830739

Review of Potential Exploration Targets at MFO

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1. SUMMARY

This project was commissioned in January 2003 to re-examine exploration potential of the Myra Falls Operations property, in order to ensure that known mineral occurrences are properly considered and ranked in preparation for renewed exploration.

I concentrated my search on areas of the property outside those currently being mined or recently explored and reported upon. For areas thus selected for review, I examined drillhole logs, exploration reports and summaries, thesis reports and scientific studies to ensure that significant mineral occurrences are listed and considered.

This work produced a list of 35 targets for consideration ranging from obvious extensions of known ore zones to forgotten mineralized intersections of unknown significance.

With these targets in hand, Section 3 of the report examines the need for timely resumption of on-site exploration at Myra Falls Operations and asks the questions common to all investigation: why, when, how, where, who will do it and how much will it cost?

2. TARGET SELECTION AND RANKING

2-1 Criteria for target selection

- The current mining area from Gap Zone in the west to 43Block in the east (the INBOX) was not considered, since the mine geology group has full knowledge of potential ore occurrences within that area and has done very well the past few years in adding to reserves.
- Areas of recent exploration work, such as Marshall Zone, Ridge Zone West, Ridge Zone East and Trumpeter, were not examined as those databases are well known and generally are included in Medsystem. The exploration potential of these zones along strike was considered and added to the list of targets.
- The Lynx Mine area was not included, since it was very well defined in the 2001 report by Mipoz Geological Inc.
- Price Mine and 5/6 Level Lynx areas were not examined, since they were the subject of detailed feasibility studies within the last year.
- All other areas were looked at. These included: Thelwood Valley, Price 9L, Price 13L, South Flank, North Flank, HW East, HW South, Core Zone and Myra Mine.
- A number of site exploration assumptions and paradigms were challenged to ensure that no mineral occurrences were eliminated by geological assumption only.
- In the end, targets were included because they: (1) were of significant grade, (2) were of significant size (3) were of both significant grade and size, or (4) represented an area that I thought should at least be considered.

2-2 Explanation of target comparison

The selected targets were compared and ranked in chart form. See figure 17.

The following parameters were used:

SECT REF: refers to the target number noted on one of the 9 composite sections.

DATABASE: refers to the drillhole, ore reserve or sample from which grade data is derived.

TARGET TYPE: refers to Contact zone, Clastic zone or Upper Zone.

TARGET SHAPE: refers to Lens (sheetlike), Ball (Gap or 43) or UZ (irregular).

TARGET TREND: refers to NF (north flank), MLT (HW main lens trend), CORE (trend of Price Andesite Paleohigh) or SF (south flank). See figure 12.

TARGET HORIZON: refers to GHW (Lynx hangingwall zone), LMP (Lynx-Myra-Price horizon), OCB (Ore Clast Breccia), HW (HW horizon, including upper zones).

TARGET SIZE: refers to assumed cross-sectional area in meters, based on target shape and permissiveness.

TPLM: refers to tonnes per lateral meter. Standards are: LMP lens (300-1200), UZ (1,000), Gap Zone (3,300), Battle Mine (4,400) and HW Mine (10,000). See figure 16.

NSRM: refers to Net Smelter Return calculated value (Cdn. $) multiplied by intersection meters or zone average thickness in meters.

TARGET RESOURCE: calculated as TPLM multiplied by available strike length.

TIME HORIZON: defined as ST (short term, 0-3 years to production), MT (medium term. 3-5 years to production), LT (long term, 5-7 years to production) and PM (over 7 years away and probably post-mining). See figure 13.

DEPENDENCY: defined as the work being dependent on something else, such as the Surface Ramp, Lynx Mine rehab, surface drilling permits or another program.

3. DISCUSSION OF ON-SITE EXPLORATION POTENTIAL AND METHODS

3-1 WHY explore at Myra Falls?

- Minesite exploration history at MFO demonstrates continued success. See figure 18.
- A major mineralizing system was at work at MFO, producing ore zones of many types and sizes – often of exceptional grade.
- Current property geological inventories define a mine life of about 7 years, if production continues to be boxed-in around the Battle and HW mines. Sufficient additional tonnages are carried in the potential and inferred categories to more than double mine life; however, exploration work is needed quickly to upgrade these categories to mineable tonnage to ensure production from these areas reaches the mill in time. See figure 20.

3-2 WHEN to explore

- Site exploration has lagged for the past 10 years, and no major new discoveries have been made. Funding has not been consistent, and underground development for exploration access has fallen behind badly. Much of the exploration work done has consisted of drilling from poorly positioned drill platforms.
- The defined mine life is 7 years at current production rates. In normal circumstances, we would expect significant additional tonnes to be found and recovered in the producing areas -- the mine 'diehard' factor. At Myra Falls much of this additional tonnage has already been defined and placed in reserves – thus it will not be available to extend mine life.
- Mine management, over the next few years, will need to make serious decisions on how to ensure continued mine life. Timely exploration is needed to quickly define the next production areas. This will provide management with the tools to make the correct decisions.

3-3 HOW to successfully explore at MFO

- The fault template should be downgraded and more emphasis should be placed on mineralized trends, growth faults, mineralizing events and reconstruction of paleotopography. With this in mind, the Myra-Price Fault area should be tested on several levels to finally define its importance.

- Drilling needs to done from better-situated drill platforms -- the closer to target the better. Without additional underground development it will be very difficult to upgrade geological inventories and discover new deposits, considering the complex range of orebody sizes and shapes.

- Successful exploration in the past has been built on teamwork between on-site geologists and experienced and enthusiastic exploration geologists from outside the property. Such exploration teams have often had a degree of autonomy from the mine operations group.

- The exploration office needs to be re-established and any available on-site exploration experience and continuity of personnel that is available must be retained.

- Efforts should be initiated toward a claim exchange, attempting to secure the prospective ground due west of the current claim boundary. See figure 22.

3-4 WHERE to explore at MFO

- A significant number and wide variety of targets are available in all timeframe categories. Site exploration should include targets from all categories and should take advantage of whatever synergies are available to allow several targets to be tested from one platform or area.

- In the short-term category, areas such as the Lynx Mine, Lynx 5/6 Level and Price Mine are sufficiently defined to be developed as a second ore source for the Mill, not dependent on the HW shaft. Exploration work will be required in these areas, as well as in the dormant Myra Mine.

- The medium- and long-term categories of target are focused on upgrading the defined site mineral potential to mineable reserves. Additional underground development is needed in many areas to allow exploration drilling to fully assess the potential.

- The final category of potential in areas far removed from current development is termed post-mining in this report. Subjectively, the most probable target area for significant new ore discovery is the NW Frontier, that area of 3-sq. km. from Marshall Zone west to the claim boundary. Significant additional underground development is needed, but the value of a new discovery here is great, especially if it is of the size and tenor of the Battle Mine -- even better if it is HW size!

3-5 WHO shall do it, and HOW MUCH will it cost?

