85-602-13823

DRILLING REPORT

Dusty Mac - 85 Group
JG 1-4, Production Lease P-3 (Lot 4079-S)

Osoyoos Mining Division, B.C.

82 E/5E

Lat: 49° 21' Long: 119° 32'

Owned by: DUSTY MAC MINES LIMITED

Operated by: ESSO MINERALS CANADA
for
ESSO RESOURCES CANADA LIMITED

Walter Melnyk
Esso Resources Canada Limited
1600-409 Granville Street,
Vancouver, B.C. V6C 1T2

September 30, 1985

0634B

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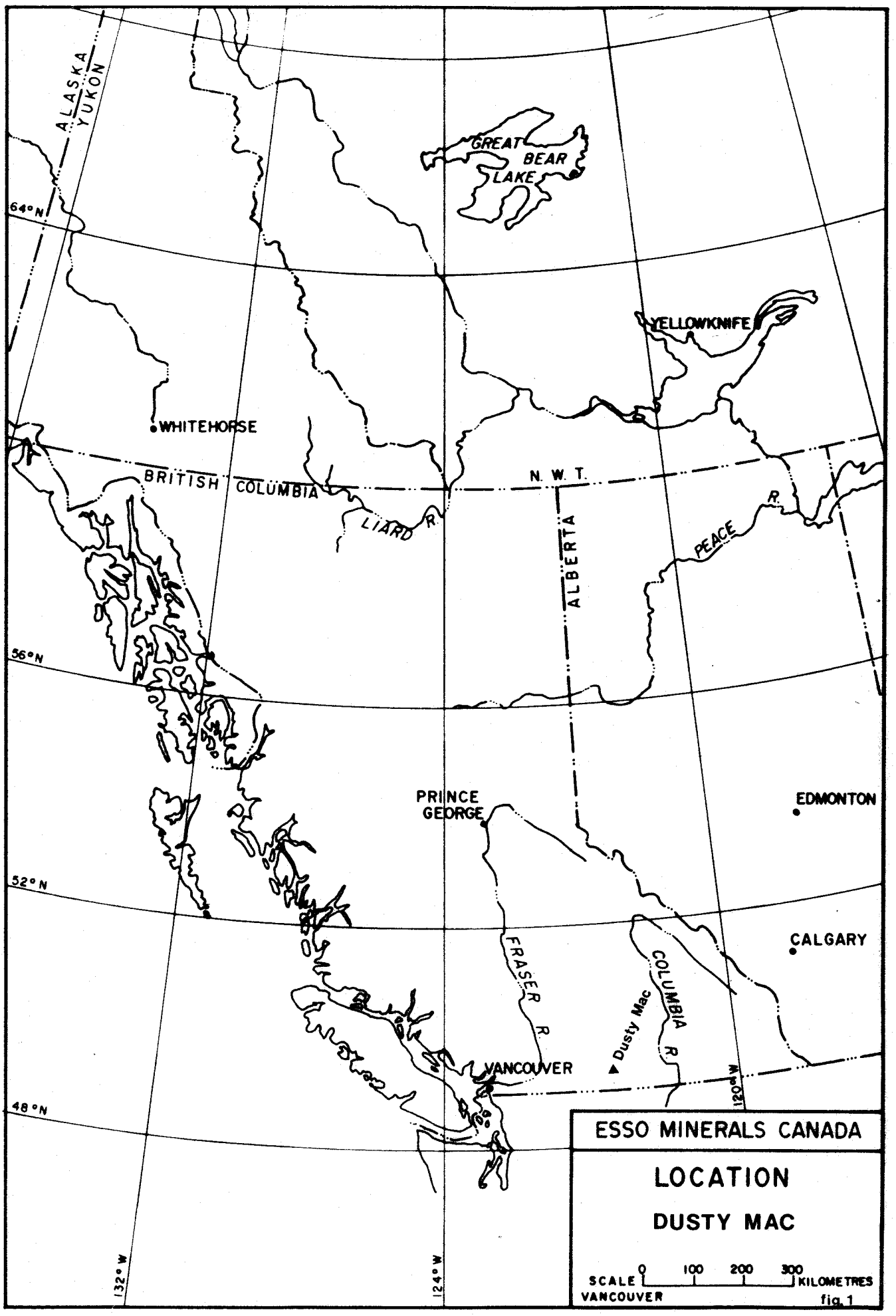

ALASKA
YUKON
GREAT BEAR LAKE
64°N
YELLOWKNIFE
WHITEHORSE
BRITISH COLUMBIA
N.W.T.
LIARD R.
ALBERTA
PEACE R.
56°N
PRINCE GEORGE
EDMONTON
52°N
CALGARY
FRASER R.
COLUMBIA R.
Dusty Mac
VANCOUVER
120°W
48°N
132°W
124°W
ESSO MINERALS CANADA
LOCATION
DUSTY MAC
SCALE 0 100 200 300 KILOMETRES
VANCOUVER
fig. 1

INTRODUCTION

A drilling program was undertaken by Esso Minerals Canada on the Dusty Mac gold, silver property near Okanagan Falls, south of Penticton. The program extended from April 20 to May 4, 1985. The combined reverse circulation percussion and diamond drill program tested geological concepts and geochemical anomalies which were identified during the 1984 mapping and sampling program.

LOCATION AND ACCESS

The Dusty Mac property is located in the Okanagan Valley approximately 250 km east of Vancouver. The property is situated 19 km south of Penticton at the southern end of Skaha Lake and 1.5 km east of Okanagan Falls. The co-ordinates of the property are longitude 119° 32', and latitude 49° 20'.

The open pit and waste dumps are situated behind a large bluff locally referred to as Peach Cliff.

The village of Okanagan Falls is situated on Provincial Highway 97, approximately 5 km south of Highway 3A - 97 junction.

A paved two lane road, parallels Shuttleworth Creek east of Okanagan Falls, circles Peach Cliff to a point within 500 meters from the open pit.

Penticton is a modern community and principal supply center where all services are available including air, road, and rail.

HISTORY AND PAST PRODUCTION

The exploration history of the Dusty Mac property probably dates back to the turn of the century as witnessed by the four short adits and several open cuts at the western end of the property overlooking Okanagan Falls. The adits were driven on quartz veins which are sparsely mineralized in chalcopyrite and pyrite.

Interest in the area was revived in 1966 when native silver was discovered in quartz veins on the Dusty Mac property. The first recent claims were staked the same year and Dusty Mac Mines Ltd. acquired the property in 1968.

An exploration program was conducted by Cannon Engineering Ltd., and later by Cannon-Hicks Associates Ltd. in late 1968 and 1969 under the direction of Dusty Mac Mines Ltd. The work included surface trenching, geological mapping, diamond and percussion drilling, and a limited underground program. The program outlined 61,485 tonnes grading 7.88 gm/Tonne Au, and 170.4 gm/Tonne Ag.

In 1970, the property was optioned to Noranda Exploration Ltd. which carried out a diamond drilling program. The program failed to add significant tonnage to the known reserves, and the property option was dropped.

In 1973 Dusty Mac Mines Ltd. carried out a percussion drilling program of 1635.5m.

Ore reserves based on 3319m of diamond drilling in 76 holes and 4642m in 221 percussion holes estimated in October, 1974 at 120,280 tonnes grading 7.06 gm/tonne Au and 123.4 gm/tonne Ag, plus 21,521 Tonnes indicated grading 4.59 gm/Tonne Au and 57.59 gm/Tonne Ag.

In April, 1975 an agreement was reached for custom milling ore at the Dankoe mill. Production started August 1, 1975 and ceased in June, 1976. The ore-body was mined by open pit at 318 tonnes per day. Total ore milled was 93,653 tonnes grading 6.89 gm/Tonne Au and 146.59 gm/Tonne Ag. Total production was 581,551 gms Au, 10,180.367 gms Ag, 2,880 kg copper, and 1,527 kg Pb.

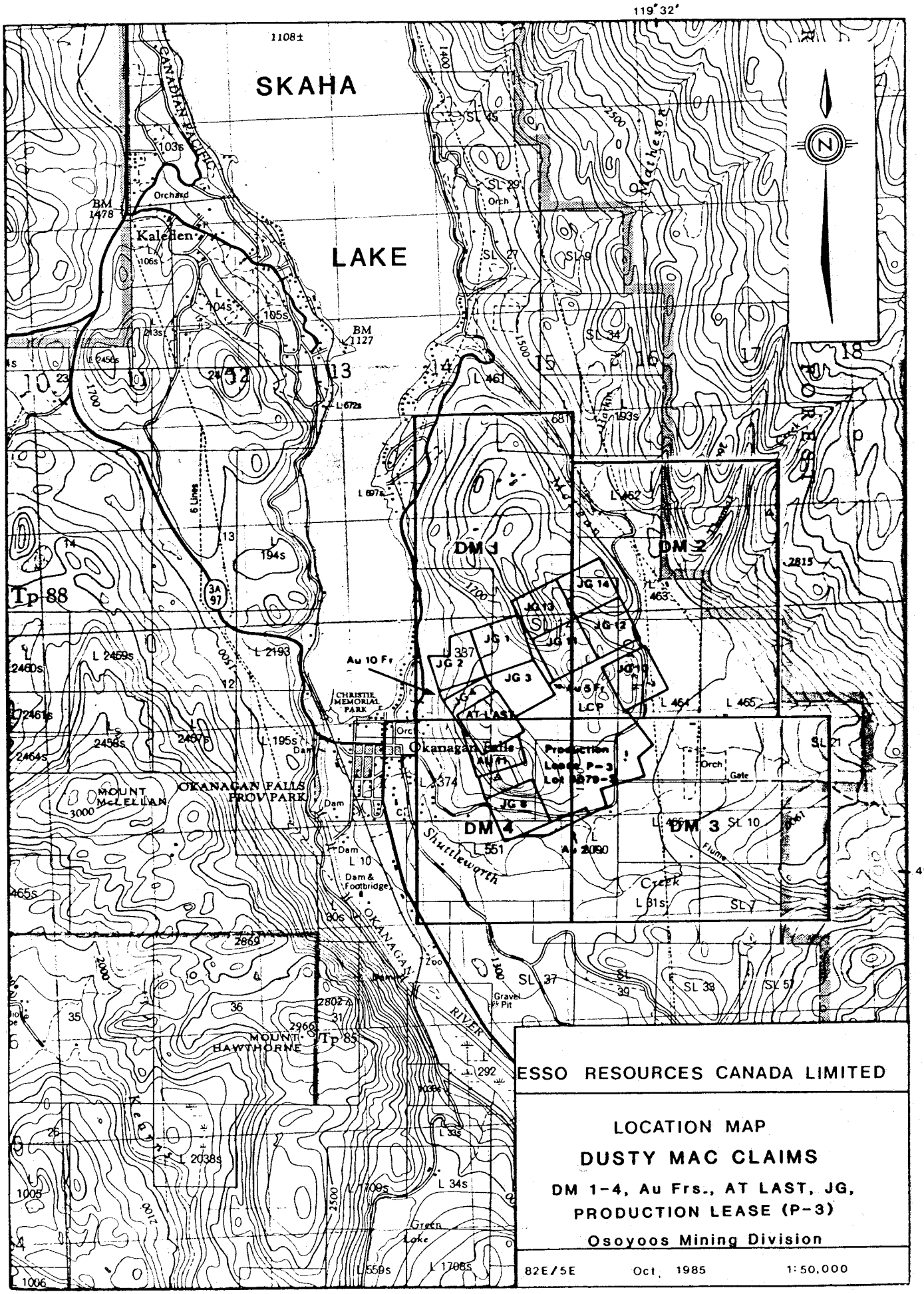
Milling was completed June 9, 1976 and reclamation of the mine area was finished on September 21, 1976.

Further property exploration was carried out in 1976 by Amadeus Consultants Ltd. The program consisted of geochemical soil sampling and percussion drilling over favourable structures. A total of 153 percussion holes were drilled for an aggregate of 5981m. No significant zones of mineralization were discovered.

Canex Placer Ltd. conducted 1.5 line miles of I.P. in June, 1976 under a data sharing arrangement with Dusty Mac. The results were not encouraging.

Scintrex Pty Ltd. conducted a Rapid Reconnaissance Magnetic Induced Polarization survey (RRMIP) in October, 1981. Results were inconclusive.

The Dusty Mac property remained idle until 1984 when Esso Minerals Canada conducted a surface sampling and mapping program in the vicinity of the open pit and to the northwest encompassing previously known mineralized areas.



ESSO RESOURCES CANADA LIMITED

LOCATION MAP

DUSTY MAC CLAIMS

DM 1-4, Au Frs., AT LAST, JG, PRODUCTION LEASE (P-3)

Osoyoos Mining Division

82E/5E Oct, 1985 1:50,000

CLAIM STATUS

Prior to EMC's involvement with Dusty Mac Mines Ltd., the Dusty Mac property consisted of 11 full size two-post claims, seven fractions, and a production lease as follows:

CLAIM NAME	RECORD #	EXPIRY DATE*
Au 2 Fr.	24347	97/01/17
Au 5 Fr.	24349	97/01/17
Au 6 Fr.	24350	97/01/17
Au 7 Fr.	24351	97/01/17
Au 9 Fr.	24353	97/01/17
Au 10 Fr.	24354	97/01/17
Au 11 Fr.	24355	97/01/17
At Last	19501	97/04/13
JG 1	21688	97/01/25
JG 2	21689	97/01/25
JG 3	21690	97/01/25
JG 4	21691	97/01/25
JG 8	21695	97/01/25
JG 10	21697	97/01/25
JG 11	21698	97/01/25
JG 12	21699	97/01/25
JG 13	22403	95/06/28
JG 14	22425	95/07/03
Prod. Lease	Lot 4079-S	86/04/09

The Production Lease P-3 (Lot 4079-S) consists of the following claims:

Au 1 Fr	24346
Au 3 Fr	24348
J Gus 1	22468
J Gus 3	22532
JG 5	21692
JG 7	21694
JG 9	21696
JOE 1	22689
HUNT 7 Fr	24289
HUNT 22 Fr	24305
CLAIRE 1 Fr	30580

* New expiry dates based on the acceptance of this report for assessment purposes.

A Bill of Sale dated June 23rd, 1984 transfers ownership of the above listed claims from Dusty Mac Mines Ltd. to Esso Minerals Canada in trust. Similarly a Bill of Sale dated June 27, 1984 transfers ownership of Production Lease P-3 (Lot 4079-S) from Dusty Mac Mines Ltd. to EMC. The Production Lease expires April 9, 1986.

On April 4, 1984 EMC staked 4 claims, DM 1-4, blanketing the above Dusty Mac Mines Ltd. claims and Production Lease. The DM 1-4 claims comprise 70 contiguous units.

CLAIM NAME	UNITS	RECORD #	EXPIRY DATE
DM-1	18	2013	91/05/04
DM-2	20	2014	91/05/04
DM-3	20	2015	91/05/04
DM-4	12	2016	91/05/04

Dusty Mac - 85 Group consists of the following claims: DM 1-4, Au 2 Fr., Au 5-7 Fr., Au 9-11 Fr., AT LAST, JG 1-4, JG 8, JG 10-14, and Production Lease P-3 (Lot 4079-S).

GEOLOGY AND ECONOMIC ASSESSMENT

The Dusty Mac property occurs within a fault bounded block of Eocene terrain near the eastern margin of the White Lake Basin near Okanagan Falls. The White Lake basin was mapped by N.B. Church during the period 1963-1965 and provides the source of information for the regional geology in the area.

Rocks found on the Dusty Mac property belong to the Marama and younger White Lake formations. Structurally the rocks are arranged in a homoclinal sequence striking northwesterly and dipping 30-50° northeast.

The Dusty Mac orebody occurs in the White Lake formation and consists of a gently dipping quartz breccia lens whose basic configuration was lens-like striking northwesterly and dipping northeast. Mineralization consists of very fine-grained, disseminated native silver and gold with minor disseminated chalcopyrite, sphalerite and galena. Both precious and base metals occur within the matrix of the quartz breccia.

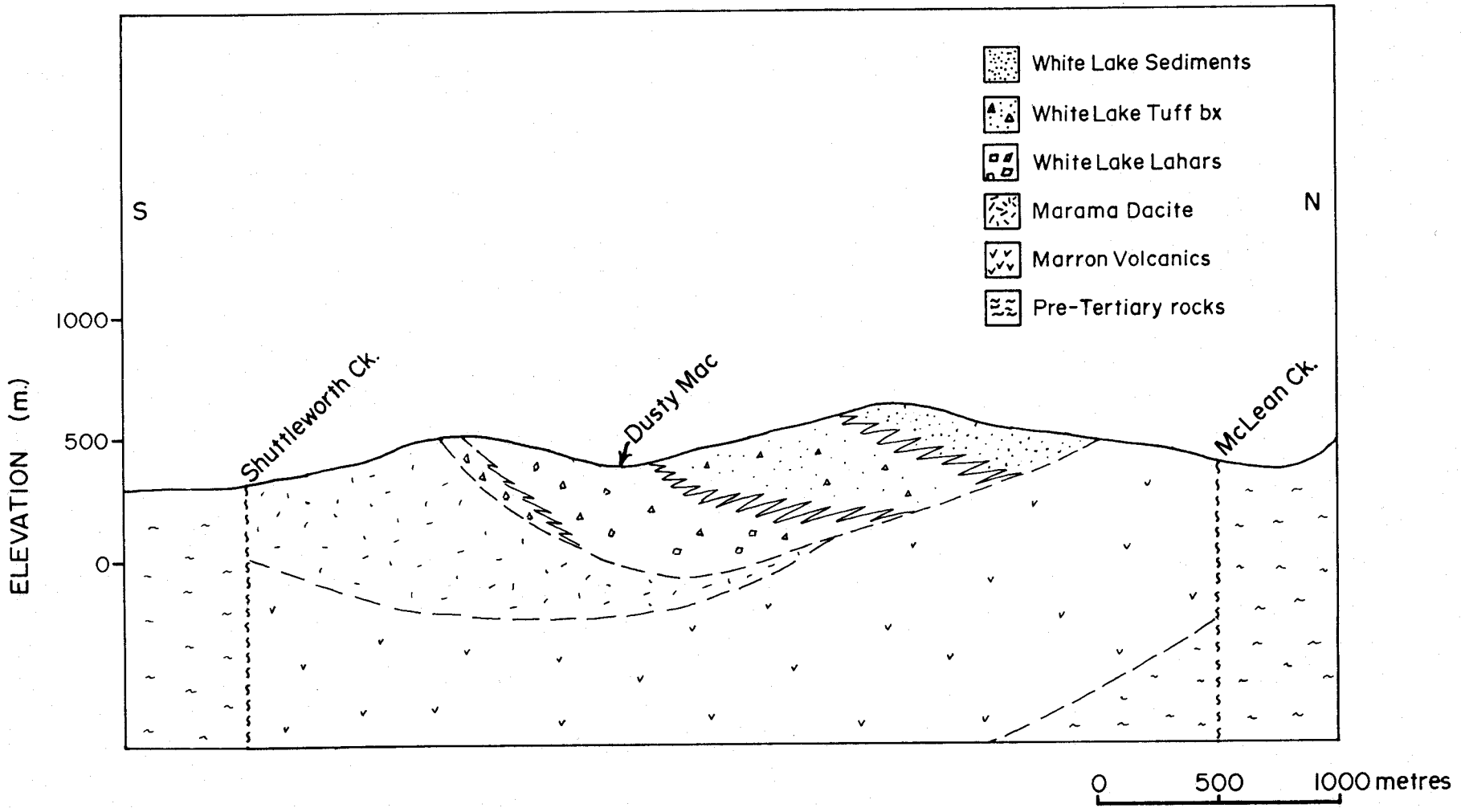
Estimated ore reserves in 1974 were 120,280 tonnes grading 7.06 g/t Au and 123.4 g/t Ag. During the period Aug 1, 1975 to June 9, 1976 a total of 93,653 tonnes of ore was milled grading 6.89 g/t Au and 146.6 g/t Ag.

At least three additional zones of precious metal mineralization are known on the property. The Western zone is located 200 metres southwest of the Dusty Mac pit and is poorly defined by five Dusty Mac drill holes. Gold values encountered were generally less than 1 gram per tonne over three to six metres.

The 'A' zone is located 700 metres west northwest of the pit and consists of a brecciated quartz vein vertically dipping, measuring 1 metre wide and 4 metres long. One sample collected across the vein ran 8.59 g/t Au and 1924 g/t Ag. Several Dusty Mac drill holes in the vicinity did not determine the source of the mineralization.

The Norwest Zone is located 900 m northwest from the pit. This zone consists of an intensely altered breccia extending over an area 70 x 20 m. Three Dusty Mac drill holes detected only traces of precious metals.

Extensive lithogeochemical, geochemical and geological surveys were conducted in 1984 in an attempt to discover near-surface, gently dipping mineralized zones similar to Dusty Mac. Sufficient encouragement was derived from the surface work to warrant a reverse circulation percussion drill program to test the open pit potential of the property. A single diamond drill hole would test the potential of additional quartz-breccia type mineralization near the Dusty pit.



SECTION THROUGH

DUSTY MAC

LOOKING WEST NORTHWEST

DRILLING

Drilling by Esso Minerals Canada on the Dusty Mac property extended from April 22 to May 3, 1985. During that time, 18 reverse circulation bore holes, 11.4 cm in diameter, were drilled for a total of 919.3 m (3016 feet), and one diamond drill hole was drilled, size NQ, for 198.1 m (650 feet). The drill holes are shown on Map 2197-26, and the coordinates and depths of all drill holes are listed on Table 1.

Drill core is stored on the property near DDH-85-1.

PH-85-1, 2, 3: These three percussion holes were spotted to test the southeast strike continuity of Dusty Mac mineralization, and gold mineralization in Dusty Mac hole 457, which intersected 1.5 m of 1.2 g/t Au at a depth of 25.9-27.4 m. Hole #1 failed to reach bedrock. Holes #2 and #3 intersected pyritic, sericitic zones over intervals of 8 and 26 m respectively. Precious metal values are negligible.

