PLACER DEVELOPMENT LIMITED

Sam Goosly Drilling Report on the
T-93, T-102, SG-17 & SG-35 Mineral Claims

54°11'N., 126°15'E.
N.T.S. 93-L-1

Omineca Mining Division

Owned by:

Equity Silver Mines Ltd.

Operated by:

Placer Development Limited

7166

BY: E.S. Holt, P. Eng. (B.C.)

February, 1979

700 Burrard Building / 1030 West Georgia Street / Vancouver, B.C., Canada / V6E 2B6 (604) 682 7682 / Telex 04 55181

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INTRODUCTION

The Sam Goosly property is located within the Omineca Mining Division in the central interior of British Columbia, approximately 20 miles southeast of the town of Houston. The geodetic coordinates are $54^{o}11'N$, $126^{o}15'E$.

The property is accessible from Houston via a 34 mile logging road which follows the Buck Creek valley south from Houston. A shorter 23 mile access road is currently under construction via the Dungate Creek Valley.

To date, two significant concentrations of silver-copper-gold-antimony mineralization have been located on the property. The principal minerals of economic importance are tetrahedrite and chalcopyrite. The Main Zone deposit was discovered in 1968 by Kennco Explorations, (Western) Limited. They carried out a substantial exploration program including approximately 30,000 feet of diamond drilling in 62 holes. With other priorities, Kennco terminated most of their activity at Sam Goosly in 1971 and in late 1972 optioned the property to the partnership of Equity Mining Capital Limited of Vancouver and Congdon and Carey of Denver, Colorado. The partnership's interest was subsequently reorganized into a new company, Equity Mining Corporation.

The new operators pursued a vigorous development program including 60,000 feet of definition drilling, underground bulk sampling, metallurgical research and pilot plant milling operations, together with the related engineering and environmental work necessary to complete a feasibility study.

During 1978, Placer Development Limited entered an agreement with Equity Mining Corporation for onward development of the project. The various interests were subsequently reorganized into a new company, Equity Silver Mines Limited with Placer as the operator.

The drilling described in this report is part of Placer's program to prepare the property for production.

DRILLING REPORT

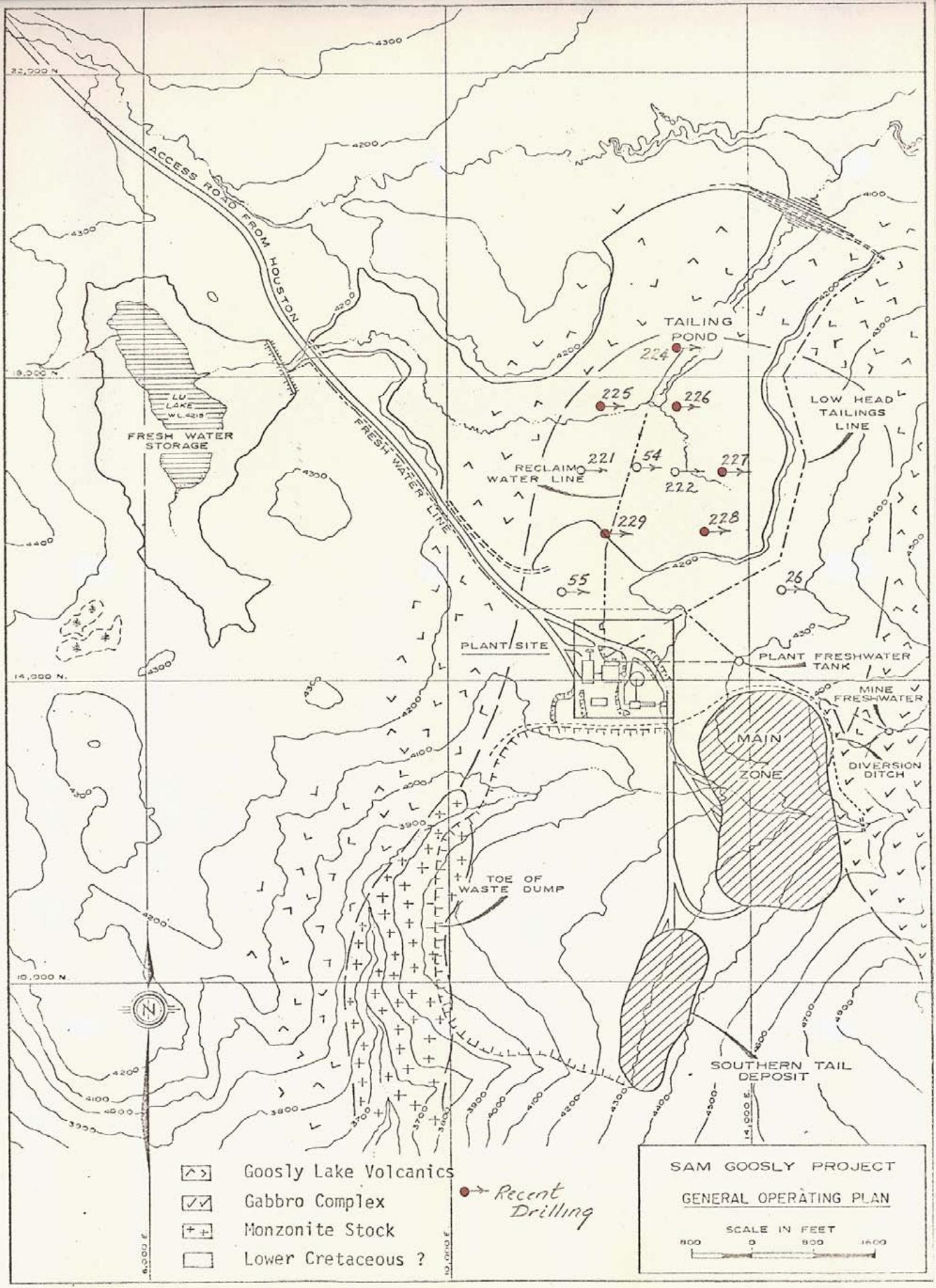
During the period January 16 to 25, a six hole diamond drilling program was completed on the Sam Goosly property. The drill collar survey data is as follows:

Hole	Northing	Easting	Elevation	Bearing	Dip	Footage
224	18,424.4	13,022.0	4,117.9	N89°20'E	-45°	505
225	17,603.4	12,007.4	4,140.1	S87°40'E	-45°	405
226	17,613.6	13,048.0	4,105.0	N85°50'E	-45°	615
227	16,810.2	13,630.9	4,132.9	S87°10'E	-45°	501
228	16,006.5	13,419.8	4,169.3	N89°40'E	-45°	505
229	15,993.3	12,023.2	4,197.1	N90°0'E	-45°	465

Dip tests were not taken. It has been our experience that the drill holes have run essentially true in the massive rocks at Sam Goosly. This is enhanced by the large diameter NQ size equipment and the relatively short length of the holes.