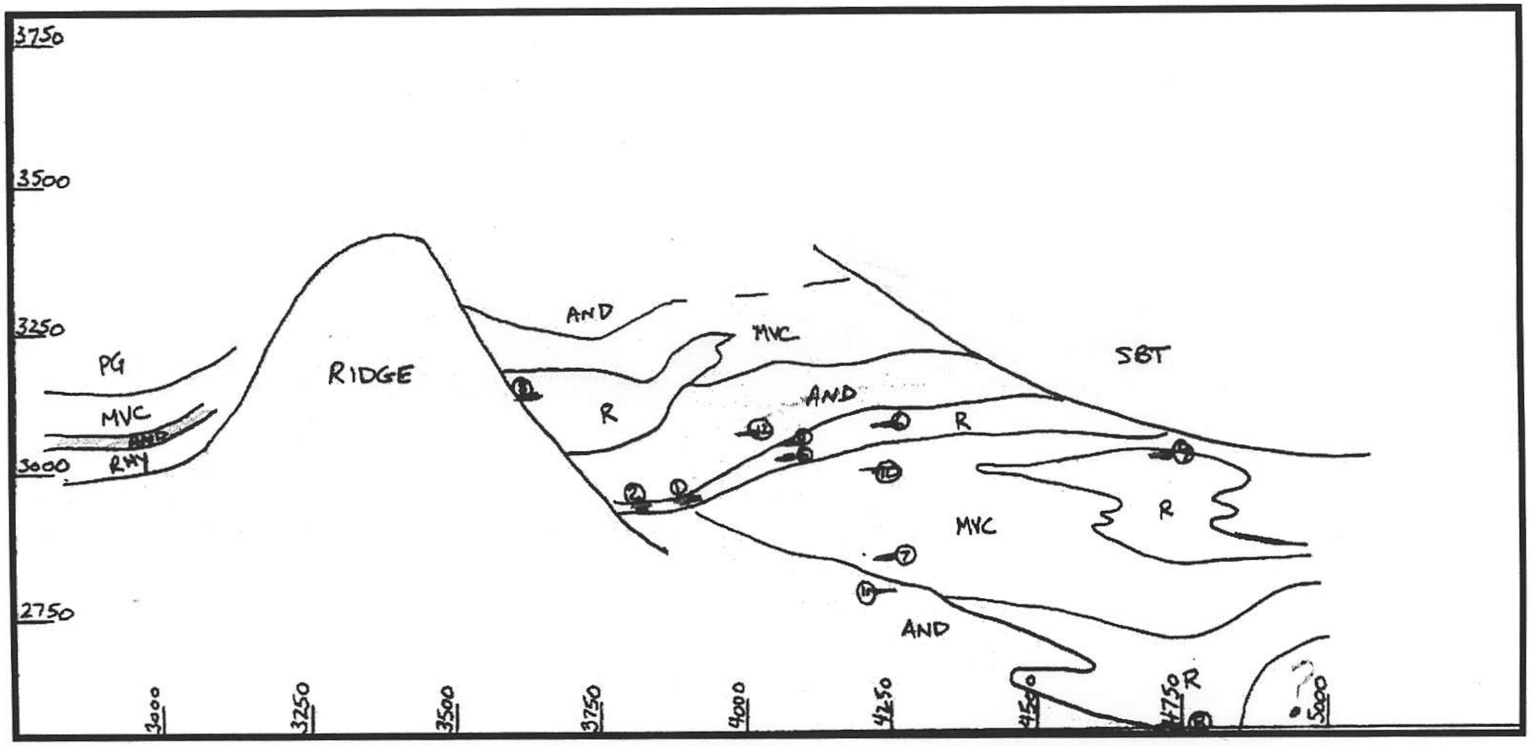
- Offsite assistance seems essential. Boliden funding and geological expertise would be invaluable, in conjunction with the on-site knowledge base and enthusiasm.

- The potential to vend or joint venture target areas may be tested, if funding cannot be obtained elsewhere. Discoveries made in this manner would surely be milled at MFO and would provide income.

- Considerable time and effort has been expended in scientific research by CODES, GSC and others. These initiatives may bear more fruit if those agencies are encouraged to stay involved with ongoing exploration.

- Finally, history shows that a consistent and committed funding level of $3-4 million Cdn. per year over several years will bring exploration success and ensure mine longevity.

Figure 1



Section 6500E -composite

Location #	Meters	Au g/t	Ag g/t	%Cu	%Pb	%Zn	Target	DDH	Location #	Meters	Au g/t	Ag g/t	%Cu	%Pb	%Zn	Target	DDH
1	1.4	1.9	90.5	0.9	0.3	6.0	8	PR82	7	1.0	1.2	51.2	1.4	0.4	3.3	8	PR108
2	0.3	3.4	87.7	1.5	0.5	4.6	8	PR113	8	1.0	1.4	31.9	1.4	tr	0.1	?	PR110
3	0.4	1.5	40.5	1.5	0.1	7.6	7	PR115	9	1.7	7.0	5.2	tr	tr	tr	9	PR110
4	1.5	0.4	7.1	0.1	0.2	1.9	8	PR83	10	0.9	3.6	353.2	1.2	0.4	29.2	10	PR86
5	0.8	4.6	93.3	0.9	1.1	12.7	8	PR83	11	0.6	5.4	112.1	1.4	1.7	13.9	10	PR86
6	0.2	2.5	49.3	0.2	0.4	4.7	8	PR108	12	3.7	1.6	27.9	0.4	0.2	2.1	8	PR90

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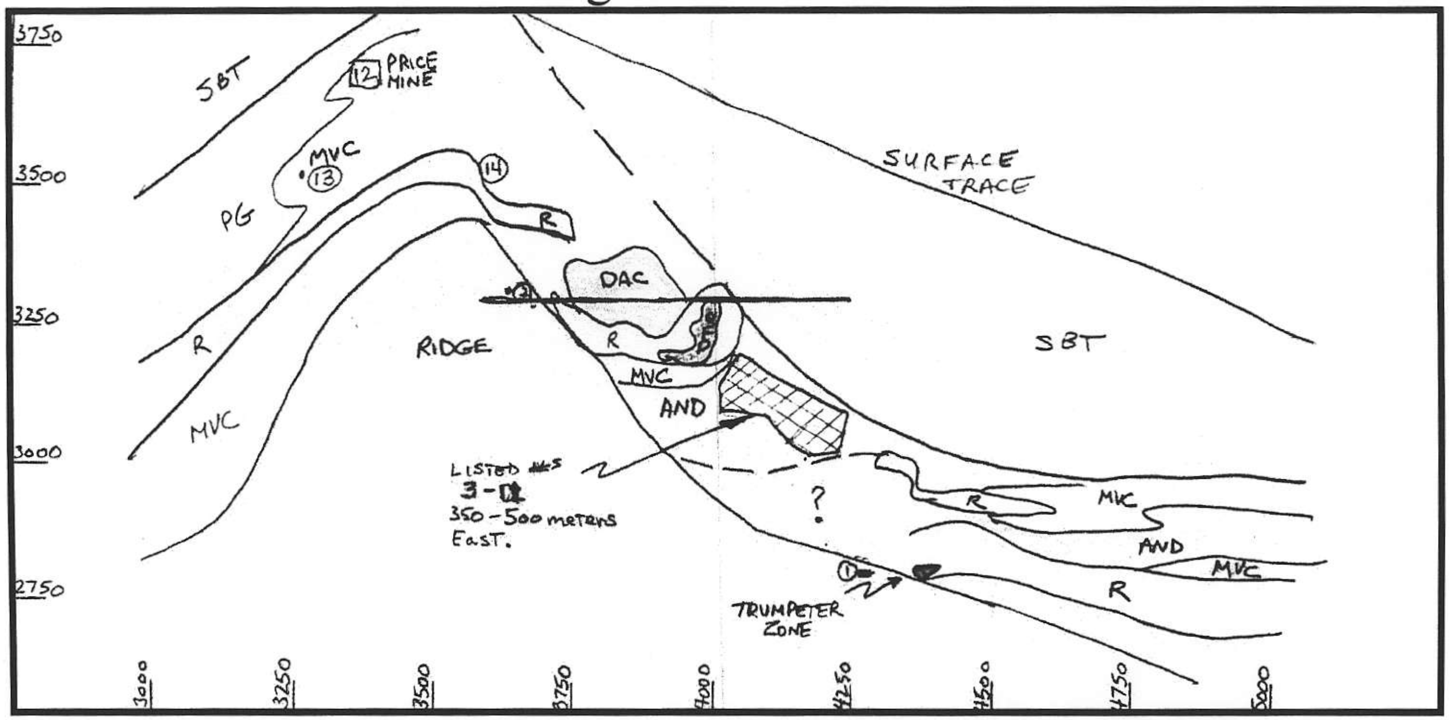
MYRA FALLS OPERATION
JANUARY 2004 ORE RESERVES

