TERRAIN ANALYSIS REPORT

on the

DH 1 CLAIM and DH 3 CLAIM

Owned by:
Dean de la Mothe
DES Exploration Ltd.
Suite 26 - 1531 Lonsdale Aveue
North Vancouver, B.C. V7M 2H1
Canada

Cariboo Mining District
NTS 93H/5

Located approximately 90 km southeast of
Prince George, B.C.

Latitude: 53°25'N Longitude: 121°40'W

PGML 92-5

Dr. S.J. Hoffman, P.Geo.
Geochemical Consultant
Prime Geochemical Methods Ltd.

Mr. T.F.H. Reimchen, P.Geol., P.Geo
Terrain Scientist
Pegasus Earth Sensing Corp.

July, 1992

SUMMARY

The DH 1 and 2 and DH 3 and 4 claim groups were acquired to enable evaluation of an unpublished VMS drill intersection (in 1986) associated with substantial Ba enrichment, and a B.C. government, high contrast regional stream sediment survey (RGS) geochemical Cu anomaly, respectively. A July, 1990 soil survey defined several anomalous areas and recommended the undertaking of a terrain analysis to determine overburden types and probable thicknesses, direction of glacial transport and structural features evident on airphotos.

A terrain analysis employs stereo airphoto coverage. A much larger area must be examined in order to appreciate conditions of each claim group. The interpretation has confirmed thick accumulations of glacio-fluvial deposits lie along major lowland valleys, with maximum anticipated thicknesses estimated to range from 5 to 15+ metres. Overburden cover within the area of the DH 1 and DH 3 claims is commonly less than 5 metres deep and comprises one or more of moraine, local colluvium, or glacio-fluvial deposits. Glacial dispersion was found to be east-northeastward becoming northeasterly on the eastern half of the DH 1 claim. These overburden conditions, when coupled with moderate to steep slopes, are favourable for continuing geochemical surveying, with the primary followup to employ an excavator to trench to bedrock.

The terrain analysis has identified regions which are amenable to successful application of soil surveys. Knowledge of glacial dispersion direction and likely overburden thickness should facilitate followup of geochemical anomalies.

RECOMMENDATIONS

1. A reconnaissance grid employing pickets at 25 m intervals along lines 200 m apart needs to be established in a north-south direction across DH 1 and DH 3. Glacial dispersion direction and magnetics indicates north-south lines would be appropriate.

2. Continued soil sampling is warranted. Sampling at a 50 m interval along lines 200 m apart is suggested to cover both claim groups, with the positioning of intermediate lines being appropriate where anomalous conditions are defined. Sampling at a 25 m interval can be suggested where overburden is thin and locally derived.

3. Concurrent with the gridding and geochemical sampling, geological mapping should constitute a major portion of the followup program.

4. The location of conductors on the ground needs to be re-established by using a horizontal loop electromagnetic survey and a ground magnetic survey. The alternative of a high resolution airborne survey needs to be considered.

5. Based on results of previous surveys and a favourable finding of overburden thickness in anomalous areas, followup employing a track mounted excavator to trench to bedrock would be appropriate prior to diamond drilling.

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INTRODUCTION

The DH claims were acquired to cover land believed favourable for volcanogenic massive sulphide (VMS) deposits based on an unpublished drill intersection (24 m) testing an electromagnetic conductor. In addition, the area is reflected by the highest contrast stream sediment Cu value (120 ppm) of the McBride Mapsheet (93H) based on the B.C. government regional geochemical survey. Two airborne surveys have been flown in the area, one remaining confidential and the motivation behind the land acquisition of the SLIDE claims by BP Resources Canada Limited in 1984. The public domain survey covers the northwest corner of the DH 3 claim. Based on current understanding of the geology, the 1990 survey was flown parallel to local geological grain.

