
  3  0.87187     0.52   I**                                                                                                  I
  0  0.93125     0.00   I                                                                                                    I
  9  0.99062     1.56   I*****                                                                                               I
  0   1.0500     0.00   I                                                                                                    I
  9   1.1094     1.56   I*****                                                                                               I
  0   1.1687     0.00   I                                                                                                    I
  8   1.2281     1.39   I****                                                                                                I
  2   1.2875     0.35   I*                                                                                                   I
  0   1.3469     0.00   I                                                                                                    I
  6   1.4063   #  1.04  I***                                                                                                 I
  0   1.4656     0.00   I                                                                                                    I
  7   1.5250     1.22   I****                                                                                                I
  6   1.5844     1.04   I***                                                                                                 I
  0   1.6437     0.00   I                                                                                                    I
  4   1.7031     0.69   I**                                                                                                  I
  0   1.7625     0.00   I                                                                                                    I
  3   1.8219     0.52   I**                                                                                                  I
  2   1.8813     0.35   I*                                                                                                   I
  0   1.9406     0.00   I                                                                                                    I
  2   2.0000     0.35   I*                                                                                                   I
-----                   I---------I---------I---------I---------I---------I---------I---------I---------I---------I---------I
 576                    0        20        40        60        80       100       120       140       160       180       200
```

```
HISTO:                        V246 TAKU ARM                              RUN ON 90:01:17  AT   9:08:17

File: soils                        Field name: AS      LOG = 0  REPVAL =   0.00100
                                               ----
 596 SAMPLES WITH AS     MINIMUM:    1.00000          MAXIMUM:  12000.0

 596 VALUES PLOTTED:      0 NOT IN RANGE   1.00000     to  12000.0

    MEAN:          46.9664        STD. DEV.:  492.642       Median  15.0000

  SCALE OF HISTOGRAM IS  10.00 COUNTS /PRINT POSITION    # = 5,50,95%

  N   MIDPOINT  PERCENT  0        100       200       300       400       500       600       700       800       900       1000
                        I---------I---------I---------I---------I---------I---------I---------I---------I---------I---------I
585      0.     # 98.15 I***********************************************************                                         I
 10   400.00      1.68  I*                                                                                                   I
  0   800.00      0.00  I                                                                                                    I
  0   1200.0      0.00  I                                                                                                    I
  0   1600.0      0.00  I                                                                                                    I
  0   2000.0      0.00  I                                                                                                    I
  0   2400.0      0.00  I                                                                                                    I
  0   2800.0      0.00  I                                                                                                    I
  0   3200.0      0.00  I                                                                                                    I
  0   3600.0      0.00  I                                                                                                    I
  0   4000.0      0.00  I                                                                                                    I
  0   4400.0      0.00  I                                                                                                    I
  0   4800.0      0.00  I                                                                                                    I
  0   5200.0      0.00  I                                                                                                    I
  0   5600.0      0.00  I                                                                                                    I
  0   6000.0      0.00  I                                                                                                    I
  0   6400.0      0.00  I                                                                                                    I
  0   6800.0      0.00  I                                                                                                    I
  0   7200.0      0.00  I                                                                                                    I
  0   7600.0      0.00  I                                                                                                    I
  0   8000.0      0.00  I                                                                                                    I
  0   8400.0      0.00  I                                                                                                    I
  0   8800.0      0.00  I                                                                                                    I
  0   9200.0      0.00  I                                                                                                    I
  0   9600.0      0.00  I                                                                                                    I
  0   10000.      0.00  I                                                                                                    I
  0   10400.      0.00  I                                                                                                    I
  0   10800.      0.00  I                                                                                                    I
  0   11200.      0.00  I                                                                                                    I
  0   11600.      0.00  I                                                                                                    I
  1   12000.      0.17  I                                                                                                    I
  0   12400.      0.00  I                                                                                                    I
  0   12800.      0.00  I                                                                                                    I
-----                   I---------I---------I---------I---------I---------I---------I---------I---------I---------I---------I
 596                    0        100       200       300       400       500       600       700       800       900       1000
```

```
HISTO:                       V246 TAKU ARM                          RUN ON 90:01:17  AT   9:08:17

File: soils                       Field name: AS     LOG = 0  REPVAL =   0.00100
                                              ----
 596 SAMPLES WITH AS     MINIMUM:   1.00000          MAXIMUM:  12000.0

 553 VALUES PLOTTED:    43 NOT IN RANGE   1.00000     to  60.0000

    MEAN:          17.3273         STD. DEV.:  12.5611       Median  14.0000

  SCALE OF HISTOGRAM IS   1.00 COUNTS /PRINT POSITION    # = 5,50,95%

   N  MIDPOINT  PERCENT  0        10        20        30        40        50        60        70        80        90       100
                         I---------I---------I---------I---------I---------I---------I---------I---------I---------I---------I
   9  1.0000      1.63   I*********                                                                                            I
  18  2.8438      3.25   I******************                                                                                   I
  42  4.6875    # 7.59   I******************************************                                                           I
  50  6.5313      9.04   I**************************************************                                                   I
  62  8.3750     11.21   I**************************************************************                                       I
  53  10.219      9.58   I*****************************************************                                                I
  19  12.063      3.44   I*******************                                                                                  I
  37  13.906    # 6.69   I*************************************                                                                I
  32  15.750      5.79   I********************************                                                                     I
  32  17.594      5.79   I********************************                                                                     I
  22  19.438      3.98   I**********************                                                                               I
  24  21.281      4.34   I************************                                                                             I
  21  23.125      3.80   I*********************                                                                                I
  16  24.969      2.89   I****************                                                                                     I
  19  26.813      3.44   I*******************                                                                                  I
  13  28.656      2.35   I*************                                                                                        I
  10  30.500      1.81   I**********                                                                                           I
  15  32.344      2.71   I***************                                                                                      I
   9  34.188      1.63   I*********                                                                                            I
   1  36.031      0.18   I*                                                                                                    I
   9  37.875      1.63   I*********                                                                                            I
   4  39.719      0.72   I****                                                                                                 I
   5  41.563      0.90   I*****                                                                                                I
   1  43.406      0.18   I*                                                                                                    I
   5  45.250    # 0.90   I*****                                                                                                I
   4  47.094      0.72   I****                                                                                                 I
   2  48.938      0.36   I**                                                                                                   I
   4  50.781      0.72   I****                                                                                                 I
   5  52.625      0.90   I*****                                                                                                I
   3  54.469      0.54   I***                                                                                                  I
   2  56.313      0.36   I**                                                                                                   I
   2  58.156      0.36   I**                                                                                                   I
   3  60.000      0.54   I***                                                                                                  I
-----                    I---------I---------I---------I---------I---------I---------I---------I---------I---------I---------I
 553                     0        10        20        30        40        50        60        70        80        90       100
```

```
HISTO:                     V246 TAKU ARM                              RUN ON 90:01:17  AT   9:08:17

File: soils                  Field name: AU1     LOG = 0  REPVAL =    0.00100
                                         ----
 596 SAMPLES WITH AU1   MINIMUM:   2.50000          MAXIMUM:  3200.00

 596 VALUES PLOTTED:     0 NOT IN RANGE   2.50000     to  3200.00

   MEAN:         41.2500         STD. DEV.:  169.244       Median  7.50000

  SCALE OF HISTOGRAM IS   5.00 COUNTS /PRINT POSITION   # = 5,50,95%

  N   MIDPOINT  PERCENT  0        50        100       150       200       250       300       350       400       450       500
                        I---------I---------I---------I---------I---------I---------I---------I---------I---------I---------I
497       0.    # 83.39 I*************************************************************************************************** I
 67   100.00      11.24 I*************                                                                                       I
 13   200.00    #  2.18 I***                                                                                                 I
  8   300.00       1.34 I**                                                                                                  I
  4   400.00       0.67 I*                                                                                                   I
  1   500.00       0.17 I                                                                                                    I
  2   600.00       0.34 I                                                                                                    I
  1   700.00       0.17 I                                                                                                    I
  1   800.00       0.17 I                                                                                                    I
  0   900.00       0.00 I                                                                                                    I
  0   1000.0       0.00 I                                                                                                    I
  0   1100.0       0.00 I                                                                                                    I
  0   1200.0       0.00 I                                                                                                    I
  0   1300.0       0.00 I                                                                                                    I
  0   1400.0       0.00 I                                                                                                    I
  0   1500.0       0.00 I                                                                                                    I
  0   1600.0       0.00 I                                                                                                    I
  0   1700.0       0.00 I                                                                                                    I
  1   1800.0       0.17 I                                                                                                    I
  0   1900.0       0.00 I                                                                                                    I
  0   2000.0       0.00 I                                                                                                    I
  0   2100.0       0.00 I                                                                                                    I
  0   2200.0       0.00 I                                                                                                    I
  0   2300.0       0.00 I                                                                                                    I
  0   2400.0       0.00 I                                                                                                    I
  0   2500.0       0.00 I                                                                                                    I
  0   2600.0       0.00 I                                                                                                    I
  0   2700.0       0.00 I                                                                                                    I
  0   2800.0       0.00 I                                                                                                    I
  0   2900.0       0.00 I                                                                                                    I
  0   3000.0       0.00 I                                                                                                    I
  0   3100.0       0.00 I                                                                                                    I
  1   3200.0       0.17 I                                                                                                    I
-----                   I---------I---------I---------I---------I---------I---------I---------I---------I---------I---------I
 596                    0         50        100       150       200       250       300       350       400       450       500
```

```
HISTO:                    V246 TAKU ARM                          RUN ON 90:01:17  AT   9:08:17

File: soils                     Field name: AU1     LOG = 0  REPVAL =   0.00100
                                            ----
 596 SAMPLES WITH AU1   MINIMUM:   2.50000        MAXIMUM:  3200.00

