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DRILLING REPORT '78 - #468 - #7089

TO RECORD ASSESSMENT WORK

"ORANGE", "BLUE" AND "YELLOW" GROUP

DECEMBER 12, 1978

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**WESTERN MINES LIMITED**  
P.O. BOX 8000, CAMPBELL RIVER, B.C.

7089

REPORT TO RECORD ASSESSMENT WORK

ON

37 MINERAL CLAIMS IN THE "ORANGE" GROUP  
39 MINERAL CLAIMS IN THE "BLUE " GROUP  
40 MINERAL CLAIMS IN THE "YELLOW" GROUP

ALBERNI MINING DIVISION

SOUTHEND OF BUTTLE LAKE, VANCOUVER ISLAND, B.C.

LATITUDE : 49° 33.3'

LONGITUDE : 125° 34.3'

OWNER OF CLAIMS : WESTERN MINES LIMITED

OPERATOR : WESTERN MINES LIMITED

AUTHORS OF REPORT: R.R. WALKER , M.Sc.  
C.A. PEARSON, B.Sc.  
R.K. TSCHACH, Diploma Geologist

DATE SUBMITTED : DECEMBER 12, 1978

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3. A ITEMIZED COST STATEMENT - PRICE DRILLING PROJECTa) HOLE PR43 (1,842') - ORANGE GROUP

i)	Footage charges	\$28,588.20
ii)	Tests - clinometer	55.90
iii)	Left in hole - casing and casing shoe	149.25
iv)	Move onto site	1,384.45
v)	Move off site	3,367.95
vi)	Drillers' walking time	425.50
vii)	Drill site prep. - avg. cost/foot x footage	736.80
viii)	Hole collar survey - avg. cost/foot x footage	128.94
ix)	Coreboxes used (80 boxes x \$5.25 per box)	420.00
x)	Helicopter costs (avg. cost/foot x footage)	<u>5,691.78</u>

Total Cost \$40,948.77

HOLES PR33 AND PR42 - BLUE GROUPa) HOLE PR33 (495')

i)	Footage charges	\$ 6,691.30
ii)	Tests - acid	40.50
iii)	Left in hole - casing and casing shoe	216.46
iv)	Move onto site	<u>4,802.25</u>

b) HOLE PR42 (2,037')

i)	Footage charges	\$32,060.10
ii)	Tests - Clinometer	111.80
iii)	Left in hole (casing and casing shoe)	143.42
iv)	Move onto site	<u>2,944.85</u>

\$35,260.17

Total Holes PR33 and PR42 = \$47,010.68

HOLES PR34 AND PR35 - YELLOW GROUPa) HOLE PR34 (1,727')

i)	Footage charges	\$25,925.80
ii)	Tests - clinometer	89.70
iii)	Left in hole (casing and casing shoe)	174.64
iv)	Move onto site	<u>2,303.60</u>

\$28,493.74

b) HOLE PR35 (807')

i)	Footage charges	\$11,148.10
ii)	Tests - acid	42.90
iii)	Left in hole (casing and casing shoe)	186.28
iv)	Move onto site	<u>2,267.40</u>

\$13,644.68

Total Holes PR34 and PR35 = \$42,138.42

3.B. COMBINED TOTAL COST OF 1978 SURFACE DRILL PROGRAM

1. Direct Contractor charges	\$251,726.61	\$15.68/Ft.
2. Drill moves (incl. Helicopter)	48,088.85	3.00/Ft.
3. Drill site prep. (incl. Helicopter)	8,025.06	0.50/Ft.
4. Drill mob/demob (incl. Helicopter)	38,032.56	2.37/Ft.
5. Drill servicing - Helicopter	9,872.70	0.61/Ft.
6. Surveying and marking hole locations	4,048.61	0.25/Ft.
7. Assays	820.00	0.05/Ft.
8. Road maintenance	1,126.00	0.08/Ft.
9. Equipment rental - clinometer	<u>1,316.75</u>	<u>0.08/Ft.</u>
	\$363,057.14	\$22.62

Total Helicopter cost : Price \$ 38,406.81) \$ 52,848.56  
 Phillips 14,441.73)

Total Can. Longyear costs : Price \$226,421.61) \$298,815.01  
 Phillips 72,393.40)

Total site preparation Co. costs: Price \$ 4,927.37) \$ 5,675.37  
 (contract fallers) Phillips 748.00)

Total surveying charges - WM : Price 925.56) \$ 2,455.47  
 Phillips 1,529.91)

Contractor costs: Per Foot Price \$ 18.19  
 (Incl. moves) Phillips 20.09  
 Avg. \$ 18.61/Ft.

