22781

Province of British Columbia

Ministry of Energy, Mines and Petroleum Resources

ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TYPE OF REPORT/SURVEY(S)

DRILLING

TOTAL COST $77,044.56

AUTHOR(S) Phil D.de Souza P.Eng SIGNATURE(S) .....

DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILED November 6, 1992 YEAR OF WORK 92.

PROPERTY NAME(S) STEEPLES GROUP 2B

COMMODITIES PRESENT Copper, Iron, Silver, Gold

B.C. MINERAL INVENTORY NUMBER(S), IF KNOWN .....

MINING DIVISION Fort Steele NTS 82G11W

LATITUDE 49°.30'.15". north LONGITUDE 115°.23'.55". west

NAMES and NUMBERS of all mineral tenures in good standing (when work was done) that form the property [Examples: TAX 1-4, FIRE 2 (12 units); PHOENIX (Lot 1706); Mineral Lease M 123; Mining or Certified Mining Lease ML 12 (claims involved)]:

Steeples #12, #14, #16, #18 and #19

all 20 unit claims

OWNER(S)

(1) R.H. Stanfield (2) .....

MAILING ADDRESS

Suite 350, 4723 1st Street SW
Calgary, Alberta, T2G 4Y8

OPERATOR(S) (that is, Company paying for the work)

(1) as above (2) .....

MAILING ADDRESS

.....

RECEIVED
GOVERNMENT AGENT
NELSON
FEB 5 1993
TRANS. #.....

SUMMARY GEOLOGY (lithology, age, structure, alteration, mineralization, size, and attitude):

Sequence of copper, silver and gold veins in shear zone envelopes striking generally east - west on the southern slopes of the Steeples Range east of Cranbrook, Fort Steele Division, B.C. Vein systems are hosted in banded argillites of the precambrian aldridge sequence.

REFERENCES TO PREVIOUS WORK See References in Report

(over)

CONTENTS

FIGURES

1. Introduction.

Diamond Drill Hole BR3.92, was commenced on June 18 and terminated short of its target depth on July 20, 1992 utilising a Longyear 38 Drill drilling through a Percussion Drilled Casing (BC 2) set in 1990 on bedrock at a depth of 262.74 metres. The collar location is at 3,154.45 metres above mean sea level at Mine Site Grid Coordinates of 3,861.82 north, 4,021.84 east (metric), [12,670N, 13,195E imperial] which corresponds to 49^0 30' 15" north, 115^0 23' 55" west approximately on NTS 82G11 on Stanfield Claim Steeples 12 of the Steeples 2B Claim Group.

The hole is sited on the east bank of the present course of Burntbridge Creek where it was diverted by the previous operators of the property, Placid Oil of Texas. Burntbridge Creek flows down the southerly face of the Steeples Range in the Fort Steele Mining District of south eastern British Columbia. (Figures 1, 2 and 3). The Claims concerned are part of the total Stanfield Holdings existing totally within the Fort Steele Mining Division.

Steeples Group #2B consists of five contiguous 20 Unit Mineral Claims viz. Steeples #12, 14, 16, 18 and 19.

2. Location.

The Stanfield Group Claims are situated in the Fort Steele Mining Division of southeastern British Columbia (NTS 82G6 / NTS 82 G11) astride Highway #3 between Fernie and Cranbrook and encompassing Galloway - see the preceeding Figure 1. The Steeples 2B Group located within the greater Stanfield Group - see Figure 2 - sits astride a section of the southerly and south facing flank of the Steeples mountains some 4 kilometres northeast of the settlement of Bull River which itself lies at the confluence of the Bull and Kootenay Rivers.

3. Physiography.

The Steeples Claim Group #2B extends from an elevation of 883 metres immediately north of the Bull River as it widens after coursing through the gorge south of the Aberfeldie Dam and reservoir, to a maximum elevation within the Steeples Range in Steeples #14 of 2641.09 metres. The northerly edge of Steeples #18 aligns itself along the top of the ridge overlooking the Dibble Creek Valley from the south and shares a Corner Claim Post with Steeples #19 situated southeast of Hungary Peak in the central Steeples Range.

Ground water run off from the Steeples south face flows due south into the Bull River below the Aberfeldie Dam west of the Bull River Gorge while ground water from Steeples 16, 18 and 19 courses eastwards via the Dibble system into Bull River above the Aberfeldie reservoir.

