ASSESSMENT REPORT FOR THE CRUZ PROPERTY

DIAMOND DRILLING REPORT

Gas 9 & 10 Claims

NTS 82G/4E

Latitude 49° 12′ N Longitude 115° 50′ W

Owners – Chapleau Resources Ltd.
#104-135 - 10th. Avenue South
Cranbrook, B.C.
V1C 2N1

Report by:

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Submitted – September, 2000

TABLE OF CONTENTS

List of Illustrations

ASSESSMENT FOR THE "CRUZ" PROPERTY
Diamond Drilling Progam
Gas 9 + 10 Claims

David L. Pighin June, 2000

1.00 INTRODUCTION

1.10 Objective

Diamond drill hole CR00-1 was designed to test the Lower-Middle Aldridge contact (Sullivan Time) for lead-zinc mineralization.

1.20 Location and Access

The Cruz property is located immediately south of Moyie Lake, approximately 20 km southwest of Cranbrook, B.C. The claims are located in the Fort Steele Mining Division on claim maps 82G.011 and 82G.021, centered around UTM coordinates 580,000 E and 5,559,000 N (see Figure 1).

Access to the Cruz property is via Highway 3/95. A network of old and new forestry roads provides access within the claim block.

1.30 Physiography

The property is west of the Rocky Mountain trench, located in the Yahk Range, part of the Purcell mountain system. The claims cover steep of moderately steep sided mountains with broad, rounded and rolling mountain tops. The land forms are typical of valley glaciation, which was not accompanied by Alpine glacation. The property is drained by small north and south flowing tributaries of the Moyie River.

The climate is transitional between maritime and continental with average monthly precipitation totals of 30 mm. Temperatures in July average 26 deg. C. and in January -5 deg. C. In the winter months the property is covered by 1.0 m to 2.0 m of snow.

The entire property is below tree line with a maximum relief of 1,800 m.

1.40 Flora and Fauna

The property is well forested mainly by mature and immature Lodge pole Pine, with isolated stands of mature Douglas Fir and Western Larch. Widely scattered old and new clear-cut logging sites dot the property.

Big game in the area consists of Elk, Moose, Mule Deer , White Tail Deer and Black Bear.

1.50 Property Description

The Cruz property currently consists of Cruz, Stone, Aus, Farr, Cruz DePlata and Gas claims. Chapleau owns 100% of the Cruz, Stone, Aus, Farr and Cruz DePlata claims. The Gas claims are owned by Chapleau Resources subject to an agreement wit Abitibi Resources Ltd.

See **Appendix "A"** for a list of claims that comprise the Cruz property.

1.60 History

The earlier history of the area is brief and not well known. Small lead/zinc showings along northern Sundown creek attracted initial attention. About 4 kilometers north of the north boundary of the claims (see Figure 2 Claim Map), a 3476 meter oil/gas exploration well was drilled in 1987, it yielded chips collected over 3 meter intervals for a significant portion of the Aldridge Formation. The present owners acquired the claims in 1994 spurred on by finding of fragmentals and altered rocks between Sunrise and Farrell creeks. In 1995, an east-west section was drilled across this Cruz DePlata occurrence, defining several fragmentals stacked over several hundred meters of stratigraphy as cored by the holes. In 1996, a single hole (R96-5) was drilled to 229 meters on the Cruz 1 claim in Sundown creek. It cored a Moyie gabbro sill intrusion then Middle Aldridge rocks to the end of the hole. In 1997, a soil geochemical survey was completed over the southern portion of the claims. The claims on the north side of the Cruz property have only been explored recently and only in the Stoney Creek area. Here a ferricrete gossan has attracted some interest periodically since the late sixties. The latest work was primarily a soil geochem grid completed by Chapleau Resources. A minor amount of geological mapping had also been completed. More Cruz claims were staked on the west of the block during 1998 and 1999. Sedex Resources, owners of the claims immediately to the north, drilled a single core hole to the northeast (96-2) intersecting lower Middle Aldridge sediments.

The Cruz claims have economic potential for Sullivan-style Sedex lead/zinc sulfides. Underlain by Middle Aldridge rocks and Moyie intrusives, there are occurrences of disseminated galena and sphalerite within the Yahk anticline and other Sullivan indicators including fragmentals, tourmalinites and albitized sediments.

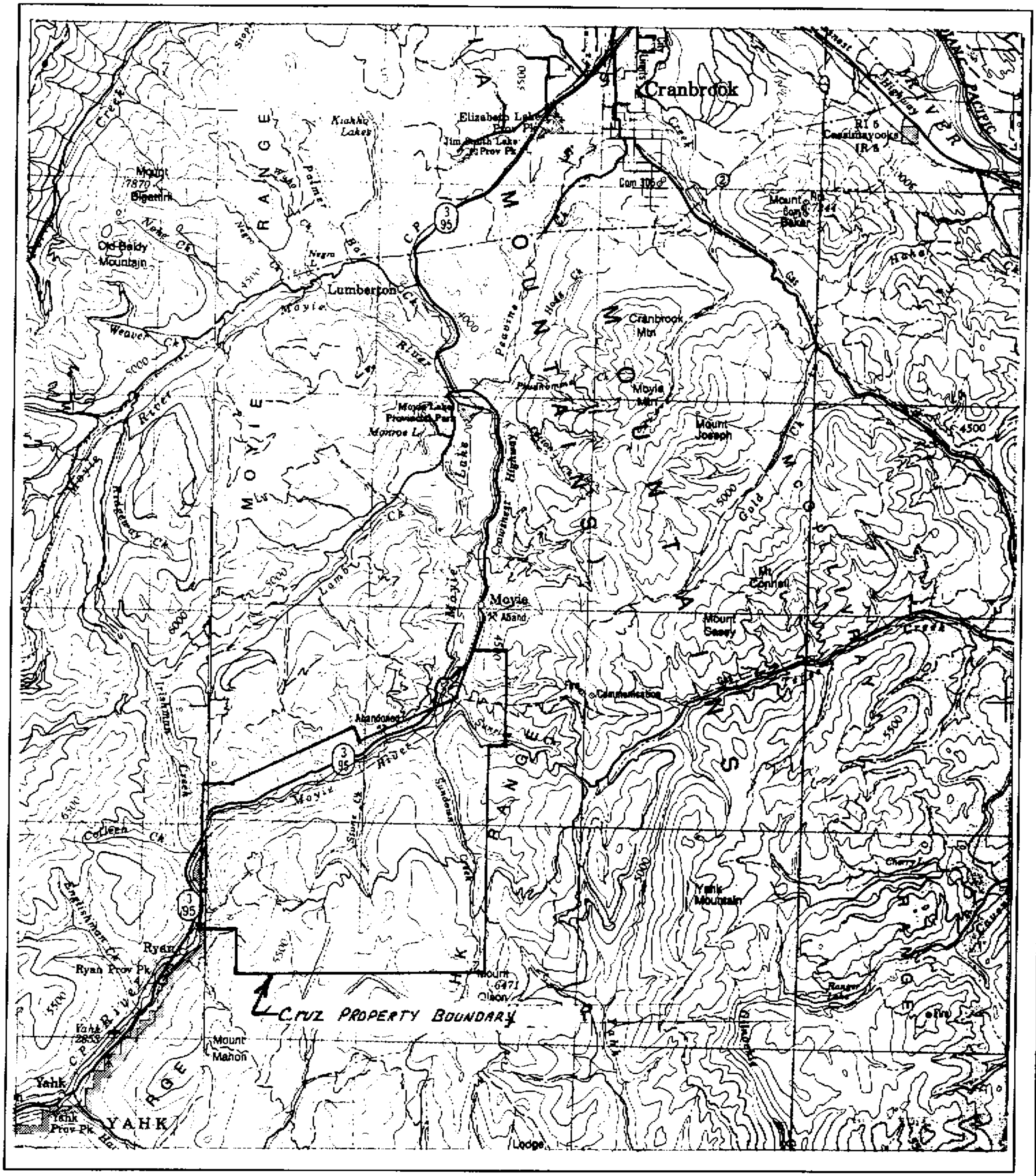
2.00 GEOLOGY

2.10 Regional Geology and Significant Mineralization

2.11 Stratigraphy

Aldridge Formation

The Aldridge Formation has been sub-divided into three informal units, the lower, middle and upper Aldridge Formations. Regionally, the lower Aldridge Formation is comprised of grey weathering quartz wacke and siltstone interbedded with silty argillite. The middle Aldridge Formation is comprised of "... thick-bedded, massive to graded quartz arenite and wacke beds, thin-bedded



0 5 10 Km.

N

CRUZ PROPERTY

LOCATION MAP

Fig. 1

Map Reference: 82 G	Scale: 1:250,000

siltstone and, minor argillite" (Höy 1993). In the Moyie area, the Middle Aldridge unit is in excess of 2800 meters thick.

The basal part of the middle Aldridge generally consists of grey weathering, interbedded siltstone and arenite with minor intervals of silty argillite. In the upper middle Aldridge succession, competent quartz arenite and siltstone intervals are thinner with a corresponding increase in the proportion of more recessive, interbedded siltstone and argillite. The upper part of the middle Aldridge "... comprises a number of distinct cycles of massive, grey quartz arenite beds that grade upward into an interlayered sequence of siltstone and argillite ... The contact with the Upper Aldridge is placed above the last bed of massive grey quartz arenite" (Höy 1993).

Intraformational conglomerates have also been described at varying stratigraphic levels in the Aldridge Formation, from the upper portion of the lower Aldridge, at the lower-middle contact and in the lower portion of the middle Aldridge. They range from conformable to crosscutting zones of intraformational conglomerate to massive zones of siltstone or wacke.

The intraformational conglomerates (fragmental) layers are generally massive to poorly bedded, occasionally with a crude fining upward texture. Clasts and/or fragments range from a few millimeters to many centimeters in diameter and are clast to matrix supported in a silty matrix. Both conglomerate clasts and the matrix are compositionally identical with the host Aldridge Formation.

"Crosscutting zones of conglomerate or massive sandstone are less common. A zone of massive sandstone several tens of meters wide and containing abundant lithic fragments is exposed ... just south of Moyie. It is vertical, cutting across essentially flat-lying middle Aldridge turbidite beds. Its contact is irregular and a poorly developed vertical banding is apparent in the first few meters of the edge of the zone. The zone dies out upsection, and is overlain by flat-lying turbidite beds"

Other crosscutting zones occur beneath the Sullivan orebody, North Star Hill and at the St. Joe prospect. In contrast with the Moyie structures, these are associated with tourmaline alteration and sulphide mineralization. On North Star Hill, irregular crosscutting zones and concordant layers of conglomerate are conspicuous in the upper part of the lower Aldridge. Clasts of argillite, quartzite and tourmalinite up to 5 centimeters across occur in a dark grey quartzite or siltstone matrix. Both stratabound conglomerate and a large crosscutting conglomerate breccia occur in the footwall of the Sullivan deposit. At the St. Joe prospect, a crosscutting fragmental unit several meters thick is overlain by an intraformational conglomerate unit suggesting fragmentals were extruded onto the seafloor" (Höy 1993).

The upper Aldridge Formation consists mainly of rusty weathering, thin-bedded,

dark to medium grey argillite, and thinly parallel-laminated light and dark grey siltite laminae. Strata of the Aldridge Formation "... grade into those of the overlying Creston Formation over a few hundred meters ... characterized by the increasing abundance of a very thin-bedded, medium-grained siltite ... The top of the Aldridge Formation was defined at the top of the last thick (greater than 10 meters) interval of grey argillite and thinly parallel-laminated siltite" (McMechan 1979). Alternatively, Höy (1993) described the contact between the upper Aldridge and Creston Formations as usually gradational and placed the contact where either green-tinged lenticular bedding or syneresis cracks become noticeable.

2.12 Moyie Intrusives

The following has been paraphrased from Höy (1993):

"Moyie sills are restricted to the lower Aldridge, the lower part of the middle Aldridge, and to correlative rocks in the northern Hughes Range. Moyie Intrusions generally form laterally extensive sills ... (and) commonly comprise up to 30 per cent of lower and middle Aldridge successions. Their abundance decreases up-section in the middle Aldridge, as the abundance of thick-bedded A-E turbidites decreases.