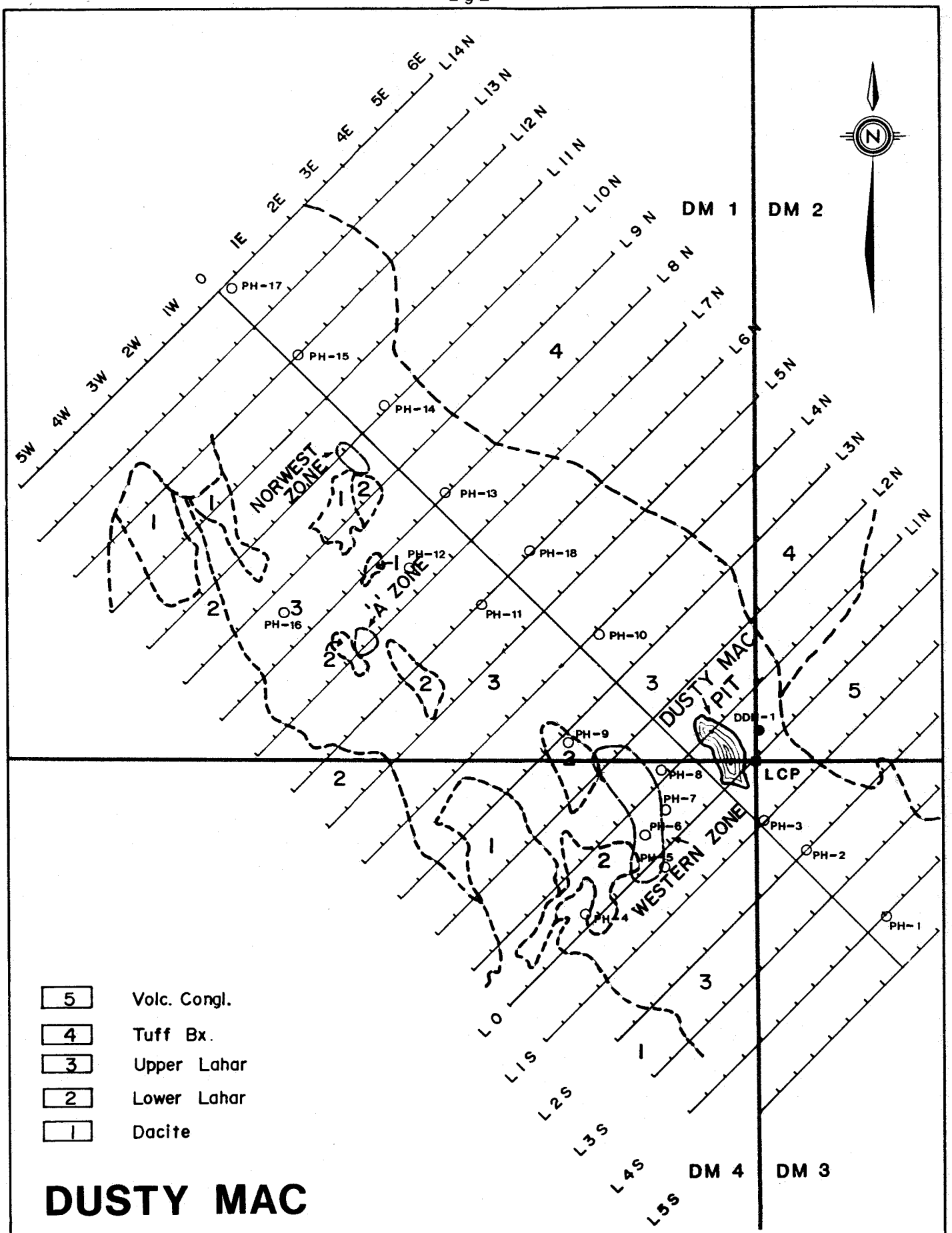
PH-85-4: Hole #4 was designed to test previously encountered gold mineralization, 3.1 m of 1.37 g/t Au at 6.1-9.2 m in Dusty Mac Hole 272. Hole #4 encountered moderately silicified and sericitized volcanics. Precious metal values were nil.

PH-85-5,6: Holes #5 and #6 were drilled to test the vicinity of Dusty Mac Hole #466 which intersected 5.2 m of 12.2 g/t Au from 2.4-7.6 m. Both EMC percussion holes encountered zones of pyritization, sericitization and silicification, however, precious metal values are negligible.

PH-85-7: Hole #7 was drilled in the vicinity of Dusty Mac hole # 462 which intersected 1.5 m assaying 2.4 g/t Au at a depth of 24.4-25.9 m and a 4.6 m interval assaying 0.4 g/t Au from 25.9-30.5 m. Hole #7 intersected variably altered volcanic and sedimentary rocks. Two separate 1.5 m intervals resulted in slightly anomalous gold values of 0.21 g/t and 0.17 g/t.

PH-85-8: Hole #8 was drilled in the vicinity of Dusty Mac Hole #276 which intersected two zones including 7.6 and 6.1 m, both assaying 0.69 g/t Au at depths of 4.6-12.1 m and 21.3-27.4 m. Hole #8 did not encounter any significant precious metal values.

PH-85-9, 10, 11, 12, 13, 14, 15, 17, 18: These percussion holes were drilled across the broad till covered area northwest of and on strike with the Dusty pit. All percussion holes intersected zones of variable alteration including silicification, sericitization and pyritization. Alteration effects appear to decrease northwesterly from PH-85-13 to PH-85-17. Alteration intensities are most favourable in holes PH-85-12, and 18 where pyritic zones with associated sericitization and silicification carry geochemically anomalous precious metal values of magnitude 0.1 to 0.58 g/t Au, and 1.0 to 5.7 g/t Ag.


DM 1
DM 2
DM 4
DM 3
LCP
NORWEST ZONE
'A' ZONE
DUSTY MAC PIT
WESTERN ZONE
DDH-1
PH-1
PH-2
PH-3
PH-4
PH-5
PH-6
PH-7
PH-8
PH-9
PH-10
PH-11
PH-12
PH-13
PH-14
PH-15
PH-16
PH-17
PH-18
L14N
L13N
L12N
L11N
L10N
L9N
L8N
L7N
L6N
L5N
L4N
L3N
L2N
L1N
L0
L1S
L2S
L3S
L4S
L5S
6E
5E
4E
3E
2E
1E
0
1W
2W
3W
4W
5W
5 Volc. Congl.
4 Tuff Bx.
3 Upper Lahar
2 Lower Lahar
1 Dacite
DUSTY MAC
1985 DRILLING
Percussion Drill Hole
Diamond Drill Hole
0 100 200 300 400 m.
SCALE : 1:10,000

PH-85-16: Hole #16 was drilled in the vicinity of Noranda hole 275, near the adits. Hole #16 was drilled to test the down dip extension of an intense zone of sericite alteration as observed near hole 275.

Hole #16 intersected propylitically altered volcanic rocks for the most part, intersected a weakly mineralized fault zone which ran 13 g/t Ag and bottomed in sericitic alteration. Gold values were $\leq$ 0.7 g/t.

DDH-85-1: One diamond drill hole was collared 50 metres northeast of the Dusty pit to test the potential of discovering an extension of the Dusty Mac quartz breccia ore body. The drill hole did not intersect a quartz breccia, however, a 20 m zone of intensely altered volcanic rock was cut, in part intensely brecciated but void of precious metals.

At a depth of 91.65 m a quartz pebble was observed carrying numerous specks of visible gold. A one-metre sample ran 72.3 g/t Ag and 2.47 g/t Au.

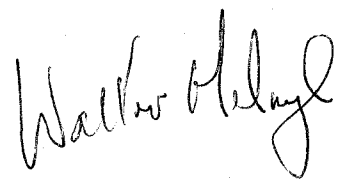


Table 1

DUSTY MAC PERCUSSION DRILLING (1985)

Hole No.	Overburden	Total Depth	Coordinates	
PH-85-1	105' (32.0 m)	105' (32.0 m)	4+00S	0+51E
PH-85-2	35 (10.7)	152 (46.3)	2+00S	0+37E
PH-85-3	22 (6.7)	152 (46.3)	1+00S	0+06E
PH-85-4	17 (5.2)	152 (46.3)	0+16N	3+69W
PH-85-5	18 (5.5)	152 (46.3)	0+26S	1+89W
PH-85-6	24 (7.3)	152 (46.3)	0+46N	1+74W
PH-85-7	13 (4.0)	152 (46.3)	0+51N	1+11W
PH-85-8	27 (8.2)	152 (46.3)	1+25N	0+63W
PH-85-9	12 (3.7)	152 (46.3)	2+91N	1+50W
PH-85-10	77 (23.5)	152 (46.3)	3+98N	0+46E
PH-85-11	53 (16.2)	152 (46.3)	5+99N	0+25W
PH-85-12	25 (7.6)	152 (46.3)	7+47N	1+29W
PH-85-13	27 (8.2)	222 (67.7)	8+01N	0+37E
PH-85-14	84 (25.6)	181 (55.2)	10+07N	0+64E
PH-85-15	113 (34.4)	222 (67.7)	12+00N	0+28E
PH-85-16	22 (6.7)	172 (52.4)	8+54N	3+67W
PH-85-17	156 (47.5)	222 (67.7)	13+88N	0+25E
PH-85-18	32 (9.8)	222 (67.7)	6+01N	0+57E
	TOTAL DEPTH	3018' (919.7m)		

DUSTY MAC DIAMOND DRILLING (1985)

Hole No.	Overburden	Total Depth	Coordinates	
DDH-85-1	15' (4.6 m)	650' (198.1 m)	0+37N	1+34E

COST STATEMENT

Field Personnel:	Geologist 15 days @ $230	$ 3450.00
	Assistant 15 days @ $125	1875.00
	Assistant 15 days @ $110	1650.00
	Assistant 9 days @ $80	720.00
Food:	3 men @ $30/day for 15 days	1350.00
	1 man @ $30/day for 9 days	270.00
Accommodation:	3 men @ $20/day for 15 days	900.00
	1 man @ $29/day for 9 days	261.00
Vehicle Rental:	4 wheel drive @ $1100/month	545.00
Transportation:	Fuel, maintenance, freight	500.00
Equipment & Supplies:	Core boxes, sample bags, etc.	1000.00
Laboratory Analysis:	- Percussion Drilling	
	455 samples preparation @ $5.25	2388.75
	455 samples Ag @ $2.00	910.00
	152 samples K_2O, Na_2O, TiO_2 @ $14.00	2128.00
	58 samples Au @ $8.50	493.00
Laboratory Analysis:	- Diamond Drilling	
	26 samples preparation @ $3.25	84.50
	26 samples Ag @ $2.00	52.00
	9 samples K_2O, Na_2O, TiO_2 @ $14.00	126.00
	15 samples Au @ $8.50	127.50
Drilling costs:	Percussion - 3016' @ $9.25	27898.00
	Diamond - 650' @ $16.00	10400.00
Report preparation:		
	Geologist - 10 days @ $230	2300.00
	Draftsman 5 days @ $215	1075.00
	Reproduction	500.00
Supervision:	District Geologist - 7 days @ $310	2170.00
	TOTAL EXPLORATION EXPENDITURE	63,173.75

STATEMENT OF QUALIFICATION

I received my Bachelor of Science degree in Geological Engineering from the University of Saskatchewan, Saskatoon, in 1972. I have been permanently employed as an exploration geologist since 1974. I am a member of the Association of Professional Engineers of Ontario and British Columbia.

Walter D. Melnyk

0634B

APPENDIX A

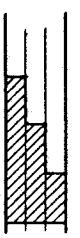
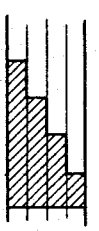
DETAILED DRILL LOGS

WP-6275A

IMPERIAL OIL LIMITED

MINERALS SECTION

DRILL LOG

PROJECT 2197	**GROUND ELEV.** 1530' (466m)
HOLE NO. DDH-85-1	**BEARING**
LOCATION L0+37 N, 1+34 E	**DIP** Vertical
	TOTAL LENGTH 650 feet (198.12m)
LOGGED BY W. Melnyk	**HORIZONTAL PROJECT**
DATE April 30, 1985	**VERTICAL PROJECT**
CONTRACTOR Northspan Exploration Ltd. sub-contracted to: Tex Drilling Ltd.	**ALTERATION SCALE**  absent / slight / moderate / intense
CORE SIZE NQ	
DATE STARTED April 22, 1985	**TOTAL SULPHIDE SCALE**  traces only / < 1% / 1% – 3% / 3% – 10% / > 10%
DATE COMPLETED April 26, 1985	
DIP TESTS	

COMMENTS

4.57 - 94.40: Conglomerate / lahar

94.40 - 108.20: Shale and Sandstone

108.20 - 122.63: Altd Conglo. / lahar brecciated cemented by clay

122.63 - 124.33: Black breccia - sooty matrix.

124.33 - 130.47: Altered conglo and breccia(?)

130.47 - 198.12: conglo and flows, variably altered.

LEGEND

W. Melnyk

R. D. PENHALL LTD. MADE IN B.C.
DUKSBAK WATERPROOF

WP-6275B

PAGE 1 OF | PROJECT: 2197 | HOLE NO. 85-1

DEPTH (m)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	B	C	D	E	FRACT INTENSITY
				0 - 4.57 Overburden						
				4.57 - 94.40 Conglomerate / lahar						
				Polymictic conglomerate. Component variable from 1mm to 15cm dia. Dark green color with carbonate healed fractures. Main component is crowded purple feldspathic andesite. Cobbles are volcanic and sedimentary vary in color; purple, orange-brown, cream, black, tan						
				chlorite (?) carbonate alteration						
			55°	13.25 - 13.50 : Sandstone						
				Greenish color uniform well bedded at 55° W.C.A. contains thin whisps of shale						
				13.90 : 30cm zone tension gash infilled with carbonate						
			40° / 30°	15.10 : 10cm sandy material with thin whisps of black shalely material. Bedding 40°						
				15.86 : 3cm gouge zone 30° W.C.A.						
				16.5 - 18.5 : Several thin carbonate healed fractures at 10 - 15° W.C.A.						
			40°	20.60 : clay 'slip' 1cm at 40° W.C.A.						
			45°	22.75 : Gouge and broken rock 10cm 3cm clay seam 45°.						

PAGE 2 OF 18	PROJECT: 2197	HOLE NO. 85-1

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS				
Trace disseminated pyrite. < 1%										

PAGE 3 OF 18 | PROJECT: 2197 | HOLE NO. 85-1

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	ALTERATION B	ALTERATION C	ALTERATION D	ALTERATION E	FRACTURE INTENSITY	% VEIN QTZ.
				23.00 - 25.00 : Several very thin carbonate healed fractures ~ 10° w.c.a.							
			45°	24.15 : Sandstone band 15 cm Bedding at 45° w.c.a.							
25				25.60 - 25.80 : Broken core, no clay							
				27.27 - 27.63 : Broken ground clay cementing pieces together.							
				28.80 - 29.04 : Broken ground, clay cementing							
30				29.65 : Carbonate healed fractures at 30° w.c.a.							
			55°	31.70 - 32.02 : Sandstone. Several thin shalely wkisps. Bedding at 55° w.c.a.							
				33.01 - 34.0 : Several angular quartz fragments bull quartz. Barren 1 - 3 cm							
35				35.94 : Quartz - carbonate fragment 8 cm. barren							
			30°	38.41 - 38.71 : Broken ground, clay Seams 3 - 4 cm at 30° w.c.a.							
40				38.71 - 50.36 : Solid intact conglomerate only odd quartz fragment. Barren.							
				Chlorite (?), carbonate alt'n							
45											

PAGE 4 OF 18	PROJECT: 2197	HOLE NO. 85-1

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS				
		FROM	TO	WIDTH						
Py, Trace < 1%										
Tr py < 1%										

N2/E2

 | PROJECT: 2197 | HOLE NO. 85-1

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	B	C	D	E	FRACTURE INTENSITY	% VEIN QTZ.
				chlorite (?) carbonate alt'n.							
				50.40 - 51.60 : Crushed sequence							
50				intact, cemented by clay. Irregular carbonate infillings locally.							
			30°	53.18 - 53.52 : Crushed interval, cemented by clay. Movement at 30° w.c.a.							
				53.52 - 99.40 : Matrix of conglomerate is increasingly more sandy and number of quartz							
55				pebbles or fragments increases. Quartz pebbles vary in size from 1 to 6 cm dia. Conglomerate components still highly variable but purple feldspathic andesite predominates.							
60											
				62.50 - 66.78 : Several carbonate veinlets at 30° w.c.a.							
65											
				66.78 - 67.33 : Quartz-carbonate vein at 65° w.c.a. v.f.g. py.							

PAGE 6 OF 18	PROJECT: 2197	HOLE NO. 85-1

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS Ag g/t	ASSAYS Au g/t			
v. f.g. py << 1%		66.78	67.33	0.55	73251	0.9				

N2/E2

PAGE 7 OF 18 | PROJECT: 2197 | HOLE NO. 85-1

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	B	C	D	E	FRACTURE INTENSITY	% VEIN QTZ.
70			30° 30°	69.90 : 3cm band of carbonate healed breccia. No clay.							
				69.6 and 70.2 : thin <.5cm clay slips at 30° w.c.a. Sandy sections increase with depth							
75											
			50°	78.04 - 78.22 : Sandstone, bedding at 50° w.c.a. 78.56 : 6cm subrounded quartz fragment bull quartz. 79.00 : 6cm subrounded quartz fragment							
80				bull quartz with purple fluorite. 80.40 - 80.62 : Quartz-carbonate vein, late stage with minor py. 81.88 - 82.53 : Sandstone with interbedded shale. Bedding at 50° w.c.a.							
			60°	84.31 - 84.71 : Sandstone, well bedded with interbedded shale. Bedding at 60° w.c.a.							
85											
			50°	89.26 - 89.49 : Sandstone - shale Bedding at 50° w.c.a.							
90											

PAGE 8 OF 18	PROJECT: 2197	HOLE NO. 85-1

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS				
Tr. py < 1%.										
Tr. py < 1%.										

N2/E2

PAGE 9 OF 18 | PROJECT: 2197 | HOLE NO. 85-1

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	B	C	D	E	FRACTURE INTENSITY	% VEIN QTZ.
				91.65 : Small irregular 1.5 cm quartz pebble mineralized.							
			5 5 5 20° 5	93.00 : clay 'slip' narrow 20°							
			C/40°	94.40 - 108.20 : Shale and Sandstone Interbedded unit, well bedded							
95				with short conglomeratic sections. Minor carbonate healed fractures. Bedding is at 45-55° W.C.A.							
			45° 45-55°	98.40 : minor clay 'slip' parallel with bedding 45°							
				98.80 : Bedding 45-55°							
100				101.84 : Minor slip along bedding plane.							
				102.7 - 103.12 : Conglomerate. Contacts both at ~45° W.C.A. numerous thin hair line carbonate fracture healings							
			45° 45° 45°	103.5 : Bedding at ~45° W.C.A.							
				103.75 - 106.42 : Chaotic dumping of assorted clastic material similar to top of hole. matrix is black, muddy.							
105				106.42 - 108.20 : Sandstone - shale. Crudely bedded and interbedded with conglomeratic unit.							
			35°	107.12 - 108.20 : Badly broken core.							
				108.20 - 109.40 : Conglomerate : tectonically disturbed matrix is clay. Rock maintains integrity.							
				109.40 - 117.89 : Conglomerate : Altered and extensively brecciated. Conglomerate fragments are bleached, and held together with clay							
110				complete lack of carbonate fracture healings. locally a black amorphous material occurs as fracture filling.							

