GEOLOGY AND GEOCHEMISTRY REPORT

on the

NAT PROPERTY

NAT 1-16 CLAIMS

Omineca Mining Division
N.T.S. 93-O-5

Lat. 55° 20' 30'N Long. 123° 43'W

Owner:
Ruanco Enterprises Ltd.

Operator:
Placer Dome Inc.

M.B. Gareau/ S. Price

December 1988

Part 2 of 2

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1.0 INTRODUCTION

Geochemical, geophysical and geological surveys were conducted on the Nat 1-16 Claims in August 1988 by Placer Dome Inc. The claims are north of Prince George in central British Columbia. This early stage exploration programme was designed to investigate the potential for precious metal mineralization on the property.

Results from the mapping, prospecting and sampling are the subjects of this report, and are being submitted to meet provincial assessment requirements for the Nat claims. The data from the geophysical survey will be reported separately.

2.0 SUMMARY

The 1988 geochemical field work included grid soil sampling, limited stream sediment bulk sampling, and outcrop sampling. Stream sediment results indicate the presence of a gold target within the southern Nat claims, and a second target west of the northern claims. Soil sampling has located a 200 by 160 m gold anomaly at the south end of the property which is designated Anomaly "A". The bedrock source for Anomaly "A" appears to underlie the southwest edge of this feature. A number of single-point (spot) gold soil anomalies were also identified. Trace gold and elevated arsenic levels were obtained from strongly carbonatized and variably silicified ultramafic rocks which also contain minor quartz veining and trace pyrite. These intensely altered and weakly mineralized rocks are concrete evidence of hydrothermal fluid activity within the area of interest.

Exploration results for 1988 were encouraging and indicate good potential for the discovery of gold mineralization on and adjacent to the Nat claims. Further exploration work is recommended.

Expenditures incurred by Placer Dome Inc. for the completion of geological and geochemical surveys on the Nat 1-16 Claims during August 1988 totalled $ 22,000.

3.0 RECOMMENDATIONS

1. The Nat property should be expanded by staking additional claims to the west and south in order to cover prospective areas indicated by stream and soil gold anomalies.

2. Geochemical, geological, and geophysical surveys should be extended to investigate the proposed areas for staking. This requires extension of the property grid to the west and south.

3. Detailed stream sediment bulk sampling and bank soil sampling should be undertaken upstream of samples NTB 102 and 009 to follow-up these stream sediment gold anomalies.

4. Anomaly "A" should be closed-off and defined by detailed soil sampling on grid lines spaced at 50 m intervals. The lines L2000N and L2200N should be re-sampled east of the baseline; the baseline between these crosslines should also be included. All sampling should be conducted at 20 m stations along the lines.

5. Backhoe trenches should be excavated to bedrock across the southwestern edge of Anomaly "A" to test this feature. The exposed bedrock should be chip sampled, and the overburden in the trench walls should be profile sampled.

6. The spot gold anomalies should be resampled and investigated with additional sampling laid out in a box-like pattern surrounding the initial site. Two boxes should be sampled; one at approximately 25 m radius from the anomalous site and a second at 50 m radius. Sample spacing along the perimeter of each box should be at 25 m stations.

7. Altered rocks and inferred faults (Cannon, 1988) along the northeastern ultramafic contact should be trenched with a backhoe; then mapped and sampled.

8. Local ice-direction indicators need to be obtained in order to properly interpret the location of bedrock sources for soil gold anomalies present in glacial till.

4.0 PROPERTY DEFINITION

4.1 Location and Access

The Nat claim group is in the Omineca Mining Division in central British Columbia. It is approximately 175 km north of Prince George, and 39 km west of the logging community of MacKenzie (Figure 1).

Access from MacKenzie is only practical during the active logging season at which time a ferry servicing logging traffic provides transportation across Williston lake. Dirt logging roads on the west side of this lake pass within one kilometre of the property boundary. The claims can also be reached by way of logging roads originating about 2.0 km south of Parsnip River on Highway 97.

4.2 Physiography

The property is immediately west of the Nation River and is in the northeastern corner of the Nechako Plateau which is here bounded to the north and east by the Omineca Mountains. Topographically the claims lie between 800 and 950 m above mean sea level (Figure 2). The ground rises in a series of sand and gravel benches from the Nation River towards the claims; across the width of the property the benches give way to a continuous, moderately dipping, northeasterly facing slope.

Three creeks drain across the claims and flow into the Nation River. They have cut through the overburden cover forming steep walled gullies that are ten to twenty metres deep. Bedrock has been exposed in a few places in the gully walls and floors. Small lakes or ponds are located at the head of some of these creeks. Generally the area is well drained.

The whole area, until recently, was covered by relatively mature forests. Pine trees blanket the better drained lower benches while a mixture of spruce, balsam and pine occupy the upper slopes. Logging operations have removed trees from about a one-third of the property but new vegetative growth is already well underway.

4.3 Claim Information

The Nat property consists of sixteen contiguous two-post claims which will be organized to form a single group. Ruanco Enterprises Ltd. of Richmond, British Columbia own the Nat claims. Placer Dome Inc. of Vancouver, British Columbia has the claims under option from Ruanco. Information for the individual claims is tabulated below.

Claim Name	No. Units	Record No.	Tag No.	Anniv. Date
Nat 1	1	495144M	9217	Dec. 21
Nat 2	1	495145M	9218	Dec. 21
Nat 3	1	495146M	9219	Dec. 21
Nat 4	1	495147M	9220	Dec. 21
Nat 5	1	496172M	9221	Dec. 21
Nat 6	1	496173M	9222	Dec. 21
Nat 7	1	496174M	9223	Dec. 21
Nat 8	1	496175M	9224	Dec. 21
Nat 9	1	496176M	9225	Dec. 21
Nat 10	1	496177M	9226	Dec. 21
Nat 11	1	496115M	9227	Dec. 21
Nat 12	1	496116M	9228	Dec. 21
Nat 13	1	496117M	9229	Dec. 21
Nat 14	1	496118M	9230	Dec. 21
Nat 15	1	496119M	9231	Dec. 21
Nat 16	1	496120M	9232	Dec. 21

There is no previously recorded exploration activity for the immediate area of the Nat claims.

4.4 Summary of Work

A total of 32 man-days from August 10 to 17, 1988, was spent conducting geological mapping, prospecting and geochemical sampling on the Nat claims. Two geologists, M.B. Gareau and S. Price, and two field assistants were responsible for this work. Field operations were based out of the logging community of MacKenzie.

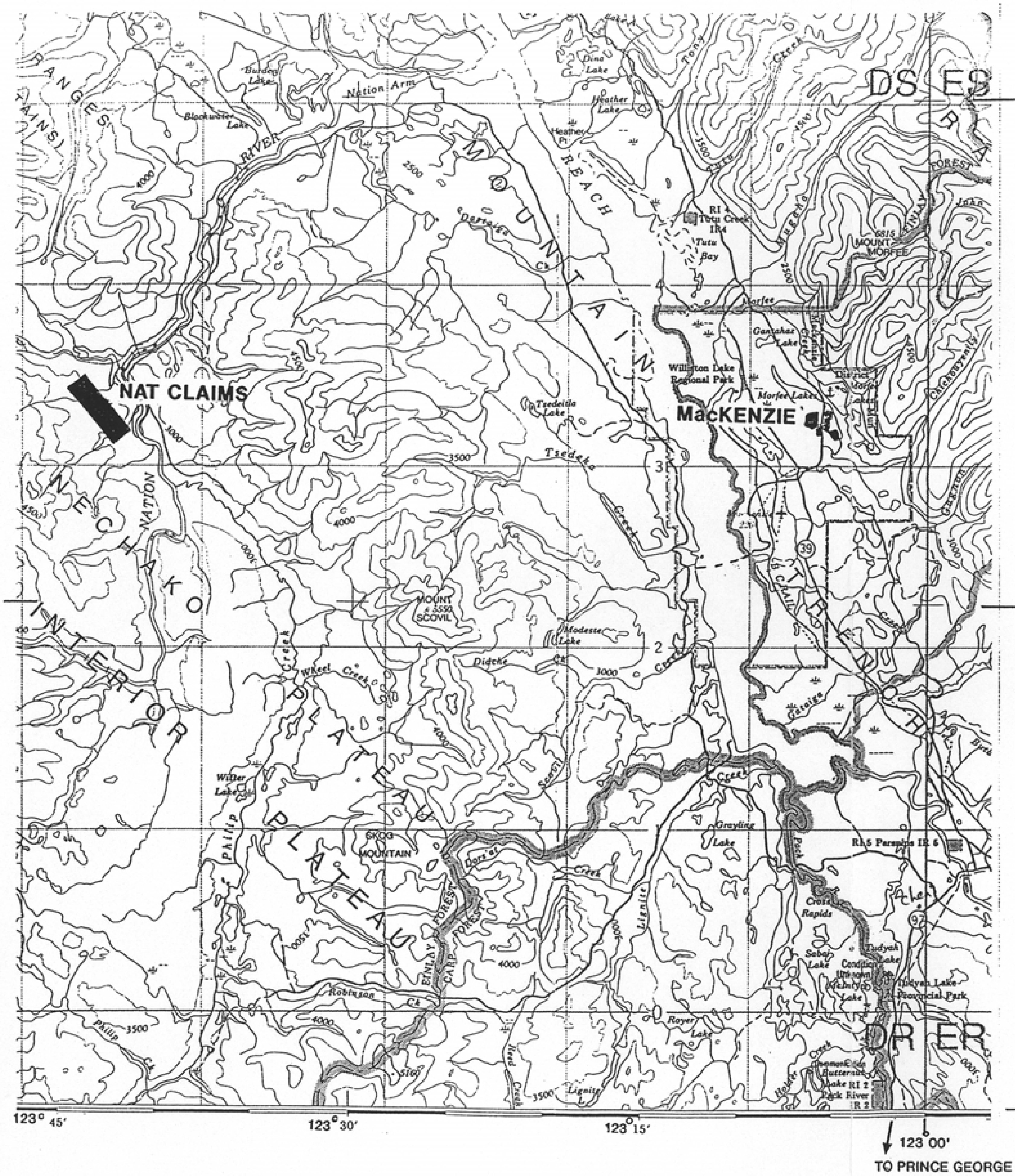


FIGURE 1

LOCATION OF NAT PROPERTY
OMINECA MINING DIVISION
N.T.S. 93-0-5

SCALE 1:250,000

0 5 10 20

KILOMETRES

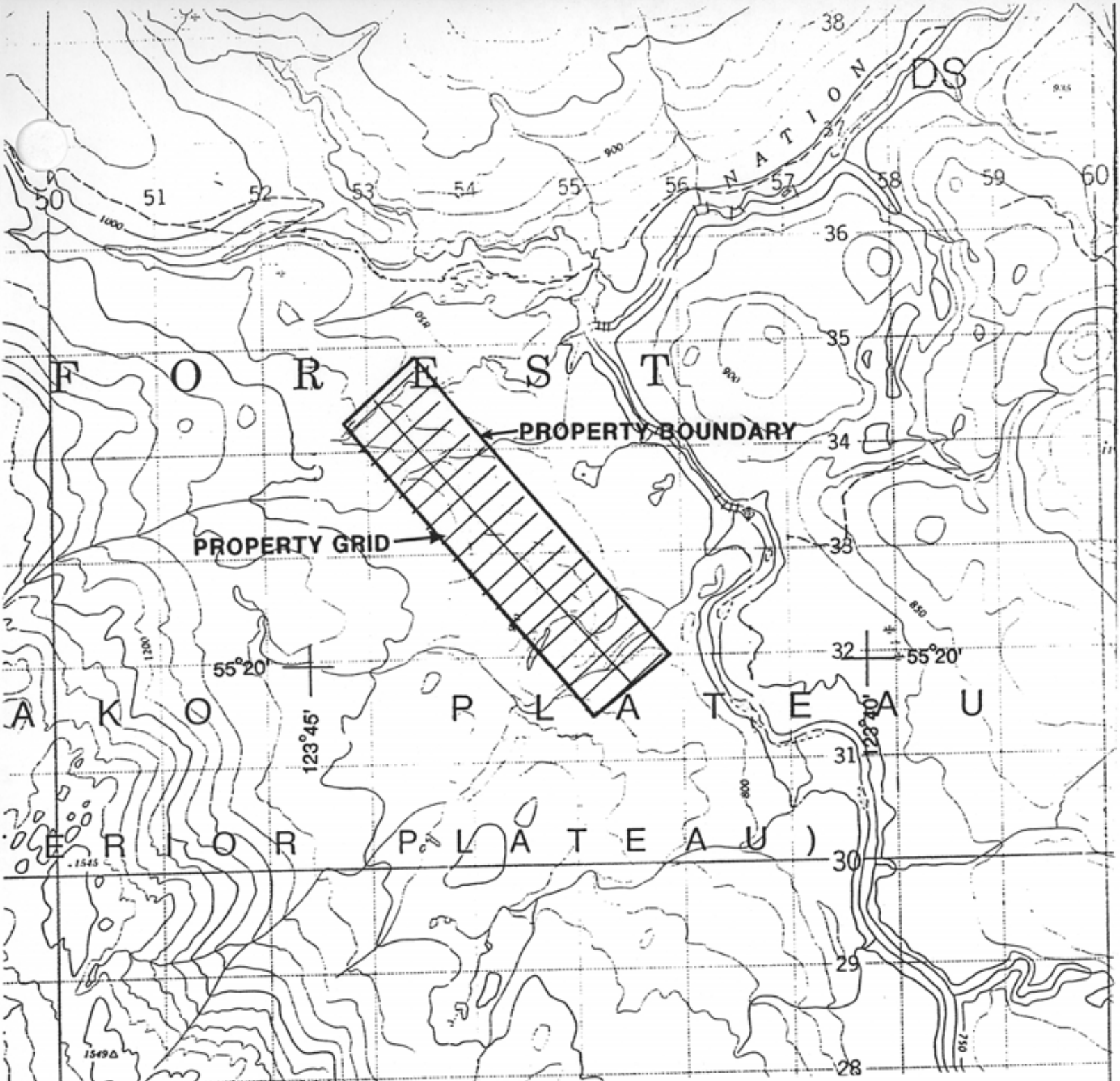


FIGURE 2

CLAIM MAP – NAT PROPERTY
OMINECA MINING DIVISION

N.T.S. 93-O-5

SCALE 1:50,000

0 1 2 3 4

KILOMETRES

A property grid for survey control was established place prior to field operations. De La Mothe Exploration Services Ltd. of North Vancouver, British Columbia, was contracted to establish 19.4 line-kilometres of picketed and flagged grid. The grid is slightly skewed relative to the claim boundaries, due to an error which translates to the angular difference between True North and UTM North.

Geochemical sampling on the Nat claims included the collection of nine stream sediment samples, 499 soil samples, and 20 rock samples. All samples were analyzed for gold, copper, zinc, lead, silver and arsenic. The stream sediment samples were also analyzed for iron and manganese.

Figure 3 shows the locations of the stream sediment samples, rock samples, and the soil survey grid relative to the property boundary.

Ground magnetometer and VLF-electromagnetic geophysical surveys were completed over the property grid. A separate report by R. Cannon (1988) addressing this work is being filed for assessment credit towards the Nat claims.

5.0 GEOLOGY

5.1 Regional Setting

The Nat claims are in a slice of Slide Mountain Terrane which forms part of the eastern assemblage of the Intermontane Superterrane (Wheeler et. al., 1988). The Slide Mountain Terrane consists primarily of ocean-floor volcanic and sedimentary rocks probably deposited in an extensional marine tectonic environment. This terrane, as part of the large composite and allochthonous Intermontane Superterrane, is believed to have been abducted onto the western margin of the North American craton in the Jurassic (Monger et. al., 1982).

Government regional mapping of the area (Muller, 1961) indicates extensive deposits of glacial drift with exposed bedrock essentially restricted to areas along major drainages and at elevations above approximately 1200 m. The Nat property is apparently underlain by Carboniferous volcanic and sedimentary rocks of the Slide Mountain Group or Cache Creek Group. The whole region was covered during the Pleistocene by the Cordilleran ice-sheet which moved in a northeasterly direction and deposited the unconsolidated glacial materials observed today.

Examination of the provincial government MINFILE database for N.T.S. 93-O-5 reveals that there are very few mineral occurrences present in the area surrounding the Nat claims. Only one bedrock showing is reported, this being the Fortune's Eye molybdenum occurrence which is located approximately seven kilometres due west of the Nat property. However, several placer gold occurrences are reported for channel bars along the Nation River and for a few of its larger tributaries.

5.2 Property Geology

Only thirteen bedrock exposures were found on and immediately adjacent to the Nat claims. Their locations, along with the property geology, are shown on Figure 3. The exposures appear to be restricted to very local topographical highs (i.e. small hills), and the banks and gully walls of the creeks cross-cutting the property. Occasionally, small outcrops were found on the face of very steep slopes. Bedrock is blanketed by a variety of overburden deposits.

Three distinct rock units were encountered during mapping; these include bedrock exposures of argillite, ultramafic, and highly altered ultramafic rocks. Contacts between these units are buried and attempts to infer their location are handicapped by the paucity of exposures.

Three exposures of medium to dark grey, fine grained argillite were encountered; two are along the creek on L4800N east of the baseline, and one lies west of the baseline on L4000N. These sediments are foliated which result in a fissile and friable rock. White crystalline calcite veinlets less than 2.0 cm wide cross-cut the argillite exposed on L4800N. Bedding in the argillite gave strike/dip measurements of $075^{o}/54^{o}$ SE, and $110^{o}/59^{o}$ SW.

Ultramafic outcrops were only found off the eastern end of L4000N. Their weathered surfaces are generally covered with lichen and are a medium grey colour. Fresh surfaces are variable in colour from medium green to dark grey. The ultramafic is fine to medium grained and magnetic. It appears to be moderately to strongly serpentinized with minor steatitization along hairline fractures which forms irregular, small patches.

Highly altered ultramafic rocks form distinct, light orange-brown weathering outcrops and are the most abundant bedrock exposures. They occur close to baseline 2500E at L2600N and between L2900N and L3000N; and also west of the baseline on L4000N. These altered rocks contain no recognizable relict minerals or textures. Their origin as ultramafic rocks is surmised from the presence of a distinct alteration mineral assemblage which is comprised essentially of iron-carbonate and talc with minor blebs of specular hematite. The rocks are medium to coarse grained, intensely weathered, and often appear to be sheared. A second alteration phase is superimposed on this initial suite of minerals. Pervasive silicification of variable intensity is accompanied by irregular, discontinuous, 0.5 to 3.0 cm quartz veinlets and trace disseminated, cubic pyrite. These highly altered ultramafic rocks contain the only sulphide mineralization found on the Nat claims.