Geology reported in B.C. government assessment report no. 14589 (Farmer, 1986) indicated bedrock to comprise intercalated rhyolite, basalt, and argillite of the Slide Mountain formation. Farmer (1986) reports the position of conductors on the ground. Reconnaissance soil sampling by BP Resources Canada Limited (Farmer, 1986) indicated the presence of exceptional Ba accumulation suggestive of barite in underlying bedrock. These favourable findings were tested in a preliminary fashion in 1990 by the beginnings of a soil survey which outlined five large anomalies (Hoffman, 1990). Maps and details of previous work can be found in Hoffman (1990). This report describes results of a terrain analysis which was conducted to establish areas of thin overburden where soil surveying would be effective and glacial dispersion direction to facilitate anomaly followup. Identifying structural controls were also an objective of the program. This report summarizes results.

LOCATION AND ACCESS

The DH 1 and DH 3 claims are located east of Stony Lake on NTS 93H/5, 90 km southeast of Prince George, B.C. Excellent gravel road access is available via the Buckhorn and Willow River forest access roads. Widespread logging has provided road access to both claim groups (Fig. 1), and the tree cover over DH 1 has been completely removed.

585000 586000 587000 588000 589000 590000 591000 592000 593000 594000

5920000 5919000 5918000 5917000 5916000 5915000 5914000

Slender Lake

Little Eighteen Mile Creek

Stephanie Creek

DH 1
4N x 5E

DH 3
4N x 5W

20 19 18 17 16 15

120 N 200 E 220 N 100 N 180 N

110 E 125 E

4800 4300 3700 4600 3500

L.C.P.

F O

E O

Proposed logging area
Logged area
Haul road
Logging road

YUKON
Dease Lake
Ft. Nelson
PROPERTY LOCATION
Prince Rupert
Prince George
Kamloops
Vancouver
U.S.A.
BRITISH COLUMBIA
0 500 KM.

N

250 0 250 500
Scale in Metres

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DH 1 CLAIM AND DH 3 CLAIM

STONY LAKE PROJECT - B.C.

1992 LAND STATUS

DATE: JULY/92	PROJECT#: 134	FIG.
NTS: 93H/5	SCALE 1: 25000	1

PEGASUS EARTH SENSING CORPORATION

LAND STATUS

The land status is summarized on Table 1 and is illustrated on Fig. 1.

LANDSCAPE, TOPOGRAPHY, SOILS, AND OVERBURDEN

The landscape is relatively flat over the DH 1 claim, sloping northeastwards towards Eighteen Mile Creek and rising to a hill in the west of the claims (Fig. 1). The DH 3 claim covers the north side of a "U-Shaped" valley of Stephanie Creek. Bedrock is exposed intermittently at the higher elevations, but is covered by glaciofluvial material at lower elevations. Much of the claims areas are covered by a thin veneer of glacial till or soils are derived directly from the weathering of bedrock in situ. Soils are well developed, comprising podzols with the iron-rich BF horizon available for sampling at 20 to 30 cm depths. Where soils are more poorly developed, the BM horizon of a brunisol, a medium olive brown colour zone, can be sampled at the same depths. Organic material from bogs was avoided during the sampling program. Prior to logging, vegetation comprised forests of lodgepole pine and spruce.

TABLE 1

Land Status - DH Claims

Claim Name	Unit/Record Number	Staking date
DH 1	20 units (10760)	July 18, 1990
DH 3	20 units (10762)	July 22, 1990

GLACIAL HISTORY

Regional movement by the latest glacial advance in this area is from southwest to northeast. Upon melting, local silty bouldery glacial tills were deposited in all of the tributary and main valleys. These tills have been covered in several areas by later fluvial materials. Glacial ice from the southeast infilled the Stony Lake and Bowron Depressions. Individual ice streams moved through Eighteen and Fourteen Mile Creek valleys. As the ice became thicker, it eventually flowed out of the valleys to the northeast as can be seen by ice flow directions crossing the claims.

Although much of the Cordilleran of Western North America has been glaciated several times beginning as early as the Miocene, it is logical and reasonable to assume that the existing soils developed on materials which were mobilized/redeposited by the last glacial advance.

If one thinks of alpine glaciation as opposed to continental glaciation several differences are immediately evident. Continental glaciers, because of great thickness, moved as broad masses in relative straight lines over long distances. In West Central Canada, Continental Ice moved south and southwest, up the regional slope to Western Alberta. The general 'low relief of the prairies did not cause large flow deflections except around Cretaceous/Tertiary Highs such as the Cariboo/Birch Mountains in Northern Alberta or the Cypress Hills in southern Saskatchewan. This has not been the case in the Cordilleran!