Gallowai

Metal Mining Corporation

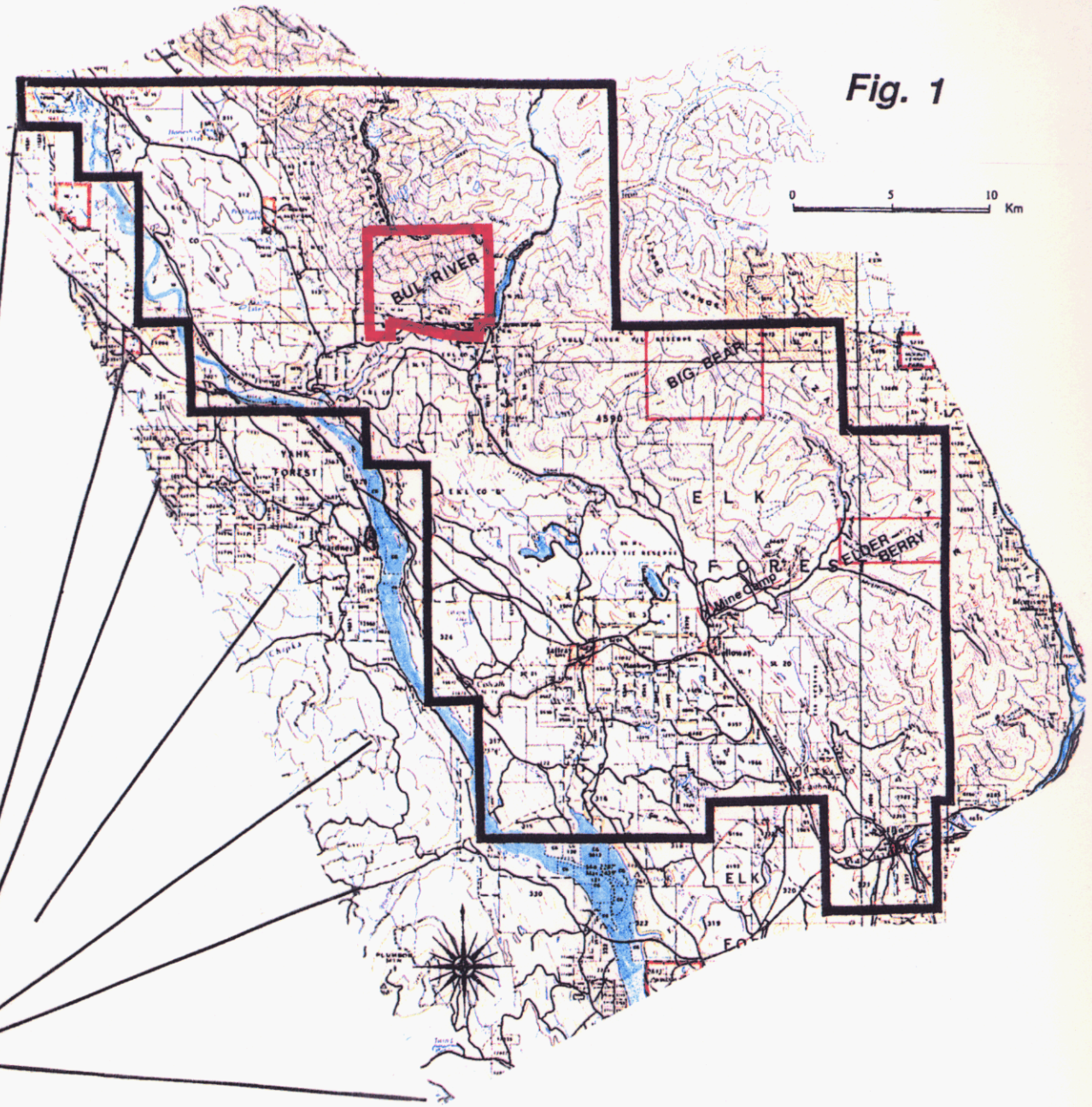
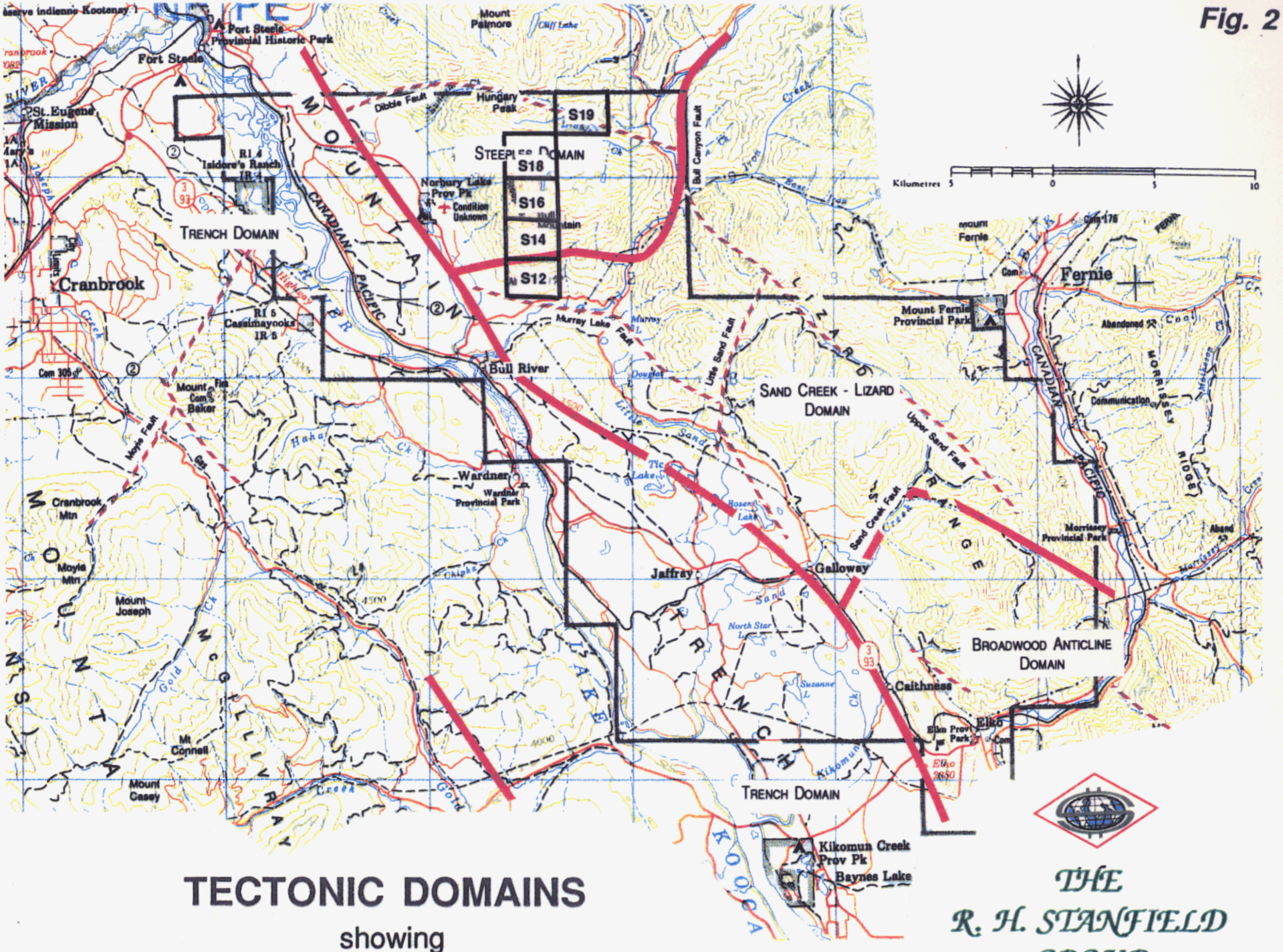


