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TRENCHING AND DIAMOND DRILLING REPORT

1999 Program

DEL SANTO PROPERTY

Omineca Mining Division
British Columbia
Canada

N.T.S. 93L/10

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September 30, 1999

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

26,227

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1.0 LOCATION, LAND STATUS AND ACCESS

The Del Santo Group of mineral claims, located about 23 kilometres easterly from Telkwa near Smithers, British Columbia, comprises 10 claims totaling 100 units, an area of 2500 ha (Table I; Figures 1 to 4). The claims cover a volcanogenic massive sulphide prospect, which was discovered and first explored prior to 1915.

Table I: Del Santo Group

Name	Tenure No.	Units	Hectares	Expiry Date
Del	314603	10	250	Nov 10, 2009
Santo	318125	10	250	Jun 14, 2009
Grouse No. 1	363353	20	500	Jun 08, 2002
Grouse No. 2	363354	20	500	Jun 12, 2006
Grouse No. 3	363356	20	500	Jul 24, 2006
Grouse No. 4	363355	16	400	Jul 29, 2006
Gap No. 1	365143	1	25	Sep 01, 2006
Gap No. 2	365144	1	25	Sep 01, 2006
Gap No. 3	365145	1	25	Sep 01, 2006
Gap No. 4	365146	1	25	Sep 01, 2006
Totals		**100**	**2,500**	

Access to the property is provided from Highway 16 near the farming settlement of Quick, British Columbia (Figure 3). From Highway 16, Kerr Road, an improved gravel road, links with an unimproved 4WD dirt road about 5 kilometres east of Highway 16. The 4WD road traverses easterly to the Del Santo claims group, a distance of about 8 kilometres.

2.0 PHYSIOGRAPHY AND VEGETATION

The claims are in the Babine Range and are characterized by low to moderate relief having elevations of 860 to 1478 m (Figure 3). Deep Creek and three small tributaries occur on the claims as well as four small lakes ranging in area from 1 to 7 hectares.

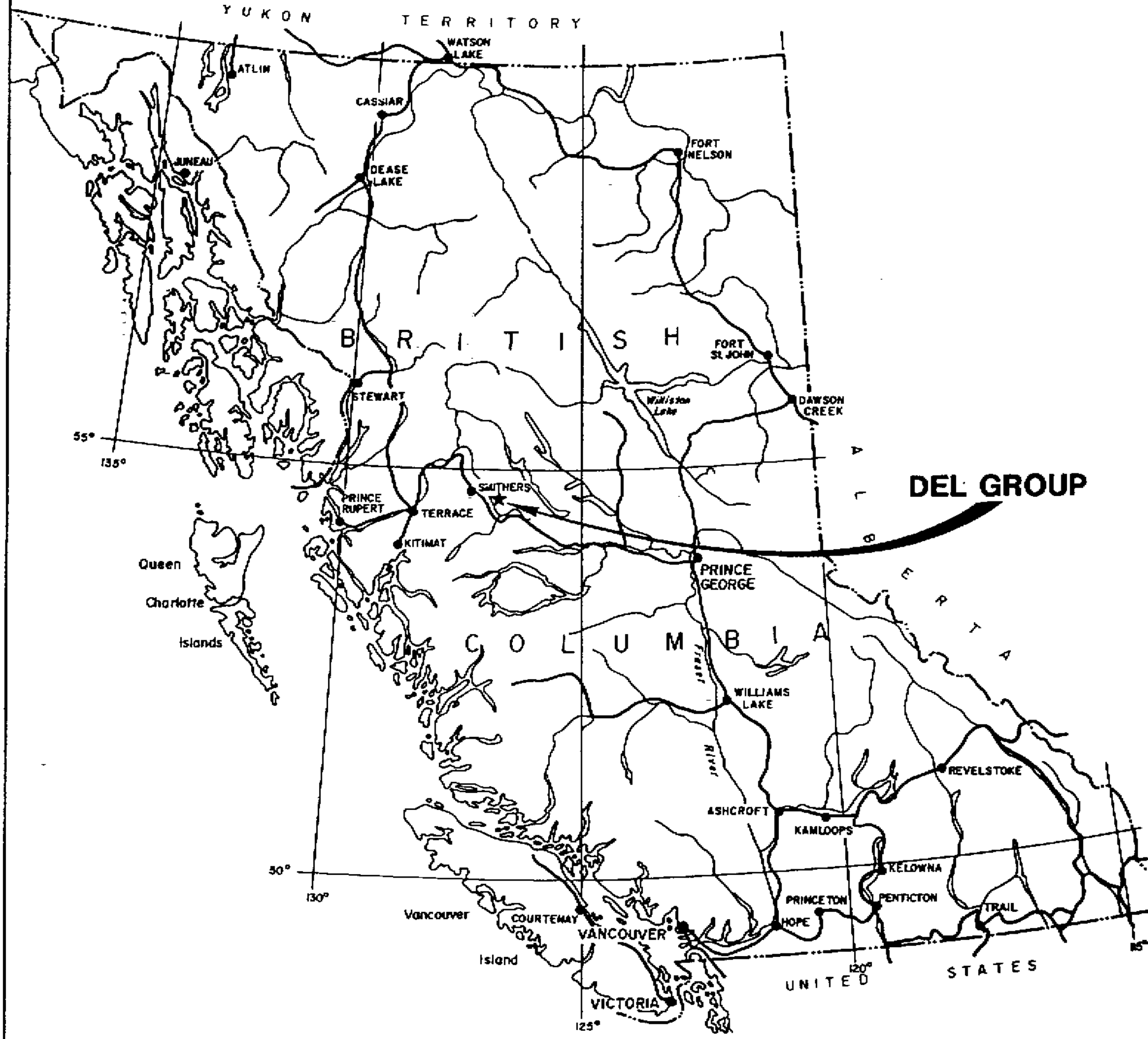
Mature stands of spruce, balsam fir and lodgepole pine cover the property.

Glacial drift is widespread, ranging in thickness from a thin veneer covering portions of outcrop ridges thickening to 10 m or more a few 10's of metres away from the ridges, and to unknown depths in areas of low relief. In some areas, the till has a substantial clay component, where it typically consists of about 20 percent subrounded boulders in a clay-rich matrix.

Outcrops are moderately abundant in areas of higher elevation but generally rare below elevations of 1380 m.

3.0 PREVIOUS EXPLORATION

According to BC Minister of Mines records, claims were staked at Deep Creek in 1915. Later in 1928, it was reported that open cuts were made on pyrite-chalcopyrite occurrences by claim owners Tom Brewer and Tom Brandon (B.C. Min. of Mines, 1928).



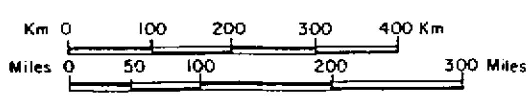


FIGURE 1

DEEP CREEK VMS PROSPECT AREA

MAP OF BRITISH COLUMBIA
SHOWING
LOCATION OF THE DEL GROUP

Omineca Mining Division, British Columbia

Willard D. Tompson	January 4, 1993

Figure 2.- Map of Smithers-Telkwa area showing impotrant cultural features and the location of the Del Santo group and the Ken claim.

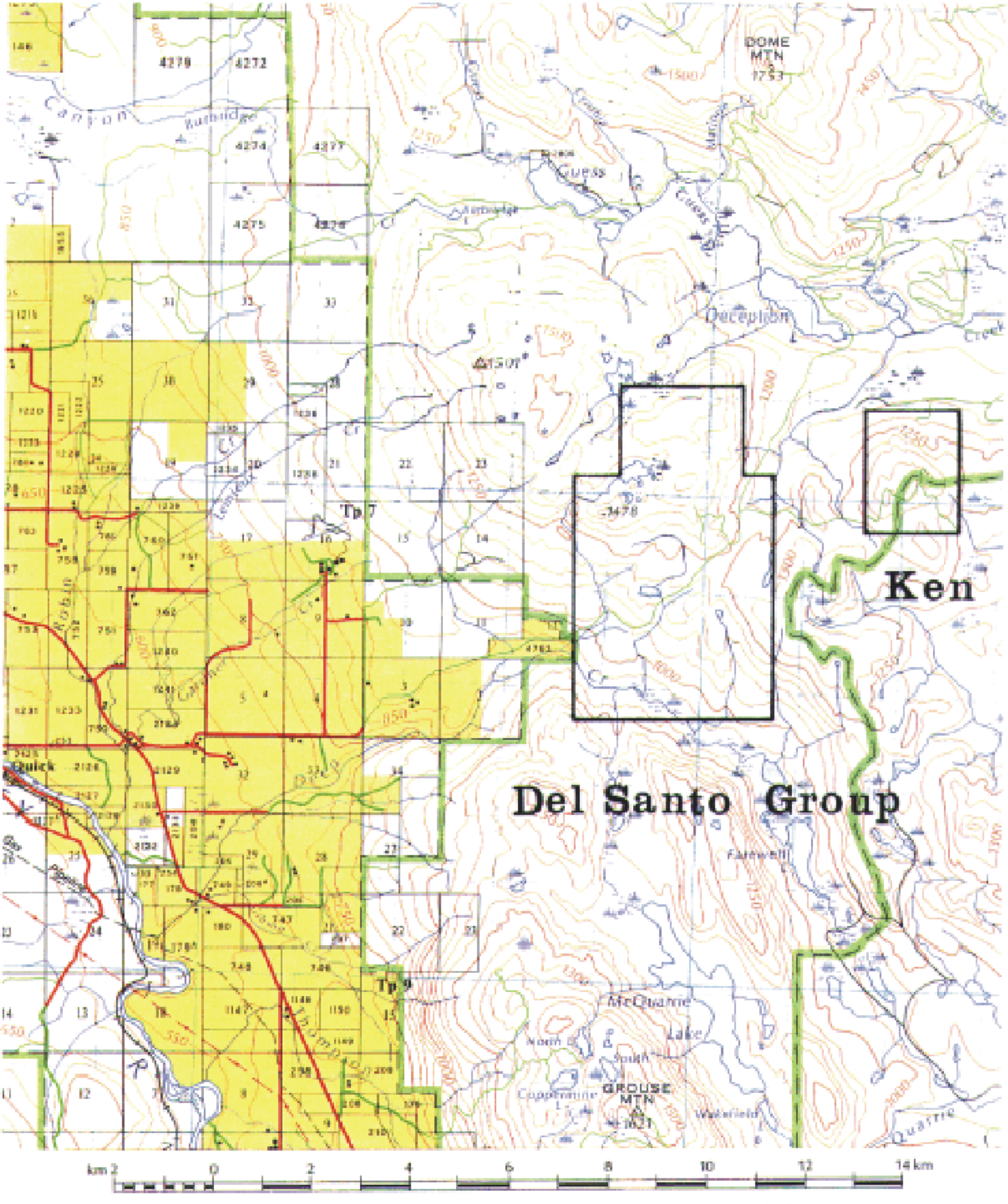


Figure 3.- Topographic map showing location of Del Santo group and Ken claim. Map shows access to claim areas from Highway 16 and village of Quick, British Columbia.

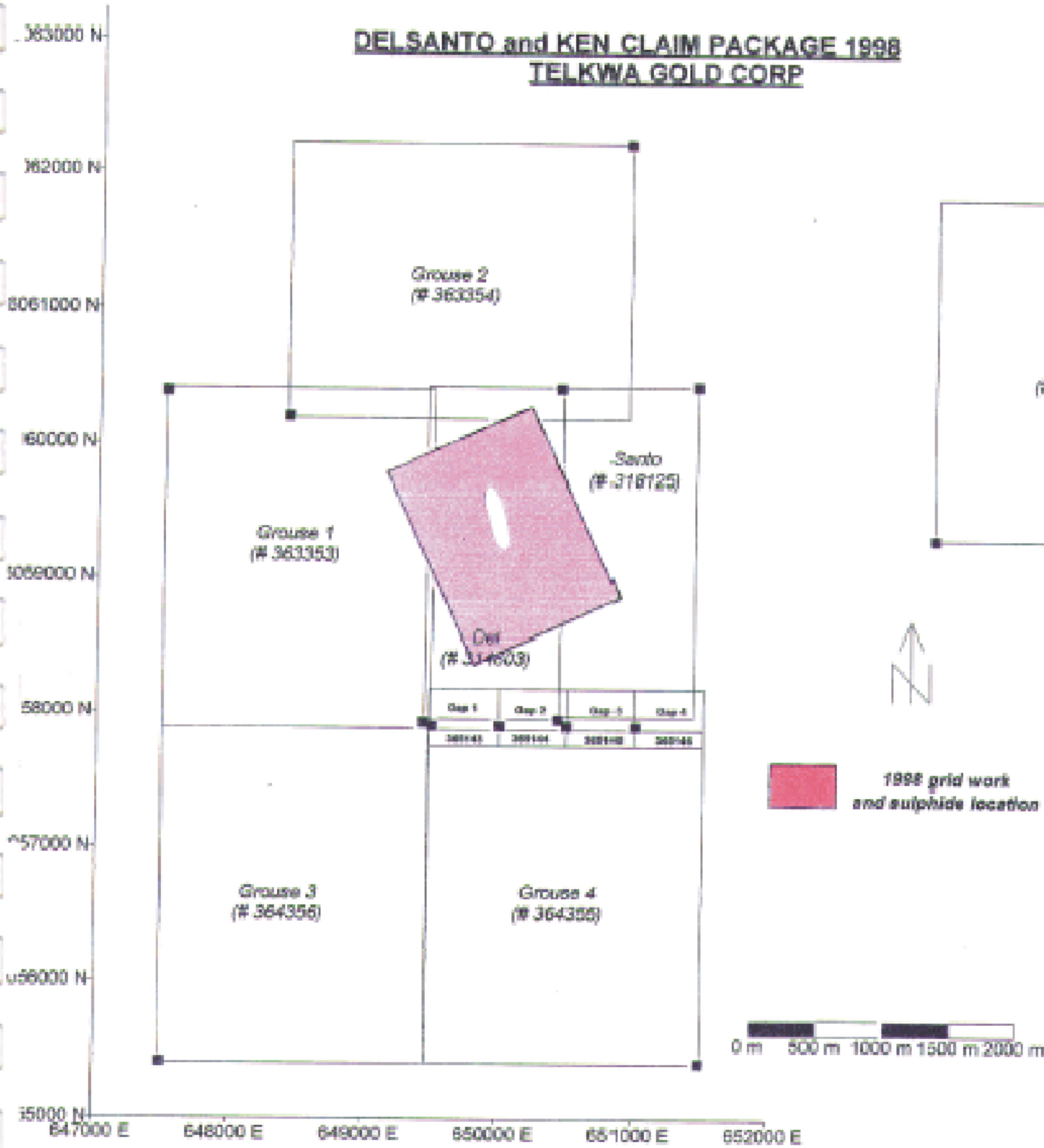


Figure 4.- Claim map of the Del Santo group and the Ken claim.

In 1967, then claim owner Mel Chapmen cut several bulldozer trenches in the area of the present property. Texas Gulf Sulphur Co. subsequently optioned the claims in 1968 from Chapmen and during that year conducted a ground magnetometer survey and a limited soil geochemical survey (L'Orsa, 1968). L'Orsa used the name "Del Santo" for the prospects at Deep Creek, a name that was adopted by the B.C. Ministry of Energy, Mines and Petroleum Resources in 1969 (B.C. Ministry of Energy, Mines and Petroleum Resources, GEM 1969, p. 120).

In 1969, Falconbridge Nickel Mines Ltd. optioned the claims from then owners Mel Chapmen and Francis Madigan. In 1969 and 1970 Falconbridge conducted geological mapping and carried out soil geochemical, magnetometer and electromagnetic surveys in the area (Brown, 1970, Helgesen, 1970 and Harper, 1970). They also drilled three short EX diamond drill holes for a total of 39.5 m.

Circa 1970, Bovan Mines Ltd. drilled one BX diamond drill hole near the trenched area of the Del Santo Prospect (personal communication by D.C. Plecash to W. Tompson). The hole was drilled to about 42.5 m. No records have been found for the hole (Tompson and Cuttle, 1998).

In 1976, four bulldozer trenches were cut in the area of the Del Santo Prospect by Union Minere Explorations and Mining Corporation under an agreement with Mel Chapman (B.C. Min. Energy, Mines and Petrol. Res., 1976, p. E150). The trenches were each about 3 metres wide, 20 metres long and 0.3 m deep.

In 1978, Petra Gem Explorations of Canada, Ltd. acquired an option from Mel Chapman and Francis Madigan and staked an additional block of claims contiguous with those of the Del Santo group. They conducted geological work over previously cut grid lines, conducted a fluxgate magnetometer and pulse EM survey over the area near the trenches (White, 1978; Price, 1979).

In 1979, four diamond drill holes, totaling about 328 m, were drilled by D.Groot Logging in the area of the previous work. No records have been found for the drilling.

In 1992, Willard D. Tompson and Alan Burrows acquired the prospects by staking. In 1993, they mapped and sampled the old trenches (Tompson, 1993).

During 1998, Telkwa Gold Corp. established two grids on the property, Grid One over the known Del Santo copper-silver showing and Grid 2 over a circular airborne magnetic anomaly about 1.2 km east of the Del Santo Prospect (Tompson and Cuttle, 1998). The grid covering the Del Santo prospect consists of about 17.5 km of cut lines. During August of 1998, prospecting and detailed geological mapping was carried out over Grid 1 by J. Cuttle (Tompson and Cuttle, 1998). Soil sampling was conducted on both grids. The 313 soil samples collected on Grid 1 (covering the Del Santo showing and surrounding area) identified low amplitude and subtle linear to concentric copper, zinc and silver anomalies. Analytical results from the seventy-nine samples collected from the second grid showed a single coincident low amplitude Cu-Pb-Zn-Ag anomaly.

Also during 1998, Telkwa Gold Corp. contracted Frontier Geosciences of North Vancouver, B.C. to carry out magnetic and MaxMin EM surveys over a portion of Grid 1 to test the Del Santo Prospect and potential northerly extensions of the mineralization (Liu and Candy, 1998; Tompson and Cuttle, 1998). The magnetic survey, which totaled 5.26 km, identified a magnetic low coincident with the Del Santo showings and other strong magnetic highs coincident with granodiorite plugs and dykes (Liu and Candy, 1998; Tompson and Cuttle, 1998). The MaxMin EM survey, which totaled 4 km, identified 21 north-northwesterly to northeasterly striking high frequency anomalies, including three that are coincident with the magnetic low.