Initiation of Cordilleran Glaciation (Miocene or earlier) began with Alpine glaciers originating in cirques in the Coast Range (if it indeed existed) and local Mountains. Ice flowed as ice river/streams down small valleys, coalescing to form major valley glaciers which flowed east downslope to regional basins/plateaus.

For the Wisconsinian (last) Glacial Period, the Interior Plateau acted as an accumulation centre/basin building up some 2000 meters of ice. This miniature Ice Cap sent glacial ice northeastward flowing across the Rockies and meeting with the Continental Ice near Dawson Creek in 93P (see Reimchen, 1972 Map 1467A). Along the way low lying areas deflected ice

streams in directions often contrary to regional flow. Thus ice moved eastward, partially infilling the Stony Lake valley. Deflection caused by local topography can be readily seen north of Stephen Lake, on 93H/5W.

Delineated ice flow directions represent regional flow at the local level. Ice flow directions measured on the ground can vary as much as 60 degrees depending on the relief immediately upice. Nevertheless, followup of a soil geochemical anomaly would involve sampling several hundred meters in the up ice direction shown on the map (Fig. 2). If a source cannot be found 3-point ice direction studies must be conducted on the ground to determine local conditions.

As regional basins such as the Fraser Basin of the Interior Plateau became choked with glacial ice, continued snowfall and accumulation forced individual ice streams to break away from the main ice cap. These ice streams flowed across low divides such as exist as Fourteen and Eighteen Mile Creek valleys. Ice streams tend to remain discrete over long distances. If a glacier erodes a mineralized outcrop the ice mass can remain intact and material can travel several kilometers before ultimate deposition.

Ice streams, unlike cirque glaciers (which erode downwards because of gravity and weight of the ice) scrape material from low divides transporting it like a bulldozer, often several kilometers away. Very little erosion occurs in the valley as the ice streams do not have sufficient weight/mass or depth to erode at the base. As a result most of the materials within these high valleys has been introduced by glacial ice and/or by meltwater.

The deglaciation history in this area is complex with readvances occurring during deglaciation often in directions contrary to major flow. Upon deglaciation, glacial ice on tops of hills (not mountains) would melt first followed by the high valleys. Streams would run on the ice and generally along the ice boundary. Abandoned stream channels (**sgFt-E,** abbreviation explained in a following section) were formed during initial phases of melting. In some places the glacier would expose a hillside, streams would erode material from the hillside transporting it back unto the glacier into crevasses and moulins. Upon melting of the ice, ridged eskers (**sgFr**) form.

585000 586000 587000 588000 589000 590000 591000 592000 593000 594000

5920000 5917000 5916000 5915000 5914000

Slender Lake

Eighteen Mile Creek

DH 1

DH 3

120 N 100 N 200N 180N

$Ff/Mb $Ff-S/Mb $Mb $rCv $Ff/Mv/R $Ff/$rMv $Ff/$Mb $sgFt-E $gFf/Mb $Ob/$gFl $gFf $sgFl $Ff/Mv $rMb $Ff/Mb $Mb-S $rMv $Fp//Ob/Mb $Fb-S $Ob/$Fb $gFt $Ff/Mb $Fe/Mb $rMbv $Mbv $rCb $Ff/Mv $Fp/Mb $sgFr $Ob/Fl

4800 4600 3700 3500

Proposed logging area
Logged area
Haul road
Logging road

LEGEND

Genetic Materials

M	moraine/diamicton
F	fluvial
C	colluvium
O	organic

Thickness and Morphology

v	veneer < 1.5 meters thick
b	blanket > 1.5 meters thick
d	delta
f	fan shaped
l	level
p	plain
r	ridged
t	terraced

Texture(modified Wentworth)

$	silt
s	sand
b	bouldery
g	gravelly
r	rubbly

Erosional Modifiers

-S	seepage
-E	eroded

Stratigraphy

sgFv/sMb — a veneer of sand and gravel overlying a blanket of silty moraine or glacial till.

Linear Features

- glacial ice flow
- structural
- esker

250 0 250 500
Scale in Metres

N

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DH 1 CLAIM AND DH 3 CLAIM

STONY LAKE PROJECT - B.C.