The ground magnetic results from the geophysical survey carried out by R. Cannon (1988) provides some information for mapping rock units. The relatively unaltered ultramafic rock is magnetic in handspecimen and is distinguishable as a magnetic high in the geophysical results. This data is utilized on Figure 3 to interpret the distribution of the ultramafic unit. The magnetic data shows the ultramafic rocks extending from L3200N to L4600N along the western edge of the grid. They appear to be bounded to the east by an irregular, northwest trending contact; their westward projection is defined by the limits of the survey.

A second, narrow magnetically high feature which extends northwestward from L4200N to L5000N is identified by Cannon (Figure 3). It is plotted on Figure 3. It does not give as strong a response as the larger magnetic anomaly described above. There are no outcrops within this feature, and consequently, the nature of the bedrock giving rise to this magnetic response is unknown.

6.0 GEOCHEMISTRY

6.1 Stream Sediments

6.1.1 Sample Collection, Preparation and Analysis

A sampling technique called bulk stream sediment sampling was developed "in-house" by Placer Dome's exploration personnel. It is specifically designed for use in detailed and semi-detailed stream sediment geochemical surveys where gold mineralization is the target of interest. This exploration technique was employed on the Nat property. Bulk stream sediment samples were collected from natural drop-out sites for heavy minerals in the stream channels; examples of these sites include plunge pools, riffles and the upstream side of channel bars. Clastic stream sediments from the selected sites were wet sieved through a -20 mesh stainless steel screen and caught in an aluminum basin. A steel shovel was used to dig up the sediment. Approximately two to three kilograms of sieved fraction was collected and transferred to a plastic bag to form one sample. Descriptions of each sample site were recorded; these notes are presented in Appendix 3.

All the creeks crossing the Nat property are immature, abrading, first-order drainages. The stream channels are of moderate gradient; and are composed of a series of small rapids and waterfalls which provide many good sites for bulk sediment samples. Water flow appeared to be normal to slightly greater than normal for late summer in central British Columbia.

The stream sediment bulk samples were forwarded to Placer Dome's analytical laboratory in Vancouver, British Columbia, where they were oven-dried and sieved to produce a -150 mesh fraction. This fraction was geochemically analyzed for Au, Ag, Cu, Zn, Pb, As, Mn and Fe. Table 1 in Appendix 6 summarizes the extraction and detection procedures used. Each sample was analyzed three times for gold in an attempt to address the erratic gold distribution in natural materials, i.e. the "nugget-effect".

6.1.2 Treatment and Presentation of Results

A listing of the analytical results for the stream sediment bulk samples is given in Appendix 3. The small number of samples precludes a statistical treatment of this data set. Consequently only a visual inspection of the results is possible.

The multiple gold analysis for each sample have been combined to calculate an average value which is presented in Appendix 3. These calculated averages are displayed on Figure 4 for each bulk sample; and are divided into anomalous (>100 ppb), moderately anomalous (50-100 ppb), and weakly anomalous (5-50 ppb) gold values on the basis of the senior author's experience.

6.1.3 Discussion of Results

The triplicate gold analyses for each stream sediment bulk sample demonstrates the erratic distribution of gold in natural materials and the necessity for multiple determinations. Gold, based on the gold averages, occurs in anomalous quantities in only three bulk samples (NTB 100, 102 and 009), and is weakly anomalous in four others. Samples NTB 100 and 102 lie downstream and downslope from a soil geochemical gold anomaly. Bulk sample NTB 101 which is immediately downstream from the soil anomaly and upstream of NTB 100 and 102 does not contain any detectable gold. Two samples upstream of this soil anomaly also returned low gold results. Sample NTB 009, located in the central creek, is upstream of the soil grid. The bulk samples further down drainage are weakly anomalous and contain progressively decreasing quantities of gold.

The copper, zinc, lead, silver, and iron geochemistry of the stream sediments is low and shows no recognizable patterns. Slightly elevated arsenic results (10-68 ppm) were obtained from three samples in the central creek. They are located downstream from an outcrop of highly altered ultramafic rocks that forms part of the creek bank. High manganese values were also present in some of the samples with elevated arsenic.

6.1.4 Interpretation

Gold appears to be the only element with values that are anomalous and suggestive of a mineralized source in the sampled drainages. Anomalous gold in samples NTB 100 and 102 are probably derived from the same source. The source should be situated upstream of NTS 102 and downstream of NTB 101. Soil samples on either side of this section of the creek (i.e. east of 2740E on L2200N and L2400N) contain only low quantities of gold. The sample sites are, however, 75 to 100 m distant from the drainage, so there is still a considerable area within which a source could be found. Soil Anomaly "A" located upstream of NTB 101 is theoretically an unlikely source for the bulk sediment gold anomaly.

Sources for the anomalous gold values in stream sediment bulk samples NTB 100, 102 and 009 have yet to be identified.

Samples in the central creek have a high manganese content; the scavenging nature of manganese oxides in the stream sediments may in part account for the elevated arsenic results obtained from these samples. Alternatively, weathering of the highly altered ultramafics which can contain elevated but erratic arsenic levels may be the source of the higher stream sediment arsenic values.

6.2 Soils

6.2.1 Sample Collection, Preparation and Analysis

Sampling was conducted on a flagged and picketed grid with the baseline oriented at 320° azimuth. Grid-lines are perpendicular to the baseline and are spaced at 200 m intervals. The grid is perpendicular to the regional geology, but is poorly oriented with respect to regional ice-flow movement which is subparallel to the direction of the grid lines. Indicators of the local glacial direction were not found.

Soil samples were collected from both the baseline and grid-lines; the samples were spaced 40 m apart along the lines. A steel mattock, plastic spoon, and kraft paper bag were used to obtain and package the samples. B-horizon soil material was collected from most sites. Sample depth ranged from 5.0 to 60.0 cm, but more commonly averaged 10.0 to 20.0 cm. Notes on the nature of the soil material taken and on site conditions were recorded in the field. These notes are presented in Appendix 4.

Soils on the Nat Claim are generally well drained but are poorly to moderately developed; they consist of thin organic and leached horizons over a variable thickness of B-horizon. The B-horizon, which is the zone of mineral accumulation, is medium orange-tan or orange-brown in colour at sites where a distinct, overlying leached layer is developed. Elsewhere, the leached layer is faint and the underlying B-horizon is usually medium tan to medium brown in colour and is transitional to the underlying soil parent material.

The soils have developed on a variety of parent materials that are dominated by transported overburden. Bedrock is the least common soil forming substrate; glacial till is the most common. Sampling of soils on ground moraine till may identify glacial dispersion trains for gold that can be traced up-ice to their bedrock source. Glaciofluvial and hummocky moraine deposits have more complex transportation and depositional histories; they present an obstacle to exploration soil geochemistry because they mask bedrock and are not readily traced to source. Figure 5 displays the soil parent material for each sample site. An area west of the baseline and north of L4400N is partially or completely covered by glaciofluvial and hummocky moraine deposits. Minor amounts of glaciofluvial material are present within an area of modified tills located west of the baseline and extending from L2600N to L3400N. The modified tills were water-washed and re-sorted when the ice-cap melted away; they may give different geochemical responses than the adjacent ground moraine deposits. Downslope soil creep and recent water run-off have respectively formed local accumulations of colluvium and alluvium that were derived from pre-existing materials located upslope or updrainage.

The soil samples were forwarded to Placer Dome's analytical laboratory in Vancouver where they were oven-dried and sieved to produce a -80 mesh fraction. A subsample was weighed for geochemical analysis. Each sample was analyzed for Au, Ag, Cu, Zn, Pb and As. The digestion and detection techniques used for each element are given in Table 1, Appendix 6.

6.2.2 Treatment and Presentation of Results

A listing of the analytical results for the soil samples is given in Appendix 4. Basic statistical calculations and histogram plots are employed to examine the structure of the analytical data for each element (Appendix 4). Log-transformed data was used for calculation of the correlation matrix and construction of the histograms because a preliminary examination of the raw analytical results indicated that the distributions for each element are lognormal.

A decision was made to display only the gold results; these are plotted on Figure 4. Gold values are divided into six class intervals based on "breakpoints" observed on the gold histogram. The class intervals are presented on Figure 4 as open circles that increase in size to reflect an increase in gold values. These divisions are defined as:

highly anomalous	>400	ppb Au
anomalous	120 - 400	ppb Au
moderately anomalous	60 - 120	ppb Au
weakly anomalous	20 - 60	ppb Au
threshold	5 - 20	ppb Au
background	< 5	ppb Au

6.2.3 Discussion of Results

Gold

Gold analyses for the soil samples ranged from <5 to 730 ppb. Seventy-nine percent of the samples did not contain detectable gold; there are only twelve samples containing >60 ppb gold. Statistical examination of the data shows no correlations between gold and any of the other elements.

Only one coherent, soil gold anomaly is evident on Figure 4 and will be referred to as Anomaly "A". It is comprised of four moderately to highly anomalous samples of till located at the east end of L2000N and L2200N. These samples form a northwest-southeast trend that is at least 200 m long. Anomaly "A" is open to the south but is terminated by background gold values on L2400N. It is also constrained in the up-ice and up-slope direction by low values along the baseline.

Other soil samples with >60 ppb gold occur as isolated spot highs scattered over the grid. Two were taken from soils developed on glaciofluvial and hummocky moraine deposits; the remainder are derived from till.

A large number of the gold results between 5 and 30 ppb occur as abnormal, linear features along individual grid lines, specifically on L2000N, L3400N, L3600N, L4600N and L5400N. This pattern cannot be related to a single sampler nor to the overburden geology.

Other Elements

Copper, zinc, lead, silver and arsenic levels in the soil samples are all low. There are no values that would normally be considered anomalous. Histograms for lead, silver and arsenic appear to show single lognormal population distributions. Plots for these three elements contain no recognizable patterns.

The copper and zinc histograms show skewed lognormal distributions that seem to indicate a small second population of slightly elevated values for both elements. A plot of the copper displays three poorly defined clusters of values ranging from 28 to 80 ppm; these clusters have no obvious correlation with bedrock geology nor with the surface sampling environment. Zinc values >105 ppm form two moderately coherent clusters: 1) an elongated north-south feature in the southeast portion of the grid with a maximum value of 210 ppm zinc; and 2) at the east end of L3800N and L400N with the highest sample containing 170 ppm zinc. The pattern of higher zinc results in the soils does not correspond to any obvious feature of the sampling environment. There is no bedrock exposed in these two areas.

6.2.4 Interpretation

Gold

Anomaly "A" appears to be a real geochemical feature indicating the possibility of gold mineralization within and adjacent to the Nat claims. It is a single element anomaly which appears to be restricted in size but open to the southeast. This anomaly may represent a portion of a glacial till dispersion train. A bedrock source of gold mineralization should lie along the southwestern boundary of Anomaly "A"; that is if local ice dynamics reflect the regional northeastward movement of the Cordilleran ice-cap.

The single sample gold highs require further field investigation and sampling before their significance can be correctly interpreted.

There appears to be an analytical problem for gold, particularly in the 5 to 30 ppb range. The problem is evidenced by abnormally regular patterns along certain grid lines. Instrument calibration at and immediately above the gold detection limit may be at the root of this problem. Geochemical features in the soils with gold values >60 ppb are felt to be reliable; those <30 ppb gold are questionable.

Other Elements

Copper, zinc, lead, silver, and arsenic levels in the soils on the Nat claims are not indicative of mineralization and can only be interpreted as representing background geochemical conditions. The cause of the geochemical patterns noted for copper and zinc are not known, although it is fairly certain that they are not reflecting mineralization. Further investigations may reveal the copper patterns to be meaningless. The zinc features, however, appear to be real and probably relate to either changes in bedrock stratigraphy or reflect some common environmental feature.

6.3 Rocks

6.3.1 Sample Collection, Preparation and Analysis

Chip samples were collected from all the bedrock exposures encountered within the property. Sampling was oriented, where applicable, perpendicular to recognizable geological contacts or structures. Individual sample widths across the face of the outcrops varied from approximately one to ten metres.

All rock samples were sent to Placer Dome's Vancouver laboratory for analysis. The samples were crushed and pulverized; a subsample was weighed, then digested, and finally analyzed geochemically for Au, Ag, Cu, Zn, Pb and As. Table 1 in Appendix 6 summarizes the extraction and detection techniques used by the laboratory.

6.3.2 Treatment and Presentation of Results

The geochemical results for the rock samples are listed in Appendix 5. A brief geological description for each sample is also given as well as the sample length.

The small number of samples precludes a statistical treatment of the analytical data; only a visual inspection is possible. Figure 4 shows the plotted locations of the rock samples and their respective gold results. None of the other elements have been plotted.

6.3.3 Discussion of Results

Four rock samples returned gold analyses that were above the five part per billion detection limit. Samples 33314, 33315 and 33317 respectively contained 55, 35, and 30 ppb gold; all three were taken from highly altered ultramafic rocks. A fourth sample number 33332, from an argillite exposure, contained 20 ppb gold. There is no visual difference between these samples and similar rocks which had no detectable gold.

Arsenic values are erratic, but generally elevated in the highly altered ultramafic rocks. They range from 1 to 210 ppm arsenic in these rocks; but are low (< 15 ppm) in the other lithologies.

The base metal and silver results are uniformly low with few exceptions. There are slight fluctuations in the copper and lead values.

6.3.4 Interpretation

Evidence of gold mineralization has been found in the highly altered ultramafic rocks. The mineralization is very weakly developed and erratic in nature. Gold association with the degree of silicification, quartz veining, or sulphide content is unclear. Elevated arsenic values in these rocks also indicate a history of hydrothermal alteration and mineralization.

The single argillite sample with detectable gold is not considered significant.

Analytical results for the remaining elements only indicate background levels in the bedrock and consequently are not interesting. The slight variations noted in the copper and lead values probably reflect differences in background geochemistry between the various lithologies.

7.0 CONCLUSIONS

1. Potential exists for the discovery of lode gold mineralization within and adjacent to the Nat claims.

2. More exploration is warranted to follow-up and test the various targets identified by the 1988 field programme.

3. Gold is its own best geochemical indicator in surface materials on the Nat claims. Gold geochemistry appears to be an effective exploration tool in this area.

4. The complexity of overburden geology demands that the soil parent material be mapped in conjunction with soil geochemical surveys.

8.0 REFERENCES

Cannon, R., 1988, Geophysical Survey Report on the Nat Claims, Omineca Mining Division: Company Report.

Monger, J.W.H., Price, R.A., and Tempelman-Kluit, D.J., 1982, Tectonic accretion and the origin of the two major metamorphic and plutonic welts in the Canadian Cordillera: Geology v.10, p.70-75.

Muller, J.E., 1961, Geology, Pine Pass, British Columbia: Geol. Surv. Canada, Map 11-1961

Wheeler, J.O., Brookfield, A.J., Gabrielse, H., Monger, J.W.H., Tipper, H.W., and Woodsworth, G.J., 1988, Terrane Map of the Canadian Cordillera: Geol. Surv. Canada, Open File 1894

Submitted by

M.B. Gareau

S. Price

APPENDIX 1

STATEMENT OF EXPENDITURES

STATEMENT OF EXPENDITURES

NAT PROPERTY

Labour Cost (period August 10-17)		
M. Gareau (Project Geologist) 8 days @ $325/day	$ 2,600.00	
S. Price (Geologist) 8 days @ $250/day	2,000.00	
Z. Risk (Field Assistant) 8 days @ $150/day	1,200.00	
D. Turner (Field Assistant) 8 days @ $150/day	1,200.00	$ 7,000.00
Line-Cutting		
De La Mothe Exploration Services 19.38 km @ $200/km		$ 4,876.00
Assay Cost		
Soils 499 (Au,Cu,Pb,Zn,Ag & As) @ $11.35/sample	$ 5,663.65	
Rock 20 @ $13.60/ sample	272.00	
Stream 9 (plus Fe, Mg) @ $13.15	118.35	$6,054.00
Camp Operation		
Accommodation at MacKenzie 3 rooms x 8 days @ $37.50/day	900.00	
Meals 32 man-days @ $30.00/manday	960.00	$ 1,860.00
Vehicle Expense		
1 4x4 Ford Super Cab @ $50.00 day for 8 days	400.00	
1 4x4 Chev Suburban @ $50.00/day for 8 days	400.00	800.00
Report Preparation		
M. Gareau 2 days @ $325/day	650.00	
S. Price 3 days @ $250/day	750.00	
Typist 1/2 day @ $125/day	62.50	$ 1,462.50
TOTAL		$22,002.50

APPENDIX 2

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATION: M.B. GAREAU

I, M.B. Gareau, of Placer Dome Inc., Vancouver, British Columbia, do hereby certify that:

1. I am a geologist.

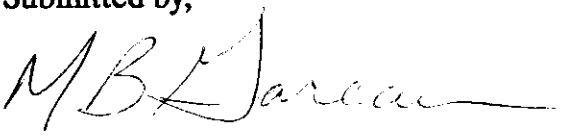
2. I am a graduate of the University of Dalhousie, Halifax, Nova Scotia with a Bachelor of Science in Geology dated 1977 and an Honours Certificate in Geology dated 1978.

3. I am a Fellow in good standing of the Geological Association of Canada.

4. I have been engaged in mineral exploration throughout Canada since graduation in 1977.

5. I personally supervised and participated in the 1988 field program on the Nat Claims. I reviewed all the resulting data and wrote the enclosed report.

Submitted by,



Michael B. Gareau

STATEMENT OF QUALIFICATIONS: S. PRICE

I, Stephen Price, of the City of Vancouver, British Columbia, do hereby certify that:

1. I am a graduate of the University of British Columbia where I recieved a B.Sc. in Geology in May, 1987.

2. I am currently employed by Placer Dome Inc.

3. I have practised my profession since graduation, primarily being involved in a variety of exploration projects in British Columbia and Saskatchewan.

5. I was present for all work performed on the Nat Property. I have compiled and reviewed that data that are present in this report.