 589 VALUES PLOTTED:    7 NOT IN RANGE   2.50000      to  400.000

   MEAN:        27.7165       STD. DEV.:  56.3770      Median  5.00000

  SCALE OF HISTOGRAM IS   4.00 COUNTS /PRINT POSITION    # = 5,50,95%

  N   MIDPOINT  PERCENT  0         40        80        120       160       200       240       280       320       360       400
                        I---------I---------I---------I---------I---------I---------I---------I---------I---------I---------I
298   2.5000   # 50.59  I***************************************************************************                          I
129   14.922     21.90  I********************************                                                                     I
 40   27.344      6.79  I**********                                                                                           I
 30   39.766      5.09  I********                                                                                             I
 20   52.188      3.40  I*****                                                                                                I
 17   64.609      2.89  I****                                                                                                 I
  5   77.031      0.85  I*                                                                                                    I
 10   89.453      1.70  I***                                                                                                  I
  5   101.88      0.85  I*                                                                                                    I
  7   114.30   #  1.19  I**                                                                                                   I
  2   126.72      0.34  I*                                                                                                    I
  1   139.14      0.17  I                                                                                                     I
  3   151.56      0.51  I*                                                                                                    I
  2   163.98      0.34  I*                                                                                                    I
  1   176.41      0.17  I                                                                                                     I
  4   188.83      0.68  I*                                                                                                    I
  1   201.25      0.17  I                                                                                                     I
  0   213.67      0.00  I                                                                                                     I
  1   226.09      0.17  I                                                                                                     I
  1   238.52      0.17  I                                                                                                     I
  0   250.94      0.00  I                                                                                                     I
  1   263.36      0.17  I                                                                                                     I
  1   275.78      0.17  I                                                                                                     I
  1   288.20      0.17  I                                                                                                     I
  1   300.63      0.17  I                                                                                                     I
  1   313.05      0.17  I                                                                                                     I
  1   325.47      0.17  I                                                                                                     I
  2   337.89      0.34  I*                                                                                                    I
  0   350.31      0.00  I                                                                                                     I
  1   362.73      0.17  I                                                                                                     I
  0   375.16      0.00  I                                                                                                     I
  1   387.58      0.17  I                                                                                                     I
  2   400.00      0.34  I*                                                                                                    I
-----                   I---------I---------I---------I---------I---------I---------I---------I---------I---------I---------I
 589                    0         40        80        120       160       200       240       280       320       360       400
```

```
HISTO:                     V246 TAKU ARM                          RUN ON 90:01:17  AT   9:08:17

File: soils                    Field name: AU1     LOG = 0  REPVAL =   0.00100
                                           ----
 596 SAMPLES WITH AU1    MINIMUM:    2.50000          MAXIMUM:  3200.00

 575 VALUES PLOTTED:     21 NOT IN RANGE   2.50000     to  202.000

    MEAN:         20.6609        STD. DEV.:  32.9323      Median  5.00000

  SCALE OF HISTOGRAM IS    4.00 COUNTS /PRINT POSITION    # = 5,50,95%

   N  MIDPOINT  PERCENT  0        40        80       120       160       200       240       280       320       360       400
                        I---------I---------I---------I---------I---------I---------I---------I---------I---------I---------I
 298   2.5000   # 51.83  I***************************************************************************                          I
  57   8.7344     9.91   I**************                                                                                       I
  36   14.969     6.26   I*********                                                                                            I
  36   21.203     6.26   I*********                                                                                            I
  40   27.438     6.96   I**********                                                                                           I
  13   33.672     2.26   I***                                                                                                  I
  12   39.906     2.09   I***                                                                                                  I
   5   46.141     0.87   I*                                                                                                    I
  20   52.375     3.48   I*****                                                                                                I
   9   58.609     1.57   I**                                                                                                   I
   5   64.844     0.87   I*                                                                                                    I
   3   71.078     0.52   I*                                                                                                    I
   5   77.313     0.87   I*                                                                                                    I
   0   83.547     0.00   I                                                                                                     I
   7   89.781     1.22   I**                                                                                                   I
   3   96.016   #  0.52  I*                                                                                                    I
   5   102.25     0.87   I*                                                                                                    I
   4   108.48     0.70   I*                                                                                                    I
   1   114.72     0.17   I                                                                                                     I
   2   120.95     0.35   I*                                                                                                    I
   2   127.19     0.35   I*                                                                                                    I
   1   133.42     0.17   I                                                                                                     I
   0   139.66     0.00   I                                                                                                     I
   0   145.89     0.00   I                                                                                                     I
   3   152.13     0.52   I*                                                                                                    I
   2   158.36     0.35   I*                                                                                                    I
   0   164.59     0.00   I                                                                                                     I
   0   170.83     0.00   I                                                                                                     I
   1   177.06     0.17   I                                                                                                     I
   0   183.30     0.00   I                                                                                                     I
   4   189.53     0.70   I*                                                                                                    I
   0   195.77     0.00   I                                                                                                     I
   1   202.00     0.17   I                                                                                                     I
-----                    I---------I---------I---------I---------I---------I---------I---------I---------I---------I---------I
 575                     0        40        80       120       160       200       240       280       320       360       400
```

```
HISTO:                    V246 TAKU ARM                        RUN ON 90:01:17  AT   9:08:17

File: soils                  Field name: CU      LOG = 0  REPVAL =   0.00100
                                         ----
 596 SAMPLES WITH CU     MINIMUM:   2.00000          MAXIMUM:  550.000

 596 VALUES PLOTTED:     0 NOT IN RANGE   2.00000     to  550.000

    MEAN:          47.9111        STD. DEV.:  44.5288       Median  37.0000

  SCALE OF HISTOGRAM IS   4.00 COUNTS /PRINT POSITION    # = 5,50,95%

  N  MIDPOINT  PERCENT  0         40        80        120       160       200       240       280       320       360       400
                       I---------I---------I---------I---------I---------I---------I---------I---------I---------I---------I
  4      0.       0.67 I*                                                                                                    I
154   20.000   # 25.84 I***************************************                                                              I
264   40.000   # 44.30 I******************************************************************                                   I
103   60.000     17.28 I**************************                                                                           I
 25   80.000      4.19 I******                                                                                               I
 18   100.00   #  3.02 I*****                                                                                                I
  9   120.00      1.51 I**                                                                                                   I
  6   140.00      1.01 I**                                                                                                   I
  4   160.00      0.67 I*                                                                                                    I
  3   180.00      0.50 I*                                                                                                    I
  1   200.00      0.17 I                                                                                                     I
  1   220.00      0.17 I                                                                                                     I
  0   240.00      0.00 I                                                                                                     I
  0   260.00      0.00 I                                                                                                     I
  0   280.00      0.00 I                                                                                                     I
  1   300.00      0.17 I                                                                                                     I
  0   320.00      0.00 I                                                                                                     I
  0   340.00      0.00 I                                                                                                     I
  0   360.00      0.00 I                                                                                                     I
  0   380.00      0.00 I                                                                                                     I
  0   400.00      0.00 I                                                                                                     I
  0   420.00      0.00 I                                                                                                     I
  0   440.00      0.00 I                                                                                                     I
  0   460.00      0.00 I                                                                                                     I
  1   480.00      0.17 I                                                                                                     I
  1   500.00      0.17 I                                                                                                     I
  0   520.00      0.00 I                                                                                                     I
  0   540.00      0.00 I                                                                                                     I
  1   560.00      0.17 I                                                                                                     I
  0   580.00      0.00 I                                                                                                     I
  0   600.00      0.00 I                                                                                                     I
  0   620.00      0.00 I                                                                                                     I
  0   640.00      0.00 I                                                                                                     I
-----                  I---------I---------I---------I---------I---------I---------I---------I---------I---------I---------I
 596                   0         40        80        120       160       200       240       280       320       360       400
```

```
HISTO:                    V246 TAKU ARM                          RUN ON 90:01:17  AT   9:08:17

File: soils                    Field name: CU      LOG = 0  REPVAL =   0.00100
                                           ----
 596 SAMPLES WITH CU     MINIMUM:   2.00000           MAXIMUM:  550.000

 588 VALUES PLOTTED:     8 NOT IN RANGE   2.00000     to  180.000

    MEAN:          44.1259        STD. DEV.:  25.3873       Median  37.0000

  SCALE OF HISTOGRAM IS   2.00 COUNTS /PRINT POSITION    # = 5,50,95%

  N   MIDPOINT  PERCENT  0        20        40        60        80       100       120       140       160       180       200
                        I---------I---------I---------I---------I---------I---------I---------I---------I---------I---------I
  1   2.0000      0.17  I*                                                                                                     I
  3   7.5625      0.51  I**                                                                                                    I
 18   13.125      3.06  I*********                                                                                             I
 37   18.688    #  6.29  I*******************                                                                                   I
 72   24.250     12.24  I************************************                                                                  I
 85   29.813     14.46  I*******************************************                                                           I
101   35.375    # 17.18  I***************************************************                                                   I
 54   40.938      9.18  I***************************                                                                           I
 51   46.500      8.67  I**************************                                                                            I
 34   52.063      5.78  I*****************                                                                                     I
 22   57.625      3.74  I***********                                                                                           I
 25   63.188      4.25  I*************                                                                                         I
 28   68.750      4.76  I**************                                                                                        I
  9   74.313      1.53  I*****                                                                                                 I
  6   79.875      1.02  I***                                                                                                   I
  3   85.438      0.51  I**                                                                                                    I
  9   91.000      1.53  I*****                                                                                                 I
  4   96.563    #  0.68  I**                                                                                                    I
  4   102.13      0.68  I**                                                                                                    I
  2   107.69      0.34  I*                                                                                                     I
  3   113.25      0.51  I**                                                                                                    I
  2   118.81      0.34  I*                                                                                                     I
  4   124.38      0.68  I**                                                                                                    I
  3   129.94      0.51  I**                                                                                                    I
  1   135.50      0.17  I*                                                                                                     I
  0   141.06      0.00  I                                                                                                      I
  2   146.63      0.34  I*                                                                                                     I
  1   152.19      0.17  I*                                                                                                     I
  0   157.75      0.00  I                                                                                                      I
  3   163.31      0.51  I**                                                                                                    I
  1   168.88      0.17  I*                                                                                                     I
  0   174.44      0.00  I                                                                                                      I
  0   180.00      0.00  I                                                                                                      I
-----                   I---------I---------I---------I---------I---------I---------I---------I---------I---------I---------I
588                     0        20        40        60        80       100       120       140       160       180       200
```

```
HISTO:                    V246 TAKU ARM                       RUN ON 90:01:17  AT   9:08:17

File: soils                    Field name: PB      LOG = 0  REPVAL =   0.00100
                                           ----
 596 SAMPLES WITH PB    MINIMUM:   11.0000         MAXIMUM:  3200.00