1992 AIR PHOTO INTERPRETATION

1992 TERRAIN ANALYSIS

DATE: JULY/92	PROJECT#: 134	FIG.
NTS: 93H/5	SCALE 1: 25000	2

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Meltwaters flowed eastward in esker tunnels and crevasses over top of the buried valley in the eastern part of the Claim Block.

OVERBURDEN THICKNESS

Overburden thickness has been estimated (Fig. 3). There is an impression of a 'preglacial valley' running in a west/east direction to Stony Lake. The base of this river valley is probably graded downwards to the Willow River. The last glacial advance certainly passed (northeast) over this infilled valley without any serious deflection judging by the unbroken NE trending linears. An isopach map could be produced given sufficient time and points.

USE OF TERRAIN ANALYSIS FOR PROSPECTING

In alpine areas where the cover is thin (**Mbv**-less than 3 meters) geochemical soil anomalies will be derived from the upslope/upice direction. When overburden exceeds several meters (**Mb**), caution in interpretation is needed as soil anomalies may occur in ancient glacial debris that has been re-mobilized by the latest advance.

If local glaciers eroded gold rich veins and soils, the resultant till would contain these products, albeit in greatly diluted amounts. Washing by alluvial streams of this rubbly till would re-concentrate the gold into stream valleys which are the target of placer miners. Both Fourteen and Eighteen Mile Creek Valleys contain now abandoned placer workings. The placer gold was found in surface alluvium reworked by running water.

Old placer workings should be plotted, the containing material identified as to genesis and direction sourced to assist in finding subcrop in either an upice direction or if colluvial, straight upslope. Sometimes the colluvium consists of glacial till derived from across the valley or somewhere else, so it is important to make sure that the heavy minerals/pebble lithologies fit the underlying or exposed bedrock.

Several seepage areas (-S) along the sides of the valleys attest to the fact that the soils/surficial material contain about 35% clay-sized material in those areas. Movement of surface groundwater

585000 586000 587000 588000 589000 590000 591000 592000 593000 594000

592000 5919000 5918000 5917000 5916000 5915000 5914000

Slender Lake

Eighteen Mile Creek

Creek

120 N

100 N

220N

200N

180N

175E 200E 125E 100E 110E 125E

DH 1

DH 3

4800 4300 3700 3500 4600

F O

EQ

Proposed logging area
Logged area
Haul road
Logging road

Linear Features

glacial ice flow
structural
esker

250 0 250 500
Scale in Metres

DES EXPLORATION LTD

DH 1 CLAIM AND DH 3 CLAIM

STONY LAKE PROJECT – B.C.

OVERBURDEN THICKNESS ESTIMATE (M)

AND STRUCTURAL LINEAMENTS

DATE: JULY/92	PROJECT#: 134	FIG.
NTS: 93H/5	SCALE 1: 25000	3

PEGASUS EARTH SENSING CORPORATION

through these areas is locally inhibited, causing sliding of material downslope. Seepage will concentrate certain minerals giving anomalous readings.

TERRAIN ANALYSIS

Nomenclature

A modified terrain analysis legend has been developed for this area. The terrain analyses units have been separated, firstly on the basis of genetic origin, then morphology, texture and thickness, in a universal formula such as:

srMv -V

This would be interpreted as a sandy rubbly Morainal veneer (less than 1.5 meters in thickness over Rock) that has been eroded by surface streams creating channels. The channels will have a thin cover of washed materials overlying either moraine or rock.

Genetic Materials

C **COLLUVIAL**: Colluvium consists of materials which have moved downslope under the force of gravity. In this area colluvial sediments will consist mainly of unweathered to weathered rock particles that have rolled or slid down steep slopes by avalanch materials that have been slightly washed to form colluvial fans.

F **FLUVIAL**: Fluvial materials are usually derived from the subglacial washing of bedrock and basal moraine. In this area more that 80% of the erratics and 100% of the fines will come from local areas.

Fluvial sediments range from silt derived from colluvial/alluvial fans to dirty gravel washed out from the local tills. In this area fluvial sediments are common and cover the landscape with a variety of geomorphological shapes, including plains, deltas, eskers and floodplains.