Submitted by,

Stephen Price

APPENDIX 3

A) STREAM SEDIMENT SAMPLE ANALYTICAL RESULTS
B) STREAM SEDIMENT DESCRIPTIONS

NAT 1 - 16 BULK SEDIMENT GEOCHEMISTRY

SAMPLE	Cu ppm	Zn ppm	Pb ppm	Ag ppm	Au ppb	As ppm	Mn ppm	Fe %	Au-A ppb	Au-B ppb	Auav ppb
NTB100	16	40	7	0.1	875	3	420	2.6	<5	10	296
NTB101	16	46	8	0.1	<5	4	380	2.7	<5	<5	<5
NTB102	16	45	8	0.1	<5	8	450	3.1	<5	300	102
NTB103	17	46	9	0.3	90	5	590	2.4	15	<5	36
NTB104	18	47	9	0.2	<5	3	540	2.6	<5	<5	<5
NTB105	23	55	10	0.4	<5	13	560	3.1	15	<5	7
NTB007	40	60	17	0.4	<5	10	1240	2.7	35	<5	13
NTB008	38	130	6	0.3	<5	68	1740	5.4	45	<5	17
NTB009	10	50	7	0.3	220	9	1140	2.9	15	******	118
NTB009*	10	50	6	0.3	920	6	1160	2.9	15	******	******

* - lab duplicate

SAMPLE	NORTH	EAST	DISCHARGE	ORDER	AREA	CTYP	BANK	POSN	CWID m	WWID m	DEPTH cm	DIRN	GRADIENT
NTB100	2285.00	3365.00	5	2	4	AG	TI	CCB	60.00	30.00	35.00	100.00	2.00
NTB101	2280.00	2746.00	5	1	3	AG	TI	RIF	80.00	40.00	30.00	45.00	3.00
NTB102	2232.00	3073.00	5	1	3	AG	TI	CCB	50.00	30.00	10.00	42.00	3.00
NTB103	2278.00	2363.00	5	1	3	AG	TI	CCB	150.00	80.00	40.00	62.00	5.00
NTB104	2313.00	2124.00	6	1	3	AG	TI	MCC	100.00	60.00	40.00	30.00	4.00
NTB105	4454.00	3675.00	6	1	3	AG	TI	RIF	40.00	35.00	15.00	********	2.00
NTB007	4600.00	2865.00	7	1	+	WF	CL	RBK	60.00	40.00	40.00	93.00	5.00
NTB008	4840.00	2500.00	7	1	)	WF	CL	MCC	70.00	45.00	40.00	64.00	8.00
NTB009	4855.00	2030.00	7	1	)	WF	CL	DBL	40.00	40.00	50.00	40.00	2.00

SAMPLE	CLAY (VALUE	SILT * 10 % = TRUE	SAND VALUE)	GRAVEL	ORGANICS	SIZE	SORTING	COLOUR	BOL1	BOL2	BOL3
NTB100		2	4	4		S	4	4U8	GD6	AM3	QT1
NTB101		2	3	5		S	4	4U8	GD7	AM3	
NTB102		2	5	3		Q	5	4U8	GD6	AM3	SD1
NTB103		=	2	7		T	7	5U8	GD8	AM1	SD1
NTB104		=	2	7		U	7	5U8	GD9	SD1	
NTB105		1	3	6		S	5	4U8	GD6	AM3	SD1
NTB007		=	2	7		Q	3	3A0	AR8	GT2	
NTB008		+	1	8		T	2	5U8	GT7	AR2	AM1
NTB009			1	9		S	2	5U8	GT9		

DISCHARGE: general condition of the stream, 0 is a dry stream, X is a stream in flood, 5 is normal.
ORDER: relative position of stream in the network of tributaries, 1 being the highest tributaries.
AREA: approximate catchment area upstream from sample site (G-Scale).

CTYP - Channel type:

BR	Braided channel
MA	Meandering in alluvium
CH	Rocky chute
WT	Waterfalls and rapids
AB	Abrading channel
AG	Aggrading with gravel bars

BANK - Bank material:

BR	Bedrock: solid rock in situ.
TL	Talus: talus, scree, broken rock.
CL	Colluvium: material of uncertain origin formed by mass wasting on hillsides.
AL	Alluvium: Recent fluvial deposits.
TI	Glacial Till: basal till, moraine and drumlin deposits.
FG	Fluvioglacial: eskers, kames and glacial outwash deposits.
GL	Lacustrine: stratified sediments in old lake beds.
AT	Artificial Channel: canalized banks, concrete, drainage ditches.

POSN - Position in stream:

LBK	Left bank
RBK	Right bank
MCC	Mid channel
PTB	Point bar
PLP	Plunge pool
RIF	Riffle
CCB	Channel bar
DBL	Downstream of boulder

CWID - Channel width: average width in metres.
WWID - Water width: average width in metres.
DEPTH - Depth of water: average depth in centimetres.
DIRN - Direction of flow: average direction in degrees true.
GRADIENT - Average inclination of stream in degrees.

SIZE - Maximum particle size:

Q	181 cm
R	362 cm
S	724 cm
T	1450 cm
U	2900 cm

SORT - Degree of sorting:

1	extremely poorly sorted
2	very poorly sorted
3	poorly sorted
4	moderately poorly sorted
5	moderately sorted
6	moderately well sorted
7	well sorted
8	very well sorted
9	extremely well sorted

COLOUR - # indicates a single colour designation

W	WHITE	R	RED
9	PALEST	U	BROWN
8	PALE	O	ORANGE
7	LIGHT	T	TAN
6	LIGHTER	Y	YELLOW
5	MEDIUM	L	LIME
4	DARKER	G	GREEN
3	DARK	Q	AQUA
2	VERY DARK	B	BLUE
1	DARKEST	V	VIOLET
N	BLACK	P	PURPLE
		M	MAUVE
		A	GREY

BOL1 - BOL3 - Boulder types:

AN	Andesite
AR	Argillite
GT	Granite
QT	Quartzite
SD	Sedimentary rock

SCALE VALUE	ASSIGNED VALUE	RANGE
X	100%	100%
9	90	85 TO 99
8	80	75 TO 85
7	70	65 TO 75
6	60	55 TO 65
5	50	45 TO 55
4	40	35 TO 45
3	30	25 TO 35
2	20	15 TO 25
1	10	7 TO 15
=	5	3 TO 7
+	2.5	2 TO 3
)	1.0	0.5 TO 2
*	0.3	0.2 TO 0.5
(	0.1	0.05 TO 0.2
-	0.03	0.02 TO 0.05
.	0.01	TRACE TO 0.02
0	0	NIL, ABSENT
?	0	POSSIBLY PRESENT
/	0.07	PRESENT: ESTIMATE
		NOT POSSIBLE

APPENDIX 4

A) SOIL SAMPLE ANALYTICAL RESULTS
B) SOIL SAMPLE DESCRIPTIONS
C) DATA STATISTICS AND HISTOGRAM PLOTS

NORTH	EAST	Cu ppm	Zn ppm	Pb ppm	Ag ppm	As ppm	Au1 ppb
3800N	2060E	9	40	9	0.1	3	<5
3800N	2100E	7	27	5	0.1	1	<5
3800N	2180E	11	50	7	0.2	1	<5
3800N	2220E	8	62	3	0.1	1	<5
3800N	2260E	7	29	4	0.1	1	<5
3800N	2300E	14	40	5	0.1	1	<5
3800N	2340E	13	38	5	0.5	1	<5
3800N	2380E	11	53	5	0.2	1	<5
3800N	2420E	9	45	6	0.1	1	<5
3800N	2460E	42	88	8	1.1	1	<5
3800N	2500E	11	57	4	0.1	1	<5
3800N	2540E	9	55	6	0.1	1	<5
3800N	2580E	13	120	6	0.2	4	<5
3800N	2620E	31	192	12	1.1	1	<5
3800N	2660E	11	90	7	0.4	1	<5
3800N	2700E	11	54	6	0.2	1	<5
3800N	2740E	43	88	80	0.3	10	<5
3800N	2740E*	43	92	83	0.3	8	<5
3800N	2780E	16	40	8	0.2	1	<5
3800N	2820E	16	73	7	0.1	1	<5
3800N	2860E	16	68	6	0.2	1	175
3800N	2900E	52	136	10	0.6	13	<5
3800N	2940E	20	143	7	0.7	4	<5
4000N	2060E	6	26	4	0.1	1	<5
4000N	2100E	15	127	5	0.3	27	<5
4000N	2140E	14	67	3	0.1	1	<5
4000N	2180E	6	45	3	0.1	1	<5
4000N	2220E	30	170	29	0.6	2	<5
4000N	2280E	63	130	22	0.4	5	10
4000N	2320E	80	128	11	0.3	13	<5
4000N	2360E	38	120	6	1.0	5	<5
4000N	2400E	18	92	6	0.2	1	<5
4000N	2440E	25	71	10	0.1	1	<5
4000N	2480E	50	68	4	0.1	1	<5
4000N	2500E	33	68	6	0.5	1	10
4000N	2540E	23	44	8	0.1	1	<5
4000N	2580E	7	82	5	0.1	1	<5
4000N	2620E	13	48	6	0.2	1	<5
4000N	2660E	10	58	6	0.1	3	<5
4000N	2700E	18	90	11	0.1	8	<5
4000N	2740E	15	70	9	0.2	2	<5
4000N	2780E	16	73	8	0.3	1	<5
4000N	2820E	12	110	7	0.3	1	<5
4000N	2860E	46	130	8	0.3	1	<5
4000N	2900E	33	170	11	0.2	9	<5
4000N	2900E*	34	174	12	0.3	8	<5
4000N	2940E	36	153	12	0.6	16	10
4200N	2060E	11	34	6	0.1	1	<5
4200N	2100E	11	65	9	0.1	6	<5
4200N	2140E	9	56	7	0.1	1	<5
4200N	2180E	8	53	6	0.1	1	10
4200N	2220E	9	60	8	0.1	1	<5
4200N	2260E	17	80	9	0.1	1	<5
4200N	2300E	8	56	9	0.1	1	10
4200N	2340E	9	45	7	0.1	1	<5
4200N	2380E	35	88	12	0.3	1	<5
4200N	2420E	15	62	8	0.2	1	<5
4200N	2460E	17	51	8	0.1	1	<5
4200N	2500E	23	92	8	0.3	1	<5
4200N	2540E	23	76	6	0.3	1	<5

NORTH	EAST	Cu ppm	Zn ppm	Pb ppm	Ag ppm	As ppm	Au1 ppb
4200N	2580E	40	95	10	0.6	1	<5
4200N	2620E	13	43	7	0.1	1	<5
4200N	2660E	22	63	10	0.2	1	<5
4200N	2700E	13	84	6	0.2	1	<5
4200N	2700E*	13	80	7	0.2	1	<5
4200N	2740E	29	70	8	0.6	1	<5
4200N	2780E	10	47	6	0.4	4	<5
4200N	2820E	11	46	8	0.3	1	<5
4200N	2860E	9	55	8	0.2	1	<5
4200N	2900E	10	75	6	0.3	1	<5
4200N	2940E	12	47	6	0.2	1	<5
4400N	2060E	17	70	6	0.2	1	<5
4400N	2100E	18	73	8	0.1	2	<5
4400N	2140E	20	80	6	0.1	1	<5
4400N	2180E	19	77	5	0.1	1	<5
4400N	2220E	12	67	7	0.2	1	<5
4400N	2260E	16	66	5	0.2	1	<5
4400N	2340E	7	77	7	0.1	1	<5
4400N	2380E	10	61	4	0.2	3	<5
4400N	2420E	14	41	4	0.2	1	<5
4400N	2460E	32	62	6	0.8	1	<5
4400N	2500E	17	50	6	0.3	1	<5
4400N	2540E	14	74	7	0.1	1	80
4400N	2580E	15	80	6	0.1	1	<5
4400N	2620E	18	73	6	0.3	1	<5
4400N	2660E	19	72	5	0.3	3	<5
4400N	2700E	21	60	5	0.3	1	<5
4400N	2740E	27	73	7	0.4	1	<5
4400N	2780E	22	67	6	0.2	1	<5
4400N	2820E	40	58	5	0.5	1	<5
4400N	2860E	20	47	3	0.2	1	<5
4400N	2900E	17	61	8	0.2	1	<5
4400N	2940E	16	64	5	0.1	4	15
4600N	2060E	19	84	5	0.3	1	<5
4600N	2100E	13	62	4	0.2	1	<5
4600N	2140E	11	41	5	0.2	1	<5
4600N	2180E	13	64	2	0.3	1	<5
4600N	2220E	17	65	7	0.1	1	35
4600N	2260E	18	82	6	0.2	3	<5
4600N	2300E	16	53	5	0.2	1	<5
4600N	2300E*	16	52	6	0.2	1	<5
4600N	2340E	14	78	6	0.2	1	<5
4600N	2380E	10	92	6	0.4	1	5
4600N	2420E	18	45	5	0.2	1	10
4600N	2460E	15	96	6	0.1	1	5
4600N	2500E	11	62	7	0.2	1	10
4600N	2540E	10	36	6	0.1	1	5
4600N	2580E	14	40	5	0.2	1	10
4600N	2620E	23	45	7	0.3	1	<5
4600N	2660E	16	55	6	0.2	1	<5
4600N	2660E*	15	56	6	0.2	1	<5
4600N	2700E	11	55	6	0.1	1	10
4600N	2740E	16	46	7	0.1	6	15
4600N	2780E	13	61	10	0.1	13	10
4600N	2820E	10	33	4	0.1	4	15
4600N	2860E	42	81	16	0.4	19	20
4600N	2900E	10	40	8	0.1	5	<5
4600N	2940E	9	40	5	0.1	7	<5
4800N	2100E	14	63	9	0.2	5	100

NORTH	EAST	Cu ppm	Zn ppm	Pb ppm	Ag ppm	As ppm	Au1 ppb
4800N	2100E*	14	61	9	0.2	7	45
4800N	2140E	17	40	5	0.1	7	<5
4800N	2180E	14	38	6	0.1	4	40
4800N	2220E	10	48	5	0.1	6	<5
4800N	2260E	10	64	8	0.1	11	<5
4800N	2300E	16	44	5	0.2	1	<5
4800N	2340E	13	85	8	0.1	3	<5
4800N	2380E	16	51	7	0.1	4	<5
4800N	2420E	15	60	8	0.5	1	<5
4800N	2460E	10	52	6	0.2	4	<5
4800N	2460E*	10	52	4	0.2	3	<5
4800N	2500E	22	47	5	0.1	3	<5
4800N	2540E	13	43	6	0.1	6	<5
4800N	2580E	19	40	4	0.1	3	<5
4800N	2620E	14	38	5	0.2	3	<5
4800N	2700E	15	53	10	0.4	9	<5
4800N	2740E	12	74	7	0.3	6	<5
4800N	2780E	8	32	6	0.2	5	<5
4800N	2820E	12	103	6	0.2	9	<5
4800N	2860E	13	40	6	0.1	11	<5
4800N	2900E	14	80	10	0.2	13	<5
4800N	2940E	10	60	5	0.2	1	<5
5000N	2060E	10	67	5	0.2	3	<5
5000N	2100E	20	57	8	0.3	7	<5
5000N	2140E	16	56	7	0.2	8	<5
5000N	2180E	13	60	5	0.1	9	<5
5000N	2220E	18	40	5	0.1	4	<5
5000N	2260E	35	61	7	0.8	3	<5
5000N	2300E	17	77	9	0.2	4	<5
5000N	2340E	14	78	12	0.4	5	110
5000N	2380E	18	65	11	0.4	13	<5
5000N	2420E	14	38	6	0.2	4	<5
5000N	2460E	13	45	7	0.1	7	<5
5000N	2500E	10	70	8	0.1	2	<5
5000N	2540E	9	31	4	0.1	2	<5
5000N	2580E	8	44	5	0.1	6	<5
5000N	2620E	15	55	9	0.1	10	15
5000N	2660E	46	44	7	0.8	6	<5
5000N	2700E	9	37	9	0.1	5	<5
5000N	2780E	7	25	7	0.1	1	<5
5000N	2860E	10	67	7	0.2	1	<5
5000N	2940E	13	41	6	0.1	5	<5
5200N	2060E	20	76	7	0.3	9	20
5200N	2100E	10	53	7	0.3	7	<5
5200N	2140E	20	42	7	0.2	4	<5
5200N	2180E	13	56	5	0.4	1	<5
5200N	2220E	13	38	5	0.3	1	<5
5200N	2220E*	12	34	5	0.3	1	<5
5200N	2260E	14	78	8	0.2	4	<5
5200N	2300E	14	50	10	0.3	3	<5
5200N	2340E	13	63	8	0.7	7	<5
5200N	2380E	18	60	10	0.4	8	<5
5200N	2420E	21	40	6	0.3	4	<5
5200N	2460E	15	40	6	0.3	4	<5
5200N	2500E	16	61	7	0.3	8	<5
5200N	2540E	13	36	6	0.3	1	<5
5200N	2580E	8	24	4	0.1	1	<5
5200N	2580E*	8	28	4	0.1	1	45
5200N	2620E	11	37	5	0.1	3	<5
5200N	2700E	16	60	5	0.3	4	<5

NORTH	EAST	Cu ppm	Zn ppm	Pb ppm	Ag ppm	As ppm	Au1 ppb
5200N	2740E	32	57	7	0.8	7	<5
5200N	2780E	14	60	6	0.3	8	730
5200N	2820E	14	54	4	0.2	3	<5
5200N	2860E	13	105	8	0.2	1	<5
5200N	2900E	10	34	6	0.2	4	<5
5200N	2940E	15	71	11	0.2	8	<5
5400N	2060E	18	56	7	0.5	8	<5
5400N	2140E	8	42	5	0.1	4	5
5400N	2180E	14	72	6	0.1	4	5
5400N	2220E	13	70	7	0.1	6	5
5400N	2260E	13	53	7	0.2	6	50
5400N	2300E	12	50	6	0.2	5	<5
5400N	2340E	12	45	5	0.3	15	<5
5400N	2380E	13	70	6	0.4	14	20
5400N	2420E	11	44	6	0.2	8	15
5400N	2460E	15	46	5	0.1	7	20
5400N	2460E*	14	46	5	0.1	6	20
5400N	2540E	9	50	7	0.1	1	<5
5400N	2580E	10	51	6	0.2	2	<5
5400N	2620E	5	30	7	0.3	1	<5
5400N	2660E	5	31	7	0.2	4	<5
5400N	2700E	8	43	7	0.1	2	<5
5400N	2740E	16	52	5	0.6	3	<5
5400N	2780E	11	37	6	0.2	2	<5
5400N	2820E	12	45	5	0.1	1	<5
5400N	2900E	12	77	5	0.3	1	<5
5400N	2940E	12	55	6	0.2	1	<5
5600N	2100E	11	52	4	0.3	2	<5
5600N	2140E	20	90	6	0.3	2	50
5600N	2180E	10	47	5	0.4	1	<5
5600N	2220E	18	60	6	0.4	4	<5
5600N	2260E	15	80	6	0.3	4	<5
5600N	2300E	11	38	5	0.4	3	<5
5600N	2340E	15	78	7	0.3	5	<5
5600N	2380E	18	56	6	0.4	5	<5
5600N	2420E	16	62	7	0.5	5	<5
5600N	2460E	20	53	5	0.4	3	<5
5600N	2500E	14	66	6	0.3	2	<5
5600N	2540E	8	38	4	0.1	1	<5
5600N	2580E	19	60	5	0.2	6	<5
5600N	2620E	16	70	6	0.3	1	<5
5600N	2660E	16	60	6	0.3	4	<5
5600N	2700E	17	56	5	0.4	4	<5
5600N	2740E	10	60	5	0.5	1	5
5600N	2740E*	8	58	5	0.5	1	10
5600N	2780E	16	57	6	0.4	4	<5
5600N	2820E	13	47	6	0.3	1	5
5600N	2860E	23	75	8	0.3	1	<5
5600N	2900E	18	61	7	0.3	1	<5
5600N	2940E	30	68	10	0.2	1	<5
3190N	2460E	15	54	4	0.2	16	<5
2000N	2060E	19	56	8	0.1	10	<5
2000N	2100E	15	80	11	0.1	7	<5
2000N	2140E	17	72	8	0.1	4	5
2000N	2180E	12	103	9	0.1	2	<5
2000N	2220E	20	58	7	0.1	1	<5
2000N	2260E	12	130	8	0.2	11	<5
2000N	2300E	20	58	6	0.1	6	<5