All of the holes were drilled within the proposed tailing impoundment basin. The aim of the program was to insure that the overburden covered basin does not overlie on area with open pit potential. In this regard the program was a technical success in that it confirmed the barren nature of the rocks in the planned tailing dam area.

All of the holes encountered volcanic flows and/or pyroclastics which appear to be part of the Lower Cretaceous unit. No unconformities or other evidence was observed which would indicate that these rocks were not a continuation of the hanging wall horizon. The same common post mineral dyke rocks were present as was the pervasive pyrite in the more southerly holes.


ACCESS ROAD FROM HOUSTON
FRESH WATER LINE
FRESH WATER STORAGE
LU LAKE
WL 4218
TAILING POND
224
225
226
LOW HEAD TAILINGS LINE
RECLAIM WATER LINE
221
54
222
227
229
228
55
26
PLANT SITE
PLANT FRESHWATER TANK
MINE FRESHWATER
MAIN ZONE
DIVERSION DITCH
TOE OF WASTE DUMP
SOUTHERN TAIL DEPOSIT
22,000 N.
18,000 N.
14,000 N.
10,000 N.
6,000 E.
10,000 E.
14,000 E.
N
Goosly Lake Volcanics
Gabbro Complex
Monzonite Stock
Lower Cretaceous ?
Recent Drilling
SAM GOOSLY PROJECT
GENERAL OPERATING PLAN
SCALE IN FEET
800 0 800 1600

Although the general rock types are similar to those of the immediate mine area, some important differences were noted:

1. Flow rocks have become increasingly abundant and constitute more than 50% of the Lower Cretaceous unit in the most northerly holes.

2. The pyrite content diminishes significantly going from south to north as does the intensity of the tourmaline alteration.

3. Economic sulphides are entirely lacking in the northern holes.

4. The pyroclastics in the tailing impoundment area are much fresher in appearance than those in the vicinity of the Main Zone deposit.

This latter feature permits good visual recognition of various aspects of the pyroclastics which were not previously apparent. Individual clasts are often distinct, as were such features as graded bedding, sharp contacts and the degree of rounding to which the fragments were subjected. In this regard, holes 224, 226 and 227 provide an excellent insite into the complex nature of the volcanic activity during the Lower Cretaceous(?) period.

Hole 228 was the only hole which encountered above background values. Assay results of the most pertinent intervals are:

Interval From	Interval To	Width in ft.	% Cu	% Zn	% Pb	G/T Ag	G/T Au
255	265	10	.12	.02	.02	10	0.13
265	275	10	.36	.03	.03	50	0.12
305	315	10	.07	2.98	.06	12	0.30

Detailed rock descriptions for each hole are provided in the appended "Drill Hole Geologic Log," while the assay results for the intervals assayed are shown in the "Drill Hole Assay Log."

The core is in storage at the camp site on the property.

Respectfully submitted,

S/Holt

E.S. Holt, P. Eng.