Telkwa Gold Corp. also established six trenches during 1998 in the area of previous trenching done in the 1960's and 70's (Tompson and Cuttle, 1998). The six trenches were dug approximately perpendicular to the strike of bedding and mineralization, and tested the mineralization for about 100 m along the approximate north-northwest strike. The trenches were mapped at 1:100 m scale and mineralized zones were sampled for analysis.

During 1998, Telkwa Gold Corp. drilled four diamond drill holes for an aggregate length of 374.6 m to test the depth extension of mineralization exposed by Trenches 98-1 and 98-4 (Tompson and Cuttle, 1998). Massive pyrrhotite and pyrite were intersected by DDH 98-3 over a 4 m interval. The remaining drill holes did not intersect sulphide mineralization. Three of the drill holes were surveyed using the downhole TEM survey method (Liu and Candy, 1998). A TEM response to the east of DDH 98-3 at about –52 m is interpreted to be related to massive sulphide mineralization intersected at about that depth in the drill hole (Liu and Candy, 1998; Tompson and Cuttle, 1998).

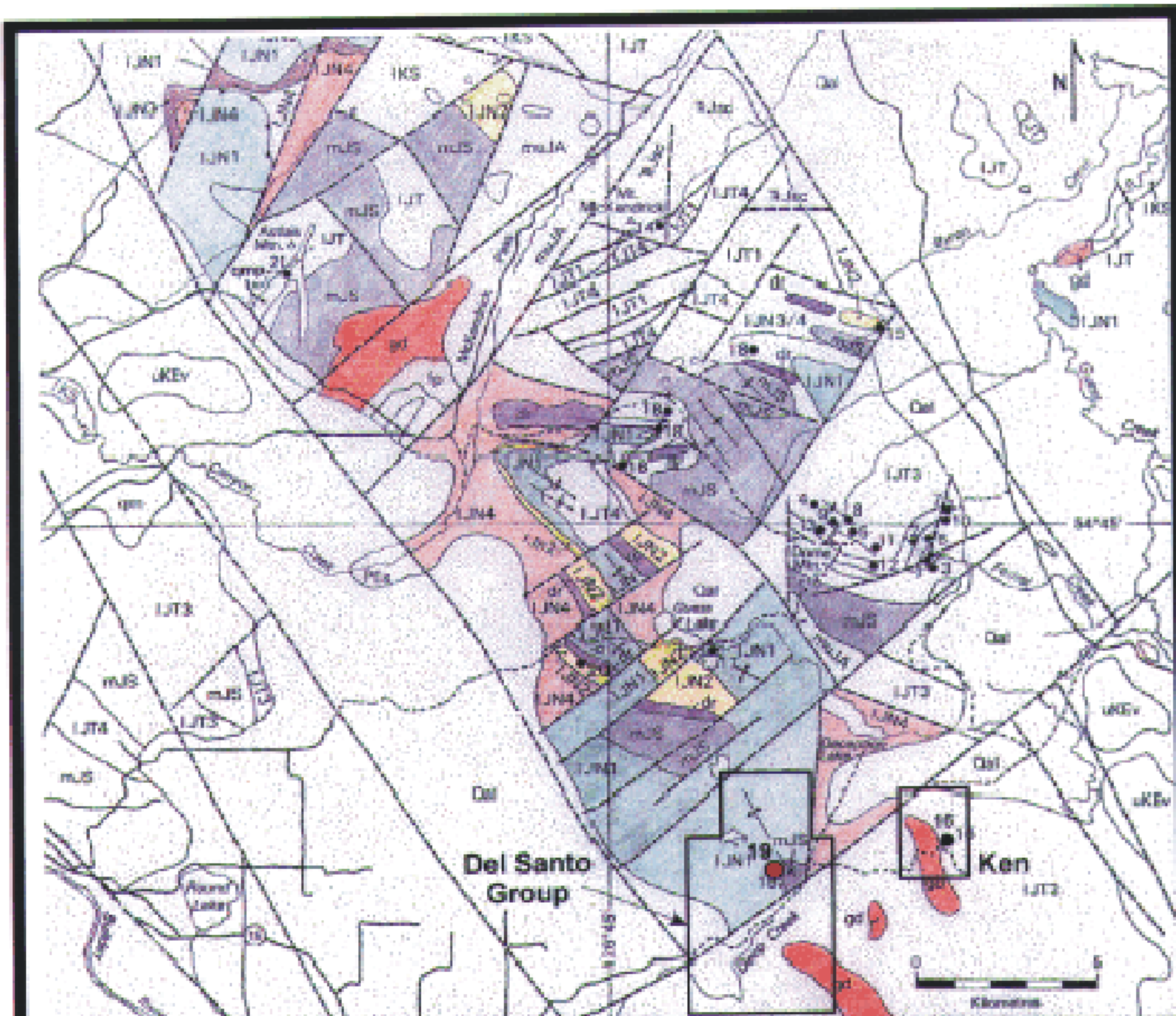
4.0 Regional Geology

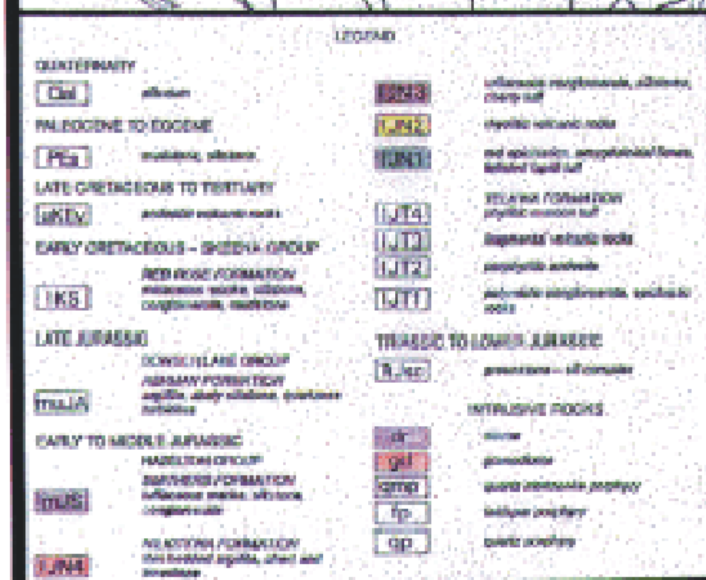
The Del Santo claim group is located in the southern portion of the Babine Mountain Range where the property and surrounding area is underlain by a folded and faulted assemblage of island arc subaerial to submarine volcaniclastic rocks known as the Hazelton Group (Figure 5), (Tompson and Cuttle, 1998). The early to middle Jurassic volcanic and sedimentary rocks were deposited in the northwest trending Hazelton trough and were later bounded to the east and west by grabens of younger Cretaceous and Eocene volcanic and sedimentary rocks.

The Hazelton Group has been divided into the Telkwa, Nilkitkwa and Smithers Formations (MacIntyre et al., 1986). The Telkwa Formation includes phyllitic maroon tuffs porphyritic andesite and polymictic conglomerate. The overlying Nilkitkwa Formation includes lower units consisting of predominantly volcanic and volcaniclastic rocks consisting of subaerial to submarine amygdaloidal basalts and andesites and lesser dacitic to rhyolitic tuffs and flows. These lower units are in turn overlain by sedimentary rocks consisting of tuffaceous conglomerate, siltstone and wackes. The upper unit of the Nilkitkwa Formation consists of argillaceous tuff, slates, limy manganiferous shales and siltstone, chert, and grey limestone. The Smithers Formation, which overlies the Nilkitkwa Formation comprises poorly bedded tuffaceous greywacke, cherty siltstone, fossiliferous sandstone and pebble conglomerate.

Rocks of the Hazelton Group in the Babine Range have been folded into asymmetric folds typically plunging about 30 degrees to the southwest (MacIntyre et al., 1986; Tompson and Cuttle, 1998). The folded sequence has been cut and offset by a series of block faults related to Tertiary extensional movements.

Intrusive rocks include late Cretaceous diorite to diabase dykes and sills and Eocene mafic to felsic dykes and biotite-rich granodiorite stocks, dykes and sills.





MINERAL OCCURRENCES

	Type	Occurence Name	Commodity
1	Qz Vein	Dome Mtn. – Forks	Au, Ag, Zn, Pb, Cu, (As, Sb)
2	Qz Vein	Dome Mtn. – Cabin	Au, Ag, Zn, Pb, Cu, (As, Sb)
3	Qz Vein	Dome Mtn. – 9800	Au, Ag, Zn, Pb, Cu, (As, Sb)
4	Qz Vein	Dome Mtn. – Ptarmigan	Au, Ag, As, Zn, Pb, Cu
5	Qz Vein	Dome Mtn. – Hawk	Au, Ag, As, Zn, Pb, Cu
6	Qz Vein	Dome Mtn. – Boulder	Au, Ag, Zn, Pb, Cu
7	Qz Vein	Dome Mtn. – Free Gold	Au, Ag, Zn, Pb, Cu
8	Qz Vein	Dome Mtn. – Eagle	Au, Ag, Zn, Pb, Cu
9	Qz Vein	Dome Mtn. – Gem	Au, Ag, Zn, Cu, Pb
10	Qz Vein	Dome Mtn. – Chance	Au, Ag, Cu, Zn, Pb
11	Qz Vein	Dome Mtn. – Hoopes	Au, Ag, Cu, Pb, Zn
12	Qz Vein	Dome Mtn. – Jane	Au, Ag, Cu, (Zn, Pb, Ba)
13	Qz Vein	Dome Mtn. – Raven	Au, Ag, Cu
14	Qz Vein	Mt. McKendrick	Au, Ag, Pb, Zn, Cu, (As, Sb)
15	Cu Vein	Tina	Cu, Ag
16	Cu Vein	Brenda, Tony	Cu, Ag
17	Cu Vein	Camp Lake	Cu, Ag
18	Massive	Ascot	Zn, Pb, Ba
19	Massive	Del Santo	Cu, Zn, Ag
20	Porph	Burbridge Lake	Cu, Mo
21	Porph	Big Onion	Cu, Mo

Figure 5: Regional Geology - Del Santo Area

5.0 Local Geology of the Del Santo Prospect and Surrounding Area

During August 1998, Jim Cuttle carried out detailed geological mapping of an area about 2.3 square kilometres surrounding the Del Santo Prospect (Tompson and Cuttle, 1998).

Rocks of the Nilkitkwa Formation predominate in the area (Figure 6). These include maroon and green amygdaloidal pillowed or massive mafic flows and tuffs of Unit lJN1 and lesser quantities of Unit lJN2 rocks consisting of dacitic volcanic tuff and flows with interlayered cherty slates and siltstones. Minor amounts of thin-bedded argillaceous tuff, limy manganiferous shales, cherts and grey silty limestones of Unit lJN4 occur locally. This latter unit serves as an important marker horizon as it caps the mineralization at the Del Santo Prospect (Cuttle and Tompson, 1998).

Poorly bedded tuffaceous greywacke, cherty siltstone and pebble conglomerate of the Smithers Formation underlie the eastern portion of the mapped area (Figure 6) (Tompson and Cuttle, 1998).

The rock units typically strike north-northwesterly and dip moderate to steeply to the east.

Intrusive rocks include minor diorite to diabase dykes of the Late Cretaceous Kasalka Group (Kd) and small granodiorite stocks and dykes of the Eocene Nanika Intrusives (Tgd) (Tompson and Cuttle, 1998).

6.0 Mineralization – The Del Santo VMS Prospect

The Del Santo Prospect consists of semi-massive to disseminated pyrrhotite and pyrite accompanied by lesser amounts of chalcopyrite and minor amounts of sphalerite that occur within intermediate andesitic to dacitic tuffs of Unit lJN2 and interlayered limy mudstone, limestone and chert of Unit lJN4 (cf. Tompson and Cuttle, 1998). Mafic tuffs of Unit lJN1 underlie intermediate tuffs of Unit lJN2 about 5 to 15 m west of the mineralization. The rock units and associated mineralization strike north-northwesterly and dip steeply east. Isoclinal folding was noted in limestone at one location (Tompson and Cuttle, 1998).

The mineralization is 3 to 15 m wide and has been exposed by trenching for about 100 m along strike. The best grade/width assay results were received from trenches 98-1 and 98-4 spaced about 10 m apart and about 30 m south of the northernmost trench. Results from the two trenches include 120.4 g/t Ag and 0.9 % Cu over 15.2 m in Trench 98-1 and 30.5 g/t Ag and 0.5 % Cu over 14.1 m in Trench 98-4 (Tompson and Cuttle, 1998). The best individual assay returned 454 g/t Ag and 3.84 % Cu over 1 m.

Drilling conducted in 1998 indicates that the sulphide mineralization does not extend to depth, at least in the area drilled beneath Trenches 98-1 and 98-4. Drill hole 98-2 directly beneath Trench 98-4 intersected about 5 m of bedded chert about 20 m down dip to the east of the sulphide mineralization exposed in the trench. Drill hole 98-1 intersected about 1.5 m of chert and quartz veins about 13 m further down dip. Neither of these holes intersected sulphide mineralization however. Volcanogenic massive sulphide lenses are sometimes capped by and/or extend laterally into chert. The chert may therefore represent the down-dip extension of the sulphide mineralization but this is

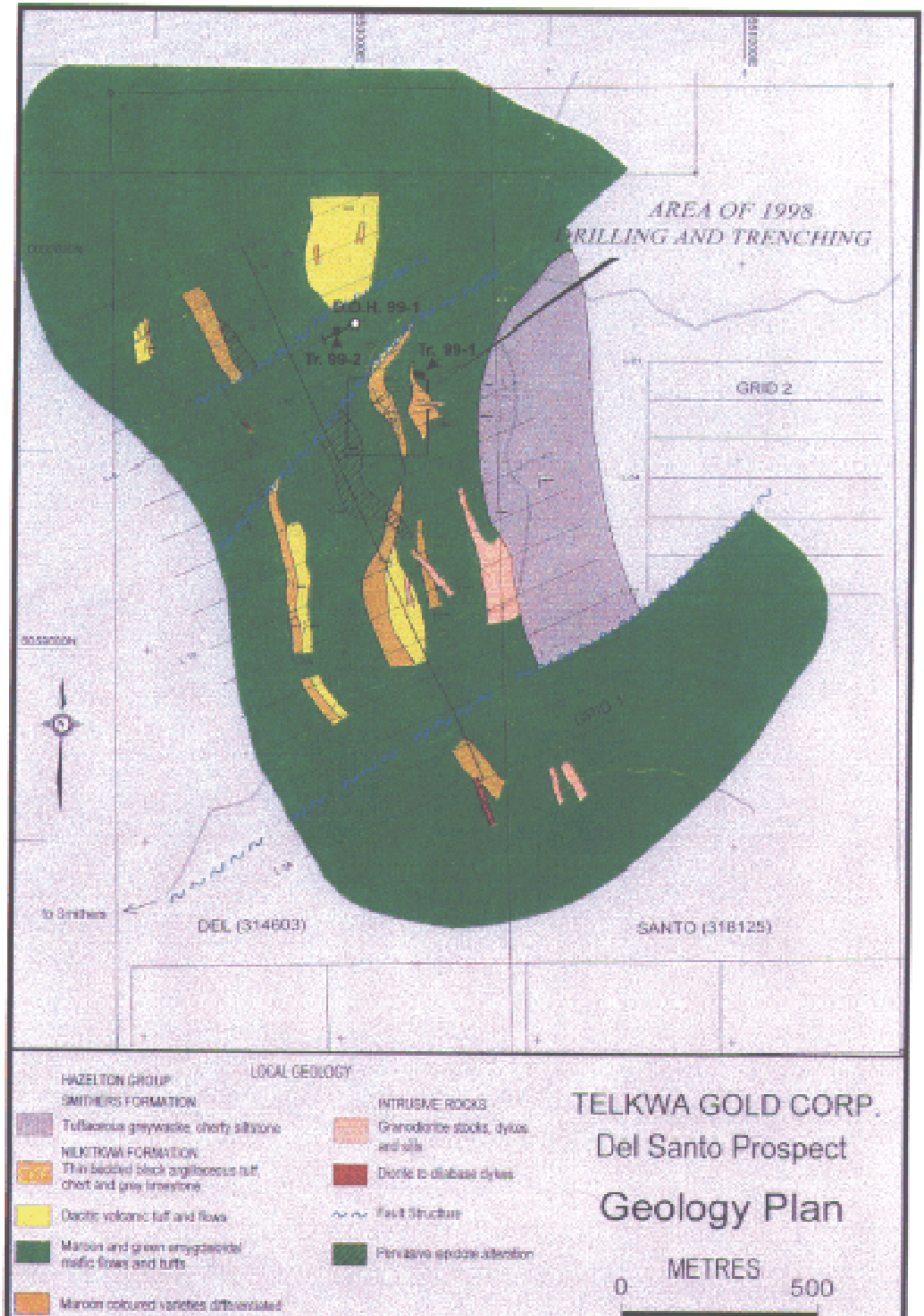


Figure 6: Del Santo Prospect - Geology Plan

uncertain. Massive pyrrhotite and pyrite intersected in DDH98-3 about 15 m beneath the chert in DDH 98-2 is interpreted by Tompson and Cuttle (1998) to be a separate lens.

The failure to intersect the sulphide mineralization at depth can also be explained by faulting or folding. An abrupt change in magnetic susceptibility along an east-northeasterly trend in the immediate area of the trenches suggests truncation of units by a fault (cf. Liu and Candy, 1998). Alternatively, the mineralization may be in the keel of an isoclinal fold (isoclinal folding was noted in a limestone unit in one of the trenches).

The geological setting and style of mineralization at the Del Santo Prospect is similar to that at the Windy Craggy Deposit and other Besshi-type deposits around the world (cf. Peter and Scott, 1999; Tompson and Cuttle, 1998).

7.0 1999 Exploration Program

7.1 Target Description and Results of Seismic Surveying

On the basis of results of the 1998 exploration program, five MaxMin EM anomalies were selected for follow up by back-hoe trenching or diamond drilling. In addition to the presence of an EM anomaly, favourable geology and distinctive magnetic signatures were additional parameters used to select the targets.

In order to determine depths to bedrock in the areas proposed for trenching and to determine bedrock velocities, thereby providing more information on bedrock geology, a seismic refraction investigation was conducted in each of the areas. The survey was carried out by Frontier Geosciences of North Vancouver. Each survey line was 115 m long and centred on the MaxMin anomaly. The results of the seismic refraction survey are presented in the report included as Appendix A (Hillman, 1999).