NORTH	EAST	Cu ppm	Zn ppm	Pb ppm	Ag ppm	As ppm	Au1 ppb
2000N	2340E	12	43	5	0.1	1	<5
2000N	2380E	21	42	6	0.1	7	<5
2000N	2420E	41	145	7	0.1	10	30
2000N	2460E	14	62	6	0.1	6	5
2000N	2500E	33	130	8	0.1	11	15
2000N	2540E	27	124	8	0.3	1	35
2000N	2580E	19	104	8	0.3	6	5
2000N	2620E	43	82	7	0.1	16	40
2000N	2660E	31	110	7	0.1	11	505
2000N	2700E	21	120	7	0.2	4	15
2000N	2740E	24	100	8	0.1	10	20
2000N	2740E*	23	98	9	0.1	12	10
2000N	2780E	15	103	8	0.2	9	10
2000N	2820E	27	100	7	0.3	8	90
2000N	2860E	24	114	9	0.1	9	5
2000N	2900E	36	81	6	0.1	10	<5
2000N	2940E	23	143	7	0.2	8	<5
2180N	2460E	34	92	9	0.8	4	<5
2200N	2100E	26	44	7	0.1	5	15
2200N	2140E	20	77	8	0.2	1	<5
2200N	2140E*	20	70	8	0.2	2	<5
2200N	2180E	14	63	7	0.1	1	<5
2200N	2220E	26	62	6	0.1	9	<5
2200N	2260E	16	115	8	0.2	5	<5
2200N	2300E	11	46	8	0.1	8	<5
2200N	2340E	11	65	7	0.1	1	<5
2200N	2380E	20	40	6	0.2	4	<5
2200N	2500E	26	81	6	0.4	4	<5
2200N	2540E	9	57	7	0.1	3	<5
2200N	2580E	12	97	9	0.1	4	165
2200N	2620E	11	125	10	0.3	1	<5
2200N	2660E	15	96	8	0.1	4	180
2200N	2700E	20	81	12	0.5	1	265
2200N	2740E	18	72	10	0.1	2	<5
2200N	2780E	163	55	9	0.5	3	<5
2200N	2820E	21	46	8	0.2	1	<5
2200N	2860E	20	75	7	0.2	3	<5
2200N	2900E	16	120	9	0.1	1	<5
2200N	2940E	57	102	9	0.1	5	<5
2200N	2940E*	56	100	8	0.1	6	<5
2400N	2100E	23	60	8	0.2	2	<5
2400N	2140E	17	80	11	0.1	3	<5
2400N	2180E	14	103	7	0.1	1	<5
2400N	2220E	10	75	7	0.3	1	<5
2400N	2260E	15	60	7	0.1	1	<5
2400N	2300E	25	55	7	0.1	4	<5
2400N	2340E	20	37	5	0.1	1	<5
2400N	2380E	18	40	5	0.1	1	<5
2400N	2420E	23	51	9	0.1	1	<5
2400N	2460E	10	40	6	0.3	2	<5
2400N	2500E	10	70	5	0.3	1	<5
2400N	2540E	9	47	6	0.1	4	<5
2400N	2580E	10	63	8	0.2	5	<5
2400N	2620E	9	53	7	0.1	24	<5
2400N	2660E	18	102	6	0.2	1	<5
2400N	2700E	25	61	7	0.2	4	<5
2400N	2740E	15	98	7	0.3	1	<5
2400N	2780E	25	120	9	0.3	10	30
2400N	2820E	18	150	8	0.2	7	<5

NORTH	EAST	Cu ppm	Zn ppm	Pb ppm	Ag ppm	As ppm	Au1 ppb
2400N	2860E	22	180	7	0.3	3	5
2400N	2900E	34	120	7	0.4	6	10
2400N	2940E	22	100	7	0.2	2	40
2600N	2060E	27	70	6	0.3	1	<5
2600N	2100E	15	38	6	0.1	1	<5
2600N	2140E	15	87	7	0.2	1	<5
2600N	2180E	17	55	6	0.1	1	<5
2600N	2180E*	16	55	6	0.1	1	<5
2600N	2260E	8	33	7	0.1	1	<5
2600N	2300E	22	38	9	0.1	1	<5
2600N	2340E	13	45	7	0.1	1	<5
2600N	2380E	19	50	11	0.1	1	<5
2600N	2420E	16	50	8	0.2	2	<5
2600N	2460E	16	63	10	0.1	1	<5
2600N	2500E	12	93	12	0.2	3	<5
2600N	2540E	17	43	7	0.1	3	<5
2600N	2580E	8	66	10	0.3	6	<5
2600N	2620E	11	60	12	0.1	2	<5
2600N	2660E	15	50	8	0.1	4	<5
2600N	2700E	16	94	12	0.2	26	<5
2600N	2740E	30	62	8	0.1	17	<5
2600N	2780E	16	95	9	0.1	13	<5
2600N	2820E	15	210	10	0.3	11	<5
2600N	2860E	32	143	17	0.5	75	25
2600N	2900E	30	120	19	0.3	87	20
2600N	2940E	47	96	10	0.2	8	20
2600N	2940E*	42	92	10	0.2	9	40
2610N	2220E	13	74	7	0.2	2	<5
2800N	2120E	14	46	9	0.1	1	<5
2800N	2240E	7	35	7	0.1	1	<5
2800N	2300E	17	52	15	0.1	1	<5
2800N	2340E	21	45	14	0.1	1	<5
2800N	2380E	11	35	10	0.1	1	40
2800N	2420E	16	100	10	0.3	1	<5
2800N	2460E	15	58	9	0.1	1	<5
2800N	2500E	11	29	10	0.2	1	<5
2800N	2540E	15	41	8	0.1	2	5
2800N	2580E	20	47	9	0.1	2	<5
2800N	2620E	8	70	10	0.1	3	<5
2800N	2660E	11	46	9	0.1	1	<5
2800N	2700E	10	71	6	0.2	4	<5
2800N	2740E	24	82	8	0.3	9	<5
2800N	2780E	16	60	8	0.1	1	<5
2800N	2820E	25	90	10	0.5	8	<5
2800N	2860E	13	74	9	0.1	1	<5
2800N	2860E*	13	70	9	0.1	3	<5
2800N	2900E	8	52	4	0.1	1	<5
2800N	2940E	20	40	4	0.1	1	<5
2900N	2040E	12	38	5	0.1	1	<5
2900N	2080E	9	48	7	0.1	1	<5
2900N	2160E	14	62	9	0.1	1	5
2900N	2200E	13	52	8	0.1	4	<5
2900N	2280E	15	78	8	0.2	2	<5
2975N	2040E	16	33	5	0.1	4	<5
2980N	2160E	10	52	5	0.1	1	<5
2980N	2160E*	10	57	6	0.1	1	<5
2980N	2360E	14	38	5	0.1	1	<5
2990N	2080E	15	32	6	0.1	1	<5
3000N	2120E	12	35	4	0.1	1	<5
3000N	2400E	14	35	5	0.1	2	<5

NORTH	EAST	Cu ppm	Zn ppm	Pb ppm	Ag ppm	As ppm	Au1 ppb
3000N	2440E	6	66	4	0.1	11	<5
3000N	2480E	7	70	4	0.1	13	25
3000N	2500E	6	97	3	0.1	2	5
3000N	2540E	10	52	4	0.1	1	<5
3000N	2580E	10	72	2	0.1	13	<5
3000N	2620E	14	47	5	0.1	1	<5
3000N	2660E	24	53	5	0.3	1	<5
3000N	2700E	23	67	6	0.2	1	<5
3000N	2740E	13	71	7	0.3	3	<5
3000N	2780E	12	67	6	0.2	1	<5
3000N	2820E	18	62	6	0.2	6	<5
3000N	2860E	19	55	7	0.1	4	<5
3000N	2900E	36	63	6	0.1	5	<5
3000N	2940E	14	44	3	0.2	2	<5
3000N	2940E*	13	46	5	0.2	2	<5
3200N	2060E	10	33	6	0.1	1	<5
3200N	2100E	12	48	5	0.1	2	<5
3200N	2140E	10	37	3	0.1	1	<5
3200N	2180E	21	42	5	0.1	1	<5
3200N	2220E	13	40	3	0.1	3	<5
3200N	2260E	16	38	5	0.3	2	<5
3200N	2300E	20	45	6	0.2	1	<5
3200N	2340E	16	62	6	0.1	4	<5
3200N	2380E	14	63	7	0.1	2	<5
3200N	2420E	13	48	7	0.1	1	<5
3200N	2500E	16	51	7	0.1	3	<5
3200N	2540E	17	57	8	0.2	1	<5
3200N	2580E	15	62	7	0.2	2	15
3200N	2620E	11	102	7	0.2	1	<5
3200N	2700E	12	54	7	0.2	1	10
3200N	2740E	10	57	7	0.1	1	300
3200N	2780E	18	62	9	0.1	4	<5
3200N	2820E	25	36	7	0.1	1	5
3200N	2860E	50	61	9	0.6	2	5
3200N	2900E	20	40	6	0.1	2	<5
3200N	2940E	12	40	6	0.1	1	<5
3400N	2060E	9	32	7	0.1	1	35
3400N	2140E	18	24	5	0.1	1	10
3400N	2190E	9	37	6	0.1	6	5
3400N	2220E	10	37	6	0.1	1	10
3400N	2260E	14	46	7	0.1	1	<5
3400N	2300E	10	38	6	0.1	1	<5
3400N	2340E	18	54	8	0.1	4	5
3400N	2380E	13	49	6	0.1	1	20
3400N	2420E	13	42	6	0.1	1	10
3400N	2460E	11	47	5	0.1	1	20
3400N	2500E	14	42	6	0.2	1	25
3400N	2540E	9	73	7	0.1	1	15
3400N	2580E	48	39	6	0.5	1	15
3400N	2580E*	50	36	7	0.6	3	*******
3400N	2620E	19	33	7	0.2	1	<5
3400N	2660E	28	43	7	0.2	1	5
3400N	2700E	13	41	6	0.1	1	5
3400N	2740E	16	40	6	0.1	1	15
3400N	2780E	12	50	7	0.1	7	35
3400N	2820E	13	53	6	0.1	2	25
3400N	2860E	70	65	5	0.2	1	<5
3400N	2900E	11	51	5	0.2	3	5
3400N	2940E	40	157	9	0.6	8	25
3400N	2940E*	40	156	10	0.6	11	20

NORTH	EAST	Cu ppm	Zn ppm	Pb ppm	Ag ppm	As ppm	Au1 ppb
3420N	2105E	10	63	8	0.2	6	<5
3600N	2060E	10	42	9	0.1	4	<5
3600N	2100E	10	28	6	0.1	3	<5
3600N	2140E	8	42	8	0.2	5	30
3600N	2180E	13	38	9	0.1	1	25
3600N	2220E	13	32	8	0.2	4	30
3600N	2260E	9	86	11	0.2	3	20
3600N	2300E	5	27	7	0.1	1	<5
3600N	2340E	12	74	8	0.3	6	5
3600N	2340E*	12	70	8	0.3	6	5
3600N	2380E	11	57	7	0.2	3	<5
3600N	2420E	9	65	8	0.1	5	<5
3600N	2460E	7	42	8	0.1	4	<5
3600N	2500E	9	78	9	0.1	3	15
3600N	2540E	16	40	10	0.3	8	50
3600N	2620E	12	40	7	0.2	3	<5
3600N	2660E	12	38	6	0.2	4	<5
3600N	2700E	9	38	7	0.1	6	5
3600N	2700E*	9	38	6	0.1	4	<5
3600N	2740E	15	31	7	0.3	3	<5
3600N	2780E	17	46	7	0.4	3	<5
3600N	2820E	17	40	6	0.2	7	<5
3600N	2860E	13	30	6	0.2	2	<5
3600N	2900E	8	60	8	0.1	6	15
3600N	2940E	20	58	8	0.3	1	<5
2040N	2500E	13	114	9	0.3	6	<5
2080N	2500E	34	78	9	0.3	2	<5
2120N	2500E	6	90	9	0.2	1	5
2160N	2500E	40	120	11	0.5	14	<5
2240N	2500E	16	47	10	0.2	2	<5
2280N	2500E	20	53	11	0.2	4	<5
2320N	2500E	13	40	8	0.1	1	5
2360N	2500E	9	36	8	0.1	1	<5
2440N	2500E	14	56	7	0.4	2	<5
2480N	2500E	16	80	8	0.3	1	<5
2520N	2500E	15	80	9	0.2	5	<5
2560N	2500E	36	57	11	0.2	4	<5
2640N	2500E	14	80	12	0.3	6	<5
2680N	2500E	16	68	10	0.4	5	<5
2720N	2500E	13	53	9	0.4	8	<5
2760N	2500E	18	52	8	0.2	7	<5
2840N	2500E	12	40	8	0.4	2	<5
2880N	2500E	8	44	8	0.3	1	<5
2920N	2500E	9	43	8	0.4	5	<5
2960N	2500E	10	71	8	0.2	6	<5
3040N	2500E	11	61	6	0.2	12	<5
3080N	2500E	24	65	5	0.6	89	<5
3120N	2500E	20	83	9	0.3	5	<5
3160N	2500E	17	68	7	0.4	5	<5
3240N	2500E	13	62	6	0.4	2	<5
3280N	2500E	14	52	6	0.2	2	<5
3320N	2500E	10	34	6	0.2	3	<5
3360N	2500E	15	52	7	0.4	4	<5
3440N	2500E	9	73	7	0.4	2	<5
3480N	2500E	7	47	7	0.4	1	<5
3480N*	2500E	7	45	6	0.4	2	<5
3520N	2500E	4	51	4	0.2	2	<5
3560N	2500E	6	50	6	0.2	3	<5
3640N	2500E	10	66	7	0.3	7	<5
3680N	2500E	22	92	9	1.3	6	<5

NORTH	EAST	Cu ppm	Zn ppm	Pb ppm	Ag ppm	As ppm	Au1 ppb
3720N	2500E	15	78	8	0.3	16	<5
3760N	2500E	14	56	7	0.2	7	<5
3840N	2500E	16	145	7	0.3	6	<5
3880N	2500E	12	60	6	0.2	7	<5
3920N	2500E	25	73	8	0.5	24	<5
3920N*	2500E	24	75	7	0.5	22	<5
3960N	2500E	21	86	8	0.3	15	<5
4040N	2500E	13	63	8	0.3	6	<5
4080N	2500E	29	45	7	0.7	3	<5
4120N	2500E	8	40	9	0.3	3	<5
4160N	2500E	45	134	17	1.2	1	<5
4240N	2500E	23	60	11	0.6	3	<5
4280N	2500E	37	75	10	0.7	8	<5
4320N	2500E	35	78	10	0.5	4	<5
4360N	2500E	26	72	8	0.6	1	<5
4440N	2500E	13	56	6	0.1	6	<5
4480N	2500E	18	50	6	0.1	6	<5
4520N	2500E	10	33	5	0.1	2	<5
4560N	2500E	14	53	5	0.1	4	<5
4640N	2500E	18	43	6	0.1	5	195
4685N	2500E	9	42	5	0.1	3	<5
4720N	2500E	11	67	6	0.3	2	<5
4760N	2500E	13	66	8	0.2	4	<5
4840N	2500E	17	40	5	0.2	1	<5
4840N*	2500E	17	40	5	0.2	3	<5
4880N	2500E	7	56	6	0.3	3	<5
4920N	2500E	10	51	6	0.1	3	10
4960N	2500E	17	81	7	0.2	9	<5
5040N	2500E	12	47	5	0.1	1	<5
5080N	2500E	6	19	2	0.1	1	<5
5120N	2500E	6	28	4	0.1	1	<5
5160N	2500E	13	44	13	0.3	5	<5
5240N	2500E	8	40	3	0.1	1	<5
5280N	2500E	7	58	6	0.1	3	<5
5320N	2500E	7	57	8	0.1	4	<5
5360N	2500E	8	52	5	0.1	3	15
5480N	2500E	17	41	3	1.1	1	<5
5520N	2500E	12	45	4	0.1	1	<5
3000N	2200E	10	31	5	0.4	5	<5
3000N	2240E	15	92	6	0.5	9	<5
3605N	2585E	17	60	6	0.2	12	<5
4400N	3300E	9	60	2	0.2	2	5
5400N	2500E	10	64	4	0.2	12	10
5440N	2500E	14	41	8	0.2	2	<5
5560N	2500E	20	42	5	0.4	5	10