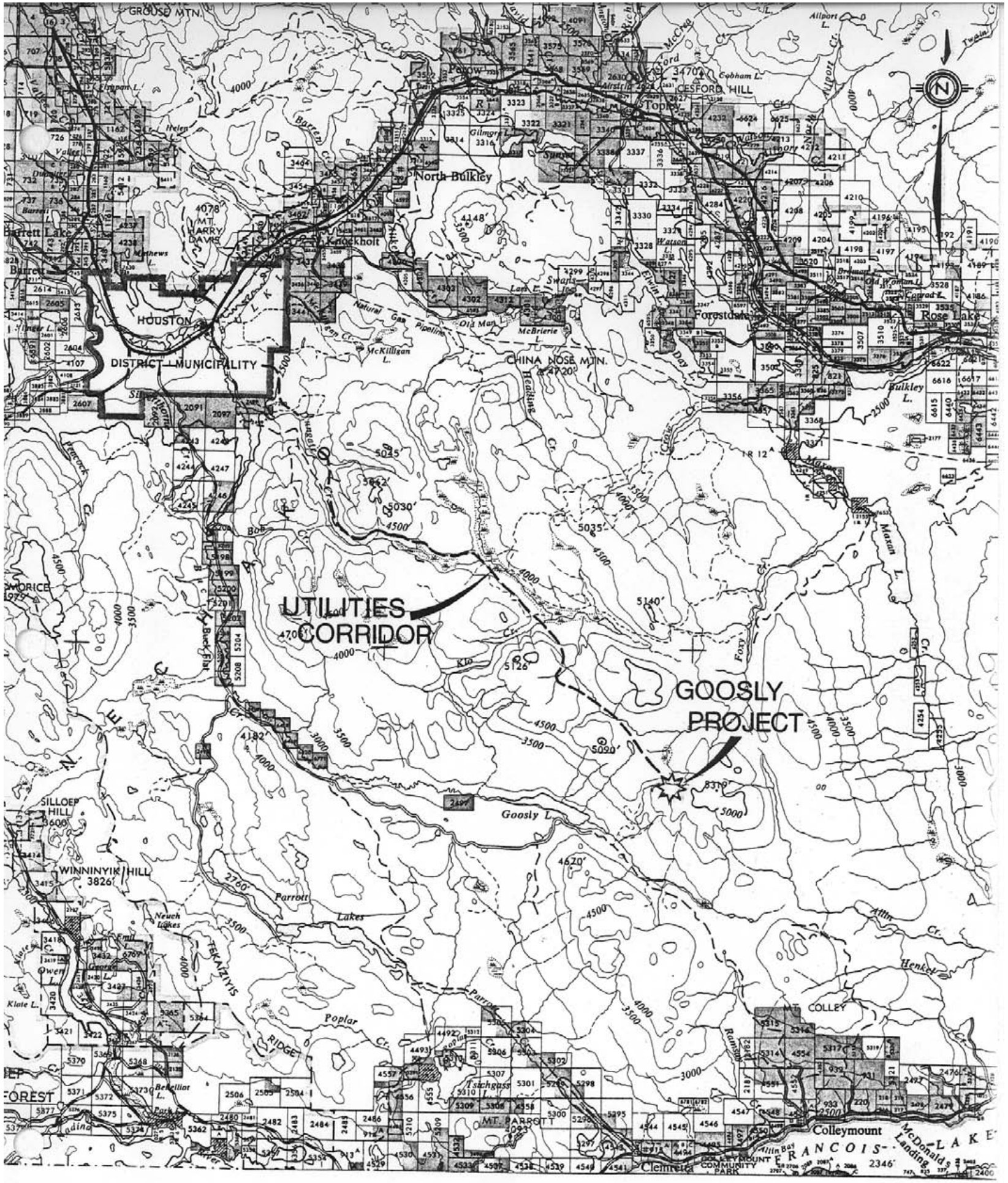
ESH/cs

MAP 1

LOCATION OF SAM GOOSLY DEPOSIT

SCALE

MILES 100 0 100 200 300 MILES


UTILITIES CORRIDOR
GOOSLY PROJECT
DISTRICT MUNICIPALITY
HOUSTON
Barrett Lake
Barrett
GROUSE MTN.
4078 MT. HARRY DAVIS
Knockholt
North Bulkley
Topley
CESFORD HILL
Forestdale
Rose Lake
CHINA NOSE MTN.
McBrierie L.
McKilligan L.
Natural Gas Pipeline
Old Man
Bulkley L.
Maxan L.
Goosly L.
Parrott Lakes
Neuch Lakes
SILLOEP HILL
WINNINYIK HILL
3826'
TEKAZEYIS RIDGE
Poplar Cr.
MT. PARROTT
MT. COLLEY
Colleymount
McDonald's Landing
LAKE FRANCOIS
Clearwater
COLLEYMOUNT COMMUNITY PARK
FOREST
Scale 1:250,000 or approximately 1 Inch to 4 Miles
Miles 5 0 5 10 15 20 Miles
Scale of Kilometres
5 0 5 10 15 20 25 30

A P P E N D I X "A"

V-153 SAM GOOSLY

Drilling Cost Incurred for DDH 224-229

16-19 January
DDH 224 Located on Mineral Claim T-104
Total footage = 505 feet.

Straight Drilling Cost as per J.T. Thomas Invoice	$6,570.00
Labour Cost (setting up & dismantling rig) plus mobilization of rig to the property 72 hrs. @ $15.00/hr.	$1,080.00
Drill & equipment hrs. charged 13 hrs. @ $15.00/hr.	195.00
Tractor Time charged (set up & dismantling rig) 20 hours @ $17.00/hr.	340.00
Tractor Time charged with operator 3 hrs. @ $32.00/hr.	96.00
Camp Operations:	
5 Drillers (L. Shaw, G. Shaw, S. Leduc, P. Wolnowski and J. Thomas) 3 days @ $20.00/man day	$300.00
1 company personnel (E. Holt) 3 days $20.00/day	60.00
Company Wages: 3 days	
E. Holt (Supervisor) @ $130.00/day	390.00
Material & Assay Cost:	
26 NW core boxes @ $5.00/box	130.00
Soluble Oil 22.70 @ $2.60/gal.	59.00
5 Core Samples for Cu & Ag @ $11.25/sample	56.25
	$9,276.25

19-20 January
DDH 225 Located on Mineral Claim SG-1 Fr.
Total footage = 405 ft.

Straight Drilling cost as per S.J. Thomas Invoice	$5,265.00
Labour Cost (setting up & Dismantling Rig) 6 hrs. @ $15.00/hr.	90.00
Drill & Equipment hrs. charge 2 hrs. @ $15.00/hr.	30.00
Tractor Time charged 2 hrs. @ $17.00/hr.	34.00
Camp Operations:	
5 persons (L. Shaw, G. Shaw, S. Leduc, P. Wolnowski & E. Holt) 1 day @ $20.00/man day	100.00
Company Wages 1 day	
E. Holt (Supervisor) @ $130.00/day	130.00
Material & assay cost	
20 NQ core boxes @ $5.00/box	100.00
Soluble Oil 18.24 gals. @ $2.60/gal.	47.40
2 length nw casing (lost in hole)	178.00
4 core sample for Cu & Ag @ $11.25/sample	45.00
	$6,019.40

20-21st January
DDH 226 located on Mineral Claim T-104
Total footages 615 ft.

Straight drilling cost as per J.T. Thomas Invoice	$8,110.00
Labour Cost (setting up & dismantling) 4 hrs. @ $15.00/hr.	60.00
Drill & Equipment charges 1 hr. @ $15.00/hr.	15.00
Tractor & operator time charged 4 hrs. @ $32.00/hr.	128.00
Camp Operations 1 day	
5 persons (L. Shaw, G. Shaw, S. Leduc, P. Wolnowski & E. Holt) @ $20.00/man day	100.00
Company Wages 1 day	
E. Holt (Supervisor) @ $130.00/day	130.00
Materials & Assay cost	
31 NQ coreboxes @ $5.00 each	155.00
Soluble oil 27.7 gals. @ $2.60/gal.	72.00
8 core samples for Cu & Ag @ $11.25/sample	90.00
	$8,860.00

21-22nd January
DDH 227 located on Mineral Claim T-103
Total footage = 501 ft.

Straight drilling cost as per J.T. Thomas invoice	$6,514.00
Labour cost (setting up and dismantling rig) 12 hrs. @ $15.00/hr.	180.00
Drill & Equipment charges 6 hrs. @ $15.00/hr.	90.00
Tractor time charged 9 hrs. @ $17.00/hr.	153.00
Tractor Operator charged 5 hrs. @ $15.00/hr.	75.00
Camp Operations 1 day	
5 persons (L. Shaw, G. Shaw, S. Leduce, P. Wolnowski & E. Holt) @ $20.00/man day	100.00
Company Wages 1 day	
E. Holt (Supervisor) @ $130.00/day	130.00
Material & Assay Cost	
25 NQ core boxes @ $5.00/box	125.00
Soluble oil 22.50 gal.	58.50
10 core samples for Cu & Ag @ $11.25/sample	112.50
	$7,538.00

22-23rd January
DDH-228 Located on mineral claim T-102
Total footage = 505 feet

Straight Drilling Cost as per J.T. Thomas Invoice	$6,570.00
Labour Cost (setting up and dismantling rig) 4 hrs. @ $15.00/hour	60.00
Drill & equipment hrs. charged 2 hrs. @ $15.00/hr.	30.00

Tractor Time charged 7 hrs. @ $17.00/hr.	$119.00
Tractor Operators time charged 5 hrs. @ $15.00/hr.	75.00
Camp Operations 1 day	
5 persons (L. Shaw, G. Shaw, S. Leduc, P. Wolnowski & E. Holt)	
Company Wages 1 day @ $20.00/man day	100.00
E. Holt (Supervisor) @ $130.00/day	130.00
Material & Assay Cost	
26 coreboxes @ $5.00 each	130.00
Charges for 60% ware on NQ bit	420.00
Soluble oil 22.70 gal. @ $2.60/gal.	59.00
9 core samples assayed for Cu, Ag, Au, Pb & Zn @ $27.25/sample	245.25
2 core samples assayed for Cu & Ag @ $11.25/sample	22.50
	$7,960.75