Fig. 1

LOCATION AND CLAIM AREA

Fig. 1

Fig. 2



TECTONIC DOMAINS

showing
Steeples Group 2B

THE
R. H. STANFIELD
GROUP

Fig. 2

4. Geology.

The Gallowai Bul River property straddles the contact between the Rocky Mountain Trench and the western edge of the Rocky Mountains. The drill site lies within the Sand Creek Domain on the southern flank of the Steeples Range but most of the Claim Group lies predominantly within the Steeples Domain. Overburden consists of Pleistocene glaciofluvial and colluvial sediments. Metasediments of the Precambrian Aldridge and Creston, with intrusions of Moyie sills and dykes, outcrop on the property.

The Aldridge formation at the Gallowai Bul River property contains several mineralized shear zones traceable in open pits and diamond drilling. The vein systems are mineralized by chalcopyrite, pyrrhotite, arsenopyrite and pyrite with quartz, calcite and/or siderite and wollastonite as major gangue minerals with gold occuring in association with the quartz gangue and in the lattice of the sulphide minerals. Vein systems contain cadmium, silver and lead, but the main mineralization of economic significance is copper and gold.

5. Objectives.

Planned depth of BR 3.92 was 762 metres (2,500 ft) to examine the down dip extension of the major quartz sulphide structure intersected in the northerly sited BR 2.91 and to correlate these structures with those intersected in previous drilling to the immediate east and southeast. These holes, including BR 2.91 were designed as westerly step outs to determine the strike and dip extensions of the Gallowai Bul River vein systems.