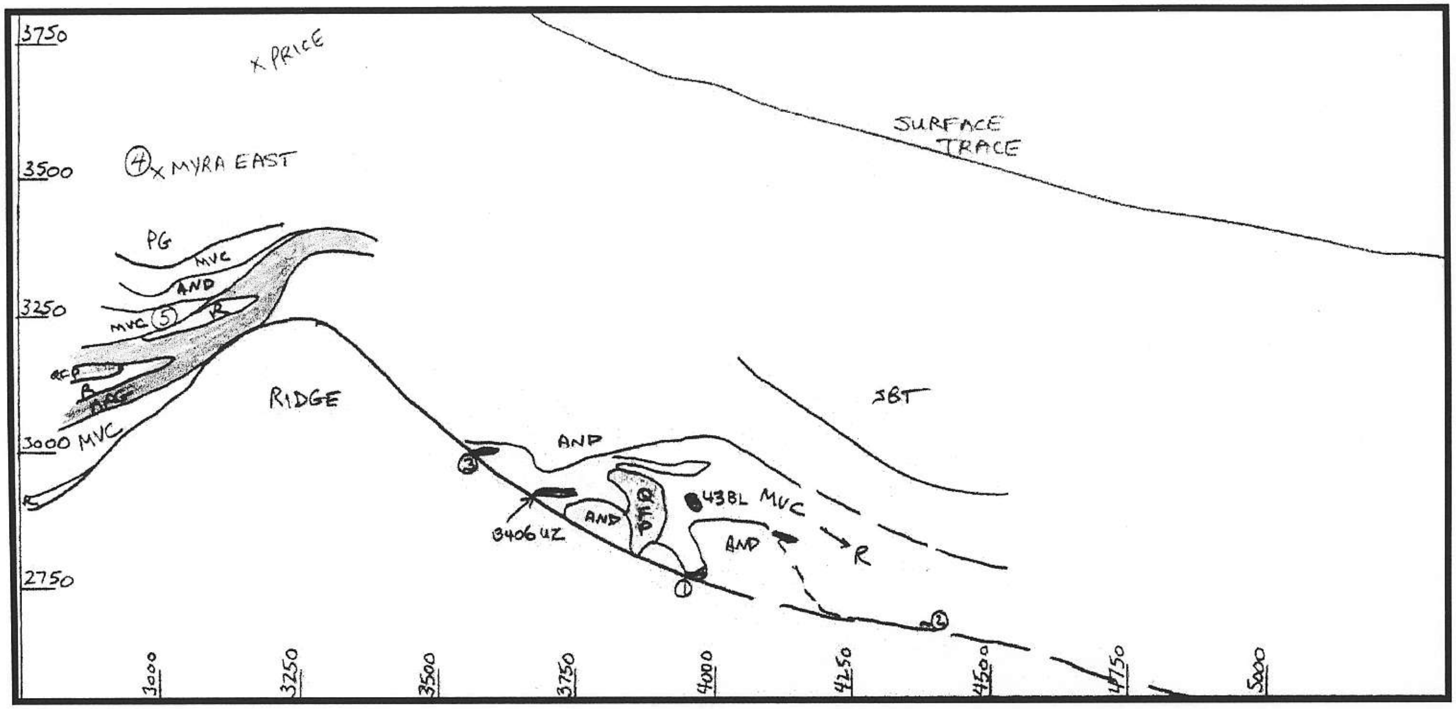
Figure 2



Section 5200E -composite

Location #	Meters	Au g/t	Ag g/t	%Cu	%Pb	%Zn	Target	DDH	Location #	Meters	Au g/t	Ag g/t	%Cu	%Pb	%Zn	Target	DDH
	8.5	3.2	62.1	4.9	0.4	6.0	trump	zone	8	5.5	1.1	64.0	0.1	0.8	6.4	4	PR94
1	5.2	1.7	41.7	0.6	0.6	7.3	5	PR100	9	2.9	1.0	50.2	0.3	0.8	7.4	4	PR94
2	3.7	0.7	37.7	2.9	0.3	3.0	1	PR13-0039	10	2.4	1.1	39.5	0.1	1.2	3.6	4	PR94
3	5.2	0.8	97.6	3.0	0.2	2.0	4	PR87	11	0.4	0.2	38.4	0.3	3.2	10.3	4	PR73
4	4.3	0.6	35.8	0.5	0.3	8.5	4	PR87	12	GI	2.1	73.1	1.4	1.3	9.2	3	GI
5	0.5	tr	tr	2.4	0.4	6.0	4	PR79	13	0.8	20.2	601.8	0.2	6.3	20.4	2	PR7
6	1.1	tr	tr	1.4	0.4	4.4	4	PR79	14	N/A LOWER PRICE SHOWING- NO ASSAY							
7	3.5	1.6	42.4	0.4	0.4	4.7	4	PR96									

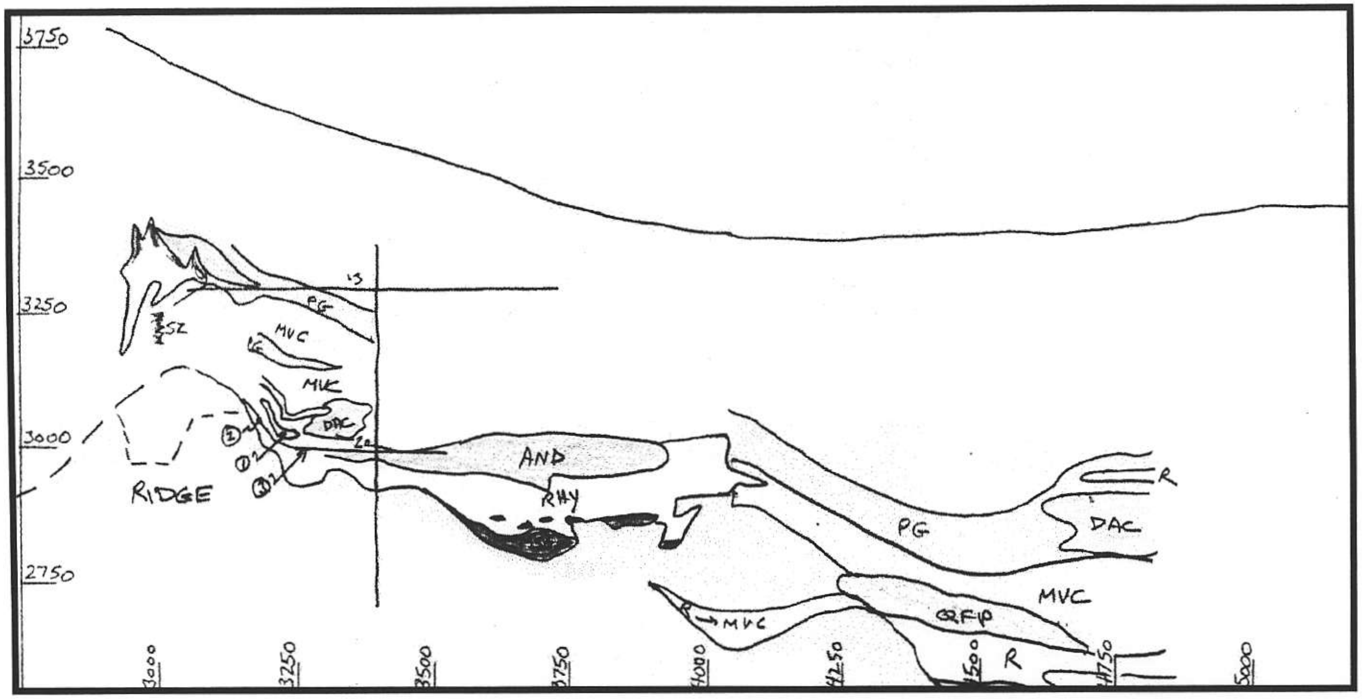
Figure 3



Section 4200E -composite

Location #	Meters	Au g/t	Ag g/t	%Cu	%Pb	%Zn	Target	DDH
1	2.6	3.7	38.3	0.7	0.4	6.2	13	HW20-0392
2	1.2	3.5	65.7	1.0	0.3	7.6	14	W202
3	3.0	4.8	104.2	1.1	3.5	4.3	12	HW20-0665
4	6.0	5.8	470.0	0.6	3.0	8.8	11	77 M.O.R.
5	0.3	0.1	41.1	6.3	0.1	10.0	33	PR13-0056