Moyie sills comprise dominantly gabbro and diorite. ... (consisting of) dominantly hornblende and plagioclase phenocrysts, typically up to 5 millimeters in diameter, in a finer grained groundmass of plagioclase, quartz, hornblende, chlorite and epidote. Hornblende phenocrysts, commonly partially altered to chlorite and epidote, are generally subhedral to anhedral with irregular ragged terminations. Plagioclase ... is generally clouded by a fine mixture of epidote and albite (?), particularly in the more calcic cores of zoned crystals. Accessory minerals include leucoxene, commonly intergrown with magnetite, as well as tourmaline, apatite, calcite and zircon."

2.13 Structure

Rocks of the Belt Basin have been affected by several separate phases of deformation, ranging from Middle Proterozoic through to Paleocene. The North American craton underwent two phases of extension, a compressional orogeny and subsequently continental rifting followed by development of a miogeocline. Thrusting and folding associated with development of the Foreland Fold and Thrust belt took place from Cretaceous to Paleocene time and was followed by Eocene extension.

The earliest deformation was associated with extension in the Middle Proterozoic which resulted in block faulting along the margin of the Purcell Basin, coincident with deposition of the Fort Steele and Aldridge formations. Distinct changes in the character of lower Purcell strata of the Hughes Range indicate that the Boulder Creek fault and the segment of the Rocky Mountain

Trench fault north of Boulder Creek represent the northern and eastern edge of the local Purcell Basin. Dramatic southward increases in coarse-grained sediments in the Northern Hughes Range suggest proximity to growth faults near the margin of the basin. Movement along these growth faults is interpreted to have ceased by upper middle to upper Aldridge time.

Voluminous extrusion of basaltic lava (Nicol Creek Formation) in the upper Purcell Supergroup has been interpreted to indicate renewed extension in the Purcell Basin. In addition, dramatic changes in the thickness of the Sheppard and Gateway formations were interpreted to reflect growth faults active during deposition of these strata. A tectonic high has been proposed in the Larchwood Lake area north of Skookumchuck. Variations in the thickness and character of the strata document facies changes which resulted "... from block faulting ..., with erosion and deposition of coarse conglomerates on and at margins of tectonic highs and shallow-water, turbulent carbonate facies deposited in adjacent small basins (Höy 1993).

A late Middle to early Upper Proterozoic (1300 to 1350 Ma) compressional event, the East Kootenay orogeny, has been interpreted based upon evidence for deformation and metamorphism prior to deposition of lower Paleozoic miogeoclinal strata. This event was associated with folding with the development of a regional cleavage and granitic intrusions (i.e. 1305 ± 52 Ma Hellroaring Creek stock). Localized high grade metamorphic areas (i.e. Mathew Creek) are related to this tectonic event which is interpreted to have terminated Belt Purcell sedimentation.

The extensional Goat River orogeny occurred during deposition of the Windermere Supergroup (800 to 900 Ma) and is characterized by large-scale block faulting during and perhaps immediately prior to deposition of strata. The Windermere Supergroup is comprised of a basal conglomerate (Toby Formation) overlain by immature clastic and carbonate sediments of the Horsethief Creek Group. The Toby Formation consists of "... predominantly conglomerates and breccias, interpreted to have been deposited in fan sequences adjacent to active fault scarps in large structural basins. Locally, up to 2000 meters of underlying Belt-Purcell rocks have been eroded from uplifted blocks, providing a sediment source ... in adjacent basins" (Höy 1993).
The earlier tectonic events may record incipient rifting, with development of block-faulted, intracratonic structural basins, whereas by early Paleozoic time continental separation had occurred as platformal and miogeoclinal sediments were deposited on a western continental margin. The Laramide orogeny (Late Jurassic to Paleocene) resulted in the horizontal, northeast directed compression of Proterozoic strata and the overlying Paleozoic miogeoclinal prism onto the North American craton. Easterly verging thrust faults and folds developed with normal faults and westerly verging back thrusts and normal faults, resulting in locally complex structural relationships. Two major faults, the Boulder Creek - St. Mary and Dibble Creek - Moyie faults, have had a significant role in the

structural history and fabric of the region, controlling facies and thickness changes in Proterozoic and Paleozoic strata.

"The Boulder Creek fault, one of the more prominent structural features that crosses the generally north-trending structural grain, coincides approximately with a pronounced change in Purcell rocks. The St. Mary fault, the southwestern extension of the Boulder Creek fault, follows the southern edge of a late Proterozoic (Windermere) structural basin. To the south, the northeast-trending Moyie - Dibble Creek fault system coincides with the northwestern flank of Montania, a lower Paleozoic tectonic high" (Höy 1993).

A final episode of north-trending, west dipping normal faulting took place in the Late Tertiary. The Rocky Mountain Trench is the most prominent and is a listric normal fault having dip-slip separation of at least 5 to 10 kilometres. However, strike slip separation is interpreted to be minimal due to stratigraphic correlations across the trench.

2.14 Mineralization

There are two main deposit types hosted by Purcell Supergroup strata in southern British Columbia, namely:

1) stratabound clastic-hosted deposits such as the Sullivan and Kootenay King, which are syngenetic or formed immediately following deposition of the host sediments, or

2) vein deposits, which have been sub-divided by Höy (1993) into three separate types:
   a) copper veins (i.e. Bull River and Dibble)
   b) lead - zinc veins (i.e. Estella and St. Eugene), and
   c) gold veins (Perry Creek and Midway).

Stratabound Clastic-hosted Deposits

Stratabound clastic-hosted deposits are "... concordant bodies of massive or laminated lead, zinc and iron sulphides in fine to, less commonly, medium-grained sedimentary rocks" (Höy 1993). Some deposits may have cross-cutting footwall stockworks, disseminated or vein mineralization interpreted as conduits for mineralized solutions which were subsequently deposited as the overlying stratiform deposit.

Many stratiform lead-zinc deposits have associated zoning, either vertically (commonly copper-lead-zinc-(barium)) or lateral (commonly copper-lead-zinc). Stratiform lead-zinc deposits in the Purcell Supergroup are restricted to deep water facies of the lower and middle Aldridge Formation.

Sullivan

The following has been taken from Höy (1993). :

"The Sullivan deposit is one of the largest base metal massive sulphide deposits in the world. ... The deposit has produced in excess of 125 million tonnes of ore from an original reserve of more than 160 million tonnes that contained 6 per cent lead, 6 per cent zinc, 28 per cent iron and 67 grams per tonne silver.

The western part of the orebody is approximately 1000 meters in diameter and up to 100 meters thick. It comprises massive pyrrhotite with occasional wispy layers of galena, overlain by layered galena, pyrrhotite and sphalerite, which in turn is overlain by pyrrhotite, sphalerite, galena and minor pyrite that is intercalated with clastic layers. Its eastern part, separated from the more massive western part by an irregular transition zone, includes five distinct conformable layers of generally well-laminated sulphides separated by clastic rocks. The sulphide layers thin to the east away from the transition zone. Sub-ore-grade sulphide layers of pyrite and pyrrhotite with subordinate sphalerite and galena persist beyond the eastern limits of the ore-grade sulphides.

An extensive brecciated and altered zone underlies the massive western part of the orebody. Linear north-trending breccia zones, disseminated and vein sulphides, and extensive alteration to a dark, dense chert-like tourmaline-rich rock are conspicuous features of the altered footwall. Albite-chlorite-pyrite alteration is also restricted to the western part of the orebody, occurring in crosscutting zones in the footwall tourmalinite, in the orebody itself and up to 100 meters into the hangingwall.

The deposit is zoned, with lead, zinc and silver values decreasing toward the margin in the eastern part. Tin is concentrated in the western part. In general, metal distribution patterns are directly related to proximal chaotic breccia; higher absolute values and higher Pb/Zn and Ag/Pb ratios overlie the breccia zones.

Sullivan is interpreted to be a hydrothermal synsedimentary deposit (sedex deposit) that formed in a small submarine basin. The western part lies directly above the conduit zone, the brecciated and altered footwall of the deposit."

Kootenay King (from Höy 1993)

The Kootenay King mine is a stratiform clastic-hosted deposit which produced approximately 13 260 tonnes of ore with documented recovery of 715 grams of gold, 882 kilograms of silver, 710 866 kilograms of

lead and 881 383 kilograms of zinc. The deposit was a small orebody comprised of a massive lead-zinc sulphide layer strata correlated to the lower middle Aldridge Formation. The deposit was contained within the "Kootenay King" quartzite, a prominent thick-bedded quartzite interval within dominantly buff-coloured dolomitic siltstone, dolomitic argillite and dark grey argillite. The quartzite interval is up to 250 meters thick and consists of a sequence of interbedded wacke, arenite and minor argillite which becomes thicker and coarser grained to the south. An impure, fine-grained dolomitic facies near the top of the Kootenay King quartzite hosted the orebody. Mineralization included fine-grained, laminated pyrite, galena and an unusual pale grey to green sphalerite.

"The lack of either a footwall stringer zone or hangingwall alteration, and the finely laminated nature of the mineralization suggests either that the deposit is distal, well-removed from its vent source or that much of it is eroded, including evidence of a conduit in the footwall" (Höy 1993).

2.20 Property Geology, Mineralization and Alteration

2.21 Stratigraphy

The Middle Aldridge Formation underlies the Cruz property, with at least two gabbro sills and scattered small dykes.

The Middle Aldridge is dominated by rusty weathering, thin to medium bedded, argillites, siltstones to thick-bedded siltstone. The individual beds are turbidites of a Bouma style turbidite, generally of the AE form with a poorly graded sand base fining upwards to a muddy top. Primary bed structures such as sole marks, small scale cross-bedding and flame structures are common.

2.22 Intrusive Rocks (Moyie Intrusives)

The Moyie Intrusives have isotopic ages that are indistinguishable from the host sediments (approximately 1,433 MA, Zartman, 1982). The Moyie Intrusives are generally gabbroic in composition but locally can differentiate to a diorite. The gabbros range from fine grained near the contacts to medium and coarse grained within. Hornblende and plagioclase dominate, dictating textures that can be equicrystalline, ranging to a coarsely crystalline plumose Hornblendite.

2.23 Structure

The Moyie Anticline dominates structure on the property. The Moyie Anticline is a broad open fold with a shallow northly plunge. The crest of the anticline occupies the center of the property. The center of the property is characterized by nearly flat dipping sediments. On the east side of the claim block the sediments strike northeast and dip 25 to 30^0 west.

The Moyie Anticline is further complicated by a number of minor northeast trending faults. In general, the faults are left lateral faults with west side down. The normal fault have indicated dip slip components ranging between 700m for

the Yahk fault to as little as 400 m for an un-named fault to the east of the Yahk fault. An northeast trending, east dipping, high angle reverse fault follows the west side of Stone Creek. Surface and drill data suggest that this fault has a dip slip component of 700 m and a strike slip of 500 m.

2.24 Metamorphism

In general, rock on the Cruz property is metamorphosed to garnet and biotite zone greenschist facies.

2.25 Alteration and Mineralization

Two deposits of Ferricrite are located on the Cruz claims. The Stone Creek Ferricrete is situated on a steep slope near the headwaters of the creek. A small spring is currently forming the Ferricrete deposit that has covered an area 40 m by 25 m. The deposit appears to be approx. 2 m thick. The Ferricrete is partly lithofied and consists mainly of dark reddish limonite (Ferricrete grab samples are weakly anomalous in Copper, Arsenic and Lead).

The Pipe Line Ferricrete in situated in the northwest area of the Cruz property. The gossan is exposed along the Natural Gas line immediately south of the Moyie River. The Pipe Line Ferricrete can be traced for 200 m, its upslope extension is unknown. The Ferricrete consists of lithofied lominite and manganese wad. Grab samples of ferricrete are anomalous in lead, zinc and arsenic.

On the Cruz property, there are 3 separate occurrences of intensely tourmalinized to partly tourmalinized Aldridge fragmental rocks. Tourmalinization of Aldridge rocks, especially fragmental rock is considered a prime Sullivan Indicator. These showings are named the Midway Vent, Super Nova Vent and Orchid Vent.