Helicopter costs: Per Foot Price \$ 3.09  
 Phillips 4.00  
 Avg. \$ 3.29/Ft.

Surveying : Per Foot Price \$ 0.07  
 Phillips 0.42  
 Avg. \$ 0.15/Ft.

Site preparation: Per Foot Price \$ 0.40  
 Phillips 0.21  
 Avg. \$ 0.35/Ft.

Total Cost /Ft. \$ 22.40

3.C. PRICE DRILLING PROJECT (JULY 5/78 TO OCT. 8/78) - (12,449')

<u>CODE</u>	<u>TOTAL COST</u>	<u>COST/FT</u>
<u>DIRECT CONTRACTOR CHARGES - 6203-2</u>		
1. Footage Charge	\$182,929.50	\$14.69
2. Coreboxes (6203-1)	3,845.25	0.31
3. Clinometer tests	913.85	0.07
4. Equipment consumed in hole	1,968.41	0.16
5. Supplies consumed (mud, cement)	179.07	0.02
6. Meals supplied by Western	140.00	0.01
7. Reaming of holes	1,732.90	0.14
8. Drillers walking time	<u>425.50</u>	<u>0.03</u>
Total	\$192,134.48	\$15.43
<u>DRILL MOVES - 6203-3</u>		
1. Contractor charges	\$ 24,517.10	\$ 1.97
2. Helicopter charges	<u>19,472.20</u>	<u>1.56</u>
Total	\$ 43,989.30	\$ 3.53
<u>DRILL SITE PREPARATION - 6203-4</u>		
1. Falling contractor charges (total)	\$ 4,927.37	\$ 0.40
2. Helicopter charges	<u>1,400.51</u>	<u>0.11</u>
Total	\$ 6,327.88	\$ 0.51
<u>MOBILIZATION/DEMOBILIZATION - 6203-5</u>		
1. Contractor charges	\$ 9,770.20	\$ 0.78
2. Helicopter charges	<u>9,611.94</u>	<u>0.77</u>
Total	\$ 19,382.14	\$ 1.55
<u>DRILL SERVICING - HELICOPTER (6276-3)</u>		
	\$ 7,168.77	\$ 0.58
<u>SURVEYING CHARGES</u>		
Helicopter ) (6208)	\$ 753.39	\$ 0.06
Surveyors )	<u>925.56</u>	<u>0.07</u>
Total	\$ 1,678.95	\$ 0.13
<u>ASSAYS</u>		
Western Mines' Lab (6201)	\$ 820.00	\$ 0.07
<u>ROAD MAINTENANCE</u>		
Western Mines' Equipment	\$ 1,126.00	\$ 0.09
<u>EQUIPMENT RENTAL - Sperry Sun Clinometer</u>		
	\$ <u>658.38</u>	\$ <u>0.05</u>
Final Total	<u>\$273,285.73</u>	<u>\$21.95</u>

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PRICE AREA - 1978 SURFACE DRILL PROGRAM

WESTERN MINES LIMITED

4. STRATIGRAPHIC/LITHOLOGIC INFORMATION

The stratigraphy in the area drilled can be generalized from top to bottom as shown in Table 1:

TABLE 1 - GENERALIZED STRATIGRAPHIC SECTION

	THICKNESS	STRATIGRAPHIC ZONE
Zone 5	650 Ft.	Sharp bedded tuff: Well bedded cherty to coarse green tuffs.
Zone 4	250-300 Ft.	Diabase sill.
Zone 3	200	Purple and green to green heterolithic volcanoclastics: clasts are - predominantly dacitic to mafic, textures include tuff to agglomerate. This zone contains a localized unit of rhyolite tuff 0 to 175 Ft. thick which occurs 160 to 280 Ft. above the bottom of the zone. This unit is called the Upper Price rhyolite and hosts some mineralization on surface and in drill core.
Zone 2	250-500 Ft.	Green heterolithic volcanoclastics containing thin beds of pyritic rhyolite tuff (up to 30 Ft.): the heterolithic clastics commonly contain rhyolite clasts and minor sulfide clasts. The lower half of this zone contains one or more units of bedded black argillite and tuff as well as intervals of massive "dacite".
Zone 1	400 Ft.	Massive to volcanoclastic "dacite": much of the volcanoclastic texture in this zone is only vaguely defined.