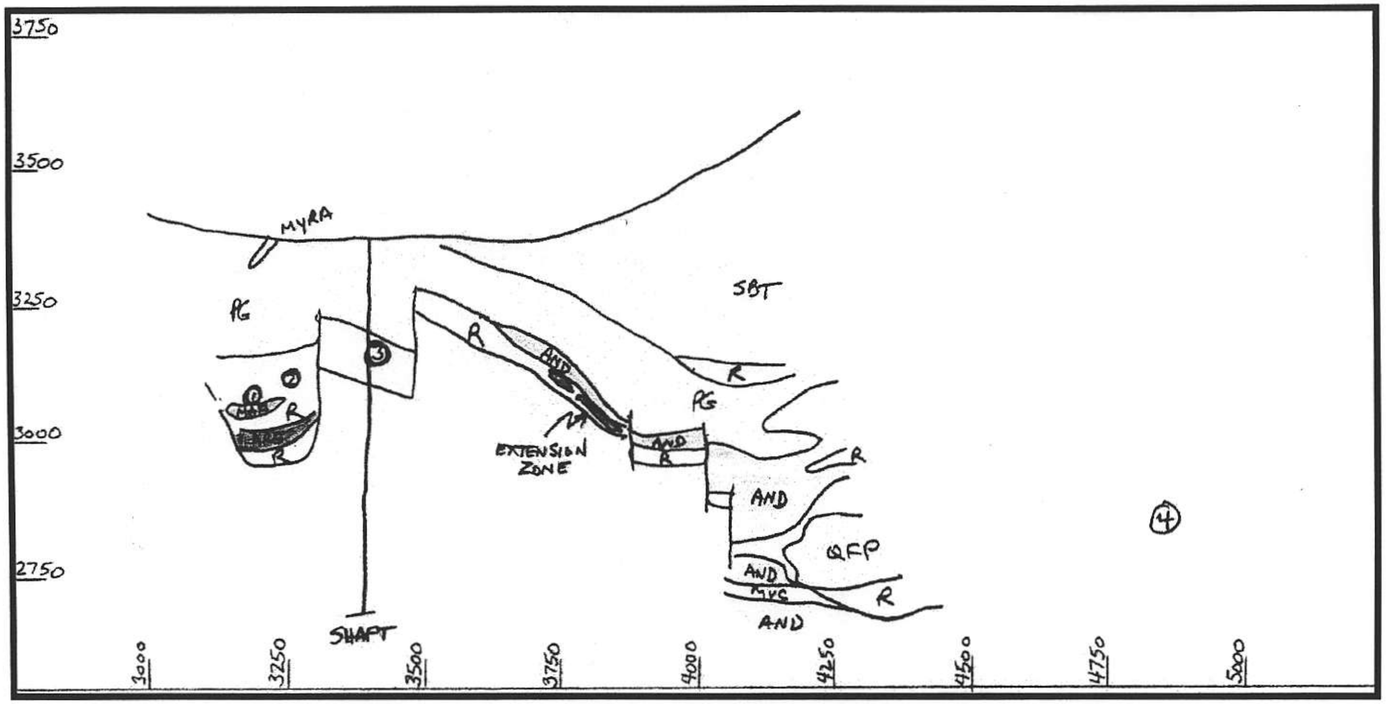
Figure 4



Section 3500E -composite

Location #	Meters	Au g/t	Ag g/t	%Cu	%Pb	%Zn	Target	DDH
1	3.6	0.3	29.1	1.2	0.1	1.4	15	P13-0291
2	2.7	1.4	82.0	0.2	0.1	4.2	15	P13-0294
3	6.2	1.4	58.5	3.0	0.3	4.7	16	HW20-0654
4	20.0	2.7	98.8	0.6	0.8	5.8	N/A	GI
5	4.0	2.0	181.0	0.8	1.4	7.0	17	77 M.O.R.
6	N/A DEEP TEST							

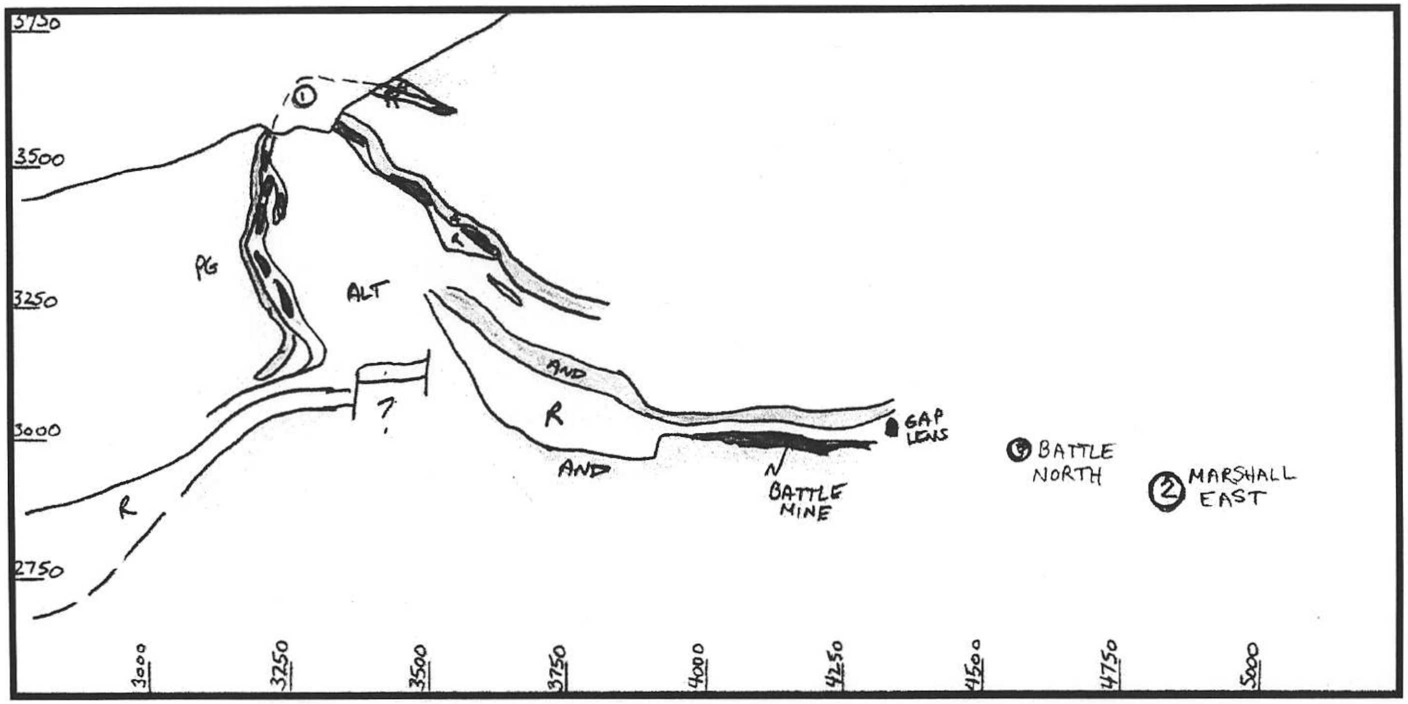
Figure 5



Section 2700E -composite

Location #	Meters	Au g/t	Ag g/t	%Cu	%Pb	%Zn	Target	DDH
1	2.9	1.5	117.3	4.5	2.2	6.7	18	W150
2	1.3	3.6	86.4	0.7	5.0	20.2	18	W151
3	1.4	0.7	37.7	1.3	0.5	4.8	19	W57
4	20.0	2.0	98.8	0.6	0.8	5.8	N/A	GI