The Super Nova Vent is located on the ridge between the headwaters of Stone Creek and Cold Creek. The Super Nova showing is only partly outcropped. The showing consists of partly tourmalinized discordant fragmental body, which is associated with scattered beds of black and brown tourmalinite. Grab sample assays taken from the Super Nova were not anomalous in base metal.

The Midway Fragmental occurrence is located near the mouth of Stone Creek, near the collar of diamond drill hole CR00-01. The fragmental unit can be traced in sporadic outcrops for a distance of 300 m. the fragmental unit is generally concordant to bedding but is discordant along its western contact. Locally the fragmental unit is intensely tourmalinized. Patches and lenses of strong biotitization and sericitization usually associated with garnets and scattered tourmaline needles. Arsenopyrite, pyrrhotite, pyrite, chalcopyrite and native copper occur locally as weak disseminations.

The Orchid fragmental is intensely tourmalinized but is exposed only in one small outcrop. No sulphide mineralization was observed in the tourmalinized outcrop. However, tourmalinized float boulders containing disseminated arsenopyrite occur downslope from the Orchid fragmental outcrop.

3.00 CRUZ PROPERTY DIAMOND DRILLING – 2000

The work recorded in this report was performed between January 7 and January 19, 2000. The work consisted of NQ diamond drilling, snowplowing, core logging and core sampling.

3.10 Objective

Diamond drill hole CR00-01 was drilled to test structure, the depth to Sullivan Time and to test the Sullivan Horizon for base metals.

3.20 Diamond Drill hole CR00-01 (see Figures 2 and 3)

Diamond drill hole CR00-01 was collared at an elevation of 980 m, at UTM coordinates 575 760 E and 5 452 310 N. The hole is located on the boundary between the Gas 9 and 10 claims. Hole CR00-01 was drilled on an azimuth of 238^0, at a dip of 55^0 for a distance of 941.5 m. A Sperry Sun down hole survey tool was used to survey the hole at intervals of 152 m. The survey indicates that the hole turned to the west such that at 609.3 m the hole had an azimuth of 279^0 and dip of 56^0.

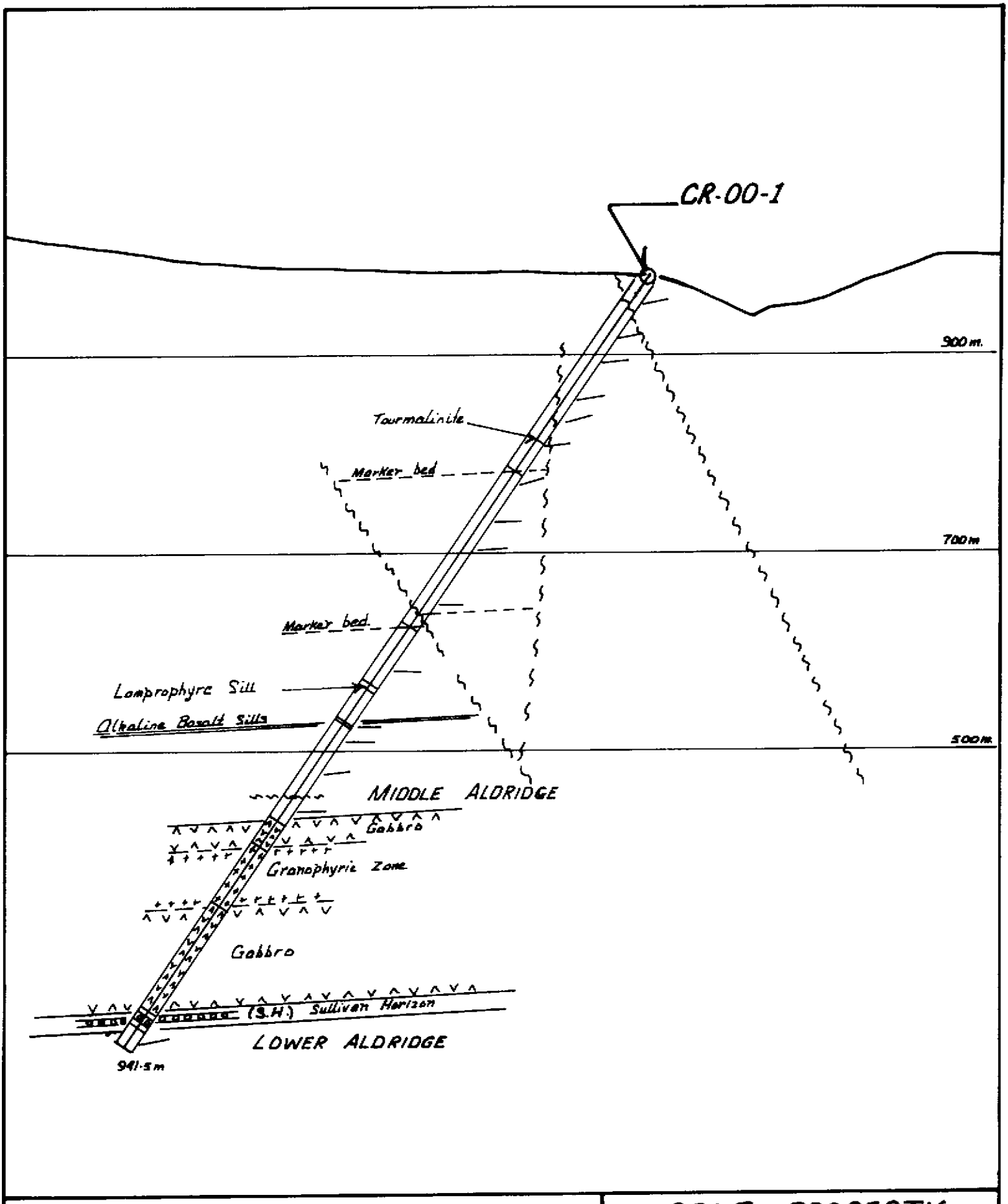
The hole from the collar to the top of the gabbro sill at 675.3 m cored Middle Aldridge sediments. The sediments are mainly medium to thick bedded siltstones interbedded with medium to very thin bedded argillite and silty argillite. In hole CR00-01, soft sediment deformation is anomalously abundant for normal Middle Aldridge sediments. In some cases, soft sediment deformation is associated with the development of thin fragmental units.

Aldridge Marker beds were encountered at 42.1 m, 239.5 m and at 416.0 m. A lamprophyre sill from 498.8 to 502.8 m consists mainly of medium crystalline block biotite with lessor actinolite.

An amygdaloidal basalt sill (flow) occurs in the hole from 546.0 to 549.7 m. The Alkaline basalt sills contact with the adjacent sediments shows no thermal alteration (see attached thin section study by K.E. Northcote and Associates).

The Moyie Intrusive sill from 675.3 to 888.0 m is a medium to coarsely crystalline gabbro with a granophyric fragmental forming the center of the sill. Contacts between the gabbro and granophyric fragmental are gradational.

Sullivan Time (Horizon) stratigraphy is identified in the hole from 888.0 to 916.5 m. Sullivan stratigraphy consists of highly altered thin to very thin bedded, commonly finely parallel laminated argillite, silty argillite and fragmental rocks. The fragmental unit is conformable to bedding and is 6.5 m thick. The fragmental consists of matrix support rounded to sub-rounded clasts, 2 mm to 10 mm in size. Matrix is a fine



0 100 200 meters

SCALE

CRUZ PROPERTY

D.D.H. CR-00-1

Drawn by D.L. Pighin | Scale 1:5000 | Fig. 3

grained siltstone and clasts are mainly siltstone and argillite. Sediments below the fragmental unit are strongly disrupted by soft sediment deformation.

Metamorphic alteration in the hole in general is moderate. Garnets, actinolite, coarsely crystalline muscovite and biotite are widely scattered throughout the hole. Widely scattered zones of fracture related weak dolomitization were noted in the hole. Tourmalinite beds and tourmaline needles occur in the hole but these are rare.

Alteration of Sullivan Time sediments is relatively intense. From 888.0 to 890.2 m, sediments are altered to a sulphide rich massive, coarsely crystalline biotite unit. From 890.2 to the base of Sullivan time, the sediments are altered to spotted Hornfels consisting mainly of finely crystalline sericite overprinted by clots of crystalline black biotite. The fragmental unit is silicified and sericitized with some clasts completely altered to biotite.

The hole cut 3 faults but only the upper fault at 34.4 m has any significant movement. The upper fault cuts core axis at 60^0 and consists of soft gouge and in part lithofied mylonitized quartz and sulphides. Marker bed data from surface and in the hole indicate that the upper fault is a high angle reverse fault dipping east with approximately 500 m of dip slip movement.

Mineralization in the form of weakly disseminated pyrrhotite and pyrite occurs in the sediments throughout the hole. Disseminated pyrite, pyrrhotite and rare arsenopyrite is relatively abundant from 53.0 m to 234.0 m. In this zone fine grain sulphides are heavily disseminated, mainly pyrrhotite and pyrite, are formed as abundant dentrites throughout the sediments. Pyrrhotite, pyrite and arsenopyrite also fill numerous hairline fractures. In the core widely scattered zones of crackle breccia host pyrrhotite, pyrite, arsenopyrite and rare sphalerite and galena. From 255.8 to 311.2 m, thin (4 mm) bedding parallel zones of pyrrhotite and sphalerite are common and at 564.3 m one 5 cm thick bed of massive pyrrhotite.

Sulphide mineralization at Sullivan Time is best developed in the massive biotite zone. Pyrrhotite and rare sphalerite occur as abundant thin layers within the massive biotite.

4.00 CONCLUSIONS AND INTERPRETATIONS

Hole CR00-01 was successful in defining it's objectives. The hole provided abundant evidence of soft sediment slumping associated with the development of fragmental rocks, suggesting local penecontemporaneous basin instability. Sulphide soaked disrupted sediments along with Sullivan-type alteration is analogous to the Sullivan feeder system (North Star corridor). Hole CR00-01 clearly indicates that Sullivan-type lithologies, alteration and mineralization are present at Sullivan Time on the Cruz property. Further drill tests of Sullivan Time are recommended on the Cruz property.

5.00 ITEMIZED COST STATEMENT

DRILLING CONTRACTOR			
Britton Bros. Diamond Drilling, Smithers, B.C.			$ 64,449.00
GEOLOGICAL CONSULTING			
Super Group Holdings Ltd.			
D.L. Pighin, P.Geo.	13 days @ $330/day		5,775.00
B. Collison	Haul core	7days @ $175/day	1,225.00
	Truck Rental	3days	200.00
ACCESS & DRILL SET-UP			
Lost Creek Enterprises, Fort Steele, B.C.			
16.5 hrs. @ $110/hr.			1,815.00
TOTAL EXPENDITURES =			**$ 73,464.00**

6.00 AUTHOR'S QUALIFICATIONS

As author of this report I, David L. Pighin, certify that:

1. I am a self employed consulting geologist whose office is at Hidden Valley Road, Cranbrook, B.C., mailing address 301 - 8th St. S., Cranbrook, B.C. V1C 1P2.

2. I am a Member in good standing of the Association of Professional Engineers and Geoscientists of the Province of British Columbia.

3. I have been actively involved in mining and exploration geology, primarily in the Province of British Columbia, for the past 34 years.

4. I was employed by Cominco Ltd. as a prospector, exploration technician and geologist for 24 years and later by numerous junior exploration companies.

Signed

David L. Pighin, P.Geo.
Super Group Holdings Ltd.

APPENDIX "A"

LIST OF CLAIMS

CHAPLEAU RESOURCES LTD.