* - lab duplicate

LINE	STAT.	HRIZN	COLOUR	TERR	ENV1	ENV2	DRAINAGE	CLAY	SILT	SAND	GRAVEL	ORGANICS	PARENT	DEPTH
5600N	2940E	B1	6OT	SS			FR		3	3	4		TI	10.00
5600N	2900E	B1	6TU	SS			FR		3	4	3		TI	20.00
5600N	2860E	B1	5TU	SS			FR		2	3	5		TI	20.00
5600N	2820E	B1	5T$	SS			FR		2	3	5		TI	20.00
5600N	2780E	A1	2NU	FT	SW		IP	=				9		25.00
5600N	2740E	B1	5T$	SS			FR		3	3	4		TI	25.00
5600N	2700E	B1	5T$	SS			FR		2	3	5		TI	20.00
5600N	2660E	B1	5OU	SS			FR		3	5	2		TI	15.00
5600N	2620E	B1	4OU	SS			FR		3	5	2		TI	20.00
5600N	2580E	B1	6OT	SS			FR		4	5	1		TI	5.00
5600N	2540E	B1	6T$	SS			FR		3	5	2		TI	20.00
5600N	2500E	B1	5OT	TP			FR		3	5	2		TI	20.00
5560N	2500E	B1	7T$	SS			FR		4	5	1		TI	10.00
5520N	2500E	B1	5OT	SS			FR		3	5	2		TI	15.00
5480N	2500E	A1	2NU	SS			IM	=				9		25.00
5440N	2500E	B1	7T$	SS			FR		3	3	4		TI	25.00
5400N	2500E	B1	6OT	SS			FR		3	4	3		TI	25.00
5400N	2540E	B1	5OU	SS			FR		4	3	3		TI	20.00
5400N	2580E	B1	5OT	SS			FR		3	4	3		TI	15.00
5400N	2620E	B1	5OU	HM			FR		4	3	3		TI	10.00
5400N	2660E	B1	5TU	SS			FR		3	4	3		TI	15.00
5400N	2700E	B1	5TU	SS			FR		4	3	3		TI	15.00
5400N	2740E	A1	5N$	FT	SW		IM					9	TI	30.00
5400N	2780E	B1	5TU	FT	SW		IM		3	3	4		TI	20.00
5400N	2820E	B1	5TU	HM			IP		3	2	5		TI	15.00
5400N	2860E	B1	5OU	HM			FR		4	3	3		TI	25.00
5400N	2900E	B1	5OU	HM			FR		4	3	3		TI	15.00
5400N	2940E	B1	5OU	HM			FR		4	3	3		TI	15.00
5200N	2940E	B1	5OU	SS			FR		3	4	3		TI	15.00
5200N	2900E	B1	6AT	SS			FR		4	5	1		TI	20.00
5200N	2860E	B1	6T$	SS			FR		3	5	2		TI	20.00
5200N	2820E	B1	6T$	SS			FR		3	5	2		TI	20.00
5200N	2780E	B1	6T$	SS			FR		3	5	2		TI	15.00
5200N	2740E	A1	2NU	SS			FR	=				9		25.00
5200N	2700E	A1	2NU	SS			FR	=				9		25.00
5200N	2620E	B1	4U$	SS			FR		3	4	3		TI	20.00
5200N	2580E	B1	6T$	SS			FR	+	4	3	3		TI	20.00
5200N	2540E	A1	3NU	SS			FR	=	+	+		8		25.00
5200N	2500E	B1	6OU	SS			FR		3	5	2		TI	20.00
5160N	2500E	B1	5U$	SS			FR		3	4	3		TI	20.00
5120N	2500E	B1	6T$	SS			FR		3	4	3		TI	15.00
5080N	2500E	B1	7AT	SS			IM		3	3	1	3	TI	20.00
5040N	2500E	B1	7T$	SS			IM		3	4	3		TI	15.00
5000N	2500E	B1	5TU	SS			FR		4	3	3		TI	20.00
5000N	2540E	B1	5OT	SS			FR		3	2	5		TI	20.00
5000N	2580E	B1	5OU	SS			FR		4	3	3		TI	25.00
5000N	2620E	B1	5OV	SS			FR		4	3	3		TI	20.00
5000N	2660E	A1	5N$	SS			FR					9	TI	30.00
5000N	2700E	B1	5TV	SS			FR		4	3	3		TI	15.00
5000N	2780E	B1	5TU	SS			FR	+	2	4			TI	15.00
5000N	2940E	B1	5TU	SS			FR		2	3	5		TI	15.00
3040N	2500E	B1	6OU	SS	BO	CC	FR		3	4	3		BR	15.00
3080N	2500E	A1	2NU	GV	SW	CC	IP	1	.	0	0	9		20.00
3120N	2500E	BC	5AU	HM	CC	BT	FR	1	3	4	2		TI	15.00
3160N	2500E	BC	6T$	HM	CC	BT	FR		1	7	2		TI	20.00
3400N	2500E	B1	5V$	SS	CC	BT	FR	=	4	2	3		TI	10.00
3400N	2540E	B1	5OU	SS	CC	BT	FR		4	2	2		TI	15.00
3400N	2580E	A0	2NU	SS	SW	BT	IP	)				9	TI	25.00
3400N	2620E	A0	5NA	SS	SW	BT	IP		1	5	3	1	AL	35.00
3400N	2660E	BC	5A$	SS	DG	BT	FR		2	4	4	.	TI	10.00

LINE	STAT.	HRIZN	COLOUR	TERR	ENV1	ENV2	DRAINAGE	CLAY	SILT	SAND	GRAVEL	ORGANICS	PARENT	DPTH
3400N	2700E	B1	6YU	SS			FR		4	3	3		TI	15.00
3400N	2760E	B1	5Y$	SS			FR		4	3	3		TI	8.00
3400N	2780E	B1	5OU	SS			FR		4	3	3		TI	15.00
3400N	2820E	B1	5YU	SS			FR		3	3	4		TI	15.00
3400N	2860E	A0	3NU	SS			IP	)				9	TI	30.00
3400N	2900E	B1	5U$	SS			FR		4	3	3		TI	20.00
3400N	2940E	B1	5OU	FL			FR		1	3	6		TI	15.00
3600N	2940E	A0	5NV	FL	SW		IP	0	0	6	0	X		50.00
3600N	2900E	B1	6OU	HM			FR	0	3	5	2	.	TI	20.00
3600N	2860E	B1	6OU	HM			FR	0	5	3	2	.	TI	25.00
3600N	2820E	B1	6YU	SS			FR	0	3	4	3		TI	15.00
3600N	2780E	AC	7AU	SS			FR	0	.	6	2	2	AL	20.00
3600N	2740E	AC	3AU	SS			IM	+	4	4	1	1	AL	15.00
3600N	2700E	B1	7Y$	SS			FR		3	5	2		TI	20.00
3600N	2660E	A0	3NU	SS			IM					X		25.00
3600N	2620E	AC	4AU	SS			FR	)	3	3	2	2	TI	30.00
3605N	2585E	B1	6OT	SS			FR		2	6	2		TI	40.00
3600N	2540E	B1	6U$	SS			FR	0	6	2	2		TI	15.00
3600N	2500E	B1	6YO	HM			FR		5	4	1		TI	20.00
3640N	2500E	B1	6OT	HM			FR		5	3	2		TI	10.00
3680N	2500E	B1	7U$	SS			FR		3	4	3		TI	15.00
3720N	2500E	B1	5Y$	FL			FR		3	4	3		TI	20.00
3760N	2500E	B1	6OT	HM			FR		5	3	2		TI	20.00
3800N	2500E	B1	6Y$	HM			FR		5	4	1		TI	25.00
3800N	2540E	B1	6OT	HM	BT		FR		3	5	2		TI	15.00
3800N	2580E	B1	6Y$	SS	BT		FR		4	4	2		TI	30.00
3800N	2620E	B1	4U$	SS	BT		FR		5	3	2		TI	15.00
3800N	2660E	B1	6YU	SS	BT		FR		3	5	2		TI	15.00
3800N	2700E	B1	5YU	SS	BT		FR		4	5	1		TI	20.00
3800N	2740E	B1	5U$	SS	BT		FR		3	4	3		TI	25.00
3800N	2780E	B1	5YU	SS	BT	1	FR		4	5	1		TI	20.00
3800N	2820E	B1	7Y$	SS	BT		FR		3	5	2		TI	20.00
3800N	2860E	B1	5YU	SS	BT		FR		3	4	3		TI	25.00
3800N	2900E	B1	5YU	HM			FR		3	4	3		TI	20.00
3800N	2940E	BC	5NU	SS			FR		3	3	4		BR	15.00
4000N	2940E	B1	6YU	SS			FR		3	5	2		TI	20.00
4000N	2900E	B1	6YU	SS			FR		3	4	3		TI	20.00
4000N	2860E	B1	4U$	SS			FR		3	4	3		TI	15.00
4000N	2820E	B1	5YU	SS			FR		3	4	3		TI	15.00
4000N	2780E	B1	6YU	SS			FR		2	4	4		TI	20.00
4000N	2740E	B1	6YU	SS			FR		3	5	2		TI	25.00
4000N	2700E	B1	5OT	SS			FR		3	5	2		TI	20.00
4000N	2660E	B1	6OT	SS			FR		4	5	1		TI	20.00
4000N	2620E	B1	7T$	SS			FR		4	5	1		TI	25.00
4000N	2580E	B1	7T$	SS			FR		4	5	1		TI	10.00
4000N	2540E	B1	7T$	SS			FR		4	5	1		TI	25.00
4000N	2500E	B1	6OU	SS			FR		4	5	1		TI	20.00
4040N	2500E	B1	6OU	SS			FR		3	5	2		TI	15.00
4080N	2500E	A1	2NU	SS			FR	3	=				AL	30.00
4120N	2500E	B1	5OT	SS			FR		3	5	2		TI	25.00
4160N	2500E	B1	5YU	SS	BT		FR		3	5	3		TI	20.00
4200N	2500E	B1	5Y$	SS			FR		4	3	3		TI	20.00
4200N	2540E	B1	4V$	SS			FR		4	3	3		TI	15.00
4200N	2580E	B1	5V$	SS			FR		4	3	3		TI	15.00
4200N	2620E	B1	5YA	SS			FR		3	3	1		TI	15.00
4200N	2660E	B1	5Y$	SS			FR		4	3	3		TI	20.00
4200N	2700E	B1	5Y$	FL			FR		2	4	4		TI	10.00
4200N	2740E	A1	2N$	FL			FR					X	TI	50.00
4200N	2780E	B1	5OU	SS			FR		4	3	3		TI	20.00
4200N	2820E	B1	5OU	SS			FR		5	3	2		TI	20.00

LINE	STAT.	HRIZN	COLOUR	TERR	ENV1	ENV2	DRAINAGE	CLAY	SILT	SAND	GRAVEL	ORGANICS	PARENT	DPTH
4200N	2860E	B1	5YU	SS			FR		3	2	5		TI	20.00
4200N	2900E	B1	5YU	SS			FR		3	3	4		TI	15.00
4200N	2940E	B1	5YU	SS			FR		3	5	2		TI	20.00
2000N	2500E	B1	6OU	SS			FR		3	4	3		TI	10.00
2000N	2540E	B1	5OU	HM			FR		3	5	2		TI	10.00
2000N	2580E	B1	6OU	FT			FR		2	3	5		TI	15.00
2000N	2620E	B1	5OU	FT			FR		3	4	3		TI	10.00
2000N	2660E	B1	7OU	SS			FR		3	3	4		TI	15.00
2000N	2700E	B1	6OU	SS			FR		3	4	3		TI	15.00
2000N	2740E	B1	6OU	SS			FR		3	4	3		TI	15.00
2000N	2780E	B1	5OU	SS			FR		3	4	3		TI	15.00
2000N	2820E	B1	5OU	SS			FR		3	5	2		TI	15.00
2000N	2860E	B1	5OU	SS			FR		3	5	2		TI	15.00
2000N	2900E	B1	6OU	FT			FR		3	6	1		AL	15.00
2000N	2940E	B1	5OU	FT			FR		2	4	4		TI	10.00
2200N	2940E	B1	4U$	SS			FR	+	4	3	2	+	TI	15.00
2200N	2900E	B1	6OU	TP			FR		3	4	3		TI	18.00
2200N	2860E	B1	5U$	SS			FR		3	4	3	.	TI	15.00
2200N	2820E	B1	4U$	SS			FR	)	4	5	1	+	TI	22.00
2200N	2780E	A1	2NU	FT	SW		IM	=	1	0	0	?	AL	30.00
2200N	2740E	B1	4U$	FT			IM		4	3	3		TI	25.00
2200N	2700E	B1	6YU	HM			IM		2	3	5		TI	20.00
2200N	2660E	B1	6YU	HM			FR		2	3	5		TI	15.00
2200N	2620E	B1	6OU	HM			FR		2	4	4		TI	20.00
2200N	2580E	B1	6OU	HM			FR		3	4	3		TI	25.00
2200N	2540E	B1	6OU	HM			FR		4	4	2		TI	15.00
2200N	2500E	A1	1NU	HM			IM	1	+	0	0	8	AL	25.00
2240N	2500E	BC	7T$	ST			FR		=	9			AL	30.00
2280N	2500E	BC	7T$	SS			FR		2	4	4		TI	30.00
2320N	2500E	B1	6T$	SS			FR		3	5	2		TI	10.00
2360N	2500E	B1	6T$	SS			FR		3	5	2		TI	40.00
2400N	2500E	B1	6T$	SS			FR		3	5	2		TI	30.00
2400N	2540E	B1	5OU	SS			FR		3	4	3		TI	20.00
2400N	2580E	B1	5OU	SS			FR		3	4	3		TI	15.00
2400N	2620E	B1	6U$	SS			FR		2	4	4		TI	20.00
2400N	2660E	B1	5OU	FT	CC	BT	FR		3	4	3		TI	10.00
2400N	2700E	B1	5OU	FT	CC	BT	FR		4	4	2		TI	5.00
2400N	2740E	B1	5OU	FT	CC	BT	FR		4	4	2		TI	5.00
2400N	2780E	B1	5V$	FT	CC	BT	FR		3	3	4		TI	15.00
2400N	2820E	B2	5RO	FT	CC	BT	FR		3	6	1		TI	10.00
2400N	2860E	B1	6V$	FT	CC	BT	FR		2	3	5		TI	10.00
2400N	2900E	B1	5T$	SS	CC	BT	FR		2	4	4		TI	15.00
2400N	2940E	B1	5V$	FT	CC	BT	FR		4	3	3		TI	15.00
2600N	2940E	B1	5V$	SS			FR		2	6	2		TI	15.00
2600N	2900E	B1	5A$	FL	CC		FR	=	8	1			AL	30.00
2600N	2860E	B1	6U$	FL	CC		FR		3	4	3		TI	30.00
2600N	2820E	B1	5A$	BS			FR		3	4	3		TI	20.00
2600N	2780E	B1	5AU	SS			FR		2	6	2		TI	20.00
2600N	2740E	B1	5A$	SS			FR		3	3	4		TI	20.00
2600N	2700E	B1	6U$	SS			FR		2	2	6		BR	25.00
2600N	2660E	B1	6T$	SS			FR		4	3	3		TI	20.00
2600N	2620E	B1	5OU	SS			FR		3	5	2		TI	20.00
2600N	2620E	B1	5AU	SS			FR		2	5	3		TI	20.00
3200N	2500E	B1	5T$	SS	CC	BT	FR		3	5	2		TI	15.00
3200N	2540E	B1	5OU	SS	CC	BT	FR		3	4	3		TI	10.00
3200N	2580E	B1	5T$	SS	CC	BT	FR		4	3	3		TI	15.00
3200N	2620E	B1	5T$	SS	CC	BT	FR	+	4	4	1		TI	10.00
3200N	2660E	B1	7V$	SS	CC	BT	FR	)	4	3	2		TI	15.00
3200N	2700E	B1	5T$	SS	CC	BT	FR		4	5	1		TI	10.00
3200N	2740E	B1	6T$	SS	CC	BT	FR	0	4	4	2	0	TI	18.00

LINE	STAT.	HRIZN	COLOUR	TERR	ENV1	ENV2	DRAINAGE	CLAY	SILT	SAND	GRAVEL	ORGANICS	PARENT	DPTH
3200N	2780E	B1	5OU	SS	CC	BT	FR	0	3	4	3	0	TI	15.00
3200N	2820E	B1	5T$	SS	CC	BT	FR	0	0	8	2	0	FG	20.00
3200N	2860E	B1	4RU	SS	CC	BT	FR	0	2	7	1	0	TI	20.00
3200N	2900E	BC	4T$	GV	CC	BT	IP	0	0	X	0	0	AL	25.00
3200N	2940E	B1	6T$	SS	CC	BT	FR	0	4	5	1	0	TI	20.00
3000N	2940E	B1	6T$	SS	CC	BT	FR	0	3	5	2	0	TI	20.00
3000N	2900E	B1	5U$	SS	CC	DG	FR	0	2	4	4	0	TI	10.00
3000N	2860E	B1	6T$	SS	CC	BT	FR	0	2	3	5	0	TI	15.00
3000N	2820E	B1	5OU	SS	CC	BT	FR	0	3	6	1	0	TI	15.00
3000N	2780E	B1	6T$	SS	CC	BT	FR	0	3	5	2	0	TI	20.00
3000N	2740E	B1	6T$	SS	CC	BT	FR	0	3	4	3	0	TI	15.00
3000N	2700E	B1	6T$	SS	CC	BT	FR	0	3	5	2	0	TI	15.00
3000N	2660E	B1	5T$	SS	CC	BT	FR	0	4	5	1	0	TI	10.00
3000N	2620E	B1	6OU	SS	CC	BT	FR	0	4	3	3	0	TI	12.00
3000N	2580E	B1	7OU	GV	CC	BT	FR	0	4	5	1	0	TI	15.00
3000N	2540E	B1	6T$	SS	CC	BT	FR	0	4	3	3	0	TI	15.00
3000N	2500E	B1	6TU	BM	CC	BO	FR	0	3	4	3	0	BR	20.00
2600N	2580E	B1	5AU	SS			FR		2	5	3		TI	20.00
2600N	2540E	B1	6T$	SS			FR		3	5	2		TI	20.00
2600N	2500E	B1	5OU	SS	CC		FR		3	5	2		TI	20.00
2640N	2500E	B1	5OU	SS	CC		FR		3	4	3		TI	15.00
2680N	2500E	B1	5OU	FL	CC		FR	3	3	1	=		TI	15.00
2760N	2500E	B1	6OU	FT	CC		FR	=	3	5	1		TI	15.00
2720N	2500E	B1	6U$	FL	CC		FR	2	3	4	1		TI	15.00
2800N	2500E	B1	6T$	BM	CC	BT	FR	.	4	5	1		TI	10.00
2800N	2540E	B1	5OU	BM	CC	BT	FR		4	5	1		TI	10.00
2800N	2580E	B1	6OU	BM	CC	BT	FR		4	5	1		TI	15.00
2800N	2620E	B1	7TU	BM	CC	BT	FR		3	5	2		TI	15.00
2800N	2660E	B1	7OU	BM	CC	BT	FR		3	4	3		TI	10.00
2800N	2700E	B1	6U$	SS	CC	BT	FR		3	4	3		TI	15.00
2800N	2740E	B1	6AU	SS			FR		3	5	2		BR	20.00
2800N	2780E	B1	6TU	SS			FR		3	5	2		TI	20.00
2800N	2820E	B1	6AU	SS			FR		3	5	2		TI	18.00
2800N	2860E	B1	6OU	SS			FR		4	5	1		TI	15.00
2800N	2900E	B1	5T$	FL			FR		3	6	1		TI	15.00
2800N	2940E	BC	6T$	FL	CC		FR	.	1	9	0		AL	10.00
4400N	2940E	B1	6T$	SS			FR		3	5	2		TI	15.00
4400N	2900E	B1	6OT	SS			FR		3	5	2		TI	15.00
4400N	2860E	B1	6OT	BM			FR		3	4	3		TI	15.00
4400N	2820E	B1	4AU	SS			FR		2	7	1		TI	25.00
4400N	2780E	B1	5TU	SS			IM		3	4	3		TI	25.00
4400N	2740E	B1	4U$	SS			FR		3	4	3		TI	20.00
4400N	2700E	B1	5TU	SS			FR		3	4	3		TI	25.00
4400N	2660E	B1	6T$	SS			FR		3	5	2		TI	20.00
4400N	2620E	B1	5TU	SS			FR		3	5	2		TI	10.00
4400N	2580E	B1	5OT	SS			FR		3	5	2		TI	15.00
4400N	2540E	B1	5OT	SS			FR		3	5	2		TI	15.00
4400N	2500E	B1	6T$	SS			FR		3	4	3		TI	20.00
4440N	2500E	B1	6OT	SS			FR		3	5	2		TI	15.00
4480N	2500E	B1	6OT	SS			FR		3	5	2		TI	15.00
4520N	2500E	A1	5H$	SS			IP	=				9	TI	25.00
4560N	2500E	B1	5OT	SS			FR		4	3	3		TI	20.00
4600N	2500E	B1	5OU	SS			FR		5	3	2		TI	15.00
4600N	2540E	B1	5TU	SS			FR		4	2	4		TI	15.00
4600N	2580E	B1	5AV	SS			FR		5	3	2		TI	20.00
4600N	2620E	A1	4H$	SS			IP	1				9	TI	25.00
4600N	2660E	B1	5AU	SS			FR		5	3	2		TI	30.00
4600N	2700E	B1	5AV	SS			FR		3	5	2		TI	25.00
4600N	2740E	B1	5OU	SS			FR		3	5	2		TI	15.00
4600N	2780E	B1	5OU	FT			FR		5	3	2		TI	15.00