PAGE 10 OF 18	PROJECT: 2197	HOLE NO. 85-1

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS g/t Ag	ASSAYS g/t Au			
91.65 : small quartz pebble, many specks gold.		90.00	91.00	1.00	73252	2.4				
		91.00	92.00	1.00	73253	72.3	2.47			
		92.00	94.40	2.40	73254	2.0	0.07			
Black v.f.g. mineral may be py.		108.20	110.00	1.80	73255	1.6	0.07			
		110.00	112.00	2.00	73256	1.1	<0.07			

N2/E2

 PROJECT: 2197 HOLE NO. 85-1

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	B	C	D	E	FRACTURE INTENSITY	% VEIN QTZ.
115			clay								
			clay								
			45° clay	117.87-122.63 : Conglomerate : Altered to a lesser degree than previous section. This unit may be a flow bx.. larger bx blocks 10cm are grey-porcelain in appearance. Intensity in alteration increases with depth.							
120			clay								
				122.63-124.33 Conglomerate (?) Intensely altered, silicified, brecciated + cemented with silica. Black breccia (?) fragments subrounded v.f.g. black matrix. 124.33-126.68 : Conglomerate (?) Intensely altered not brecciated.							
125				126.68-129.26 : Conglomerate (?) Bleached spots tightly cemented. clots of grey feldspathic andesite readily observed.							
				129.26-130.47 : Conglomerate : alteration decreases in intensity.							
130				130.47-130.92 : Gouge . clayey material . coherent. 130.47-139.85 : Andesite Flow . A distinct dark green homogeneous volcanic rock carrying large anhedral to subhedral crystals of pink feldspars up to 8 mm in size. 134.00-134.25 : Gouge . clayey . 134.70 : Small carbonate healed fracture.							
135											

PAGE 12 OF 18 | PROJECT: 2197 | HOLE NO. 85-1

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS g/t Ag	ASSAYS g/t Au			
		112.00	114.00	2.00	73257	0.5	<0.07			
		114.00	116.00	2.00	73258	1.7	<0.07			
		116.00	117.89	1.89	73259	1.2	<0.07			
Some v.f.g. black sooty material in matrix. v.f.g. py. ~ 1%		117.89	120.00	2.11	73260	0.8	<0.07			
		120.00	121.25	1.25	73261	1.0	<0.07			
		121.25	122.63	1.38	73262	0.6	<0.07			
v.f.g. py 2%. Native silver(?)		122.63	124.33	1.70	73263	3.2	<0.07			
Scattered grains py ~ <1%.										
Minor amounts f.g. black material < 1%		124.33	126.00	1.67	73264	0.4	<0.07			
		126.00	127.00	1.00	73265	1.0	<0.07			
		127.00	129.00	2.00	73266	0.5	<0.07			
		129.00	130.47	1.47	73267	0.7	<0.07			
Py < 1% diss										

N2/E2

PAGE 13 OF 18 | PROJECT: 2197 | HOLE NO. 85-1

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	B	C	D	E	FRACTURE INTENSITY	% VEIN QTZ.
140				139.85 - 145.29 : Agglomerate. (or Lahar) chaotic assemblage of volcanic fragments (flow bx ?) Monolithic light, pale green color, very hard. Component is porphyritic with anhedral to subhedral white, corroded feldspar crystals. Some pieces are distinctly grey. They have bleached creamy halos. Only odd carbonate veinlet. Bottom contact is sharp at 45°							
145			C/45	145.29 - 148.55 : Andesite Flow. Dark green, fine - medium grained, uniform texturally. Small white feldspar crystals 1.5mm loosely scattered. Dark 1mm spots, chlorite after mafic minerals. Silica filled ovoid amygdules. Numerous carbonate healed fractures. Bottom contact 30° w.c.a.							
150				148.55 - 165.36 : Agglomerate. Same as 139.85 - 145.29 148.55 - 152.50 : Variably dark grey-green, porphyritic unit with corroded white and pink feldspar crystals. Matrix is chloritic. Small amount of bleaching. Very thin carbonate healed fractures.							
155				152.50 - 161.30 : Same porphyritic fragmental but this section significantly bleached. Very hard, distinct halos around grey pieces.							
				157.72 : Small shear at 30°							

PAGE 14 OF 18	PROJECT: 2197	HOLE NO. 85-1

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS g/t Ag	ASSAYS g/t Au			
< 1% diss py.										
<< 1% py.										
< 1% py										
< 1% py										
		153.00	155.00	2.00	73268	0.8				
		155.00	157.00	2.00	73269	0.5				

PAGE 15 OF 18 | PROJECT: 2197 | HOLE NO. 85-1

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	ALTERATION B	ALTERATION C	ALTERATION D	ALTERATION E	FRACTURE INTENSITY	% VEIN QTZ.
160			S S S 20°	159.00 : Clay seam 5cm at 20° W.C.A							
				161.30 - 165.36 : Bleaching drops off section variably dark green in color.							
165			45°	163.25 - 165.36 : unit is coarsely porphyritic, similar to flows which lie beneath. Bottom contact fault, clay seam 3cm 45° - 90°.							
			90°	165.36 - 181.00 : Andesite Flows (s?) Uniform section, mainly grey-light brown (tan) color throughout. Distinctly porphyritic with white subhedral to anhedral feldspar crystals. Many fractures are carbonate healed with accompanying fluorite. Unit is very hard, has a porcelanous appearance. Matrix consists of a fine matt of chlorite, ± carbonate ± sericite.							
170											
175											
			30° 50°	179.04 : clay slip 3cm 30° W.C.A 179.50 : clay slip 3cm 50° W.C.A.							
180											

PAGE 16 OF 18	PROJECT: 2197	HOLE NO. 85-1

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS g/t Ag	ASSAYS g/t Au			
		157.00	159.00	2.00	73270	0.8				
		159.00	161.00	2.00	73271	1.2				
Tr. py < 1% diss grains										

PAGE 17 OF 18 | PROJECT: 2197 | HOLE NO. 85-1

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	B	C	D	E	FRACTURE INTENSITY	% VEIN QTZ.
			60°	181.00-182.40 Tuffaceous Sediment Muddy v. dark green chloritic, matrix supported rounded volcanic fragments to 3 cm. Crudely bedded at 60° W.C.A.							
			60°	Bottom 4cm is clayey (gouge) finely comminuted 60° W.C.A.							
				182.40-189.67: Mud Flow. Unique section. Dark grey-brown color v. hard. Muddy contains much v.f.g pyrite. Section							
185				carries fragments of volcanic material plus small quartz pieces. Most components are 1 cm or less. Bedding not observed. Fluorite near top of section. Minor carbonate healed fractures.							
				Bottom contact 30° W.C.A.							
			C/30°	189.67-194.85: Andesitic (Flow breccia) Green							
190				feldspathic, subhedral feldspar crystals. Several quartz carbonate veinlets.							
195				194.85-195.09: Shale							
			30°	Bedding 30° W.C.A.							
				195.09-198.12: Conglomerate. Muddy, polymictic, assorted components mainly <2cm but up to 10cm. Minor carbonate in fractures.							
				198.12: END OF HOLE.							
200											

PAGE 18 OF 18	PROJECT: 2197	HOLE NO. 85-1

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS g/t Ag	ASSAYS g/t Au			
Py v f g 5-10% diss and clots.		182.40	184.50	2.10	73272	1.6				
		184.50	186.50	2.00	73273	0.9				
		186.50	188.50	2.00	73274	1.0				
		188.50	189.67	1.17	73275	0.8				
191.02: Specks of Ag v minor near quartz veinlets.		189.67	191.50	1.83	73276	0.2				
193.65: 8cm qtz, carb, chl vein 45°, cpy. F. py. 194.78: siliceous patch specks cpy		191.50	194.85	3.35	73277	0.2				
195.09-198.12: < 1% py										

N2/E2

ESSO MINERALS CANADA
DRILL LOG

HOLE NO. PH 85-1
PAGE 1 OF 2
PROJECT 2197
LOGGED BY: W. Melnyk

COLLAR COORDINATES
4+00S ; 0+51E

COLLAR ELEVATION 448 m
AZIMUTH _____ DIP Vertical
TOTAL LENGTH 32.0m (105')
HORIZONTAL PROJECTION _____
VERTICAL PROJECTION _____

CONTRACTOR Northspan Explorations Ltd CORE SIZE 11.4 cm
DATE STARTED April 22 DATE COMPLETED April 22, 1985 Percussion
AVERAGE CORE RECOVERY _____
PURPOSE To test southeast strike of Dusty Mac
COMMENTS: Did not reach bedrock.

ALTERATION SCALE

absent
slight
moderate
intense

TOTAL SULPHIDE SCALE

traces only
< 1%
1% - 3%
3% - 10%
> 10%

SUMMARY LOG

0 - 32.0m : Overburden
Bedrock not reached.

DIP TESTS

DEPTH	DIP	AZIMUTH	DEPTH	DIP	AZIMUTH

LEGEND

W. Melnyk

ML 85-6B

PAGE 2 OF 2 | PROJECT: 2197

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO	GEOLOGICAL DESCRIPTION
				0	32	Overburden :
						Hole abandoned

ESSO MINERALS CANADA
DRILL LOG

HOLE NO. DH 85-2
PAGE 1 OF 3
PROJECT 2197
LOGGED BY: W. Melnyk

COLLAR COORDINATES
2+00S ; 0+37E
AZIMUTH _____ DIP Vertical
HORIZONTAL PROJECTION _____

COLLAR ELEVATION 454 m
TOTAL LENGTH 46.3 m (152')
VERTICAL PROJECTION _____

CONTRACTOR Northspan Explorations Ltd
CORE SIZE 11.4 cm.
DATE STARTED April 23 DATE COMPLETED April 23, 1985
Percussion
AVERAGE CORE RECOVERY _____

PURPOSE To test southeast strike of Dusty Mac.

COMMENTS:

ALTERATION SCALE

absent
slight
moderate
intense

TOTAL SULPHIDE SCALE

traces only
< 1%
1% - 3%
3% - 10%
> 10%

DIP TESTS

DEPTH	DIP	AZIMUTH	DEPTH	DIP	AZIMUTH

LEGEND

SUMMARY LOG

W Melnyk

ML 85-6B

PAGE 2 OF 3 | PROJECT: 2197

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO	GEOLOGICAL DESCRIPTION
				0	10.7m	Overburden
10				10.7m	15m	Volcanic and/or Sediment: Intensely silicified, pyritic, light grey with late carbonate. Pyrite v. fine grained 5-8%
15				15m	20m	Volcanic and/or Sediment: Intensely altered silicified, much carbonate Sericite (?) Much vein quartz Pyrite is v. fine grained about 5%
20				20m	25m	Sediment or Volcanic: Intensely altered pale green, gray, siliceous, carbonate, Trace fluorite Pyrite 4-6% fine grained. Unit may be sandstone!
25				25m	30m	Sandstone: Pale green gray. Much silica, texture is gritty, granular. Much carbonate Pyrite from trace to 2% v. f. grained
30				30m	35m	Sediment or Volcanic Appears altered, white and pale greens - grays, minor chlorite, sericite (?) siliceous from trace to 2% py. Pale gray chips with v. f. g py at 38.5m
35				35m	41.8m	Sediment or Volcanic: Gray. Intensely pyritized with silicification and carbonate, minor amount fluorite, pyrite v. f. g. 15% May be brecciated in part Many pale green - white chips only 20% quartz-pyrite chips 40m - 41.8m
40				41.8m	46.3m	Sandstone and Shale: Very weakly pyritic, minor carbonate material, minor turquoise.

ML 85-6C

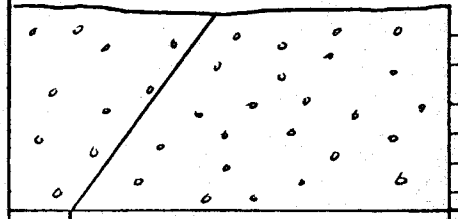
PAGE 3 OF 3	PROJECT: 2197	HOLE NO. PH 85-2

ALTERATION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS g/t Ag	ASSAYS g/t Au
		10.67	12.80	2.13	74001	0.9	
		12.80	14.33	1.53	74002	1.0	<0.07
		14.33	15.85	1.52	74003	0.9	
		15.85	17.37	1.52	74004	1.0	<0.07
		17.37	18.90	1.53	74005	1.1	<0.07
		18.90	20.42	1.52	74006	1.0	<0.07
		20.42	21.95	1.53	74007	1.3	<0.07
		21.95	23.47	1.52	74008	1.3	<0.07
		23.47	24.99	1.52	74009	0.7	
		24.99	26.52	1.53	74010	0.5	
		26.52	28.04	1.52	74011	0.3	
		28.04	29.56	1.52	74012	0.8	
		29.56	31.09	1.53	74013	0.4	
		31.09	32.61	1.52	74014	0.3	
		32.61	34.14	1.53	74015	0.4	
		34.14	35.66	1.52	74016	0.8	
		35.66	37.18	1.52	74017	0.7	
		37.18	38.71	1.53	74018	0.9	
		38.71	40.23	1.52	74019	0.8	
		40.23	41.76	1.53	74020	0.5	
		41.76	43.28	1.52	74021	0.7	
		43.28	44.80	1.52	74022	0.6	
		44.80	46.33	1.53	74023	0.5	

PH-85-2

2+00 S , 0+37 E

SW NE



LITHOLOGY	ALTERATION	Ag	Au	K_2O	Na_2O	TiO_2
V	C2-Q3-S2-P1	0.9	6.60	1.80		0.50
V	C2-Q3-S2-P2	1.0	<0.07	(3.67)		
V	C2-Q3-S2-P1-F1	0.9				
V	C2-Q3-S2-P1	1.0	<0.07	6.00	0.70	0.50
V	C2-Q3-S1-P2	1.1	<0.07	(8.57)		
V	C2-Q3-S2-P2	1.0	<0.07			
V	C2-Q3-S2-P2	1.3	<0.07	7.40	2.10	0.55
V-SS	C2-Q3-S2-P1	1.3	<0.07	(3.52)		
V-SS	C2-Q3-S2-P1-F1	0.7				
SS	C2-Q3-S2-P1	0.5	5.80	2.90		0.50
SS	C2-Q3-S2	0.3		(2.00)		
SS	C2-Q3-S2-P1	0.8	5.30	2.10		0.55
SS	C2-Q3-S2- F1	0.4		(2.52)		
V	C2-Q3-S2	0.3				
V	C2-Q3-S2-P1	0.4	5.50	3.00		0.60
V	C2-Q3-S2-P3	0.8		(1.83)		
V	C2-Q3-S2-P3	0.7				
V	C2-Q3-S2-P3	0.9	5.90	2.70		0.50
V	C2-Q3-S2-P3	0.8		(2.19)		
V	C2-Q3-S2-P2	0.5				
V-SS	C2-Q3-S1-P1	0.7	4.90	2.30		0.60
SS	C2-	0.6		(2.13)		
SS	C2	0.5				

K_2O/Na_2O in brackets

ALTERATION

Chl:chlorite P:pyrite
C:carbonate Cpy:chalcopyrite
S:sericite Pb:galena
Q:quartz Zn:sphalerite
K:K-spar MoS_2:moly
Fu:fuchsite
Fl:fluorite
Tu:turquoise

Alteration intensity

1- weak, 2- mod, 3- intense

LITHOLOGY

V :Volcanic
Vt : tuff
Vb : breccia
SS : Sandstone, Shale

Ag, Au, K_2O, Na_2O, TiO_2
(ppm), (gm), %, %, %

0 10 20m.

SCALE : 1 : 400

ESSO MINERALS CANADA

DUSTY MAC

PERCUSSION DRILL HOLE SECTION

PH-85-2

Project No 2197	Mining Div. Osoyoos
NTS 82E/5E	Drawn by W. Melnyk
Date MAY, 1985	Fig No

ESSO MINERALS CANADA
DRILL LOG

HOLE NO. PH 85-3
PAGE 1 OF 3
PROJECT 2197
LOGGED BY: W. Melnyk

COLLAR COORDINATES
1+00S ; 0+06E

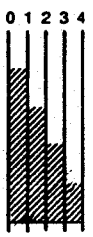
COLLAR ELEVATION 457m
AZIMUTH _____ DIP Vertical
TOTAL LENGTH 46.3m (152')
HORIZONTAL PROJECTION _____
VERTICAL PROJECTION _____

CONTRACTOR Northspan Exploration Ltd. CORE SIZE 11.4 cm
DATE STARTED April 23 DATE COMPLETED April 23, 1985 Percussion
AVERAGE CORE RECOVERY _____
PURPOSE To test southeast strike of Dusty Mac
COMMENTS:

ALTERATION SCALE

absent
slight
moderate
intense

TOTAL SULPHIDE SCALE



traces only
< 1%
1% - 3%
3% - 10%
> 10%

DIP TESTS

DEPTH	DIP	AZIMUTH	DEPTH	DIP	AZIMUTH

LEGEND

SUMMARY LOG

W. Melnyk

ML 85-6B

PAGE 2 OF 3 | PROJECT: 2197

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO	GEOLOGICAL DESCRIPTION
				0	6.7m	Overburden
				6.7m	10 m	Volcanic or sediment : Intensely altered, pyritic, siliceous with carbonate, grey. Pyrite to 15% fine grained mainly also coarse yellow in quartz
				10 m	15 m	Volcanic and sediment (?): Mixture of altered pyritic - siliceous chips with med to pale green chloritic pisces. overall pyrite is 6-10% fine grained disseminated
				15m	20m	Volcanic or sediment (?) ; Grey siliceous, pyritic chips with v. fine grained pyrite 10-15%. Some coarse yellow pyrite with clear quartz.
				20m	25m	Volcanic and/or Sediment : Same as above, Intensely pyritic and silicified. Pyrite 15%
				25m	30m	Volcanic : Same as above. Intensely pyritic 10-15% near 30 m. chips are feldspathic similar to pit flows.
				30m	35m	Volcanic. Pale to med green chips. Not many grey pyritic chips chloritic. Carbonate. Pyrite is variable 3-6%. Several specks chalcopyrite. occasional chip shale near 35m. Some turgo-ite
				35m	40m	Sandstone and shale : Some carbonate veining. No pyrite or other sulfides
				40m	46.3m	Sandstone and shale : Variable amounts carbonate and minor vein quartz. Trace pyrite

ML 85-6C

PAGE 3 OF 3	PROJECT: 2197	HOLE NO. PH 85-3

ALTERATION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS g/t Ag	ASSAYS g/t Au
		6.70	8.23	1.53	74024	0.5	
		8.23	9.75	1.52	74025	0.7	
		9.75	11.28	1.53	74026	0.9	
		11.28	12.80	1.52	74027	0.9	
		12.80	14.33	1.53	74028	0.6	
		14.33	15.85	1.52	74029	0.6	
		15.85	17.37	1.52	74030	1.1	<0.07
		17.37	18.90	1.53	74031	0.6	
		18.90	20.42	1.52	74032	0.6	
		20.42	21.95	1.53	74033	0.7	
		21.95	23.47	1.52	74034	0.7	
		23.47	24.99	1.52	74035	0.6	
		24.99	26.52	1.53	74036	0.7	
		26.52	28.04	1.52	74037	0.8	
		28.04	29.56	1.52	74038	0.7	
		29.56	31.09	1.53	74039	0.4	
		31.09	32.61	1.52	74040	0.4	
		32.61	34.14	1.53	74041	0.4	
		34.14	35.66	1.52	74042	0.3	
		35.66	37.18	1.52	74043	0.3	
		37.18	38.71	1.53	74044	0.4	
		38.71	40.23	1.52	74045	0.3	
		40.23	41.76	1.53	74046	0.4	
		41.76	43.28	1.52	74047	0.5	
		43.28	44.80	1.52	74048	0.4	
		44.80	46.33	1.53	74049	0.5	

PH-85-3

1+00 S , 0+06 E

SW NE

LITHOLOGY	ALTERATION	Ag	Au	K_2O	Na_2O	TIO_2
V	C2-Q3-S2-P3	0.5	5.50	2.40	0.70	
V	C2-Q3-S2-P3	0.7		(2.29)		
V	Ch11-C2-Q3-S1-P3	0.9				
V	Ch11-C2-Q3-S1-P2	0.9	4.80	2.50	0.65	
V	C2-Q2-S1-P2	0.6		(1.92)		
.Vb	C2-Q2-S1-P2	0.6				
Vb	C2-Q2-S2-P3	1.1	0.075	2.50	0.55	
Vb	C2-Q2-S2-P3	0.6		(2.28)		
Vb	C2-Q2-S2-P2	0.6				
V	C2-Q2-S2-P3	0.7	6.30	2.20	0.60	
V	C2-Q2-S2-P3	0.7		(2.86)		
V	C2-Q2-S2-P3	0.6				
V	C2-Q2-S2-P3	0.7	6.50	2.30	0.55	
V	C2-Q2-S2-P3	0.8		(2.83)		
V	C2-Q3-S2-P2	0.7				
V	Ch12-C2-Q1-S1-P1	0.4	5.90	2.90	0.65	
V	Ch12-C2-Q1-S1-P2	0.4		(2.03)		
V	Ch11-C2-Q1-S1 -Tu	0.4				
SS	C2	0.3	3.90	2.50	0.60	
SS	C2	0.3		(1.56)		
SS	C2	0.4				
SS	C2	0.3	4.80	2.20	0.60	
SS	C2-P1	0.4		(2.18)		
SS	C2-P1	0.5				
SS+V	Ch12-C2-Q1-S1-P1	0.4	4.00	2.70	0.55	
SS	C2	0.5		(1.48)		

K_2O/Na_2O in brackets

ALTERATION

Chl:chlorite P:pyrite
C:carbonate Cpy:chalcopyrite
S:sericite Pb:galena
Q:quartz Zn:sphalerite
K:K-spar MoS_2:moly
Fu:fuchsite
Fl:fluorite
Tu:turquoise

Alteration Intensity

1- weak, 2- mod, 3- intense

LITHOLOGY

V :Volcanic
Vt : tuff
Vb : breccia
SS : Sandstone, Shale

Ag.Au K_2O.Na_2O.TIO_2
(ppm).(gm). % . % . %

0 10 20m.