Cruz Property

CLAIM	PROPERTY NAME	UNITS	RECORD #	MM/DD/YY Due Date	
GAS 001	CRUZ	1	339991	9/7/01	
GAS 002	CRUZ	1	339992	9/7/01	
GAS 003	CRUZ	1	339993	9/7/01	
GAS 004	CRUZ	1	339994	9/7/01	
GAS 005	CRUZ	1	339995	9/7/01	
GAS 006	CRUZ	1	339996	9/7/01	
GAS 007	CRUZ	1	339997	9/7/01	
GAS 008	CRUZ	1	339998	9/7/01	
GAS 009	CRUZ	1	339999	9/7/01	
GAS 010	CRUZ	1	340000	9/7/01	
GAS 011	CRUZ	1	340001	9/7/01	
GAS 012	CRUZ	1	340002	9/7/01	
GAS 013	CRUZ	1	340003	9/7/01	
GAS 014	CRUZ	1	340004	9/7/01	
GAS 015	CRUZ	1	340005	9/7/01	
GAS 016	CRUZ	1	340006	9/7/01	
CRUZ 99-001	CRUZ	1	369737	6/11/02	82F.020
CRUZ 99-002	CRUZ	1	369738	6/11/02	82F.020
CRUZ 99-003	CRUZ	1	369739	6/11/02	82G.011
CRUZ 99-004	CRUZ	1	369740	6/11/02	82G.011
CRUZ 99-005	CRUZ	1	369741	6/11/02	82G.011
CRUZ 99-006	CRUZ	1	369742	6/11/02	82G.011
CRUZ 99-007	CRUZ	1	369743	6/11/02	82G.011
CRUZ 99-008	CRUZ	1	369744	6/11/02	82G.011
CRUZ 99-009	CRUZ	1	369745	6/11/02	82G.011
CRUZ 99-010	CRUZ	1	369746	6/11/02	82G.011
CRUZ 99-011	CRUZ	1	373886	12/5/01	82G.021
CRUZ 99-012	CRUZ	1	373887	12/5/01	82G.021
CRUZ 99-013	CRUZ	1	373888	12/5/01	82G.021
CRUZ 99-014	CRUZ	1	373889	12/5/01	82G.021
CRUZ 99-015	CRUZ	1	373890	12/5/01	82G.021
CRUZ 99-016	CRUZ	1	373891	12/5/01	82G.021
CRUZ 99-017	CRUZ	1	373892	12/5/01	82G.021
CRUZ 99-018	CRUZ	1	373893	12/5/01	82G.021
CRUZ 99-019	CRUZ	1	373894	12/6/01	82G.021
CRUZ 99-020	CRUZ	1	373895	12/6/01	82G.021
CRUZ 99-021	CRUZ	1	373896	12/6/01	82G.021
CRUZ 99-022	CRUZ	1	373897	12/6/01	82G.021
CRUZ 99-023	CRUZ	1	373898	12/6/01	82G.021
CRUZ 99-024	CRUZ	1	373899	12/6/01	82G.021
CRUZ 99-025	CRUZ	1	373877	12/6/01	82G.021
CRUZ 99-026	CRUZ	1	373878	12/6/01	82G.021
CRUZ 99-027	CRUZ	1	373879	12/6/01	82G.021
CRUZ 99-028	CRUZ	1	373880	12/6/01	82G.021
CRUZ 99-029	CRUZ	1	373881	12/6/01	82G.021
CRUZ 99-030	CRUZ	1	373882	12/6/01	82G.021
CRUZ 99-031	CRUZ	1	373883	12/6/01	82G.021

CRUZ 99-032	CRUZ	1	373884	12/6/01	82G.021
CRUZ 99-033	CRUZ	1	373885	12/6/01	82G.021
CRUZ 098-1	CRUZ	20	365689	12/15/01	82G.011
CRUZ 098-2	CRUZ	20	365690	12/15/01	82G.011
CRUZ 098-3	CRUZ	16	365691	12/15/01	82G.011
CRUZ 135	CRUZ	20	360242	12/15/01	82G.011
CRUZ 136	CRUZ	20	360243	12/15/01	82G.011
CRUZ 137	CRUZ	20	360244	12/15/01	82G.011
STONE 001	CRUZ	1	337204	12/15/01	
STONE 002	CRUZ	1	337205	12/15/01	
STONE 003	CRUZ	1	337206	12/15/01	
STONE 004	CRUZ	1	337207	12/15/01	
STONE 005	CRUZ	1	337208	12/15/01	
STONE 006	CRUZ	1	337209	12/15/01	
STONE 007	CRUZ	1	337210	12/15/01	
STONE 008	CRUZ	1	337211	12/15/01	
STONE 009	CRUZ	1	337212	12/15/01	
STONE 010	CRUZ	1	337213	12/15/01	
STONE 011	CRUZ	1	337214	12/15/01	
STONE 012	CRUZ	1	337215	12/15/01	
STONE 013	CRUZ	1	337216	12/15/01	
STONE 014	CRUZ	1	337217	12/15/01	
STONE 015	CRUZ	1	337218	12/15/01	
STONE 016	CRUZ	1	337219	12/15/01	
STONE 017	CRUZ	1	337220	12/15/01	
STONE 018	CRUZ	1	337221	12/15/01	
STONE 019	CRUZ	1	337222	12/15/01	
STONE 020	CRUZ	1	337223	12/15/01	
STONE 021	CRUZ	1	337224	12/15/01	
STONE 022	CRUZ	1	337225	12/15/01	
STONE 023	CRUZ	1	337226	12/15/01	
STONE 024	CRUZ	1	337227	12/15/01	
STONE 025	CRUZ	1	337228	12/15/01	
STONE 026	CRUZ	1	337229	12/15/01	
STONE 027	CRUZ	1	337230	12/15/01	
STONE 028	CRUZ	1	337231	12/15/01	
STONE 029	CRUZ	1	337232	12/15/01	
STONE 030	CRUZ	1	337233	12/15/01	
STONE 031	CRUZ	1	337234	12/15/01	
STONE 032	CRUZ	1	337235	12/15/01	
STONE 033	CRUZ	1	337236	12/15/01	
STONE 034	CRUZ	1	337237	12/15/01	
STONE 035	CRUZ	1	337238	12/15/01	
STONE 036	CRUZ	1	337239	12/15/01	
STONE 037	CRUZ	1	337240	12/15/01	
STONE 038	CRUZ	1	337241	12/15/01	
STONE 039	CRUZ	1	337242	12/15/01	
STONE 040	CRUZ	1	337243	12/15/01	
STONE 041	CRUZ	1	337244	12/15/01	
STONE 042	CRUZ	1	337245	12/15/01	
STONE 043	CRUZ	1	337246	12/15/01	

STONE 044	CRUZ	1	337247	12/15/01	
STONE 045	CRUZ	1	337248	12/15/01	
STONE 046	CRUZ	1	337249	12/15/01	
STONE 047	CRUZ	1	337250	12/15/01	
STONE 048	CRUZ	1	337251	12/15/01	
CRUZ DEPLATA 001	CRUZ	1	336446	12/15/01	82G.021
CRUZ DEPLATA 002	CRUZ	1	336447	12/15/01	82G.021
CRUZ DEPLATA 003	CRUZ	1	336448	12/15/01	82G.021
CRUZ DEPLATA 004	CRUZ	1	336449	12/15/01	82G.021
CRUZ DEPLATA 005	CRUZ	1	336450	12/15/01	82G.021
CRUZ DEPLATA 006	CRUZ	1	336451	12/15/01	82G.021
CRUZ DEPLATA 007	CRUZ	1	338889	8/16/01	82G.021
CRUZ DEPLATA 008	CRUZ	1	338890	8/16/01	82G.021
FARR 001	CRUZ	1	337886	12/15/01	
FARR 002	CRUZ	1	337887	12/15/01	
FARR 003	CRUZ	1	337914	12/15/01	
FARR 004	CRUZ	1	337915	12/15/01	
FARR 005	CRUZ	1	337916	12/15/01	
FARR 006	CRUZ	1	337917	12/15/01	
FARR 007	CRUZ	1	337918	12/15/01	
FARR 008	CRUZ	1	337932	12/15/01	
FARR 009	CRUZ	1	337933	12/15/01	
FARR 010	CRUZ	1	337934	12/15/01	
FARR 011	CRUZ	1	337935	12/15/01	
FARR 012	CRUZ	1	337936	12/15/01	
FARR 013	CRUZ	1	337937	12/15/01	
FARR 014	CRUZ	1	337938	12/15/01	
FARR 015	CRUZ	1	337939	12/15/01	
FARR 016	CRUZ	1	337940	12/15/01	
FARR 017	CRUZ	1	337941	12/15/01	
FARR 018	CRUZ	1	337942	12/15/01	
FARR 019	CRUZ	1	337943	12/15/01	
FARR 020	CRUZ	1	337944	12/15/01	
FARR 021	CRUZ	1	337888	12/15/01	
FARR 022	CRUZ	1	337889	12/15/01	
FARR 023	CRUZ	1	337890	12/15/01	
FARR 024	CRUZ	1	337891	12/15/01	
FARR 025	CRUZ	1	337892	12/15/01	
FARR 026	CRUZ	1	337893	12/15/01	
FARR 027	CRUZ	1	337903	12/15/01	
AUS 001	CRUZ	1	339656	12/15/01	
AUS 002	CRUZ	1	339657	12/15/01	
AUS 003	CRUZ	1	339658	12/15/01	
AUS 004	CRUZ	1	339659	12/15/01	
AUS 005	CRUZ	1	339660	12/15/01	
AUS 006	CRUZ	1	339661	12/15/01	
AUS 007	CRUZ	1	339662	12/15/01	
AUS 008	CRUZ	1	339663	12/15/01	
AUS 009	CRUZ	1	339664	12/15/01	
AUS 010	CRUZ	1	339665	12/15/01	
AUS 011	CRUZ	1	339666	12/15/01	

AUS 012	CRUZ	1	339667	12/15/01	
AUS 013	CRUZ	1	339668	12/15/01	
CRUZ 001	CRUZ	20	341867	12/15/02	82G.021
CRUZ 002	CRUZ	1	341870	12/15/01	82G.021
CRUZ 003	CRUZ	1	341871	12/15/01	82G.021
CRUZ 004	CRUZ	1	341872	12/15/01	82G.021
CRUZ 005	CRUZ	1	341873	12/15/01	82G.021
CRUZ 006	CRUZ	1	341874	12/15/01	82G.021
CRUZ 007	CRUZ	1	341875	12/15/01	82G.021
CRUZ 008	CRUZ	1	341876	12/15/01	82G.021
CRUZ 009	CRUZ	1	341877	12/15/01	82G.021
CRUZ 010	CRUZ	1	341878	12/15/01	82G.021
CRUZ 011	CRUZ	1	341879	12/15/01	82G.011
CRUZ 012	CRUZ	1	341880	12/15/01	82G.011
CRUZ 013	CRUZ	1	341881	12/15/01	82G.011
CRUZ 014	CRUZ	18	341868	12/15/02	82G.011
CRUZ 015	CRUZ	1	341882	12/15/01	82G.011
CRUZ 016	CRUZ	1	341883	12/15/01	82G.011
CRUZ 017	CRUZ	1	341884	12/15/01	82G.011
CRUZ 018	CRUZ	1	341885	12/15/01	82G.021
CRUZ 019	CRUZ	1	341886	12/15/01	82G.021
CRUZ 020	CRUZ	1	341887	12/15/01	82G.021
CRUZ 021	CRUZ	1	341888	12/15/01	82G.021
CRUZ 022	CRUZ	18	341869	12/15/02	82G.011
CRUZ 023	CRUZ	1	341889	12/15/01	82G.011
CRUZ 024	CRUZ	1	341890	12/15/01	82G.011
CRUZ 025	CRUZ	1	341891	12/15/01	82G.011
CRUZ 026	CRUZ	1	341892	12/15/01	82G.011
CRUZ 027	CRUZ	1	341893	12/15/01	82G.011
CRUZ 028	CRUZ	1	341894	12/15/01	82G.011
CRUZ 029	CRUZ	1	341895	12/15/01	82G.021
CRUZ 030	CRUZ	1	341896	12/15/01	82G.021
CRUZ 031	CRUZ	1	341897	12/15/01	82G.021
CRUZ 032	CRUZ	1	341898	12/15/01	82G.021
CRUZ 033	CRUZ	1	341899	12/15/01	82G.011
CRUZ 034	CRUZ	1	341900	12/15/01	82G.011
CRUZ 035	CRUZ	1	341901	12/15/01	82G.011
CRUZ 036	CRUZ	1	341902	12/15/01	82G.021
CRUZ 037	CRUZ	1	341903	12/15/01	82G.021
CRUZ 038	CRUZ	1	341904	12/15/01	82G.021
CRUZ 039	CRUZ	1	341905	12/15/01	82G.011
CRUZ 040	CRUZ	1	341906	12/15/01	82G.011
CRUZ 041	CRUZ	1	341907	12/15/01	82G.011
CRUZ 042	CRUZ	1	341908	12/15/01	82G.011
CRUZ 043	CRUZ	1	341909	12/15/01	82G.011
CRUZ 044	CRUZ	12	341921	12/15/01	82G.011
CRUZ 045	CRUZ	1	341910	12/15/01	82G.011
CRUZ 046	CRUZ	1	341911	12/15/01	82G.021
CRUZ 047	CRUZ	1	341912	12/15/01	82G.021
CRUZ 048	CRUZ	1	341913	12/15/01	82G.021
CRUZ 049	CRUZ	1	341914	12/15/01	82G.021