LINE	STAT.	HRIZN	COLOUR	TERR	ENV1	ENV2	DRAINAGE	CLAY	SILT	SAND	GRAVEL	ORGANICS	PARENT	DPTH
4600N	2820E	B1	5YU	SS			FR		5	3	2		TI	20.00
4600N	2860E	XC	5AV	ST			IF			6	4		AL	10.00
4600N	2900E	B1	6AT	SS			FR		5	2	3		TI	15.00
4600N	2940E	B1	5YU	SS			FR		5	3	2		TI	20.00
4800N	2940E	B1	6T$	SS			FR		4	4	2		TI	20.00
4800N	2900E	B1	6OU	SM			FR		3	5	2		TI	15.00
4800N	2860E	B1	6OU	SS			FR		3	5	2		TI	20.00
4800N	2820E	B1	6OU	SS			FR		4	5	1		TI	15.00
4800N	2780E	B1	6YU	SS			FR		4	5	1		TI	20.00
4800N	2740E	B1	6OU	SS			FR		3	5	2		TI	20.00
4800N	2700E	BC	3NU	SS			FR		2	3	5		BR	5.00
4800N	2620E	B1	6YU	SS			FR		3	5	2		TI	15.00
4800N	2580E	B1	6AT	SS			FR		3	5	2		TI	25.00
4800N	2540E	B1	5OU	SS			FR		3	4	3		TI	15.00
4800N	2500E	B1	6AT	SS			FR		3	5	2		TI	15.00
2560N	2500E	B1	7T$	SS	CC	BT	IM	1	3	3	3		TI	15.00
2520N	2500E	B1	6OT	ST	CC	BT	FR		4	5	1		TI	10.00
2480N	2500E	B1	6OT	SS	CC	BT	FR		3	5	2		TI	15.00
2440N	2500E	B1	5OU	SS	CC	BT	FR		3	4	3		TI	15.00
2400N	2460E	B1	6OU	SS	CC	BT	FR	1	3	3	3		TI	10.00
2400N	2420E	31	7T$	SS			FR		3	4	3		TI	15.00
2400N	2380E	B1	7T$	SS			FR		4	5	1		TI	15.00
2400N	2340E	B1	8T$	SS			FR		3	4	3		TI	15.00
2400N	2300E	B1	7AT	SS			FR		3	3	4		TI	10.00
2400N	2260E	B1	7AT	SS			FR		3	3	4		TI	15.00
2400N	2220E	B1	6OT	SS			FR		3	5	2		TI	10.00
2400N	2180E	B1	6OT	SS			FR		3	4	3		TI	10.00
2400N	2140E	B1	5OU	SM			FR		3	4	3		TI	15.00
2400N	2100E	B1	5OU	SM			FR		2	3	5		TI	10.00
2400N	2060E	B1	6YU	SS			FR		3	3	4		TI	15.00
2200N	2060E	B1	6YU	SS			FR		4	3	3		TI	15.00
2200N	2100E	B1	5YU	SS			FR		3	3	4		TI	10.00
2200N	2140E	B1	5OT	SS			FR		4	3	3		TI	10.00
2200N	2180E	B1	5YU	SS			FR		3	3	4		TI	15.00
2200N	2220E	B1	5YU	SS			FR		3	4	3		TI	10.00
2200N	2260E	B1	5OU	SS			FR		3	3	4		TI	10.00
2200N	2300E	B1	5OT	SS			FR		2	5	3		TI	15.00
2200N	2340E	B1	5OU	SS			FR		5	3	2		TI	15.00
2200N	2380E	B1	4V$	SS	BT		FR		5	3	2		TI	20.00
2180N	2460E	B1	5OU	SS			FR			5	5		TI	20.00
2160N	2500E	B1	5OU	SS			FR		1	3	6		TI	15.00
2120N	2500E	B1	5OT	RG			FR		3	4	3		TI	10.00
2080N	2500E	B1	5YO	SS			FR		2	3	5		TI	15.00
2040N	2500E	B1	5OU	SS			FR		2	3	5		TI	10.00
2000N	2460E	B1	5OU	SM			FR		3	5	2		TI	10.00
2000N	2420E	B1	5OU	ST			FR		3	4	3		TI	10.00
2000N	2380E	B1	6T$	SS			FR		4	4	2		TI	20.00
2000N	2340E	A1	3U$	SS			FR	-	+			8		30.00
2000N	2300E	B1	6T$	SS			FR		5	4	1		TI	25.00
2000N	2260E	B1	5OU	SS			FR		2	3	5		TI	10.00
2000N	2220E	B1	6OT	SS			FR		3	3	4		TI	10.00
2000N	2180E	B1	6OT	SM			FR		3	3	4		TI	15.00
2000N	2140E	B1	5OU	SM			FR		2	2	5		TI	20.00
2000N	2100E	B1	5OU	SM			FR		2	2	5		TI	15.00
2000N	2060E	B1	6YU	SS			FR		3	3	4		TI	25.00
3440N	2500E	B1	5OU	SS	CC	BT	FR		5	4	1		TI	15.00
3480N	2500E	B1	5YU	SS	CC	BT	FR		4	4	2		TI	10.00
3520N	2500E	B1	6YU	SS	CC	BT	FR	1	3	2	2		TI	20.00
3560N	2500E	B1	5OT	SS	CC	BT	FR	-	3	4	2		TI	20.00
3600N	2460E	B1	6YU	SS			FR		4	3	3		TI	25.00

LINE	STAT.	HRIZN	COLOUR	TERR	ENV1	ENV2	DRAINAGE	CLAY	SILT	SAND	GRAVEL	ORGANICS	PARENT	DPTH
3600N	2420E	B1	7TU	SS			FR		4	3	3		TI	20.00
3600N	2380E	B1	7TU	SS			FR		3	4	3		TI	15.00
3600N	2340E	B1	5OU	SS			FR		3	4	3		TI	15.00
3600N	2300E	B1	6OU	SS	CC	BT	FR		3	3	4		TI	15.00
3600N	2260E	B1	7TU	SS	CC	BT	FR		4	4	2		TI	15.00
3600N	2220E	B1	5V$	SS	CC	BI	FR	-	3	4	3		TI	10.00
3600N	2180E	B1	5OT	FT	CC	BT	FR		4	4	2		TI	10.00
3600N	2140E	B1	5OU	SS	CC	BT	FR		4	4	2		TI	10.00
3600N	2100E	B1	5OU	FT	CC	BT	FR		3	3	4		TI	10.00
3600N	2060E	B1	5OU	FT	CC	BT	FR		3	3	4		TI	20.00
3800N	2060E	B1	5OU	SS			FR		3	4	3		TI	15.00
3800N	2100E	B1	6T$	SS			FR		3	3	4		TI	10.00
3800N	2140E	B1	6OT	SS			FR		3	5	2		TI	15.00
3800N	2180E	B1	5U$	SS			FR		4	5	1		TI	20.00
3800N	2220E	B1	6T$	SS			FR		3	5	2		TI	10.00
3800N	2260E	B1	8T$	FT			FR	)	4	4	2		TI	15.00
3800N	2300E	B1	6OT	SS			FR		3	5	2		TI	15.00
3800N	2340E	B1	3U$	SS			FR	+	4	3	1	2	TI	20.00
3800N	2380E	B1	8T$	SS			FR		4	3	3		TI	20.00
3800N	2420E	B1	6T$	SS			FR		4	4	2		TI	20.00
3800N	2460E	B1	4U$	SS			FR	-	4	3	2	1	TI	25.00
4200N	2060E	B1	5T$	RO			FR		2	3	4		TI	20.00
4000N	2060E	B1	7T$	SS	BO		FR		2	3	5		CL	20.00
4000N	2100E	BC	3UR	SS	BO		FR		2	2	5	1	TL	20.00
4000N	2140E	BC	3RU	SS			FR		1	1	7	1	TL	20.00
4000N	2180E	BC	7OU	SS	BS		FR		2	4	4	-	CL	10.00
4000N	2220E	AC	3A$	SS	BO		FR		-	2	7		BR	15.00
4000N	2280E	BC	3UA	BM			FR		1	1	6		BR	10.00
4000N	2320E	AC	3UA	SS			FR		3	3	3	1	CL	15.00
4000N	2360E	AC	3UA	SS			FR		4	2	3		TI	20.00
4000N	2400E	B1	6OU	SS			FR		2	3	5		CL	35.00
4000N	2440E	BC	5T$	SS			FR		2	5	2	-	CL	20.00
4000N	2480E	B1	5T$	SS			FR		2	3	4	-		20.00
4240N	2500E	BC	4AU	SS			FR		1	3	6		TI	25.00
4280N	2500E	A1	3NU	SS	SP		IM		1	1	5	3	CL	60.00
4320N	2500E	AC	4U$	SS			FR		-	1	8	-	CL	40.00
4360N	2500E	BC	5U$	SS			IM		1	3	6		CL	25.00
4600N	2060E	B1	6OU	RO			FR		2	4	4		GF	10.00
4600N	2100E	BC	6U$	SS			FR		2	3	5		TI	15.00
4600N	2140E	B1	6U$	SS			FR		2	4	4		TI	20.00
4600N	2180E	BC	6U$	SS			FR		3	3	4		TI	15.00
4600N	2220E	B1	7U$	SS			FR		3	4	3		TI	15.00
4600N	2260E	B1	6OU	SS			FR		2	4	4		GF	10.00
4600N	2300E	BC	6U$	SS			FR		6	2	2		CL	15.00
4600N	2340E	B1	6OU	SS			FR		2	4	4		TI	25.00
4600N	2380E	B1	6U$	SS	BM		FR		3	4	3		TI	15.00
4600N	2420E	B1	6OU	SS	BM		FR		1	4	4		BM	15.00
4600N	2460E	B1	6UO	SS	BM		FR		5	3	2		BM	10.00
3960N	2500E	B1	5T$	SS			FR		4	2	4		CL	20.00
3920N	2500E	BC	4U$	SS	BS		FR		6	3	3		CL	20.00
3880N	2500E	B1	6T$	SS			FR		5	4	1		TI	15.00
3840N	2500E	B1	4T$	SS			FR		4	2	4		TI	15.00
4200N	2460E	B1	5T$	SS			FR		4	2	4		CL	20.00
4200N	2420E	BC	4T$	SS			FR	-	3	1	5		CL	20.00
4200N	2380E	BC	4T$	SS			FR		3	3	3		CL	10.00
4200N	2340E	B1	5T$	SS			FR		1	4	5		TI	30.00
4200N	2300E	BC	4T$	SS			FR		2	4	4		TI	25.00
4200N	2260E	B1	5T$	SS			FR		2	4	4		TI	25.00
4200N	2220E	B1	7T$	SS			FR		1	4	4		CL	25.00
4200N	2180E	B1	6T$	SS			FR		2	6	2		TI	15.00

LINE	STAT.	MREN	COLOUR	TERR	ENV1	ENV2	DRAINAGE	CLAY	SILT	SAND	GRAVEL	ORGANICS	PARENT	DPTH
4200N	2140E	B1	6OU	RG			FR		2	3	5		TI	20.00
4200N	2100E	B1	6OU	RG			FR		1	3	5		TI	15.00
5600N	2460E	B1	7OU	HM	BS		FR		1	6	3		HM	10.00
5600N	2420E	BC	3U$	GV	ST		IM		2	4	4		AL	30.00
5600N	2380E	BC	6U$	BS			FR		1	5	4		WT	25.00
5600N	2340E	B1	3OT	SS			FR		2	5	3		WT	10.00
5600N	2300E	BC	4T$	TR			IM		1	3	6	-	GF	30.00
5600N	2260E	B1	4OT	SS	HM		FR		1	4	5		HM	15.00
5600N	2220E	B1	4OT	SS	HM		FR		1	4	5		HM	20.00
5595N	2180E	B1	4U$	BS	ST		FR		2	4	4		WT	25.00
5600N	2140E	B1	5U$	HM	ST		FR		2	3	4		WT	30.00
5600N	2100E	B1	4OT	HM	SS		FR		2	5	3		WT	20.00
5400N	2060E	B1	4OT	SS			FR		1	3	6		GF	15.00
5400N	2140E	BC	5U$	SS	HM		IM		-	3	6		GF	40.00
5415N	2180E	BC	4U$	BS	HM		FR			5	5		GF	20.00
5400N	2220E	B1	4U$	HM			FR			5	5		GF	25.00
5400N	2260E	B1	3OT	HM	TP		FR			5	5		HM	10.00
5400N	2300E	B1	3OT	HM	SS		FR		2	4	4	-	HM	10.00
5400N	2340E	B1	6U$	BS	HM		FR		1	4	4		HM	10.00
5400N	2380E	B1	3OT	HM	TP		FR		1	3	5		HM	10.00
5400N	2420E	B1	3OT	HM			FR		2	4	4		HM	15.00
5400N	2460E	B1	3OT	SS	HM		FR		2	4	4		HM	15.00
5360N	2500E	B1	6OU	HM			FR		1	3	5		HM	25.00
5320N	2500E	B1	3OT	HM	SS		FR		3	3	4		HM	15.00
5280N	2500E	B1	4T$	HM	SS		FR		3	3	4			30.00
5240N	2500E	BC	5GT	TR			IM		1	4	4	-	GF	40.00
4800N	2460E	B1	5T$	SS			FR		2	5	3		CL	15.00
4800N	2420E	B1	4OT	HM			FR		3	4	3		TI	7.00
4800N	2380E	B1	5T$	SS			FR		2	3	5	-	CL	20.00
4800N	2340E	B1	5TO	SS			FR		3	2	5		TI	20.00
4800N	2300E	BC	5VA	HM			IM		2	4	3	1	TI	15.00
4800N	2260E	BC	5TO	HM			FR		4	1	5		TI	30.00
4800N	2220E	B1	5T$	HM			FR		2	3	5		HM	20.00
4800N	2180E	BC	4AU	HM			IM		1	3	6		HM	30.00
4800N	2140E	B1	5U$	HM			FR		3	3	4		HM	15.00
4800N	2100E	B1	4OT	HM			FR		1	3	5		HM	15.00
4800N	2060E	B1	3OT	HM			FR		2	2	4		TI	15.00
3400N	2460E	B1	5T$	SS	CC	BT	FR		3	4	3		TI	10.00
3400N	2420E	B1	5T$	SS	CC	DG	FR		2	5	3		TI	20.00
3400N	2380E	B1	4T$	SS	CC	DG	FR		2	5	3		TI	30.00
3400N	2340E	B1	5OT	RT	CC	BT	FR		2	4	4		TI	10.00
3400N	2300E	BC	6OT	RT	CC	DG	FR		3	4	3		TI	35.00
3400N	2260E	BC	5GT	RT	CC		FR		2	4	4		TI	40.00
3400N	2220E	BC	6GT	RT	CC		FR		1	4	5		WT	20.00
3400N	2190E	BC	7T$	RT	CC		FR		1	4	5		WT	30.00
3400N	2140E	XC	8T$	RT	1	DG	FR		1	4	4		WT	20.00
3420N	2105E	B1	4OT	SS	CC		FR		2	6	2		WT	15.00
3400N	2060E	BC	5T$	HM	CC		FR		2	6	2		TI	20.00
3200N	2060E	XG	7BA	GV	CC	FR	IP	2	1	3	4		WT	35.00
3200N	2100E	B1	4OT	SS	CC		FR		1	5	3		GF	10.00
3200N	2140E	BC	5GT	SS	TR	CC	FR		1	6	3		WT	40.00
3200N	2180E	B1	6T$	SS		CC	FR		2	4	4		WT	20.00
3200N	2220E	BC	4T$	SS		CC	FR		2	3	5		WT	20.00
3200N	2260E	B1	3T$	SS	HM	CC	FR		1	6	3		WT	10.00
3200N	2300E	BC	3T$	SS		CC	IM		2	3	4		WT	15.00
3190N	2460E	B1	6T$	RT	CC	DG	FR		3	3	4		TI	20.00
3200N	2420E	B1	5TU	SS	CC	DG	FR		2	3	5		TI	10.00
3200N	2380E	B1	6OU	RT	CC	DG	FR		2	4	4			40.00
3200N	2340E	B1	5TO	RT	CC	DG	FR		2	3	5		TI	40.00
3240N	2500E	BC	6AT	HM	CC	DG	FR		2	2	6		TI	15.00