SCALE : 1 : 400

ESSO MINERALS CANADA

DUSTY MAC

PERCUSSION DRILL HOLE

SECTION

PH-85-3

Project No 2197	Mining Div Osoyoos
NTS 82E/5E	Drawn by W.Melnyk
Date MAY, 1985	Fig No

ESSO MINERALS CANADA
DRILL LOG

HOLE NO. PH 85-4
PAGE 1 OF 3
PROJECT 2197
LOGGED BY: W. Melnyk

COLLAR COORDINATES
0+16N ; 3+69W

COLLAR ELEVATION 503m
AZIMUTH _____ DIP Vertical
TOTAL LENGTH 46.3m (152')
HORIZONTAL PROJECTION _____
VERTICAL PROJECTION _____

CONTRACTOR Northspan Exploration Ltd
CORE SIZE 11.4 cm
DATE STARTED April 26 DATE COMPLETED April 26, 1985
Percussion
AVERAGE CORE RECOVERY _____

PURPOSE To test gold mineralization previously found by Dusty Mac in drill hole #272.
COMMENTS:

ALTERATION SCALE

absent
slight
moderate
intense

TOTAL SULPHIDE SCALE

traces only
< 1%
1% - 3%
3% - 10%
> 10%

DIP TESTS

DEPTH	DIP	AZIMUTH	DEPTH	DIP	AZIMUTH

LEGEND

SUMMARY LOG

W. Melnyk

ML 85-6B

PAGE 2 OF 3 | PROJECT: 2197

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO	GEOLOGICAL DESCRIPTION
				0	5.2 m	Overburden
5				5.2	10m	Volcanic : grey-green siliceous , blue silica (turquoise) minor chlorite. Moderately altered. Weakly pyritic (<1%)
10				10m	15 m	Volcanic : light grey-green , siliceous , weakly chloritic minor vein quartz + carbonate. V. weakly pyritic <1% diss 12.8m : chlorite is more abundant beyond this point
15				15 m	20m	Volcanic : Med. to dark green . minor carbonate and quartz No pyrite.
20				20 m	25m	Volcanic : Medium to pale-green alteration slightly more intense, chlorite decreasing. Much blue silica (turquoise) No pyrite
25				25m	28 m	Volcanic : Same as above
				28m	35 m	Volcanic : Bleached . Intensely silicified , sericitized(?) Much turquoise and NO pyrite only speck chalcopyrite near 34m
35				35 m	40m	Volcanic Pale green , still very little chlorite , silicified late carbonate . Much hematite stain through section No sulfides . lower portion appears brecciated No turquoise.
40				40m	46.3m	Volcanic : Pale green , silicified carbonatized Much hematite , Weak vein quartz. still no pyrite.
						46.3m END OF HOLE

ML 85-6C

PAGE 3 OF 3 | PROJECT: 2197 | HOLE NO. PH 85-4

ALTERATION	TOTAL SULPHIDE	SAMPLES FROM	TO	WIDTH	SAMPLE NUMBER	ASSAYS g/t Ag	g/t Au			
		5.18	6.70	1.52	74131	0.3				
		6.70	8.23	1.53	74132	0.2				
		8.23	9.75	1.52	74133	0.2				
		9.75	11.28	1.53	74134	0.2				
		11.28	12.80	1.52	74135	0.4				
		12.80	14.33	1.53	74136	0.2				
		14.33	15.85	1.52	74137	0.2				
		15.85	17.37	1.52	74138	0.3				
		17.37	18.90	1.53	74139	0.3				
		18.90	20.42	1.52	74140	0.3				
		20.42	21.95	1.53	74141	0.3				
		21.95	23.47	1.52	74142	0.2				
		23.47	24.99	1.52	74143	<0.2				
		24.99	26.52	1.53	74144	0.2				
		26.52	28.04	1.52	74145	<0.2				
		28.04	29.56	1.52	74146	<0.2				
		29.56	31.09	1.53	74147	<0.2				
		31.09	32.61	1.52	74148	<0.2				
		32.61	34.14	1.53	74149	<0.2				
		34.14	35.66	1.52	74150	<0.2				
		35.66	37.18	1.52	74151	<0.2				
		37.18	38.71	1.53	74152	<0.2				
		38.71	40.23	1.52	74153	<0.2				
		40.23	41.76	1.53	74154	<0.2				
		41.76	43.28	1.52	74155	<0.2				
		43.28	44.80	1.52	74156	0.4				
		44.80	46.33	1.53	74157	0.2				

PH-85-4

0+16 N , 3+69 W

SW NE

LITHOLOGY	ALTERATION		Ag	Au	K_2O	Na_2O	TiO_2
V	oxidized		0.3	3.80	1.80	0.70	
V	Chl1-C2-Q3-P1	Tu	0.2	(2.11)			
V	Chl1-C2-Q3-P1		0.2				
V	Chl1-C2-Q2-P1	Fu	0.2	4.70	0.60	0.75	
V	Chl2-C2-Q1-P1		0.4	(7.83)			
V	Chl3-C3		0.2				
V	Chl3-C3		0.2	3.40	2.00	0.65	
V	Chl3-C3		0.3	(1.70)			
V	Chl3-C3		0.3				
V	Chl3-C3		0.3	3.70	2.70	0.55	
V	Chl3-C3		0.3	(1.37)			
V	Chl1-C2-Q2-S1	Tu	0.2				
V	Chl1-C2-Q2-S1	Tu	<0.2	2.90	3.30	0.35	
V	Chl1-C2-Q2-S1	Tu	0.2	(0.88)			
V	Chl1-C2-Q2-S1	Tu	<0.2				
V	C1-Q3-S2	Tu	<0.2	3.40	3.10	0.35	
V	Q3-S2	Tu	<0.2	(1.10)			
Vb	Q3-S2	Tu	<0.2				
V	Q3-S2	Cpy	<0.2	2.90	3.50	0.30	
V	Chl1-C2-Q3-S1	Tu	<0.2	(0.83)			
V	Chl1-C2-Q2-S1	Tu	<0.2				
V	Q3-C-S		<0.2	3.70	3.60	0.25	
V	Q3-C-S		<0.2	(1.03)			
Vb	Q3-C1-S2		<0.2				
Vb	Q3-C1-S2		<0.2	3.20	3.60	0.30	
Vb	Q3-C1-S2		0.4	(0.89)			
Vb	Q3-C1-S2		0.2				

K_2O/Na_2O in brackets

ALTERATION

Chl:chlorite P:pyrite
C:carbonate Cpy:chalcopyrite
S:sericite Pb:galena
Q:quartz Zn:sphalerite
K:K-spar MoS_2:moly
Fu:fuchsite
Fl:fluorite
Tu:turquoise

Alteration intensity
1- weak, 2- mod, 3- intense

LITHOLOGY

V :Volcanic
Vt : tuff
Vb : breccia
SS : Sandstone, Shale

Ag,Au K_2O,Na_2O,TiO_2
(ppm),(gm), % , % , %

0 10 20m.

SCALE : 1 : 400

ESSO MINERALS CANADA

DUSTY MAC

PERCUSSION DRILL HOLE SECTION

PH-85-4

Project No. 2197	Mining Div. Osoyoos
NTS 82E/5E	Drawn by. W. Melnyk
Date MAY, 1985	Fig. No

ESSO MINERALS CANADA
DRILL LOG

HOLE NO. PH 85-5
PAGE 1 OF 3
PROJECT 2197
LOGGED BY: W. Melnyk

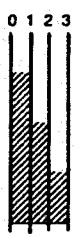
COLLAR COORDINATES
0+26S ; 1+89W
COLLAR ELEVATION 457m
AZIMUTH ____ DIP Vertical
TOTAL LENGTH 46.3m (152')
HORIZONTAL PROJECTION ____
VERTICAL PROJECTION ____

CONTRACTOR Northspan Exploration
CORE SIZE 11.4 cm
DATE STARTED April 25 DATE COMPLETED April 25, 1985
Percussion
AVERAGE CORE RECOVERY ____

PURPOSE To test gold mineralization previously found in Dusty Mac drill hole # 466

COMMENTS:

ALTERATION SCALE



absent
slight
moderate
intense

TOTAL SULPHIDE SCALE

traces only
< 1%
1% - 3%
3% - 10%
> 10%

SUMMARY LOG

DIP TESTS

DEPTH	DIP	AZIMUTH	DEPTH	DIP	AZIMUTH

LEGEND

W. Melnyk

ML 85-6B

PAGE 2 OF 3 | PROJECT: 2197

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO	GEOLOGICAL DESCRIPTION
				0	5.5m	Overburden
5				5.5m	10m	Volcanic : med. to pale green chloritic, calcareous Several bleached chips near 10m Minor quartz vein material. Only trace pyrite
10				10m	15m	Volcanic : Similar to previous. minor quartz - carbonate vein material. slightly more pyrite - coarse to 1% near 15m. Unit is still weakly altered - chloritic + calcareous.
15				15m	20m	Volcanic : Alteration intensity increases, chlorite vague sericite (?), more silica, carbonate. only trace pyrite Trace fluorite
20				20m	25m	Volcanic : Intensely altered, Much pyrite 1-20% very fine grained, much carbonate, silica, Traces of fluorite and chalcopyrite, sphalerite (?) All chips are grey siliceous and variably pyritic.
25				25m	30m	Volcanic or Sediment. Intensely altered, siliceous, pyritic, sericitic (?). Much carbonate. Pyrite about 12% diss. in siliceous chips. Trace chalcopyrite and minor turquoise.
30				30m	35m	Volcanic. Med. green, chloritic, calcareous. Alteration decreases drastically. No pyrite, No vein quartz.
35				35m	41.8m	Volcanic. Same as last. V. weakly altered No pyrite
40				41.8m	44.8m	Volcanic. Moderate to intense alteration - grey-green, siliceous Pyrite Very fine grained. 8-10% Carbonate. Turquoise
				44.8m	46.3m	Shale and sandstone : grey-black, some chlorite. Pyrite 1% minor turquoise. END OF HOLE

ML 85-6C

PAGE 3 OF 3	PROJECT: 2197	HOLE NO. PH85-5

ALTERATION	TOTAL SULPHIDE	SAMPLES FROM	TO	WIDTH	SAMPLE NUMBER	ASSAYS g/t Ag	g/t Au			
		5.49	6.70	1.21	74104	0.2				
		6.70	8.23	1.53	74105	0.2				
		8.23	9.75	1.52	74106	0.2				
		9.75	11.28	1.53	74107	0.2				
		11.28	12.80	1.52	74108	0.2				
		12.80	14.33	1.53	74109	0.5				
		14.33	15.85	1.52	74110	0.2				
		15.85	17.37	1.52	74111	0.3				
		17.37	18.90	1.53	74112	0.4				
		18.90	20.42	1.52	74113	0.4				
		20.42	21.95	1.53	74114	0.3				
		21.95	23.47	1.52	74115	0.3				
		23.47	24.99	1.52	74116	0.3				
		24.99	26.52	1.53	74117	0.3				
		26.52	28.04	1.52	74118	0.3				
		28.04	29.56	1.52	74119	0.6				
		29.56	31.09	1.53	74120	0.2				
		31.09	32.61	1.52	74121	0.2				
		32.61	34.14	1.53	74122	0.3				
		34.14	35.66	1.52	74123	0.4				
		35.66	37.18	1.52	74124	0.2				
		37.18	38.71	1.53	74125	0.2				
		38.71	40.23	1.52	74126	0.3				
		40.23	41.76	1.53	74127	0.2				
		41.76	43.28	1.52	74128	0.8				
		43.28	44.80	1.52	74129	0.4				
		44.80	46.33	1.53	74130	0.4				

PH-85-5

0+26 S , 1+89 W

SW NE

LITHOLOGY	ALTERATION	Ag	Au	K_2O	Na_2O	TiO_2
V	Ch12-C2	0.2	4.40	0.60	0.55	
V	Ch12-C2	0.2	(7.33)			
V	Ch12-C2	0.2				
V	Ch12-C2	0.2	4.60	0.60	0.75	
V	Ch12-C2-S1	0.2	(7.67)			
V	Ch11-C2-S1-P1	0.5				
V	Ch11-C2-Q1-S1	0.2	5.00	1.40	0.75	
V	Ch11-C2-Q1-S1	0.3	(3.57)			
V	Ch11-C2-Q1-S1 Fl	0.4				
V	Ch11-C2-Q1-S1-P1	0.4	4.20	0.70	0.75	
V	C2-Q2-S2-P3 Fl	0.3	(6.00)			
V	C2-Q2-S2-P3 Cpy, Fl	0.3				
V	C2-Q2-S2-P2 Cpy	0.3	4.30	0.50	0.80	
V	Ch11-C2-Q2-P1 Cpy,Tu	0.3	(8.60)			
V	Ch11-C2-Q2-P2 Cpy	0.3				
V	C2-Q2-P3 Tu, Cpy	0.6	4.70	0.40	0.70	
V	Ch12-C2	0.2	(11.75)			
V	Ch12-C2	0.2				
V	Ch12-C2	0.3	4.50	0.20	0.70	
V	Ch12-C2	0.4	(22.50)			
V	Ch12-C2	0.2				
V	Ch12-C2	0.2	4.70	2.20	0.70	
V	Ch12-C2	0.3	(2.14)			
V	Ch12-C2-Q1-P1	0.2				
V	Ch11-C2-Q2-P2 Cpy	0.8	5.30	0.40	0.65	
V	Ch11-C2-Q2-P2 Tu	0.4	(13.25)			
SS	C2-Q1-P1 Tu	0.4				

K_2O/Na_2O in brackets

ALTERATION

Chl:chlorite P:pyrite
C:carbonate Cpy:chalcopyrite
S:sericite Pb:galena
Q:quartz Zn:sphalerite
K:K-spar MoS_2:moly
Fu:fuchsite
Fl:fluorite
Tu:turquoise

Alteration Intensity
1- weak, 2- mod, 3- intense

LITHOLOGY

V :Volcanic
Vt : tuff
Vb : breccia
SS : Sandstone, Shale

Ag,Au K_2O,Na_2O,TiO_2
(ppm),(gm), % , % , %

0 10 20m.

SCALE : 1 : 400

ESSO MINERALS CANADA

DUSTY MAC

PERCUSSION DRILL HOLE

SECTION

PH-85-5

Project No. 2197	Mining Div. Osoyoos
NTS 82E/5E	Drawn by. W. Melnyk
Date MAY, 1985	Fig No

ESSO MINERALS CANADA
DRILL LOG

HOLE NO. PH 85-6
PAGE 1 OF 3
PROJECT 2197
LOGGED BY: W. Melnyk

COLLAR COORDINATES
0+46 N ; 1+74 W

COLLAR ELEVATION 460 m
AZIMUTH _____ DIP Vertical
TOTAL LENGTH 46.3 m (152')
HORIZONTAL PROJECTION _____
VERTICAL PROJECTION _____

CONTRACTOR Northspan Explorations Ltd
CORE SIZE 11.4 cm
DATE STARTED April 26 DATE COMPLETED April 26, 1985
Percussion
AVERAGE CORE RECOVERY _____

PURPOSE To test gold mineralization previously found in Dusty Mac Drill hole #466

COMMENTS:

ALTERATION SCALE

absent
slight
moderate
intense

TOTAL SULPHIDE SCALE

traces only
< 1%
1% - 3%
3% - 10%
> 10%

DIP TESTS

DEPTH	DIP	AZIMUTH	DEPTH	DIP	AZIMUTH

LEGEND

SUMMARY LOG

W. Melnyk

WP-6275B

PAGE 2 OF 3 | PROJECT: 2197 | HOLE NO. PH 85-6

DEPTH (m)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	B	C	D	E	FRACT INTENSITY
				0-7.3m Overburden.						
5				Mainly sandstone, rest mid-green volcanic. Minor quartz veining, minor carb.						
10				Volcanic mid-pale green, could be sediment minor quartz vein material						
15				15.8m : Volcanic or Sediment (?) Intensely pyritic, very fine grained, siliceous, some carbonate						
20				Volcanic or Sediment (?) Same as above. grey-brown, very siliceous, Fluorite and carbonate.						
25				Same as above. Much pyrite.						
30				Same as above						
35				Same as above, Much pyrite. Very siliceous, carbonate. Much purple and green fluorite.						
40				Same as above. Much pyrite. More carbonate. Some chips hematitic.						
45				46.3m END OF HOLE						

PAGE 3 OF 3	PROJECT: 2197	HOLE NO. PH85-6

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS g/t Ag	ASSAYS g/t Au			
No sulfides		7.71	8.23	0.92	74078	0.4				
		8.23	9.75	1.52	74079	0.3				
No sulfides. Tr. cpy in quartz chip		9.75	11.28	1.53	74080	0.3				
		11.28	12.80	1.52	74081	0.3				
		12.80	14.33	1.53	74082	0.3				
Pyrite disseminated to 20% fine grained, trace Mo Sx.		14.33	15.85	1.52	74083	0.4				
		15.85	17.37	1.52	74084	0.7				
		17.37	18.90	1.53	74085	0.9				
		18.90	20.42	1.52	74086	0.5				
Pyrite disseminated to 20% fine grained. Much fluorite		20.42	21.95	1.53	74087	0.5				
		21.95	23.47	1.52	74088	0.8				
		23.47	24.99	1.52	74089	0.6				
Pyrite disseminated to 20% Some coarse yellow pyrite too.		24.99	26.52	1.53	74090	0.5				
		26.52	28.04	1.52	74091	0.2				
		28.04	29.56	1.52	74092	0.2				
Pyrite disseminated to 20% Specks cpy. Some fluorite		29.56	31.09	1.53	74093	<0.2				
		31.09	32.61	1.52	74094	<0.2				
		32.61	34.14	1.53	74095	0.2				
		34.14	35.66	1.52	74096	0.2				
pyrite disseminated to 20% fluorite		35.66	37.19	1.52	74097	0.4				
		37.19	38.71	1.53	74098	0.2				
		38.71	40.23	1.52	74099	0.2				
Pyrite disseminated to 20% Some fluorite and cpy		40.23	41.76	1.53	74100	0.2				
		41.76	43.28	1.52	74101	0.2				
		43.28	44.80	1.52	74102	0.2				
		44.80	46.33	1.53	74103	0.4				

N2/E2

PH-85-6

0+46 N , 1+74 W

SW NE

LITHOLOGY	ALTERATION		Ag	Au	K_2O	Na_2O	TiO_2
SS-V	Chl1-C2-Q1-S1		0.4				
SS-V	Chl1-C2-Q1-S1		0.3				
SS-V	Chl1-C2-Q1-S1		0.3	3.90	3.50	0.60	
V	Chl1-C2-Q1-S1		0.3	(1.11)			
V	Chl1-C2-Q1-S1		0.3				
V	Chl1-C2-Q1-S1	Cpy	0.4	4.20	1.10	0.60	
V	C2-Q2-S2-P3		0.7	(3.82)			
V	C2-Q2-S2-P3	MoS_2	0.9				
V	C2-Q2-S2-P3		0.5	3.80	0.20	0.70	
V	C2-Q2-S2-P3	Fl	0.5	(19.00)			
V-SS	C2-Q2-S2-P3	Fl	0.8				
V-SS	C2-Q2-S2-P3	Cpy	0.6	4.30	0.60	0.75	
V-SS	C3-Q2-S2-P3		0.5	(7.17)			
V-SS	C2-Q2-S2-P3		0.2				
V-SS	C2-Q2-S2-P3	Fu	0.2	4.50	1.10	0.65	
V-SS	C2-Q2-S2-P3	Fl	<0.2	(4.09)			
V-SS	C2-Q2-S2-P3		<0.2				
V-SS	C2-Q2-S2-P3		0.2	4.80	2.30	0.65	
V-SS	C2-Q2-S2-P3	Cpy,Fl	0.2	(2.08)			
V-SS	C2-Q2-S2-P3	Fl	0.4				
V-SS	C2-Q2-S2-P3	Fl	0.2	3.80	1.50	0.65	
V-SS	C2-Q2-S2-P3		0.2	(2.53)			
V-SS	C2-Q2-S2-P3		0.2				
V-SS	C2-Q2-S2-P3	Cpy,Fl	0.2	4.20	1.30	0.70	
V-SS	C2-Q2-S2-P3		0.3	(3.23)			
V-SS	C2-Q2-S2-P3		0.4				

K_2O/Na_2O in brackets

ALTERATION

Chl:chlorite P:pyrite
C:carbonate Cpy:chalcopyrite
S:sericite Pb:galena
Q:quartz Zn:sphalerite
K:K-spar MoS_2:moly
Fu:fuchsite
Fl:fluorite
Tu:turquoise

Alteration intensity
1- weak, 2- mod, 3- intense

LITHOLOGY

V :Volcanic
Vt : tuff
Vb : breccia
SS : Sandstone, Shale

Ag,Au K_2O,Na_2O,TiO_2
(ppm),(gm), % , % , %

0 10 20m.

SCALE : 1 : 400

ESSO MINERALS CANADA

DUSTY MAC

PERCUSSION DRILL HOLE

SECTION

PH-85-6

Project No. 2197	Mining Div. Osoyoos
NTS 82E/5E	Drawn by W.Melnyk
Date MAY, 1985	Fig No

ESSO MINERALS CANADA
DRILL LOG

HOLE NO. PH 85-7
PAGE 1 OF 3
PROJECT 2197
LOGGED BY: W. Melnyk

COLLAR COORDINATES
0+51 N ; 1+11 W
COLLAR ELEVATION 457 m
AZIMUTH ____ DIP Vertical
TOTAL LENGTH 46.3m (152')
HORIZONTAL PROJECTION ____
VERTICAL PROJECTION ____

CONTRACTOR Northspan Explorations Ltd
CORE SIZE 11.4 cm
DATE STARTED April 24 DATE COMPLETED April 24, 1985
Percussion
AVERAGE CORE RECOVERY ____

PURPOSE To test gold mineralization found in Dusty Mac drill hole # 462.