The 1978 drill program comprised eleven holes designed to test for lateral extensions of the Upper Price rhyolite and accompanying mineralization in stratigraphic Zone 3 as well as the abundance and continuity of rhyolite units and associated mineralization in Zone 2. Seven holes (PR35 to PR41) were drilled within 220 Ft. of 1965 hole PR7, which intersected significant mineralization in Zone 2. Pyritic rhyolite tuff beds were intersected but only one 3.8 Ft. sample produced a potential ore grade assay. Holes PR33, 34 and 42, 43 tested stratigraphic Zones 2 and 3 over a wider area.

The occurrence of pyritic rhyolite tuff lenses and thin beds, as well as clasts of rhyolite and sulfide is a widespread feature of stratigraphic Zone 2. In contrast, the Upper Price rhyolite in Zone 3 is found only in the immediate area of its outcrop.

*R. Walker*  
R. Walker  
Geologist

December 1978





9. ABBREVIATION LISTWESTERN MINES EXPLORATION GROUP - BUTTLE LAKETEXTURE

massive	msv
tuff	T
lapilli, lapillistone	L, Lst
agglomerate	A
fine	F
medium	M
coarse	C
very	V

Volcaniclastics are given a textural name according to the attached triangular diagram. Fragment sizes are given in increasing order of abundance.

## Examples:

agglomeratic lapilli tuff	ALT
tuffaceous lapillistone	TL
lapilli very coarse tuff	LVCT
fine lapillistone	FL

COMPOSITION

rhyolite	rhy, R
dacite	dac
feldspar porphyry	fsp porph, F.P.
quartz porphyry	qtz porph, Q.P.
andesite	and
chert, cherty	cht, chty
diabase	dia
argillite	arg

Heterolithic volcaniclastics are given rock type names in decreasing order of abundance (e.g., dacite-rhyolite-mafic agglomeratic lapillistone: dac-rhy-mafic AL)

MINERALOGY

sericite, sericitic	ser, ser'c
chlorite, chloritic	chl, chl'c
epidote	ep
clinozoisite	clinoz
carbonate	carb
quartz	qtz
leucoxene	leuc
feldspar	fsp
phenocrysts	phenos
hematite, heratitic	hem, hem'c

COLOR

green	grn
black	blk
grey	gy
red	rd
purple	purp

COLOR (CONT'D)

purple and green	P & G
pink	pk
brown	bwn
yellow	yel
white	wht
dark	dk
medium	med
light	lt

Combined colors are hyphenated with the predominant color last (e.g., greenish grey: grn-gy)

STRUCTURE

schistosity, schistose	sch
shearing, sheared	sh, sh'd
breccia, brecciated	bx, bx'd
laminae, laminated	lam, lam'd
contact	ct
amygdules, amygdaloidal	amyg, amyg'l
bedded	bd'd
thin	tn
thick	tk
medium	med
disseminated	diss
massive	msv

MINERALIZATION

sulfide	sulf
pyrite	py
sphalerite	sph
galena	gn
tetrahedrite	tet
pyrrhotite	po
barite	bar
chalcopyrite	cpy