 596 VALUES PLOTTED:    0 NOT IN RANGE  11.0000     to  3200.00

   MEAN:        105.421        STD. DEV.:  226.577      Median  48.0000

  SCALE OF HISTOGRAM IS   4.00 COUNTS /PRINT POSITION   # = 5,50,95%

  N   MIDPOINT  PERCENT  0        40        80       120       160       200       240       280       320       360       400
                        I---------I---------I---------I---------I---------I---------I---------I---------I---------I---------I
307        0.   # 51.51  I*****************************************************************************                    I
195   100.00      32.72  I*************************************************                                                  I
 57   200.00       9.56  I**************                                                                                     I
 11   300.00    #  1.85  I***                                                                                                I
  6   400.00       1.01  I**                                                                                                 I
  5   500.00       0.84  I*                                                                                                  I
  5   600.00       0.84  I*                                                                                                  I
  1   700.00       0.17  I                                                                                                   I
  2   800.00       0.34  I*                                                                                                  I
  0   900.00       0.00  I                                                                                                   I
  2   1000.0       0.34  I*                                                                                                  I
  0   1100.0       0.00  I                                                                                                   I
  2   1200.0       0.34  I*                                                                                                  I
  0   1300.0       0.00  I                                                                                                   I
  0   1400.0       0.00  I                                                                                                   I
  0   1500.0       0.00  I                                                                                                   I
  0   1600.0       0.00  I                                                                                                   I
  0   1700.0       0.00  I                                                                                                   I
  0   1800.0       0.00  I                                                                                                   I
  0   1900.0       0.00  I                                                                                                   I
  0   2000.0       0.00  I                                                                                                   I
  0   2100.0       0.00  I                                                                                                   I
  0   2200.0       0.00  I                                                                                                   I
  1   2300.0       0.17  I                                                                                                   I
  0   2400.0       0.00  I                                                                                                   I
  1   2500.0       0.17  I                                                                                                   I
  0   2600.0       0.00  I                                                                                                   I
  0   2700.0       0.00  I                                                                                                   I
  0   2800.0       0.00  I                                                                                                   I
  0   2900.0       0.00  I                                                                                                   I
  0   3000.0       0.00  I                                                                                                   I
  0   3100.0       0.00  I                                                                                                   I
  1   3200.0       0.17  I                                                                                                   I
-----                    I---------I---------I---------I---------I---------I---------I---------I---------I---------I---------I
 596                     0        40        80       120       160       200       240       280       320       360       400
```

```
HISTO:                    V246 TAKU ARM                    RUN ON 90:01:17  AT   9:08:17

File: soils                      Field name: PB      LOG = 0  REPVAL =   0.00100
                                             ----
 596 SAMPLES WITH PB     MINIMUM:   11.0000           MAXIMUM:  3200.00

 580 VALUES PLOTTED:    16 NOT IN RANGE   11.0000     to  500.000

   MEAN:          77.3293         STD. DEV.:  76.6144       Median  46.0000

  SCALE OF HISTOGRAM IS   2.00 COUNTS /PRINT POSITION   # = 5,50,95%

  N   MIDPOINT  PERCENT  0         20        40        60        80        100       120       140       160       180       200
                        I---------I---------I---------I---------I---------I---------I---------I---------I---------I---------I
 35   11.000    #  6.03  I******************                                                                                    I
163   26.281      28.10  I**********************************************************************************                    I
109   41.563    # 18.79  I*******************************************************                                               I
 57   56.844       9.83  I*****************************                                                                         I
 34   72.125       5.86  I*****************                                                                                     I
 33   87.406       5.69  I*****************                                                                                     I
 16   102.69       2.76  I********                                                                                              I
 23   117.97       3.97  I************                                                                                          I
 19   133.25       3.28  I**********                                                                                            I
 22   148.53       3.79  I***********                                                                                           I
  8   163.81       1.38  I****                                                                                                  I
  9   179.09       1.55  I*****                                                                                                 I
 14   194.38       2.41  I*******                                                                                               I
  8   209.66       1.38  I****                                                                                                  I
  4   224.94    #  0.69  I**                                                                                                    I
  4   240.22       0.69  I**                                                                                                    I
  2   255.50       0.34  I*                                                                                                     I
  0   270.78       0.00  I                                                                                                      I
  2   286.06       0.34  I*                                                                                                     I
  3   301.34       0.52  I**                                                                                                    I
  1   316.63       0.17  I*                                                                                                     I
  3   331.91       0.52  I**                                                                                                    I
  4   347.19       0.69  I**                                                                                                    I
  0   362.47       0.00  I                                                                                                      I
  1   377.75       0.17  I*                                                                                                     I
  1   393.03       0.17  I*                                                                                                     I
  0   408.31       0.00  I                                                                                                      I
  1   423.59       0.17  I*                                                                                                     I
  0   438.88       0.00  I                                                                                                      I
  2   454.16       0.34  I*                                                                                                     I
  1   469.44       0.17  I*                                                                                                     I
  1   484.72       0.17  I*                                                                                                     I
  0   500.00       0.00  I                                                                                                      I
-----                    I---------I---------I---------I---------I---------I---------I---------I---------I---------I---------I
580                      0         20        40        60        80        100       120       140       160       180       200
```

```
HISTO:                    V246 TAKU ARM                              RUN ON 90:01:17  AT   9:08:17

File: soils                      Field name: ZN      LOG = 0  REPVAL =   0.00100
                                             ----
 596 SAMPLES WITH ZN     MINIMUM:   27.0000          MAXIMUM:  3200.00

 596 VALUES PLOTTED:     0 NOT IN RANGE   27.0000     to  3200.00

    MEAN:          154.614        STD. DEV.:  186.331      Median  107.000

  SCALE OF HISTOGRAM IS   5.00 COUNTS /PRINT POSITION   # = 5,50,95%

  N   MIDPOINT  PERCENT  0        50        100       150       200       250       300       350       400       450       500
                         I---------I---------I---------I---------I---------I---------I---------I---------I---------I---------I
 14      0.       2.35   I***                                                                                                  I
406   100.00    # 68.12  I**********************************************************************************                  I
102   200.00      17.11  I*********************                                                                                I
 38   300.00       6.38  I********                                                                                             I
 13   400.00    #  2.18  I***                                                                                                  I
  5   500.00       0.84  I*                                                                                                    I
 10   600.00       1.68  I**                                                                                                   I
  1   700.00       0.17  I                                                                                                     I
  1   800.00       0.17  I                                                                                                     I
  2   900.00       0.34  I                                                                                                     I
  1   1000.0       0.17  I                                                                                                     I
  1   1100.0       0.17  I                                                                                                     I
  0   1200.0       0.00  I                                                                                                     I
  0   1300.0       0.00  I                                                                                                     I
  0   1400.0       0.00  I                                                                                                     I
  0   1500.0       0.00  I                                                                                                     I
  1   1600.0       0.17  I                                                                                                     I
  0   1700.0       0.00  I                                                                                                     I
  0   1800.0       0.00  I                                                                                                     I
  0   1900.0       0.00  I                                                                                                     I
  0   2000.0       0.00  I                                                                                                     I
  0   2100.0       0.00  I                                                                                                     I
  0   2200.0       0.00  I                                                                                                     I
  0   2300.0       0.00  I                                                                                                     I
  0   2400.0       0.00  I                                                                                                     I
  0   2500.0       0.00  I                                                                                                     I
  0   2600.0       0.00  I                                                                                                     I
  0   2700.0       0.00  I                                                                                                     I
  0   2800.0       0.00  I                                                                                                     I
  0   2900.0       0.00  I                                                                                                     I
  0   3000.0       0.00  I                                                                                                     I
  0   3100.0       0.00  I                                                                                                     I
  1   3200.0       0.17  I                                                                                                     I
-----                    I---------I---------I---------I---------I---------I---------I---------I---------I---------I---------I
 596                     0        50        100       150       200       250       300       350       400       450       500
```

```
HISTO:                    V246 TAKU ARM                              RUN ON 90:01:17  AT   9:08:17

File: soils                    Field name: ZN      LOG = 0  REPVAL =   0.00100
                                           ----
 596 SAMPLES WITH ZN     MINIMUM:   27.0000          MAXIMUM:  3200.00