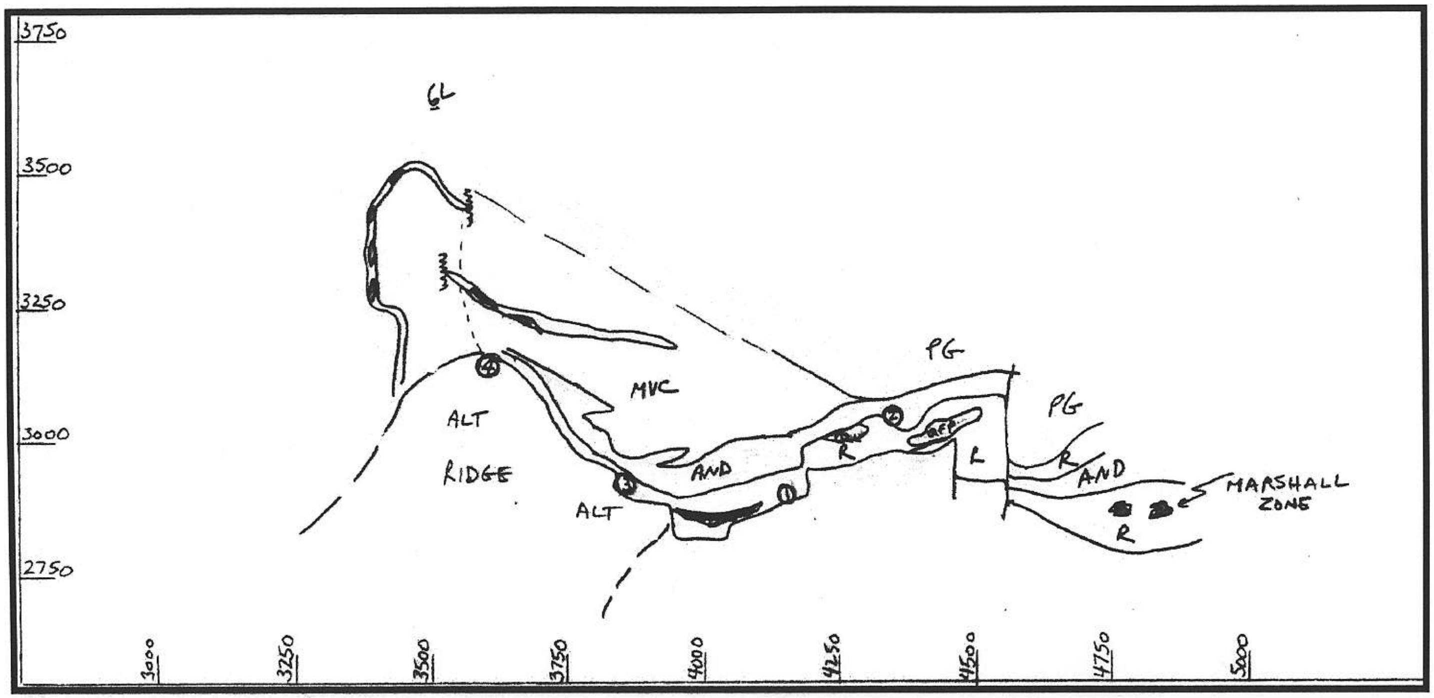
Figure 6



Section 1700E -composite

Location #	Meters	Au g/t	Ag g/t	%Cu	%Pb	%Zn	Target	DDH
1	4.0	1.6	122.9	0.4	1.2	6.8	21	GI
2	20.0	2.0	98.8	0.6	0.8	5.8	20	GI
3	10.0	1.0	47.5	1.5	0.8	12.0	34	GI

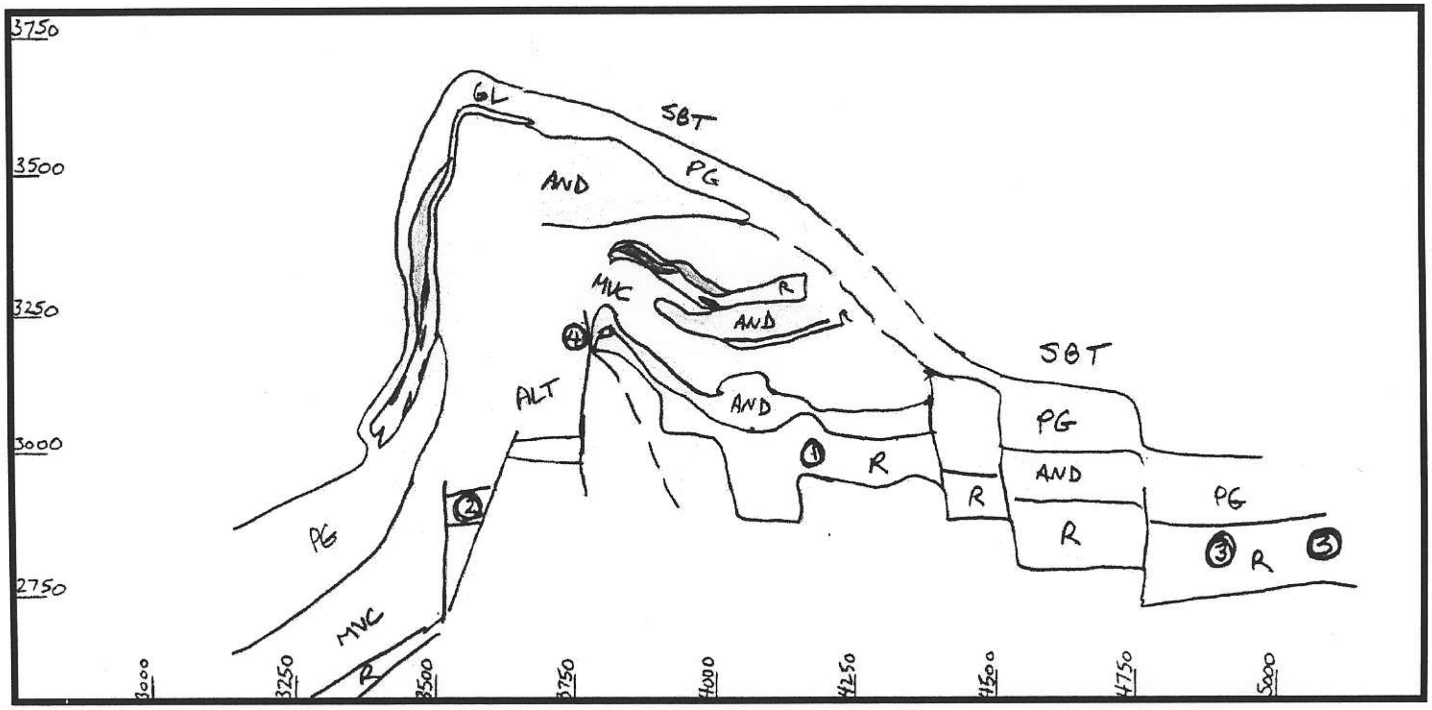
Figure 7



Section 1010E -composite

Location #	Meters	Au g/t	Ag g/t	%Cu	%Pb	%Zn	Target	DDH
1	1.5	0.7	127.5	2.8	3.6	38.6	22	LX15-0185
2	2.4	3.5	162.1	0.9	1.3	13.7	23	LX15-0316
3	0.1	1.2	58.0	1.7	0.6	6.1	24	LX15-0181
4	5.7	2.1	83.7	2.8	0.1	3.4	26	?
5	15.0	1.2	40.1	0.4	0.4	2.4	25	LX15-0183