Assays are always in order of Au, Ag, Cu, Pb, Zn

QUALIFIERS

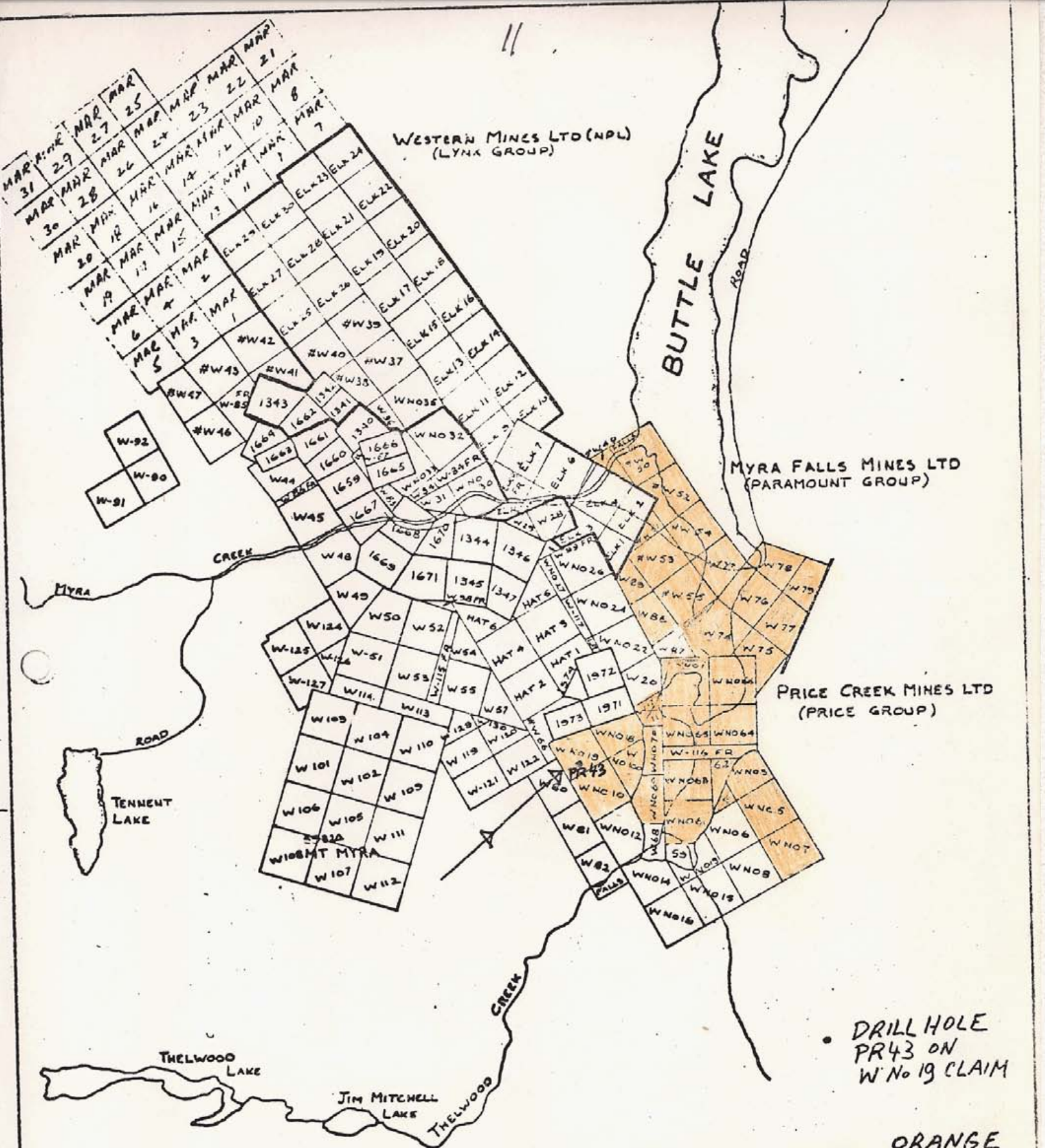
trace	tr
minor (common but less than 1%)	minor
strong, strongly	str, strly
moderate, moderately	mod, modly
weak, weakly	wk, wkly