CRUZ 050	CRUZ	1	341915	12/15/01	82G.021
CRUZ 051	CRUZ	1	341916	12/15/01	82G.021
CRUZ 052	CRUZ	1	341917	12/15/01	82G.021
CRUZ 053	CRUZ	1	341918	12/15/01	82G.021
CRUZ 054	CRUZ	1	341920	12/15/01	82G.021
CRUZ 055	CRUZ	20	342706	12/15/02	82G.011
CRUZ 056	CRUZ	1	342586	12/15/01	82G.011
CRUZ 057	CRUZ	1	342587	12/15/01	82G.011
CRUZ 058	CRUZ	1	342588	12/15/01	82G.011
CRUZ 059	CRUZ	1	342589	12/15/01	82G.011
CRUZ 060	CRUZ	1	342636	12/15/01	82G.011
CRUZ 061	CRUZ	1	342637	12/15/01	82G.011
CRUZ 062	CRUZ	1	342638	12/15/01	82G.011
CRUZ 067	CRUZ	1	342639	12/15/01	82G.011
CRUZ 068	CRUZ	1	342640	12/15/01	82G.011
CRUZ 069	CRUZ	1	342641	12/15/01	82G.011
CRUZ 070	CRUZ	1	342642	12/15/01	82G.011
CRUZ 071	CRUZ	1	342643	12/15/01	82G.011
CRUZ 072	CRUZ	1	342644	12/15/01	82G.011
CRUZ 073	CRUZ	1	342645	12/15/01	82G.011
CRUZ 074	CRUZ	1	342646	12/15/01	82G.011
CRUZ 075	CRUZ	1	342647	12/15/01	82G.011
CRUZ 076	CRUZ	1	342648	12/15/01	82G.011
CRUZ 077	CRUZ	1	342649	12/15/01	82G.011
CRUZ 078	CRUZ	1	342650	12/15/01	82G.011
CRUZ 079	CRUZ	1	342651	12/15/01	82G.011
CRUZ 080	CRUZ	1	342652	12/15/01	82G.011
CRUZ 081	CRUZ	1	342653	12/15/01	82G.011
CRUZ 082	CRUZ	1	342654	12/15/01	82G.011
CRUZ 083	CRUZ	1	342655	12/15/01	82G.011
CRUZ 084	CRUZ	1	342656	12/15/01	82G.011
CRUZ 085	CRUZ	1	342657	12/15/01	82G.011
CRUZ 086	CRUZ	1	342658	12/15/01	82G.011
CRUZ 087	CRUZ	1	342659	12/15/01	82G.011
CRUZ 088	CRUZ	1	367691	12/15/01	82G.011
CRUZ 089	CRUZ	1	367692	12/15/01	82G.011
CRUZ 090	CRUZ	20	342707	12/15/02	82G.011
CRUZ 091	CRUZ	20	342708	12/15/02	82G.011
CRUZ 092	CRUZ	20	342709	12/15/02	82G.011
CRUZ 093	CRUZ	1	342662	12/15/01	82G.011
CRUZ 094	CRUZ	1	342663	12/15/01	82G.011
CRUZ 095	CRUZ	1	342664	12/15/01	82G.011
CRUZ 096	CRUZ	1	342665	12/15/01	82G.011
CRUZ 097	CRUZ	1	342666	12/15/01	82G.011
CRUZ 098	CRUZ	1	342667	12/15/01	82G.011
CRUZ 099	CRUZ	1	342668	12/15/01	82G.011
CRUZ 100	CRUZ	1	342669	12/15/01	82G.011
CRUZ 101	CRUZ	1	342670	12/15/01	82G.011
CRUZ 102	CRUZ	1	342671	12/15/01	82G.011
CRUZ 103	CRUZ	1	342672	12/15/01	82G.011
CRUZ 104	CRUZ	1	342673	12/15/01	82G.011

CRUZ 105	CRUZ	1	342674	12/15/01	82G.011
CRUZ 106	CRUZ	1	342675	12/15/01	82G.011
CRUZ 107	CRUZ	1	342676	12/15/01	82G.011
CRUZ 108	CRUZ	1	342677	12/15/01	82G.011
CRUZ 109	CRUZ	1	342678	12/15/01	82G.011
CRUZ 110	CRUZ	1	342679	12/15/01	82G.011
CRUZ 111	CRUZ	1	342680	12/15/01	82G.011
CRUZ 112	CRUZ	1	342681	12/15/01	82G.011
CRUZ 113	CRUZ	1	342682	12/15/01	82G.011
CRUZ 114	CRUZ	18	342710	12/15/02	82G.011
CRUZ 115	CRUZ	1	342683	12/15/01	82G.011
CRUZ 116	CRUZ	1	342684	12/15/01	82G.011
CRUZ 117	CRUZ	1	342685	12/15/01	82G.011
CRUZ 118	CRUZ	1	342698	12/15/01	82G.011
CRUZ 119	CRUZ	1	342699	12/15/01	82G.011
CRUZ 120	CRUZ	1	342700	12/15/01	82G.011
CRUZ 127	CRUZ	1	342701	12/15/01	82G.011
CRUZ 128	CRUZ	1	342702	12/15/01	82G.011
CRUZ 129	CRUZ	1	342703	12/15/01	82G.011
CRUZ 130	CRUZ	1	342704	12/15/01	82G.011
CRUZ 131	CRUZ	1	342705	12/15/01	82G.011

APPENDIX "B"

DRILL LOG
Drill Hole CR00-01

PROPERTY: CRUZ

LOCATION: Gas Claims, immediately west of stone creek, near gas line

COMMENCED: January 7, 2000 **COMPLETED:** January 19, 2000

COORDS: (long) **(lat)**

COORDS: (UTM) (E) 57,5760 **(N)** 54,52310 **(EL)**

COORDS: (grid) (E) **(N)** **(EL)**

ELEVATION: 980.0 m **COLLAR: (dip)** -55° **(Azi)** 238°

OBJECTIVE:

SURVEYS: (depth)

	Dip:	Azi:
152.4 m	-54°	250°
789.6 m	-54°	288°
941.4 m	-56°	287°

HORI COMP: 540.0 m

VERT. COMP: 771.23 m

CORR. DIP:

TRUE BEARING:

% RECOVERY:

LOGGED DATE: January 2000

LOGGED BY: D.L. Pighin

Type: Sperry Sun

HOLE #: CR00-1

LENGTH: 941.5 m

DRILL CONTRACTOR: Britton Bros.

CORE SIZE: NQ

CASING: 0 – 14.3 m

CORE STORAGE: Vine Property

Additional Surveys:

Depth	Dip	Azi
304.8	-54°	259°
347.6	-54°	262°
457.3	-55°	269°
609.3	-56°	279°

From To	
	LITHOLOGY: Siltstone, interbedded argillite
14.3-31.0	**COLOR:** gray to light gray, some black banding
	PRIMARY STRUCTURE: medium to thin bedded, some very thin beds, bedding generally disrupted and slump structured (soft sediment). Beds are pulled apart, small recumbents folding rip-up clasts. Bedding to core at 17.0m = 45°. Siltstone bed commonly coarse grained. Bedding to core at 31.0m = 45°
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: siltstone, strongly sericitic and biotitic with rare subhedral pink garnets. Argillite beds are mainly sericite, speckled by black biotite
	MINERALIZATION & ASSOCIATED ALTERATIONS, HOST STRUCTURE: brown limonite scattered throughout, mainly in thin fractures

From To	LITHOLOGY: Mainly siltstone 20cm thick **MARKER BED** at 32.6m
31.0-42.1	**COLOR:** gray to light gray
	PRIMARY STRUCTURE: no bedding, mainly slump structured
	TECTONIC STRUCTURE: strong fault zone 34.4-37.0m, cuts core at 60°, consists mainly of soft fault gouge, weakly lithified mylonized quartz and finely ground sulphides. Seds are crackle brecciated, 2 meters on both the H.W. and F.W. of main fault zone.
	GENERAL ALTERATION: generally sericitic with some biotite locally.
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: Fault zone 34.4 to 37.0m host ground up sulphides, py, po.

Grab Sample #	From (m)	To (m)	Length (m)	As ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
1316	36.3	—	—	9	23	67	<0.3	2.5

From To	
	LITHOLOGY: Argillite, interbedded siltstone 47.7-50.5m – thick bedded siltstone
42.1-53.0	**COLOR:** dark gray with black lineation
	PRIMARY STRUCTURE: thin to very thin bedded, bedding sharp and strongly disrupted (soft sed. deformation). Beds are pulled apart, soft sed. recumbent folds and some ball and pillow structures. At 47.7m bedding to core = 45°
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: mainly fine sericite with black biotite banding and wisps. Siltstone strongly sericitic with minor pink garnets.
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: fine po and py in thin wispy veinlets scattered throughout, rare thin bedding parallel layers of py and po
From To	**LITHOLOGY:** Argillite, intebedded siltstone
53.0-63.3	**COLOR:** light gray with some yellowish brown and reddish brown beds and zones
	PRIMARY STRUCTURE: medium to very thin bedded, bedding sharp-flat, some beds are very finely parallel laminated, some scattered highly disrupted beds.
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: sericitization is intense throughout. Some argillite beds totally altered to fine yellowish sericite. Some thin beds totally xxx to black biotite, some altered to both biotite and sericite.
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: sulphide flooded zones 53.0-68.4 m. Very finely grained po, py and aspy form numerous irregular hairline fractures and thin layers throughout section. 59.8-60.0m – crackle breccia zone healed by massive py and aspy and rare quartz.

Grab Sample #	From (m)	To (m)	Length (m)	As ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
1317	60.0	---	---	<2	16	17	<0.3	0.9

From To	
63.3-68.4	**COLOR:** light gray to light tannish gray
	PRIMARY STRUCTURE: thick bedded, bedding indistinct, none graded, unsorted, medium to coarse grained siltstone.
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: strongly sericitic with weak biotitization, weak dolomitization
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: sulphide soaked unit, mainly by fine po and py, forming abundant dendritic type veinlets and fine disseminations. 163.5-164.0m – crackle breccia healed by massive po and py

From To	LITHOLOGY: Argillite, interbedded siltstone
68.4-79.6	**COLOR:** light gray with dark gray and yellowish gray banding
	PRIMARY STRUCTURE: mainly very thin bedded with medium beds, bedding sharp and wavy, mainly flame structured, to soft sediment deformed. Bedding to core at 68.5m = 47°
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: siltstone beds generally sericitic (matrix) with some scattered fine biotite. Argillite beds altered to a fine yellowish muscovite with scattered biotite
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: fine crystalline py and po, relatively abundant as irregular hairline fractures
	ADDITIONAL OBSERVATIONS:
From To	**LITHOLOGY:** Siltstone, interbedded argillite
79.6-89.1	**COLOR:** gray with dark gray banding
	PRIMARY STRUCTURE: thin to very thin bedded, bedding is sharp and mainly flat, with some beds locally highly disrupted. Some argillite beds are very finely parallel laminated.
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: siltstone beds strongly biotitic and sericitic with rare subhedral pink garnets. Argillite beds strongly biotitic with lesser sericite
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: sulphide soaked as previously described.
	ADDITIONAL OBSERVATIONS:
From To	**LITHOLOGY:** Siltstone
89.1-96.8	**COLOR:** light gray to gray
	PRIMARY STRUCTURE: medium to thick bedded, bedding distinct generally distorted (soft sed. deform.) medium grained, rarely coarse grained. Bedding to core at 96.0m = 50°.
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: siltstone, sericitic and biotitic with widely scattered small subhedral pink garnets.
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: local sulphide soaking as previously described.
	ADDITIONAL OBSERVATIONS:

From To	LITHOLOGY: Argillite, interbedded siltstone
96.8-106.6	**COLOR:** light gray, banded gray and dark gray
	PRIMARY STRUCTURE: thin to very thin bedded, bedding sharp, mainly disrupted, locally flat sharp. Some beds are pulled apart by soft sed. folding. Some rare clasts in siltstone beds.
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: as previously described
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: sulphide soaking as previously described
	ADDITIONAL OBSERVATIONS:

From To	LITHOLOGY: Siltstone
106.6-111.0	**COLOR:** light gray
	PRIMARY STRUCTURE: thick to very thick bedded, bedding is not apparent
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: strongly sericitized with weak biotitization, widely scattered subhedral pink garnets
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: strongly sulphide flooded (soaked) as previously described.