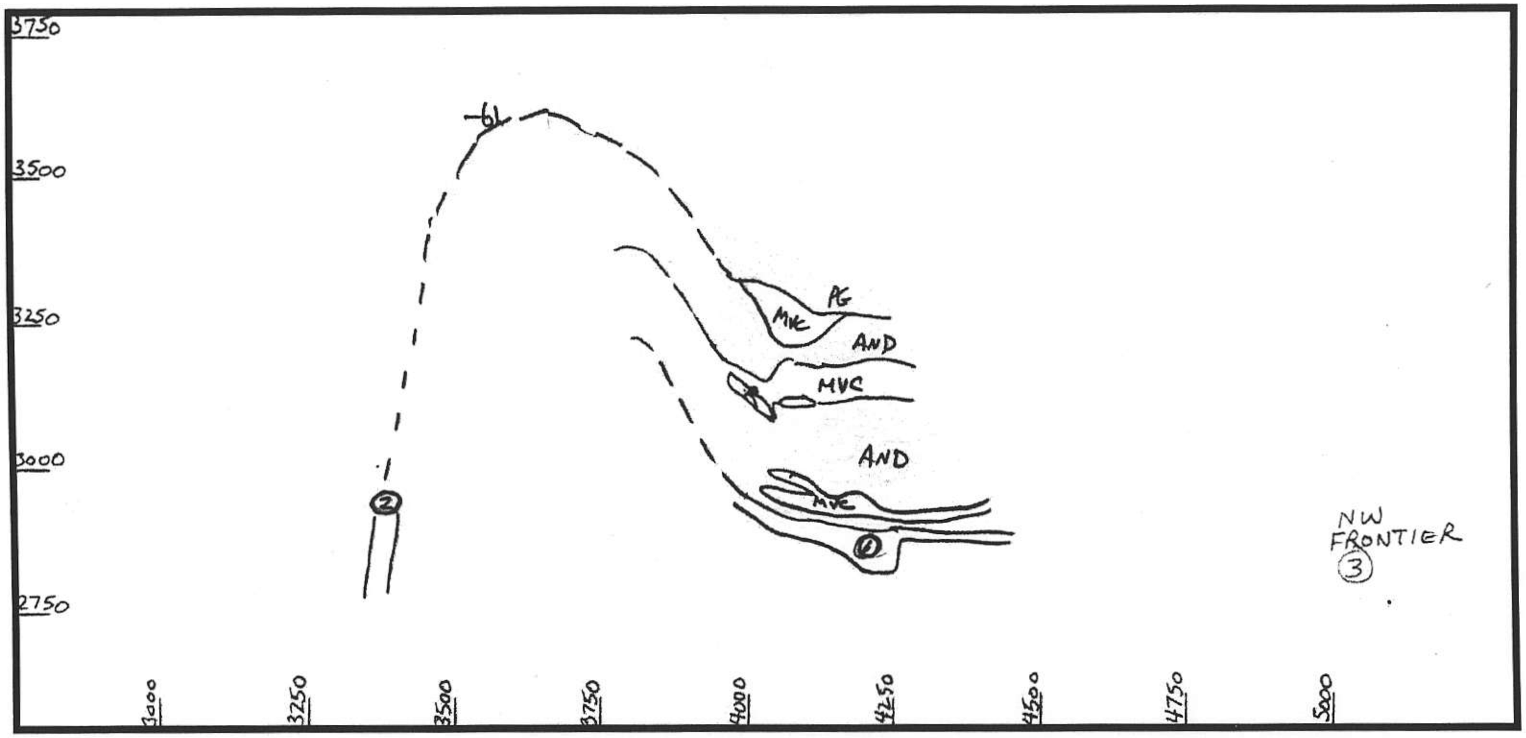
Figure 8



Section 152E -composite

Location #	Meters	Au g/t	Ag g/t	%Cu	%Pb	%Zn	Target	DDH
1	6.2	2.9	131.3	0.8	0.8	6.8	RZW	LX14-0626
2	0.5	6.5	378.3	2.8	12.7	28.8	27	LX14-0626
3A	3.5	6.3	522.8	0.2	2.3	7.4	28	LX10-2023
3B	9.6	2.5	118.7	0.8	1.4	10.8	28	LX10-2025
4	5.0	5.1	138.7	1.5	2.3	13.8	H	MIPOZ
5	3.4	2.6	345.5	1.7	1.5	23.0	RZE	LX14-0649
6	1.2	tr	75.4	1.0	0.8	6.3	29	W73

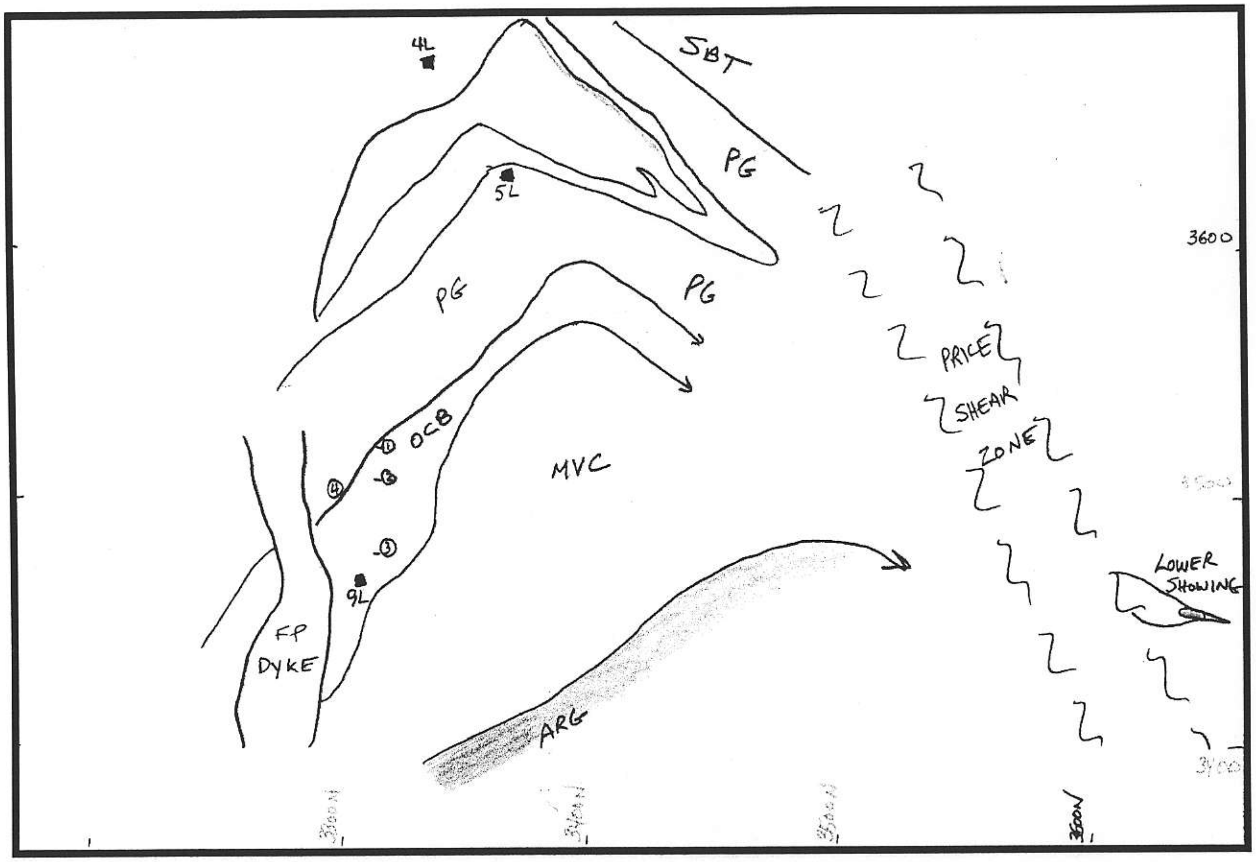
Figure 9



Section 640E -composite

Location #	Meters	Au g/t	Ag g/t	%Cu	%Pb	%Zn	Target	DDH
1	3.0	0.0	8.5	0.8	0.2	8.0	30	LX12-2102
2	1.2	0.0	13.0	0.2	0.2	2.0	31	LX12-2105
3	20.0	2.0	98.8	0.6	0.8	5.8	32	GI

Figure 10



Section 5400E -composite

Location #	Meters	Au g/t	Ag g/t	%Cu	%Pb	%Zn
1	1.5	1.0	135.4	0.9	1.6	11.9
2	0.8	20.2	601.8	0.2	6.3	20.4
3	1.1	2.7	312.9	0.2	2.5	7.2
4	0.9	0.1	15.1	0.2	0.4	2.9

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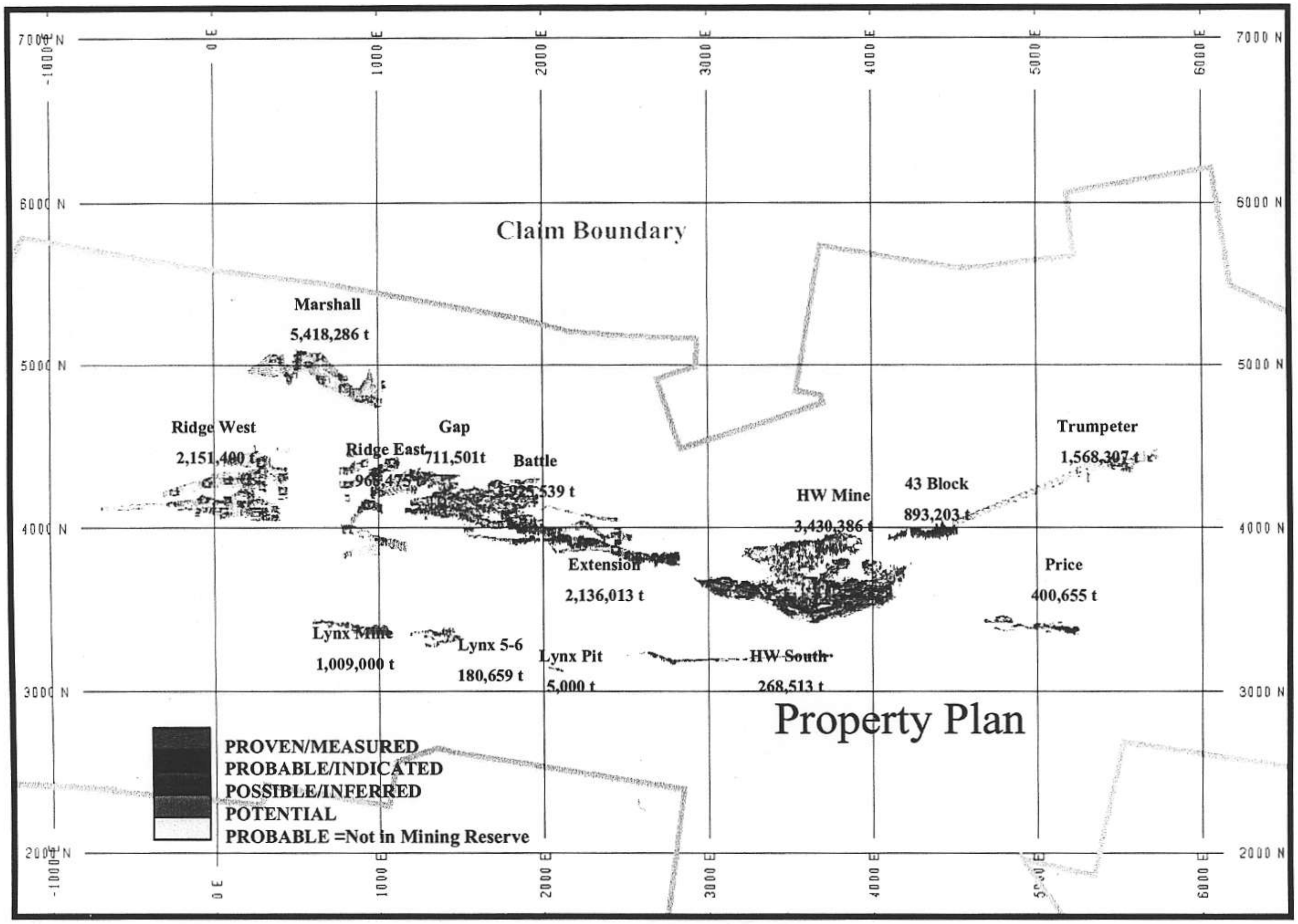