23-25 January

DDH-229 Located on mineral claim 7-102

Total footage = 465

Straight drilling cost as per S.J. Thomas Invoice	$6,045.00
Labour Cost (setting up & dismantling & moving off property)	
38 hrs. @ $15.00/hr.	570.00
Drill and equipment hrs. charged 12 hrs. @ $15.00/hr.	180.00
Tractor time with operator charged 6 hrs. @ $32.00/hr.	192.00
Tractor time charged 10 hrs. @ $17.00/hr.	170.00
Camp Operation 3 days	
5 persons (L. Shaw, G. Shaw, S. Leduc, P. Walnowski and E. Holt) @ $20.00/man day	300.00
Company Wages 3 days	
E. Holt (Supervisor) @ $130.00/day	390.00
Material & assay costs	
23 coreboxes @ $5.00 each	115.00
Soluble Oil 21 gal. @ $2.60/gal.	54.60
7 core samples for Cu & Ag @ $11.25/sample	78.75
	$8,095.35

A P P E N D I X "B"

STATEMENT OF QUALIFICATIONS

I, Edward S. Hold of North Vancouver, British Columbia, do hereby certify:

1. That I am a geologist residing at 4091 St. Albans Avenue, North Vancouver, British Columbia.

2. That I am a Professional Engineer registered in the Province of British Columbia.

3. That I am employed by Placer Development Limited, 1030 West Georgia Street, Vancouver, British Columbia.

4. That I have practiced my profession for twenty years.

5. That I have personal knowledge of the Sam Goosly deposits being developed by Placer Development Limited in the Omineca Mining Division, British Columbia, having personally spent extensive time on the property during the past six years. I have examined the core and familiarized myself with the surface trenches, underground workings and local rock exposures.

Edward S. Holt, P.Eng.

February 22nd, 1979
Vancouver, B.C.

ESH/cs

DRILL HOLE GEOLOGIC LOG

SAM GOOSLY PROPERTY
Drill hole number 224
Core type NQ
Date January 18, 1979
Logged by E. S. Holt
Page 1 of 4

Northing 18,424.4
Easting 13,022.0
Elevation 4,117.9
Dip -45°
Bearing N89°20'E
Total Length 505 ft

Alteration Scale
5 - Extreme Alteration
4 - High Alteration
3 - Moderate Alteration
2 - Some Alteration
1 - Weak Alteration
0 - No Alteration

Footage From	Footage To	Description	Graphic Log Sketch	Graphic Log Remarks	Alteration Sil.	Clay	Chl.	Carb.	Seri.	Ep.	Tour.	
0	30	Overburden										
30	32	Breccia, angular fragments up to 10 cm in size healed with silica, tourmaline & pyrite, primarily ash & chert fragments, some late fractures		Sharp contacts	3				2		2	
32	43	Feldspar Porphyry, pale yellowish green with local white phenocrysts, some prominent banding parallel to contacts				3			1			
43	60	Breccia (volcanic), highly variable angular fragments - white, grey, brown & green, minor coarse pyrite			3				2		1	
60	129	Feldspar Porphyry, typical pale yellowish green with white anhedral phenocrysts, dense near contact 61' - 2" fault gouge		fault		2						
129	172	Andesite Flow (?) possibly a dyke, fine grained grey				3	1					

DRILL HOLE GEOLOGIC LOG

Hole Number 224
Page 2 of 4

SAM GOOSLY PROPERTY

Footage From	Footage To	Description	Graphic Log Sketch	Graphic Log Remarks	Alteration Sil.	Alteration Clay	Alteration Chl.	Alteration Carb.	Alteration Seri.	Alteration Ep.		
		green rock with poorly developed white and pale green phenocrysts, some hemetite staining, tight fractures healed with quartz-carbonate										
		151' - 48" inclusion or band of pyroclastics, reddish										
		172' - 12" clay										
172	257	Intermixed Pyroclastics, highly variable, predominently lapilli and breccia size fragments with intermitent ash and dust tuff sections, local sections with minor pyrite and tourmaline, highly variable distinct angular frags.			3		1		2			
		220' - 2" fault gouge with py										
		242' - 36" dyke as (below)										
257	267	Dyke, this may be the same as our andesite porphyry in the Main Zone area as texture is similar by much redder in color 20% laths and nodules up to				2		1				

DRILL HOLE GEOLOGIC LOG

SAM GOOSLY PROPERTY

Hole Number 224
Page 3 of 4

Footage From	Footage To	Description	Graphic Log Sketch	Graphic Log Remarks	Alteration Sil.	Clay	Chl.	Carb.	Seri.	Ep.		
		1cm in size, rusty red color,										
		sharp contacts		fault								
267	314	Intermixed Pyroclastics										
		(similar to 172 to 257 above)			2	1			1			
		290' - 10' of badly broken										
		core with some fault										
		gouge		fault								
		2% pyrite as stringers &										
		disseminated crystals										
314	326	Andesite Porphyry, 20% coarse				1	1					
		white laths & nodules in a										
		fine purplish matrix, sharp										
		chilled contacts										
326	467	Mixed Pyroclastics, highly var-			3				1			
		iable texture and color,										
		predomently lapilli size fragments										
		with local sections of coarse										
		breccia and intermitent ash										
		and dust tuff, minor pyrite										
		disseminated or as narrow										
		stringers, ash banding mainly										
		at about 60° to core										
		327' sharp contact with breccia										
		above and ash below										

DRILL HOLE GEOLOGIC LOG

SAM GOOSLY PROPERTY

Hole Number 224
Page 4 of 4

Footage From	Footage To	Description	Graphic Log Sketch	Graphic Log Remarks	Alteration Sil.	Alteration Clay	Alteration Chl.	Alteration Carb.	Alteration Seri.	Alteration Ep.
		352' - 30" fine ash								
		365 - 24" ash in sharp irregular contact with lapilli		Ash						
		375 - 15" dust tuff								
		379 - 12" Andesite porph dyke								
		382 to 450 is predomently ash and dust tuff with rare fragments		gradational contact						
467	505	Volcanic Breccia, coarse angular or subrounded fragments up to 10 cm in size in an ash matrix, very distinct colorful frags, white - greys - reddish & black, some large frags contain smaller frags, a few ash bands, approx 3% py as stringers and disseminated increased clay alteration in lower part of section			1	3			1	
		505 ft - end of hole								

DRILL HOLE GEOLOGIC LOG

SAM GOOSLY PROPERTY
Drill hole number 225
Core type NQ
Date Jan 20, 1979
Logged by E. S. Holt
Page 1 of 2

Northing 17603.4
Easting 12,007.4
Elevation 4140.1
Dip -45°
Bearing S 87°40'E
Total Length 405 ft

Alteration Scale
5 - Extreme Alteration
4 - High Alteration
3 - Moderate Alteration
2 - Some Alteration
1 - Weak Alteration
0 - No Alteration