Sample #	From (m)	To (m)	Length (m)	As ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
1318	108.0	—	—	2	3	26	<0.3	<0.9

From To	LITHOLOGY: Argillite, interbedded siltstone
111.0-121.6	**COLOR:** light gray, gray and brownish gray banding
	PRIMARY STRUCTURE: medium to very thin bedded, bedding sharp-flat, some distorted beds, generally pulled apart and soft sed. folded.
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: fine reddish brown and black biotite with intense sericitization
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: as previously described
	ADDITIONAL OBSERVATIONS:

From To	
	LITHOLOGY: Siltstone, interbedded argillite 139.5-142.0m – massive slump structured brownish argillite
121.6-137.6	**COLOR:** gray to brownish gray with dark gray banding
	PRIMARY STRUCTURE: medium to very thin bedded, some medium beds. Bedding sharp and generally flat with local zones of soft sed. deformation eg. 123.0-124.0m, with thin fragmental bands. Bedding to core: 50° at 124.5m; 48° at 142.0m
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: as previously described
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: 125.0-128.0m – scattered bedding parallel layers of massive py and po, rarely more than 1cm thick. Weak sulphide flooding occurs throughout sections, mainly po and py
	ADDITIONAL OBSERVATIONS:
From To	**LITHOLOGY:** Siltstone, interbedded quartzite
137.6-158.8	**COLOR:** light gray to bluish gray
	PRIMARY STRUCTURE: medium to very thick bedded, bedding is indistinct, mainly medium grained, thinner beds show grading, thicker bed grading is not evident.
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: silicified in part, generally sericitic and weakly biotitic throughout
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: some weak sulphide flooding by po and py. 150.3-150.7m – quartz massive po and py vein cuts core at 25°
	ADDITIONAL OBSERVATIONS:
From To	**LITHOLOGY:** Siltstone, interbedded argillite
158.8-185.0	**COLOR:** light gray with gray and dark gray banding
	PRIMARY STRUCTURE: mainly medium to thin bedded, rare thick beds. Bedding is generally sharp-flat to locally sharp and strongly distorted. Bedding to core = 40° at 179.0m
	TECTONIC STRUCTURE: 170.0-171.8m – fault cuts core axis at 13°, consists of gouge and brecciated sediments.
	GENERAL ALTERATION: as previously described
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: sulphide flooding by po and py is intense locally. At 162.6m – 1cm thick massive po bed.
	ADDITIONAL OBSERVATIONS:

From To	
185.0-187.1	**LITHOLOGY:** Siltstone
	COLOR: light gray
	PRIMARY STRUCTURE: massive slump structured mixed unit, with a thin fragmental unit from 186.0-186.4m, matrix supported. Bedding parallel fragmental clasts generally rounded, 1cm to 4cm in size.
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: as previously described
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: rare disseminated po and py
	ADDITIONAL OBSERVATIONS:
From To	**LITHOLOGY:** Argillite, interbedded siltstone
187.1-194.3	**COLOR:** light gray to gray
	PRIMARY STRUCTURE: medium to very thin bedded, bedding is sharp-flat, locally wavy. Bedding to core at 194.0m = 42°, locally beds are strongly disrupted by soft sed. deformation.
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: as previously described
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: patchy sulphide flooding in some beds, mainly by po and py
	ADDITIONAL OBSERVATIONS:
From To	**LITHOLOGY:** Siltstone
194.3-196.6	**COLOR:** light gray
	PRIMARY STRUCTURE: thick to very thick bedded, bedding sharp and generally disrupted, medium to coarse grained seds.
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: strongly sericitic and biotitic with scattered subhedral pink garnets
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: widely scattered spots of po and py flooding in seds.
	ADDITIONAL OBSERVATIONS:

From To	LITHOLOGY: Siltstone, Interbedded Argillite
196.6-201.7	**COLOR:** gray and dark gray
	PRIMARY STRUCTURE: medium to thin bedded, bedding sharp and flat. Argillite beds are finely parallel laminated, siltstone medium to fine grained. Bedding to core at 201.0m = 50°
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: argillite strongly biotitic and sericitic, siltstone the same but with scattered subhedral pink garnets.
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: po and py flooding is locally abundant.
	ADDITIONAL OBSERVATIONS:
From To	**LITHOLOGY:** Siltstone
201.7-204.0	**COLOR:** light gray
	PRIMARY STRUCTURE: thick to very thick bedded, bedding is indistinct
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: generally sericitic and weakly biotitic, rare scattered tiny pink subhedral garnets
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: rare hairline fractures with po
	ADDITIONAL OBSERVATIONS:
From To	**LITHOLOGY:** Siltstone, Interbedded Argillite
204.0-229.7	**COLOR:** light gray with gray and dark gray interbeds
	PRIMARY STRUCTURE: medium to very thin bedded with scattered thin beds. Bedding is generally sharp and flat. Argillite beds commonly finely parallel laminated, disrupted beds occur locally. Bedding to core at 215.0m = 45°
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: generally as previously described. But at 204.9m a 15cm thick bed of black tourmalinite. 218.0-229.0m – abundant 10 to 40cm thick bands of intense light yellowish white sericitization
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: sulphide flooding by po and py is scattered throughout the section, it is best developed in the siltstone beds but does occur in argillite beds as well. Po and fine crystalline py occurs mainly in dendritic hairline veinlets (no quartz) and in dendritic patches, with local concentrations up to 30% by volume over 10 to 20cm intervals.
	ADDITIONAL OBSERVATIONS:

From To	LITHOLOGY: Siltstone
229.7-234.2	**COLOR:** gray to light gray
	PRIMARY STRUCTURE: medium to thick bedded, bedding is rare and indistinct, generally medium to fine grained seds.
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: upper part of unit is strongly biotitic with scattered subhedral pink garnets. 230.8-234.2m – intensely sericitized and weakly dolomitized
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: 230.8-234.2m – abundant thin 2mm to 4mm thick yellowish dolomite veinlets are abundant. Veinlets cut core at angles of 45° and 35°, commonly host rare ZnS and po
	ADDITIONAL OBSERVATIONS:
From To	**LITHOLOGY:** Argillite, Interbedded Siltstone **ALDRIDGE MARKER BED AT 238.0M.**
234.2-239.5	**COLOR:** generally gray with dark gray and light yellowish gray banding
	PRIMARY STRUCTURE: thin to very thin bedded. Bedding sharp-flat, fine parallel lineation common in argillite beds. Locally thin beds have well developed flame structured bed tops. Bedding to core at 238.0m = 45°
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: fine biotite throughout
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: widely scattered hairline po fractures.
	ADDITIONAL OBSERVATIONS:
From To	**LITHOLOGY:** Siltstone, interbedded quartzite, lesser argillite
239.5-255.8	**COLOR:** light gray, gray with some dark gray interbeds
	PRIMARY STRUCTURE: medium to thick bedded with some scattered thin to very thin argillite units. Bedding is sharp generally wavy to flame structured. Argillite unit beds are flat-sharp. Bedding to core at 249.0m = 40°
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: siltstone quartzite, generally silicified sericitized with some biotite and small subhedral pink garnets. 242.5-244.8m – intensely silicitized and weakly dolomitic with some fine tourmaline needles
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: rare disseminated po and py filled veinlets.
	ADDITIONAL OBSERVATIONS:

From To	LITHOLOGY: Siltstone, interbedded argillite
255.8-311.2	**COLOR:** gray siltstone with light and dark brownish gray argillite
	PRIMARY STRUCTURE: rhythmically interbedded medium bedded siltstone and thin to very thin argillite beds. Argillite bed contacts are sharp-flat. Some argillite units are finely parallel laminated, but more often they are strongly disrupted by soft sed. deformation (pull aparts) (small scale folds). Siltstones generally with wavy contacts commonly flame structured, most of the beds are graded fining upwards. Bedding to core: 55° at 268.9m; 53° at 295.0m; 51° at 304.0m; 53° at 311.0m
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: Siltstones generally silicified with scattered subhedral pink garnets, they are commonly sericitic and biotitic. Argillite beds are generally biotitic but are commonly altered to fine white to yellowish with sericite.
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: ZnS with po occur at 307.0m in 4cm thick bedding parallel dolomite veinlets. Po generally occurs in argillite beds as very fine disseminations and thin bedding parallel layers
	ADDITIONAL OBSERVATIONS:
From To	**LITHOLOGY:** Siltstone, minor interbedded argillite
311.2-320.9	**COLOR:** gray
	PRIMARY STRUCTURE: medium to thick bedded, bedding is distinct and wavy, generally flame structure. Rare thin bedded to very thin bedding argillite units.
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: generally silicified with abundant sericite and lesser biotite, widely scattered small subhedral pink garnets.
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: rare disseminated po
	ADDITIONAL OBSERVATIONS:
From To	**LITHOLOGY:** Siltstone, interbedded argillite
320.9-335.5	**COLOR:** light gray with brownish light gray and dark gray band
	PRIMARY STRUCTURE: medium to thin and very thin bedded, bedding sharp and commonly disrupted and rarely flat. Argillite are generally soft sed. deformed by small scale slump folds and pull apart beds. Most of the siltstone beds appear graded. Bedding to core at 331.0m = 55°
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: as previously described but with bands of intense yellowish white sericitization
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: hairline wispy veinlets and disseminations associated with intense sericite bands. Scattered veinlets yellowish dolomite usually parallel to bedding.