COMMENTS:

ALTERATION SCALE

absent
slight
moderate
intense

TOTAL SULPHIDE SCALE

traces only
< 1%
1% - 3%
3% - 10%
> 10%

DIP TESTS

DEPTH	DIP	AZIMUTH	DEPTH	DIP	AZIMUTH

LEGEND

SUMMARY LOG

W. Melnyk

WP-6275B

PAGE 2 OF 3 | PROJECT: 2197 | HOLE NO. PH 85-7

DEPTH (m)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	B	C	D	E	FRACT INTENSITY
				0-4.0 Overburden						
5				Shale and sandstone - grey black No quartz veining or sediments.						
				Sandstone and shale : Black, No veining						
				6.7m : Volcanic material, pale green. Sericitic (?) Sediments to 50%.						
10				Mixture Volcanics and shale Increasing to 80% shale at depth Several quartz - carbonate chips throughout.						
				Volcanics medium to pale green.						
15				Volcanics and shale. all volcanics at depth : 18.9m Much quartz vein material with sediments.						
20				Volcanic - Medium to pale green, chloritic visible. Much quartz vein material, some purple fluorite						
25				Volcanic - dark green chloritic at top to pale at 26.5m. Beyond 26.5m rock is very siliceous pyritic with Fuchsite, fluorite, + turquoise.						
30				Mixtures of Volcanic and shale - Sandstone chips. Seds increase to 60% beyond 32.6. Sulfides decrease with increase of sediments. occassional chip with turquoise.						
35				Mainly sandstone gritty. No quartz veining, minor carbonate.						
				38.5m. Increase in intensely altered Volcanic material. Vein qtz - carb						
40				Volcanic well altered with 20 - 50% shale sandstone. Vein quartz - carbonate.						
				46.3 END OF HOLE						

PAGE 3 OF 3	PROJECT: 2107	HOLE NO. PH 85-7

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS g/t Ag	ASSAYS g/t Au			
No sulfides		3.96	5.18	1.22	74050	0.3				
		5.18	6.70	1.52	74051	0.3				
		6.70	8.23	1.53	74052	0.5				
Disseminated pyrite 1-2%		8.23	9.75	1.52	74053	0.3				
Diss. pyrite to 2%		9.75	11.28	1.53	74054	0.5				
		11.28	12.80	1.52	74055	0.7				
		12.80	14.33	1.53	74056	0.8				
Diss. pyrite 1-2%		14.33	15.85	1.52	74057	0.8				
		15.85	17.37	1.52	74058	1.0	0.21			
		17.37	18.90	1.53	74059	1.8	<0.07			
		18.90	20.42	1.52	74060	1.3	<0.07			
Diss. pyrite 1-2% Tr. cpy		20.42	21.95	1.53	74061	1.0	<0.07			
		21.95	23.47	1.52	74062	1.6	<0.07			
		23.47	24.99	1.52	74063	0.9				
Increase in pyrite especially beyond 26.5m where pyrite increases to 10%.		24.99	26.52	1.53	74064	0.8				
		26.52	28.04	1.52	74065	1.0	0.17			
		28.04	29.56	1.52	74066	0.8				
Pyrite drops off to 3% in sediments. Trace cpy.		29.56	31.09	1.53	74067	0.8				
		31.09	32.61	1.52	74068	0.6				
		32.61	34.14	1.53	74069	0.6				
		34.14	35.66	1.52	74070	0.9				
No pyrite in shale. Tr. cpy in quartz vein chip.		35.66	37.18	1.52	74071	0.8				
		37.18	38.71	1.53	74072	0.5				
		38.71	40.23	1.52	74073	0.4				
Pyrite - 2-4% in siliceous chips. also cpy in quartz and as fracture fuling. Tr. MoS_2.		40.23	41.76	1.53	74074	0.3				
		41.76	43.28	1.52	74075	0.3				
		43.28	44.80	1.52	74076	0.4				
		44.80	46.33	1.53	74077	0.5				

N2/E2

PH-85-7

0+51 N , 1+11 W

SW NE

LITHOLOGY	ALTERATION	Ag	Au	K_2O	Na_2O	TiO_2
SS	C2	0.3				
SS	C2	0.3	4.40	2.80	0.75	
SS+V	Chl1-C2-Q2-S1-P1 Fu	0.5		(1.57)		
SS+V	Chl1-C2-Q2-S1-P1	0.3				
SS+V	Chl2-C2-Q2-S1-P1	0.5				
SS+V	Chl1-C2-Q2-S1-P1	0.7	5.20	1.50	0.70	
SS	C2-P1	0.8		(3.47)		
SS+V	Chl1-C2-Q1-S1	0.8				
SS+V	Chl1-C2-Q2-S2-P1	1.0	0.21	6.00	1.20	0.60
SS+V	Chl1-C2-Q2-P1	1.8	<0.07		(5.00)	
V	Chl1-C2-Q1-S1	1.3	<0.07	4.70	2.70	0.60
V	Chl2-C3-Q2-S1	1.0	<0.07		(1.74)	
V	Chl2-C3-Q2-S1-P1	1.6	<0.07			
V	Chl2-C3-Q2-S1	0.9				
V+SS	Chl3-C3-Q2-P1	0.8	5.40	0.60	0.60	
V	Chl1-C2-Q2-P2 Tu,Fl	1.0	0.17		(9.00)	
V	Chl1-C2-Q2-P2 Tu,Fu	0.8				
V	Chl1-C2-Q2-P2	0.8	3.90	0.20	0.60	
V	Chl2-C2-Q1-P1	0.6			(19.50)	
V+SS	Chl1-C2-Q1-P2 Tu,Cpy	0.6				
SS+V	Chl1-C2-Q1-S1-P1	0.9	4.00	0.40	0.50	
SS	C2	0.8			(10.00)	
SS	C2	0.5	4.80	1.00	0.55	
SS+V	Chl1-C2-Q3-S2-P1 Cpy	0.4			(4.80)	
SS+V	Chl1-C2-Q3-S2-P1 Pb	0.3				
V+SS	Chl1-C2-Q3-S2-P1 MoS_2	0.3	4.40	1.70	0.70	
V+SS	Chl1-C2-Q3-S2-P1 Cpy	0.4			(2.59)	
V+SS	Chl1-C2-Q3-S2-P1 Cpy	0.5	4.80	1.40	0.65	
					(3.43)	

K_2O/Na_2O in brackets

ALTERATION

Chl:chlorite P:pyrite
C:carbonate Cpy:chalcopyrite
S:sericite Pb:galena
Q:quartz Zn:sphalerite
K:K-spar MoS_2:moly
Fu:fuchsite
Fl:fluorite
Tu:turquoise

Alteration Intensity
1- weak, 2- mod, 3- intense

LITHOLOGY

V :Volcanic
Vt : tuff
Vb : breccia
SS : Sandstone, Shale

Ag, Au K_2O, Na_2O, TiO_2
(ppm), (gm), %, %, %

0 10 20m.

SCALE : 1 : 400

ESSO MINERALS CANADA

DUSTY MAC

PERCUSSION DRILL HOLE SECTION

PH-85-7

Project No 2197	Mining Div Osoyoos
NTS 82E/5E	Drawn by W.Melnyk
Date MAY, 1985	Fig No

ESSO MINERALS CANADA
DRILL LOG

HOLE NO. PH 85-8
PAGE 1 OF 3
PROJECT 2197
LOGGED BY: W. Melnyk

COLLAR COORDINATES
1+25N ; 0+63W
COLLAR ELEVATION 457 m
AZIMUTH ____ DIP Vertical
TOTAL LENGTH 46.3m (152')
HORIZONTAL PROJECTION ____
VERTICAL PROJECTION ____

CONTRACTOR Northspan Explorations Ltd CORE SIZE 11.4 cm
DATE STARTED April 26 DATE COMPLETED April 26 Percussion
AVERAGE CORE RECOVERY ____

PURPOSE To test gold mineralization previously found in Dusty mac drill hole #276

COMMENTS:

ALTERATION SCALE

absent
slight
moderate
intense

TOTAL SULPHIDE SCALE

traces only
< 1%
1% - 3%
3% - 10%
> 10%

DIP TESTS

DEPTH	DIP	AZIMUTH	DEPTH	DIP	AZIMUTH

LEGEND

SUMMARY LOG

W. Melnyk

WP-6275B

PAGE 2 OF 3 | PROJECT: 2197 | HOLE NO. PH85-8

DEPTH (m)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	B	C	D	E	FRACT INTENSITY
				0 - 8.2 m Overburden						
				Volcanic - Sediment(?) - grey-white chips Intensely silicified, pyritized, carbonitized						
10				Same as above : Intensely altered						
15				Same as above : Intensely altered						
				20.0 - 23.5 : Intensely altered						
20				23.5 - 25.0: Pale green - white chips Some chlorite, Much carbonate, pyrite drops off drastically.						
25				25.0 - 37.2 : Shale, minor carbonate veining.						
30										
35				37.2 - 46.3 : Shale and Sandstone Variable. Pyrite drops off considerably						
40										
45				46.3 END OF HOLE						
50										

PAGE 3 OF 3	PROJECT: 2197	HOLE NO. PH85-8

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS g/t Ag	ASSAYS g/t Au			
15% pyrite disseminate in grey siliceous chips.		8.23	9.75	1.52	74158	0.9				
15% pyrite mainly v.f.g. in siliceous chips. Some coarser py too.		9.75	11.28	1.53	74159	0.9				
		11.28	12.80	1.52	74160	0.5				
		12.80	14.33	1.53	74161	0.8				
		14.33	15.85	1.52	74162	0.8				
		15.85	17.37	1.52	74163	1.1	<0.07			
		17.37	18.90	1.53	74164	0.8				
20.0-23.5 : 15% py. Tr cpy.		18.90	20.42	1.52	74165	0.6				
		20.42	21.95	1.53	74166	0.7				
Pyrite 3% diss.		21.95	23.47	1.52	74167	0.5				
		23.47	24.99	1.52	74168	0.4				
Pyrite 1%		24.99	26.52	1.53	74169	0.6				
		26.52	28.04	1.52	74170	0.3				
		28.04	29.56	1.52	74171	0.4				
Pyrite <1%		29.56	31.09	1.53	74172	0.6				
		31.09	32.61	1.52	74173	0.3				
		32.61	34.14	1.53	74174	0.6				
		34.14	35.66	1.52	74175	0.5				
Pyrite <1%		35.66	37.18	1.52	74176	0.4				
		37.18	38.71	1.53	74177	0.4				
		38.71	40.23	1.52	74178	1.0	<0.07			
Pyrite <1%		40.23	41.76	1.53	74179	1.0	<0.07			
		41.76	43.28	1.52	74180	1.0	<0.07			
		43.28	44.80	1.52	74181	0.7				
		44.80	46.33	1.53	74182	0.9				

N2/E2

PH-85-8

1+25 N , 0+63 W

SW NE

LITHOLOGY	ALTERATION	Ag	Au	K_2O	Na_2O	TiO_2
V	C2-Q2-S2-P3	0.8	5.90	3.10	0.60	
V	C2-Q2-S2-P3	0.9		(1.90)		
V	C2-Q2-S2-P3	0.5				
V	C2-Q2-S2-P3	0.8	5.90	3.10	0.60	
V	C2-Q2-S2-P3	0.8		(1.90)		
V	C2-Q2-S2-P3	1.1	<0.07			
V	C2-Q2-S2-P3	0.8	5.80	4.00	0.60	
V	C2-Q2-S2-P3	0.6		(1.45)		
V	C2-Q2-S2-P3	0.7				
V	C2-Q2-S2-P3	0.5	5.00	3.50	0.65	
V	C2-Q2-S2-P1	0.4		(1.43)		
SS+V	Ch11-C2-Q1-S2	0.6				
SS	C2	0.3	4.10	1.50	0.45	
SS	C2-P1	0.4		(2.73)		
SS	C2	0.6	4.20	2.00	0.70	←(2.10)
SS	C2	0.3	4.50	2.50	0.70	
SS	C2	0.6		(1.80)		
SS	C2	0.5				
SS	C2-Q1	0.4	4.60	1.70	0.60	
V-SS	Ch11-C2-Q2-S1	0.4		(2.71)		
SS-V	Ch11-C2-Q2-S1	1.0	<0.07			
SS	C2	1.0	<0.07	4.80	1.10	0.75
SS	C2	1.0	<0.07		(4.36)	
V-SS	Ch11-C2-Q1-S1-P1	0.7				
V	Ch11-C2-Q1-S1-P1	0.9	5.70	0.30	0.55	
					(19.00)	

K_2O/Na_2O in brackets

ALTERATION

Chl:chlorite — P:pyrite
C:carbonate — Cpy:chalcopyrite
S:sericite — Pb:galena
Q:quartz — Zn:sphalerite
K:K-spar — MoS_2:moly
Fu:fuchsite
Fl:fluorite
Tu:turquoise

Alteration Intensity

1- weak, 2- mod, 3- intense

LITHOLOGY

V :Volcanic
Vt : tuff
Vb : breccia
SS : Sandstone, Shale

Ag,Au K_2O,Na_2O,TiO_2
(ppm),(gm), %, %, %

0 10 20m.

SCALE : 1 : 400

ESSO MINERALS CANADA

DUSTY MAC

PERCUSSION DRILL HOLE

SECTION

PH-85-8

Project No 2197	Mining Div Osoyoos
NTS 82E/5E	Drawn by W.Melnyk
Date MAY, 1985	Fig No

ESSO MINERALS CANADA
DRILL LOG

HOLE NO. PH 85-9
PAGE 1 OF 3
PROJECT 2197
LOGGED BY: W Melnyk

COLLAR COORDINATES
2+91 N ; 1+50 W

COLLAR ELEVATION 460m
AZIMUTH _____ DIP Vertical
TOTAL LENGTH 46.3m (152')
HORIZONTAL PROJECTION _____
VERTICAL PROJECTION _____

CONTRACTOR Northspan Explorations Ltd
CORE SIZE 11.4cm
DATE STARTED April 27 DATE COMPLETED April 27
Percussion
AVERAGE CORE RECOVERY _____

PURPOSE To test till covered area northwest of Dusty Mac pit.

COMMENTS:

ALTERATION SCALE

absent
slight
moderate
intense

TOTAL SULPHIDE SCALE

traces only
< 1%
1% - 3%
3% - 10%
> 10%

DIP TESTS

DEPTH	DIP	AZIMUTH	DEPTH	DIP	AZIMUTH

LEGEND

SUMMARY LOG

W. Melnyk

WP-6275B

PAGE 2 OF 3 | PROJECT: 2197 | HOLE NO. PH85-9

DEPTH (m)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	B	C	D	E	FRACT INTENSITY
				0. - 3.7m overburden						
				Volcanic (Sed) Pale green - grey. No chlorite - mod. alteration sericite, silica, pyrite. Several chips shale, black graphitic						
5				Volcanic sediment 25% shale 5 - 6.7m. 6.7 - 8.2m : 50% shale chips.						
				8.2 - 10 m : Volcanic med - pale green, 5% shale						
10				Much carb. chlorite present. Volcanic : Med - dark green, much chlorite						
				v. weakly altered, carbonate						
15				Same as above.						
20				Same as above. v. weakly altered.						
25				same as above. v. weakly altered						
30				Same as above v weakly altered						
35				Same as above v. weakly altered						
40				Same as above v. weakly altered						
45				46.3 END OF HOLE						

PAGE 3 OF 3	PROJECT: 2197	HOLE NO. PH85-9

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS g/t Ag	ASSAYS g/t Au			
Pyrite 10% disseminated grey siliceous chips.		3.66	5.18	1.52	74183	0.5				
Py 5% dis, Tr. cpy.		5.18	6.70	1.52	74184	0.4				
py 1%		6.70	8.23	1.53	74185	0.2				
		8.23	9.75	1.52	74186	0.2				
Py Tr.		9.75	11.28	1.53	74187	0.2				
		11.28	12.80	1.52	74188	0.2				
		12.80	14.33	1.53	74189	0.2				
Tr. py Tr. cpy		14.33	15.85	1.52	74190	0.3				
		15.85	17.37	1.52	74191	0.3				
		17.37	18.90	1.53	74192	0.2				
		18.90	20.42	1.52	74193	0.3				
Tr. pyrite		20.42	21.95	1.53	74194	0.3				
		21.95	23.47	1.52	74195	0.4				
		23.47	24.99	1.52	74196	0.3				
Tr. pyrite		24.99	26.52	1.53	74197	0.2				
		26.52	28.04	1.52	74198	0.3				
		28.04	29.56	1.52	74199	0.4				
Tr. pyrite		29.56	31.09	1.53	74200	0.4				
		31.09	32.61	1.52	74201	0.4				
		32.61	34.14	1.53	74202	0.4				
		34.14	35.66	1.52	74203	0.3				
Tr. pyrite		35.66	37.18	1.52	74204	0.6				
		37.18	38.71	1.53	74205	0.6				
		38.71	40.23	1.52	74206	0.6				
Tr. pyrite		40.23	41.76	1.53	74207	0.9				
		41.76	43.28	1.52	74208	0.4				
		43.28	44.80	1.52	74209	0.3				
		44.80	46.33	1.53	74210	0.3				

N2/E2

PH-85-9

2+91 N , 1+50 W

SW NE

LITHOLOGY	ALTERATION	Ag	Au	K_2O	Na_2O	TiO_2
V+SS	C2+Q2-S2-P2	0.5				
V+SS	C2-Q2-S2-P1	0.4				
V+SS	Ch11-C2-Q2-S2-P1	0.2	4.40	2.20	0.65	
V+SS	Ch11-C2-Q2-S2-P1	0.2	(2.00)			
V	Ch12-C2-Q1	0.2				
V	Ch13-C3 Tu	0.2	4.80	1.10	0.70	
V	Ch13-C3	0.2	(4.36)			
V	Ch13-C3 Cpy	0.3				
V	Ch13-C3 Cpy	0.3	4.40	0.90	0.75	
V	Ch13-C3	0.2	(4.89)			
V	Ch12-C3	0.3				
V	Ch12-C3	0.3	4.10	0.40	0.80	
V	Ch12-C3	0.4	(10.25)			
V	Ch12-C3	0.3				
V	Ch12-C3	0.2	3.40	1.80	0.65	
V	Ch12-C3	0.3	(1.89)			
V	Ch12-C3	0.4				
V	Ch12-C3	0.4	4.80	0.20	0.70	
V	Ch12-C3	0.4	(24.00)			
V	Ch12-C3	0.4				
V	Ch12-C3	0.3	4.90	0.30	0.80	
V	Ch12-C3	0.6	(16.33)			
V	Ch12-C3	0.6				
V	Ch12-C3	0.6	4.40	0.30	0.75	
V	Ch12-C3	0.9	(14.67)			
V	Ch12-C3-P1	0.4				
V	Ch12-C3-P1	0.3	4.50	0.50	0.85	
V	Ch12-C3-P1	0.3	(9.00)			

K_2O/Na_2O in brackets

ALTERATION

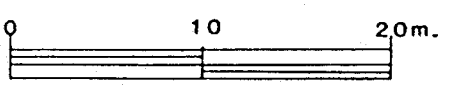
Chl:chlorite P:pyrite
C:carbonate Cpy:chalcopyrite
S:sericite Pb:galena
Q:quartz Zn:sphalerite
K:K-spar MoS_2:moly
Fu:fuchsite
Fl:fluorite
Tu:turquoise

Alteration intensity
1- weak, 2- mod, 3- intense

LITHOLOGY

V :Volcanic
Vt : tuff
Vb : breccia
SS : Sandstone, Shale

Ag, Au K_2O, Na_2O, TiO_2
(ppm), (gm), %, %, %



SCALE : 1 : 400

ESSO MINERALS CANADA

DUSTY MAC

PERCUSSION DRILL HOLE

SECTION

PH-85-9

Project No 2197	Mining Div. Osoyoos
NTS 82E/5E	Drawn by W.Melnyk
Date MAY, 1985	Fig No

ESSO MINERALS CANADA
DRILL LOG

HOLE NO. PH 85 - 10
PAGE 1 OF 3
PROJECT 2197
LOGGED BY: W. Melnyk

COLLAR COORDINATES
3+98N ; 0+46E
COLLAR ELEVATION 466m
AZIMUTH ____ DIP Vertical
TOTAL LENGTH 46.3m (152')
HORIZONTAL PROJECTION ____
VERTICAL PROJECTION ____

CONTRACTOR Northspan Explorations Ltd
CORE SIZE 11.4 cm
DATE STARTED April 28 DATE COMPLETED April 28
Percussion
AVERAGE CORE RECOVERY ____

PURPOSE To test till covered area northwest of Dusty Mac pit.

COMMENTS:

ALTERATION SCALE

absent
slight
moderate
intense

TOTAL SULPHIDE SCALE

traces only
< 1%
1% - 3%
3% - 10%
> 10%

SUMMARY LOG

DIP TESTS

DEPTH	DIP	AZIMUTH	DEPTH	DIP	AZIMUTH

LEGEND

W. Melnyk

WP-6275B

PAGE 2 OF 3 | PROJECT: 2197 | HOLE NO. PH85-10

DEPTH (m)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	B	C	D	E	FRACT INTENSITY
				0-23.5 Overburden						
15										
20				Volcanic : Pale - med. green, weakly altered, sericite, silica, pyrite, chlorite present carbonate						
25				Volcanic - Pale green, minor chlorite increase in sericite (?), silica, carbonate. Weak pyrite. Fuesite (?)						
30				Volcanic : similar to above, observe occassional black graphitic whisps.						
35				Volcanic Sediment (?) Grey siliceous chips. occassional vein quartz chip. Color variable dependent on chlorite content.						
40				38.7m : Much more grey siliceous pyritic chips. Coarse pyrite too. Volcanic sediment (?) pale green, some chlorite, Many chips grey siliceous pyritic, coarse pyritic chips too. Some black graphitic material in chips						
45				Same as above. Siliceous, pyritic 46.3m END OF HOLE						
50										

PAGE 3 OF 3	PROJECT: 2197	HOLE NO. PH85-10

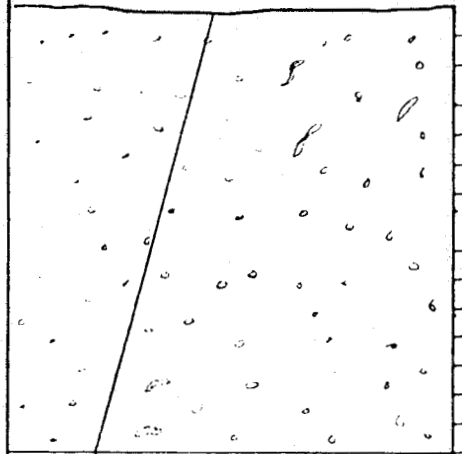
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS g/t Ag	ASSAYS g/t Au			
Weak pyrite 1% disseminated		23.47	24.99	1.52	74257	0.5				
Weak pyrite 1%		24.99	26.52	1.53	74258	0.7				
		26.52	28.04	1.52	74259	0.8				
		28.04	29.56	1.52	74260	0.8				
Trace pyrite		29.56	31.09	1.53	74261	0.5				
		31.09	32.61	1.52	74262	0.7				
		32.61	34.14	1.53	74263	1.1	<0.07			
		34.14	35.66	1.52	74264	1.2	<0.07			
		35.66	37.18	1.52	74265	1.5	<0.07			
		37.18	38.71	1.53	74266	0.5				
38.7m: 5-7% diss. pyrite, v.f.g. and coarse.		38.71	40.23	1.52	74267	0.5				
Pyrite fine disseminated 7-10% Coarse pyrite as well		40.23	41.76	1.53	74268	0.7				
		41.76	43.28	1.52	74269	1.2	<0.07			
		43.28	44.80	1.52	74270	0.7				
Pyrite fine disseminated 7-10% Coarse pyrite too.		44.80	46.33	1.53	74271	0.7				

N2/E2

PH-85-10

3+98 N , 0+46 E

SW NE



LITHOLOGY	ALTERATION	Ag	Au	K_2O	Na_2O	TIO_2
V	Chl1-C2-Q2-S1-P1	0.5				
V	Chl1-C2-Q2-S1	0.7	7.60	1.00	0.45	
V	Chl1-C2-Q2-S1	0.8	(7.60)			
V	Chl1-C2-Q2-S1	0.8				
V	Chl1-C2-Q2-S1	0.5	7.20	1.80	0.45	
V	Chl1-C2-Q2-S1	0.7	(4.00)			
V	Chl1-C2-Q2-S1	1.1	<0.07			
V	Chl1-C2-Q2-S1	1.2	<0.07	7.70	3.20	0.50
V	Chl1-C2-Q2-S1-P1	1.5	<0.07	(2.41)		
V	Chl1-C2-Q2-S1-P1	0.5				
V	Ch12-C2-Q2-S1-P2	0.5	6.20	4.10	0.45	
V	Ch12-C2-Q2-S1-P2	0.7	(1.51)			
V	C2-Q2-S1-P2	1.2	<0.07			
V	C2-Q2-S1-P2	0.7	6.90	3.40	0.45	
V	C2-Q2-S1-P2	0.7	(2.03)			

K_2O/Na_2O in brackets

ALTERATION

Chl:chlorite P:pyrite
C:carbonate Cpy:chalcopyrite
S:sericite Pb:galena
Q:quartz Zn:sphalerite
K:K-spar MoS_2:moly
Fu:fuchsite
Fl:fluorite
Tu:turquoise

Alteration Intensity
1- weak, 2- mod, 3- intense

LITHOLOGY

V :Volcanic
Vt : tuff
Vb : breccia
SS : Sandstone, Shale

Ag,Au K_2O,Na_2O,TIO_2
(ppm),(gm), % , % , %

0 10 20m.