Footage From	Footage To	Description	Graphic Log Sketch	Graphic Log Remarks	Alteration Sil.	Clay	Chl.	Carb.	Seri.	Ep.	Hem	
0	50	Overburden										
50	99	Breccia, highly variable coarse angular and sub-rounded fragments up to 10 cm, local maroon sections otherwise grey, minor pyrite mainly as stringers			2	2					1	
		66" - 24" dacite flow?										
99	160	Dacite Flow? a fine grained rock with maroon grey + green sections, strong chlorite alteration along fr, trace pyrite		shear		2	3				2	
		110' - 15" soft clay (shear)										
		145' - 15" fault gouge										
		155' - a few pyrite stringers with tourmaline										
160	405	Dacite Flow, dense fine grained green rock with local grey altered sections, calcite healing fractures, alteration					2	1				

DRILL HOLE GEOLOGIC LOG

Hole Number 225
Page 2 of 2

SAM GOOSLY PROPERTY

Footage From	Footage To	Description	Graphic Log Sketch	Graphic Log Remarks	Alteration Sil.	Alteration Clay	Alteration Chl.	Alteration Carb.	Alteration Seri.	Alteration Ep.		
		increases beyond 215 ft with										
		intermitent pale grey sections										
		containing 20% poorly developed										
		white adhedral phenocrysts, a										
		few pyrite stringers										
		198' sharp contact of one										
		flow on top of another										
		(upper one chilled)										
		350' rock becomes more										
		silicious, less altered +										
		more consistently green										
		in color to end of hole										
		405 ft - end of hole										

DRILL HOLE GEOLOGIC LOG

SAM GOOSLY PROPERTY
Drill hole number 226
Core type NQ
Date Jan 21 1979
Logged by E. S. Holt
Page 1 of 3

Northing 17,613.6
Easting 13,048.0
Elevation 4105.0
Dip -45°
Bearing N85° 50'E
Total Length 615 ft

Alteration Scale
5 - Extreme Alteration
4 - High Alteration
3 - Moderate Alteration
2 - Some Alteration
1 - Weak Alteration
0 - No Alteration

Footage From	Footage To	Description	Graphic Log Sketch	Graphic Log Remarks	Alteration Sil.	Clay	Chl.	Carb.	Seri.	Ep.	Tour.	Hem
0	50	Overburden										
50	88	Lapilli Tuff, with some breccia size fragments, a mottled grey rock with creamy grey & black frags, strong clay alteration, pyrite and tourmaline as stringers and lenses				4			3		2	
88	262	Feldspar Porphyry, pale greenish-white with anhedral phenocrysts, strong clay alteration, some banding at 60° to 75° to core, very similar to dyke in 224				3						
262	280	Dust Tuff, light buff color (very similar to S.T. host) very fine with rare fragments, pyrite and tourmaline along fractures 265' - 12" F.P. dyke				2			2		1	
280	320	Lapilli, a variety of									4	

DRILL HOLE GEOLOGIC LOG

SAM GOOSLY PROPERTY

Hole Number 226
Page 2 of 3

Footage From	Footage To	Description	Graphic Log Sketch	Graphic Log Remarks	Alteration Sil.	Clay	Chl.	Carb.	Seri.	Ep.	[illegible]	[illegible]
		angular fragments in an ash matrix, in local sections matrix has been entirely replaced by tourmaline, most frags are dust tuff, some subrounded, 5% pyrite										
		312' - 8' very soft (shear ?)		shear								
320	330	Dust Tuff, fine dence grey to black, minor pyrite in fractures, some qtz-carbonate			2	1			2		1	
330	394	Mixed Pyroclastics, intermittent ash lapilli and breccia with some fragments exceeding 10 cm in size, minor pyrite which is mainly concentrated in selected fragments			1	4			2		2	
		336' - 8' shearing (soft)										
		380' - 6' dust tuff										
394	417	Andesite Porphyry Dyke, white laths & nodules up to 1cm in a fine grained greyish-brown matrix, chilled contacts, qtz carbonate healing fractures, some inclusions				2			1			

DRILL HOLE GEOLOGIC LOG

SAM GOOSLY PROPERTY

Hole Number 226
Page 3 of 3

Footage From	Footage To	Description	Graphic Log Sketch	Graphic Log Remarks	Alteration Sil.	Alteration Clay	Alteration Chl.	Alteration Carb.	Alteration Seri.	Alteration Ep.	Alteration Tou.	Alteration Nam.
417	561	Mixed Pyroclastics, predominantly lapilli size fragments in an ash matrix with local sections of breccia and dust tuff, strong tourmaline alteration giving rock a peppered appearance, some pyrite as irregular stringers, tourmaline mainly in ash matrix or rimming pyrite, some frags subrounded			2	3			1		4	
		477 stringers ∥ to core		bedding?								
		545 some irregular banding at 50° to core										
		561 gradational contact										
561	615	Ash Tuff (or possible dacite) fine textured gray rock with vague phenocrysts altered to clay, peppered with leucoxene 5% pyrite as stringers or patches, vague banding at 50° to core.			3	2			3			
		615 ft - end of hole										

DRILL HOLE GEOLOGIC LOG

SAM GOOSLY PROPERTY
Drill hole number 227
Core type NQ
Date Jan 22 1979
Logged by E. S. Holt
Page 1 of 3

Northing 16,810.2
Easting 13,630.9
Elevation 4,132.9
Dip -45°
Bearing S87°10E
Total Length 501 ft

Alteration Scale
5 - Extreme Alteration
4 - High Alteration
3 - Moderate Alteration
2 - Some Alteration
1 - Weak Alteration
0 - No Alteration

Footage From	Footage To	Description	Graphic Log Sketch	Graphic Log Remarks	Alteration Sil.	Clay	Chl.	Carb.	Seri.	Ep.	Tour	Hem
0	70	Overburden										
70	143	Mixed Pyroclastics, intermit-			3	1			2			
		ent ash tuff, dust tuff, lapilli										
		and coarse breccia, some frags										
		up to 10 cm which are mainly										
		composed of dust tuff in an										
		ash matrix, mottled grey,										
		pyrite mainly as irregular										
		stringers or in selected frags										
		93' - 30" with heavy py										
		stringers										
		119' - 2" fault gouge										
143	150	Andesite Porphyry Dyke,					1					
		sharp chilled contacts at										
		65° to core, 20% white										
		laths and nodules in a										
		maroon matrix, some										
		kaolinization of feldspar										
		laths, typical of this rock type										
150	401	Mixed Pyroclastics, as above			3	2			2		1	
		intermittent sections of										