LINE	STAT.	HRIZN	COLOUR	TERR	ENV1	ENV2	DRAINAGE	CLAY	SILT	SAND	GRAVEL	ORGANICS	PARENT	DPTH
3280N	2500E	B1	4T$	HM	CC	DG	FR		2	4	4		TI	15.00
3320N	2500E	B1	5T$	HM	CC		FR		1	6	3		WT	15.00
3360N	2500E	B1	5T$	SS	CC		FR		3	3	4		TI	10.00
5200N	2460E	B1	64$	SS			FR		2	4	4		WT	20.00
5200N	2420E	BC	5U$	SS			FR		1	2	6		GF	20.00
5200N	2380E	B1	6OU	SS			FR		=	3	6		GF	20.00
5200N	2340E	B1	4OT	SS			FR		2	6	2		GF	10.00
5200N	2300E	B1	6OU	SS			FR		2	5	3		GF	15.00
5200N	2260E	B1	6OU	SS			FR		1	3	6		WT	15.00
5200N	2220E	B1	6U$	SS			FR		2	5	3		WT	10.00
5200N	2180E	B1	6OU	SS			FR		2	4	4		TI	25.00
5200N	2140E	B1	6U$	SS			FR		1	6	3		GF	15.00
5200N	2100E	B1	4OT	SS			FR		1	5	4		GF	15.00
5200N	2060E	B1	5U$	RG			FR		=	6	3		GF	15.00
5000N	2060E	B1	5OU	HM	TP		FR		2	7	1		GF	10.00
5000N	2100E	B1	7OU	HM	SS		FR		=	6	3		GF	10.00
5000N	2140E	B1	6U$	HM	SS		FR		=	5	4		GF	10.00
5000N	2180E	B1	6OU	HM	TP		FR		=	4	5		GF	10.00
5000N	2220E	B1	5T$	HM	TP		FR		=	5	4		GF	15.00
5000N	2260E	BC	3AT	HM	GV	FH	IM	1	1	=	5	2	CL	45.00
5000N	2300E	B2	4RU	HM	SS		FR		1	6	2		GF	10.00
5000N	2340E	B1	6OU	HM	RG		FR		=	5	4		GF	10.00
5000N	2380E	B1	5OU	HM	SS		FR		=	3	6		GF	15.00
5000N	2420E	B1	4OT	SS	TR		FR		=	5	4		GF	10.00
5000N	2460E	B1	4UO	SS	HM		FR		1	7	2		GF	20.00
4960N	2500E	B1	4OT	SS	HM		FR			4	6		GF	15.00
4920N	2500E	B1	6OU	SS	HM		FR		1	6	3		GF	15.00
4880N	2500E	B1	4OT	SS	TR		FR		=	4	5		GF	10.00
4840N	2500E	B1	5T$	SS	ST		FR		1	2	7	=	CL	25.00
4760N	2500E	B1	6OU	SS	HM		FR		4	1	4		CL	10.00
4720N	2500E	B1	5UO	HM	SS		FR		2	4	4		HM	10.00
4685N	2500E	B1	6OU	SS			FR		2	6	2		CL	15.00
4640N	2500E	BC	5U$	SS			FR		=	4	5	=	HM	25.00
4400N	2460E	A1	3U$	SS		FH	FR		=	1	7	/	CL	60.00
4400N	2420E	B1	5UT	SS			FR		1	4	4		CL	15.00
4400N	2380E	B1	5T$	SS			FR		=	4	5		GF	15.00
4400N	2340E	B1	5T$	SS			FR		2	5	3		CL	15.00
4400N	2300E	BC	5T$	SS			FR		3	2	5		TI	20.00
4400N	2260E	B1	6OU	SS			FR		1	4	4		GF	20.00
4400N	2220E	B1	3OT	SS			FR		3	4	3	=	TI	15.00
4400N	2180E	BC	6U$	SS			FR		1	2	6		TI	35.00
4400N	2140E	B1	5U$	SS			FR		3	4	3		TI	35.00
4400N	2100E	B1	7U$	RG	FL		FR		3	6	1		GF	20.00
4400N	2060E	B1	6OU	RG	FL		FR		T	4	5		GF	25.00
3000N	2240E	B1	6OU	HM	CC	DG	FR		3	2	4		TI	15.00
3000N	2200E	B1	7U$	HM	CC	DG	FR		3	4	3		TI	7.00
2980N	2160E	BC	7LU	HM	CC		FR		3	3	4		TI	10.00
3000N	2120E	B1	5U$	HM	CC	SW	IP		2	3	4	1	TI	25.00
2990N	2080E	BC	3T$	HM	CC	DG	FR		=	4	5		GF	25.00
2975N	2040E	B1	6OU	HM	BS		FR		1	5	4		GF	15.00
2980N	2360E	B1	6TU	BS	CC		FR		3	2	5		TI	10.00
3000N	2400E	BC	5TA	SS	CC		FR		3	3	4		TI	10.00
3000N	2440E	BC	5T$	TP	BO	CC	FR		3	2	4	=	CL	7.00
3000N	2480E	B1	7U$	TP			FR		3	3	4		CL	15.00
2960N	2500E	B1	4T$	BS	CC		FR		4	1	5		CL	20.00
2920N	2500E	B1	6OU	SS	CC		FR		2	5	3		TI	10.00
2880N	2500E	B1	6OU	SS	CC		FR		2	5	3		TI	20.00
2840N	2500E	BC	6U$	BS	CC		FR	1	3	1	5		TI	15.00
2800N	2460E	B1	7U$	HM	CC		FR		2	3	5		TI	10.00
2800N	2420E	B1	4OT	SS	CC		FR		2	2	6		TI	15.00

LINE	STAT.	HRIZN	COLOUR	TERR	ENV1	ENV2	DRAINAGE	CLAY	SILT	SAND	GRAVEL	ORGANICS	PARENT	DPTH
2800N	2380E	BC	6AU	HM	CC	DG	FR		3	1	6		TI	15.00
2800N	2340E	B1	6U$	HM	CC	DG	FR		1	3	6		WT	15.00
2800N	2300E	B1	3T$	HM	CC	DG	FR		3	2	5		TI	35.00
2900N	2280E	B1	6OU	SS	CC		FR		3	4	3		TI	15.00
2900N	2240E	BC	3T$	SS	CC	DG	FR		2	3	5		TI	20.00
2900N	2200E	B1	5OT	SS	CC		FR		2	3	5		TI	15.00
2900N	2160E	B1	5OT	SS	CC		FR		2	3	5		TI	10.00
2900N	2120E	B1	5T$	SS	CC		FR		3	1	6		TI	10.00
2900N	2080E	B1	5TO	RT	CC		FR		2	3	5		TI	10.00
2900N	2040E	BC	5OT	SS	CC	DG	FR		2	4	4		TI	15.00
2600N	2460E	B1	5T$	RT	CC		FR		2	4	4		TI	10.00
2600N	2420E	BC	5U$	FL	CC	DG	FR		2	3	4		TI	15.00
2000N	2380E	BC	5U$	FL	CC	DG	FR		2	3	4		TI	15.00
2600N	2340E	B1	6OT	FL	CC	DG	FR		3	4	3		TI	20.00
2600N	2300E	BC	7V$	HM	CC	DG	FR		1	2	7		TI	20.00
2600N	2260E	B1	7T$	HM	CC	DG	FR		2	5	3		WT	15.00
2610N	2220E	B1	5TO	HM	CC		FR		4	2	4		TI	10.00
2600N	2180E	B1	6U$	HM	CC	BS	FR		2	4	4		WT	15.00
2600N	2140E	BC	7AU	SS			FR		-	2	7	-	WT	20.00
2600N	2100E	B1	4T$	SS			FR		3	3	4		TI	15.00
2600N	2060E	BC	5U$	SS			FR		2	3	5		TI	20.00

HRZN - SOIL HORIZON

A0	Partially decomposed organic debris with no mineral matter.
A1	Dark brown to black organic rich horizon with some mineral matter.
B1	Brown to orange-brown soil. Characterized by accumulation of clay and < 30% organic matter.
B2	Rusty brown soil characterized by accumulation of iron oxides.
XC	Parent material derived by weathering and consists essentially of decomposed rock in situ.
AC	A lithosol consisting of a thin organic layer overlying rock fragments.
BC	Immature soils lacking distinct horizons; soil usually consisits of partially developed B and C material.

TERR - LOCAL TERRAIN

RG	Ridge crest
TP	Knoll or hill top
SS	Sidehill slope
BS	Base of slope
VF	Valley floor
HM	Rolling or hummocky ground
TR	Terrace
GV	Depression of gulley
ST	Bank of stream or channel

ENV1 & ENV2 - SECONDARY FACTORS AFFECTING ENVIRONMENT

SW	Swamp, bog, or fen
SP	Groundwater seepage area
BO	Base of outcrop
GO	Gossan
CA	Caliche
PF	Permafrost
CS	Cemented soil
DG	Disturbed ground
RB	Road bed
BT	Burnt over
AG	Agricultural land
MN	Prospect trenches

DRAINAGE

EX	Excessive - all water moves rapidly down through the soil, site seldom saturated.
FR	Free - Normal soil with dominant downward water movement, site occasionally waterlogged.
IM	Imperfect - Site seasonally or perennially waterlogged but with unobstructed downward or lateral wtar movement.
IP	Impeeded - Water seasonally or Perennially ponded in soil, leaving site by flow across the surface.
IR	Irrigated - Water supplied to site by artificial means.

PARENT

BR	Bedrock - intensely weathered rock.
TL	Talus - soils developed on talus or broken rock, usually on slopes.
CL	Colluvium - soils developed on material of uncertain origin as a result of mass sidehill wasting.
AL	Alluvium - soils developed on recent fluvial deposits.
TI	Glacial Till - soils on basal till, drumlinised till plains and morraine deposit.
FG	Fluvioglacial - outwash materials.
GL	Lacustrine Deposits - fine to coarse, usually stratified sediments deposited in old lakes.
MT	Mine Waste - spoil heaps and tailings from old workings.

THE G-SCALE

SCALE VALUE	ASSIGNED VALUE	RANGE
X	100%	100%
9	90	85 TO 99
8	80	75 TO 85
7	70	65 TO 75
6	60	55 TO 65
5	50	45 TO 55
4	40	35 TO 45
3	30	25 TO 35
2	20	15 TO 25
1	10	7 TO 15
=	5	3 TO 7
+	2.5	2 TO 3
)	1.0	0.5 TO 2
*	0.3	0.2 TO 0.5
(	0.1	0.05 TO 0.2
-	0.03	0.02 TO 0.05
.	0.01	TRACE TO 0.02
0	0	NIL, ABSENT
?	0	POSSIBLY PRESENT
/	0.07	PRESENT: ESTIMATE NOT POSSIBLE

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

PDI Data Analysis System - STATS

run on 88:12:02 at 11:22:15

Current directory: /placer1_1e/expl/nat/gchm

V230 NAT SOILS

Summary of data from file : soil.gchm

This data file contains an internal header: (5 records)
Data grouped into 8 fields
with format: (2F8.0, 6F10.2)

Character ID fields:

Coordinate fields:
NORT EAST

Other data fields:
CU ZN PB AG AS AU1

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	
CU	495	0	4.00000	163.000	16.9919	11.5020	14.9354	9.30738	23.9667
ZN	495	0	19.0000	210.000	63.5879	27.5784	58.8088	40.0052	86.4506
PB	495	0	2.00000	80.0000	7.22424	4.11625	6.74765	4.79369	9.49806
AG	495	0	0.100000	1.30000	0.227878	0.175155	0.184704	0.997428e-01	0.342035
AS	495	0	1.00000	89.0000	4.27273	7.35207	2.53700	0.994257	6.47353
AU1	495	0	2.50000	730.000	10.7980	47.0565	3.74343	1.46710	9.55168

CORMAT: RUN ON 88:12:02 AT 11:22:15

Data from file: soil.gchm

V230 NAT SOILS

Correlation matrix for 495 records with 6 variables

	CU	ZN	PB	AG	AS	AU1
LOG:	1	1	1	1	1	1
CU	1.000	0.432	0.355	0.394	0.186	0.076
ZN	0.432	1.000	0.402	0.346	0.284	0.121
PB	0.355	0.402	1.000	0.211	0.236	0.101
AG	0.394	0.346	0.211	1.000	0.154	-0.073
AS	0.186	0.284	0.236	0.154	1.000	0.147
AU1	0.076	0.121	0.101	-0.073	0.147	1.000

Number of data pairs contributing to correlation

	CU	ZN	PB	AG	AS	AU1
CU	495	495	495	495	495	495
ZN	495	495	495	495	495	495
PB	495	495	495	495	495	495
AG	495	495	495	495	495	495
AS	495	495	495	495	495	495
AU1	495	495	495	495	495	495

HISTO: V230 MAT SOILS RUN ON 88:12:02 AT 11:22:15

File: soil.gchm Field name: CU LOG = 1 REFVAL = 0.00100

495 SAMPLES WITH CU MINIMUM: 4.00000 MAXIMUM: 163.000

495 VALUES PLOTTED: 0 NOT IN RANGE 4.00000 to 163.000

GEOMETRIC MEAN: 14.9354 DISPERSION: 9.30738 23.9667

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

N	MIDPOINT	PERCENT	0 10.0 20 30 40 50 60 70 80 90 100
1	4.0000	0.20	I*
0	4.3885	0.00	I
3	4.8147	0.61	I***
0	5.2823	0.00	I
8	5.7953	1.62	I********
0	6.3581	0.00	I
12	6.9756	2.42	I************
19	7.6530	# 3.84	I*******************
0	8.3963	0.00	I
27	9.2117	5.45	I***************************
43	10.106	8.69	I***
29	11.088	5.86	I*****************************
29	12.165	5.86	I*****************************
45	13.346	9.09	I***
69	14.642	# 13.94	I***
37	16.064	7.47	I************************************
46	17.624	9.29	I***
33	19.336	6.67	I********************************
15	21.214	3.03	I***************
15	23.274	3.03	I***************
11	25.534	2.22	I**********
7	28.014	1.41	I*******
9	30.735	1.82	I*********
9	33.720	1.82	I*********
6	36.994	# 1.21	I******
7	40.587	1.41	I*******
5	44.529	1.01	I*****
4	48.854	0.81	I****
1	53.598	0.20	I*
1	58.803	0.20	I*
1	64.514	0.20	I*
1	70.780	0.20	I*
1	77.654	0.20	I*
0	85.195	0.00	I
0	93.469	0.00	I
0	102.55	0.00	I
0	112.51	0.00	I
0	123.43	0.00	I
0	135.42	0.00	I
0	148.57	0.00	I
1	163.00	0.20	I*
495			0 10.0 20 30 40 50 60 70 80 90 100

Popⁿ 1

← — — — — breakpoint 27 ppm

Popⁿ 2 ?

Notes

99% < 50 ppm

3 samples > 50 ppm

highest 163 ppm Cu

HISTO: V230 MAT SOILS RUN ON 88:12:02 AT 11:22:15

File: soil.gchm Field name: ZN LOG = 1 REFVAL = 0.00100

495 SAMPLES WITH ZN MINIMUM: 19.0000 MAXIMUM: 210.000

495 VALUES PLOTTED: 0 NOT IN RANGE 19.0000 to 210.000

GEOMETRIC MEAN: 58.8088 DISPERSION: 40.0052 86.4506

SCALE OF HISTOGRAM IS 0.50 COUNTS /PRINT POSITION # = 5,50,95%

N	MIDPOINT	PERCENT	
1	19.000	0.20	I**
0	20.176	0.00	I
0	21.425	0.00	I
0	22.752	0.00	I
2	24.160	0.40	I***
2	25.656	0.40	I****
4	27.244	0.81	I********
2	28.931	0.40	I****
6	30.722	1.21	I************
10	32.624	# 2.02	I********************
7	34.643	1.41	I**************
11	36.788	2.22	I**********************
45	39.066	9.09	I** ??
18	41.484	3.64	I************************************
30	44.052	6.06	I**
27	46.779	5.45	I**
20	49.675	4.04	I**
30	52.751	6.06	I**
32	56.016	6.46	I**
37	59.484	# 7.47	I**
36	63.166	7.27	I***
20	67.077	4.04	I**
30	71.229	6.06	I**
17	75.639	3.43	I**********************************
28	80.322	5.66	I**
7	85.294	1.41	I**************
15	90.575	3.03	I******************************
9	96.182	1.82	I******************
13	102.14	2.63	I**************************
2	108.46	0.40	I****
3	115.17	0.61	I******
10	122.30	# 2.02	I********************
6	129.88	1.21	I************
2	137.92	0.40	I****
6	146.45	1.21	I************
2	155.52	0.40	I****
2	165.15	0.40	I****
1	175.37	0.20	I**
0	186.23	0.00	I
1	197.76	0.20	I**
1	210.00	0.20	I**
495			