Due to the increasing overburden thickness with westward drill site location, and the composition of the overburden (alternating colluvial and glaciofluvial clays and sands of variable compaction) difficulties in drilling were encountered in this zone. This hole, therefore, was predrilled to bedrock in late 1990 with an Ingersol Rand Truck Mounted Rotary Percussion Drill and large diameter pipe inserted as an outer casing for the planned diamond drill deepening.

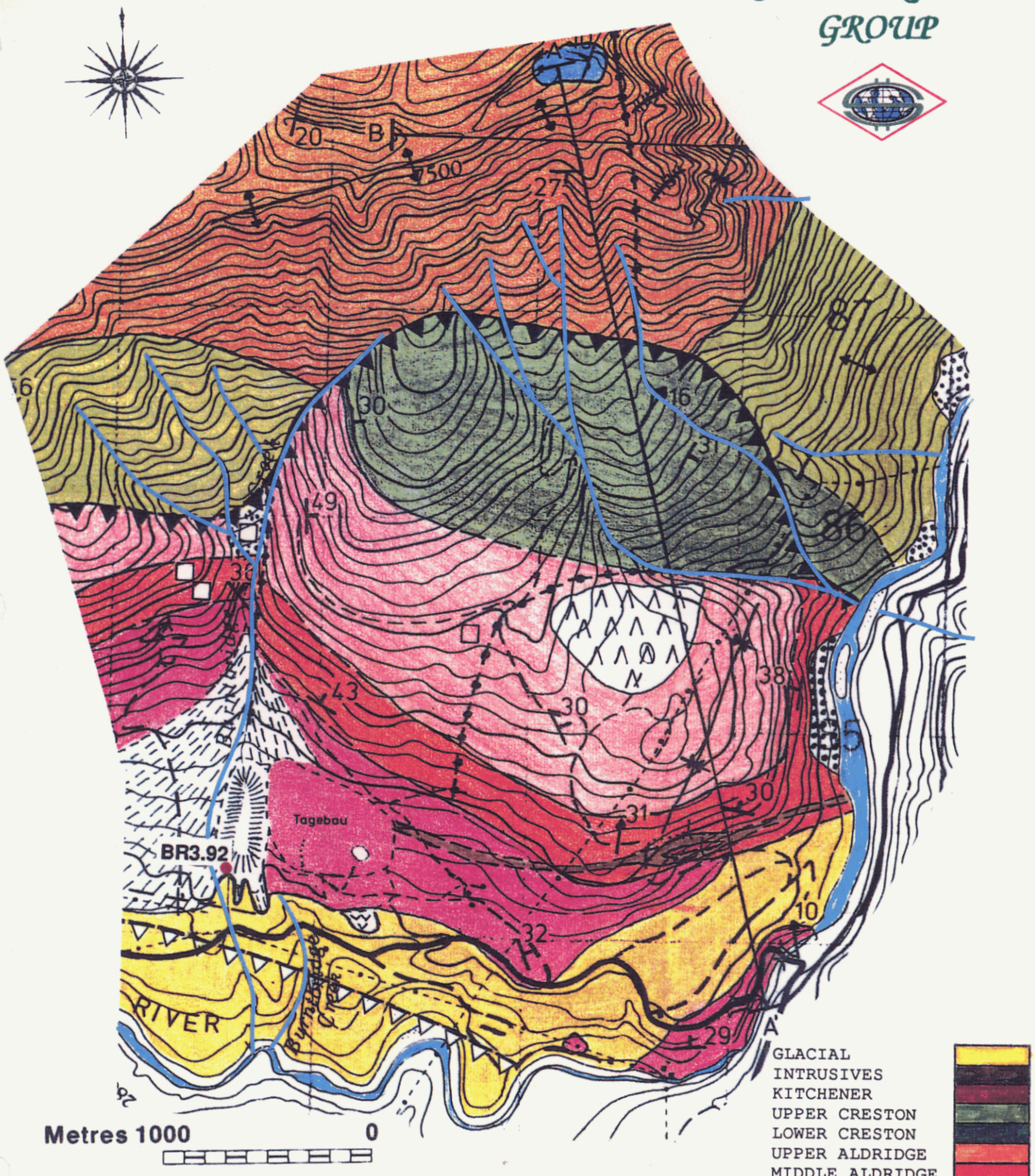
0

6. Logs, Lithology and Structure.

The following two pages provide a detailed log of the Diamond Drilled portion of BR 3.92 as logged by Mr Pilsum Master B.Sc., M.Sc., P.Geol(Alb) of Master Mineral Resource Services Ltd. of Calgary.