Figure 11

Figure 12

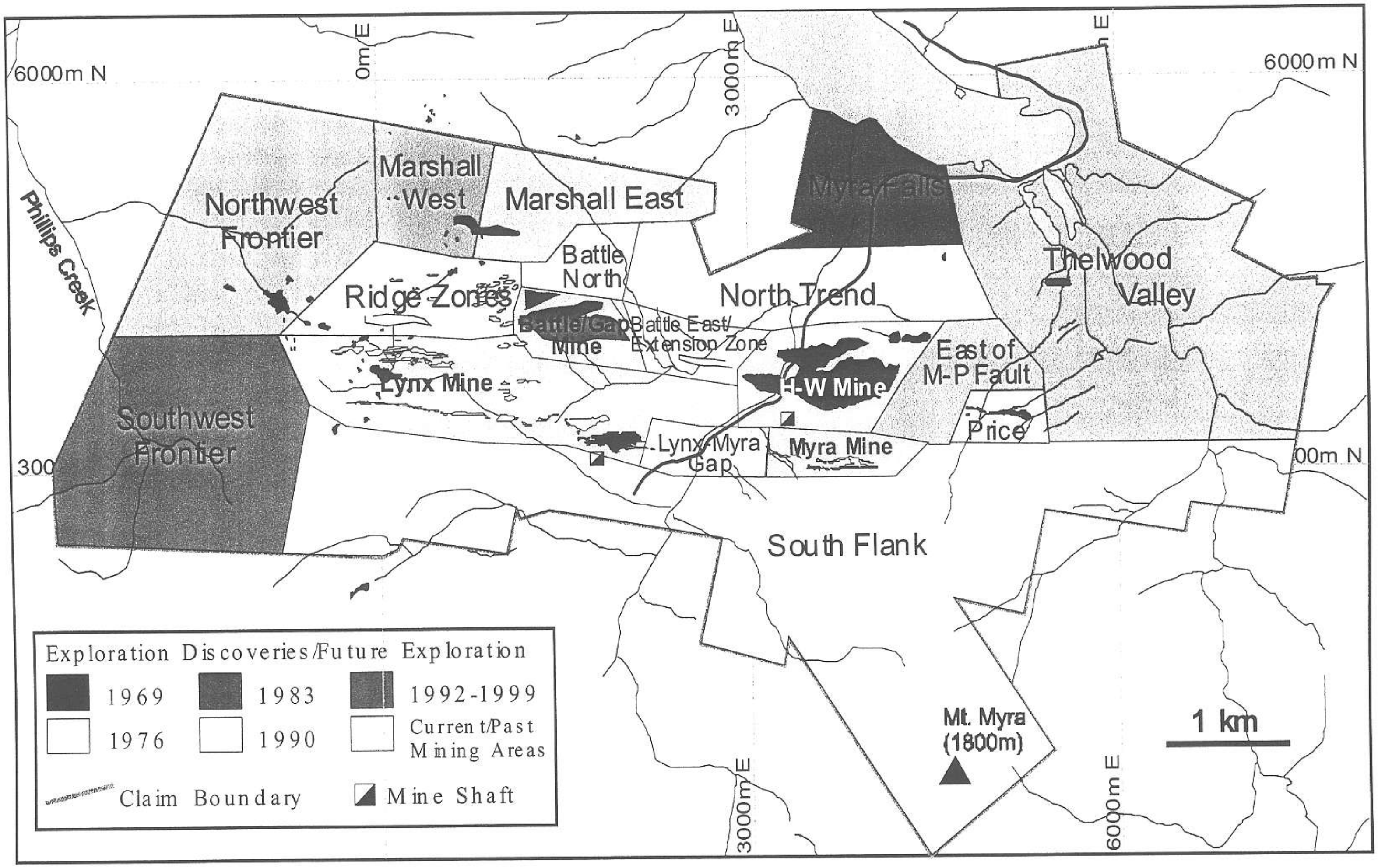
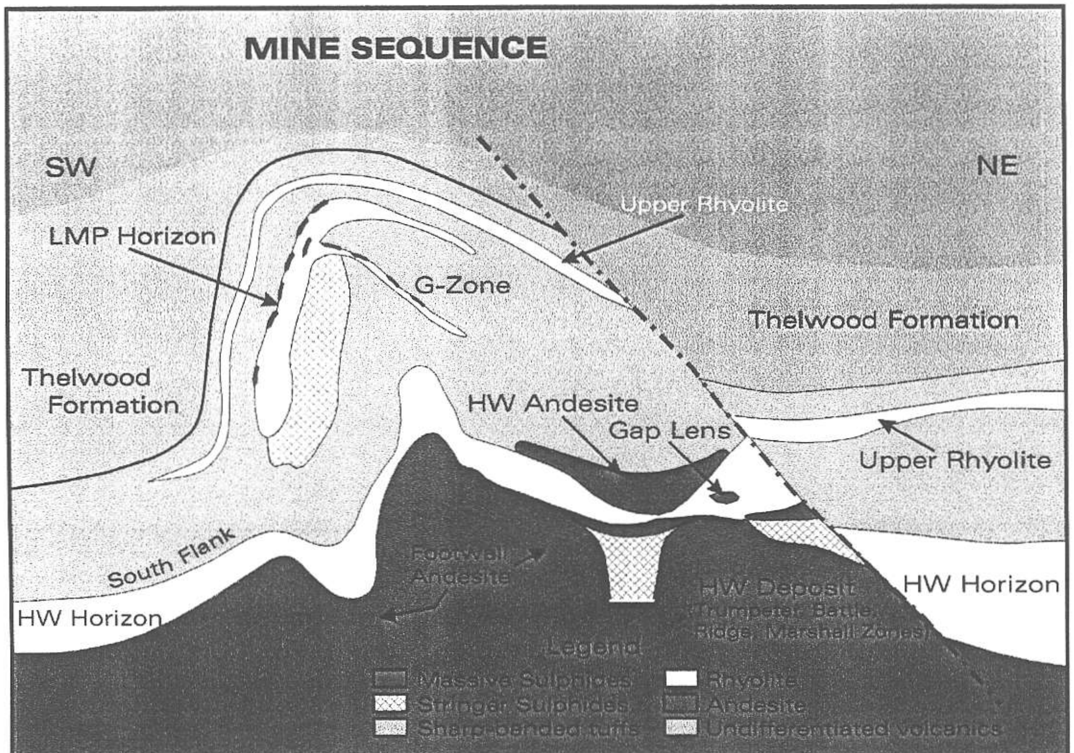

6000m N
0m E
3000m E
6000m N
Phillips Creek
Marshall West
Marshall East
Northwest Frontier
Myra Falls
Battle North
Ridge Zones
North Trend
Thelwood Valley
Battle/Gap Mine
Battle East/ Extension Zone
East of M-P Fault
Lynx Mine
H-W Mine
Southwest Frontier
Lynx-Myra Gap
Myra Mine
Price
South Flank
Exploration Discoveries/Future Exploration
1969
1983
1992-1999
1976
1990
Current/Past Mining Areas
Claim Boundary
Mine Shaft
Mt. Myra (1800m)
1 km
3000m E
6000m E