SCALE : 1 : 400

ESSO MINERALS CANADA

DUSTY MAC

PERCUSSION DRILL HOLE

SECTION

PH-85-10

Project No 2197	Mining Div Osoyoos
NTS 82E/5E	Drawn by W.Melnyk
Date MAY, 1985	Fig No

ESSO MINERALS CANADA
DRILL LOG

HOLE NO. PH 85-11
PAGE 1 OF 3
PROJECT 2197
LOGGED BY: W. Melnyk

COLLAR COORDINATES
5+99N ; 0+25W

COLLAR ELEVATION 466 m
AZIMUTH _____ DIP Vertical
TOTAL LENGTH 46.3 m (152')
HORIZONTAL PROJECTION _____
VERTICAL PROJECTION _____

CONTRACTOR Northspan Explorations Ltd
CORE SIZE 11.4 cm
DATE STARTED April 27 DATE COMPLETED April 27
Percussion
AVERAGE CORE RECOVERY _____

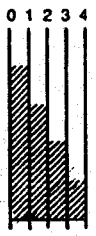
PURPOSE To test till covered area northwest of Dusty Mac pit.

COMMENTS:

ALTERATION SCALE

absent
slight
moderate
intense

TOTAL SULPHIDE SCALE



traces only
< 1%
1% - 3%
3% - 10%
> 10%

DIP TESTS

DEPTH	DIP	AZIMUTH	DEPTH	DIP	AZIMUTH

LEGEND

SUMMARY LOG

W. Melnyk

WP-6275B

PAGE 2 OF 3 | PROJECT: 2197 | HOLE NO. 11

DEPTH (m)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	B	C	D	E	FRACT INTENSITY
				0-16.2 Overburden						
15				Volcanic - Med. green chlorite 'books' intact. Vein quartz-carb fragments present - weakly sericitic + pyritic. Minor turquoise						
20				Volcanic pale green, may be brecciated. Much vein quartz material top of this section. Alteration appears to intensify - more sericite. Minor Fuchsite						
25				Volcanic shades of green olive to pale grn Vein quartz is variable, chlorite present. Increase quartz to 30m. Grey siliceous chips with very fine grained pyrite						
30				Similar to above pale grey-green increase in vein quartz with depth. Chlorite clearly visible, weakly altered.						
35				Similar to above, pale green, chloritic several coarse quartz-pyrite chips. Trace turquoise at depth						
40				Similar to above. No noticable change Weakly altered						
45				Similar to above. 46.3 END OF HOLE						
50										

PAGE 3 OF 3 | PROJECT: 2197 | HOLE NO. PH 85-11

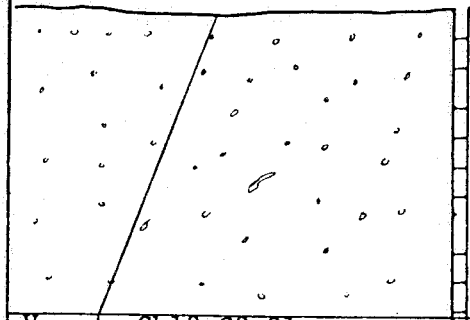
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS g/t Ag	ASSAYS g/t Au			
Pyrite 2-3% disseminated		16.15	17.37	1.22	74211	0.5				
		17.37	18.90	1.53	74212	0.6				
		18.90	20.42	1.52	74213	0.7				
Pyrite 3% coarse with quartz		20.42	21.95	1.53	74214	0.8				
		21.95	23.47	1.52	74215	0.6				
		23.47	24.99	1.52	74216	0.6				
Pyrite disseminated 1-2%		24.99	26.52	1.53	74217	0.5				
		26.52	28.04	1.52	74218	0.7				
		28.04	29.56	1.52	74219	0.6				
Pyrite disseminated 1-3%		29.56	31.09	1.53	74220	1.0	<0.07			
		31.09	32.61	1.52	74221	0.8				
		32.61	34.14	1.53	74222	0.8				
		34.14	35.66	1.52	74223	0.6				
Pyrite disseminated 1-3%		35.66	37.18	1.52	74224	0.6				
		37.18	38.71	1.53	74225	1.4	<0.07			
		38.71	40.23	1.52	74226	1.4	<0.07			
Pyrite disseminated 1-3%		40.23	41.76	1.53	74227	2.3	0.31			
		41.76	43.28	1.52	74228	1.8	0.10			
		43.28	44.80	1.52	74229	1.6	0.12			
Pyrite disseminated 1-3%		44.80	46.33	1.53	74230	1.4	0.41			

N2/E2

PH-85-11

5+99 N , 0+25 W

SW NE



LITHOLOGY	ALTERATION	Ag	Au	K_2O	Na_2O	TIO_2
V	Ch12-C2-Q1	0.5				
V	Ch12-C2-Q1 Tu	0.6				
V	Ch12-C3-Q3-P1	0.7				
V	Ch11-C3-Q2-P1	0.8	4.10	0.20	0.40	
V	Ch11-C3-Q2-P1 Cpy	0.6	(20.50)			
V	Ch11-C2-Q1-P1 Fu	0.6				
V	Ch11-C2-Q1-P1	0.5	5.80	0.20	0.60	
V	Ch11-C2-Q2-P1	0.7	(29.00)			
V	Ch11-C2-Q2-P1	0.6				
V	Ch11-C2-Q2-P2	1.0	<0.07	4.80	0.10	0.60
V	Ch11-C2-Q2-P1	0.8	(48.00)			
V	Ch11-C2-Q2-P1	0.8	4.60	0.40	0.60	
V	Ch11-C2-Q2-P1	0.6	(11.50)			
V	Ch11-C2-Q2-P1 Fu	0.6				
V	Ch11-C2-Q1-P1	1.4	<0.07			
V	Ch12-C2-Q1-P1 Tu	1.4	<0.07	6.00	0.30	0.65
V	Ch12-C2-Q1-P1	2.3	0.31	(20.00)		
V	Ch12-C2-Q1-P1	1.8	0.10			
V	Ch12-C2-Q1-P1	1.6	0.12	6.00	0.50	0.65
V	Ch12-C2-Q1-P1	1.4	0.41	(12.00)		

K_2O/Na_2O in brackets

ALTERATION

Chl:chlorite P:pyrite
C:carbonate Cpy:chalcopyrite
S:sericite Pb:galena
Q:quartz Zn:sphalerite
K:K-spar MoS_2:moly
Fu:fuchsite
Fl:fluorite
Tu:turquoise

Alteration Intensity
1- weak, 2- mod, 3- intense

LITHOLOGY

V :Volcanic
Vt : tuff
Vb : breccia
SS : Sandstone, Shale

Ag,Au K_2O,Na_2O,TIO_2
(ppm),(gm), % , % , %

0 10 20m.

SCALE : 1 : 400

ESSO MINERALS CANADA

DUSTY MAC

PERCUSSION DRILL HOLE

SECTION

PH-85-11

Project No 2197	Mining Div Osoyoos
NTS 82E/5E	Drawn by W.Melnyk
Date MAY, 1985	Fig No

ESSO MINERALS CANADA
DRILL LOG

HOLE NO. PH 85-12
PAGE 1 OF 3
PROJECT 2197
LOGGED BY: W. Melnyk

COLLAR COORDINATES
7+47N ; 1+29W

COLLAR ELEVATION 466m.
AZIMUTH _____ DIP Vertical
TOTAL LENGTH 46.3m (152')
HORIZONTAL PROJECTION _____
VERTICAL PROJECTION _____

CONTRACTOR Northspan Explorations Ltd
CORE SIZE 11.4 cm
DATE STARTED April 28 DATE COMPLETED April 28
Percussion
AVERAGE CORE RECOVERY _____

PURPOSE To test till covered area northwest of Dusty Mac pit.

COMMENTS:

ALTERATION SCALE

absent
slight
moderate
intense

TOTAL SULPHIDE SCALE

traces only
< 1%
1% - 3%
3% - 10%
> 10%

DIP TESTS

DEPTH	DIP	AZIMUTH	DEPTH	DIP	AZIMUTH

LEGEND

SUMMARY LOG

W. Melnyk

WP-6275B

PAGE 2 OF 3 | PROJECT: 2197 | HOLE NO. PH 85-12

DEPTH (m)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	B	C	D	E	FRACT INTENSITY
				0 - 7.62 Overburden						
				Volcanic - Med to pale green, many pieces are white with green chlorite crystals. Rock is silicified and sericitized						
10				Similar to above, chlorite decreases. Many grey siliceous / pyritic pieces. Turquoise and Fuchsite observed						
15				Similar to above. Much grey siliceous material. Much turquoise + some fuchsite						
20				Slightly more chlorite. Turquoise less prominent. Still pyritic, much quartz + sericite						
25				Similar to last section, turquoise, Fuchsite present. Rock pale grey-green						
30				Similar to last section down to 32.6m						
				From 32.6m beyond, alteration decreases considerably. Rock is darker green much more chlorite and less pyrite, much carbonate						
35				Rock is med green, chloritic, also quite hematitic. Pyrite + quartz drop off noticably						
40				Similar to previous, much chlorite less quartz, sericite + pyrite, Moderate carbonate.						
45				Med grey-green, alteration appears to increase. Numerous grey, siliceous, fine grained chips with pyrite						
50				46.3 END OF HOLE						

PAGE 3 OF 3	PROJECT: 2197	HOLE NO. PHBS-12

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS g/t Ag	ASSAYS g/t Au			
Pyrite 2-4%		7.62	8.23	.61	74231	1.0	<0.07			
		8.23	9.75	1.52	74232	0.6				
Pyrite 5-7% diss.		9.75	11.28	1.53	74233	0.6				
		11.28	12.80	1.52	74234	2.6	0.31			
		12.80	14.33	1.53	74235	5.7	1.10			
Pyrite 10% diss in siliceous host.		14.33	15.85	1.52	74236	1.9	0.10			
		15.85	17.37	1.52	74237	1.3	<0.07			
		17.37	18.90	1.53	74238	1.4	<0.07			
		18.90	20.42	1.52	74239	0.9				
pyrite 10% in grey siliceous chips and quartz-pyrite aggregates		20.42	21.95	1.53	74240	0.8				
		21.95	23.47	1.52	74241	1.1				
		23.47	24.99	1.52	74242	0.9				
Pyrite 10% diss. + qtz-pyrite aggregates		24.99	26.52	1.53	74243	0.8				
		26.52	28.04	1.52	74244	1.2	0.10			
		28.04	29.56	1.52	74245	1.1	<0.07			
Diss pyrite to 10% to 32.6m		29.56	31.09	1.53	74246	0.8				
		31.09	32.61	1.52	74247	1.5	0.10			
Pyrite 2% diss		32.61	34.14	1.53	74248	0.9				
		34.14	35.66	1.52	74249	0.3				
Diss pyrite 1%		35.66	37.18	1.52	74250	0.3				
		37.18	38.71	1.53	74251	0.2				
		38.71	40.23	1.52	74252	0.3				
Diss pyrite 1%		40.23	41.76	1.53	74253	0.3				
		41.76	43.28	1.52	74254	0.3				
		43.28	44.80	1.52	74255	0.2				
Diss pyrite 1% in grey siliceous chips.		44.80	46.33	1.53	74256	0.5				

N2/E2

PH-85-12

7+47 N , 1+29 W

SW NE

LITHOLOGY	ALTERATION	Ag	Au	K_2O	Na_2O	TIO_2
V	Ch12-C2-Q1-S1-P1	1.0	<0.07	6.20	0.20	0.60
V	Ch12-C2-Q1-S1-P1	0.6		(31.00)		
V	Ch11-C2-Q1-S1-P1	0.6				
V	C2-Q2-S1-P1 Tu,Fu	2.6	0.31	5.90	0.80	0.55
V	C2-Q2-S1-P2 Tu,Fu	5.7	1.10	(7.38)		
V	C2-Q2-S1-P2 Tu,Fu	1.9	0.10			
V	C2-Q2-S1-P2 Tu	1.3	<0.07	4.10	0.10	0.60
V	C2-Q2-S1-P2 Tu	1.4	<0.07	(41.00)		
V	C2-Q2-S1-P2 Tu	0.9				
V	Ch11-C2-Q2-S1-P1 Tu	0.8		5.70	0.20	0.50
V	Ch11-C2-Q2-S2-P2	1.1	0.07	(28.50)		
V	Ch11-C2-Q2-S2-P2Tu-Fu	0.9				
V	Ch11-C2-Q2-S2-P2 Tu	0.8		4.20	0.50	0.70
V	C2-Q2-S2-P2 Tu Fu	1.2	0.10	(8.40)		
V	C2-Q2-S2-P2 Tu Fu	1.1	<0.07			
V	Ch12-C2-Q2-S1-P1 Tu	0.8		3.50	0.40	0.65
V	Ch11-C2-Q2-S1-P3Tu Fu	1.5	0.10	(8.75)		
V	Ch12-C2-Q2-P1 Tu Fl	0.9				
V	Ch12-C2-Q2-P1	0.3		4.60	2.60	0.70
V	Ch12-C2	0.3		(1.78)		
V	Ch12-C2	0.2				
V	Ch12-C2	0.3		4.90	3.50	0.70
V	Ch12-C2	0.3		(1.40)		
V	Ch12-C2	0.3				
V	Ch12-C2	0.2		5.00	3.50	0.65
V	Ch12-C2-Q1-P1	0.5		(1.43)		

K_2O/Na_2O in brackets

ALTERATION

Chl:chlorite P:pyrite
C:carbonate Cpy:chalcopyrite
S:sericite Pb:galena
Q:quartz Zn:sphalerite
K:K-spar MoS_2:moly
Fu:fuchsite
Fl:fluorite
Tu:turquoise

Alteration Intensity
1- weak, 2- mod, 3- intense

LITHOLOGY

V :Volcanic
Vt : tuff
Vb : breccia
SS : Sandstone, Shale

Ag,Au K_2O,Na_2O,TIO_2
(ppm),(gm), %, %, %

0 10 20m.

SCALE : 1 : 400

ESSO MINERALS CANADA

DUSTY MAC

PERCUSSION DRILL HOLE

SECTION

PH-85-12

Project No 2197	Mining Div Osoyoos
NTS 82E/5E	Drawn by W.Melnyk
Date MAY, 1985	Fig No

ESSO MINERALS CANADA
DRILL LOG

HOLE NO. PH 85-13
PAGE 1 OF 5
PROJECT 2197
LOGGED BY: W. Melnyk

COLLAR COORDINATES
8+01 N ; 0+37 E
COLLAR ELEVATION 466m
AZIMUTH ____ DIP Vertical
TOTAL LENGTH 67.7m (222')
HORIZONTAL PROJECTION ____
VERTICAL PROJECTION ____

CONTRACTOR Northspan Exploration Ltd
CORE SIZE 11.4 cm
DATE STARTED April 30 DATE COMPLETED May 1
Percussion
AVERAGE CORE RECOVERY ____

PURPOSE To test till covered area northwest of Dusty Mac pit

COMMENTS:

ALTERATION SCALE

absent
slight
moderate
intense

TOTAL SULPHIDE SCALE

traces only
< 1%
1% - 3%
3% - 10%
> 10%

SUMMARY LOG

DIP TESTS

DEPTH	DIP	AZIMUTH	DEPTH	DIP	AZIMUTH

LEGEND

W. Melnyk

WP-6275B

PAGE 2 OF 5 | PROJECT: 2197 | HOLE NO. PH-85-13

DEPTH (m)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	B	C	D	E	FRACT INTENSITY
				0-8.2 m Overburden						
5										
				Volcanic Sediment or pyroclastic, badly oxidized, several shale pieces						
10				Volc. sed or pyroclastic, med. to pale green, green chl phenocrysts. Weakly sericitic + silicified - several grey chips.						
15				similar to last, med to pale green several pieces of vein quartz, several grey siliceous pieces with v.f.g. pyrite						
20				similar to previous 5 m, med to pale green, weakly altered. Increase in grey siliceous pyritic chips with depth						
25				similar to above, variable chlorite consequently change in colour. Alteration weak						
30				Probably sediment, chips carry whisps of black graphitic material. Minor quartz veining Weakly altered						
35				Similar to previous run. Some shalely material, plus several pale silicified sericitized chips						
40				Same as above.						
45										

PAGE 3 OF 5	PROJECT: 2197	HOLE NO. PH 85-13

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS g/t Ag	ASSAYS g/t Au			
		8.23	9.75	1.52	74324	<0.2				
Trace pyrite		9.75	11.28	1.53	74325	<0.2				
		11.28	12.80	1.52	74326	<0.2				
		12.80	14.33	1.53	74327	<0.2				
Trace pyrite		14.33	15.85	1.52	74328	<0.2				
		15.85	17.37	1.52	74329	<0.2				
		17.37	18.90	1.53	74330	<0.2				
		18.90	20.42	1.52	74331	<0.2				
2% diss pyrite in siliceous chips		20.42	21.95	1.53	74332	<0.2				
		21.95	23.47	1.52	74333	<0.2				
		23.47	24.99	1.52	74334	<0.2				
Trace diss pyrite		24.99	26.52	1.53	74335	<0.2				
		26.52	28.04	1.52	74336	<0.2				
		28.04	29.56	1.52	74337	<0.2				
Trace diss pyrite		29.56	31.09	1.53	74338	<0.2				
		31.09	32.61	1.52	74339	<0.2				
		32.61	34.14	1.53	74340	<0.2				
		34.14	35.66	1.52	74341	<0.2				
Trace pyrite		35.66	37.18	1.52	74342	<0.2				
		37.18	38.71	1.53	74343	<0.2				
		38.71	40.23	1.52	74344	<0.2				
Trace pyrite		40.23	41.76	1.53	74345	<0.2				
		41.76	43.28	1.52	74346	<0.2				
		43.28	44.80	1.52	74347	<0.2				

PAGE 4 OF 5 | PROJECT: 2197 | HOLE NO. PH85-13

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	ALTERATION B	ALTERATION C	ALTERATION D	ALTERATION E	FRACTURE INTENSITY	% VEIN QTZ.
				Similar to previous, increase in pale waxy sericitic pieces. Weak chlorite. Some vein quartz.							
50				Gradual slight increase in alteration intensity - pale green chlorite occassionally observed, several quartz-pyrite chips.							
55				Volcanic sediment. Alteration intensity increases in destruction of chlorite and increase in silica ± Sericite (?) Many quartz-pyrite chips.							
60				Similar to above - sediment with much intergranular black graphitic material. Much coarse pyrite with quartz							
65				Same as above graphitic sediment pyritic. 67.7 END OF HOLE							
70											

PAGE 5 OF 5	PROJECT: 2197	HOLE NO. PH85-13

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS g/t Ag	ASSAYS g/t Au			
Trace pyrite		44.80	46.33	1.53	74348	<0.2				
		46.33	47.85	1.52	74349	<0.2				
		47.85	49.38	1.53	74350	<0.2				
Diss py to 2%		49.38	50.90	1.52	74351	<0.2				
		50.90	52.42	1.52	74352	<0.2				
		52.42	53.95	1.53	74353	<0.2				
		53.95	55.47	1.52	74354	<0.2				
Diss pyrite to 10% from 57m to depth		55.47	57.00	1.53	74355	<0.2				
		57.00	58.52	1.52	74356	<0.2				
		58.52	60.04	1.52	74357	<0.2				
Diss pyrite plus vein with quartz to 10%.		60.04	61.57	1.53	74358	<0.2				
		61.57	63.09	1.52	74359	<0.2				
		63.09	64.62	1.53	74360	<0.2				
Diss py to 10%		64.62	66.14	1.52	74361	<0.2				
		66.14	67.66	1.52	74362	<0.2				

N2/E2

PH-85-13

8+01 N , 0+37 E

SW NE

LITHOLOGY	ALTERATION	Ag	Au	K_2O	Na_2O	TiO_2
V-SS	C2	<0.2				
V	Ch1-C-S	<0.2	4.5	3.8	0.8	(1.18)
V	Ch12-C2- -S1	<0.2				
V	Ch11-C2-Q1-S1	<0.2				
V	Ch11-C2-Q1-S1	<0.2	4.8	3.5	0.7	(1.37)
V	Ch11-C2-Q1-S1	<0.2				
V	Ch11-C2-Q1-S1	<0.2				
Vb	Ch11-C2-Q2-S2	<0.2	4.8	3.4	0.8	(1.41)
Vb	Ch11-C2-Q2-S2	<0.2				
V	Ch12-C2-Q2-S2-P1	<0.2				
V	Ch12-C2-Q2-S2-P1	<0.2	4.9	3.3	0.8	(1.48)
V	Ch12-C2-Q1-S1-P1	<0.2				
V	Ch11-C2-Q1-S1	<0.2				
V	Ch11-C2-Q1-S1	<0.2	4.5	3.7	0.7	(1.22)
SS	C2	<0.2				
SS	Ch11-C2-S1	<0.2				
SS	Ch11-C2-Q1-S1-P1	<0.2	4.1	4.1	0.7	(1.00)
SS	Ch11-C2-Q1-S1-P1	<0.2				
SS	Ch11-C2-Q1-S1-P1	<0.2				
SS	Ch11-C2-Q1-S1	<0.2	4.6	3.9	0.8	(1.18)
SS-V	Ch11-C2-Q1-S1	<0.2				
SS-V	Ch11-C2-Q1-S1	<0.2				
SS-V	Ch11-C2-Q1-S1	<0.2				
SS-V	Ch11-C2-Q1-S1	<0.2				
SS-V	Ch11-C2-Q1-S1	<0.2				
SS-V	Ch11-C2-Q1-S1	<0.2	4.5	3.6	0.7	(1.25)
SS-V	Ch11-C2-Q1-S1	<0.2				
SS-V	Ch11-C2-Q1-S1	<0.2				
SS-V	Ch11-C2-Q1-S1	<0.2	4.3	3.9	0.7	(1.10)
SS-V	Ch11-C2-Q1-S1-P1	<0.2				
SS-V	Ch11-C2-Q1-S1-P1	<0.2				
SS-V	Ch11-C2-Q1-S1-P1	<0.2	4.7	3.8	0.7	(1.24)
Vb	Ch11-C2-Q2-S1-P2	<0.2				
Vb	C2-Q2-S2-P2	<0.2				
Vb	C2-Q2-S2-P2	<0.2	4.6	3.7	0.7	(1.24)
Vb	C2-Q2-S2-P2	<0.2				
Vb	C2-Q2-S2-P2	<0.2				
Vb	C2-Q2-S2-P2	<0.2	4.4	4.0	0.7	(1.10)
Vb	C2-Q2-S2-P2	<0.2				

K_2O/Na_2O in brackets

ALTERATION

Chl:chlorite P:pyrite
C:carbonate Cpy:chalcopyrite
S:sericite Pb:galena
Q:quartz Zn:sphalerite
K:K-spar MoS_2:moly
Fu:fuchsite
Fl:fluorite
Tu:turquoise

Alteration Intensity
1- weak, 2- mod, 3- intense

LITHOLOGY

V :Volcanic
Vt : tuff
Vb : breccia
SS : Sandstone, Shale

Ag,Au K_2O,Na_2O,TiO_2
(ppm),(gm), %, %, %

0 10 20m.