7.1.1 MaxMin Anomaly A1

Anomaly A1, which strikes approximately north-northwest, was detected on Lines 1S and on 2S about 60 m east of the baseline (Figure 7) (cf. Liu and Candy, 1998). The anomaly is not evident on frequencies lower that 3520 Hz, shows as a very weak response on frequency 3520 Hz and a moderate to stronger response on higher frequencies. The anomaly is coincident with a magnetic low that extends from L1S south-southeastward to the Del Santo showing near L6S (Liu and Candy, 1998). Outcrops nearest the target consist of mafic volcanic rocks of Unit lJN1. The southern portion of the anomaly located at L 2S, 0+60 E was selected for follow up work.

Results of the seismic survey (Seismic Line SL-4; Hillman, 1999; Appendix A) indicated overburden depths of 1.8 to 5.8 m, too deep for effective trenching with the equipment on site. Bedrock velocities are consistent at 5000 m/s (Hillman, 1999). Due to the prohibitive depth of overburden and difficulty of access, the target was not followed up during 1999.

7.1.2 MaxMin Anomaly A4

Anomaly A4, which strikes approximately true north, was detected on the eastern portion of Lines 1S and 2S (Figure 7) (cf. Liu and Candy, 1998). The anomaly shows as a weak response on lower frequencies (880 and 1760 Hz), as a moderate response on frequencies 3520 and 7040 Hz and as a strong response on higher frequencies. The

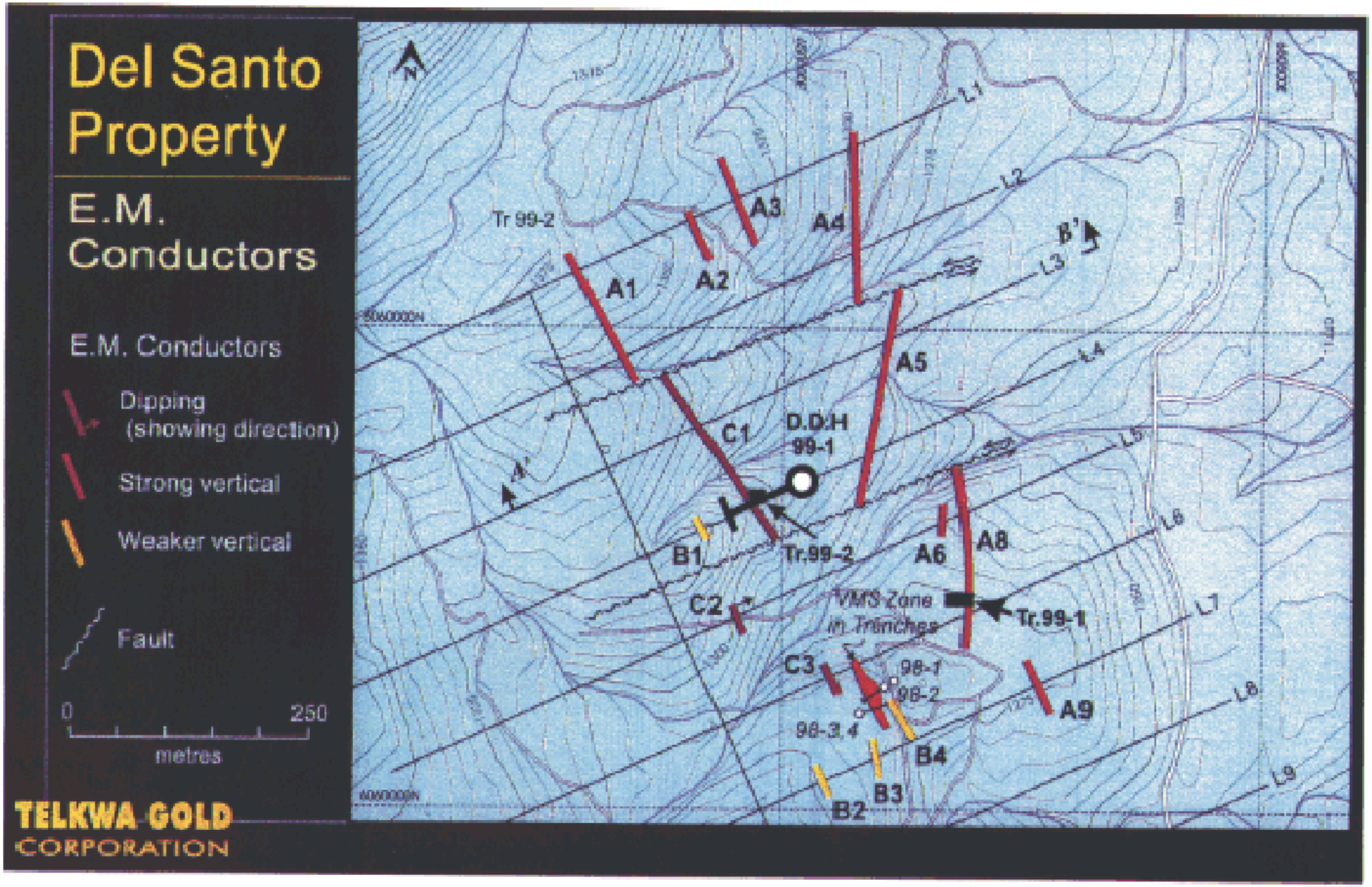


Figure 7: Del Santo Property - E.M. Conductors

southern portion of the anomaly at L 2S, 3+25 E, which was selected for follow-up, is the strongest EM response of the MaxMin survey conducted in the area. Anomaly A4 is coincident with a broad magnetic susceptibility high (Liu and Candy, 1998). Outcrops nearest the target consist of mafic volcanic rocks of Unit IJN1 in contact with felsic tuffs of Unit IJN2 interlayered with tuffaceous wackes and chert of Unit IJN4.

Results of the seismic survey (Seismic Line SL-3; Hillman, 1999) indicated overburden depths of 1.5 to 10 m, too deep for effective trenching with the equipment on site. Bedrock velocities vary from a central 30 m wide rock unit with a velocity of 3870 m/s flanked by rocks with higher velocities of about 5200 m/s (Hillman, 1999). The central lower velocity zone is probably indicative of sedimentary rocks.

Due to the prohibitive depth of overburden the target was not followed up during 1999.

7.1.3 MaxMin Anomaly A5

Anomaly A5, which strikes approximately north-northeast, was detected on the eastern portion of Lines 3S and 4S (Figure 7) (Liu and Candy, 1998). The anomaly may be the southerly extension of Anomaly A4. It shows as a weak response on frequency 3520 Hz and as a moderate to strong response on higher frequencies. Anomaly A4 is coincident with a broad magnetic susceptibility high (Liu and Candy, 1998). Outcrops nearest the target consist of mafic volcanic rocks of Unit IJN1. The southern portion of the anomaly at 3+70S, 2+90 E was selected for follow-up work.

Results of the seismic survey (Seismic Line SL-2; Hillman, 1999) indicated overburden depths of 4 to 9 m. Bedrock velocities are consistent at 4750 m/s (Hillman, 1999). A test trench in the target area failed to reach bedrock.

Due to the prohibitive depth of overburden, the target was not followed up during 1999.

7.1.4 MaxMin Anomaly A8

Anomaly A8, which strikes approximately north, was detected on the eastern portion of Lines 5S and 6S (Liu and Candy, 1998). It shows as a very weak response on frequency 3520 Hz and as a moderate to strong response on higher frequencies. Anomaly A8 is underlain by rock of intermediate magnetic susceptibility (Liu and Candy, 1998). The southern termination of the anomaly is coincident with a pronounced change to rocks of lower magnetic susceptibility to the south. The southern portion of the anomaly at 5+80S, 2+90 E was selected for follow-up work.

In order to test Anomaly A8, a trench about 28 m long was established. Results are presented in Section 7.3.1 below.

7.1.5 MaxMin Anomaly C1

Anomaly C1, which strikes approximately north-northwest, was detected on Lines 3S and 4S about 125 m east of the baseline (Figure 7) (Liu and Candy, 1998). The anomaly is not evident on frequencies lower that 3520 Hz, shows as a very weak response on frequency 3520 Hz and moderate to stronger response on higher frequencies. Anomaly C1 is coincident with a magnetic low that extends from L1S south-southeastward to the Del Santo showing near L6S (Liu and Candy, 1998). The southern portion of the anomaly located at L 3+80S, 1+20 E was selected for follow up.

Results of the seismic survey (Seismic Line SL-5; Hillman, 1999) indicated overburden depths of 6 to 10 m. Bedrock velocities change from 3900 m/s east of 1+30 E to 4830 m/s west of that location (Hillman, 1999). Since overburden depths at the planned trench site were too deep for trenching with the equipment on site, it was decided to test the anomaly by trenching directly along Line 4S adjacent to an outcrop. As indicated in Section 7.3.2, only minor amounts of bedrock were exposed by the trenching. Depth to bedrock rapidly increased to the east such that 9 m away from the outcrop, overburden depths were too great for the backhoe to reach bedrock (See Section 7.3.2 below for details of the trenching). Since the trenching did not adequately test the anomaly, it was decided to test the anomaly by diamond drilling. Results of the drill hole drilled to test the anomaly are presented in Section 7.4.1 below.

7.2 Road Building

Access to the sites of proposed trenching and diamond drilling was accomplished using a Caterpillar D5 bulldozer operated by J. Hutter, P.Geo. and mining contractor.

Access to Trench 99-1, which tested Anomaly A8, was gained by establishing a trail about 50 m long extending approximately eastward from the existing cleared area near the site of the Del Santo Prospect.

Establishment of about 270 m of road extending generally northward from the Del Santo Prospect provided access to the proposed trench site to test Anomaly A5. A further 130 m of road to the west-southwest enabled access to Trench 99-2 and the drill site for DDH 99-1, both of which tested Anomaly C1.

7.3 Trenching

Trenching was accomplished using a backhoe mounted on the rear of the Caterpillar D5 bulldozer used for road building. Trenches were cut about 1 m wide and 1.5 to 3.5 m deep, as determined by the depth of overburden. The trenches were mapped at 1:100 scale using chain and compass. A profile of each trench was determined using a makeshift stadia rod and clinometer.

The trenches were back filled following mapping.

7.3.1 Trench 99-1 - MaxMin Anomaly A8

Trench 99-1, established to test Anomaly A8, was about 28 m long extending from local grid location 5+78S, 2+69E for about 12 m at a bearing of 80 degrees and a further 16 m at a bearing of 93 degrees (Figures 6, 7 and 8).

Dark grey calcareous mudstone underlies about 19 m of the trenched area. The mudstone is in contact with intermediate tuff in the extreme western part of the trench and medium green, medium grained andesite in the extreme eastern portion of the trench. A pale grey, quartz-phyric dacite unit about 5 m wide is interlayered with the calcareous mudstone in the east-central portion of the trench.

Bedding in the mudstone strikes about 340 degrees and dips 80 degrees east. The moderate to well developed foliation in the mudstone strikes approximately to the north. The foliation dips steeply east in the western part of the trench but switches to steeply west in eastern portions of the trench.

Mudstone in the eastern part of the trench is very strongly foliated, suggesting proximity to a fault. Such a fault provides the only ready explanation for MaxMin Anomaly A-8.

A basal till sample (Sample 155651) was collected near the central eastern part of the trench. The fine grained portion of the till sample was analyzed for Au, Ag, Cu, Pb and Zn. to test for potential glacially transported mineralization. The sample returned bacground values for each of the elements (Appendix B).

7.3.2 Trench 99-2 - MaxMin Anomaly C1

Trench 99-2, established to test Anomaly C1, extended from local grid location 4+00S, 1+40E for about 18 m at a bearing of 260 degrees (Figures 6, 7 and 9). The clay-rich till present in the area thickened rapidly eastward from the basalt outcrop exposed near the western termination of the trench such that the backhoe reached bedrock in only the western 9 m of the trench and there only sporadically.

Bedrock exposed by the trenching consists predominately of dark grey moderately magnetic mafic intrusive rocks. A thin 0.5 m sliver of amygdaloidal basalt, host rock to the intrusives, was exposed about 7 m from the west end of the trench.

Maxmin anomaly C1 was not explained by rocks exposed by the trenching.

A basal till sample (Sample 155655) was collected near the central eastern part of the trench. The fine grained (–63 micron) portion of the till sample was analyzed for Au, Ag, Cu, Pb and Zn. to test for potential glacially transported mineralization. The sample returned slightly elevated gold (10 ppb) and bacground values for the other elements (Appendix B).

7.4 Diamond Drilling

During the 1999 program one diamond drill hole was drilled, having a total length of 120.4 m. The drilling was done by the Major Drilling Group (J.T. Thomas Drilling) of Smithers, British Columbia recovering NQII core. Core was boxed in standard 5-foot (1.5m) trays and removed to core logging facilities on land owned by J. Hutter at the farming community of Quick, B.C. The core was logged and then placed in core racks that had been previously established at the same location.

7.4.1 DDH 99-1 - MaxMin Anomaly C1

Diamond drill hole 99-1, drilled to test Anomaly C1, was collared at local grid coordinates 3+99 S, 1+80 E and drilled at an angle of –45 degrees toward azimuth 245 degrees (Figures 6 and 7). A log of the drill hole is attached as Appendix C, a cross section is presented as Figure 10.

The upper 26.6 m of the drill hole intersected moderately to strongly spilitized amygdaloidal basalt. Several dark grey moderately magnetic mafic dykes intrude the basalt in the bottom 4 m of the section. Below 26.6 m, a series of mafic dykes was intersected by the drill hole from 26.6 m to 37.5 m. Moderately to strongly spilitized amygdaloidal basalt locally intruded by several mafic dykes was intersected between 37.5 m and 118.42 m. From 118.42 m to the bottom of the hole at 120.40 m, the drill hole intersected pale grey to pink monzonite.

The basalt units intersected by the drill hole are interpreted to be part of Unit lJN1 of the Early to Middle Jurassic Nilkitkwa Formation, Hazelton Group. The basalt is medium green, locally amygdaloidal, spilitized, moderately chloritized, slightly to strongly epidotized and typically contains 5 to 20% calcite and fewer quartz veins. Larger 2 to 5 cm diameter amygdules are typically filled with calcite with or without chlorite and epidote, smaller 2 to 3 mm diameter amygdules are chlorite filled. Long axis of amygdules are typically aligned at 30 degrees relative to the core axis. Chlorite also fills formerly irregular open spaces and completely replaces primary mafic phenocrysts in places. Hyaloclastite zones are present locally and consist of angular basalt fragments in an epidote and calcite matrix. Hyaloclastite zones are strongly spilitized. A description of the petrography of the rock in thin section by J.F. Harris of Vancouver Petrographics Ltd. is included in Appendix C (Sample DDH 99-1 74.7 m).

Mafic dykes, which intrude basalt of Unit lJN1, are interpreted to be part of the Late Cretaceous Kasalka Group (Unit Kd). The dykes are dark grey, generally fine grained and moderately magnetic. They typically contain about 10% chloritized and locally hematized phenocrysts, which are about 2 mm across, in a subophitic intergrowth of saussuritized plagioclase and mafic minerals. In places, tiny fibrous feldspar crystals are common. Typically, the dyke contacts are at 70 degrees to the core axis. The dykes are slightly epidotized and carbonatized in places but are generally much less altered than the intruded basalt. A description of the petrography of the rock in thin section by J.F. Harris of Vancouver Petrographics Ltd. is included in Appendix C (Sample DDH 99-1 32.9 m).

The monzonite, which intrudes basalt of Unit lJN1 near the bottom of the drill hole, may be a member of the Eocene Nanika Intrusives but its geochemistry is similar to that of the mafic dykes (Section 7.5 below) suggesting it is related to the Late Cretaceous Kasalka Group. It is pale green to pinkish grey, and consists of an intergrowth of mineral grains typically 1 mm across comprising saussuritized plagioclase and K-feldspar(?) accompanied by lesser quantities of mafic minerals including hornblende and biotite? and minor quartz. A description of the petrography of the rock in thin section by J.F. Harris of Vancouver Petrographics Ltd. is included in Appendix C (Sample DDH 99-1 119.3 m).

Mafic dykes intersected from 29.6 to 37.5 m and also from 51.8 to 56.7 m are fractured, brecciated and locally slickenslided suggestive of extensive faulting. Such faulting provides the only explanation for MaxMin anomaly C1.

7.5 Whole Rock and Selected Trace Element Geochemistry

A drill core sample of basalt representative of Unit lJN1 (Sample 99-1 18.9m), mafic dyke representative of Unit Kd (Sample 99-1 32.9m), and monzonite (Sample 99-1 120m) were analyzed for major and selected trace elements by TSL Assayers Vancouver. The samples were fused with lithium metaborate, dissolved in dilute HNO_3 and analyzed by ICP. Results are listed in Appendix E.