 577 VALUES PLOTTED:    19 NOT IN RANGE   27.0000     to  500.000

    MEAN:         131.196        STD. DEV.:  79.3126       Median  105.000

  SCALE OF HISTOGRAM IS   1.00 COUNTS /PRINT POSITION    # = 5,50,95%

  N  MIDPOINT  PERCENT  0        10        20        30        40        50        60        70        80        90       100
                        I---------I---------I---------I---------I---------I---------I---------I---------I---------I---------I
  2  27.000      0.35   I**                                                                                                   I
 12  41.781      2.08   I************                                                                                         I
 36  56.563   #  6.24   I************************************                                                                 I
 92  71.344     15.94   I********************************************************************************************         I
 89  86.125     15.42   I*****************************************************************************************            I
 73  100.91   # 12.65   I*************************************************************************                            I
 48  115.69      8.32   I************************************************                                                     I
 46  130.47      7.97   I**********************************************                                                       I
 27  145.25      4.68   I***************************                                                                          I
 29  160.03      5.03   I*****************************                                                                        I
 20  174.81      3.47   I********************                                                                                 I
 17  189.59      2.95   I*****************                                                                                    I
 14  204.38      2.43   I**************                                                                                       I
 10  219.16      1.73   I**********                                                                                           I
  5  233.94      0.87   I*****                                                                                                I
  7  248.72      1.21   I*******                                                                                              I
  5  263.50      0.87   I*****                                                                                                I
  6  278.28      1.04   I******                                                                                               I
  5  293.06      0.87   I*****                                                                                                I
  8  307.84   #  1.39   I********                                                                                             I
  4  322.63      0.69   I****                                                                                                 I
  2  337.41      0.35   I**                                                                                                   I
  4  352.19      0.69   I****                                                                                                 I
  5  366.97      0.87   I*****                                                                                                I
  3  381.75      0.52   I***                                                                                                  I
  2  396.53      0.35   I**                                                                                                   I
  0  411.31      0.00   I                                                                                                     I
  1  426.09      0.17   I*                                                                                                    I
  1  440.88      0.17   I*                                                                                                    I
  0  455.66      0.00   I                                                                                                     I
  2  470.44      0.35   I**                                                                                                   I
  1  485.22      0.17   I*                                                                                                    I
  1  500.00      0.17   I*                                                                                                    I
-----                   I---------I---------I---------I---------I---------I---------I---------I---------I---------I---------I
 577                    0        10        20        30        40        50        60        70        80        90       100
```

APPENDIX D

B.C. Minfile Property Summaries

MINFILE NUMBER: 104M 008 NATIONAL MINERAL INVENTORY: 104M8 Ag1

NAME(S): RUPERT

STATUS: Showing
NTS MAP: 104M08W
LATITUDE: 59 28 15
LONGITUDE: 134 18 55
ELEVATION: 1175 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Cairnes (1913): Geological Survey of Canada Map 94A, and Assessment Report 8384; Occurrence I (Geology map).

MINING DIVISION: Atlin
UTM ZONE: 08
NORTHING: 6592473
EASTING: 538801

COMMODITIES: Gold Silver Lead Zinc Copper

MINERALS
SIGNIFICANT: Gold Galena Chalcopyrite Malachite Pyrite
ASSOCIATED: Quartz
ALTERATION: Limonite Malachite
ALTERATION TYPE: Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT
CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic

HOST ROCK
DOMINANT HOST ROCK: Metasedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleoz-Proterozoic	Yukon	Undefined Formation	

LITHOLOGY: Hornblende Gneiss
Pelitic Schist
Quartz Vein

GEOLOGICAL SETTING
TECTONIC BELT: Intermontane
TERRANE: Stikinia Nisling
METAMORPHIC TYPE: Regional RELATIONSHIP: Pre-mineralization
PHYSIOGRAPHIC AREA: Teslin Plateau
GRADE: Amphibolite

RESERVES
ORE ZONE: RUPERT #3 YEAR: 1980

CATEGORY: Best Assay SAMPLE TYPE: Chip

COMMODITY	GRADE	
Silver	237.6000	Grams per tonne
Copper	0.0100	Per cent
Lead	0.2600	Per cent
Zinc	0.3200	Per cent

COMMENTS: Chip sample 0.8 metres wide.
REFERENCE: Assessment Report 8384

CAPSULE GEOLOGY

At the Rupert showing mineralized quartz veins occur in Paleozoic-Proterozoic Yukon Group pelitic schists with impure limestone and hornblende gneiss from elevations of 1175 to 1550 metres on the west side of Taku Arm, northeast of White Moose Mountain and below the Fee Glacier. The lowest vein (No. 1) at about 1175 metres elevation outcrops in a gulch, strikes about 100 degrees and is 0.6 to 0.9 metres wide. At about 1265 metres elevation, above No. 1, No. 2 vein is about 1.8 to 2.4 metres wide and strikes 107 degrees, dipping near vertical. At 1286 metres elevation, No. 3 vein is 0.6 to 0.9 metres wide and parallels No. 2. No. 4 vein occurs at 1465 metres elevation, and is 0.1 to 0.3 metres thick. At 1570 metres elevation, No. 5 vein is 1.2 metres wide. Veins 1 to 4 can be traced for several hundred feet with persistent strikes and widths. A