DRILL HOLE GEOLOGIC LOG

SAM GOOSLY PROPERTY

Hole Number 227
Page 2 of 3

Footage From	Footage To	Description	Graphic Log Sketch	Graphic Log Remarks	Alteration Sil.	Clay	Chl.	Carb.	Seri.	Ep.	Tour	Hem
		dust tuff, ash tuff, lapilli										
		and coarse breccia with										
		some sharp and some grad-										
		ational contacts, mottled grey		bedding								
		with some greenish sections,										
		fragments are generally sub-										
		rounded, bedding at 45° to core										
		175' - excellent example of										
		graded bedding with										
		core going from dust tuff										
		to through to coarse										
		breccia over a 10 inch		graded								
		interval		bedding								
		198' distinct bedding at 45°										
		to core										
		199' a few pyrite stringers										
		to 205'										
		255' fragments become generally		rounded								
		well rounded to 342'										
401	468	Mixed pyroclastics, as above but			3	1			2		3	
		with increased tourmaline and										
		pyrite content giving rock a										
		much darker color, fragments										
		continue to be subrounded										

DRILL HOLE GEOLOGIC LOG

Hole Number 227
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SAM GOOSLY PROPERTY

Footage From	Footage To	Description	Graphic Log Sketch	Graphic Log Remarks	Alteration Sil.	Clay	Chl.	Carb.	Seri.	Ep.	Tox.	
		several examples of prominent										
		bedding at 45°, often goes										
		from coarse breccia to dust										
		tuff over short intervals										
		some possible argillite?										
468	501	Mixed Pyroclastics, as above			1	3			1		1	
		but with reduced pyrite and										
		tourmaline and increased clay										
		minerals										
		501 ft - end of hole										

DRILL HOLE GEOLOGIC LOG

SAM GOOSLY PROPERTY
Drill hole number 228
Core type NQ
Date Jan 24, 1979
Logged by E. S. Holt
Page 1 of 4

Northing 16,006.5
Easting 13,419.8
Elevation 4,169.3
Dip -45°
Bearing N89°40'E
Total Length 505 ft

Alteration Scale
5 - Extreme Alteration
4 - High Alteration
3 - Moderate Alteration
2 - Some Alteration
1 - Weak Alteration
0 - No Alteration

Footage From	Footage To	Description	Graphic Log Sketch	Graphic Log Remarks	Alteration Sil.	Clay	Chl.	Carb.	Seri.	Ep.	Tour	Hem
0	5	Overburden										
5	56	Dust Tuff, very fine dence rock with mottled green chlorite alteration, very similar to S. Tail hast badly broken, some py stringers, rare coarse fragments 29' - 48" fault zone		fault		1	3		2			
56	73	Lapilli, with some breccia size fragments, highly variable assortment, generally sub-rounded, some disseminated pyrite rare stringers			1	3	2					
73	83	Andesite Porphyry, typical brownish-green groundmass with white or green laths, sharp chilled contacts				2	1		2			
83	120	Mixed Pyroclastics, predominently ash tuff and lapilli with some short intervals of breccia and dust tuff, mottled										

DRILL HOLE GEOLOGIC LOG

SAM GOOSLY PROPERTY

Hole Number 228
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Footage From	Footage To	Description	Graphic Log Sketch	Graphic Log Remarks	Alteration Sil.	Alteration Clay	Alteration Chl.	Alteration Carb.	Alteration Seri.	Alteration Ep.		
		grey green rock										
		98' banding at 65° to core										
		103' narrow irregular stringers		Zn Pb								
		with Py Zn & Pb to end										
		of section										
120	157	Dust Tuff, fine textured buff				1	3		2			
		colored rock with chlorite										
		staining along fractures (looks										
		very similar to f.w. of S.Tail)										
		minor pyrite										
		122' - 2" fault gouge										
		132' - 6" fault gouge										
		144 - 4" breccia section										
157	178	Andesite Dyke, dence fine				fresh						
		grained medium green, sharp										
		chilled contacts										
178	211	Dust Tuff, as above, fine text-		barren		1	3		2			
		ured buff colored rock with										
		chlorite staining along fractures										
		rare pyrite stringers										
211	240	Andesite Porphyry, fine grained				2						
		brownish green matrix with										
		white highly kaolinized pheno-										
		crysts up to 1.5 cm, barren										

DRILL HOLE GEOLOGIC LOG

Hole Number 228
Page 3 of 4

SAM GOOSLY PROPERTY

Footage From	Footage To	Description	Graphic Log Sketch	Graphic Log Remarks	Alteration Sil.	Alteration Clay	Alteration Chl.	Alteration Carb.	Alteration Seri.	Alteration Ep.	Alteration Tou.
240	249	Mixed Pyroclastics, typical hodge-podge of intermixed dust tuff, ash tuff, lapilli and breccia, mottled pale grey with minor black tourmaline associated with pyrite stringers (5% py)			1	2			2		1
249	255	Andesite Porphyry, as above but with rare feldspar laths				1	fairly fresh				
255	335	Mixed Pyroclastics, well mineralized with coarse pyrite and some Pb-Zn stringers, highly variable texture with better mineralization in the lapilli and breccia. 261 - 48" massive pyrite 305 - 48" heavy pyrite with Pb, Zn stringers		Massive Py; Py with Zn Pb		2					2
335	353	Dust Tuff, typical fine textured buff colored rock with minor chlorite alteration along fractures, rare blebs of pyrite, broken			1	1			3		1
353	430	Mixed Pyroclastics, predomently lapilli with dust tuff, ash tuff and breccia intervals inter-			2	2	1		2		

DRILL HOLE GEOLOGIC LOG

SAM GOOSLY PROPERTY

Hole Number 228
Page 4 of 4

Footage From	Footage To	Description	Graphic Log Sketch	Graphic Log Remarks	Alteration Sil.	Alteration Clay	Alteration Chl.	Alteration Carb.	Alteration Seri.	Alteration Ep.		
		mixed, some vague bedding										
		at 45° to core, minor pyrite										
		as patches or stringers		fault								
		405'-6" fault gouge										
		420'-4" fault gouge										
430	439	Andesite Porphyry, fine grained				1	1	1				
		brownish green matrix with										
		green and white laths, sharp										
		chilled contacts										
439	450	Mixed Pyroclastics, same as 353			1	2			2			
		to 430 a few patches pyrite										
450	464	Andesite Porphyry, as above				1	2	2				
		with calcite healing fractures										
464	493	Mixed Pyroclastics, angular frag-			1	3	1		1			
		ments up to 3 cm with intervals		bedding								
		of dust and ash tuff, rare										
		patches of pyrite, some bedding										
		at 45° to core										
		487'-6" fault gouge										
493	505	Dacite Flow? vague phenocrysts,										
		fine textured grey-green rock,				2						
		3% pyrite as stringers with										
		minor tourmaline ?(black mineral)										

505 ft - end of hole

DRILL HOLE GEOLOGIC LOG

SAM GOOSLY PROPERTY
Drill hole number 229
Core type NQ
Date January 25, 1979
Logged by E. S. Holt
Page 1 of 2

Northing 15993.33
Easting 12023.23
Elevation 4197.11
Dip -45°
Bearing 090°
Total Length 465 ft