R. Walker  
Geologist

December 1978

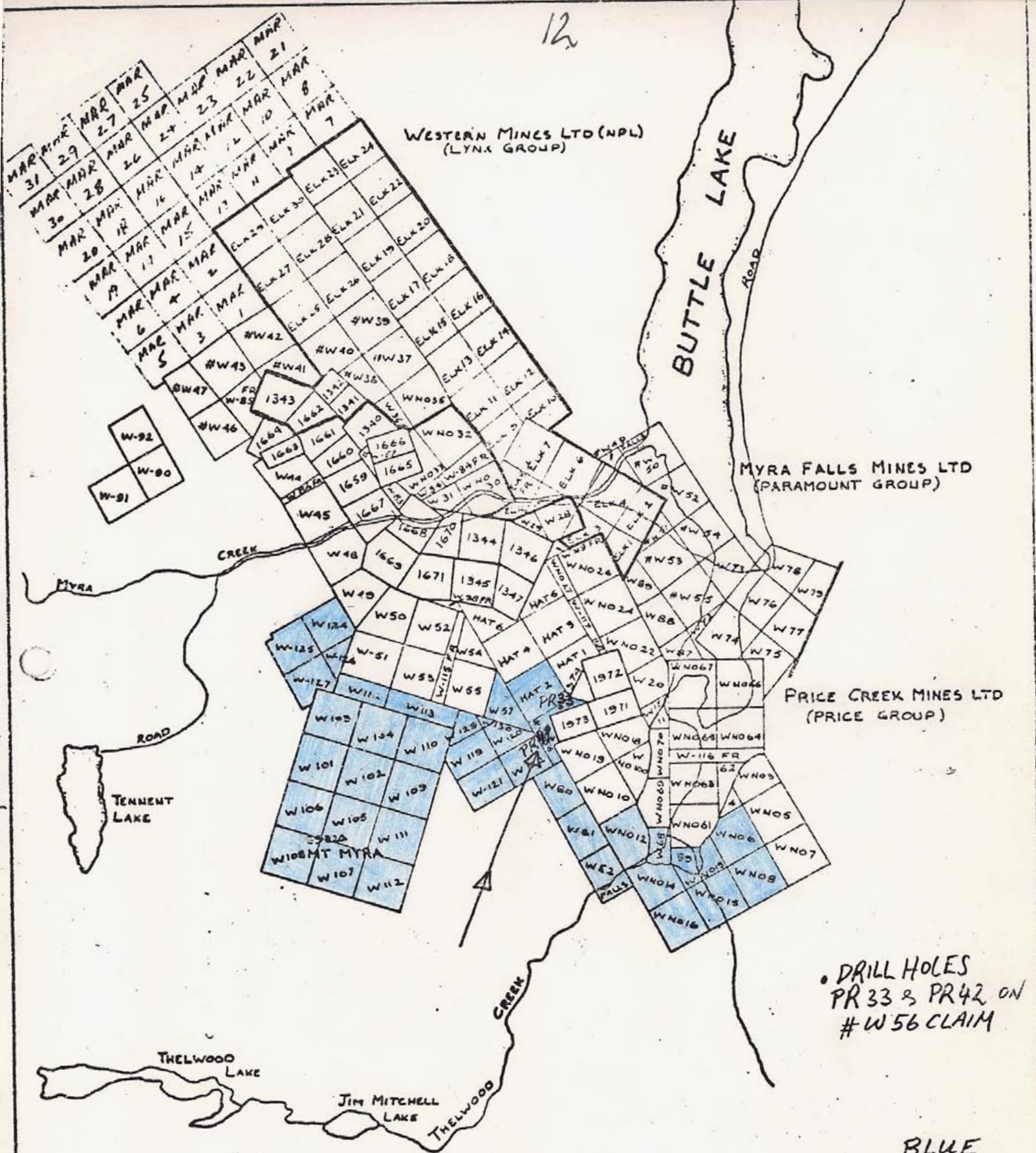
7. STATEMENT OF QUALIFICATION 

- R.R. WALKER            B.Sc. Geology: University of Alberta, 1970  
                          M.Sc. Geology: University of Alberta, 1976
- J. KOO                -B.Sc. Geology: Seoul National University, 1963  
                          M.Sc. Geology: University of British Columbia, 1968  
                          Ph.D. Geology: University of Saskatchewan, 1973
- C.A. PEARSON          B.Sc. Geology: University of British Columbia, 1969  
     (One course short)  
                          9 years experience with Western Mines Limited at Mine  
                          Geologist and Exploration Geologist
- R. TSCHACH            "Diploma Geologist", Germany (equals M.Sc. Geology)  
                          University of Freiberg, 1960  
                          12 years experience with Western Mines Limited -  
                          2 years exploration