SCALE : 1 : 400

ESSO MINERALS CANADA

DUSTY MAC

PERCUSSION DRILL HOLE

SECTION

PH-85-13

Project No. 2197	Mining Div. Osoyoos
NTS 82E/5E	Drawn by. W. Melnyk
Date MAY, 1985	Fig. No

ESSO MINERALS CANADA
DRILL LOG

HOLE NO. PH BS - 14
PAGE 1 OF 3
PROJECT 2197
LOGGED BY: W Melnyk

COLLAR COORDINATES
10+07N ; 0+64E

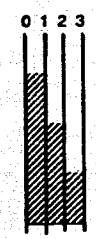
COLLAR ELEVATION 457m
AZIMUTH _____ DIP Vertical
TOTAL LENGTH 55.2m (181')
HORIZONTAL PROJECTION _____
VERTICAL PROJECTION _____

CONTRACTOR Northspan Explorations Ltd
CORE SIZE 11.4 cm
DATE STARTED April 29 DATE COMPLETED April 30
Percussion
AVERAGE CORE RECOVERY _____

PURPOSE To test till covered area northwest of Dusty Mac pit

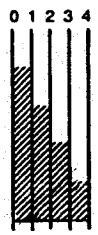
COMMENTS:

ALTERATION SCALE



absent
slight
moderate
intense

TOTAL SULPHIDE SCALE



traces only
< 1%
1% - 3%
3% - 10%
> 10%

DIP TESTS

DEPTH	DIP	AZIMUTH	DEPTH	DIP	AZIMUTH

LEGEND

SUMMARY LOG

W. Melnyk

WP-6275B

PAGE 2 OF 3	PROJECT: 2197	HOLE NO. PH-85-14

DEPTH (m)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	B	C	D	E	FRACT INTENSITY
				0 - 25.6 Overburden						
25				Volcanic sediment, med green, chloritic weak sericite, quartz. Top 3 meters badly oxidized. Some carbonate						
30				Same as above 5m interval. Several pale pieces where chlorite gone. Increase in sericite, quartz (?)						
35				Same as above to 37m. several more pale whitish chips						
				37 - 38.7 m: Oxidized zone many quartz chips, some shale, black opaque (?) fault						
40				38.7 m - 43.3 m: Intensely altered rock 50% shale 30% other 20%. rhythmically banded ~1mm quartz veinlets						
				Intensely oxidized zone, med to pale green Much quartz chlorite visible Not as intensely altered						
45				Dark to med green volcanic rock Alteration intensity increases with depth to 50m+. Some black graphitic material. Some carbonate						
50				Alteration intense, quartz, sericite, fuchsite, minor quartz vein material. Rock is bleached, No mafic minerals left. Alteration intense to bottom of hole.						
55				Much oxidation at bottom of hole. Probable fault						
				55.5 END OF HOLE						
60										

PAGE 3 OF 3 | PROJECT: 2197 | HOLE NO. PH-85-14

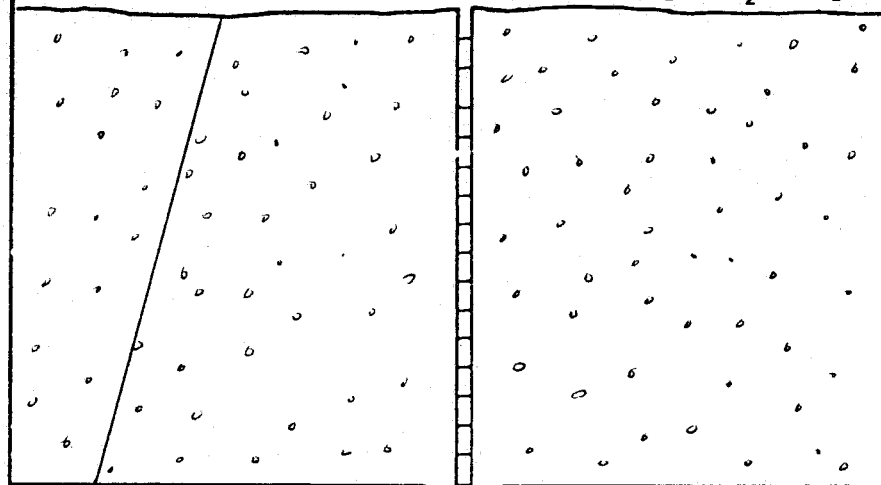
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS g/t Ag	ASSAYS g/t Au
No pyrite or other sulfides		25.60	26.52	.92	74304	2.0	<0.07
		26.52	28.04	1.52	74305	0.2	
		28.04	29.56	1.52	74306	<0.2	
only trace pyrite, several whisps of black opaque material		29.56	31.09	1.53	74307	<0.2	
		31.09	32.61	1.52	74308	<0.2	
		32.61	34.14	1.53	74309	<0.2	
		34.14	35.66	1.52	74310	<0.2	
No pyrite		35.66	37.18	1.52	74311	<0.2	
		37.18	38.71	1.53	74312	0.6	
2-3% diss pyrite, some coarse too.		38.71	40.23	1.52	74313	1.9	<0.07
		40.23	41.76	1.53	74314	1.9	0.14
		41.76	43.28	1.52	74315	2.6	0.10
		43.28	44.80	1.52	74316	1.5	0.07
5-8% py first 1.5m.		44.80	46.33	1.53	74317	1.6	0.10
weak py ~1% beyond		46.33	47.85	1.52	74318	0.7	
		47.85	49.38	1.53	74319	0.8	
Diss pyrite to 1%		49.38	50.90	1.52	74320	0.2	
		50.90	52.42	1.52	74321	<0.2	
		52.42	53.95	1.53	74322	<0.2	
		53.95	55.47	1.52	74323	<0.2	
grain of Arsenopyrite							

N2/E2

PH-85-14

10+07 N , 0+64 E

SW NE



LITHOLOGY	ALTERATION	Ag	Au	K_2O	Na_2O	TiO_2
V	oxidized	2.0	<0.07	4.2	3.5	0.7
V	Chl2-C2-Q1-S1	0.2			(1.20)	
V	Chl2-C2-Q1-S1	< 0.2				
V	Chl2-C2-Q1-S1	< 0.2		5.0	3.5	0.7
V	Chl2-C2-Q1-S1	< 0.2			(1.43)	
V	Chl2-C2-Q1-S1	< 0.2				
V	Chl2-C2-Q1-S1	< 0.2		5.0	3.6	0.7
V	Chl-C-Q-S oxidized	< 0.2			(1.39)	
V	Chl-C-Q-S oxidized	0.6				
V+SS	K3-P1	1.8	<0.07	5.1	3.6	0.6
V+SS	K3-P2	1.9	0.14		(1.42)	
Vb	K3-P1	2.6	0.10			
Vb	Chl2-C2-Q2-S1-P1	1.5	0.07	6.2	1.3	0.6
Vb	Chl2-C2-Q2-S1-P2	1.6	0.10		(4.77)	
Vb	Chl2-C2-Q2-S1-P1	0.7				
Vb	C2-Q2-S2	0.8		5.6	2.3	0.7
Vb	K3-Q3 Fu	0.2			(2.43)	
V	K3-Q3	< 0.2				
V	K3-Q3	< 0.2		3.9	3.3	0.2
V	K3-Q3	< 0.2			(1.18)	

K_2O/Na_2O in brackets

ALTERATION

Chl:chlorite P:pyrite
C:carbonate Cpy:chalcopyrite
S:sericite Pb:galena
Q:quartz Zn:sphalerite
K:K-spar MoS_2:moly
Fu:fuchsite
Fl:fluorite
Tu:turquoise

Alteration Intensity
1- weak, 2- mod, 3- intense

LITHOLOGY

V :Volcanic
Vt : tuff
Vb : breccia
SS : Sandstone, Shale

Ag, Au K_2O, Na_2O, TiO_2
(ppm), (gm), %, %, %

0 10 20m.

SCALE : 1 : 400

ESSO MINERALS CANADA

DUSTY MAC

PERCUSSION DRILL HOLE SECTION

PH-85-14

Project No. 2197	Mining Div. Osoyoos
NTS 82E/5E	Drawn by W. Melnyk
Date MAY, 1985	Fig No

ESSO MINERALS CANADA
DRILL LOG

HOLE NO. PH 85-15
PAGE 1 OF 3
PROJECT 2197
LOGGED BY: W. Melnyk

COLLAR COORDINATES
12+00 N ; 0+28 E
COLLAR ELEVATION 465 m
AZIMUTH ____ DIP Vertical
TOTAL LENGTH 67.7 m (222')
HORIZONTAL PROJECTION ____
VERTICAL PROJECTION ____

CONTRACTOR Northspan Explorations Ltd. CORE SIZE 11.4 cm
DATE STARTED May 1 DATE COMPLETED May 2 Percussion
AVERAGE CORE RECOVERY ____

PURPOSE To test till covered area northwest of Dusty Mac pit

COMMENTS:

ALTERATION SCALE

absent
slight
moderate
intense

TOTAL SULPHIDE SCALE

traces only
< 1%
1% - 3%
3% - 10%
> 10%

DIP TESTS

DEPTH	DIP	AZIMUTH	DEPTH	DIP	AZIMUTH

LEGEND

SUMMARY LOG

W. Melnyk

WP-6275B

PAGE 2 OF 3	PROJECT: 2197	HOLE NO. PH-85-15

DEPTH (m)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	B	C	D	E	FRACT INTENSITY
				0-34.4 m Overburden						
30										
				Volcanic Sediment (tuffaceous) chloritic, Med grey, carbonate. No quartz veining						
35				Same as above, med. green						
40				Same as above several pieces appear more altered but most are chloritic. only minor quartz and carbonate.						
45				Same as above. Not as dark green possibly increase in sericite. Some carbonate.						
50				similar to above pale to med green chloritic. Several pieces with black graphitic material. No qtz or carb.						
55				Rock is pale bleached, pale green-grey No veining but do observe Fuesite Minor black graphitic material.						
60				Bleached rock - silicified, sericitized badly oxidized, whisps of black graphitic material						
65				Grey silicified, pyritic rock Trace Fuesite. Intensely altered. May be major fault at 65.0m						
				67.7m END OF HOLE						

PAGE 3 OF 3	PROJECT: 2197	HOLE NO. PH-85-15

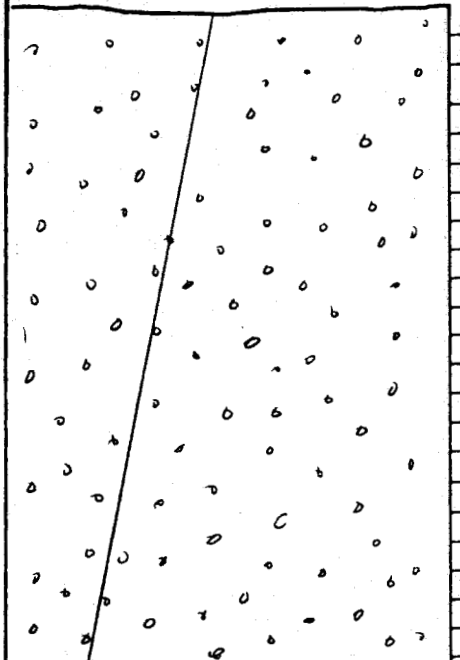
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS g/t Ag	ASSAYS g/t Au			
No sulfides										
No sulfides		34.44	35.66	1.22	74363	<0.2				
		35.66	37.18	1.52	74364	<0.2				
		37.18	38.71	1.53	74365	<0.2				
		38.71	40.23	1.52	74366	<0.2				
No sulfides		40.23	41.76	1.53	74367	<0.2				
		41.76	43.28	1.52	74368	<0.2				
		43.28	44.80	1.52	74369	<0.2				
Tr pyrite		44.80	46.33	1.53	74370	<0.2				
		46.33	47.85	1.52	74371	<0.2				
		47.85	49.38	1.53	74372	<0.2				
No sulfides		49.38	50.90	1.52	74373	<0.2				
		50.90	52.42	1.52	74374	<0.2				
		52.42	53.95	1.53	74375	<0.2				
		53.95	55.47	1.52	74376	<0.2				
No sulfides										
		55.47	57.00	1.53	74377	<0.2				
		57.00	58.52	1.52	74378	<0.2				
		58.52	60.04	1.52	74379	<0.2				
minor v.f.g. py.		60.04	61.57	1.53	74380	<0.2				
		61.57	63.09	1.52	74381	<0.2				
		63.09	64.62	1.53	74382	<0.2				
Pyrite in silica groundmass to 20%		64.62	66.14	1.52	74383	0.2				
		66.14	67.66	1.52	74384	0.2				

N2/E2

PH-85-15

12+00 N , 0+28 E

SW NE



LITHOLOGY	ALTERATION	Ag	Au	K_2O	Na_2O	TiO_2
V	Ch12-C2	< 0.2				
V	Ch12-C2	< 0.2	4.1	3.6	0.7	
V	Ch12-C2	< 0.2		(1.14)		
V	Ch12-C2	< 0.2				
V	Ch12-C2	< 0.2	4.3	3.9	0.7	
V	Ch11-C2-Q1-S1	< 0.2		(1.10)		
V	Ch11-C2-Q1-S1	< 0.2				
V	Ch11-C2-Q1-S1	< 0.2	4.1	3.5	0.7	
V	Ch11-C2-Q1-S1	< 0.2		(1.17)		
V	Ch11-C2-Q1-S2	< 0.2				
V	Ch11-C2-Q1-S1	< 0.2	4.2	3.3	0.7	
V	Ch11-C2-Q1-S1	< 0.2		(1.27)		
V	Ch11-C2-Q1-S1	< 0.2				
V	Ch11-C2-Q1-S1	< 0.2	4.3	3.7	0.6	
V	Ch11-C2-Q2-S2 Fu	< 0.2		(1.16)		
V	K1-Q3 Fu	< 0.2				
V	K2-Q3	< 0.2	3.8	3.3	0.7	
V	K2-Q3	< 0.2		(1.15)		
V	K2-Q3 Fu	< 0.2				
V	K2-Q3	< 0.2	4.9	3.1	0.8	
V	C2-Q2-S2-P3	0.2		(1.58)		
V	C2-Q2-S2-P3 Fu	0.2				

K_2O/Na_2O in brackets

ALTERATION

Chl:chlorite	P:pyrite
C:carbonate	Cpy:chalcopyrite
S:sericite	Pb:galena
Q:quartz	Zn:sphalerite
K:K-spar	MoS_2:moly
Fu:fuchsite	
Fl:fluorite	
Tu:turquoise	

Alteration Intensity

1- weak, 2- mod, 3- intense

LITHOLOGY

V	:Volcanic
Vt	: tuff
Vb	: breccia
SS	: Sandstone, Shale

Ag, Au K_2O, Na_2O, TiO_2
(ppm), (gm), %, %, %

0 10 20m.

SCALE : 1 : 400

ESSO MINERALS CANADA

DUSTY MAC

PERCUSSION DRILL HOLE SECTION

PH-85-15

Project No. 2197	Mining Div. Osoyoos
NTS 82E/5E	Drawn by. W. Melnyk
Date MAY, 1985	Fig No

ESSO MINERALS CANADA
DRILL LOG

HOLE NO. PH 85-16
PAGE 1 OF 5
PROJECT 2197
LOGGED BY: W. Melnyk

COLLAR COORDINATES
8+54 N ; 3+67W
COLLAR ELEVATION 527 m
AZIMUTH ____ DIP Vertical
TOTAL LENGTH 52.4 m (172')
HORIZONTAL PROJECTION ____
VERTICAL PROJECTION ____

CONTRACTOR Northspan Explorations Ltd
CORE SIZE 11.4 cm
DATE STARTED April 29 DATE COMPLETED April 29
Percussion
AVERAGE CORE RECOVERY ____

PURPOSE To test for gold-silver mineralization near old adits.

COMMENTS:

ALTERATION SCALE

absent
slight
moderate
intense

TOTAL SULPHIDE SCALE

traces only
< 1%
1% - 3%
3% - 10%
> 10%

DIP TESTS

DEPTH	DIP	AZIMUTH	DEPTH	DIP	AZIMUTH

LEGEND

SUMMARY LOG

W. Melnyk

WP-6275B

PAGE 2 OF 5	PROJECT: 2197	HOLE NO. PH-85-16

DEPTH (m)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	B	C	D	E	FRACT INTENSITY
				0 - 6.7m Overburden						
5				Volcanic - Medium green - biotite chlorite in light matrix, some carbonate, weak Sericite (?) Hematitic						
10				Same as above, pale green Hematitic						
15				Same as above, Hematitic						
20				Same as above, No change in lithology						
25				Same as above, Hematitic						
30				Med to pale green, less chlorite, first epidote observed, No hematite, more qtz veining possibly more sericite.						
35				Same as above much epidote, some chlorite, some qtz veining. Much carbonate						
40				Same as last But epidote disappears at 41.8m Hematitic						
45										

PAGE 3 OF 5	PROJECT: 2197	HOLE NO. PH-85-16

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS g/t Ag	ASSAYS g/t Au			
No sulfides										
		6.70	8.23	1.53	74274	0.5				
		8.23	9.75	1.52	74275	0.2				
No sulfides		9.75	11.28	1.53	74276	0.2				
		11.28	12.80	1.52	74277	0.2				
		12.80	14.33	1.53	74278	0.2				
No sulfides		14.33	15.85	1.52	74279	0.2				
		15.85	17.37	1.52	74280	0.2				
		17.37	18.90	1.53	74281	<0.2				
		18.90	20.42	1.52	74282	<0.2				
No sulfides		20.42	21.95	1.53	74283	0.2				
		21.95	23.47	1.52	74284	0.3				
		23.47	24.99	1.52	74285	0.2				
No sulfides		24.99	26.52	1.53	74286	0.3				
		26.52	28.04	1.52	74287	0.2				
		28.04	29.56	1.52	74288	<0.2				
Tr py But base cpy, gal in quartz veins many specks.		29.56	31.09	1.53	74289	13.0	0.07			
		31.09	32.61	1.52	74290	6.0	<0.07			
		32.61	34.14	1.53	74291	0.5				
		34.14	35.66	1.52	74292	1.6	<0.07			
Only trace py										
		35.66	37.18	1.52	74293	0.4				
		37.18	38.71	1.53	74294	0.7				
		38.71	40.23	1.52	74295	0.5				
Tr py, Trace sphal (?)		40.23	41.76	1.53	74296	0.6				
		41.76	43.28	1.52	74297	0.7				
		43.28	44.80	1.52	74298	0.5				

PAGE 4 OF 5 | PROJECT: 2197 | HOLE NO. PH 85-16

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	ALTERATION B	ALTERATION C	ALTERATION D	ALTERATION E	FRACTURE INTENSITY	% VEIN QTZ.
				Same as previous 5 m interval, med to pale green, hematitic, chloritic, some quartz vein material							
50				Grey-green Volcanic much silica, pyrite minor chlorite, epidote, purple fluorite							
				52.4m END OF HOLE							
55											

PAGE 5 OF 5	PROJECT: 2197	HOLE NO. PH-85-16

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS g/t Ag	ASSAYS g/t Au			
No sulfides		44.80	46.33	1.53	74299	0.4				
		46.33	47.85	1.52	74300	0.3				
		47.85	49.38	1.53	74301	0.5				
Drastic increase in pyrite in siliceous rock 8-10% diss. py.		49.38	50.90	1.52	74302	0.6				
		50.90	52.42	1.52	74303	0.8				

N2/E2

PH-85-16

8+54 N , 3+67 W

SW NE

LITHOLOGY	ALTERATION	Ag , Au , K_2O, Na_2O, TiO_2
V	Chl2-C2-Q1-S1	0.5
V	Chl2-C2-Q1-S1	0.2
V	Chl2-C2-Q1-S1	0.2 4.20 1.80 0.80
V	Chl2-C2-Q1-S1	0.2 (2.33)
V	Chl2-C2-Q1-S1	0.2
V	Chl2-C2-Q1-S1	0.2 4.10 1.60 0.80
V	Chl2-C2-Q1-S1	0.2 (2.56)
V	Chl2-C2-Q1-S1	< 0.2
V	Chl2-C2-Q1-S1	< 0.2 5.00 1.20 0.85
V	Chl2-C2-Q1-S1	0.2 (4.17)
V	Chl2-C2-Q1-S1	0.3
V	Chl2-C2-Q1-S1	0.2 3.90 2.70 0.75
V	Chl2-C2-Q1-S1	0.3 (1.44)
V	Chl2-C2-Q1-S1	0.2
V	Chl2-C2-Q1-S1	< 0.2 4.10 2.70 0.75
V	Chl2-C2-Q2-S1 Cpy,Pb	13.0 0.07 (1.52)
V	Chl1-C2-Q2-S2-E1 "	6.0 < 0.07
V	Chl1-C2-Q1-S1-E1 Cpy	0.5 3.80 1.80 0.70
V	Chl1-C2-Q1-S1-E1	1.6 < 0.07 (2.11)
V	Chl1-C2-Q1-S1-E1	0.4
V	Chl1-C2-Q1-S1-E1	0.7
V	Chl1-C2-Q1-S1-E1	0.5 6.00 3.60 0.55
V	Chl1-C2-Q1-S1-E1	0.6 (1.67)
V	Chl2-C2-Q2-S1	0.7
V	Chl2-C2-Q2-S1	0.5 6.20 5.10 0.60
V	Chl2-C2-Q2-S1	0.4 (1.22)
V	Chl2-C2-Q1-E2	0.3
V	Chl2-C2-Q1-E2	0.5 6.70 3.70 0.65
V	Chl1-C2-Q1-S1-E1-P2F1	0.6 (1.81)
V	C2-Q2-S2-E1-P2 F1,Pb	0.8

K_2O/Na_2O in brackets

ALTERATION

Chl:chlorite P:pyrite
C:carbonate Cpy:chalcopyrite
S:sericite Pb:galena
Q:quartz Zn:sphalerite
K:K-spar MoS_2:moly
Fu:fuchsite
Fl:fluorite
Tu:turquoise

Alteration Intensity
1- weak, 2- mod, 3- intense

LITHOLOGY

V :Volcanic
Vt : tuff
Vb : breccia
SS : Sandstone, Shale

Ag,Au K_2O,Na_2O,TiO_2
(ppm),(gm), % , % , %

0 10 20m.