CAPSULE GEOLOGY

number of old blast pits are located in the area of mineralization.
The veins consist of massive white, locally vuggy quartz with massive to disseminated galena, pyrite, and minor chalcopyrite and malachite. Particles of native gold have also been reported, with the best samples believed to be from Vein No. 4. A grab sample from Vein No. 2 assayed 4.11 grams per tonne gold, 53.83 grams per tonne silver, 11.77 per cent lead, 0.60 per cent zinc and 0.01 per cent copper. A 0.8 metre wide chip sample across Vein No. 3 assayed gold trace, 237.6 grams per tonne silver, 0.26 per cent lead, 0.32 per cent zinc and 0.01 per cent copper (Assessment Report 8384).

BIBLIOGRAPHY

GSC MEM *37, pp. 94-96
EMPR AR 1918-93; *1933-81,82
GSC MAP 19-1957; 94A; 1418A
EMPR ASS RPT *8384, *10945

DATE CODED: 850724 CODED BY: GSB FIELD CHECK: N
DATE REVISED: 881107 REVISED BY: JB FIELD CHECK: N

MINFILE NUMBER: 104M 036 NATIONAL MINERAL INVENTORY:

NAME(S): RUPERT-NORTH

STATUS: Showing
NTS MAP: 104M08W
LATITUDE: 59 29 05
LONGITUDE: 134 19 00
ELEVATION: Metres
LOCATION ACCURACY: Within 500M
COMMENTS: From Assessment Report 8384, Occurrence "H" (Geology map).

MINING DIVISION: Atlin
UTM ZONE: 08
NORTHING: 6594019
EASTING: 538706

COMMODITIES: Gold Silver Lead Copper Zinc

MINERALS
SIGNIFICANT: Galena Chalcopyrite Malachite Azurite Pyrite
ASSOCIATED: Quartz
ALTERATION: Malachite Azurite
ALTERATION TYPE: Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT
CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic

HOST ROCK
DOMINANT HOST ROCK: Metamorphic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleoz-Proterozoic	Yukon	Undefined Formation	

LITHOLOGY: Hornblende Gneiss
Pelitic Schist
Quartz Vein

GEOLOGICAL SETTING
TECTONIC BELT: Coast Crystalline
TERRANE: Nisling
PHYSIOGRAPHIC AREA: Boundary Ranges
METAMORPHIC TYPE: Regional RELATIONSHIP: Pre-mineralization GRADE: Trans Grn Amph
COMMENTS: Metamorphic grade is transitional greenschist-amphibolite.

RESERVES
ORE ZONE: RUPERT-NORTH YEAR: 1980

CATEGORY: Best Assay SAMPLE TYPE: Grab

COMMODITY	GRADE
Silver	20.9100 Grams per tonne
Gold	0.6900 Grams per tonne
Copper	0.4900 Per cent
Lead	4.7100 Per cent
Zinc	0.0700 Per cent

REFERENCE: Assessment Report 8384

CAPSULE GEOLOGY

At the Rupert North showing, south of Bucham Creek, two blast pits about 100 metres apart expose small quartz veins in Paleozoic-Proterozoic Yukon Group gneisses and schist which are cut by rhyolitic intrusives. The veins are locally vuggy and contain up to 5 per cent pyrite, galena and chalcopyrite. A grab sample assayed 0.69 grams per tonne gold, 20.91 grams per tonne silver, 4.71 per cent lead, 0.49 per cent copper, and 0.07 per cent zinc. Small veinlets in a 20 centimetre wide zone of aphanitic rhyolite contain less than 1 per cent galena (Assessment Report 8384). The veins may represent the northern extension of part of the Rupert vein system (104M 008).

BIBLIOGRAPHY

EMPR ASS RPT *8384

BIBLIOGRAPHY

GSC MAP 19-1957; 1418A

DATE CODED: 860416 CODED BY: JB FIELD CHECK: N
DATE REVISED: 881107 REVISED BY: JB FIELD CHECK: N

MINFILE NUMBER: 104M 009 NATIONAL MINERAL INVENTORY: 104M8 Au1

NAME(S): WHITE MOOSE-NORTH

STATUS: Showing
NTS MAP: 104M08W
LATITUDE: 59 29 00
LONGITUDE: 134 17 35
ELEVATION: 0660 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: From Assessment Report 8384; Occurrence A (Geology map).

MINING DIVISION: Atlin
UTM ZONE: 08
NORTHING: 6593878
EASTING: 540045

COMMODITIES: Copper Lead Zinc Silver Gold

MINERALS
SIGNIFICANT: Chalcopyrite Bornite Galena Tetrahedrite Pyrite
ASSOCIATED: Quartz Calcite
ALTERATION: Malachite
ALTERATION TYPE: Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT
CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
SHAPE: Tabular

HOST ROCK
DOMINANT HOST ROCK: Metamorphic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleoz-Proterozoic	Yukon	Undefined Formation	

LITHOLOGY: Amphibole Gneiss
Quartz Vein

GEOLOGICAL SETTING
TECTONIC BELT: Intermontane PHYSIOGRAPHIC AREA: Teslin Plateau
TERRANE: Stikinia Nisling
METAMORPHIC TYPE: Regional RELATIONSHIP: Pre-mineralization GRADE: Trans Grn Amph
COMMENTS: Metamorphic grade transitional greenschist-amphibolite.

RESERVES
ORE ZONE: WHITE MOOSE-NORTH YEAR: 1980

CATEGORY: Best Assay SAMPLE TYPE: Grab

COMMODITY	GRADE	
Silver	0.3400	Grams per tonne
Copper	0.0900	Per cent
Lead	0.1300	Per cent
Zinc	0.0900	Per cent

COMMENTS: Vein 17 centimetres wide with 5 per cent sulphides. Also trace gold reported.
REFERENCE: Assessment Report 8384

CAPSULE GEOLOGY

At the White Moose-North showing mineralized quartz veins occur in Paleozoic-Proterozoic Yukon Group amphibolitic gneiss and schist on the west shore of Taku Arm south of Buchan Creek. Veining occurs over a distance of 1500 metres, striking 140 degrees, and dipping 40 to 60 degrees northeast. The veins range from 0.45 to 1.2 metres in width, consisting of massive, white, locally vuggy quartz with chalcopyrite, bornite, argentiferous tetrahedrite, galena, pyrite, and malachite. The northernmost exposure is an old adit on the lakeshore, with blocks of quartz containing up to 8 per cent sulphides in the dump. A mineralized vein up to 12 centimetres in width occurs above the workings. South of the adit a vein 17 centimetres wide with 5 per cent sulphides assayed trace gold, 0.34 grams per tonne

CAPSULE GEOLOGY

silver, 0.13 per cent lead, 0.09 per cent zinc, and 0.09 per cent copper (Assessment Report 8384).

BIBLIOGRAPHY

EMPR ASS RPT *8384
GSC MEM *37, pp. 93,94
EMPR AR 1901-985; 1904-81; 1918-93; *1933-82
GSC MAP *19-1957; *94A; 218A; 1418A

DATE CODED: 850724 CODED BY: GSB FIELD CHECK: N
DATE REVISED: 881107 REVISED BY: SED FIELD CHECK: N

MINFILE NUMBER: 104M 010 NATIONAL MINERAL INVENTORY:

NAME(S): WHITE MOOSE-SOUTH, OCCURRENCE E

STATUS: Showing
NTS MAP: 104M08W
LATITUDE: 59 28 12
LONGITUDE: 134 17 24
ELEVATION: Metres
LOCATION ACCURACY: Within 500M
COMMENTS: From Assessment Report 8384; Occurrence E (Geology map).

MINING DIVISION: Atlin
UTM ZONE: 08
NORTHING: 6592395
EASTING: 540234

COMMODITIES: Silver Lead Copper Gold

MINERALS
SIGNIFICANT: Galena Chalcopyrite Pyrite
ASSOCIATED: Quartz
MINERALIZATION AGE: Unknown

DEPOSIT
CHARACTER: Vein Disseminated
CLASSIFICATION: Hydrothermal Epigenetic

HOST ROCK
DOMINANT HOST ROCK: Metasedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleoz-Proterozoic	Yukon	Undefined Formation	

LITHOLOGY: Pelitic Schist
Quartz Vein

GEOLOGICAL SETTING
TECTONIC BELT: Intermontane
TERRANE: Nisling
PHYSIOGRAPHIC AREA: Teslin Plateau
METAMORPHIC TYPE: Regional RELATIONSHIP: Pre-mineralization GRADE: Trans Grn Amph
COMMENTS: Metamorphic grade is transitional greenschist-amphibolite.

RESERVES
ORE ZONE: WHITE MOOSE-SOUTH,OCCURRENCE E YEAR: 1980

CATEGORY: Best Assay SAMPLE TYPE: Rock

COMMODITY	GRADE	
Silver	53.1400	Grams per tonne
Copper	0.0100	Per cent
Lead	0.1300	Per cent

COMMENTS: Trace gold was reported with the assay.
REFERENCE: Assessment Report 8384

CAPSULE GEOLOGY