MINERAL CLAIM  
LOCATION MAP  
3.175 cm = 1.609 Km  
1:250,000 SCALE JULY 1978

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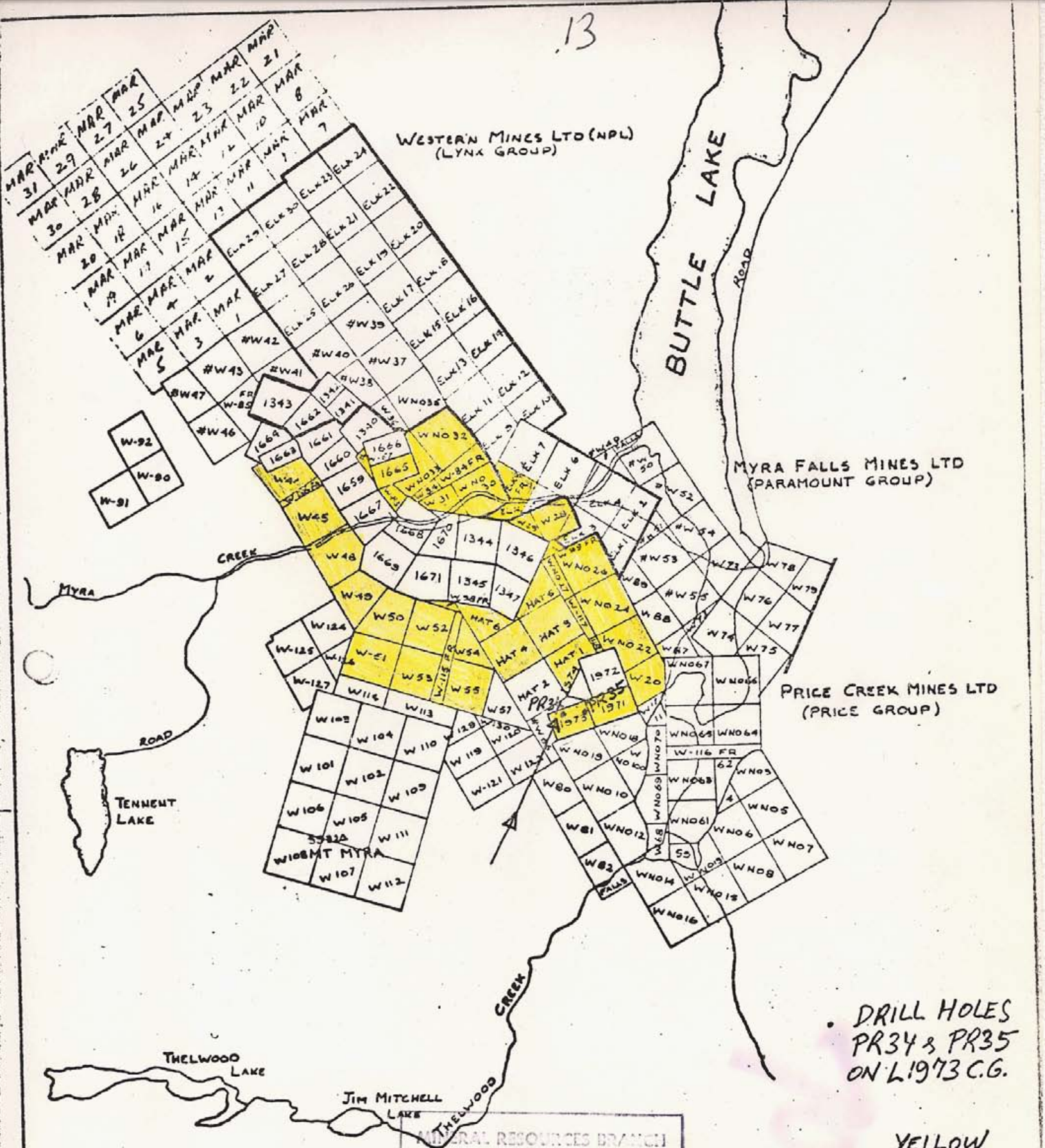


• DRILL HOLES  
PR 33 & PR 42 ON  
#W 56 CLAIM

BLUE  
GROUP

MINERAL CLAIM  
LOCATION MAP  
3.175 cm = 1.609 km  
1:250,000 SCALE JULY 1978

7089



WESTERN MINES LTD (NPL)  
(LYNX GROUP)

BUTTLE LAKE

MYRA FALLS MINES LTD  
(PARAMOUNT GROUP)

PRICE CREEK MINES LTD  
(PRICE GROUP)

DRILL HOLES  
PR34 & PR35  
ON L1973 C.G.

YELLOW  
GROUP

MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**7089**  
NO.