7.5.1 Basalt (Unit lJN1) - Sample 99-1 18.9 m

Based on Figures 11, 12 and 13, after Vallance (1974), Le Maitre (1989), and Winchester & Floyd (1977), rock sample "99-1 18.9 m" is a spilitized, high-potassium, sub-alkaline basalt (Appendix E). Variation diagrams by Mullen (1983) and Pearce and

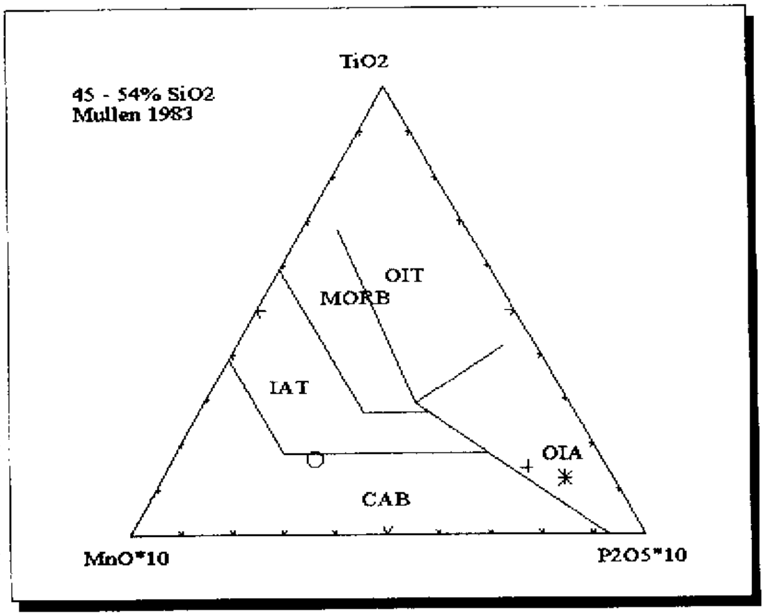


Figure 14

Key to Figure 14
(after Mullen, 1983, Fig. 1)

MORB	Mid-ocean Ridge Basalt
IAT	Island Arc Tholeiite
CAB	Island Arc Calc-Alkaline
OIA	Seamount Alkalic
OIT	Seamount Tholeiite

Key
(to Figures 14, 15 and17)

O	99-1 18.9 m
+	99-1 32.9 m
*	99-1 120.0 m

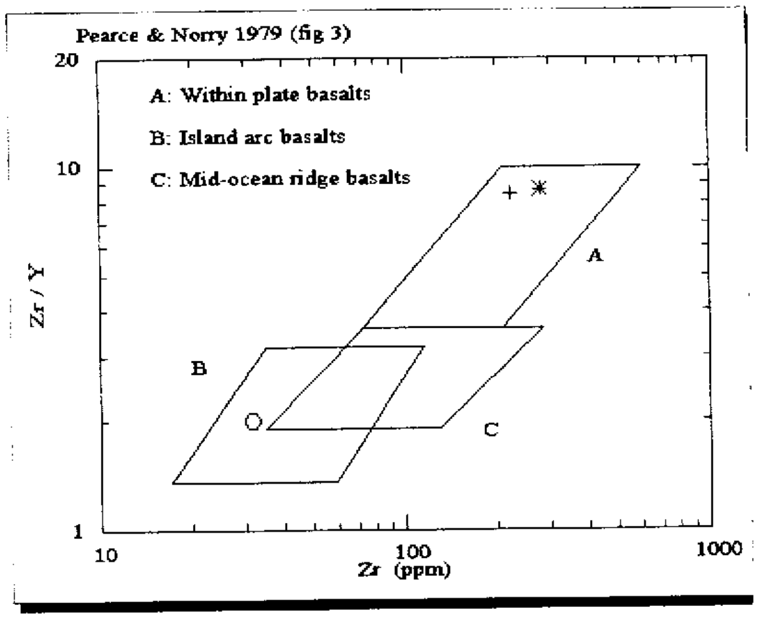


Figure 15

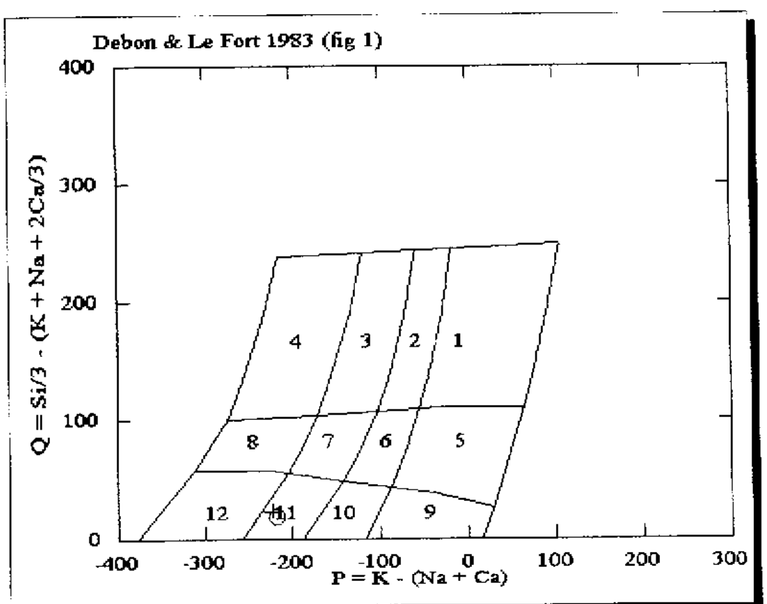


Figure 17

Key to Figure 17
(after Debon and Le Fort (1983), Fig. 1)

	Plutonic	Volcanic
1	Granite	Rhyolite
2	Adamellite	Dellenite
3	Granodiorite	Rhyodacite
4	Tonalite (trodhjemite)	Dacite
5	Quartz Syenite	Quartz Trachyte
6	Quartz Monzonite	Quartz Latite
7	Quartz Monzodiorite	Quartz Latiandesite
8	Quartz Diorite	Quartz Andesite
9	Syenite	Trachyte
10	Monzonite	Latite
11	Monzogabbro	Latibasalt
12	Gabbro	Basalt

Norry (1979) indicate the sample to be an island arc basalt transitional between island-arc tholeiite (IAT) and calc-alkaline basalt (CAB) (Figures 14 and 15). The pattern of sample 99-1 18.9 m presented on Figure 16, which shows elemental concentrations normalized to Mid-Ocean Ridge Basalts (MORB), is similar in most respects to that of a calc-alkaline basalt. Strong relative enrichment of Sr, K and Ba is characteristic of calc-alkaline basalts (Pearce, 1982). The relative depletion of Zr, Ti, and Y is characteristic of most arc-related rocks including both island-arc tholeiitic and calc-alkaline varieties. In general, the island-arc tholeiites show greater relative depletion than calc-alkaline basalts. Scandium at normalized value close to unity and phosphorus at slightly greater than unity for sample 99-1 18.9m is transitional between patterns of island arc tholeiites and calc-alkaline basalts (Figure 16, cf. Pearce, 1982).

7.5.2 Mafic Dyke (Unit Kd) - Sample 99-1 32.9 m

Sample 99-1 32.9 m, representative of mafic dykes intersected by drill hole 99-1, is relatively fresh, plotting in the non-spilite field of the discrimination diagram by Vallance (1974) (Figure 11). It plots in the high-potassium basalt field of Le Maitre (1989) and, using Zr/TiO2 as an alkalinity index (Winchester and Floyd, 1977), the sample plots on the dividing line transitional between sub alkaline and alkali basalt compositions (Figure 13). Variation diagrams by Mullen (1983), on which the sample plots in the seamount alkalic (oceanic island alkali basalt) field, and Pearce and Norry (1979), where the sample plots in the within plate basalt field, suggest a slight to moderate alkalic composition for the sample (Figures 14 and 15). On Figure 16, Sample 99-1 32.9 m shows enrichment relative to MORB of elements K, Ba, P, and Zr, and a normalized ratio slightly below unity for Y and Sc, all characteristic of oceanic island and within plate basalts (Figure 16; cf. Pearce, 1982). The sample does not show the titanium enrichment relative to MORB shown by alkali within plate basalts.

The normalization to MORB pattern shown by sample 99-1 32.9 m is similar to that of the footwall flows and sills associated with the Windy Craggy Deposit interpreted by Peter and Scott (1999) to be mildly alkalic, within-plate tholeiites (Figure 16).

7.5.3 Monzonite - Sample 99-1 120.0 m

Sample 99-1 120.0 m is representative of the intrusion intersected at the bottom of drill hole 99-1. The intrusion, which has surprisingly low SiO_2 content, plots as a monzo-gabbro on the variation diagram by Debon and Le Fort (1983) (Figure 17). Sample 99-1 120.0 m has a slightly more alkaline character but otherwise is similar geochemically to mafic dyke sample 99-1 32.9 m (Appendix E; Figures 11 to 16). The similarities of the monzo-gabbro geochemistry to that of the mafic dykes suggests they are co-magmatic.

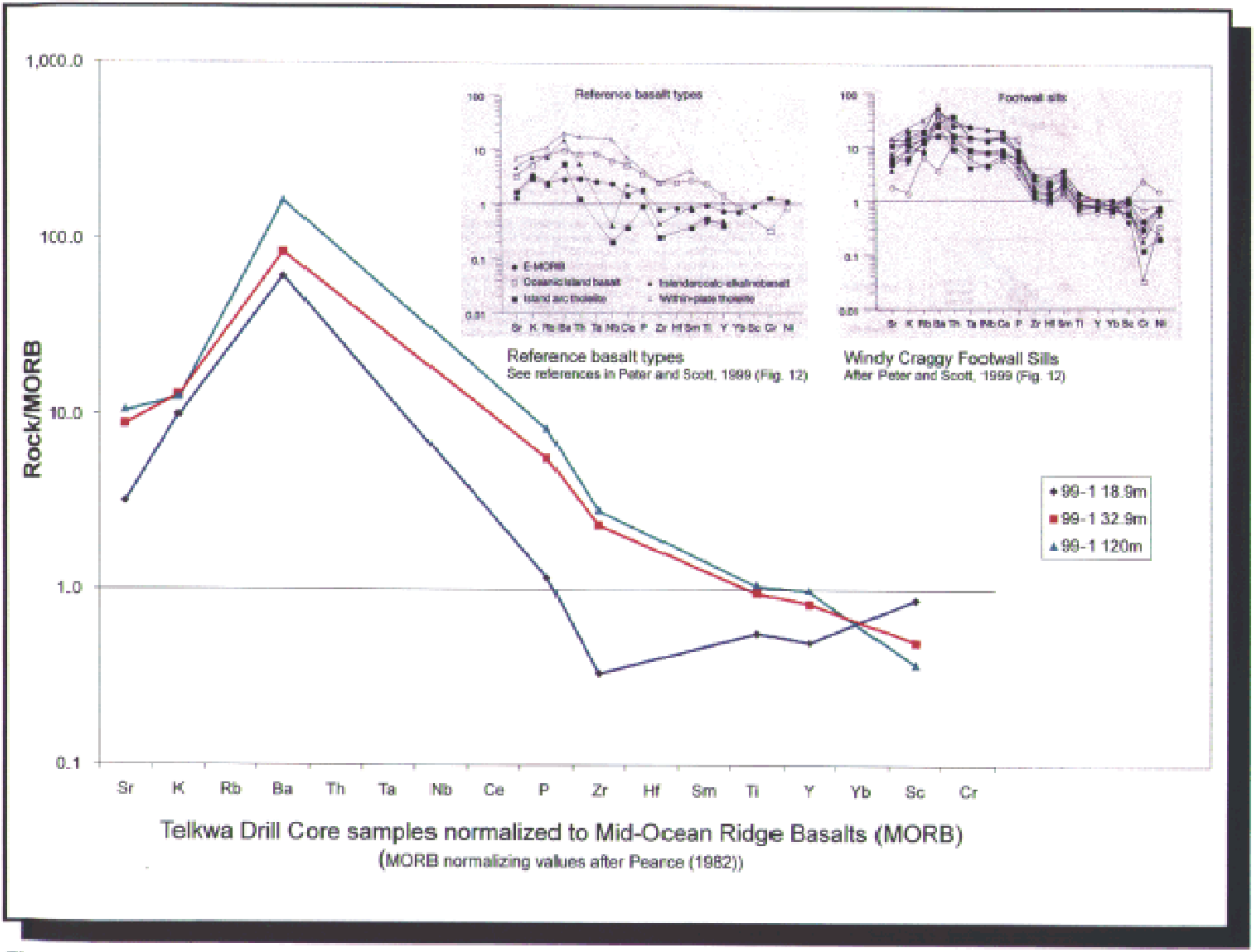

1,000.0
100.0
10.0
1.0
0.1
Rock/MORB
Sr
K
Rb
Ba
Th
Ta
Nb
Ce
P
Zr
Hf
Sm
Ti
Y
Yb
Sc
Cr
Reference basalt types
Footwall sills
E-MORB
Oceanic island basalt
Island arc tholeiite
Within-plate tholeiite
Reference basalt types
See references in Peter and Scott, 1999 (Fig. 12)
Windy Craggy Footwall Sills
After Peter and Scott, 1999 (Fig. 12)
99-1 18.9m
99-1 32.9m
99-1 120m
Telkwa Drill Core samples normalized to Mid-Ocean Ridge Basalts (MORB)
(MORB normalizing values after Pearce (1982))

Figure 16

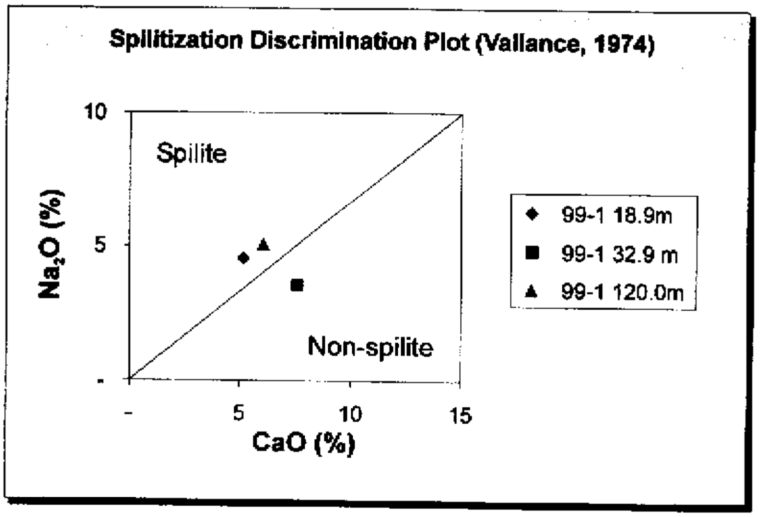


Figure 11

Key
(to Figures 11, 12 and 13)

O	99-1 18.9 m
+	99-1 32.9 m
*	99-1 120.0 m

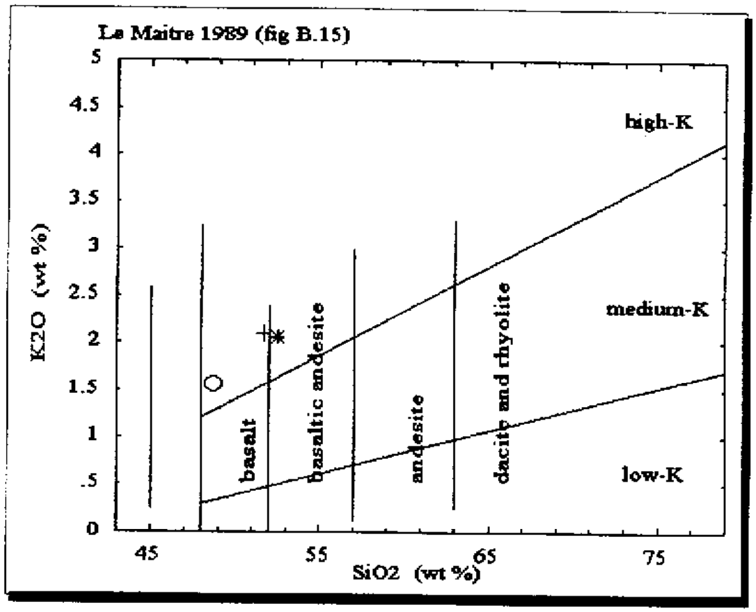


Figure 12

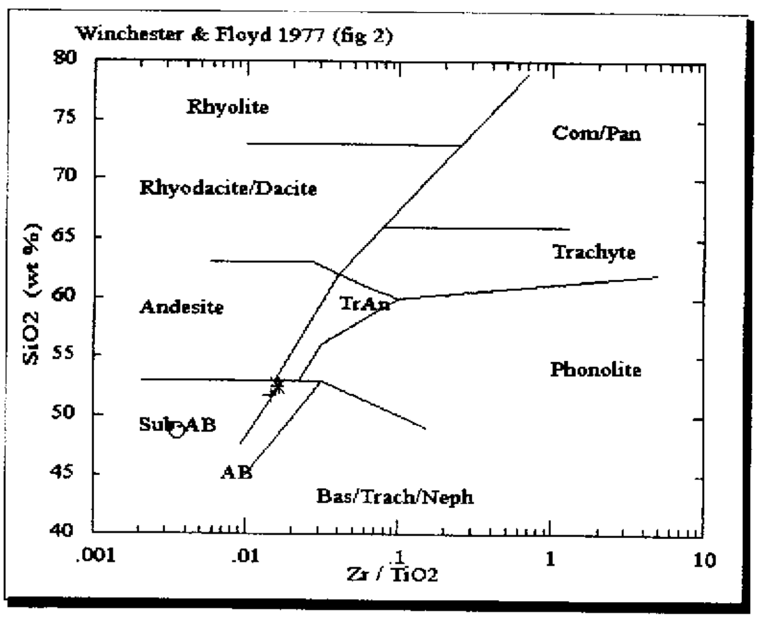


Figure 13

Key to Figure 13

(after Winchester and Floyd, 1973, Fig. 2)

TrAn	Trachyandesite
Sub AB	Sub-alkaline basalt
AB	Alkali Basalt
Com	Comendite
Pan	Pantellerite

8.0 Observations and Recommendations

The similarity in geological setting and style of mineralization of the Del Santo Prospect to the giant Windy Craggy Besshi-Type Deposit in Northwestern British Columbia is a strong positive factor for further exploration in the area of the Del Santo property. Large pyrrhotite-rich massive sulphide bodies, such as those that comprise most Besshi-Type deposits should respond very well to electromagnetic survey methods. It is suggested that exploration in the Del Santo area be broadened in scope to include surrounding areas of similar geology. Examination of government mapping and previous surveys by exploration companies should help determine such areas of similar geology. Once the areas have been selected, any previous airborne and ground electromagnetic surveys should be examined and any strong, preferably short conductors should be considered for further follow-up work. If there are areas of particularly favourable geology that have not had airborne EM coverage, consideration should be given to conducting an airborne survey over such areas.

Of the untested targets from the 1999 program, one is suggested for further work. One drill hole to an estimated depth of 75 m is recommended to test Anomaly A4 (L 2S, 3+25 E) based on the relative strength of the anomaly and favourable geology in the immediate area.

Consideration should also be given to drilling two short drill holes (about 50 m each) in the area of the Del Santo Prospect. The drill holes should be located to test possible down-plunge extensions of mineralization, one 25 m to the north and the other 25 m to the south of the previous fence of drilling in the area of Trench 98-4.