The previously drilled Rotary Percussion Hole, known as BC2 and drilled by CoraLynn Drilling of Strathmore, Alberta in late 1990, traversed semi-consolidated glaciofluvial sediments and boulders for its total length of 263.12 metres.

THE
R. H. STANFIELD
GROUP



BUL RIVER AREA GEOLOGY

Fig. 3

DIAMOND DRILL LOG (Cover Page)

Hole No: BR3-92 Page: 1 of 2 Project: BUL RIVER MINE Property: STEEPLES 12

Collar Elevation (ft/m): 3154.45 Collar Survey date 5 29/92 Location: Latitude 3861.82N Departure 4021.84 Dip 90°

Objective: Depth (ft/m):

Commenced: Jun 18/92 Completed: Jul 20/92 Logged by: P. Master Date: Dip: - 90°

Completed: Sampled by: Date: Bearing:

From	m To	Description:	Sample No:	From	To	Width	Analysis
0	262.7	Casing					
262.7	280.7	Argillaceous qtzites and argillite. Quite argillaceous. Banding faint @ high angle to CA. Looks silicified. 262.7 - 269.7 : broken and fractured core					
280.7	301.8	Argillaceous qtzite : same as 262.7 - 280.7, a bit more argillaceous, almost slate.					
301.8	302.1	Qtz-carbonate-bx with crackle pyrite					
302.1	324.3	Argillaceous qtzite - not very argillaceous - silicified, banding faint 45° to 60° to CA, interfingering with argillite 315.5 - 317.6 : stringers of pyrite - carbonate < .64cm, low angle to CA. Argillite sections have more conformable (to banding) pyrite.					
324.3	415.1	Argillaceous qtzite : Not very argillaceous, silicified, banding faint @ 45° - 60° to CA. 324.3 - 346.0 : a lot more pyrite as disseminations and clots 346.0 - 358.1 : broken and fractured core associated with qtz-carbonate-bx. Fractures coated with carbonate. 376.9 - 377.6 : qtz-carbonate-bx, brecciation not significant, no crackle zone, no significant sulphides. 412.4 - 415.1 : qtz-carbonate-bx zone, no significant crackle zone or sulphides and chlorite.					
415.1	441.0	Argillaceous qtzite : green, argillitic content as between 280.7 - 301.8 section and 324.3 - 415.1 section. Banding 80° to CA. 415.1 - 417.3, 421.2 - 422.1, 429.5 - 430.4 : qtz-carbonate breccia zones, some crackle zones with chlorite and pyrrhotite.					
441.0	453.2	Diorite (hypabyssal phase) mixed with Argillite. Oil on core - lithological and alteration variations could not be discerned.					

Core size NQ, BQ, stored in Galloway camp, no assays done

T.K.

DIAMOND DRILL LOG (Secondary Page) 2 2

Project: BUL RIVER MINE Property: STEEPLES 12

Hole No: BR3-92 Page: 2 of 2

From	To	Description	Sample No.	From	To	Width	Analysis
453.2	471.5	Contact Zone : interfingering diorite with gray to flesh coloured silisic(?) qtzite(?). Banding still recognizable.					
471.5	499.0	Diorite : medium grained, green chloritic matrix, slightly porphyritic. Relatively massive. 492.9 - 496.2, 498.7 - 500.5 : darker phase.					
499.0	518.2	Contact Zone(?), Argillaceous Qtzite - Qtzite : gray to flesh coloured, silisic(?), banding still recognizable.					
518.2	581.3	Argillaceous Qtzite - Qtzite : gray-green to gray, banding common. Large sections of lighter coloured less argillaceous material parallel to banding in the distinctly argillaceous sections. Some pyrite stringers @ 30° to CA, < .56cm @ irregular intervals.					
581.3	602.6	Argillaceous Qtzite : quite argillic, green-gray, banding common and relatively uniform width @ 60° to CA. 589.2 - 593.1, 602.3 - 602.6 : broken and fractured core.					
	602.6	Hole lost due to poor ground(?)					
		MUST BE REAMED AND DEEPENED TO +/- 775m					

GALLOWAI BUL RIVER MINE

THE
R. H. STANFIELD
GROUP

stn 08
stn 12
stn 13
stn 14
stn 01
stn 07
stn 10
stn 09
stn 11
stn 06
stn 03

PIT #2
PIT #1
TAILINGS POND
MILL COMPLEX

BR3.92 c @ 961.48m
3861.8N, 4021.8E

Steeples 11
Steeples 12

Scale
100 200 300 metres

Fig. 4

7. Results and Conclusions.

BR3.92 had to be terminated prior to reaching its target depth of 762m (2500ft) due to badly squeezing ground in a major fault zone intersected initially at 589.2m to 593.1m and again at 602.3m. The hole was abandoned at 602.6m.