0 5.0 10.0 15 20 25 30 35 40 45 50

Pop^n 1

← — — — — breakpoint 105 ppm

Pop^n 2

Notes

98.5% < 150 ppm

7 samples > 150 ppm

highest 210 ppm Zn

```
HISTO:                    V230 MAT SOILS                    RUN ON 88:12:02  AT  11:22:15

File: soil.gchm              Field name: PB      LOG = 1  REPVAL =   0.00100
                                         ----
 495 SAMPLES WITH PB     MINIMUM:   2.00000          MAXIMUM:  80.0000

 495 VALUES PLOTTED:     0 NOT IN RANGE   2.00000     to  80.0000

    GEOMETRIC MEAN:        6.74765        DISPERSION:  4.79369     9.49806

  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
  4   2.0000       0.81  I**                                                                                                  I
  0   2.1932       0.00  I                                                                                                    I
  0   2.4051       0.00  I                                                                                                    I
  0   2.6375       0.00  I                                                                                                    I
 10   2.8923       2.02  I*****                                                                                               I
  0   3.1717       0.00  I                                                                                                    I
  0   3.4781       0.00  I                                                                                                    I
  0   3.8141       0.00  I                                                                                                    I
 25   4.1826    #  5.05  I************                                                                                          I
  0   4.5866       0.00  I                                                                                                    I
 71   5.0297      14.34  I**********************************                                                                  I
  0   5.5156       0.00  I                                                                                                    I
113   6.0485      22.83  I*******************************************************                                           I
  0   6.6328       0.00  I                                                                                                    I
100   7.2736    # 20.20  I************************************************                                                    I
 74   7.9763      14.95  I************************************                                                              I
 40   8.7469       8.08  I*******************                                                                               I
 26   9.5919       5.25  I************                                                                                        I
 13   10.519    #  2.63  I******                                                                                            I
  9   11.535       1.82  I*****                                                                                           I
  1   12.649       0.20  I*                                                                                               I
  1   13.871       0.20  I*                                                                                               I
  1   15.211       0.20  I*                                                                                               I
  3   16.681       0.61  I*                                                                                               I
  1   18.292       0.20  I*                                                                                               I
  0   20.059       0.00  I                                                                                                I
  1   21.997       0.20  I*                                                                                               I
  0   24.122       0.00  I                                                                                                I
  0   26.453       0.00  I                                                                                                I
  1   29.008       0.20  I*                                                                                               I
  0   31.811       0.00  I                                                                                                I
  0   34.884       0.00  I                                                                                                I
  0   38.254       0.00  I                                                                                                I
  0   41.950       0.00  I                                                                                                I
  0   46.002       0.00  I                                                                                                I
  0   50.447       0.00  I                                                                                                I
  0   55.320       0.00  I                                                                                                I
  0   60.665       0.00  I                                                                                                I
  0   66.525       0.00  I                                                                                                I
  0   72.952       0.00  I                                                                                                I
  1   80.000       0.20  I*                                                                                               I
-----                    I---------I---------I---------I---------I---------I---------I---------I---------I---------I---------I
 495                     0        20        40        60        80        100       120       140       160       180       200
```

lognormal dist^n
single population

Notes

98% < 12 ppm

10 samples > 12 ppm

highest 80 ppm Pb

```
HISTO:                        V230 MAT SOILS                          RUN ON 88:12:02  AT  11:22:15

File: soil.gohm                  Field name: AG       LOG = 1  REPVAL =   0.00100
                                             ----
 495 SAMPLES WITH AG      MINIMUM:  0.100000            MAXIMUM:  1.30000

 495 VALUES PLOTTED:      0 NOT IN RANGE  0.100000      to  1.30000

    GEOMETRIC MEAN:         0.184704          DISPERSION: 0.997428e-010.342035

  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
209   0.10000   # 42.22  I**************************************************                                                    I
  0   0.10662      0.00  I                                                                                                   I
  0   0.11368      0.00  I                                                                                                   I
  0   0.12121      0.00  I                                                                                                   I
  0   0.12924      0.00  I                                                                                                   I
  0   0.13780      0.00  I                                                                                                   I
  0   0.14692      0.00  I                                                                                                   I
  0   0.15665      0.00  I                                                                                                   I
  0   0.16703      0.00  I                                                                                                   I
  0   0.17809      0.00  I                                                                                                   I
  0   0.18988      0.00  I                                                                                                   I
129   0.20246   # 26.06  I********************************                                                                    I
  0   0.21587      0.00  I                                                                                                   I
  0   0.23016      0.00  I                                                                                                   I
  0   0.24540      0.00  I                                                                                                   I
  0   0.26165      0.00  I                                                                                                   I
  0   0.27898      0.00  I                                                                                                   I
 81   0.29746     16.36  I********************                                                                              I
  0   0.31716      0.00  I                                                                                                   I
  0   0.33816      0.00  I                                                                                                   I
  0   0.36056      0.00  I                                                                                                   I
  0   0.38443      0.00  I                                                                                                   I
 34   0.40989      6.87  I*********                                                                                         I
  0   0.43704      0.00  I                                                                                                   I
  0   0.46598      0.00  I                                                                                                   I
 16   0.49684      3.23  I****                                                                                              I
  0   0.52974      0.00  I                                                                                                   I
  0   0.56482      0.00  I                                                                                                   I
 11   0.60223   #  2.22  I***                                                                                               I
  0   0.64211      0.00  I                                                                                                   I
  4   0.68463      0.81  I*                                                                                                  I
  0   0.72997      0.00  I                                                                                                   I
  5   0.77831      1.01  I*                                                                                                  I
  0   0.82986      0.00  I                                                                                                   I
  0   0.88481      0.00  I                                                                                                   I
  0   0.94341      0.00  I                                                                                                   I
  1    1.0059      0.20  I                                                                                                   I
  3    1.0725      0.61  I*                                                                                                  I
  0    1.1435      0.00  I                                                                                                   I
  1    1.2193      0.20  I                                                                                                   I
  1    1.3000      0.20  I                                                                                                   I
-----                    I---------I---------I---------I---------I---------I---------I---------I---------I---------I---------I
 495                     0        40        80        120       160       200       240       280       320       360       400
```

below detection

detection limit 0.02 ppm

Notes

98.5% < 1.0 ppm

6 samples > 1.0 ppm

highest 1.3 ppm

HISTO: V230 MAT SOILS RUN ON 88:12:02 AT 11:22:15

File: soil.gchm Field name: AS LOG = 1 REPVAL = 0.00100

495 SAMPLES WITH AS MINIMUM: 1.00000 MAXIMUM: 89.0000

495 VALUES PLOTTED: 0 NOT IN RANGE 1.00000 to 89.0000

GEOMETRIC MEAN: 2.53700 DISPERSION: 0.994257 6.47353

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
206	1.0000	# 41.62	I**********
0	1.1188	0.00	I
0	1.2516	0.00	I
0	1.4002	0.00	I
0	1.5665	0.00	I
0	1.7526	0.00	I
45	1.9607	# 9.09	I**********
0	2.1935	0.00	I
0	2.4540	0.00	I
0	2.7454	0.00	I
46	3.0715	9.29	I**********
0	3.4362	0.00	I
54	3.8443	10.91	I**********
0	4.3008	0.00	I
28	4.8116	5.66	I*******
0	5.3830	0.00	I
29	6.0222	5.86	I*******
17	6.7374	3.43	I****
0	7.5375	0.00	I
17	8.4326	3.43	I****
11	9.4340	2.22	I***
14	10.554	2.83	I****
3	11.808	0.61	I*
8	13.210	# 1.62	I**
4	14.779	0.81	I*
5	16.534	1.01	I*
1	18.497	0.20	I
0	20.694	0.00	I
2	23.151	0.40	I*
2	25.900	0.40	I*
0	28.976	0.00	I
0	32.417	0.00	I
0	36.267	0.00	I
0	40.574	0.00	I
0	45.392	0.00	I
0	50.783	0.00	I
0	56.813	0.00	I
0	63.560	0.00	I
1	71.108	0.20	I
0	79.553	0.00	I
2	89.000	0.40	I*
495			0 40 80 120 160 200 240 280 320 360 400

below detection

detection limit 2 ppm

Notes

98.5% < 20 ppm

7 samples > 20 ppm

highest 89 ppm As

HISTO: V230 MAT SOILS RUN ON 08:12:02 AT 11:22:15

File: soil.gchm Field name: AU1 LOG = 1 REPVAL = 0.00100

495 SAMPLES WITH AU1 MINIMUM: 2.50000 MAXIMUM: 730.000

495 VALUES PLOTTED: 0 NOT IN RANGE 2.50000 to 730.000

GEOMETRIC MEAN: 3.74343 DISPERSION: 1.46710 9.55168

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
390	2.5000	# 78.79	I**********
0	2.8812	0.00	I
0	3.3205	0.00	I
0	3.8269	0.00	I
0	4.4104	0.00	I
28	5.0829	5.66	I*******
0	5.8580	0.00	I
0	6.7512	0.00	I
0	7.7807	0.00	I
0	8.9671	0.00	I
19	10.334	3.84	I*****
0	11.910	0.00	I
0	13.726	0.00	I
15	15.819	3.03	I****
0	18.232	0.00	I
10	21.012	2.02	I***
6	24.215	1.21	I**
0	27.908	0.00	I
4	32.163	# 0.81	I*
4	37.068	0.81	I*
4	42.720	0.81	I*
3	49.234	0.61	I*
0	56.741	0.00	I
0	65.394	0.00	I
1	75.365	0.20	I
1	86.857	0.20	I
1	100.10	0.20	I
1	115.36	0.20	I
0	132.96	0.00	I
0	153.23	0.00	I
3	176.59	0.61	I*
1	203.52	0.20	I
0	234.56	0.00	I
1	270.32	0.20	I
1	311.54	0.20	I
0	359.05	0.00	I
0	413.79	0.00	I
1	476.89	0.20	I
0	549.61	0.00	I
0	633.42	0.00	I
1	730.00	0.20	I
495			0 40 80 120 160 200 240 280 320 360 400

below detection

detection limit 5ppb Au

HISTO: V230 KAT SOILS RUN ON 88:12:02 AT 11:22:15

File: soil.gchm Field name: AU1 LOG = 1 REPVAL = 0.00100

495 SAMPLES WITH AU1 MINIMUM: 2.50000 MAXIMUM: 730.000

105 VALUES PLOTTED: 390 NOT IN RANGE 5.00000 to 730.000

GEOMETRIC MEAN: 16.7685 DISPERSION: 5.39381 52.1305

SCALE OF HISTOGRAM IS 0.40 COUNTS /PRINT POSITION # = 5,50,95%

N	MIDPOINT	PERCENT	0 4.0 8.0 12 16 20 24 28 32 36 40
28	5.0000	# 26.67	I**********
0	5.6634	0.00	I
0	6.4149	0.00	I
0	7.2660	0.00	I
0	8.2301	0.00	I
0	9.3221	0.00	I
19	10.559	18.10	I**********
0	11.960	0.00	I
0	13.547	0.00	I
15	15.344	# 14.29	I**********
0	17.380	0.00	I
10	19.686	9.52	I**********
0	22.299	0.00	I
6	25.257	5.71	I**********
4	28.608	3.81	I**********
0	32.404	0.00	I
4	36.704	3.81	I**********
4	41.574	3.81	I**********
3	47.090	2.86	I*******
0	53.338	0.00	I
0	60.415	0.00	I
0	68.431	0.00	I
1	77.511	0.95	I**
1	87.796	0.95	I**
1	99.445	0.95	I**
1	112.64	0.95	I**
0	127.58	0.00	I
0	144.51	0.00	I
1	163.69	0.95	I**
3	185.41	# 2.86	I*******
0	210.01	0.00	I
0	237.87	0.00	I
1	269.43	0.95	I**
1	305.18	0.95	I**
0	345.68	0.00	I
0	391.54	0.00	I
0	443.49	0.00	I
1	502.34	0.95	I**
0	568.99	0.00	I
0	644.49	0.00	I
1	730.00	0.95	I**
105			0 4.0 8.0 12 16 20 24 28 32 36 40

detection limit 5 ppb Au

← — — — breakpoint 20 ppb

← — — — — 60 ppb

← — — — — — 120 ppb

← — — — — — 400 ppb

APPENDIX 5

ROCK SAMPLE ANALYTICAL RESULTS

SAMPLE	LENGTH m	Cu ppm	Zn ppm	Pb ppm	Ag ppm	As ppm	Au1 ppb	Description
33307	5	87	31	92	2.1	2	<5	- black, fissile, carbonaceous argillite
33308	2	28	18	13	0.2	2	<5	- black, fissile, carbonaceous argillite
33309	2	247	22	4	0.1	30	<5	- Fe-carbonate altered, silicified ultramafic
33310	2	5	100	6	0.1	160	<5	- Fe-carbonate altered, silicified ultramafic
33311	2	11	28	5	0.1	210	<5	- Fe-carbonate altered, silicified ultramafic
33312	3	20	36	11	0.1	90	<5	- Fe-carbonate altered, silicified ultramafic
33313	3	9	28	11	0.1	170	<5	- Fe-carbonate altered, silicified ultramafic
33314	3	8	26	2	0.1	3	55	- Fe-carbonate altered, silicified ultramafic
33315	3	5	24	2	0.1	1	35	- Fe-carbonate altered, silicified ultramafic
33316	2	8	22	4	0.1	1	5	- Fe-carbonate altered, silicified ultramafic
33317	3	15	37	5	0.1	1	30	- Fe-carbonate altered, silicified ultramafic
33318	2	3	18	3	0.1	28	<5	- Fe-carbonate altered, silicified ultramafic
33319	3	3	21	3	0.1	110	<5	- Fe-carbonate altered, silicified ultramafic
33320	3	7	31	5	0.1	30	<5	- Fe-carbonate altered, silicified ultramafic
33321	2	7	20	2	0.1	10	<5	- Fe-carbonate altered, silicified ultramafic
33326	6	2	25	2	0.1	1	<5	- Fe-carbonate altered, silicified ultramafic
33327	4	8	16	3	0.1	1	<5	- Fe-carbonate altered, silicified ultramafic
33328	6	8	24	2	0.1	1	<5	- Fe-carbonate altered, silicified ultramafic
33328*		7	24	2	0.1	1	****	
33329	10	16	41	3	0.1	14	<5	- dark green, coarse grained, magnetic ultramafic
33330	10	20	43	2	0.1	12	<5	- dark green, coarse grained, magnetic ultramafic
33331	5	8	25	3	0.1	1	<5	- Fe-carbonate altered, silicified ultramafic
33332	2	16	62	18	0.4	1	20	- black, fissile, carbonaceous argillite
33332*		16	62	18	0.4	1	5	

* - lab duplicate

APPENDIX 6

ANALYTICAL EXTRACTION AND DETECTION TECHNIQUES

TABLE 1

Analytical Extraction and Detection Techniques used by Placer Dome's Vancouver Geochemical Laboratory

	UNITS	WT.G	ATTACK USED	TIME	RANGE	METHOD
Cu	ppm	0.5	$HClO_4/HNO_3$	4 Hrs	2-4000	Atomic Absorption
Zn	ppm	0.5	$HClO_4/HNO_3$	4 Hrs	2-3000	Atomic Absorption
Pb	ppm	0.5	$HClO_4/HNO_3$	4 Hrs	2-3000	A.A. Background Cor.
Ag	ppm	0.5	$HClO_4/HNO_3$	4 Hrs	0.2-20	A.A. Background Cor.
Au1	ppb	10.0	Aqua Regia	3 Hrs	5-4000	A.A. Solvent Extract.
As	ppm	0.5	Aqua Regia	3 Hrs	2-2000	DC Plasma
Mn	ppm	0.5	$HClO_4/HNO_3$	4 Hrs	2-2000	Atomic Absorption
Fe	%	0.5	$HF/HClO_4/HNO_3/HCl$	6 Hrs	0.02-20%	DC Plasma

GEOLOGICAL LEGEND

(2) ULTRAMAFIC ROCK - AGE UNKNOWN

(2a) CARBONITIZED AND SILICIFIED ULTRAMAFIC ROCK

(1) CARBONIFEROUS SLIDE MOUNTAIN OR CACHE CREEK GROUP ARGILLITE

GEOLOGICAL UNITS WITH HIGH MAGNETIC SIGNITURES FROM GROUND MAGNETIC SURVEY (R.CANNON 1988).

MAP SYMBOLS

CLAIM POST

FLAGGED TIE LINE

ROUGH LOGGING ROAD

FORESTRY SERVICE ROAD

33302 - ROCK SAMPLE

NTB 102 - BULK SEDIMENT SAMPLE

OUTCROP

QUARTZ VEIN

JOINTING (87° 15°)

BEDDING (56°)

FOLIATION (60°)

CONTOUR INTERVAL - 50 meters

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0 100 250 500
Meters

Part 2 of 2

FIGURE 3

PLACER DOME INC.	
DRAWN: S.P.	NAT 1-16 CLAIMS
SCALE: 1 : 5000	GEOLOGY and SAMPLE LOCATIONS
DATE: Oct. 88	
REVISED:	FILE No. 930/5

NAT 1 - 16 CLAIMS
AU GEOCHEMISTRY

SOIL SAMPLE RESULTS

- GOLD < 5 PPB DETECTION LIMIT
- GOLD 5 - 20 PPB
- GOLD 20 - 60 PPB
- GOLD 60 - 120 PPB
- GOLD 120 - 400 PPB
- GOLD > 400 PPB

STREAM SAMPLE RESULTS

- GOLD < 5 PPB DETECTION LIMIT
- GOLD 5 - 50 PPB
- GOLD 50 - 100 PPB
- GOLD > 100 PPB

ROCK SAMPLE RESULTS

- SAMPLE LOCATION, NO DETECTABLE GOLD
- SAMPLE LOCATION, GOLD IN PPB

REGIONAL ICE MOVEMENT

DATA PLOTTED ON THIS MAP:
DIRECTORY: /PLACER1_1E/EXPL/NAT/GCHM

	FIELD	FILE
POINTS:	AU1	SOIL.GCHM
POINTS:	AU1	SOIL.GCHM
POINTS:	AU1	ROCK.GCHM
POINTS:	AUAV	SED.GCHM
POINTS:	AUAV	SED.GCHM
LINES:		NAT.ROADS
LINES:		NAT.CREEKS

0 200 400 600
METRES

FIGURE 4

PLACER DOME INC.	
DRAWN SMP	NAT 1 - 16 CLAIMS
DATE 88:11:15	AU GEOCHEMISTRY
SCALE 1:5000	
	NO. PLATE

SOIL PARENT MATERIAL
LEGEND

TI	Till (Ground Moraine)
HM	Hummocky Moraine
WT	Washed Till
GF,FG	Glaciofluvial Sand & Gravel
AL	Alluvium
CL	Colluvium
BR	Bedrock

Hummocky Moraine Deposits

Glaciofluvial & Washed Till Deposits

CREEK

ROAD WASHED OUT

CREEK

LAKE

LOGGING ROAD

ROAD

LAKE

CREEK

CREEK

DATA PLOTTED ON THIS MAP:
DIRECTORY: /PLACER1_1E/EXPL/NAT/GCHM

	FIELD	FILE
× POINTS:	PAR	SOIL.NOTES
LINES:		NAT.ROADS
LINES:		NAT.CREEKS

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0 200 400 600
METRES

FIGURE 5

PLACER DOME INC.	
DRAWN SMP	NAT 1 - 16 CLAIMS
DATE 88:11:15	SOIL PARENT MATERIAL
SCALE 1:5000	
	NO. PLATE