9.0 STATEMENT OF COSTS

Telkwa Gold Corp.
Summary of 1999 exploration

Expense category	Total	Geological	Geochemical	Geophysical	Physical Work	Diamond Drilling
Accounting fees	**1,886.56**	377.31	377.31	377.31	377.31	377.31
Communications	**649.21**	129.84	129.84	129.84	129.84	129.84
Employee accomodation	**2,024.00**	2,024.00				
Office and administration	**510.92**	255.46		255.46		
Office and administration specifically applied to geology	**568.20**	568.20				
Professional fees						
J. Wayne Pickett	Rate $350 /day					
expense recovery (July 10-15)	626.79					
Jul 10-15 (5 days)	1,750.00					
expense recovery (July 16-31)	410.21					
July 16-31 (13 days)	4,550.00					
expense recovery (Aug 2-7)	508.40					
Aug 1-15 (6 days)	2,100.00					
Sept 16-Oct 1 (1998) (6 days)	2,100.00					
expense recovery (Aug 2-Oct 2)	81.46					
	12,126.86	12,126.86				
Jim Cuttle	Rate$370 /day					
Jan 2-5 (3 days)	1,110.00	1,110.00				
Willard D Tompson	Rate $350 / day					
July 5-15 (7.5 days)	**2,625.01**	1,575.00	262.50	262.50	262.50	262.50
July 16-28 (10 days)	**4,200.00**	2,520.00	420.00	420.00	420.00	420.00
Sept 21-22, 25-30,Oct 1-2, 5-9, 13, 28-29, Nov 2-10, 17-30, Dec 1-11, 22, (1998) Jan 4-5, 7 (1999) (26 days)	**9,100.00**	5,460.00	910.00	910.00	910.00	910.00
above discounted @ 50%	**(4,550.00)**	(2,730.00)	(455.00)	(455.00)	(455.00)	(455.00)
	11,375.01	**6,825.00**	**1,137.50**	**1,137.50**	**1,137.50**	**1,137.50**
Promotion	**226.46**	226.46				
Slide Imaging	**791.37**	791.37				
Storage	**2,400.00**	2,400.00				
Supplies	**586.61**	586.61				
Travel and accomodation	**3,377.16**	675.43	675.43	675.43	675.43	675.43
Vehicle	**606.46**	121.29	121.29	121.29	121.29	121.29
Wages	Includes vacation pay and employer's share of EI and CPP					
Thomas Adair	Rate $125 / day					
Jun 14-15, 21 (3 days)	323.76	323.76				
Allan Burrows	Rate $200 / day					
July 5-14 (10 days)	2,216.85					
July 16-23 (6 days)	1,326.02					
	3,542.87	3,542.87				
Fred Loutitt	Rate $250 / day					
July 20-22 (3 days)	936.28				936.28	
Angela Pickett	Rate $120 / day					
July 10-13 (4 days)	458.20					
July 16- 31 (13 days)	1,593.28					
	2,051.48	2,051.48				
	6,854.39	**5,918.11**			**936.28**	

Willard D. Tompson, P.Geo.
Consulting Geologist

Telkwa Gold Corp.
Summary of 1999 exploration

Expense category	Total	Geological	Geochemical	Geophysical	Physical Work	Diamond Drilling
WCB Rate 4.29%	254.34	219.60			34.74	
Specific invoices						
Frontier Geosciences	4,577.00			4,577.00		
Geodrafting Services Ltd.	3,421.58	3,421.58				
J.M. Hutter						
May 17-July 15						
Cat 42 hours @ $60/hour	3,000.00					
Labour	860.00					
Other equipment	850.97					
July 16 - Aug 20						
Cat 42 hours @ $60/hour	4,950.00					
Labour	600.00					
Other equipment	680.44					
Sept 9-12						
Labour	600.00					
	11,541.41				11,541.41	
McElhanney Consulting Services Ltd.	79.50	79.50				
Ministry of Finance	2,200.00	440.00	440.00	440.00	440.00	440.00
Polar Ridge Resources	296.23	59.25	59.25	59.25	59.25	59.25
Major Drilling	10,954.00					10,954.00
TSL Labs	205.82		205.82			
Smithers Exploration Group	110.00	110.00				
Vancouver Petrographics Ltd.	582.75	582.75				
Totals	**79,315.84**	**39,048.62**	**3,146.45**	**7,773.08**	**15,453.06**	**13,894.62**

Willard D. Tompson, P.Geo.
Consulting Geologist

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11.0 CERTIFICATE OF QUALIFICATIONS

I, **J. Wayne Pickett,** do hereby certify that:

1) I am a consulting geologist with a business office at 8256 McIntyre Street, Mission, British Columbia, V2V 6T3.

2) I am a graduate in Earth Sciences (Geology) of Memorial University of Newfoundland (B.Sc., 1974; M.Sc., 1989).

3) I am a Registered Professional Geoscientist in good standing with the Association of Professional Engineers and Geoscientists of the Province of Newfoundland and the Association of Professional Engineers and Geoscientists of the Province of British Columbia. I am a fellow of the Geological Association of Canada.

4) I have practiced my profession as a geologist for the past 24 years during which time I have been involved in exploration for and/or evaluation of several types of mineral deposits including volcanogenic massive sulphide deposits. From this experience, I have gained sufficient expertise in the style of mineralization under consideration to fairly report on its nature and distribution.

5) I own no direct, indirect or contingent interest in the subject property and I do not own directly or indirectly nor do I have any contingent interest in the property, leases and/or securities of Telkwa Gold Corp.

6) I accept express responsibility for the conclusions and recommendations contained herein.

7) The information, opinions, conclusions and recommendations contained herein are based on work performed on the subject property during July of 1999; and on a review of available literature and previous records of work on the property and surrounding area. Literature reviewed comprises published articles in technical journals, reports and maps filed for assessment with the government of British Columbia, and reports supplied by the property owner.

8) This report may be used by Telkwa Gold Corp. for any Prospectus, Release or Statement of Material Facts, Offering Memorandum or other public document related to the subject property, provided that no excerpts are used out of context with the whole.

Dated at Mission, B.C., this 30th day of September, 1999.

J. Wayne Pickett, M.Sc., P.Geo.

PROFESSIONAL
PROVINCE
OF
J. W. PICKETT
BRITISH
COLUMBIA
GEOSCIENTIST

Appendix A

Report on Seismic Refraction Investigation – Del Santo Property, Smithers, B.C

by Russell A. Hillman, P.Eng.

TELKWA GOLD CORPORATION

REPORT ON

SEISMIC REFRACTION INVESTIGATION

DEL SANTO PROPERTY

SMITHERS, B.C.

by

Russell A. Hillman, P.Eng.

July, 1999 **PROJECT FGI-462**

Frontier Geosciences Inc. 237 St. Georges Avenue, North Vancouver, BC, Canada V7L 4T4
Tel: (604) 987 3037 Fax: (604) 984 3074

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Figure 5	Interpreted Depth Section SL-3	Appendix
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Figure 7	Interpreted Depth Section SL-5	Appendix

1. INTRODUCTION

In the period July 12 to July 13, 1999, Frontier Geosciences Inc. carried out a seismic refraction investigation for Telkwa Gold Corporation on the Del Santo property near Smithers, B.C. A Survey Location Plan of the site area is shown at 1:50,000 scale in Figure 1. The survey was carried out across the axis of E.M. conductors identified in a previous MaxMin survey of the site area carried out by Frontier Geosciences Inc. in September, 1998. The seismic lines were surveyed east-west in order to intersect the apparent strike of the E.M. conductors at right angles. The locations of the seismic lines together with the E.M. conductors and Magnetic Intensity are illustrated at 1:2,500 scale in Figure 2, in the Appendix.

The survey coverage of five separate lines was positioned to cross the axes of E.M. conductors A8, A5, A4, A1 and C1. Each seismic line was 115m in length. The purpose of the seismic survey was to determine the depths to bedrock for proposed trenching operations and to determine bedrock velocities that may provide more information on bedrock geology in the site area.

2. THE SEISMIC REFRACTION SURVEY METHOD

2.1 Equipment

The seismic refraction investigation was carried out using a Geometrics, Model S-12, 24 channel, signal enhancement seismograph and Mark Products Ltd. 48 Hz geophones. Geophone intervals along the multicored seismic cable were maintained at 5 metres in order to obtain high resolution, subsurface information. Energy was provided by small explosive charges buried in hand-excavated shotholes along the seismic traverses. The electrical blasting caps in the charges were detonated with a Geometrics, HVB-1, high voltage, capacitor type blaster.

2.2 Survey Procedure

For each spread, the seismic cable was stretched out in a straight line and the geophones implanted. Seven separate "shots" were then initiated: one at either end of the 24 geophone array, three at an intermediate locations along the seismic cable, and one off each end of the cable for basal layer information. Records of the seismic data for each detonation were inspected and filtered prior to digital storage for subsequent analysis. Data recorded during field surveying operations was generally of good to excellent quality.

Throughout the survey, notes were recorded regarding seismic line positions in relation to geological point features and grid station positions. Elevations on the seismic lines were determined by inspection of 1:15,000 topographic mapping of the grid area.

3. SEISMIC REFRACTION ANALYSIS

3.1 Interpretation

Interpreted geological conditions at the site indicate generally thin to moderate thicknesses of overburden overlying the interpreted competent bedrock surface. In general, the velocity contrast between refractive layers was more than adequate for interpretation. Interpreted boundaries with distinct velocities are indicated by continuous coloured lines in the sections. The basal red line represents the interpreted competent bedrock surface.

3.2 Interpretive Method

The final interpretation of the seismic data was arrived at using the method of differences technique. This method utilizes the time taken to travel to a geophone from shotpoints located to either side of the geophone. Using the total time, a small vertical time is computed which represents the time taken to travel from the refractor up to the ground surface. This time is then multiplied by the velocity of each overburden layer to obtain the thickness of each layer at that point.

3.3 Limitations

The depths to subsurface boundaries derived from seismic refraction surveys are generally accepted as accurate to within fifteen percent of the true depths to the boundaries. In some cases, unusual geological conditions may produce false or misleading seismic arrivals with the result that computed depths to subsurface refractors may be less accurate. These conditions may be caused by a "hidden layer" situation or by a velocity inversion. The first condition is caused by the inability to detect the existence of layers because of insufficient velocity contrasts or layer thicknesses. A velocity inversion exists when an underlying layer has a lower velocity than the layer directly above it.

The results are interpretive in nature and are considered to be a reasonably accurate representation of existing subsurface conditions within the limitations of the seismic refraction method.

4. GEOPHYSICAL RESULTS

4.1 General

The results of the interpretations for seismic lines SL-1 through SL-5 are illustrated at 1:500 natural scale in Figures 3 through 7 respectively in the Appendix. Topographic information along the seismic sections was determined by chain and inclinometer and reference to 1:15,000 scale topographic mapping of the survey area.

4.2 Discussion

The results of the interpretations for seismic lines SL-1 through SL-5 indicate that three distinct velocity layers underlie the site area. The thin surficial layer with a velocity of 350 m/s is consistent with surface exposure and shothole intersections of loose sand and gravel or loose, weathered glacial till. Interpreted thicknesses for this layer range from 0.1 m to 4.4 m.

All five seismic sections indicate the presence of a generally thicker intermediate layer with a velocity of 2,000 m/s. Ranging up to 9.7 m in thickness, this layer is interpreted as dense glacial till.

The basal layer on seismic lines SL-1 through SL-5 with a velocity range of 3870 m/s to 6800 m/s is the interpreted competent bedrock surface. The interpreted bedrock surface on Seismic Line 1 at anomaly A8 indicates six separate velocity zones are present in the bedrock along this 115 m traverse. The presence of several bedrock velocity zones suggests a fault is present at this location.

In contrast to SL-1, the bedrock velocity for Seismic Line 2 at anomaly A5 indicates a single velocity with a magnitude of 4750 m/s. This area has been mapped as mafic flows and tuffs.

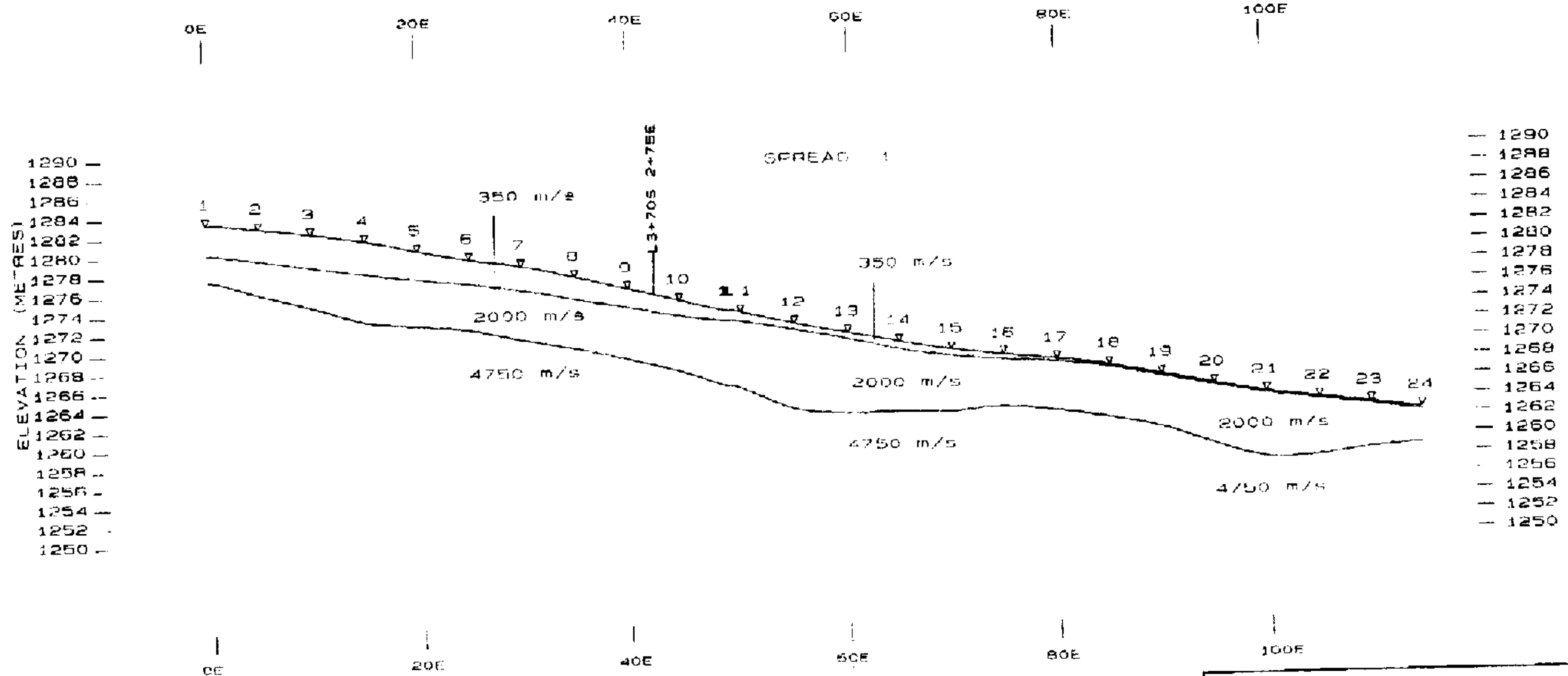
The bedrock velocities for Seismic Line 3 show three velocity zones with a lower velocity zone of 3970 m/s separating similar velocities of 5130 m/s and 5330 m/s. The central, lower velocity zone is coincident with the position of E.M. conductor A4. There is a contact mapped in this area between mafic flows and tuffs and tuffs and flows with chertz slates and siltstone.

Anomaly A1 was intersected by Seismic Line 4. A single velocity of 5000 m/s was identified for the bedrock at this location. This area is also mapped as mafic flows and tuffs.

Seismic Line 5 crossed the axis of E.M. conductor C1. A strong bedrock velocity contrast exists at this location with a 4830 m/s zone to the west and a lower 4900 m/s velocity zone occurring to the east. The contact between these tow velocity zones is approximately at 1+30 E on grid line 4+00 S.

for: Frontier Geosciences Inc.

Russell A. Hillman, P.Eng.



NOTES:
VERTICAL SCALE 1: 500
HORIZONTAL SCALE 1: 500
INSTRUMENT: GEOMETRICS S 12

SEISMIC LINE SL-2

TELKWA GOLD CORPORATION
DEL SANTO PROPERTY, SMITHERS, B.C.

SEISMIC REFRACTION SURVEY

INTERPRETED DEPTH SECTION SL-2

FRONTIER GEOSCIENCES INC.

DATE: JULY 1999 | Fig. 4

P09

Frontier Geosciences Inc.

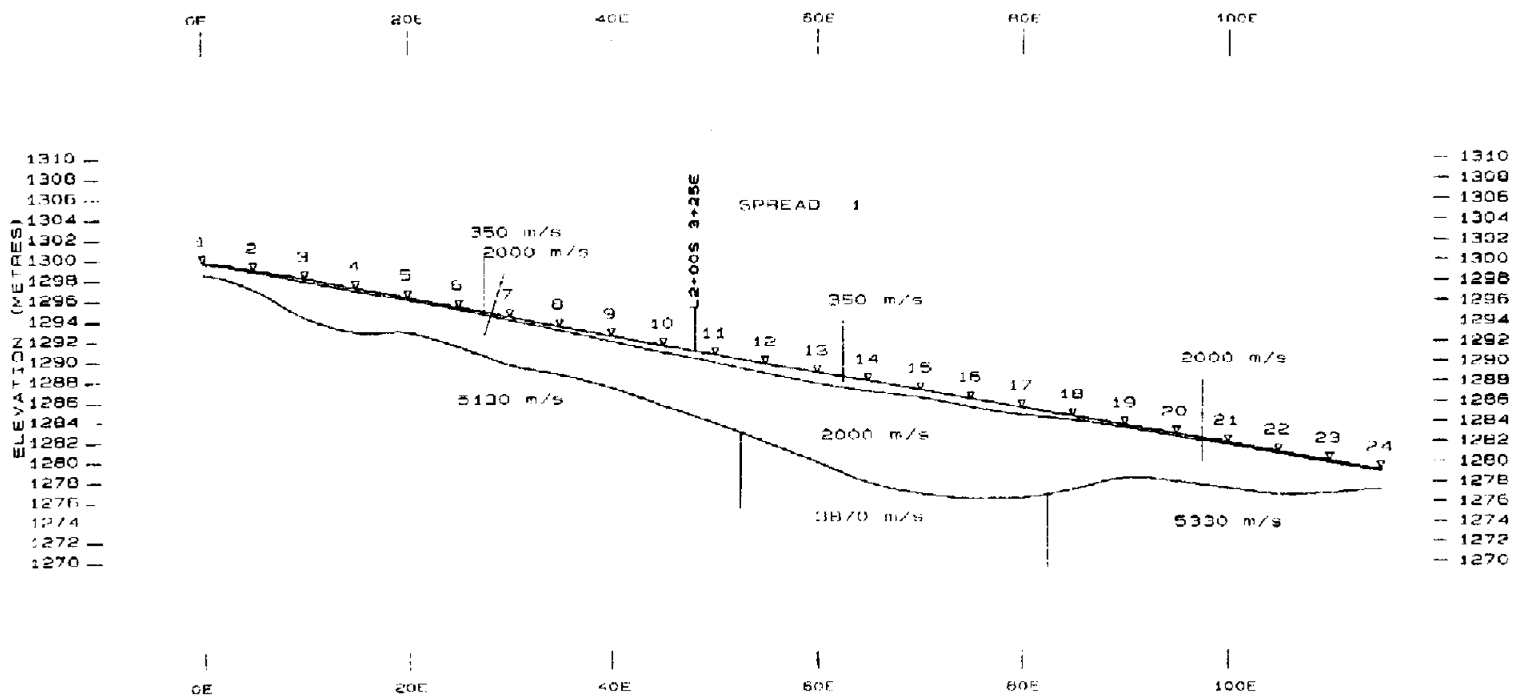
237 St. Georges Ave., North Vancouver, B.C V7L 4T4 · Tel: (604) 987-3037 · Fax (604) 984-3074

FAX

To: Will Thomson
Company: Telkwa
Fax: 1 250 847 2849
From: Russ Hillman
Date: July 19, 1999
Pages sent: 1 including this page

Hello Will,
Here are the results for line 2. Please give me a call with any questions, Russ

	Gecphone #	Station (m)	Depth to Glacial Till (metres)	Depth to Bedrock (metres)
West	1	0	-3.2	-5.9
	2	5	-3.3	-6.8
	3	10	-3.5	-7.5
	4	15	-3.6	-8.3
	5	20	-3.0	-7.7
	6	25	-2.3	-7.2
	7	30	-2.5	-7.6
	8	35	-2.4	-7.4
	9	40	-1.9	-7.3
	10	45	-1.8	-7.3
	11	50	-0.9	-7.9
	12	55	-0.5	-8.8
	13	60	-0.5	-8.3
	14	65	-0.9	-7.2
	15	70	-0.7	-6.4
	16	75	-0.5	-5.4
	17	80	-0.3	-5.4
	18	85	-0.2	-5.4
	19	90	-0.3	-5.5
	20	95	-0.2	-6.3
	21	100	-0.2	-6.8
	22	105	-0.2	-6.0
	23	110	-0.2	-4.7
East	24	115	-0.3	-3.9



NOTES:
VERTICAL SCALE 1: 500
HORIZONTAL SCALE 1: 500
INSTRUMENT: GEOMETRICS S-12

SEISMIC LINE SL-3

TELKWA GOLD CORPORATION
DEL SANTO PROPERTY, SMITHERS, B.C.