At the White Moose-South showing a collapsed adit near the west shore of Taku Arm, about 2.25 kilometres south of the mouth of Buchan Creek is the site of quartz veining in Paleozoic-Proterozoic pelitic schists of the Yukon Group. Foliation in the schist strikes east-southeast and dips moderately south. Quartz vein material from the dump contains disseminated pyrite, and host rock fragments with pyrite blebs up to 6 millimetres across. A sample of the latter assayed trace gold, 53.14 grams per tonne silver, 0.13 per cent lead, and 0.01 per cent copper (Assessment Report 8384).

BIBLIOGRAPHY

EMPR ASS RPT *8384
GSC MAP *19-1957; 1418A

DATE CODED: 850724 CODED BY: GSB FIELD CHECK: N
DATE REVISED: 881107 REVISED BY: JB FIELD CHECK: N

MINFILE NUMBER: 104M 012

NATIONAL MINERAL INVENTORY:

NAME(S): WHITE MOOSE-SHAFT

STATUS: Showing
NTS MAP: 104M08W
LATITUDE: 59 28 45
LONGITUDE: 134 17 30
ELEVATION: Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Six hundred metres south of White Moose-North vein adit (Minfile #104M009), 180 metres north of stream. From Assessment Report 8384, Occurrence C (Geology map).

MINING DIVISION: Atlin
UTM ZONE: 08
NORTHING: 6593415
EASTING: 540129

COMMODITIES: Gold Silver Lead Copper

MINERALS
SIGNIFICANT: Galena Chalcopyrite Malachite Pyrite
ASSOCIATED: Quartz
ALTERATION: Malachite
ALTERATION TYPE: Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT
CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic

HOST ROCK
DOMINANT HOST ROCK: Metasedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleoz-Proterozoic	Yukon	Undefined Formation	

LITHOLOGY: Pelitic Schist
Quartz Vein

HOST ROCK COMMENTS: Cut by rhyolite dyke.

GEOLOGICAL SETTING
TECTONIC BELT: Intermontane
TERRANE: Nisling
PHYSIOGRAPHIC AREA: Teslin Plateau
METAMORPHIC TYPE: Regional RELATIONSHIP: Pre-mineralization GRADE: Trans Grn Amph
COMMENTS: Metamorphic grade transitional greenschist-amphibolite.

RESERVES
ORE ZONE: WHITE MOOSE-SHAFT YEAR: 1980

CATEGORY: Best Assay SAMPLE TYPE: Chip

COMMODITY	GRADE	
Silver	27.4300	Grams per tonne
Gold	2.0600	Grams per tonne
Copper	0.0100	Per cent
Lead	2.4500	Per cent

REFERENCE: Assessment Report 8384

CAPSULE GEOLOGY

At the White Moose-Shaft showing, two shafts 35 metres apart are located 600 metres south of the White Moose-North adit (104M 009). Host rocks are Paleozoic-Proterozoic Yukon Group metapelites which are cut by a northwest trending rhyolitic dyke. A 40 centimetre wide quartz vein on the side of one of the shafts appears to follow the rhyolite-schist contact. A 27 centimetre chip sample across the vein contained 5 to 10 per cent fine-grained galena, 4 per cent pyrite, and minor chalcopyrite and malachite and assayed 2.06 grams per tonne gold, 27.43 grams per tonne silver, 2.45 per cent lead, and 0.01 per cent copper. About 300 metres to the southeast is a 60 metre long trench and collapsed adit. No vein was exposed in outcrop but quartz with minor malachite, pyrite, and

CAPSULE GEOLOGY

galena was observed (Assessment Report 8384).

BIBLIOGRAPHY

EMPR ASS RPT *8384
GSC MAP 19-1957; 1418A
EMPR AR 1933-82

DATE CODED: 850724 CODED BY: GSB FIELD CHECK: N
DATE REVISED: 881107 REVISED BY: SED FIELD CHECK: N

MINFILE NUMBER: 104M 011

NATIONAL MINERAL INVENTORY: 104M8 Ag2

NAME(S): BEN-MY-CHREE, BEN M'CHREE, STEEP

STATUS: Past Producer Underground
NTS MAP: 104M08W
LATITUDE: 59 25 55
LONGITUDE: 134 27 50
ELEVATION: 1829 Metres
LOCATION ACCURACY: Within 500M

MINING DIVISION: Atlin
UTM ZONE: 08
NORTHING: 6588065
EASTING: 530415

COMMODITIES: Silver Gold Copper Lead Zinc

MINERALS
SIGNIFICANT: Silver Gold Galena Chalcopyrite
ASSOCIATED: Quartz
MINERALIZATION AGE: Unknown

DEPOSIT
CHARACTER: Vein
CLASSIFICATION: Epigenetic
SHAPE: Irregular

HOST ROCK
DOMINANT HOST ROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous			Coast Plutonic Complex

LITHOLOGY: Diorite

GEOLOGICAL SETTING
TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Boundary Ranges

RESERVES
ORE ZONE: BEN-MY-CHREE YEAR: 1985

CATEGORY: Best Assay SAMPLE TYPE: Grab

COMMODITY	GRADE	
Silver	450.0000	Grams per tonne
Gold	11.0000	Grams per tonne
Copper	0.1400	Per cent
Lead	4.2500	Per cent
Zinc	0.0370	Per cent

REFERENCE: Fieldwork 1985, pp. 184,187

CAPSULE GEOLOGY

At Ben-My-Chree, Early Cretaceous Coast Plutonic Complex foliated diorites host quartz and quartz-calcite veins with up to 4 per cent chalcopyrite, galena and pyrite. About 7 tonnes of ore from which 93 grams of gold and 31,103 grams of silver were shipped in 1911. A grab sample taken in 1985 with 4 per cent galena and pyrite ran 11 grams per tonne gold, 450 grams per tonne silver, 0.14 per cent copper, 4.25 per cent lead and 0.037 per cent zinc (Fieldwork 1985, pages 184, 187).

BIBLIOGRAPHY

EMPR ASS RPT *9133
EMPR FIELDWORK *1985, pp. 184,187
EMPR AR 1911-55,60,284; 1912-61; 1913-72; 1915-64
GSC MAP 19-1957; 1418A

DATE CODED: 850724 CODED BY: GSB FIELD CHECK: N
DATE REVISED: 881107 REVISED BY: TGS FIELD CHECK: Y

MINFILE NUMBER: 104M 014 NATIONAL MINERAL INVENTORY: 104M8 Au2

NAME(S): ENGINEER

STATUS: Past Producer Underground MINING DIVISION: Atlin
NTS MAP: 104M08E UTM ZONE: 08
LATITUDE: 59 29 15 NORTHING: 6594380
LONGITUDE: 134 14 00 EASTING: 543423
ELEVATION: 0833 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Occurrence associated with two main vein systems; the Engineer and Double Decker veins.

COMMODITIES: Gold Silver Antimony Tellurium

MINERALS
SIGNIFICANT: Gold Berthierite Antimony Telluride Arsenopyrite
COMMENTS: Visible gold with minor metallic mineralization.
ASSOCIATED: Pyrite Chalcopyrite Calcite Quartz
COMMENTS: Pyrite content is less than 1 per cent.
ALTERATION: Mariposite
MINERALIZATION AGE: Unknown

DEPOSIT
CHARACTER: Vein
CLASSIFICATION: Epithermal Epigenetic
SHAPE: Regular
DIMENSION: 0000 X 0000 X 0000 Metres STRIKE/DIP: 020 90 TREND/PLUNGE:
COMMENTS: Numerous veins in deposit. Strike of the veins is between 10 and 20 degrees.

HOST ROCK
DOMINANT HOST ROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Jurassic	Laberge		

LITHOLOGY: Bedded Greywacke
Banded Siltstone
Banded Shale
Quartz Calcite Vein

GEOLOGICAL SETTING
TECTONIC BELT: Intermontane
TERRANE: Inklin Stikinia PHYSIOGRAPHIC AREA: Teslin Plateau

CAPSULE GEOLOGY

The Engineer Mine is located on the east side of Tagish Lake about 15 kilometres south of Graham Inlet and 30 kilometres west of Atlin. The property was discovered in 1899 and operated for 3 years. Underground work and production then took place from 1910 to 1918, from 1922 to 1928, during the summer only from 1929 to 1930, and handmined from 1932 to 1934. Sporadic work occurred in 1948, 1952, 1962, 1982-1983, and in 1987 most recently by Total Erickson.

The mine is associated with several vertical, northeast-southwest striking quartz/calcite veins hosted in well bedded sediments of the Laberge Group. Shales, siltstones, and greywackes show excellent graded bedding, load casts, flame structures, and are fossilized. Regional bedding strikes northwest-southeast and dips moderately northeast. Isoclinal folds are orientated northwest-southeast parallel to the main shear zones which run through the property. The veins are perpendicular to these structures and discordant to bedding. A second phase of buckling occurred perpendicular to the first phase. "Quartz hubs" or zones of massive bull quartz occur where the ore-producing veins intersect the shear zones, although these "hubs" are barren.