MINERAL CLAIM  
LOCATION MAP  
3.175 cm = 1.609 Km  
1:250,000 SCALE July 1978

ASSAYS OF HOLES DRILLED IN ASSESSMENT AREA  
BUT NOT USED IN APPLICATION FOR ASSESSMENT WORK CREDITS

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<u>HOLE NO.</u>	<u>MINE GRID LATITUDE</u>	<u>MINE GRID DEPARTURE</u>	<u>COLLAR ELEVATION</u>	<u>FEET</u>		<u>Au</u>	<u>Ag</u>	<u>ASSAY</u>		
				<u>FROM</u>	<u>TO</u>			<u>Cu</u>	<u>Pb</u>	<u>Zn</u>
PR 36	10,819.7	18,114.0	2,050.1 Ft.	568.5	571.1	TR	0.20	0.15	0.20	0.45
"	"	"	"	597.5	600.0	TR	0.55	0.25	0.40	2.35
"	"	"	"	602.7	606.5	0.034	0.50	0.25	0.30	1.00
PR 37	10,788.5	17,983.1	2,109.6 Ft.	597.2	598.4	0.036	0.55	0.10	0	0.30
"	"	"	"	629.0	633.0	TR	0.50	0.20	TR	1.30
"	"	"	"	633.0	637.0	TR	0.40	0.10	TR	0.45
"	"	"	"	645.7	649.5	0.23	10.65	0.20	1.90	3.50
PR 38	10,706.6	18,704.6	2,098.3 Ft.	665.4	666.9	0.01	0.50	0.40	TR	1.00
PR 39	10,656.2	18,007.6	2,140.2 Ft.	765.0	766.3	0.124	0.37	0.10	0.10	0.45
"	"	"	"	780.3	782.0	TR	0.07	0.05	0.10	0.15
"	"	"	"	785.7	790.1	TR	0.14	0.05	0.10	0.15
PR 7	10,869.7	17,999.5	2,061.0 Ft.	588.5	591.0	0.37	14.3	0.20	5.3	21.5

Hole No. PR43 Sheet 1 Started Sept. 28/78 Completed Oct 6/78 Logged by R. Walker Oct/78 Property Price

Length 1842 ft Dip -90° collar Hor. Comp. \_\_\_\_\_ Vert. Comp. \_\_\_\_\_ Bearing \_\_\_\_\_ Latitude 9894.75N Departure 18983.18 E

Elev. Collar 11976.71 ft. % Recovery \_\_\_\_\_ Location Upper Price Area - Surface, BA-CORE Surveyed by E. Binder Oct. 178.

Object Sperry Sun Tests  
500 ft -80.3° @ 310° mine grid  
1057 ft -77.9° at 316° mine grid  
1840 ft -76.6° at 318° mine grid.

Footage		Core Recovered	Description	Sample No.	From	To	Recovery %	Analysis						
From	To							Au	Ag	Cu	Pb	Zn		
0	90		Sharp Bedded Tuff Formation: Fine green mafic tuff and cherty tuff bedded at 80° to core axis. Thin to medium bedded, locally laminated & cherty tuff.											
90	176		Mafic (Tuff?): Msc & uniform, dark green, medium grained & granular, no leucosene, epidote & carb veins.											
176	212		Feldspar Porphyry Dyke											

MINERAL RESOURCES BRANCH  
 ASSESSMENT REPORT  
**7089**  
 NO. \_\_\_\_\_





























Hole No. P.R. 33 Sheet 4 Started \_\_\_\_\_ Completed \_\_\_\_\_ Logged by J. K. O. Property \_\_\_\_\_  
 Length \_\_\_\_\_ Dip \_\_\_\_\_ Hor. Comp. \_\_\_\_\_ Vert. Comp. \_\_\_\_\_ Bearing \_\_\_\_\_ Latitude Nov 20, 1978 Departure \_\_\_\_\_  
 Elev. Collar \_\_\_\_\_ % Recovery \_\_\_\_\_ Location \_\_\_\_\_  
 Object \_\_\_\_\_

Footage		Core Recovered	Description	Sample No.	From	To	Recovery %	Analysis							
From	To							As	Ag	Cu	Pb	Zn			
300	347		LT-L; cherty, light gm, grey, g <sub>3</sub> veined (30°) poorly sorted; only minor local beddings (1" thick) 333-334; 339-341; g-carb veined; gradual oval lens contact; locally moderate schistosity, 40° gm - dark gm (mafic?) part one 5%, uneven distribution												
347	350	P49	Mixed gm - purple (5%) F-CT; w/ky, schistose 30-40° A zone of transition between green & P&G units dk brown streaks in green schistose tuff; dk brown chips (hem) seen												
350	375	P49	Mixed gm (95-60%) - purple (upt 40%) F-CT. Carb streaks; dk brown chips; occasional capill (<10%) schistose moderate, 30-40°												
375	384	P49	Purple (60-80%) - gm (40-20%) F-CT. moderate schistose (30-40°) gm, carb streaks 5%												