M **MORAINAL**: Moraine, commonly called glacial till or diamicton, is usually composed of the 90 - 95% of comminuted fragments of local bedrock. In this area the moraine always consists of a silty sand intermixed with subangular boulders and angular rubble.

O **ORGANIC**: consist of inorganic and organic silts and clays with a trace of sand mixed with organic debris.

A variety of modifying descriptors have been used in the map legend for morphology, thickness and texture, and including active modifying processes for: **-S** for seepage, and **-E** for eroded or channelled.

Morphology/Thickness

v	veneer < 1.5 meters thick
b	blanket > 1.5 meters thick
d	delta
f	fan shaped
l	level
p	plain
r	ridged
t	terraced

Texture (modified Wentworth)

s	silt
s	sand
b	bouldery
g	gravelly
r	rubbly

Erosional Modifiers

-S	seepage
-E	eroded

Linear Features

glacial ice flow
structural
esker

Stratigraphy

sgFv
sMb a veneer of sand and gravel overlying a blanket of silty moraine or glacial till.

CONCLUSIONS

The terrain analysis has defined overburden conditions on the claim group to be locally derived and amenable to effective use of soil surveys, anomalies to be followup up using an excavator. Soil recommendations found in Hoffman (1990) can now be refined to assess smaller areas more efficiently.

REFERENCES

1. FARMER, R., 1986. Geological, Geochemical and Geophysical Assessment Report on the SLIDE 14 mineral claims. BPVR84-66. Assessment Report 14589.

2. HOFFMAN, S.J., 1990. Geochemical Assessment Report on the DH 1 and 2 and DH 3 and 4 Mineral Claim Groups. PGML 90-11, Assessment report. 21613

APPENDIX 1

STATEMENT OF QUALIFICATIONS

1. **T.F.H. Reimchen, P.Geol., P.Geo.**
2. **S.J. Hoffman, P.Geo.**

STATEMENT OF QUALIFICATIONS

I, Ted H. F. Reimchen of 4761 Cove Cliff Road, North Vancouver, British Columbia, V7G 18, hereby certify that:

1. I am a Professional Geoscientist(1991)-BC and Professional Geologist(1972)-Alta with an office at the above address.

   I have been practising my profession as a Professional Consulting Geologist continuously since 1968.

2. I hold the academic degrees of Bachelor of Science in geology and botany from University of Alberta (1966), a Master of Science Degree in geology and paleontology from the University of Alberta (1968);

3. My list of publications include:

   2- Theses
   6- Scientific papers in referred journals
   10- geological maps
   11- Scientific papers in unreferred journals
   1- Book (Annotated Bibliography of the Genus Equus).

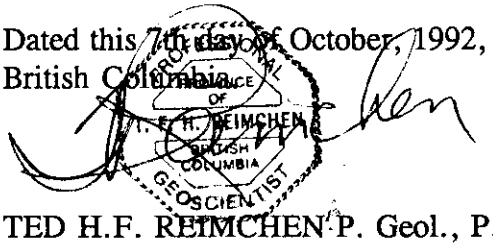
4. My memberships include:

   1. Professional Engineers Geoscientists of British Columbia (since 1991)
   2. Association of Professional Engineers, Geophysicists, and Geologists of Alberta (since 1972)
   3. Association of Exploration Geochemists (since 1990)
   4. American Society of Wetland Scientists (since 1991)
   5. Canada Centre for Remote Sensing (since 1976)
   6. President's Council, University of Alberta (since 1988)
   7. American Society of Germans From Russia (since 1989)

5. I have personally prepared the terrain analysis interpretation.

6. I have no direct, indirect or contingent interest in any of the DH claims or in any securities or common stock issued by DES Exploration Ltd.

Dated this 7th day of October, 1992, at the City of Vancouver in the Province of British Columbia.



TED H.F. REIMCHEN P. Geol., P. Geo.