From To	LITHOLOGY: Quartzite, Interbedded Siltstone and Argillite
335.5-354.8	**COLOR:** light gray to gray
	PRIMARY STRUCTURE: medium to thin bedded, bedding sharp to wavy. Argillite interbeds commonly disrupted by soft sed. deformation, but locally are finely parallel laminated. Siltstones generally graded and medium grained. Bedding to core at 353.0m = 58°
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: siltstone and quartzite, generally silicified and sericitic with scattered pink garnets. Argillite generally biotitic with some beds totally altered to white sericite.
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: rare disseminated po
	ADDITIONAL OBSERVATIONS:
From To	**LITHOLOGY:** Argillite, Interbedded Siltstone
354.8-356.6	**COLOR:** gray with brownish gray banding
	PRIMARY STRUCTURE: thin to very thin bedded, bedding is sharp-flat, to sharp and flame structured.
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: biotitic
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: rare disseminated po
	ADDITIONAL OBSERVATIONS:
From To	**LITHOLOGY:** Quartzite, Interbedded Siltstone and Argillite
356.6-377.1	**COLOR:** light bluish gray
	PRIMARY STRUCTURE: Mainly medium to thick bedded with scattered sequences up to a meter thick of thin to very thin bedded argillite. Bedding on argillite is flat-sharp, siltstone bed bases generally wavy (load clasts) and flame structures. Quartzite-siltstone beds are graded turbidite beds. Bedding to core at 361.9m = 50°
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: as previously described
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: rare disseminated po
	ADDITIONAL OBSERVATIONS:

From To	LITHOLOGY: Mainly Quartzites with Interbedded Argillite
377.1-388.3	**COLOR:** mainly bluish gray
	PRIMARY STRUCTURE: mainly thick to very thick bedded with scattered very thin bedded argillite units. Bedding sharp-flat to sharp-wavy. Argillite beds generally distorted by soft sed. deformation (pulled apart beds and soft sed. folds). Siltstone-quartzite appears to be graded and generally medium to fine grained.
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: quartzite beds generally silicified and sericitized with scattered small subhedral pink garnet with late veinlets of fine light green muscovite. Argillite beds are generally biotitic and sericitic.
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: some rare paper thin po layers generally in argillite beds. Some very weak disseminated po in quartzites.
From To	**LITHOLOGY:** Quartzite, Interbedded Siltstone and Argillite
388.3-404.0	**COLOR:** light bluish gray, banded gray and light brownish gray
	PRIMARY STRUCTURE: medium to thin bedded, some very thin beds, bedding is sharp-flat and sharp-wavy due to load casts and flame structures. Highly disrupted argillite beds (soft sed. deformation) are relatively abundant throughout interval. Bedding to core at 396.0m = 55°
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: as described above
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: rare disseminated po
From To	**LITHOLOGY:** Quartzite, Interbedded Siltstone
404.0-416.0	**COLOR:** light bluish gray to light gray
	PRIMARY STRUCTURE: thick to very thick bedded, bedding indistinct
	TECTONIC STRUCTURE: 408.6-409.0m – shear zone – fault? Cuts core at 80° or 70°
	GENERAL ALTERATION: generally silicified and sericitized with widely scattered subhedral small garnets over printed by yellowish white bands 10 to 15 cm thick of fine sericite with weak dolomitization
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: paper thin dendritic po-aspy veins are relatively abundant. Po and aspy and quartz also occurs in thin irregular veinlets associated with the shear zone and generally accompanied by dolomite-sericite alteration.

Grab Sample #	From	To	Length	As ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
1319	408.0	—	---	11	35	321	0.9	18.8

From To	LITHOLOGY: Quartzite, Interbedded Siltstone and Argillite 438.2-439.6m – very thick siltstone bed **ALDRIGE MARKER BED AT 427.5M.**
416.0-444.2	**COLOR:** light bluish gray to light brownish gray
	PRIMARY STRUCTURE: mainly medium to thin bedded with scattered very thin beds, rare thick bed. Bedding generally sharp-flat and sharp-distorted, soft sed. deformation common in argillite beds. Bedding to core at 435.5m = 61°; at 439.6m = 56°
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: argillite beds generally biotitic and sericitic, siltstones are biotitic and sericitic and locally silicified, rare bands or concretions consisting of albite, actinolite, garnet and light green muscovitization. 441.0-442.0m – abundant fine reddish brown biotite with disseminated coarse crystalline muscovite and some patches of intense silicification
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: rare paper thin layers of po, some very weak po disseminations
From To	**LITHOLOGY:** Siltstone, Interbedded Argillite
444.2-460.0	**COLOR:** rosey brown with yellowish white banding
	PRIMARY STRUCTURE: medium to thin bedded, bedding is indistinct due to alteration
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: intense mainly fine reddish brown biotite and coarsely crystalline muscovite over printed by scattered bands of fine yellowish white sericitization accompanied by dolmitization
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: 444.2-460.0m – sulphide flooded zone. Fine crystalline po and py occur as dendrites and in abundant paper thin irregular fractures without quartz. Sulphide content from 3 to 5% by volume, rare veinlets of ZnS occur in this interval.

Sample #	From	To	Length	As ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
1320	455.0	---	---	<2	59	74	0.5	2.1

From To	LITHOLOGY: Siltstone, Interbedded Quartzite and Argillite
460.0-473.5	**COLOR:** light gray to bluish gray with some brownish gray banding
	PRIMARY STRUCTURE: medium to thin bedded, bedding is mainly sharp-flat, locally wavy, generally graded beds (siltstone). Some flame structured bedding planes. Bedding to core at 471.6m = 58°
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: quartzites are silicified and sericitic with scattered subhedral pink garnets. Siltstone and argillite mainly biotitic and sericitic.
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: widely scattered po dendrits

From To	LITHOLOGY: Quartzite and Siltstone 478.0-479.0m – argillitized andesite dyke? Abundant zenoliths consisting mainly of white, green and yellow talc. Some quartz and amphibole cuts core at 25°.
473.5-482.0	**COLOR:** light yellowish white and light rosey gray
	PRIMARY STRUCTURE: massive no bedding, appear to fine grain seds. Brecciation and alteration destroyed primary structure.
	TECTONIC STRUCTURE: 473.5-481.0m – crackle brecciated
	GENERAL ALTERATION: Note: andesite dyke does not alter the adjacent seds. 478.0-479.0m – seds intensely silicified and sericitized and weakly dolomitized
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: abundant dentritic veinlets of fine py and po, rare veinlets of yellowish dolomite.

Sample #	From	To	Length	As ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
1321	478.0	—	---	4	19	134	<0.3	2.8

From To	LITHOLOGY: Siltstone, Interbedded Argillite
482.0-487.7	**COLOR:** light gray banded brownish gray and dark gray
	PRIMARY STRUCTURE: medium to thin and very thin bedded, bedding generally sharp-flat, some argillite beds are very finely parallel laminated, siltstones are fine grained, generally graded. Bedding to core at 487.0m = 50°
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: biotitic and sericitic, rare subhedral pink garnets
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: some weakly disseminated po

From To	LITHOLOGY: Mainly Siltstone, Rare Quartzite and Argillite 492.2-493.1m – fragmental bed, clasts rounded to angular, mainly argillite in quartzite matrix. Clasts range in size from 2 to 5cm.
487.7-498.8	**COLOR:** light gray to bluish gray
	PRIMARY STRUCTURE: medium to thick bedded, bedding indistinct
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: sericitic and weakly biotitic, some over printing by late yellowish dolomitic sericitization
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: Rare thin bedding parallel quartz-po veins. 497.6-498.8m – bull quartz vein cuts core at 23°
	ADDITIONAL OBSERVATIONS:

From	To	LITHOLOGY: Lamprophyre Sill
498.8	502.8	**COLOR:** generally black
		PRIMARY TEXTURE: medium crystalline, consists mainly of biotite and actinolite
		TECTONIC STRUCTURE: nil
		GENERAL ALTERATION: nil
		MINERALIZATION & ASSOCIATED, HOST STRUCTURE: disseminated blebs of po and some aspy

Sample #	From	To	Length	As ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
1322	499.0	—	---	<2	10	166	<0.3	2.6

From	To	LITHOLOGY: Argillite, Interbedded Siltstone
502.8	508.7	**COLOR:** banded black and dark gray
		PRIMARY STRUCTURE: thin to very thin bedded, bedding sharp-flat to sharp and highly deformed by soft sed. slumping. Bedding to core at 504.0m = 50°
		TECTONIC STRUCTURE: nil
		GENERAL ALTERATION: strongly biotitic beds alternating with sericitic beds
		MINERALIZATION & ASSOCIATED, HOST STRUCTURE: rare disseminated po
		ADDITIONAL OBSERVATIONS:

From	To	LITHOLOGY: Siltstone, Interbedded Argillite
508.7	546.0	**COLOR:** light gray to gray
		PRIMARY STRUCTURE: mainly medium bedded siltstones, rhythmatically interbedded with thin to very thin bedded argillite. Bedding sharp-flat re; argillite beds and sharp-wavy re: siltstone beds. Siltstone appears to be typical graded turbidites. Bedding to core at 520.0m = 51°; at 535.7m = 55°. Soft sed. deformation relatively abundant in argillite units, usually soft sed. folds and pull apart beds, and some rip-up clasts.
		TECTONIC STRUCTURE: nil
		GENERAL ALTERATION: weakly biotitic and sericitic with scattered intensely silicified-garnetized bands, usually with coarse biotitization.
		MINERALIZATION & ASSOCIATED, HOST STRUCTURE: rare thin veinlets of po with some rare disseminated po.
		ADDITIONAL OBSERVATIONS:

From To	LITHOLOGY: Basalt/Alkaline bedded volcanic ejecta xenoliths and xenocrysts consists of carbonate quartz(?) chrome diopside, talc and other exotics. See attached thin section work (back of log) no Da-005 – 548.4m.
546.0-549.7	**COLOR:** dark grayish green with multi-colored xenoliths and xenocrysts
	PRIMARY TEXTURE: fine crystalline matrix, supports angular to rounded xenoliths and xenocrysts. Xenoliths range in size from 4mm to 30mm. Contacts are perfectly parallel to bedding.
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: Matrix appears to be silicified and some carbonatite clasts have dolomotized rims.
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: No sulphides.

Sample #	From	To	Length	As ppm	Pb ppm	Zn ppm	As ppm	Au ppb
1323	549.0	---	---	<2	<3	69	<0.3	1.7

From To	LITHOLOGY: Siltstone, Interbedded Argillite
549.7-563.8	**COLOR:** gray banded white and yellowish white by alteration
	PRIMARY STRUCTURE: medium to thick bedded, rare thin beds, bedding distinct to indistinct, typical turbidites
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: 558.0-559.0m – completely altered to coarsely crystalline biotite, mottled by patches of white sericitization. 559.0-563.8m – mainly sericitized and light green muscovitization generally controlled by numerous hairline fractures.
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: 558.0 – patches of massive po up to 4cm thick, located near the top of the massive biotite-sericite zone at 559.0m
	ADDITIONAL OBSERVATIONS:

From To	LITHOLOGY: Siltstone, Interbedded Argillite This interval resembles L.A. Seds.
563.8-580.7	**COLOR:**
	PRIMARY STRUCTURE: medium to thin bedded, bedding sharp-flat, very fine grained siltstone. Bedding to core at 56 7.3 = 55°; 573.0m = 50°
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: siltstone biotitized by fine reddish biotite, argillite completely altered to sericite
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: At 564.3m – 4cm thick bed of massive po. Widely scattered wispy paper thin veinlets of po throughout interval

From To	
580.7-587.0	**LITHOLOGY:** Argillite, Interbedded Siltstone
	COLOR: light brownish gray, banded by light gray
	PRIMARY STRUCTURE: thin to very thin bedded, bedding sharp-flat, some scattered soft deformed beds
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: finely biotitic
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: rare disseminated po
	ADDITIONAL OBSERVATIONS:
From To	**LITHOLOGY:** Siltstone with Argillite Bed Tops
587.0-591.0	**COLOR:** light gray and bluish gray
	PRIMARY STRUCTURE: medium to thick bedded, rare very thick bed, bedding is distinct – generally flat. Appear to be good grade turbidites.
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: generally sericitic and weakly biotite, with local zones of intense silicification and garnetization
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: rare disseminated po
	ADDITIONAL OBSERVATIONS:
From To	**LITHOLOGY:** Siltstone, Interbedded Argillite
591.0-597.2	**COLOR:** light gray band, light brownish gray, rare dark gray lineation
	PRIMARY STRUCTURE: medium to thin bedded, bedding sharp-flat, argillite beds generally distorted by soft sed. deformation
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: siltstone silicified in part, usually with disseminated subhedral pink garnet
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: rare disseminated po
	ADDITIONAL OBSERVATIONS:

From To	
597.2-605.3	**LITHOLOGY:** Siltstone, rare interbed of argillite
	COLOR: light bluish gray, band whitish gray
	PRIMARY STRUCTURE: medium to thick bedded, bedding generally flat-sharp, generally graded turbidite beds, medium to fine grained. Bedding to core at 604.0m = 49°
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: generally silicified with scattered subhedral pink garnets, general overprinted by abundant bands of late white sericitization
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE:
	ADDITIONAL OBSERVATIONS:
From To	**LITHOLOGY:** Siltstone, Interbedded Argillite
605.3-610.9	**COLOR:** light bluish gray, banded whitish gray
	PRIMARY STRUCTURE: medium to thin bedded, sharp-flat to locally wavy, argillite beds generally disrupted by soft sed. deformation i.e. pull apart and fragmental beds.
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: as described above
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: weakly disseminated po
	ADDITIONAL OBSERVATIONS:
From To	**LITHOLOGY:** Siltstone-Quartzite, Interbedded Argillite
610.9-624.1	**COLOR:** mainly bluish gray with some whitish gray banding
	PRIMARY STRUCTURE: medium to thick bedded, bedding is distinct to indistinct, medium grained to fine grained siltstone, some grading noted, some scattered thin beds of argillite
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: generally silicified, locally intensely silicified, generally sericitic with scattered subhedral pink garnets, late thin band of light green muscovitization common throughout the interval.
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: weakly disseminated po in siltstone-quartzite late green muscovite zones contain rare disseminated ZnS and rare PbS
	ADDITIONAL OBSERVATIONS:

From To	LITHOLOGY: Argillite, rare siltstone
624.1-630.5	**COLOR:** light gray, banded by grayish white and dark gray
	PRIMARY STRUCTURE: thin to very thin bedded, bedding sharp-flat, some very fine parallel lamination, some soft sed. deformation. Bedding to core at 630.0m = 58°
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: siltstone interbeds, generally silicified and sericitized, some argillite beds.
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: rare disseminated po
	ADDITIONAL OBSERVATIONS:
From To	**LITHOLOGY:** Siltstone, Interbedded Argillite
630.5-651.4	**COLOR:** light gray, band light yellowish white, light gray and gray
	PRIMARY STRUCTURE: medium to thin bedded, bedding sharp-flat, locally distorted by soft sed. deformation. Bedding to core at 639.0m = 56°; at 648.5m = 53°
	TECTONIC STRUCTURE: at 633.0-633.1m – soft fault gouge cuts core at 60° sub parallel to bedding. 634.0-636.0m – loose brecciated sediments 636.0-637.0m – soft fault gouge cuts core axis at 56°, parallel to bedding
	GENERAL ALTERATION: approximately 50% of the interval strongly altered by fine yellowish white sericite, which is weakly dolomitic.
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: po as disseminations, wisps and dendritic like veinlets is abundant and associated with mainly sericitization.
	ADDITIONAL OBSERVATIONS:
From To	**LITHOLOGY:** Quartzite
651.4-657.6	**COLOR:** light gray
	PRIMARY STRUCTURE: thick to very thick bedded, bedding indistinct, medium to coarse grained, grading not evident
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: generally silicified with abundant coarse crystalline sericite and relatively abundant tiny subhedral pink garnets.
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: relatively abundant disseminated po
	ADDITIONAL OBSERVATIONS:

From To	LITHOLOGY: Argillite, Minor Siltstone
657.6-675.3	COLOR: gray speckled black
	PRIMARY STRUCTURE: thin to very thin bedded, bedding sharp-flat, rare soft sed. deformation. Bedding to core at 670.0m = 55°; at 675.0m = 46°
	GENERAL ALTERATION: argillite beds nearly completely altered to sericite and coarse crystalline biotite with some disseminated tiny pink garnets
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: Po occurs as widely scattered relatively abundant thin irregular dendritic veinlets.

Sample #	From	To	Length	As ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
1324	659.2	---	---	<2	15	134	<0.3	0.7
1325	664.0	---	---	4	17	60	<0.3	0.5
1326	669.6	---	---	<2	10	39	<0.3	0.2
1327	672.5	---	---	2	3	34	<0.3	0.9

From To	LITHOLOGY: Gabbro Sill Becomes granophyric at 695.0-768.5m
675.3-888.0	COLOR: green to grayish
	PRIMARY STRUCTURE: medium to coarsely crystalline gabbor; granophyre medium crystalline, rare and widely scattered white and blackish albitized and biotitized clasts
	GENERAL ALTERATION: abundant thin fracture controlled light green actinolite zones and dolomitized-sericitized zones. These zones generally cut core at 77° to 80°. 782.9-787.0m – zone of intense dolomitization and sericitization associated with thin irregular veinlets of py and aspy
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: Quartz veins cut core at 80°, largest vein at 705.0-705.5m generally barren smoky white, vuggy quartz, most veins are less than 2cm thick. Widely scattered thin quartz-calcite veins cut core at 25°.

Sample #	From	To	Length	As ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
1328	696.0	---	---	<2	5	22	<0.3	0.6
1329	706.7	---	---	<2	6	92	<0.3	<0.2
1330	722.7	---	---	<2	22	7	<0.3	<0.2
1331	732.7	---	---	5	5	101	<0.3	0.9
1332	780.7	---	---	<2	6	83	<0.3	0.2
1333	786.0	---	---	5	7	67	<0.3	0.5

From To	LITHOLOGY: Massive Biotite TOP OF SULLIVAN TIME AT 888.0M
888.0-890.2	**COLOR:** reddish brown
	PRIMARY TEXTURE: medium to coarsely crystalline
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: may be the complete alteration of argillite to mainly biotite with rare sericite and calcite
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: Hairline layers of po, rare ZnS and py are very abundant, generally spaced 4mm to 10mm apart, rarely more than 1 to 2mm thick, sulphide content 5 to 20% by volume.

Sample #	From	To	Length	As ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
1334	888.0	888.5	0.5	4	17	141	0.5	1.1
1335	888.5	889.0	0.5	<2	13	188	0.5	0.7
1336	889.0	889.5	0.5	<2	9	241	0.5	<0.2
1337	889.5	890.2	0.7	<2	16	196	0.6	0.3

From To	LITHOLOGY: Meta Sediments, spotted hornfels?
890.2-895.8	**COLOR:** mainly white to very light gray with black to dark green spotting
	PRIMARY STRUCTURE: thin to very thin bedded, bedding sharp and generally flat. Bedding to core at 892.0m = 47°
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: completely altered to sericite and lesser biotite. The biotite occurs as a late overprinting of scattered crystals producing a spotted texture, some scattered bands of early(?) silicification
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: rare disseminated po

Sample #	From	To	Length	As ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
1338	890.2	891.0	0.8	<2	18	57	<0.3	<0.2
1339	891.0	891.5	0.5	<2	14	59	<0.3	<0.2
1340	891.5	892.0	0.5	<2	12	77	<0.3	<0.2
1341	892.0	892.5	0.5	<2	10	77	<0.3	15.5
1342	892.5	893.0	0.5	<2	17	64	<0.3	2.3
1343	893.0	893.5	0.5	<2	7	68	<0.3	0.6
1344	893.5	894.0	0.5	<2	10	63	<0.3	0.4

From To	LITHOLOGY: Meta-Argillite
895.8-899.0	**COLOR:** light yellowish white
	PRIMARY STRUCTURE: thin to very thin bedded. Bedding indistinct due to intense alteration
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: completely altered to sericitic which has been weakly dolomitized
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: rare veinlets of aspy and very coarse ZnS.

Sample #	From	To	Length	As ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
1345	895.8	896.8	1.0	<2	21	14	<0.3	1.0
1346	896.8	897.8	1.0	<2	22	106	<0.3	0.7
1347	897.8	899.0	1.2	3	19	86	<0.3	1.0

From To	LITHOLOGY: Mainly argillite, rare siltstone
899.0-906.5	**COLOR:** mainly dark gray, rarely light gray banding
	PRIMARY STRUCTURE: thin to very thin bedded, bedding is distinct and flat, generally very finely parallel laminated accented by biotitization. Bedding to core at 204.0m = 45°
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: strongly sericitic and biotitic, rare thin calcareous laminations
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: rare very thin py laminae, weakly disseminated po throughout, rare very thin py veinlets

Sample #	From	To	Length	As ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
1348	899.0	900.0	1.0	<2	6	19	<0.3	0.7
1349	900.0	901.0	1.0	<2	17	63	<0.3	0.3
1350	901.0	902.0	1.0	<2	18	51	<0.3	0.4
1351	902.0	903.0	1.0	<2	13	54	<0.3	0.4
1352	903.0	904.0	1.0	4	12	74	<0.3	0.6
1353	904.0	905.0	1.0	<2	15	51	<0.3	<0.2
1354	905.0	906.0	1.0	2	19	37	<0.3	0.4
1355	906.0	906.5	0.5	2	19	42	<0.3	0.4

From To	LITHOLOGY: Fragmental unit, fine siltstone matrix with white quartzite clasts and rare argillite clasts. Rare massive po clasts.
906.5-913.1	**COLOR:** gray spotted white
	PRIMARY STRUCTURE: massive matrix supported fragmental, clasts generally rounded, very rarely angular ranging in size from 2mm to 10mm and rarely 40mm, clasts have a preferred orientation parallel to bedding. Near the base of unit matrix host scattered coarse sand grains.
	TECTONIC STRUCTURE: nil
	GENERAL ALTERATION: matrix generally silicified and sericitized with scattered biotite. Locally some clasts are nearly completed altered to biotite
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: very rare specks of po

Sample #	From	To	Length	As ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
1356	906.5	907.0	0.5	<2	14	42	<0.3	0.3
1357	907.0	907.5	0.5	<2	18	41	<0.3	0.5
1358	907.5	908.0	0.5	<2	22	40	<0.3	0.5
1359	908.0	908.5	0.5	2	17	58	<0.3	1.9
1360	908.5	909.0	0.5	<2	20	48	<0.3	1.2
1361	909.0	909.5	0.5	3	18	61	<0.3	0.6
1362	909.5	910.0	0.5	4	20	38	<0.3	0.8
1363	910.0	910.5	0.5	3	25	53	<0.3	<0.2
1364	910.5	911.0	0.5	<2	17	50	<0.3	0.3
1365	911.0	911.5	0.5	4	15	51	<0.3	10.9
1366	911.5	912.0	0.5	<2	20	42	<0.3	2.5
1367	912.0	912.5	0.5	2	11	43	<0.3	1.2
1368	912.5	913.0	0.5	6	24	48	<0.3	1.3

From To	LITHOLOGY: Argillite 916.5m – **BASE OF SULLIVAN TIME**							
913.1-916.5	**COLOR:** gray with dark gray banding							
	PRIMARY STRUCTURE: thin to very thin bedded, finely laminated, distinct bedding – sharp. Generally strongly disrupted seds. (soft sed. deformation). Bedding to core at 916.5m = 40°							
	TECTONIC STRUCTURE: nil							
	GENERAL ALTERATION: strongly sericitic and biotitic							
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: weakly disseminated po							
Sample #	**From**	**To**	**Length**	**As ppm**	**Pb ppm**	**Zn ppm**	**Ag ppm**	**Au ppb**
1369	913.0	914.0	1.0	<2	18	60	<0.3	0.5
1370	914.0	915.0	1.0	37	16	49	<0.3	0.3
1371	915.0	916.0	1.0	<2	17	49	<0.3	0.5
From To	**LITHOLOGY:** Siltstone, Interbedded Argillite **TOP OF LOWER ALDRIDGE F.M.**							
916.5-941.5	**COLOR:** rosey light gray banded whitish gray							
	PRIMARY STRUCTURE: medium to thin and very thin bedded. Bedding sharp-flat, siltstone in general is very fine grained, argillite beds are generally very finely parallel laminated, rarely finely cross bedded. Bedding to core at 941.5m = 40°							
	TECTONIC STRUCTURE: nil							
	GENERAL ALTERATION: siltstone beds are generally strongly silicified and speckled by coarsely crystalline muscovite and subhedral pink garnet. Argillite beds are commonly altered to white sericite.							
	MINERALIZATION & ASSOCIATED, HOST STRUCTURE: rare disseminated po							
941.5	**END OF HOLE**							

49°15'00"

115°45'30"

Cruz Deplata Claims 1 to 8

MOVIE LAKE

Farrell Crk

Sunrise Crk.

SEDEX

COLLAR of D.O.M. CR-00-1

CRUZ 1

CRUZ 98-1

CRUZ 98-2

CRUZ 98-3

CRUZ 44

CRUZ 22

CRUZ 14

CRUZ 135

CRUZ 136

CRUZ 92

CRUZ 55

CRUZ 114

CRUZ 91

CRUZ 90

CRUZ 137

Manson

N

0 1 2 3KM

SCALE 1:50,000

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

26,318

CRUZ PROPERTY

CLAIM MAP

Fig. 2

DRAWN BY	DATE	MAP REF
D.L. PIGHIN	OCT. 1998	82G05W, 82G04W