SEISMIC REFRACTION SURVEY

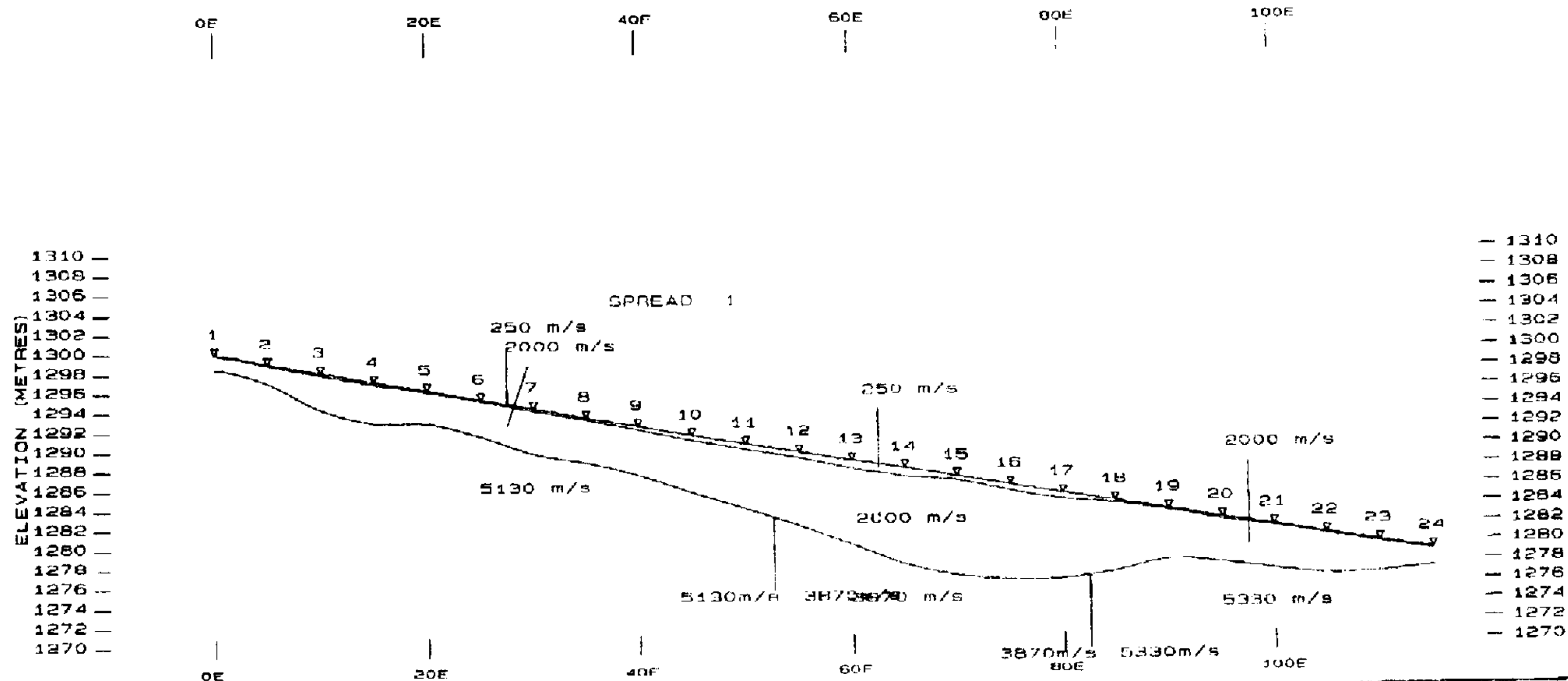
INTERPRETED DEPTH SECTION SL-3

FRONTIER GEOSCIENCES INC.

DATE: JULY 1999		Fig. 5

P10

P02



NOTES:
VERTICAL SCALE 1: 500
HORIZONTAL SCALE 1: 500
INSTRUMENT: GEOMETRICS S-12

SEISMIC LINE SL-3

TELKWA GOLD CORP.

DELSANTO PROJECT

SEISMIC REFRACTION SURVEY

INTERPRETED DEPTH SECTION

FRONTIER GEOSCIENCES INC.

DATE: JULY 1999 | Fig. 5

Frontier Geosciences Inc.

237 St. Georges Ave., North Vancouver, B.C. V7L 4T4 · Tel: (604) 987-3037 · Fax (604) 984-3074

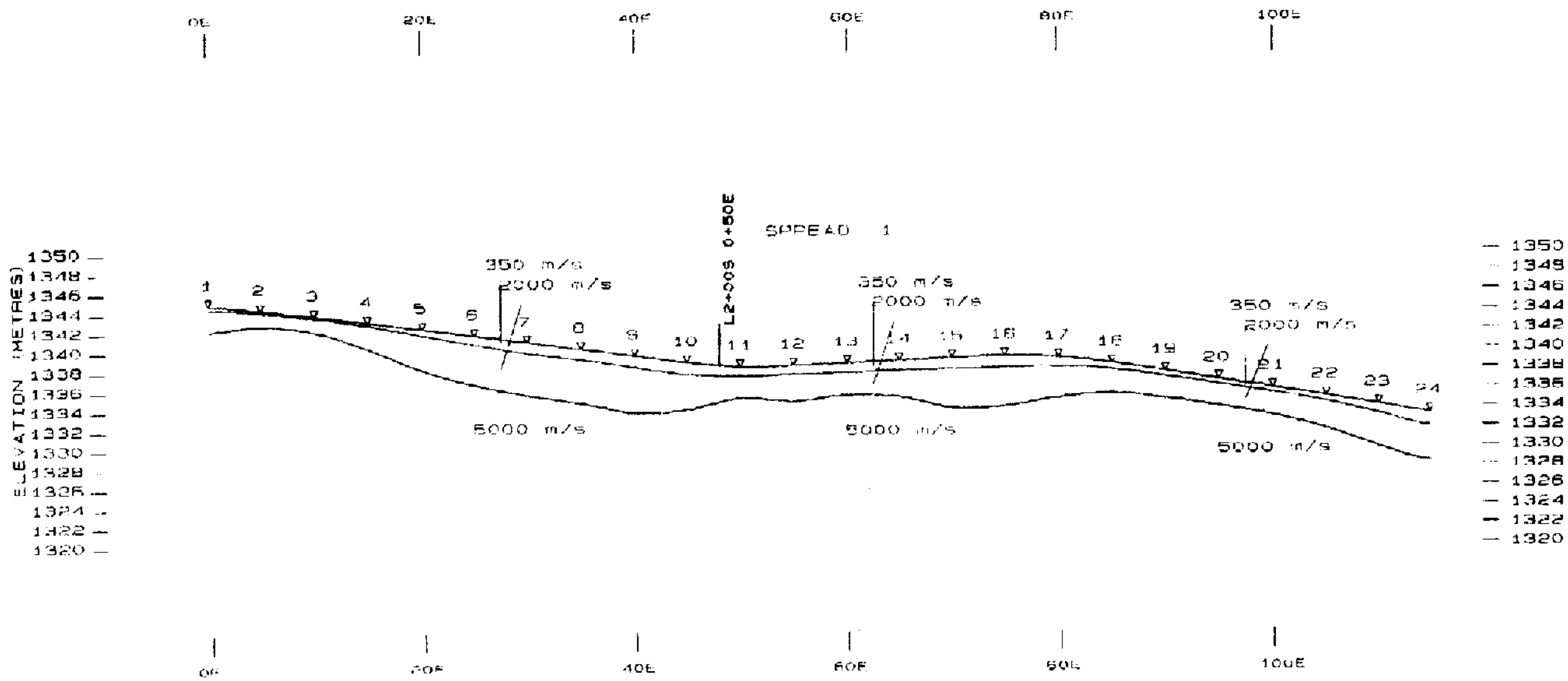
FAX

To: Will Thomson
Company: Telkwa Gold Corp.
Fax: 1 250 847 2849
From: Russ Hillman
Date: July 21, 1999
Pages sent: 2 including this page

Hello Will,

Here are the results for line 3. I included the bedrock velocity to show the low velocity zone between Geo. 12 and 17.

	Geophone #	Station (m)	Depth to Glacial Till (metres)	Depth to Bedrock (metres)	Bedrock Velocity (m/s)
West	1	0	-0.1	-1.2	5130
	2	5	-0.1	-1.9	5130
	3	10	-0.3	-3.8	5130
	4	15	-0.3	-4.2	5130
	5	20	-0.2	-3.4	5130
	6	25	-0.1	-3.8	5130
	7	30	-0.3	-4.7	5130
	8	35	-0.3	-4.6	5130
	9	40	-0.4	-5.0	5130
	10	45	-0.5	-5.8	5130
	11	50	-0.6	-6.6	5130
	12	55	-0.6	-7.6	3870
	13	60	-0.8	-8.6	3870
	14	65	-0.9	-9.9	3870
	15	70	-0.4	-10.1	3870
	16	75	-0.6	-9.7	3870
	17	80	-0.6	-8.8	3870
	18	85	-0.3	-7.2	5330
	19	90	-0.1	-5.2	5330
	20	95	-0.3	-4.7	5330
	21	100	-0.1	-4.5	5330
	22	105	-0.1	-4.2	5330
	23	110	-0.2	-3.2	5330
East	24	115	-0.1	-2.2	5330



SEISMIC LINE SL-4

NOTES:
VERTICAL SCALE 1: 500
HORIZONTAL SCALE 1: 500
INSTRUMENT: GEOMETRICS S-12

TELKWA GOLD CORPORATION
DEL SANTO PROPERTY, SMITHERS, B.C.

SEISMIC REFRACTION SURVEY

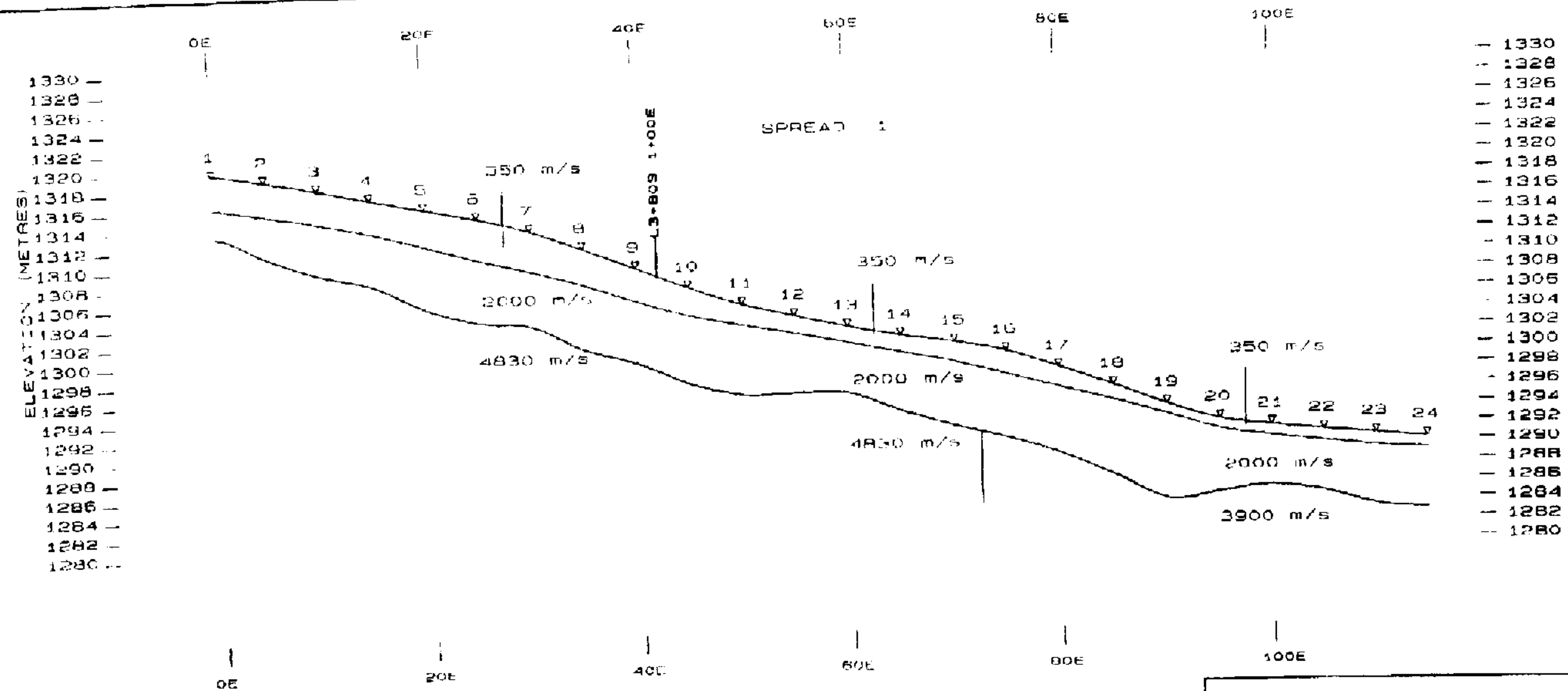
INTERPRETED DEPTH SECTION SL-4

FRONTIER GEOSCIENCES INC.

DATE: JULY 1999		Fig. 6

Here are the depths for line 4. The bedrock velocity is a uniform 5000 m/s for this line.
Please give me a call with any questions, Russ

	Geophone #	Station (m)	Depth to Glacial Till (metres)	Depth to Bedrock (metres)
West	1	0	-0.5	-2.6
	2	5	-0.2	-1.6
	3	10	-0.2	-1.6
	4	15	-0.2	-2.7
	5	20	-0.7	-4.2
	6	25	-0.9	-5.1
	7	30	-1.2	-5.4
	8	35	-1.1	-5.6
	9	40	-1.2	-5.8
	10	45	-1.4	-4.8
	11	50	-0.9	-3.2
	12	55	-0.9	-3.7
	13	60	-1.1	-3.3
	14	65	-0.9	-3.7
	15	70	-1.2	-5.1
	16	75	-1.2	-5.1
	17	80	-1.1	-4.1
	18	85	-0.5	-3.0
	19	90	-0.5	-2.8
	20	95	-0.5	-2.7
	21	100	-0.5	-2.8
	22	105	-0.5	-3.4
	23	110	-0.9	-4.3
East	24	115	-1.4	-5.3



NOTES:
VERTICAL SCALE 1: 500
HORIZONTAL SCALE 1: 500
INSTRUMENT: GEOMETRICS S-12

SEISMIC LINE SL-5

TELKWA GOLD CORPORATION DEL SANTO PROPERTY, SMITHERS, B.C.		
SEISMIC REFRACTION SURVEY		
INTERPRETED DEPTH SECTION SL-5		
FRONTIER GEOSCIENCES INC.		
DATE: JULY 1999		Fig. 7

Frontier Geosciences Inc.

237 St. Georges Ave., North Vancouver, B.C. V7L 4T4 · Tel: (604) 987-3037 · Fax (604) 984-3074

FAX

To: Will Thomson
Company: Telkwa Gold Corp.
Fax: 1 250 847 2849
From: Russ Hillman
Date: July 20, 1999
Pages sent: 1 including this page

Hello Will,
Here are the results for line 5. The bedrock velocity is 4830 m/s west of Geophone 16 and 3900 m/s to the east. Please give me a call with any questions, Russ

	Geophone #	Station (m)	Depth to Glacial Till (metres)	Depth to Bedrock (metres)
West	1	0	-3.6	-6.4
	2	5	-3.6	-7.9
	3	10	-3.5	-8.7
	4	15	-3.3	-8.8
	5	20	-3.7	-10.2
	6	25	-4.3	-10.6
	7	30	-4.4	-9.8
	8	35	-3.6	-10.4
	9	40	-3.5	-9.8
	10	45	-3.1	-9.9
	11	50	-2.0	-9.3
	12	55	-1.8	-8.0
	13	60	-1.6	-6.9
	14	65	-1.8	-7.8
	15	70	-1.9	-8.7
	16	75	-2.8	-9.0
	17	80	-2.1	-8.9
	18	85	-1.6	-9.3
	19	90	-0.9	-9.9
	20	95	-1.0	-7.6
	21	100	-1.2	-6.2
	22	105	-1.2	-6.4
	23	110	-1.4	-7.4
East	24	115	-1.2	-7.5

Appendix B
Till Sample Analyses

Certificate Number	Sample Name	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
9V0269SG	155651	3	0.2	55	24	166
9V0269SG	155655	10	0.2	65	23	126

Appendix C

Diamond Drill Log D.D.H. 99-1

Telkwa Gold Corporation

Diamond Drilling Log

D.D.H. 99-1

Property:	**Del Santo**		**Local Grid Coordinates**		**Depth:**	**Az.**	**Dip**
Date Started:	July 26, 1999	Drilling Contractor: Major Drilling Group, Smithers, BC	North:	3+99 S	0.00 m	245°	-45°
Completed:	July 31, 1999		East:	1+80 E	118.87 m	245°	-44°
Final Depth:	**120.40 m**	Linear measure in metres	**UTM Grid Coordinates**				
			North:	6059839			
			East:	650030	Elevation:	1297 m	

Logged by: J. Wayne Pickett, P.Geo.