The existence of this major fault zone trending aproximately north 50^0 west had been determined from previous drilling and from a strip of barren ground first encountered south of Placid Open Pit #1 immediately north of the old Tailings Impoundment area. In the latter area, the barren ground appears to be dyke/fault controlled with the same northwest trend. This barren ground separates the old Placid Open Pit zones from the Stanfield zones in the footwall of the Placid Open Pits. The fault in BR3.92 however was expected to be intersected approximately 100 metres further north than its actual location in 3.92. The target depth of 3.92 at +/- 762 metres was designed therefore to intersect the several separate veins of the Stanfield Zones known to exist in the footwall of the fault and to determine their western strike extension. As a result of BR3.92, one is now not certain whether the known east-west trending fault and the Stanfield Zone in the footwall has veered southwards or whether the major fault intersected at depth in BR3.92 is a splay from the known E/W fault. Intersection of a major fault with the main criteria in a hole 76 metres north of 3.92 supports the latter assumption.

The exact angle and direction of dips of the dykes intersected in BR3.92 will be determined by two additional holes on this section, one additional hole to the north and the other to the south of 3.92 which will answer a lot of questions. However, any hole south of BR3.92 may encounter difficult conditions due to overburden depths of +/- 300m containing exceptionally large boulders in an easily liquifiable matrix of wet sands, tills and gravels.

Based on the assumption that the main portion of the Stanfield mineralized zone, if preserved from errosion, is south of 3.92, then the two quartz/carbonate breccia zones with crackle pyrite, +/- pyrrhotite and chlorite (302.1-324.3 and 415.1-430.4) are the updip westerly expressions of these deeper major zones. In addition, to enable determination of true strikes and dips, step-out and in-fill drilling of at least four holes are necessary to the east and north of BR3.92.

8. Statement of Costs.

Costs comprise Drill Costs (which are implicit to this Report), Physical Costs incurred in maintaining access to this drill site and other areas of the Primary Exploration Area, and PAC costs which are determined as those costs directly attributable to BR3.92 which have not previously been applied to assessment related purposes but without which the Drilling of BR3.92 could not have been undertaken.

Claim Group: Steeples #2B

Claims: Steeples #12, $14, #16, #18 and #19 (all @ 20 units per)

Drilling Date: Diamond Drill - June 18, 1992 to July 20, 1992 (inclusive)
Rotary Percussion - (referred to as BC.2) - Sept 1990

Drill Crew:	Driller	Mr. Robert Thelland	Box 24, Gallowai, B.C.
	Drill 2nd.	Mr. R. Hewisson	Box 24, Gallowai, B.C.
Site Crew:	Manager	Mr. R. Stanfield Jr.,	Box 24, Gallowai, B.C.

Equipment: 1 Longyear 38 Diamond Coring Drill with heavy duty mast and all-weather skid shack,
Peder Pumps and Drill Water Pump Shed, 125 Ingersol Rand Compressor, Hobart Welder,
Ford F600 4x4 Pipe Truck,
Two Ford F250 4x4 Trucks with Bush Boxes.

Costs:

Direct Drill Costs:

Owning and Operating Costs for M/c, String and Bits	*13.958 $/ft*
Moving, Aligning, Surveying (dth), Pumping, etc	*0.938*
Ancilliary Charges @ 59.65% of above	*8.885*
Contingency @ 8% of total above	*1.903*
	25.684 $/ft

Total Hole depth 1977 feet (602.59m)
Total Percussed 862 feet (262.74m)
Diamond Drill Direct Drill Cost *25.684 x 1115* = *28,637.66*

Drill Indirects:

Drillers Wages (June 18 to July 20 = 26 days)	*= 10.591 $/ft*		
R&B @ 65 $/day/man	*= 3.731*		
	= 14.322 $/ft		
		=	*15,969.03*
Consultant Fees - Report, Core Logging, Surveying		=	*1,350.00*
Site Foreman - R&B, Wages (65 + 150) /day 32 days		=	*6,880.00*
Drillers Truck (inc Slip Tank) 26 x 50		=	*1,300.00*
Foremans/Health and Safety Vehicle 32 x 50		=	*1,600.00*
Drill Pipe Truck		=	*1,200.00*
Pump Sloop		=	*300.00*
			57,236.66

PAC ONLY CHARGES

350 x 9.70 $/ft for $6^5/_8$" Casing Pipe	*3,395.00*	
862 x 5.45 $/ft for $4^1/_2$" Casing Liner Pipe	*4,697.90*	
		8,092.90