SCALE : 1 : 400

ESSO MINERALS CANADA

DUSTY MAC

PERCUSSION DRILL HOLE

SECTION

PH-85-16

Project No 2197	Mining Div Osoyoos
NTS 82E/5E	Drawn by W.Melnyk
Date MAY, 1985	Fig No

ESSO MINERALS CANADA
DRILL LOG

HOLE NO. PH 85-17
PAGE 1 OF 3
PROJECT 2197
LOGGED BY: W. Melnyk

COLLAR COORDINATES
13+88N ; 0+25E
COLLAR ELEVATION 463m
AZIMUTH ____ DIP Vertical
TOTAL LENGTH 67.7m (222')
HORIZONTAL PROJECTION ____
VERTICAL PROJECTION ____

CONTRACTOR Northspan Explorations Ltd. CORE SIZE 11.4 cm
DATE STARTED May 2 DATE COMPLETED May 2 Percussion
AVERAGE CORE RECOVERY ____

PURPOSE To test till covered area northwest of Dusty Mac pit.

COMMENTS:

ALTERATION SCALE

absent
slight
moderate
intense

TOTAL SULPHIDE SCALE

traces only
< 1%
1% - 3%
3% - 10%
> 10%

SUMMARY LOG

DIP TESTS

DEPTH	DIP	AZIMUTH	DEPTH	DIP	AZIMUTH

LEGEND

W. Melnyk

WP-6275B

PAGE 2 OF 3 | PROJECT: 2197 | HOLE NO. PH-85-17

DEPTH (m)	% Core Recv	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	B	C	D	E	FRACT INTENSITY
				0 - 47.5 Overburden						
35										
40										
45										
				Volcanic - sed or pyroclastic pale to med green, No veining, No sulfides, black carb whisps, chloritic						
50				Same as above, except chlority gone, pale green color - sericitic (?)						
55				Same as above, pale green - several qtz chips						
60				occassional shale chip at 59m Same as above, pale green same chlorite, several shale chips, No veining						
65				Same as above, pale green, sericitic						
				67.7m END OF HOLE						

PAGE 3 OF 3	PROJECT: 2197	HOLE NO. PH-85-17

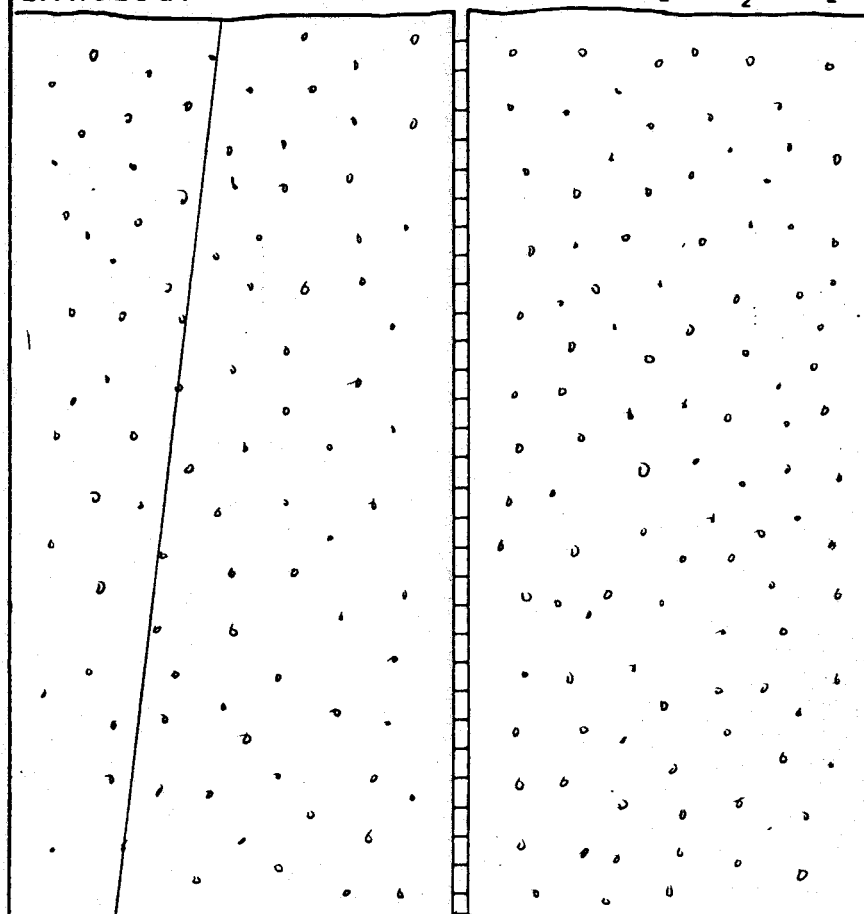
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS g/t Ag	ASSAYS g/t Au			
No sulfides.		47.55	49.38	1.83	74385	<0.2				
No sulfides		49.38	52.42	3.04	74386	<0.2				
		52.42	53.95	1.53	74387	<0.2				
		53.95	55.47	1.52	74388	<0.2				
Trace pyrite << 1%		55.47	57.00	1.53	74389	<0.2				
		57.00	58.52	1.52	74390	<0.2				
		58.52	60.04	1.52	74391	<0.2				
Trace pyrite, possibly Tr sphal		60.04	61.57	1.53	74392	<0.2				
		61.57	63.09	1.52	74393	<0.2				
		63.09	64.62	1.53	74394	<0.2				
Trace pyrite. Fuesite		64.62	66.14	1.52	74395	<0.2				
		66.14	67.66	1.52	74396	<0.2				

N2/E2

PH-85-17

13+88 N , 0+25 E

SW NE



LITHOLOGY	ALTERATION	Ag	Au	K_2O	Na_2O	TiO_2
V	Chl2-C2-	<0.2		3.4	3.4	0.6
						(1.00)
V	Chl1-C2-Q1-S2	<0.2				
V	Chl1-C2-Q1-S2 Fu	<0.2				
V	Chl1-C2-Q1-S2	<0.2		4.3	4.2	0.7
V	Chl1-C2-Q1-S1	<0.2				(1.02)
V	Chl1-C2-Q1-S1	<0.2				
V+SS	Chl1-C2-Q1-S1	<0.2		4.0	3.8	0.6
V	Chl1-C2-Q1-S1	<0.2				(1.05)
V+SS	Chl1-C2-Q1-S1	<0.2				
V	Chl1-C2-Q1-S1	<0.2		4.1	3.9	0.7
V	Chl1-C2-Q2-S2	<0.2				(1.05)
V	Chl1-C2-Q2-S2	<0.2				

K_2O/Na_2O in brackets

ALTERATION

Chl:chlorite P:pyrite
C:carbonate Cpy:chalcopyrite
S:sericite Pb:galena
Q:quartz Zn:sphalerite
K:K-spar MoS_2:moly
Fu:fuchsite
Fl:fluorite
Tu:turquoise

Alteration intensity
1- weak, 2- mod, 3- intense

LITHOLOGY

V :Volcanic
Vt : tuff
Vb : breccia
SS : Sandstone, Shale

Ag, Au K_2O, Na_2O, TiO_2
(ppm), (gm), %, %, %

0 10 20m.

SCALE : 1 : 400

ESSO MINERALS CANADA

DUSTY MAC

PERCUSSION DRILL HOLE SECTION

PH-85-17

Project No. 2197	Mining Div. Osoyoos
NTS 82E/5E	Drawn by. W. Melnyk
Date MAY, 1985	Fig No

ESSO MINERALS CANADA
DRILL LOG

HOLE NO. PH 85-18
PAGE 1 OF 5
PROJECT 2197
LOGGED BY: W. Melnyk

COLLAR COORDINATES
6+01 N ; 0+57 E
AZIMUTH _____ DIP Vertical
HORIZONTAL PROJECTION _____

COLLAR ELEVATION 466 m
TOTAL LENGTH 67.7m (222')
VERTICAL PROJECTION _____

CONTRACTOR Northspan Explorations Ltd
DATE STARTED May 3 DATE COMPLETED May 3
AVERAGE CORE RECOVERY _____

CORE SIZE 11.4 cm
Percussion

PURPOSE To test till covered area northwest of till covered area.

COMMENTS:

ALTERATION SCALE

absent
slight
moderate
intense

TOTAL SULPHIDE SCALE

traces only
< 1%
1% - 3%
3% - 10%
> 10%

DIP TESTS

DEPTH	DIP	AZIMUTH	DEPTH	DIP	AZIMUTH

LEGEND

SUMMARY LOG

W. Melnyk

WP-6275B

PAGE 2 OF 5 | PROJECT: 2197 | HOLE NO. 18

DEPTH (m)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION: K-Feldspar A	Quartz B	Sericite C	Chlorite D	Carbonate E	FRACT INTENSITY
				Overburden 0 - 9.75						
5										
10				Volcanic pale green, sericitic, silicified with vein qtz too. grey pyritic, calcareous						
15				Same as above pale green grey several pieces breccia(?) some chloritic 17.4 - 18.9 : predominantly shale possibly volcanic sandstone.						
20				Predominantly volcanic sandstone, altered, pale green, sericitic, silicified. 21.9 - 25.0 : mainly shale little pyrite occasional quartz veinlet, calcareous						
25				Predominantly shale with small amount pale green volcanic (tuff). little qtz						
30				altered volcanic, possibly pyroclastic Moderately sericitic, silicified, orange tinge - hematitic						
35				Same as previous 5m interval altered pyroclastic, sericitic, silicified moderately						
40				altered volcanic, possibly pyroclastic or volc sediment. med. green, some chloritic						

PAGE 3 OF 5	PROJECT: 2197	HOLE NO. 18

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS g/t Ag	ASSAYS g/t Au
pyrite variable 2-4%, generally v.f.g.		9.75	11.28	1.53	74397	4.2	0.17
		11.28	12.80	1.52	74398	1.8	0.10
		12.80	14.33	1.53	74399	3.3	0.21
Pyrite variable 4-6% except shale unit where it's zero.		14.33	15.85	1.52	74400	2.4	0.17
		15.85	17.37	1.52	74426	1.2	0.07
		17.37	18.90	1.53	74427	<0.2	
		18.90	20.42	1.52	74428	0.3	
Minor pyrite		20.42	21.95	1.53	74429	0.2	
		21.95	23.47	1.52	74430	0.2	
		23.47	24.99	1.52	74431	0.3	
Minor pyrite		24.99	26.52	1.53	74432	0.5	
		26.52	28.04	1.52	74433	0.7	
		28.04	29.56	1.52	74434	0.7	
Minor v.f.g. pyrite		29.56	31.09	1.53	74435	1.3	0.07
		31.09	32.61	1.52	74436	1.8	0.21
		32.61	34.14	1.53	74437	1.6	0.10
		34.14	35.66	1.52	74438	2.6	0.58
Weakly pyritic. Several coarse qtz-pyrite chips. Tr. cpy		35.66	37.18	1.52	74439	1.0	<0.07
		37.18	38.71	1.53	74440	1.0	<0.07
		38.71	40.23	1.52	74441	0.6	
Very weak pyrite. Several coarse qtz-pyrite chips.		40.23	41.76	1.53	74442	0.5	
		41.76	43.28	1.52	74443	0.7	
		43.28	44.80	1.52	74444	0.4	

N2/E2

PAGE 4 OF 5 | PROJECT: 2197 | HOLE NO. PH-85-18

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	ALTERATION B	ALTERATION C	ALTERATION D	ALTERATION E	FRACTURE INTENSITY	% VEIN QTZ.
				Volcanic - altered pyroclastic or sediment, light grey-green, minor chlorite at top of interval. Drastic increase in qtz and pyrite at 48.0m, No chlorite.							
50				Same as last interval, alteration decreases with depth, increase in chl some chalcedonic qtz chips.							
55				Volcanic altered sediment or pyroclastic chloritic, somewhat silicified chalcedonic qtz. Many grey silicified chips (40%) at 58.5m and downward							
60				About 60% grey pyritic silicic chips. Chlorite increases at 63 m pyrite drops off.							
65				medium green, chloritic volcanic Coarse carbonate - several qtz-py chips both clear + milky qtz							
				67.7m End of Hole							
70											

PAGE 5 OF 5	PROJECT: 2197	HOLE NO. PH 85-18

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS g/t Ag	ASSAYS g/t Au		
minor diss Py. at top of interval but increases to >10% at 48.0m Tr. Cpy at 47m		44.80	46.33	1.53	74445	0.2			
		46.33	47.85	1.52	74446	0.9			
		47.85	49.38	1.53	74447	0.9			
Pyrite decreases in interval to 2% diss		49.38	50.90	1.52	74448	1.1	0.07		
		50.90	52.42	1.52	74449	0.5			
		52.42	53.95	1.53	74450	0.2			
		53.95	55.47	1.52	74451	0.4			
V. weak pyrite <1% at 58.5m py increases to 8%		55.47	57.00	1.53	74452	<0.2			
		57.00	58.52	1.52	74453	<0.2			
		58.52	60.04	1.52	74454	<0.2			
about 12% pyrite to 63m in grey silicified chips, drops off considerably at 63m		60.04	61.57	1.53	74455	<0.2			
		61.57	63.09	1.52	74456	0.3			
		63.09	64.62	1.53	74457	0.3			
Weak pyrite		64.62	66.14	1.52	74458	<0.2			
		66.14	67.66	1.52	74459	0.2			

N2/E2

PH-85-18

6+01 N , 0+57 E

SW NE

LITHOLOGY	ALTERATION	Ag	Au	K_2O	Na_2O	TiO_2
V	C2-Q2-S2-P1	4.2	0.17	5.3	3.1	0.5
V	C2-Q2-S2-P1	1.8	0.10		(1.71)	
V	C2-Q2-S2-P1	3.3	0.21			
V	C2-Q2-S2-P1	2.4	0.17	5.3	3.8	0.6
V	C2-Q2-S2-P2	1.2	0.07	4.9	4.2	0.6
SS	C2-Q1	<0.2			(1.17)	
V+SS	C2-Q1-S1	0.3				
V+SS	C2-Q1-S1	0.2		4.5	3.5	0.7
SS	C2-Q1	0.2			(1.28)	
SS	C2-Q1	0.3				
SS	C2	0.5		4.6	3.7	0.7
V	C2-Q1-S1	0.7			(1.24)	
V	C2-Q1-S1	0.7				
V	C2-Q2-S2	1.3	0.07	5.0	1.8	0.6
V	C2-Q2-S2	1.8	0.21		(2.78)	
V	C2-Q3-S2	1.6	0.10			
V	C2-Q2-S2-P1	2.6	0.58	5.7	1.0	0.6
V	C2-Q2-S2-P1	1.0<	0.07		(5.70)	
V	C2-Q2-S2-P1	1.0<	0.07			
V	Ch11-C2-Q2-S2 Cpy	0.6		5.4	1.7	1.7
V	Ch12-C2-Q1-S1	0.5			(9.18)	
V	Ch12-C2-Q1-S1	0.7				
V	Ch12-C2-Q1-S1	0.4		5.1	0.5	1.0
V	Ch11-C2-Q2-S2	0.2			(10.20)	
V	C2-Q2-S2-P1 Cpy	0.9				
V	C2-Q2-S2-P3	0.9		4.2	0.1	0.7
V	C2-Q2-S2-P3 Fu	1.1	0.07		(42.00)	
V	C2-Q2-S2-P2	0.5				
V	Ch11-C2-Q2-S1-P1 Fu	0.2		5.4	1.7	0.5
V	Ch12-C2-Q1-S1-P1	0.4			(3.18)	
V	Ch12-C2-Q1-S1	<0.2				
V	Ch12-C2-Q1-S1	<0.2		6.4	0.3	0.6
V	Ch11-C2-Q2-P2	<0.2			(21.33)	
V	Ch11-C2-Q2-P2	0.2				
V	Ch11-C2-Q2-P2	0.3		5.2	0.2	0.5
V	Ch12-C2-Q1-S1	0.3			(26.00)	
V	Ch12-C2	<0.2				
V	Ch11-C1-Q1-P1	0.2		4.6	0.2	0.6
					(23.00)	

K_2O/Na_2O in brackets

ALTERATION

Chl:chlorite P:pyrite
C:carbonate Cpy:chalcopyrite
S:sericite Pb:galena
Q:quartz Zn:sphalerite
K:K-spar MoS_2:moly
Fu:fuchsite
Fl:fluorite
Tu:turquoise

Alteration Intensity
1- weak, 2- mod, 3- intense

LITHOLOGY

V :Volcanic
Vt : tuff
Vb : breccia
SS : Sandstone, Shale

Ag,Au K_2O,Na_2O,TiO_2
(ppm),(gm), %, %, %

0 10 20m.

SCALE : 1 : 400

ESSO MINERALS CANADA

DUSTY MAC

PERCUSSION DRILL HOLE SECTION

PH-85-18

Project No. 2197	Mining Div. Osoyoos
NTS 82E/5E	Drawn by. W. Melnyk
Date MAY, 1985	Fig No

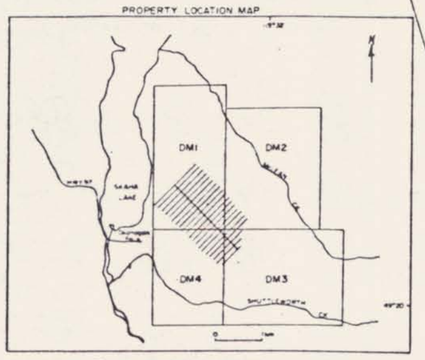
JG 13
JG 14
AU 9 Fr.
JG 12
AU 5 Fr.
JG 1
JG 11
JG 2
AU 3 Fr.
JG 10
AU 10 Fr.
JG 3
JG 4
JG 9
PRODUCTION LEASE P-3
AT LAST
HUNT 7 FR.
AU 6 Fr.
JG 5
JOE 1
AU 11
PRODUCTION LEASE P-3
AU 1 Fr.
HUNT 22 Fr.
CLAIRE 1 Fr.
JG 7
JG 8
AU 2 Fr.

PH-85-17
PH-85-15
PH-85-14
PH-85-13
PH-85-18
PH-85-12
PH-85-11
PH-85-16
PH-85-10
PH-85-9
PH-85-8
PH-85-7
PH-85-6
PH-85-5
PH-85-4
PH-85-3
PH-85-2
PH-85-1
DDH-85-1

DM1 DM2
DM4 DM3

Production Lease Boundary

PROPERTY LOCATION MAP



Production Lease Boundary

SCALE: 1:4000
0 50 100m.

ESSO MINERALS CANADA

DUSTY MAC
CLAIMS
DRILL HOLE LOCATION MAP

To accompany a report by W Mehnyk

Project Number 2197	Drawn By K.S.
NTS 82E/5E	Date 30 SEPT 1985
Mining Division OSOYOOS	Map Number 2197-26