Alteration Scale
5 - Extreme Alteration
4 - High Alteration
3 - Moderate Alteration
2 - Some Alteration
1 - Weak Alteration
0 - No Alteration

Footage From	Footage To	Description	Graphic Log Sketch	Graphic Log Remarks	Alteration Sil.	Clay	Chl.	Carb.	Seri.	Ep.	Tour	
0	15	Overburden										
15	147	Dacite Flow, fine grained grey-green rock with local sections containing euhedral white phenocrysts, minor pyrite finely disseminated or as irregular stringers, some mottled green chlorite alteration, some tourmaline with py stringers			1	2	2		2		1	
		79' - 26" fault gouge										
		115' - 4" fault gouge										
147	242	Dacite Flow, as above with increased pyrite, tourmaline and clay alteration & shearing			1	3	1		2		2	
		174' - 15" fault zone										
		211 - 60" fault zone										
242	348	Dacite Flow, as above with clay, more competent rock, minor tourmaline with pyrite stringers			1	1	1		2		2	
		320' - 3" fault gouge										
		326' - 24" shearing										

DRILL HOLE GEOLOGIC LOG

Hole Number 229
Page 2 of 2

SAM GOOSLY PROPERTY

Footage From	Footage To	Description	Graphic Log Sketch	Graphic Log Remarks	Alteration Sil.	Alteration Clay	Alteration Chl.	Alteration Carb.	Alteration Seri.	Alteration Ep.	Alteration Tou.
348	465	Dacite Flow, as above but fresher in appearance and more competent, a few scattered pyrite stringers with minor tourmaline, a mottled grey-green rock with good distinct phenocrysts (white), locally peppered with leucoxene (a hungry looking rock !)			3		1		2		1
		465 ft - End of hole									

DRILL HOLE ASSAY LOG

Hole Number 228
Page 2 of 2

SAM GOOSLY PROPERTY

Sample Number	Core Interval From	To	Length	Recovery Wt.	%	Geologic Notes	Estimates % Py	Cp	Tet.	Assay Results %Cu	%Zn	%Sb	%As	G/T Ag	G/T Au	Joints/ Metre
	464	493	29		97	Mixed Pyroclastics	1	–	–							
57088	493	505	12		98	Dacite Flow ?	2	–	–	.01				<1		
				505	ft-	End of hole										

DRILL HOLE ASSAY LOG

Hole Number 228
Page 1 of 2

SAM GOOSLY PROPERTY

Sample Number	Core Interval From	To	Length	Recovery Wt.	%	Geologic Notes	Estimates % Py	Cp	Tet.	Assay Results %Cu	%Zn	%Pb	%As	G/T Ag	G/T Au	Joints/ Metre
	0	5				Overburden										
	5	56	51		78	Dust tuff	4	–	–							
	56	73	18		90	Lapilli	4	–	–							
	73	83	10		85	Andesite Porph	–	–	–							
	83	100	17		80	Mixed Pyroclastics	4	–	–							
57078	100	110	10		95	Mixed Pyroclastics	5	–	–	.01	.05	.01		< 1		
57079	110	120	10		92	Mixed Pyroclastics	6	–	–	.01	.04	.09		2		
	120	157	37		90	Dust Tuff	3	–	–							
	157	178	21		94	Andesite Dyke	–	–	–							
	178	211	33		92	Dust Tuff	1	–	–							
	211	240	29		98	Andesite Porph	–	–	–							
57080	240	249	9		95	Mixed Pyroclastics	5	–	–	.01	.04	.01		< 1		
	249	255	6		97	Andesite Porphyry	–	–	–							
57081	255	265	10		70	Mixed Pyroclastics	15	–	–	.12	.02	.02		10	0.13	
57082	265	275	10		85	Mixed Pyroclastics	35	–	–	.36	.03	.03		50	0.20	
57083	275	285	10		92	Mixed Pyroclastics	8	–	–	.01	.01	.01		4	0.05	
57084	285	295	10		90	Mixed Pyroclastics	12	–	–	.05	.01	.01		< 1	0.06	
57085	295	305	10		92	Mixed Pyroclastics	10	–	–	.01	.03	.01		< 1	0.09	
57086	305	315	10		85	Mixed Pyroclastics	25	–	–	.07	2.98	.06		12	0.30	
	315	335	20		97	Mixed Pyroclastics	8	–	–							
	335	353	18		90	Dust Tuff	2	–	–							
	353	430	77		97	Mixed Pyroclastics	2	–	–							
	430	439	9		98	Andesite Porph.	–	–	–							
57087	439	450	11		96	Mixed Pyroclastics	3	–	–	.01				< 1		
	450	464	14		97	Andesite Porph	–	–	–							

DRILL HOLE ASSAY LOG

Hole Number 227
Page 1 of 1

SAM GOOSLY PROPERTY

Sample Number	Core Interval From	To	Length	Recovery Wt.	%	Geologic Notes	Estimates % Py	Cp	Tet.	Assay Results %Cu	%Zn	%Sb	%As	G/T Ag	G/T Au	Joints/ Metre
	0	70				Overburden										
	70	90	20		88	Mixed Pyroclastics	2	–	–							
57068	90	100	10		97	Mixed Pyroclastics	7	–	–	.01				<1		
	100	115	15		97	Mixed Pyroclastics	3	–	–							
57069	115	125	10		98	Mixed Pyroclastics	4	–	–	.01				<1		
	125	143	18		92	Mixed Pyroclastics	4	–	–							
	143	150	7		95	Andesite Porph	–	–	–							
57070	150	160	10		95	Mixed Pyroclastics	5	–	–	.01				<1		
	160	185	25		98	Mixed Pyroclastics	4	–	–							
57071	185	195	10		98	Mixed Pyroclastics	6	–	–	.01				<1		
	195	335	140		99	Mixed Pyroclastics	2	–	–							
57072	335	345	10		100	Mixed Pyroclastics	3	–	–	.01				<1		
	345	395	50		98	Mixed Pyroclastics	1	–	–							
57073	395	405	10		98	Mixed Pyroclastics	6	–	–	.01				<1		
57074	405	415	10		96	Mixed Pyroclastics	7	–	–	.01				<1		
57075	415	425	10		96	Mixed Pyroclastics	10	–	–	.01				<1		
	425	435	10		98	Mixed Pyroclastics	5	–	–							
57076	435	445	10		98	Mixed Pyroclastics	6	–	–	.01				<1		
	445	475	30		95	Mixed Pyroclastics	4	–	–							
57077	475	485	10		96	Mixed Pyroclastics	5	–	–	.01				<1		
	485	501	16		90	Mixed Pyroclastics	3	–	–							
				501	ft	- end of hole										