Abbreviations: C.A. - relative to core axis

Summary of Lithological Units

LATE CRETACEOUS

MONZONITE

Monzonite intrudes basalt of Unit lJN1 near the bottom of the drill hole. It is pale green to pinkish grey, fine grained and consists of an intergrowth of mineral grains typically 1 mm across comprising saussuritized plagioclase, k-feldspar and minor quartz and biotite.

KASALKA GROUP

Unit Kd - Mafic dykes

Mafic dykes intrude basalt of Unit lJN1. The dykes are dark grey generally fine grained and moderately magnetic. They typically contain about 10% chloritized and locally hematized phenocrysts, which are about 2 mm across, in a subophitic intergrowth of saussuritized plagioclase and mafic minerals. In places, tiny fibrous feldspar crystals are common. Typically, the dyke contacts are at 70 degrees C.A. They are slightly epidotized and carbonatized in places but are generally much less altered than the intruded basalt.

EARLY TO MIDDLE JURASSIC

HAZELTON GROUP

NILKITWA FORMATION

Unit lJN1 - Basalt

Basalt is medium green, locally amygdaloidal, spilitized, moderately chloritized, slightly to strongly epidotized and typically contains 5 to 20% calcite and fewer quartz veins. Larger 2 to 5 cm diameter amygdules are typically filled with calcite with or without chlorite and epidote, smaller 2 to 3 mm diameter amygdules are chlorite filled. Long axis of amygdules are typically aligned at 30 degrees C.A.. Chlorite also fills formerly irregular open spaces and completely replaces primary mafic phenocrysts in places. Hyaloclastite zones are present locally and consist of angular basalt fragments in an epidote and calcite matrix, hyaloclastite zones are strongly spilitized.

From	To	Description
0.00	**3.05**	**Casing**
3.05	**21.94**	**Basalt (Unit IJN1),** medium green, locally amygdaloidal, slightly to strongly epidotized, few calcite veins
3.05	12.90	Medium grained, about 20% of section epidotized including pervasive epidotization and epidote veins, few calcite and quartz veins, few calcite amygdules about 2 mm across and locally several chlorite amygdules about 1 mm across
5.18	5.40	Vuggy **quartz vein** containing lesser epidote and chlorite
12.90	18.25	Strongly epidotized, several calcite veins, most of section contains 10 to 30% calcite and epidote amygdules, typically 2 to 5 mm across, some sections contain up to 10% chlorite amygdules, typically 1 to 2 mm across
18.25	19.90	Medium green, medium grained, about 10% elongate chlorite amygdules about 2 to 3 mm across, locally epidote occurs with the chlorite, few calcite and quartz veins. Long axis of amygdules about 35% C.A.
19.90	21.40	Moderately epidotized, about 10 % chlorite and calcite amygdules, typically 1 to 2 mm across; few calcite and quartz veins locally
20.15	20.40	Brecciated, several calcite and quartz veins, calcite and quartz fill breccia matrix
21.40	21.94	Unit is well foliated as defined by parallel calcite, epidote and hematite veins, trace pyrite, foliation at 45 deg. C.A.
21.90	21.94	**Fault zone** - rock is gouged and fractured
21.94	**26.60**	**Basalt (Unit IJN1)** intruded by several **Mafic Dykes (Unit Kd)**
21.94	22.04	Dark grey fine grained **Mafic Dyke (Unit Kd)**, several hematized phenocrysts about 1 mm across, 2 mm wide chilled margin, contacts at 70 deg. C.A.
22.04	22.38	Medium green epidotized **Basalt (Unit IJN1)**; several 1 mm to 1 cm wide epidote, calcite and lesser hematite veins
22.38	22.50	Dark grey fine grained **Mafic Dyke (Unit Kd)**
22.50	23.50	Medium green **Basalt (Unit IJN1)**; irregular 2 mm wide chlorite masses filling former open spaces, about 10% epidote and lesser calcite veins
23.50	24.06	Dark grey fine grained **Mafic Dyke (Unit Kd)**, saussuritized plagioclase, abundant 2 mm wide hematite-bearing chloritized phenocrysts; contact undulates but overall about 70 deg. C.A.
24.06	26.60	Medium green **Basalt (Unit IJN1)**
26.60	**37.50**	**Mafic Dykes (Unit Kd)**; dark grey, abundant 1 to 2 mm wide chlorite masses filling irregular former open spaces, altered phenocrysts and amygdules; matrix is subophitic intergrowth of plagioclase and mafic minerals.
26.60	27.38	Dark grey, fine grained **Mafic Dyke (Unit Kd)**, abundant 2 mm wide irregular chlorite and hematite masses contact at 80 deg. C.A. 26.60 to 27.38 - chilled margin
27.38	27.80	Dark grey, fine grained **Mafic Dyke (Unit Kd)**, about 5% epidote and calcite veins
27.80	28.10	Dark grey, fine grained **Mafic Dyke (Unit Kd)**, abundant 2 mm wide irregular chlorite and hematite masses
28.10	28.75	Dark grey, fine grained **Mafic Dyke (Unit Kd)**
28.10	28.40	About 50% epidote and calcite veins plus lesser quartz veins

From	To	Description
28.75	29.60	Dark grey, fine grained **Mafic Dyke (Unit Kd)**, abundant 2 mm wide irregular chlorite and hematite masses At 29.60 m - 1 cm wide slickenslided **gouge zone,** slickenslide plane at 40 deg. C.A., rake of slickenslides at 20 deg. C.A.
29.60	37.50	Dark grey **Mafic Dyke (Unit Kd)**; several 1 mm wide hematized and chloritized phenocrysts in subophitic intergrowth of plagioclase and mafic minerals; core is broken in several sections, rock is brecciated in some sections, slickenslided in places, epidote and calcite veins containing 0.5% pyrite occur along minor faults At 30.20 m - slickenslides along two planes, 10 and 35 deg. C.A., rake of slickenslides along both planes about 50 deg. C.A. 30.50 to 30.52 - slickenslides developed in quartz, calcite veins At 31.00 m - few calcite amygdules, about 2 mm in diameter
32.00	33.50	Trace to 0.5% pyrite
33.50	34.50	Broken core, abundant slickenslides typically developed along epidote, calcite and quartz veins containing about 1% **pyrite**
34.50	37.50	Core is less broken, slickenslides developed along calcite, epidote veins, trace **pyrite** throughout At 36.40 m - few calcite amygdules typically 3 mm in diameter

37.50	**66.03**	**Basalt (Unit IJN1)** intruded by several **Mafic Dykes (Unit Kd).** Basalt is medium to dark green in colour, moderately to strongly epidotized, most sections contain up to 30% calcite amygdules, typically 3 to 5 mm across; long axis of amygdules are aligned 20 to 30 deg. C.A.
37.50	37.93	Amygdaloidal **Basalt (Unit IJN1)**
37.93	37.97	Dark grey **Mafic Dyke (Unit Kd),** contacts typically 45 deg. C.A.
37.97	38.88	Amygdaloidal **Basalt (Unit IJN1)**
38.88	38.92	Dark grey **Mafic Dyke (Unit Kd),** contacts typically 70 deg. C.A.
38.92	41.45	Amygdaloidal **Basalt (Unit IJN1)**
41.45	42.00	Dark grey **Mafic Dyke (Unit Kd)**
42.00	42.05	**Gouge**
42.05	43.00	**Basalt (Unit IJN1)**
43.00	43.65	Dark grey **Mafic Dyke (Unit Kd)**; 0.5% **pyrite** along fracture planes in places
43.65	44.55	**Basalt (Unit IJN1)**
44.55	46.55	Dark grey **Mafic Dyke (Unit Kd);** 5% epidote and calcite veins At 46.55 m - slickenslides along plane 40 deg. C.A., rake 10 deg. C.A.
46.55	47.95	Strongly epidotized, mottled, locally amygdaloidal **Basalt (Unit IJN1)**
47.95	48.30	Dark grey **Mafic Dyke (Unit Kd),** contacts typically 70 deg. C.A.
48.30	49.40	Moderately epidotized **Basalt (Unit IJN1)** 48.95 to 49.10 hyaloclastite
49.40	49.55	Dark grey **Mafic Dyke (Unit Kd),** contacts typically 55 deg. C.A.
49.55	50.25	Slightly to moderately epidotized **Basalt (Unit IJN1)**
50.25	50.70	Grey **Mafic Dyke (Unit Kd)**
50.70	51.20	Slightly to moderately epidotized **Basalt (Unit IJN1)**

From	To	Description
51.20	51.75	Grey **Mafic Dyke (Unit Kd),** limonitized along fractures
51.75	56.65	Grey mafic rocks **(Basalt (Unit IJN1)? or Mafic Dykes (Unit Kd)?**) intruded by **Mafic Dykes (Unit Kd);** rock is fractured broken core in much of section, 5% to locally 20% calcite, hematite and epidote veins
52.90	53.40	Grey **Mafic Dyke (Unit Kd)**
		At 55.55 m - several generations of veins; epidote veins cut by later hematite veins and both cut by later calcite veins
56.65	57.20	Dark grey **Mafic Dyke (Unit Kd)**
57.20	58.20	Moderately chloritized, epidotized **Basalt (Unit IJN1)**
58.20	58.60	Dark grey **Mafic Dyke (Unit Kd)**
58.60	58.77	**Basalt (Unit IJN1)**
58.77	59.50	Dark grey **Mafic Dyke (Unit Kd)**; feldspars altered to epidote or calcite
59.50	61.40	Strongly epidotized **Basalt (Unit IJN1)**, mottled texture caused by pervasive epidotization, several calcite veins
61.40	62.04	Dark grey **Mafic Dyke (Unit Kd)**; core is broken at 61.40 m
62.04	63.15	Moderately to strongly epidotized **Basalt (Unit IJN1)**, several calcite veins, less pervasively epidotized sections contain abundant 1-2 mm chloritized phenocrysts
62.75	62.83	Irregular reddish siliceous fragments, possibly chert, in a pervasively epidotized matrix
63.15	63.20	Dark grey **Mafic Dyke (Unit Kd);** contacts at 70 deg. C.A.
63.20	65.83	Moderately to strongly epidotized **Basalt (Unit IJN1)**, several calcite veins, less pervasively epidotized sections contain abundant 1-2 mm chloritized phenocrysts
65.83	66.03	Dark grey **Mafic Dyke (Unit Kd)**

66.03	**85.00**	**Basalt (Unit IJN1),** slightly to strongly epidotized, most sections amygdaloidal
66.03	67.60	**Basalt (Unit IJN1)**
67.60	69.08	Pervasively epidotized **Basalt (Unit IJN1),** abundant calcite
69.08	71.20	Medium green **Basalt (Unit IJN1),** abundant irregular open space fillings, filled by some combination of epidote, chlorite and calcite
70.50	70.96	Fault zone, gouge, slickenslided calcite plane at 10 deg. C.A.
71.20	73.90	Pervasively epidotized **Basalt (Unit IJN1),** abundant calcite veins, several chlorite and calcite amygdules and chlorite-filled irregular open space fillings
73.90	75.20	Medium green **Basalt (Unit IJN1),** slightly epidotized, abundant 2 mm long epidotized feldspars
75.20	85.00	Mostly moderately epidotized, mottled **Basalt (Unit IJN1),** locally brecciated (hyaloclastite), few grey massive sections e.g. 79.02 to 80.00 m
77.15	77.24	Pink hematized calcite-rich **fault zone,** slickenslides along plane at 40 deg. C.A., rake 0 deg. C.A.

85.00	**95.79**	**Basalt (Unit IJN1)** intruded by a few **Mafic Dykes (Unit Kd)**
85.00	85.13	Grey **Mafic Dyke (Unit Kd)**
85.13	85.72	Medium green **Basalt (Unit IJN1),** moderately chloritized, several 1-2 mm chlorite amygdules, minor calcite
85.72	86.05	Dark grey **Mafic Dyke (Unit Kd),** contacts typically 80 deg. C.A.

From	To	Description
86.05	89.80	Medium green **Basalt (Unit IJN1),** slightly epidotized, several to abundant 1 to 3 mm chlorite amygdules long axis of amygdules at 30 deg. C.A.
89.80	92.05	Medium green-grey **Basalt (Unit IJN1),** brecciated sections (hyaloclastite), about 15% irregular chlorite and calcite irregular fillings.
92.05	94.10	Strongly epidotized, moderately chloritized and hematized **Basalt (Unit IJN1)**
94.10	95.00	Grey **Mafic Dyke (Unit Kd)**, several calcite amygdules typically 2 mm across
94.49	94.89	Breccia developed subparallel to core axis; breccia consists of 0.5 to 1 cm angular fragments of dyke in a calcite matrix
95.00	95.65	Hematized brecciated **Basalt (Unit IJN1),** abundant calcite veinlets
95.65	95.79	Light **Mafic Dyke (Unit Kd)**, contacts at 70 deg. C.A.

95.79	**118.42**	**Basalt (Unit IJN1)**
95.79	98.78	Moderately epidotized **Basalt (Unit IJN1)**, about 20% calcite veins
95.79	95.94	Pale green carbonate-rich breccia, abundant calcite/quartz veins typically 45 deg. C.A.
96.46	96.51	Gouge, calcite/quartz veins 65 deg. C.A.
98.78	101.40	Medium green slightly to moderately epidotized **Basalt (Unit IJN1),** about 20% calcite/quartz veins 99.20 to 99.36 and 100.20 to 100.30 - Rounded, epidotized miniature pillows? About 7 to 10 cm in diameter
101.40	102.56	Hematized **Basalt (Unit IJN1),** abundant calcite and quartz veins
102.14	102.26	Vuggy quartz/epidote/calcite vein, slickenslides along plane at 40 deg. C.A., rake 5 deg. C.A.
102.56	104.00	Mottled, strongly epidotized, chloritized **Basalt (Unit IJN1),** about 30% calcite veins, locally hematized
104.00	118.42	Medium green slightly to moderately epidotized **Basalt (Unit IJN1),** several 1 mm wide irregular chlorite-filled formerly open spaces, about 10% calcite veins
108.30	109.50	Basalt is bleached, hematized, about 80% quartz and calcite veins, vuggy in places; veins are aligned at 30 deg. C.A. in two different directions
109.50	112.60	**Basalt (Unit IJN1)** is moderately epidotized, about 20% calcite veins
112.60	118.42	**Basalt (Unit IJN1)** is medium green changing to medium grey down hole, slightly epidotized, locally about 5% calcite veins 118.12 to 118.42 - foliation defined by hematite/chlorite veins, foliation aligned 80 deg. C.A.

118.42	**120.40**	**Monzonite**
118.42	120.40	Pale green to pale pinkish grey **Monzonite** consisting of granular intergrowth of saussuritized plagioclase, K-feldspar, lesser quartz and biotite, mineral grains typically 1 mm across At 118.84 - 1 cm wide pink co-magmatic felsic dyke, similar grain size to host

120.40		**E.O.H.**

Appendix D

Thin Section Petrography

by J.F. Harris of Vancouver Petrographics Ltd.

Vancouver Petrographics Ltd.

8080 GLOVER ROAD, LANGLEY, B.C. V1M 3S3
PHONE (604) 888-1323 • FAX (604) 888-3642
email: vanpetro@vancouver.net

Report for: Willard D. Tompson Ltd.,
P.O. Box 395,
SMITHERS, B.C.
V0J 2N0

Job 990401

August 24, 1999

SAMPLE:

3 core samples, numbered as below, were submitted for petrographic examination. Typical pieces of each sample were prepared as standard thin sections.

DDH 99-1 32.9 m.
DDH 99-1 74.7 m.
DDH 99-1 119.3 m.

SUMMARY:

All three samples are mafic-intermediate igneous rocks of minor intrusive textural aspect. The first two could, alternatively, be flows, though no diagnositic features specific to extrusive origin are present.

The sample from 32.9m. is a meshwork-textured diabase consisting of an intergrowth of essentially fresh plagioclase and a mafic assemblage which includes some fresh biotite, but is dominated by a totally altered constituent pseudomorphed by carbonate, probable talc and micron-sized rutile and/or opaques. This most likely originated as pyroxene or, possibly, olivine.

The sample from 74.7m. is a finer-grained rock which appears to be another variety of diabase. In this case the dominant plagioclase is strikingly fresh, and occurs in parallel intergrowth with elongate flakes and pockets of chlorite and fresh subhedra of augite. Epidote occurs as veinlets and irregular segregations. The well-developed oriented fabric of this rock is presumed to be a flow feature.

The sample from 119.3m. is the coarsest-grained of the three, and exhibits dioritic rather than gabbroic (diabase) composition. It consists essentially of a meshwork intergrowth of plagioclase and original hornblende - both showing strong pervasive alteration of a distinctive type. Quartz and chlorite are minor interstitial accessories.

J.F. Harris, Ph.D. (604) 929-5867

SAMPLE: DDH 99-1 32.9m. **DIABASE**

Estimated mode

Plagioclase	64
K-feldspar	1
Biotite	7
Carbonate	12
Talc	6
Chlorite	4
Apatite	1
Rutile)	5
Opaques)	

This sample is composed esentially of a meshwork aggregate of lath-like, elongate/prismatic plagioclase grains, 0.3 - 1.0 mm in length (rarely to 2.0 mm), with relatively abundant intergrown mafics.

The mafics include small flakes of fresh brown biotite, but the dominant mafic is totally altered - to turbid, brownish pseudomorphs made up of carbonate, possible talc, and micron-sized opaques (probably Fe oxides and/or rutile) in varied proportions. These most likely represent original pyroxenes or possibly olivine.

The prominent, dark, equant phenocrysts, 0.5 - 1.0 mm or so in size, observable macroscopically in the off-cut, are of this type, with the opaques commonly occurring in rimming mode. Smaller grains of altered mafics (typically composed mainly of carbonate) also occur throughout the rock, interstitial to the plagioclase meshwork.

Another form of altered mafic is of tabular/prismatic form, and consists of probable chlorite with flecks and parallel wisps of opaques (probably rutile).

Opaques also occur as evenly disseminated, discrete, sub-equant grains 0.02 - 0.1 mm in size (probably including some sulfides), and as networks of minute microlites and dendrites within some plagioclase grains - without apparent relation to the silicate granularity.

The plagioclase component in this rock is essentially fresh, but for incipient dustings of sericite and carbonate. Judging from the faint yellow cobaltinitrite stain locally distinguishable in the off-cut, it is accompanied by traces of K-feldspar.

The sectioned area is cut by a thin fracture, partly infilled by platy carbonate and minor intergrown chlorite.