	TOTAL COSTS - DRILLING AND PAC		***65,329.56***
Steeples 2B Physical Costs			
D7 Crawler Tractor	*16hrs x $110.00/hr*	*1,760.00*	
HD16	*32hrs x $100.00/hr*	*3,200.00*	
580D Backhoe (4x4)	*16hrs x $42.00 /hr*	*672.00*	
Champion 740 Grader	*24hrs x $55.00 /hr*	*1,320.00*	
Power Saw	*11 days @ $18 /day*	*198.00*	
Operator Trucks (x2)	*2 x 11 x 50*	*1,100.00*	
Foreman - R&B. Wages	*(65 + 120) /day 11 days*	*2,035.00*	
Operators - R&B.	*(65 x 2 x 11)*	*1,430.00*	
	TOTAL PHYSICAL COSTS		*11,715.00*

TOTAL ASSESSED COSTS - STEEPLES GROUP 2B ***$77,044.56***

9. References:

ALLEN, Alfred R. Geology and Ore Potential on the Holdings of R.H. Stanfield. *Aug 1976*

ALLEN, Alfred R. Altemont Exploration Co. Report *1967*

ALLEN, Alfred R. Various Assessment Reports *1987, 1988 and 1989*

CLAGUE, John T. The St. Eugene Formation and the develoment of the Southern Rocky Mountain Trench. Can. Jour. Earth Science. *1974*

Dighem. #1097-A Dighem IV Survey for Bul River Mineral Corporation Ltd. Steeples and Aspen Claim Blocks, Fort Steele, British Columbia. *February 25, 1991*

FREEZE, A.C. On the Origin of the Sullivan Orebody, Kimberley, British Columbia. Canadian Institute of Mining and Metallurgy, Special Volume 8. *1966*

HOY,T; HEYDEN,P.van der. Geochemistry, Geochronology, and Tectonic implications of the two Quartz Monzonite Intrusions, Purcell Mountains. *Can. Jour.Earth. Sciences. 1988*

LEECH, G.B. G.S.C. Fernie Area Map 11 - 1960 *1960*

LEECH, G.B. Structure of the Bull River Valley near Lat 49 35. A.S.P.G. *1962*

Master Mineral Resource Services Ltd., Compilation and Review of the Geology and Geologic Modelling of Gallowai Bul River Mine, Fort Steele Mining Division, British Columbia, Canada. *April 10, 1991.*

McMECHAN, M.E. The Middle Proterozoic Purcell Supergroup in the southwestern Rocky and southeastern Purcell Mountains. Bulletin Can. Pet. Geology. *Dec 1981*

McMECHAN, M.E; PRICE, R.A. Transverse Folding and Superimposed deformation, Mount Fisher area, southern Canadian Rocky Mountain thrust and Fold Belt. National Res. Council of Canada. *1982*

PRICE, R.A. The Cordilleran Foreland Thrust and Fold Belt in the Southern Canadian Rocky Mountains. Geol. Soc. of London. *1981*

THOMPSON, Thomas L. Origin of the Rocky Mountain Trench in southeastern British Columbia by Cenozoic Block Faulting. A.S.P.G. *1962*

University of Munich. Ground Geology and Tectonic Study of part of the southern Steeples and northern Lizard (Front Range) *1989*

CERTIFICATE:

February 1, 1993.

I, Phil D. de Souza, certify that:

I am a graduate of the **Camborne School of Mines,** Camborne, Cornwall, England, and that I hold the degree of **A.C.S.M. 1st Class** in Mining Engineering therefrom.

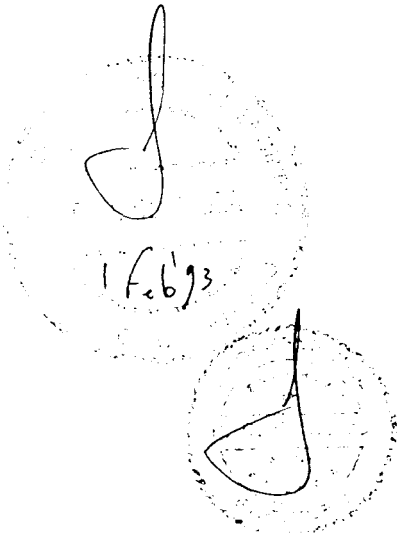
I am a member of the **Canadian Institute of Mining and Metallurgy** and a member of the **American Institute of Mining, Metallurgical and Processing Engineers.**

I am a **Registered Professional Engineer** in good standing with the Province of British Columbia, the Province of Alberta and the Province of Ontario.