DRILL HOLE ASSAY LOG

Hole Number 226
Page 1 of 1

SAM GOOSLY PROPERTY

Sample Number	Core Interval From	To	Length	Recovery Wt.	%	Geologic Notes	Estimates % Py	Cp	Tet.	Assay Results %Cu	%Zn	%Sb	%As	G/T Ag	G/T Au	Joints/ Metre
	0	50				Overburden										
	50	55	5		70	Lapilli Tuff	2	-	-							
57060	55	65	10		85	Lapilli Tuff	4	-	-	.01				<1		
	65	75	10		92	Lapilli Tuff	2	-	-							
57061	75	88	13		90	Lapilli Tuff	3	-	-	.01				<1		
	88	262	174		94	Feldspar Porph	-	-	-							
57062	262	280	18		90	Dust Tuff	2	-	-	.01				<1		
57063	280	290	10		87	Lapilli	4	-	-	.01				2		
	290	305	15		95	Lapilli	4	-	-							
57064	305	320	15		92	Lapilli	7	-	-	.01				4		
	320	330	10		90	Dust Tuff	1	-	-							
	330	394	64		94	Mixed Pyroclastics	2	-	-							
	394	417	23		97	Brid. Porphyry	-	-	-							
	417	454	37		97	Mixed Pyroclastics	4	-	-							
57065	454	464	10		99	Mixed Pyroclastics	6	-	-	.01				<1		
	464	525	59		98	Mixed Pyroclastics	5	-	-							
57066	525	535	10		100	Mixed Pyroclastics	5	-	-	.01				<1		
	535	561	26		98	Mixed Pyroclastics	3	-	-							
	561	595	34		100	Ash Tuff	6	-	-							
57067	595	605	10		100	Ash Tuff	6	-	-	.01				<1		
	605	615	10		100	Ash Tuff	4	-	-							
				615	end	of hole										

DRILL HOLE ASSAY LOG

Hole Number 225
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SAM GOOSLY PROPERTY

Sample Number	Core Interval From	To	Length	Recovery Wt.	%	Geologic Notes	Estimates % Py	Cp	Tet.	Assay Results %Cu	%Zn	%Sb	%As	G/T Ag	G/T Au	Joints/ Metre
	0	50				Overburden										
	50	65	15		85	Breccia	2	–	–							
57056	65	75	10		88	Breccia	3	–	–	.01				4		
	75	99	24		92	Breccia	2	–	–							
	99	150	51		95	Dacite Flow	1	–	–							
57057	150	160	10		92	Dacite Flow	2	–	–	.01				< 1		
	160	270	110		96	Dacite Flow	2	–	–							
57058	270	280	10		98	Dacite Flow	2	–	–	.01				< 1		
	280	345	65		98	Dacite Flow	2	–	–							
57059	345	355	10		99	Dacite Flow	3	–	–	.01				< 1		
	355	405	50		96	Dacite Flow	2	–	–							
			405	ft-	End	of hole										

DRILL HOLE ASSAY LOG

Hole Number 224
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SAM GOOSLY PROPERTY

Sample Number	Core Interval From	To	Length	Recovery Wt.	%	Geologic Notes	Estimates % Py	Cp	Tet.	Assay Results %Cu	%Zn	%Sb	%As	G/T Ag	G/T Au	Joints/ Metre
	0	30				Overburden										
57051	30	32	2		85	Breccia	8	-	-	.01				<1		
	32	43	11		87	Feldspar Porph.	-	-	-							
57052	43	60	17		82	Breccia	3	-	-	.01				<1		
	60	129	59		92	Feldspar Porph.	-	-	-							
	129	172	43		99	Andesite Flow	-	-	-							
	172	185	13		98	Mixed Pyroclastics	1	-	-							
57053	185	195	10		100	Mixed Pyroclastics	2	-	-	.01				<1		
	195	257	62		98	Mixed Pyroclastics	1	-	-							
	257	267	10		96	Andesite Porph	-	-	-							
	267	314	47		94	Mixed Pyroclastics	1	-	-							
	314	326	12		97	Andesite Porph	-	-	-							
	326	395	69		96	Mixed Pyroclastics	2	-	-							
57054	395	405	10		98	Mixed Pyroclastics	2	-	-	.01				<1		
	405	467	62		97	Mixed Pyroclastics	2	-	-							
	467	495	28		96	Volcanic Breccia	2	-	-							
57055	495	505	10		90	Volcanic Breccia	4	-	-	.01				<1		
			505	Ft -	end	of hole										

DRILL HOLE ASSAY LOG

Hole Number 229
Page 1 of 1

SAM GOOSLY PROPERTY

Sample Number	Core Interval From	To	Length	Recovery Wt.	%	Geologic Notes	Estimates % Py	Cp	Tet.	Assay Results %Cu	%Zn	%Sb	%As	G/T Ag	G/T Au	Joints/ Metre
	0	15				Overburden										
	15	25	10		80	Dacite Flow	3	–	–							
57089	25	35	10		50	Dacite Flow	5	–	–	.01				1		
	35	147	112		90	Dacite Flow	2	–	–							
57090	147	157	10		94	Dacite Flow	8	–	–	.07				24		
	157	185	28		82	Dacite Flow	5	–	–							
57091	185	195	10		90	Dacite Flow	6	–	–	.01				2		
	195	210	15		87	Dacite Flow	4	–	–							
57092	210	220	10		90	Dacite Flow	7	–	–	.02				28		
	200	290	90		95	Dacite Flow	3	–	–							
57093	290	300	10		98	Dacite Flow	4	–	–	.01				1		
	300	345	45		99	Dacite Flow	3	–	–							
57094	345	355	10		100	Dacite Flow	3	–	–	.01				1		
	355	455	100		99	Dacite Flow	2	–	–							
57095	455	465	10		100	Dacite Flow	2	–	–	.01				1		
				465	ft	- End of hole										


SAM GOOSLY PROJECT
GENERAL OPERATING PLAN
SCALE
FEET 400 0 400 800 1200 FEET
LEGEND
INITIAL PIT
FINAL PIT OUTLINE
SURVEYED CLAIMS
INITIAL TAILING POND
TAILING LAUNDER
LOW HEAD TAILINGS LINE
FRESH WATER STORAGE
LU LAKE
W.L. 4215'
ACCESS ROAD FROM HOUSTON
FRESH WATER LINE
RECLAIM WATER LINE
Water Treatment Plant (If req'd)
FRESH WATER LINE
SURFACE LEASE APPLIED FOR
PLANT SITE
PLANT FRESHWATER TANK
MINE FRESHWATER
DIVERSION DITCH
DIVERSION DAM
TOPSOIL STOCKPILE
WASTE DUMP
TOE OF WASTE DUMP
SURFACE LEASE APPLIED FOR
REV. No. 4
REV. No. 2
MINERAL ASSESSMENTS BRANCH
7166