STATEMENT OF QUALIFICATIONS (on October 7, 1992)

I, Stanley J. Hoffman of 2834 West 24th Avenue, Vancouver, British Columbia, hereby certify that:

1. I am a consulting geochemist with office at 1531 West Pender Street, Vancouver, B.C., V6G 2T1;

2. I hold the degrees of Bachelor of Science in geology and geochemistry from McGill University of Montreal (1969), a Master of Science in Geochemistry from the University of British Columbia (1972) and a Doctor of Philosophy in Geochemistry from the University of British Columbia (1976);

3. I have practised the profession of geologist/geochemist continuously since 1973.

4. My list of publications include:

2 -	Theses (unpublished)
18 -	Scientific papers in referred journals (1 in the last 3 years)
1 -	Published Geochemical Manual (report writing)
2 -	Published Directories: 1990 and 1992 AEG Membership Listing and Directory of Geochemical Exploration and Environmental Services
1 -	Unpublished Manual - Organization of a Geochemical Symposium
2 -	Books (Reviews in Economic Geology - Volume 3, Writing Geochemical Reports)
Many-	Scientific papers in unreferred journals

5. My memberships include:

1. Member Geological Association of Canada, 1967-1991; Fellow since 1986
2. Canadian Institute of Mining and Metallurgy, 1973-1991
3. Association of Exploration Geochemists, since 1972
4. American Society of Agronomy, since 1973
5. Geochemical Society, 1983 - 1990
6. International Association of Geochemistry and Cosmochemistry, since 1986
7. American Chemical Society, since 1989

6. Other qualifications include:

1. Association of Exploration Geochemists council, (1980-1986, 1988-1990), president (1987-1988), business manager (1988-1992).

2. Lecturer, B.C. Department of Mines Prospecting Course, (1977-1991), B.C. & Yukon Chamber of Mines (1987-1991), Short Course, Prospectors and Developers Association (1990), Short Course, Calgary MEG (1989), Short Course, AIME (1988), Short Course, Northwest Mining Association (1979, 1985, 1988), Brokers Course (1984, 1985).

3. Chairman, GOLD-81 and GEOEXPO-86 Geochemical Exploration Symposia, Vancouver, B.C.

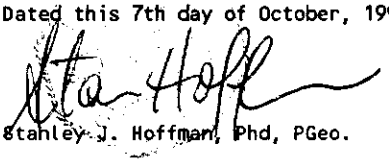
4. Committee for professional registration, province of British Columbia (1980-1983, 1990-1992).

5. Regular contributor to the Association of Exploration Geochemists EXPLORE Newsletter (1987-1992).

6. P. Geo. (B.C.) Accreditation as a professional geoscientist of British Columbia, since 1991.

7. I do not currently have or expect to acquire an interest, direct or indirect, in DES Exploration Ltd. or the DH Claims.

Dated this 7th day of October, 1992, Vancouver, British Columbia



Stanley J. Hoffman, Phd, PGeo.

APPENDIX 2

STATEMENT OF COSTS

1. DH 1	50% of $4014.74	$2007.37
2. DH 2	50% of $4014.74	$2007.37

Invoice from Pegasus Earth Sensing Corp. follows.

PEGASUS
earth sensing
corporation

4761 COVE CLIFF ROAD
NORTH VANCOUVER, BRITISH COLUMBIA
CANADA V7G 1M8
TELEPHONE: (604) 929-0244
FACSIMILE: (604) 929-7231

August 20, 1992
D. de la Mothe

D. E. S.
1414-1124 Lonsdale Avenue
North Vancouve, B.C.
V7M 2H1

INVOICE

STONY LAKE STUDY
PEG 220--05-92

For terrain analyses/overburden thickness/lineaments of the STONY LAKE STUDY. The interpretations are portrayed on a conventional MAP TO A SCALE OF 1:25,000 (93H/5).

PROFESSIONAL SERVICES

Principal:	$2975.00

DISBURSEMENTS

Commun/photocopy/misc..		$ 117.00
Aerial photographs.....		$ 213.48
Finishing of report.....		$ 163.00
Drafting.....		$ 165.00
Delivery/Loomis.....		$ 48.00
15% HANDLING CHARGE.....		$ 70.60
Subtotal...		$ 777.08
GST.....	$ 262.64	
TOTAL.....		$4014.74

GST Registration R122934417.

NET 30 DAYS
Pegasus reserves the right to charge 2% /mo. on overdue accounts.