Note: Purple portion increases in amount gradually in the top contact area & decreases sharply in the bottom area.













































































Hole No. PP.35 Sheet 11 Started \_\_\_\_\_ Completed \_\_\_\_\_ Logged by \_\_\_\_\_ Property \_\_\_\_\_

Length \_\_\_\_\_ Dip \_\_\_\_\_ Hor. Comp. \_\_\_\_\_ Vert. Comp. \_\_\_\_\_ Bearing \_\_\_\_\_ Latitude \_\_\_\_\_ Departure \_\_\_\_\_

Elev. Collar \_\_\_\_\_ % Recovery \_\_\_\_\_ Location \_\_\_\_\_

Object \_\_\_\_\_

Footage From	Footage To	Core Recovered	Description	Sample No.	From	To	Recovery %	Analysis						
								As	Ag	Cu	Pb	Zn		
623	627.5		lapilli buff, rhyolitic, dark grey, 2/3. eyes abundant, very sparse pyrite <1%											
627.5	633		tuffaceous lat, green, mafic clasts ± 70%, dacite, 20%, rhyo. 10% + red sph clasts 1% to 4mm.											
633	641		lapilli + tuff, pale green matrix, clinozoisite? dacite clasts 70% rhyo 30%.											
641	656		tuffaceous agg. lat, pale green matrix - c.z. mafic clasts 60%, dacite 30%, rhyo 10%. red sph. clasts <1%											
656	660.5	→	lapilli buff, rhyolitic, dark grey, sharp upper contact, ineq. lower contact, fine red sph. + c. py. + py. — SAMPLE.											
660.5	668		+ALT as above, still with red sph.											
668	675		pale grey green & dark grey, rhyolitic bed or clasts with dacite.											

(668-670) 807 Rhy clasts in matrix ALT (572-675) Rhy LT, 10% dac. matrix py



Hole No. R35 Sheet 12 Started \_\_\_\_\_ Completed \_\_\_\_\_ Logged by \_\_\_\_\_ Property \_\_\_\_\_  
 Length \_\_\_\_\_ Dip \_\_\_\_\_ Hor. Comp. \_\_\_\_\_ Vert. Comp. \_\_\_\_\_ Bearing \_\_\_\_\_ Latitude \_\_\_\_\_ Departure \_\_\_\_\_  
 Elev. Collar \_\_\_\_\_ % Recovery \_\_\_\_\_ Location \_\_\_\_\_  
 Object \_\_\_\_\_

Footage		Core Recovered	Description	Sample No.	From	To	Recovery %	Analysis						
From	To							As	Ag	Cu	Pb	Zn		
675	681		(TA) tuff, green mafic 50%, diorite 50%, red. sph. & cpy-py clasts to 1cm. pale green c2 matrix.											
681	684		silicious, possibly spherulitic zone, altered lac. or shyp. thin, granular white, possibly vesiculated											
684	704		shyp. Sph. clasts. Rn m-ss tuff (687.5-690) Rn m-ss tuff, (671.6-672.3)											
688.5	690		- clast or bed shyp. at 688.5-690 with 2% red sph. clasts.											
692	693		- clast or bed shyp. coarse tuff at 692-693.											
704	712		b.c., steaming.											
712	720		fine to medium tuffs, some epidote alt. Qtz vein 744-747' with py. & chlorite.											
			some section show fapor & mafic (may be <u>duple</u> ) shyp lower contact											

Qtz-Fsp-Rhy met tuff: 10% Qtz, 10% fsp, 10% rhy. mm, 672 quartz rhy.





LEGEND

- ORANGE GROUP
- BLUE GROUP
- YELLOW GROUP
- DRILL HOLES

MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT

7089

PAGE 65

WESTERN MINES LTD.  
MYRA FALLS, B.C.

MINERAL CLAIMS

SCALE 1" = 1000'    DATE OCT 1966    DRW. NO. 41-71-15

SCALE 1" = 1000'

SCALE 1:30000

1 Km 5 0 5 1 Km 2 Km