This rock is of andesitic to basaltic compostion. Its holo-crystalline texture is most typical of a diabase (dyke rock), but does not preclude the possibility of extrusive origin.

SAMPLE: DDH 99-1 74.7m. **FLOW-TEXTURED DIABASE**

Estimated mode

Plagioclase	53
Augite	18
Chlorite	20
Epidote	5
Sphene	3
Opaques	1

The appearance of this rock in the off-cut differs markedly from that of the previous sample. Instead of a meshwork texture, it shows scattered, small, buff-coloured phenocrysts in a plagioclase-rich matrix which hosts abundant, tiny, parallel-oriented, dark mafics of platy or acicular habit.

In thin section the rock is found to consist of close-packed, sub-oriented, prismatic grains of fresh plagioclase, 0.1 - 0.7 mm in length, with various intergrown mafics.

The most prominent of the latter (representing the dark, platy constituent seen in the off-cut) is chlorite - often with included tiny granules of sphene. Also relatively abundant is a colourless to pale brown mineral of moderate to high relief and birefringence which is most likely augite. This occurs as small, fresh, stumpy/ prismatic to sub-equant subhedra, 50 - 200 microns in size, rather evenly disseminated in intergranular mode to the oriented plagioclase- chlorite aggregate.

Epidote is the remaining constituent. Together with intergrown chlorite, this makes up a well-defined 1 mm veinlet which transects one end of the sectioned area. It also occurs as sporadic, irregular-shaped clumps 1 - 3 mm in size throughout the rock (the buff-coloured "phenocrysts" in the off-cut). These are partly of cryptocrystalline character, and show a crustified/cellular texture. Their derivation is uncertain.

This is a mafic-rich rock of diabasic affinitites, in which the partially oriented fabric has the aspect of a flow texture. It could be of extrusive or minor intrusive (dyke) origin.

SAMPLE: DDH 99-1 119.3m. DIORITE

Estimated mode

Plagioclase	24
Sericite	10
Quartz	7
Altered hornblende	30
Carbonate	24
Chlorite	3
Apatite	1
Opaques	1

Macroscopic examination of the off-cut of this sample suggests textural similarities to that from 32.9m. It exhibits a relatively coarse meshwork texture, though the sectioned portion includes a central band where the texture shows gradation to a finer variant. It also incorporates two elongate features (concordant with the banded grain-size variations), which appear to represent lenticular mineralogical segregations (xenoliths? amygdules?), 1-2 cm in length and several mm in thickness.

In thin section the grain size variations are barely evident, and the majority of the slide consists of a meshwork-textured intergrowth of plagioclase and a totally altered mafic - clearly recognizable from its crystal form as having originated as hornblende. These two constituents occur as subhedral-euhedral prismatic grains, 0.5 - 1.5 mm in length. A little accessory quartz occurs as angular interstitial pockets between the principal constituents.

The plagioclase shows even, argillic turbidity and, in addition, is partially altered to fine-grained sericite and intergrown carbonate.

The original hornblende is now pseudomorphed by sub-opaque, brown material of uncertain composition - possibly a mixture of carbonate and leucoxene.

The remaining constituents are chlorite as scattered, small, interstitial pockets; tiny prismatic euhedra of apatite; and sporadic grains of equant opaques (probably mainly magnetite, but including some pyrite).

The elongate segregations are composed dominantly of carbonate and intergrown quartz. They show vuggy cores and/or concentric compositional zonation. They do not have the typical features of either amygdules or xenoliths, and their origin is unclear.

This rock is of dioritic composition, and has a texture consistent with intrusive character.

Appendix E

Whole Rock and Selected Trace Element Analyses

TSL Assayers Vancouver
8282 Sherbrooke St., Vancouver, B.C., V5X 4R6
Tel: (604) 327-3436 Fax: (604) 327-3423

Telkwa Gold
Attention: W. D. Tompson
Project: Del Santo
Sample: rock

Report No : 9V0313 RL
Date : Sep-13-99

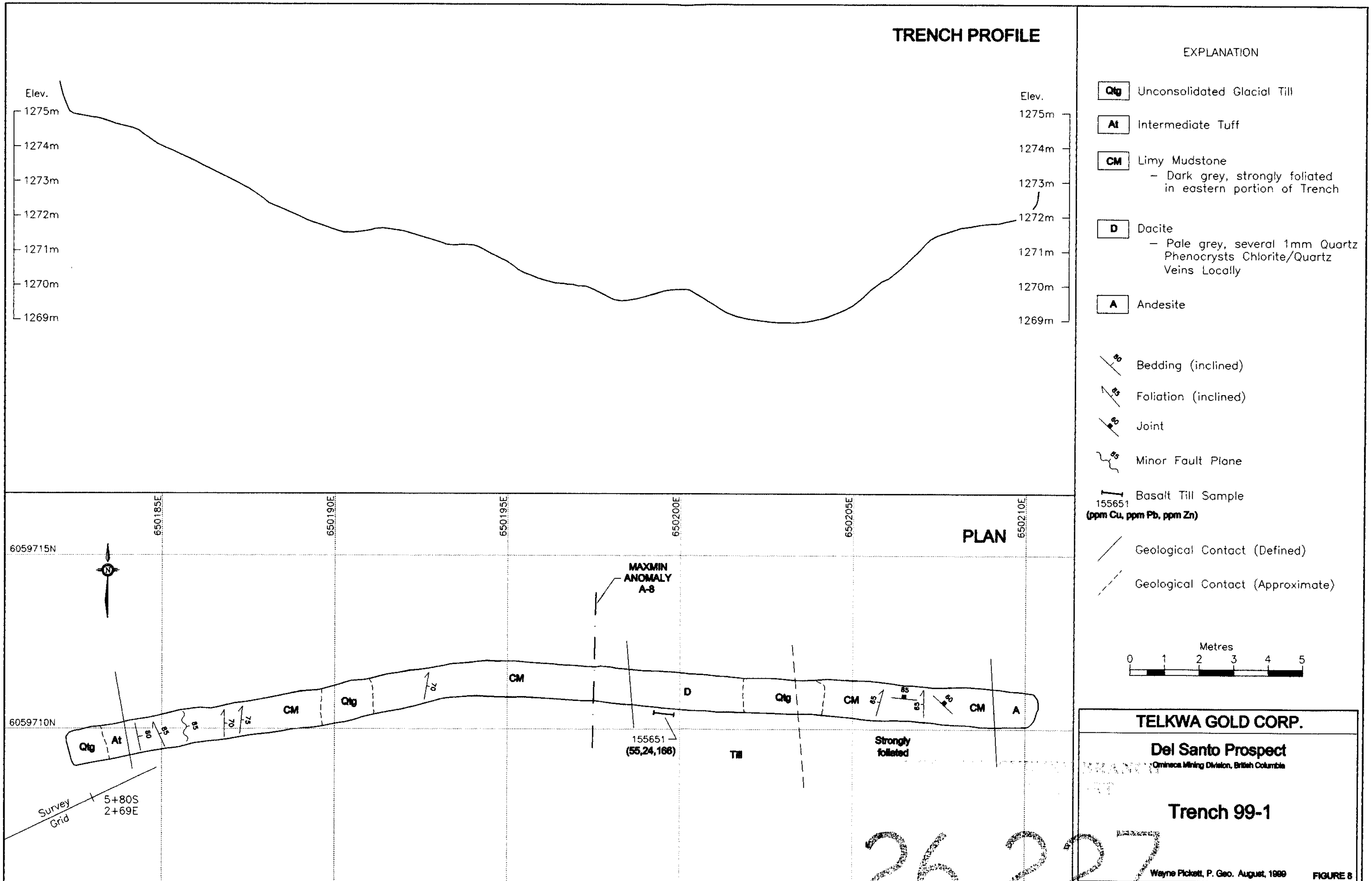
ICP Whole Rock Assay

Lithium Metaborate Fusion

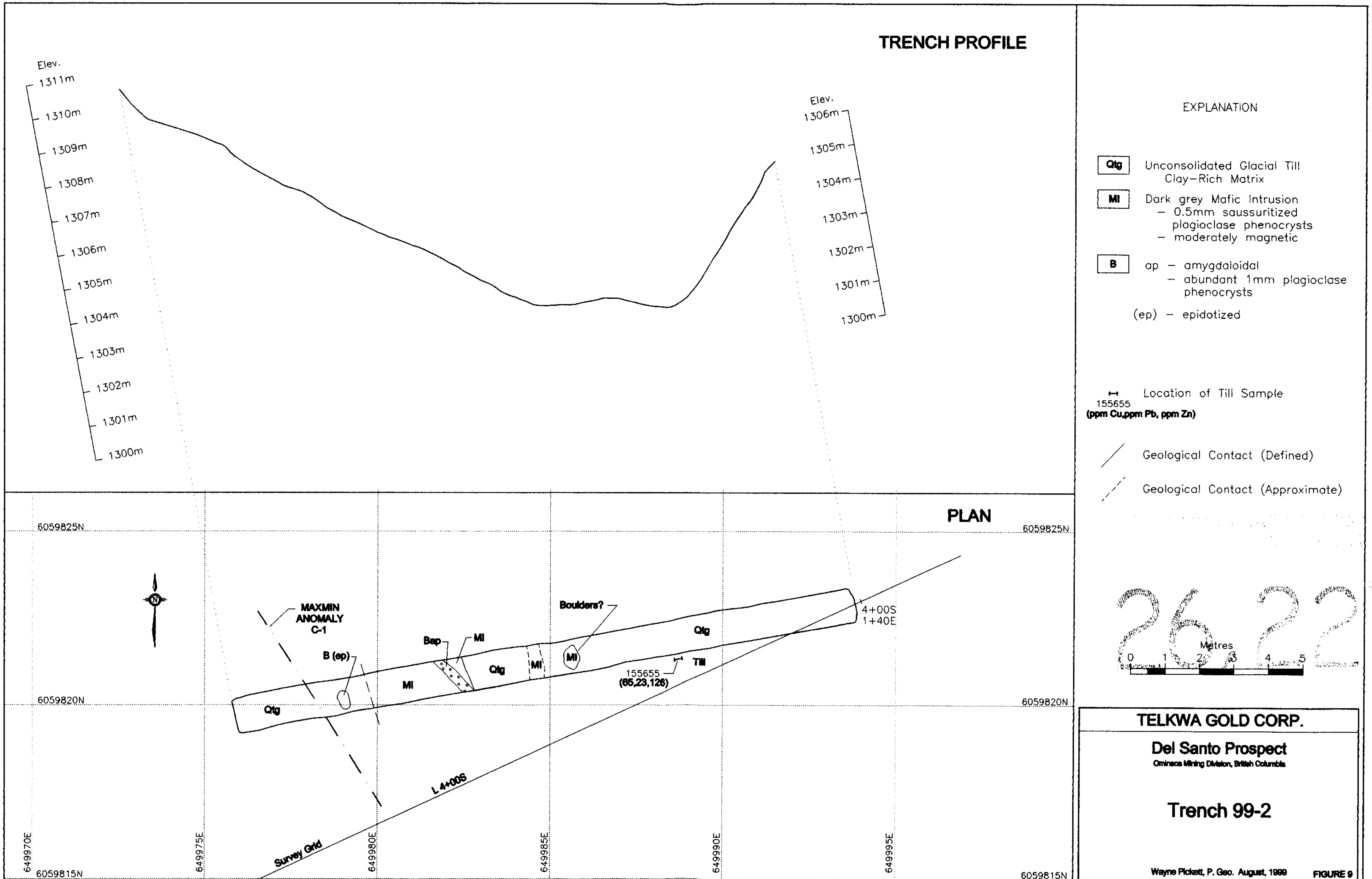
Sample Number	SiO_2 %	Al_2O_3 %	Fe_2O_3 %	CaO %	MgO %	Na_2O %	K_2O %	TiO_2 %	MnO %	P_2O_5 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Sc ppm	LOI %	Total %
99-1 18.9m	46.40	17.84	10.22	5.16	8.36	4.55	1.48	0.85	0.28	0.14	1220	380	30	15	35	4.05	99.49
99-1 32.9m	48.49	14.88	8.35	7.61	6.64	3.58	1.96	1.45	0.15	0.68	1690	1060	210	25	20	5.54	99.63
99-1 120.0m	48.68	15.25	8.38	6.05	4.59	5.09	1.90	1.60	0.12	1.01	3290	1270	260	30	15	6.72	99.88

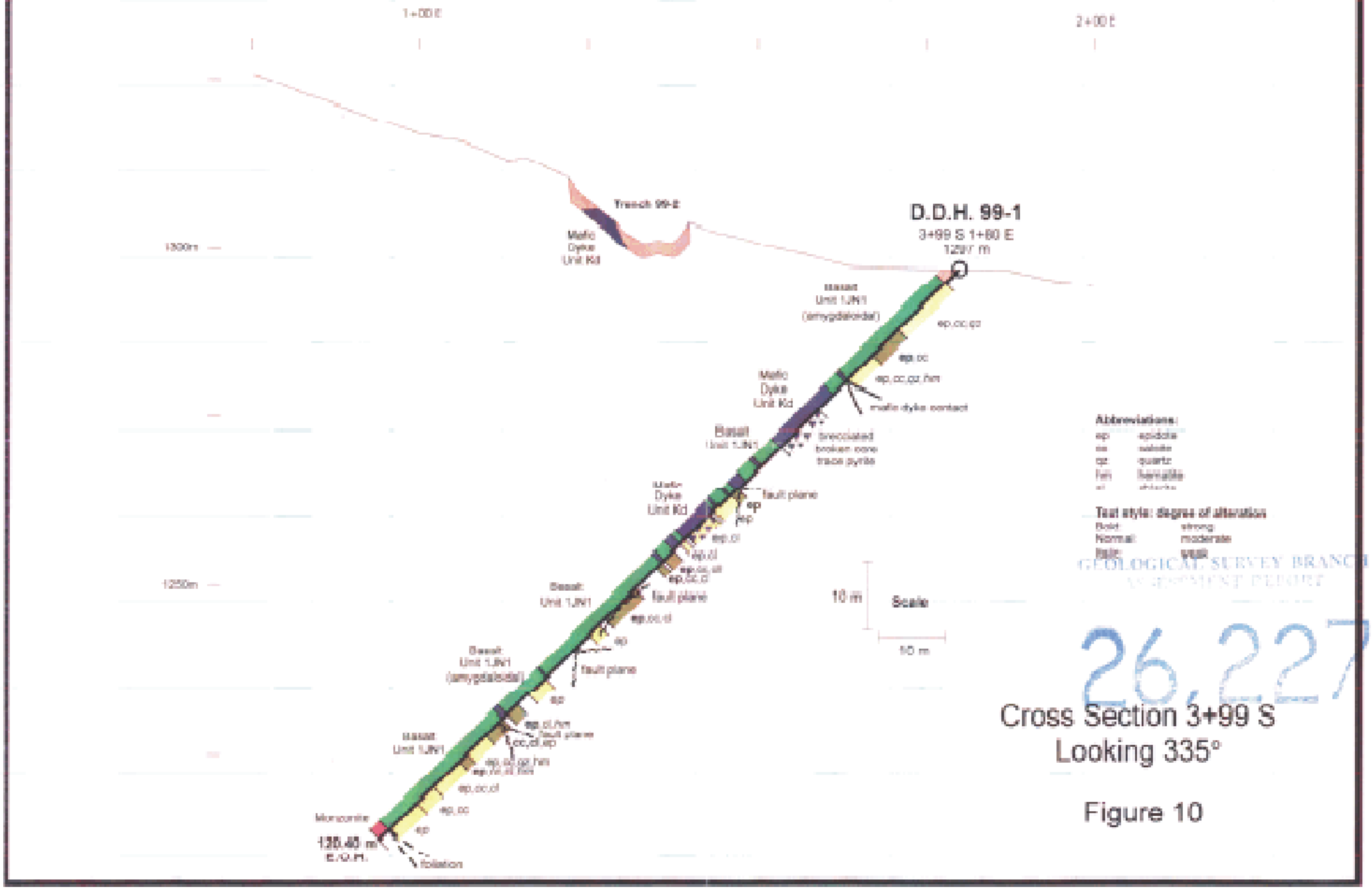
Sample is fused with Lithium Metaborate and dissolved in dilute HNO3.

Signed: ____________


TRENCH PROFILE
Elev.
1275m
1274m
1273m
1272m
1271m
1270m
1269m
PLAN
650185E
650190E
650195E
650200E
650205E
650210E
6059715N
6059710N
MAXMIN ANOMALY A-8
Qtg
At
CM
D
A
Till
Strongly foliated
155651
(55,24,166)
Survey Grid
5+80S
2+69E
EXPLANATION
Qtg Unconsolidated Glacial Till
At Intermediate Tuff
CM Limy Mudstone
– Dark grey, strongly foliated in eastern portion of Trench
D Dacite
– Pale grey, several 1mm Quartz Phenocrysts Chlorite/Quartz Veins Locally
A Andesite
Bedding (inclined)
Foliation (inclined)
Joint
Minor Fault Plane
Basalt Till Sample
155651
(ppm Cu, ppm Pb, ppm Zn)
Geological Contact (Defined)
Geological Contact (Approximate)
Metres
0 1 2 3 4 5
TELKWA GOLD CORP.
Del Santo Prospect
Omineca Mining Division, British Columbia
Trench 99-1
Wayne Pickett, P. Geo. August, 1999
FIGURE 8

26,227


TRENCH PROFILE
Elev.
1311m
1310m
1309m
1308m
1307m
1306m
1305m
1304m
1303m
1302m
1301m
1300m
Elev.
1306m
1305m
1304m
1303m
1302m
1301m
1300m
PLAN
6059825N
6059820N
6059815N
649970E
649975E
649980E
649985E
649990E
649995E
MAXMIN ANOMALY C-1
B (ep)
Bap
MI
Qtg
Boulders?
155655
(65,23,126)
Till
4+00S
1+40E
L 4+00S
Survey Grid
EXPLANATION
Qtg Unconsolidated Glacial Till Clay-Rich Matrix
MI Dark grey Mafic Intrusion
– 0.5mm saussuritized plagioclase phenocrysts
– moderately magnetic
B ap – amygdaloidal
– abundant 1mm plagioclase phenocrysts
(ep) – epidotized
155655 Location of Till Sample
(ppm Cu,ppm Pb, ppm Zn)
Geological Contact (Defined)
Geological Contact (Approximate)
Metres
0 1 2 3 4 5
TELKWA GOLD CORP.
Del Santo Prospect
Omineca Mining Division, British Columbia
Trench 99-2
Wayne Pickett, P. Geo. August, 1999
FIGURE 9



Cross Section 3+99 S
Looking 335°

Figure 10