The Engineer Mine quartz veins are narrow, less than 2 metres,

CAPSULE GEOLOGY

but have consistent orientations. The grades however, are very sporadic ranging from only a trace of gold to 50 grams per tonne. Native gold is the main metallic mineral and occurs in pockets. There is also pyrite, tetrahedrite, chalcopyrite, mariposite, antimony, berthierite, and tellurides. The veins are very vuggy with many open space textures. They have very "clean" contacts with the host rock and commonly exhibit graphitic banding. The Double Decker and Engineer veins lie to the southwest of the shear zone and the Boulder vein lies to the northeast. The Engineer and Double Decker veins received the most work.

Estimated production from the Engineer Mine from 1913 to 1952 is 15,564 tonnes grading 36 grams per tonne gold and 17.9 grams per tonne silver (Exploration in British Columbia 1987, pages 83-87).

BIBLIOGRAPHY

EMPR AR 1900-760,778; 1902-39; 1903-44; 1904-80; 1908-50; *1910-53,57,246; 1911-60,287; 1912-60,324; 1913-72; *1914-79,89, 512; 1915-64; 1916-46,438; 1917-80; *1918-90; 1919-91; 1922-91; 1923-90; 1924-77; *1925-113,355; 1926-106; 1927-112,480; 1928-123; 1929-120,505; 1930-132; 1932-65; *1933-73; 1934-B35; 1944-40; 1945-43,61; 1946-60; 1948-60; 1952-39
EMPR BULL 1, p. 24; *3, p.8
GSC MEM *37, pp. 74-89
GSC SUM RPT 1930A, p. 11
GSC MAP 19-1957; 94A; 218A; 1418A
EMR MP CORPFILE (Engineer Gold Mines)
EMR MIN BR OTTAWA RPT. 763, Invest. 609
EMPR Monthly Rpt. (T. Shroeter Oct. 1975)
GCNL Mar.1,June 24,July 8, 1975; #166,#242, 1980; #5, 1982
EMPR ASS RPT 7923, *9049, 10511, 17253
N MINER Jul.24, 1975; Jan.7, 1982; Aug.25, 1983
EMPR EXPL *1987-A12,A42,B83-87
EMPR PF (*Morgan, D.R., (1982): A Geological Report on the Reverted Crown Grants and Located Mineral Claims of Windarra Minerals Ltd., Surrounding the "Engineer" Gold Mine; Mihalynuk, M.G., et al (1988): A Closer Look at the Llewellyn Fault-Tectonic Implications and Economic Mineral Potential; In Abstracts: Smithers Exploration Group Workshop, October 1988)
EMPR FIELDWORK 1985, pp. 184-189
GSC BULL 5, pp. 22-23
CMJ Oct. 15, 1916, p. 489

DATE CODED: 850724 CODED BY: GSB FIELD CHECK: N
DATE REVISED: 881107 REVISED BY: MHG FIELD CHECK: Y

APPENDIX E

Geophysical Report and Maps

TAKU ARM PROJECT

ICE GRID

Geophysical Interpretation Report

1989

R. Tykajlo
GEO-DIGIT-EX INC.
October 30, 1989

GEO-DIGIT-EX INC.

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LIST OF FIGURES

Introduction

This report describes an interpretation performed on the Taku Arm Project Ice Grid total field magnetic and VLF-EM data.

Geophysical data acquisition was completed by Aurum Geological Consultants Inc. Geophysical data interpretation and documentation was completed by GEO-DIGIT-EX INC. of Calgary, Alberta under contract with Aurum Geological.

The interpreter did not visit the grid site prior to completing this data interpretation.

Ice Grid Geophysics

In 1989, geophysical work on the Taku Arm Project consisted of total field magnetic and VLF-EM surveying on the Ice Grid.

A total of 17.5 line kilometres (1413 stations) of diurnal drift corrected magnetic survey and 21.7 kilometres (887 stations) of VLF-EM surveying, utilizing NLK Jim Creek, Washington (24.8 kHz) as the transmitting station, was completed over the grid.

Results and Interpretation

Isomagnetic data is presented in Figure 1a. Contoured Fraser filtered percent in-phase VLF-EM data is presented in Figure 1b. All magnetic data values are posted in Figure 1c, and VLF-EM in-phase/quadrature/Fraser filtered values and topographic grade values are posted in Figure 1d. Data acquisition, processing and instrumentation specifications are documented in Appendix A.

The effect of extreme elevation changes on VLF-EM data has been largely discounted in the interpretation since the spatial wavelength of topography over the surveyed grid is quite long relative to the short spatial wavelengths of observed anomalies. In addition, most anomaly trends have magnetic trend correlations which strongly suggest bedrock sources for the anomalies.

Both VLF-EM and total field magnetic data show evidence of spatial aliasing along, and orthogonal to, the survey line. Numerous short spatial wavelength (high spatial frequency), low amplitude anomalies cannot be effectively correlated between survey lines. The interpretation is therefore limited to higher amplitude responses (due to coarse geological features) that can be correlated over distances greater than the survey line interval (100m).

A qualitative interpretation of the features in the geophysical data is presented in Figure 12 (TEXT).

Geophysically defined features include:

AA', a long, multiple and continuous, N/S striking VLF-EM anomaly trend, that appears related to a lithological contact between L59+00N and L55+00N. The southern section of the anomalous trend (south of L50+00N) may also be related to a lithological contact.

BB', a multiple, parallel series of N/S striking VLF-EM anomaly trends that correlate in part, with a pronounced magnetic low. The VLF-EM anomaly trends could be related to the edges of a thick (felsic?) dyke, a zone of multiple thin dykes, or a lithological horizon that "daylights" between 1400 and 1440m topographic contours.

CC', A NW/SE striking VLF-EM anomaly trend similar in character to, and possibly an extension of, trend BB'. No magnetic data is available to confirm the magnetic correlation to this anomaly.

DD', one of a series of late, E/W striking faults/shears that is evident in both magnetic and VLF-EM data. The lateral component of offset is primarily in a right lateral (dextral) sense, although some faults appear to display a left lateral (sinistral) component of offset.

EE', a lithological contact inferred from a change in magnetic "texture", from high frequency relief in the east to lower frquency relief in the west. The contact appears offset by the E/W fault set defined by trend DD'.

FF', GG', and HH', three NW/SE striking VLF-EM trends, parallel, to sub-parallel with anomaly trend CC'. No magnetic data is available for correlation, but the trends crosscut topography and are considered to be due to bedrock sources (fault/shear, or dyke edge).

II', a NW/SE striking VLF-EM anomaly trend with an unclear magnetic correlation. The anomaly may be due to a fault/shear or dyke edge similar to other VLF-EM anomalies on the grid.

JJ', a N/S striking lithologic unit (possibly a wide felsic? dyke) delimited by a high amplitude (up to -400nT) magnetic low.

KK', a N/S striking VLF-EM anomaly trend that is parallel, and possibly related to the western contact of the litho unit JJ'.

LL', a N/S striking lithological contact defined by a change in magnetic "texture" from high frequency relief in the west, to low frequency relief in the east.

X, several points on the grid that map apparent magnetic dipolar responses (asymmetrical high and low). The magnetic dipole signature is typical of a local pyrrhotite or magnetite source in the bedrock.

Conclusions and Recommendations