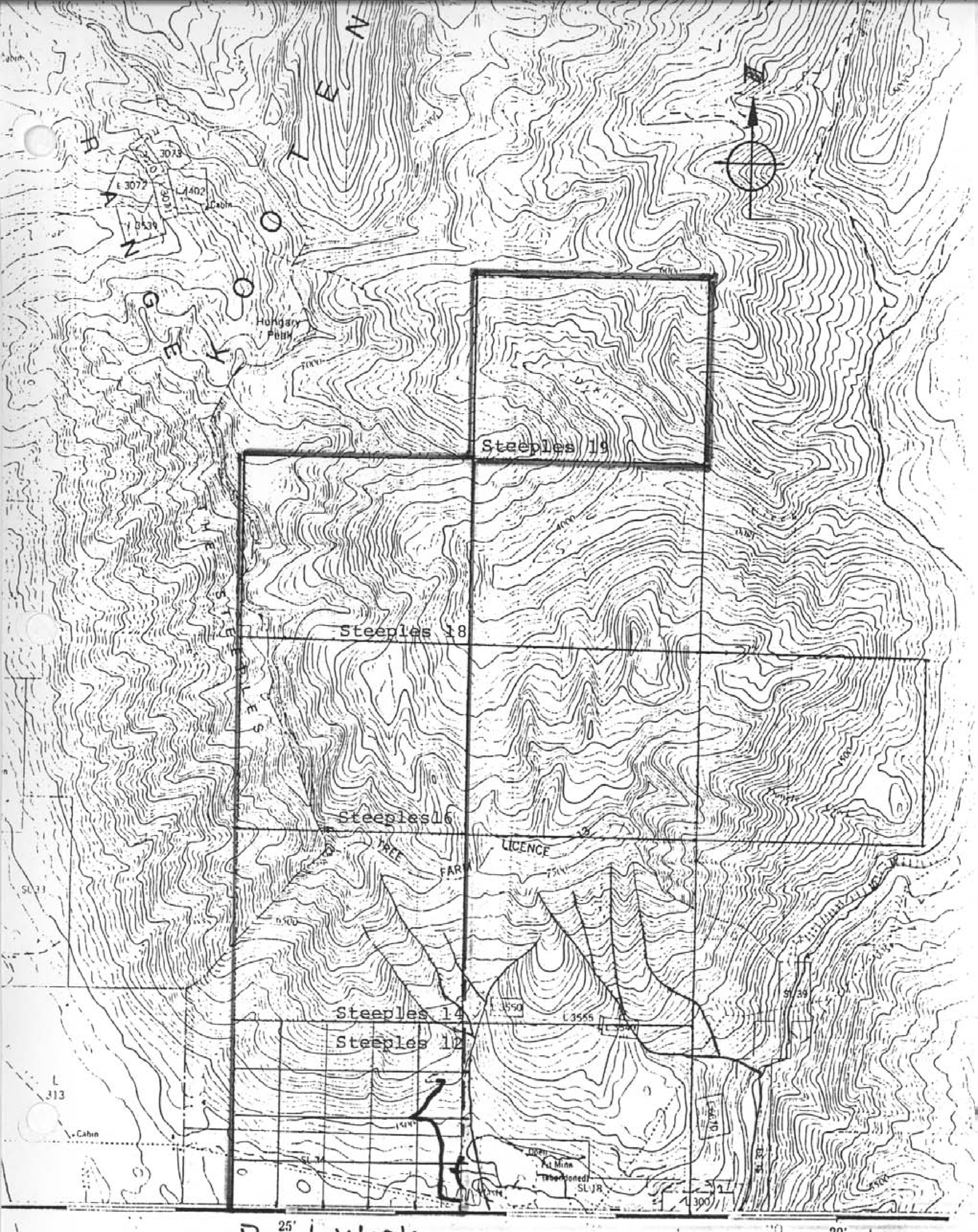
I have practised my profession for the past twenty eight years.

I hold no interest in the Properties or Securities of the Stanfield Group, or its affiliates, nor do I expect to receive any directly or indirectly.

This Assessment Report is based on my direct Project Involvement and Consulting on behalf of the Stanfield Group since 1987, on Drill Site selection and Surveying and from personal examination of the collected Drill Core and Logs prepared by Master Mineral Resource Services of Calgary.



Phil D. de Souza, A.C.S.M., P.Eng.(B.C., Alb., Ont.),
Mining Engineer.


Steeples 19
Steeples 18
Steeples 16
Steeples 14
Steeples 12
Hungary Peak
TREE FARM LICENCE
L 3072
L 3539
L 3402
Cabin
L 3550
L 3555
L 313
Open Pit Mine (abandoned)
L 300
25'
20'
River 4 km

Road WORK