The magnetic and VLF-EM data from the Ice Grid is spatially aliased and is useful for mapping only high amplitude, long strike length anomalies due to coarse geological features. Finer features (ie: low amplitude and shorter strike length) that are also commonly associated with auriferous quartz veins require more detailed survey density to fully resolve and map. In some cases, station sampling density as fine as 5x5m for magnetic and 10x10m for VLF-EM surveys is required to minimize spatial aliasing and render the data interpretable at a fine scale. If geochemical or other exploration results indicate a spatial relationship to a mapped geophysical anomaly, then the detailed survey approach over a smaller, sub-grid is recommended for follow-up.

It is the author's opinion that the geophysical survey defined anomalies due to legitimate bedrock sources. The exact nature of the source (fault/shear, dyke or lithological contact) and its exploration significance requires geological ground follow-up to ascertain.

APPENDIX

Total Field Magnetic Survey Specifications

VLF-EM Survey Specifications

VLF-EM

SURVEY SPECIFICATIONS

PROJECT ID:	Taku Arm Project
GRID ID:	Ice Grid
SURVEY DATES:	August, 1989
DATA ACQUISITION OPERATOR/CONTRACTOR:	Gary Sutton Aurum Geological Consultants Ltd. P.O. Box 5179 Whitehorse, Yukon Y1A 4S3
DATA PROCESSING OPERATOR/CONTRACTOR:	Roman Tykajlo GEO-DIGIT-EX INC. 5120 Viceroy Drive N.W. Calgary, Alberta T3A 0V6
LINE SPACING:	100m
STATION SPACING:	25m
COVERAGE	
LINE KM.:	21.7
STATIONS:	887
INSTRUMENTATION:	
Transmitter:	NLK Jim Creek, Washington, 24.8 kHz
Receiver:	Geonics EM-16

MAPS: Fraser Filtered VLF-EM In-phase Survey....1:5000 scale
VLF-EM In-phase, Quadrature,
Fraser Filtered Values and
Topographic Grade Values..................1:5000 scale

NOTES:

1. positive in-phase dip angles are southwest dips.
2. positive percent topographic grades are uphill.

TOTAL FIELD MAGNETIC

SURVEY SPECIFICATIONS

PROJECT ID:	Taku Arm Project
GRID ID:	Ice Grid
SURVEY DATES:	August, 1989
DATA ACQUISITION OPERATOR/CONTRACTOR:	Gary Sutton Aurum Geological Consultants Ltd. P.O. Box 5179 Whitehorse, Yukon Y1A 4S3
DATA PROCESSING OPERATOR/CONTRACTOR:	Roman Tykajlo GEO-DIGIT-EX INC. 5120 Viceroy Drive N.W. Calgary, Alberta T3A 0V6
LINE SPACING:	100m
STATION SPACING:	12.5m
COVERAGE	
LINE KM.:	17.5
STATIONS:	1413
MAGNETOMETER:	
FIELD:	EDA OMNI IV
BASE STATION:	EDA OMNI IV

MAPS: Total Field Magnetic Survey.........1:5000
Total Field Magnetic Values.........1:5000

NOTES:

1. field data is corrected for diurnal drift

CERTIFICATE OF QUALIFICATION

I, Roman Tykajlo, of the City of Calgary, Province of Alberta, do hereby certify that:

I am a geophysicist with GEO-DIGIT-EX INC. of 5120 Viceroy Drive N.W., Calgary, Alberta, T3A 0V6.

I am a graduate of Lakehead University, with a B. Sc. Degree with Honours in Geology/Physics (1978).

I am a member of:

Society of Exploration Geophysicists (SEG) and the Association of Professional Engineers, Geologists and Geophysicists of Alberta (APEGGA).

I have been practising my profession for 11 years.

I have no interest in the claims or securities of Placer Dome Inc.

The foregoing geophysical interpretation represents my best effort based on geophysical data provided to me. I have not visited the site of the survey grid.

I consent to the use of this report in a company report or statement, provided that no portion is used out of context in such a manner as to convey a meaning differing materially from that set out in the whole.

Dated at Calgary, Alberta this 30th day of October, 1989.

PROFESSIONAL GEOLOGIST
ROMAN TYKAJLO
ALBERTA

Roman Tykajlo, B.Sc., P. Geol.

CERTIFICATE OF QUALIFICATION

I, Roman Tykajlo, of the City of Calgary, Province of Alberta, do hereby certify that:

I am a geophysicist with GEO-DIGIT-EX INC. of 5120 Viceroy Drive N.W., Calgary, Alberta, T3A 0V6.

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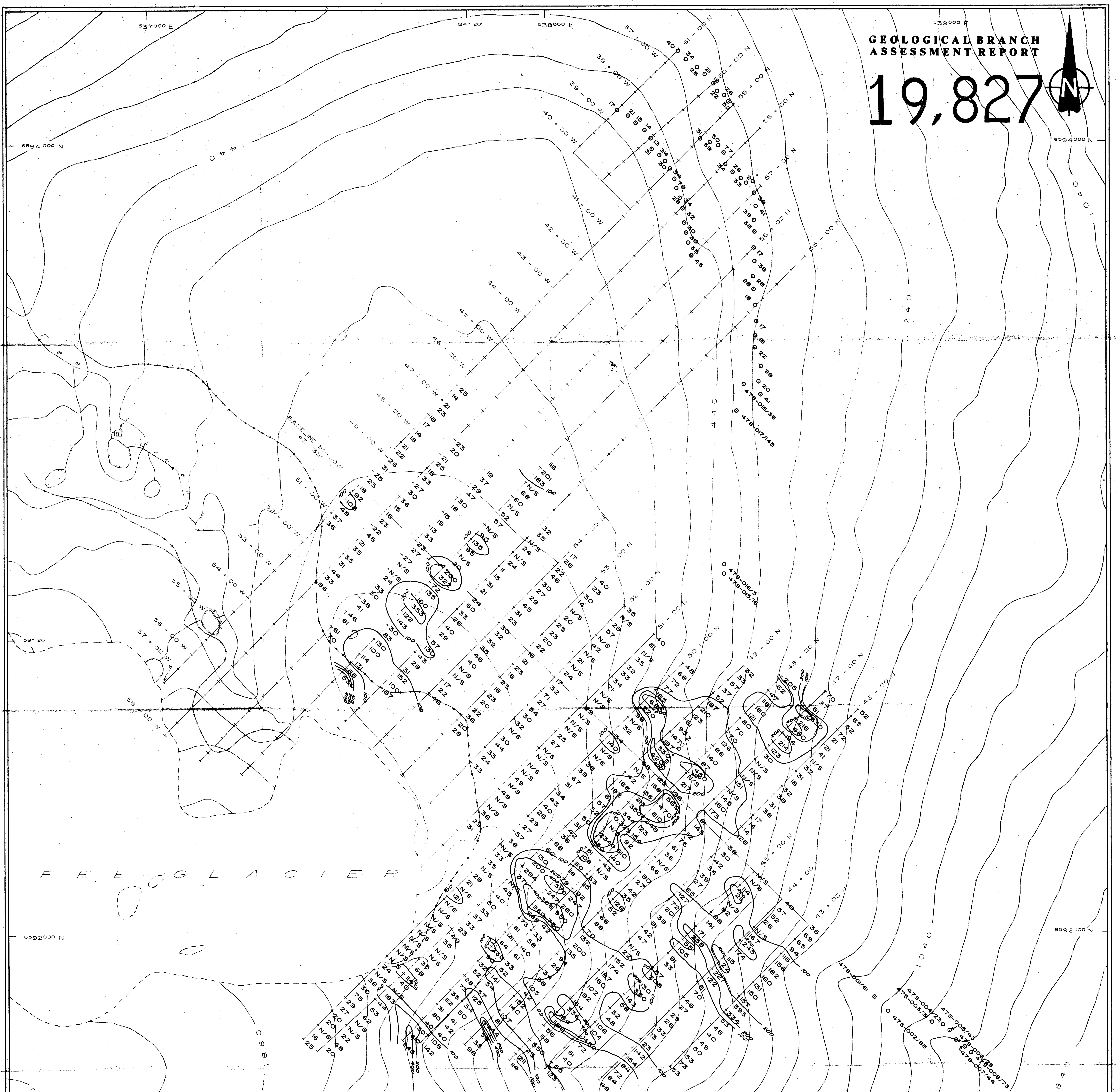
Dated at Calgary, Alberta this 30th day of October, 1989.

Roman Tykajlo, B.Sc., P. Geol.

GEO-DIGIT-EX INC.



LEGEND

OFF GRID SOIL SAMPLE LOCATION

SAMPLE NUMBER/ppm Pb

NO SAMPLE

GRID SOIL SAMPLE LOCATIONS AT 25m INTERVALS

SOIL GEOCHEMISTRY CONTOURS
(<100 ppm Pb is background)

100 — 100-200 ppm Zn possibly anomalous

200 — 200-400 ppm Zn anomalous

400 — >400 ppm Pb highly anomalous

SYMBOLS

POND

CREEK

ELEVATION CONTOUR (40m INTERVAL)

CAMP

GRID LINE

GLACIER BOUNDARY

MORAINE BOUNDARY

GEOLOGICAL ASSOCIATION OF CANADA
R. W. HULSTEIN
FELLOW

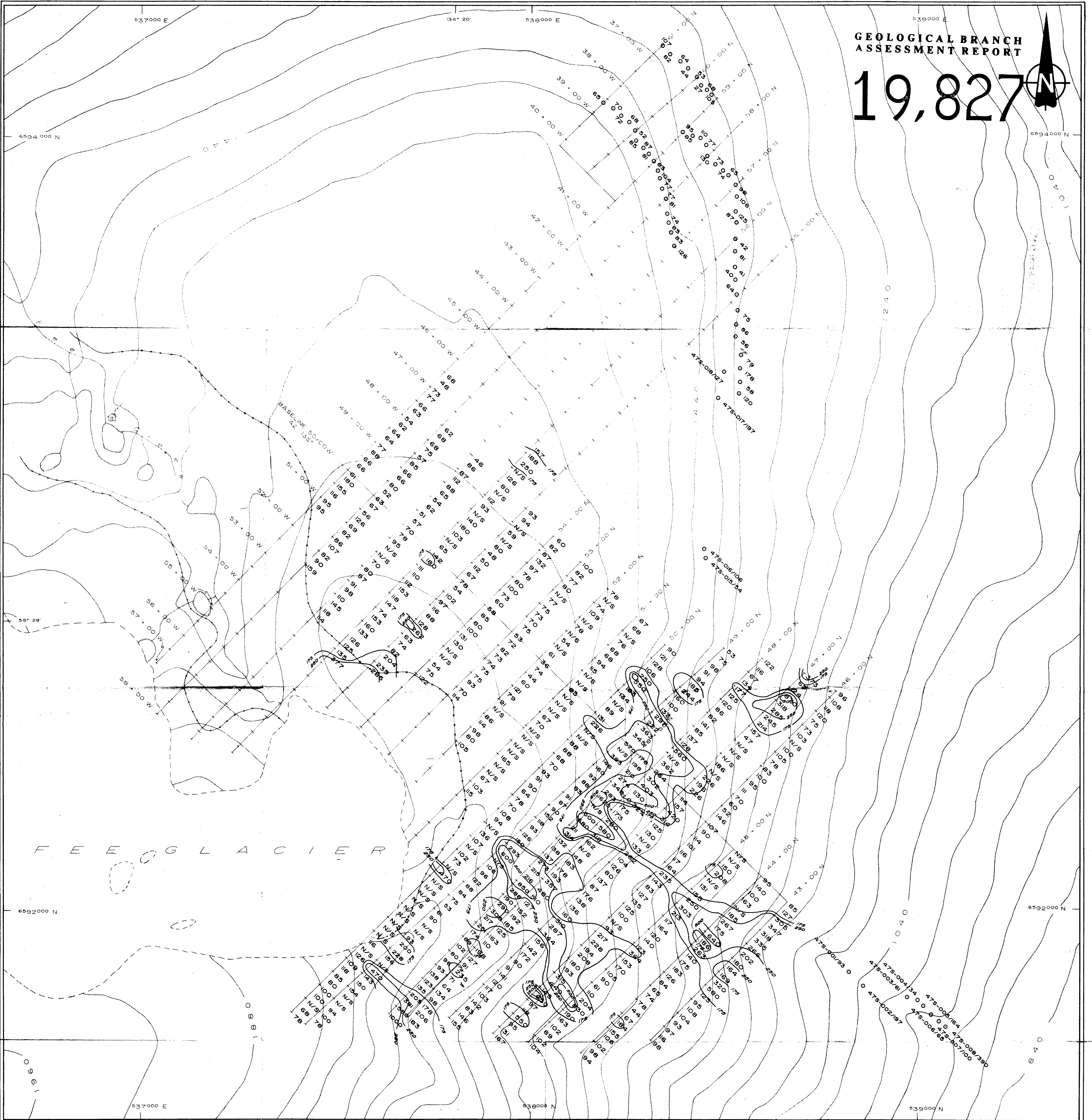
50 0 50 100 150 200 250 300 350
Metres

PLACER DOME INC.

TAKU ARM PROPERTY

GEOCHEMICAL RESULTS
LEAD (ppm)

Aurum Geological Consultants Inc.		DATE: MARCH 1990	
NTS 104M/8	DRAWN BY: RH LK	SCALE: 1:5000	FIGURE: 10



LEGEND

OFF GRID SOIL SAMPLE LOCATION
SAMPLE NUMBER/ppm Zn

NO SAMPLE
GRID SOIL SAMPLE LOCATIONS AT 25m INTERVALS

SOIL GEOCHEMICAL CONTOURS
(<175 ppm Zn is background)

175-250 ppm Zn possibly anomalous

250-500 ppm Zn anomalous

>500 ppm Zn highly anomalous

SYMBOLS

POND

CREEK

ELEVATION CONTOUR (40m INTERVAL)

CAMP

GRID LINE

GLACIER BOUNDARY

MORAINE BOUNDARY

50 0 50 100 150 200 250 300 350
Metres

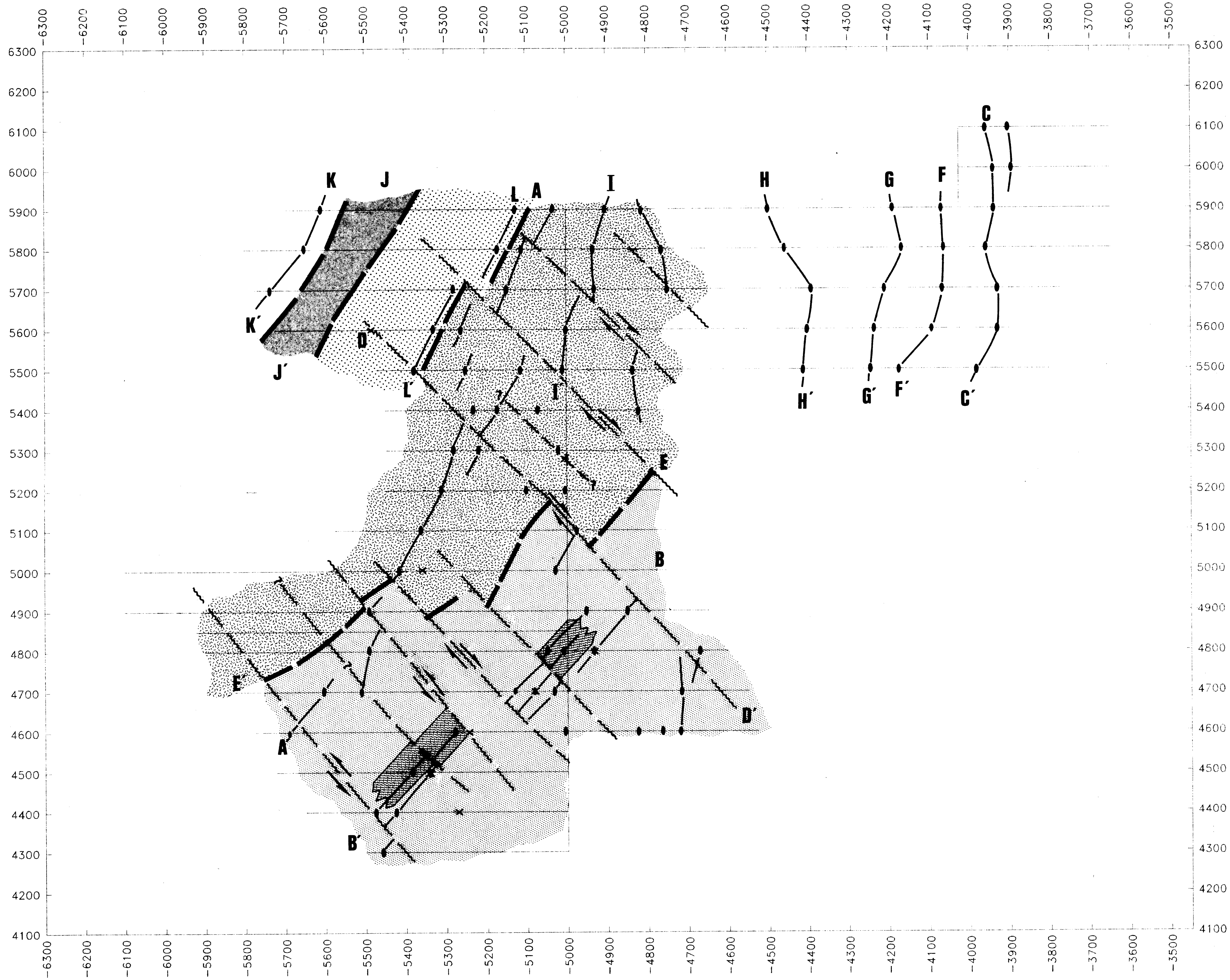
PLACER DOME INC.

TAKU ARM PROPERTY

GEOCHEMICAL RESULTS
ZINC (ppm)

GEOLOGICAL ASSOCIATION OF CANADA
R. W. HULSTEIN
FELLOW

Aurum Geological Consultants Inc.		DATE: MARCH 1990	
NTS 104M/8	DRAWN BY: RH LK	SCALE: 1:5000	FIGURE: 11



GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,827

LEGEND

- Fault with inferred direction of movement
- Lithologic contact
- Dyke(Felsic)
- VLF-EM ANOMALY TREND
- × Magnetic point dipole
- Lithologic unit characterized by relatively high frequency magnetic relief
- Lithologic unit characterized by relatively low frequency magnetic relief
- Lithologic unit characterized by relatively high frequency magnetic relief
- Lithologic unit characterized by magnetic low

Grid Coordinates

(meters)

Placer Dome Inc.			
Taku Arm Project			
Ice Grid Geophysical Data Interpretation			
Aurum Geological Consultants Inc.			Oct. 1989
		DRAWN BY : GEO DIGIT EX Inc.	FIGURE: 12

TAKU ARM PROJECT
STACKED VLF PROFILES
SEATTLE TX
LIGHT LINE = QUADRATURE
MEDIUM LINE = IN-PHASE
DARK LINE = FRASER FILTER
CONDUCTOR AXES
GEOLOGICAL BRANCH
ASSESSMENT REPORT
19,827
DATA PLOTTED ON THIS MAP:
DIRECTORY: $EXPL/TAKU/GP
FIELD FILE
IP TAKU.VLF
SCALE: 20.0 UNITS / CM
BASE LEVEL: 0.0
IP TAKU.VLF
SCALE: 20.0 UNITS / CM
BASE LEVEL: 0.0
FRASER FILTER APPLIED
QD TAKU.VLF
SCALE: 20.0 UNITS / CM
BASE LEVEL: 0.0
0 200 400 600
METRES
PLACER DOME INC.
DRAWN RWC
DATE 89:12:19
SCALE 1:5000
TAKU ARM PROJECT
STACKED VLF PROFILES
SEATTLE TX
NO.
PLATE APPENDIX E
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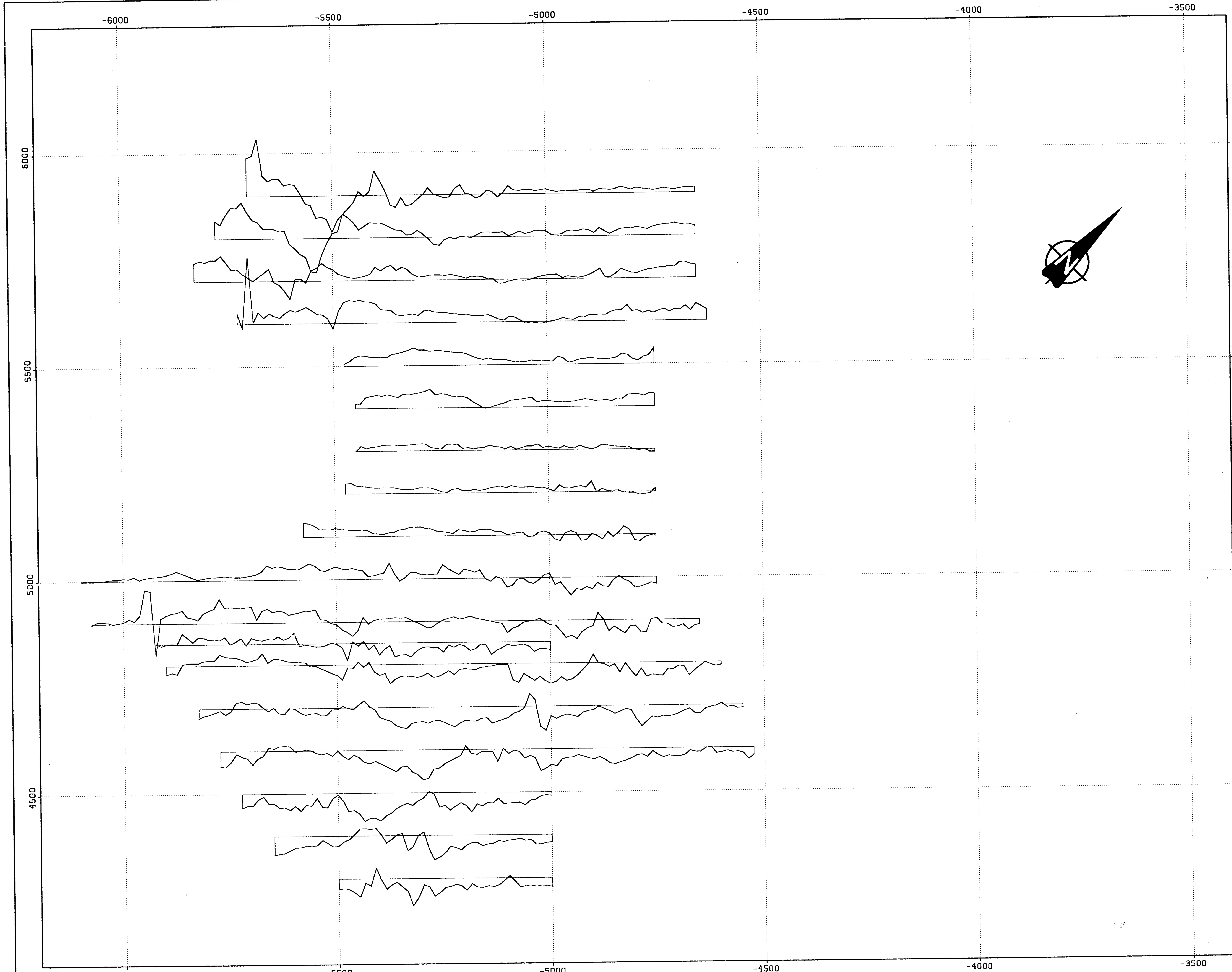
6000 5500 5000 4500



TAKU ARM PROJECT
STACKED MAGNETIC PROFILES

UNITS = NANOTESLAS
56700 NT REMOVED

GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,827

DATA PLOTTED ON THIS MAP:
DIRECTORY: $EXPL/TAKU/GP

	FIELD	FILE
———	MAG	TAKU.MAG

SCALE: 200 UNITS / CM
BASE LEVEL: 350

0 200 400 600
METRES

PLACER DOME INC.

DRAWN RWC	TAKU ARM PROJECT	
DATE 89:12:19	STACKED MAGNETIC PROFILES	
SCALE 1:5000		
	NO.	PLATE APPENDIX E