Figure 13a

Orebody Geometry of VMS Deposits at Myra Falls



Schematic Geological Cross-Section at Myra Falls

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Current Geometry

Range of Orebody Dip

L-M-P Horizon Deposits
S-Zone: -80deg S
G-Zone: 30-50 deg N

H-W Horizon Deposits
Flat to 65 deg N

Relevance
- **Tonnes per vertical meter**
- **Tonnes per strike length**
- **Mining method selection**

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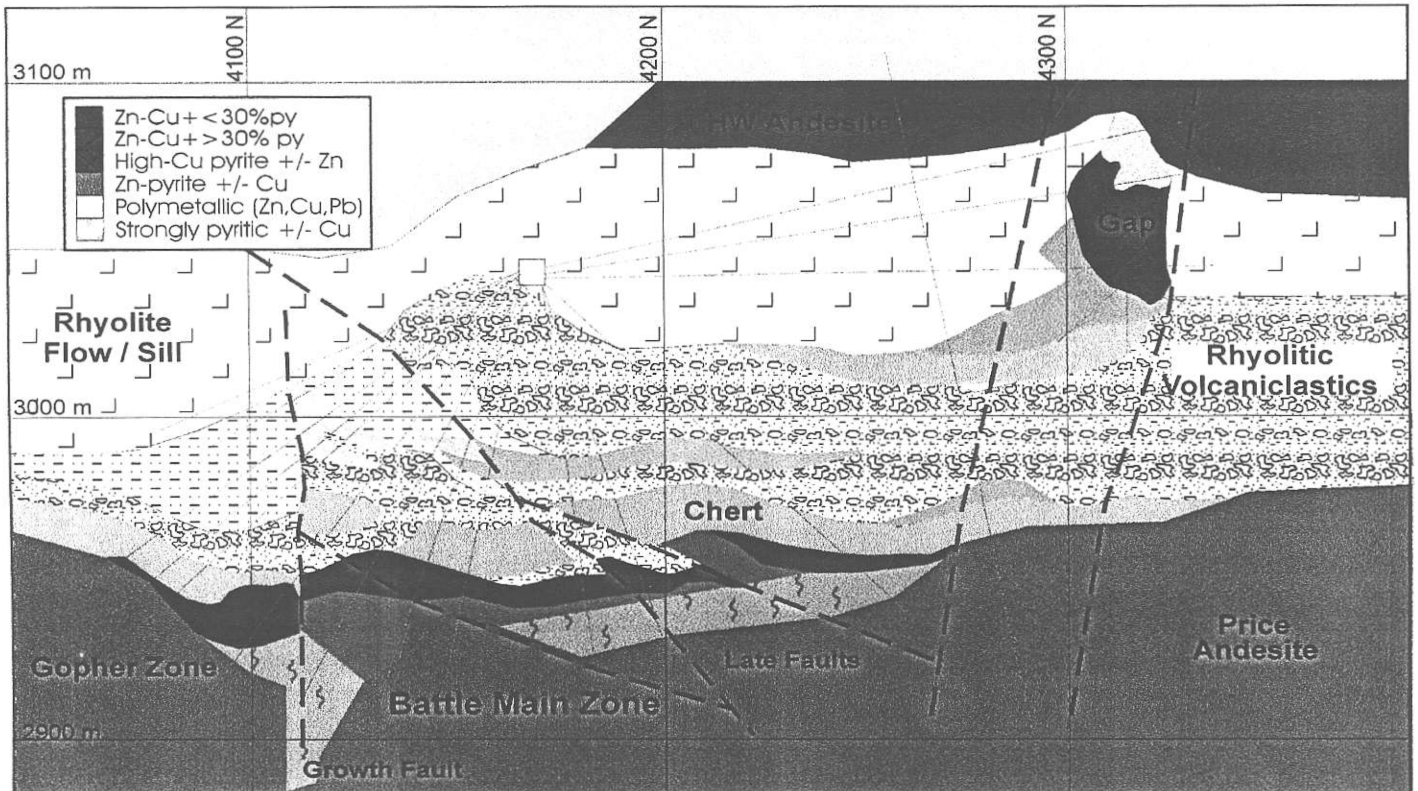
Figure 13b

Orebody Geometry of VMS Deposits at Myra Falls



boliden Battle - Gap Zones: Geology Section - 1390 E

50 metres

Gopher Zone - Asymmetric mound
Upper Zone - Stacked polymetallic lenses

Battle Main Zone - Sheet
Gap Zone - Pipe

Figure 13c

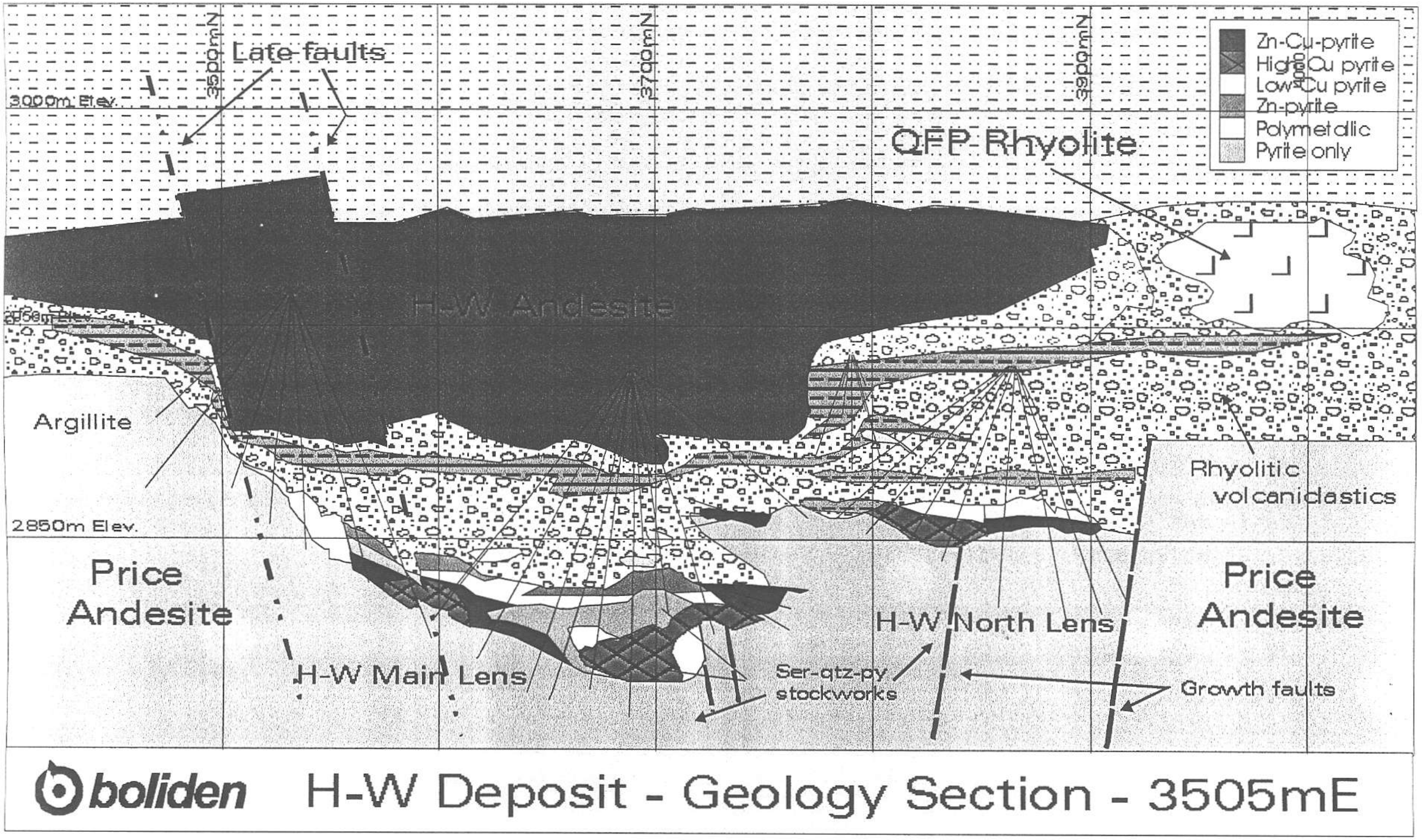
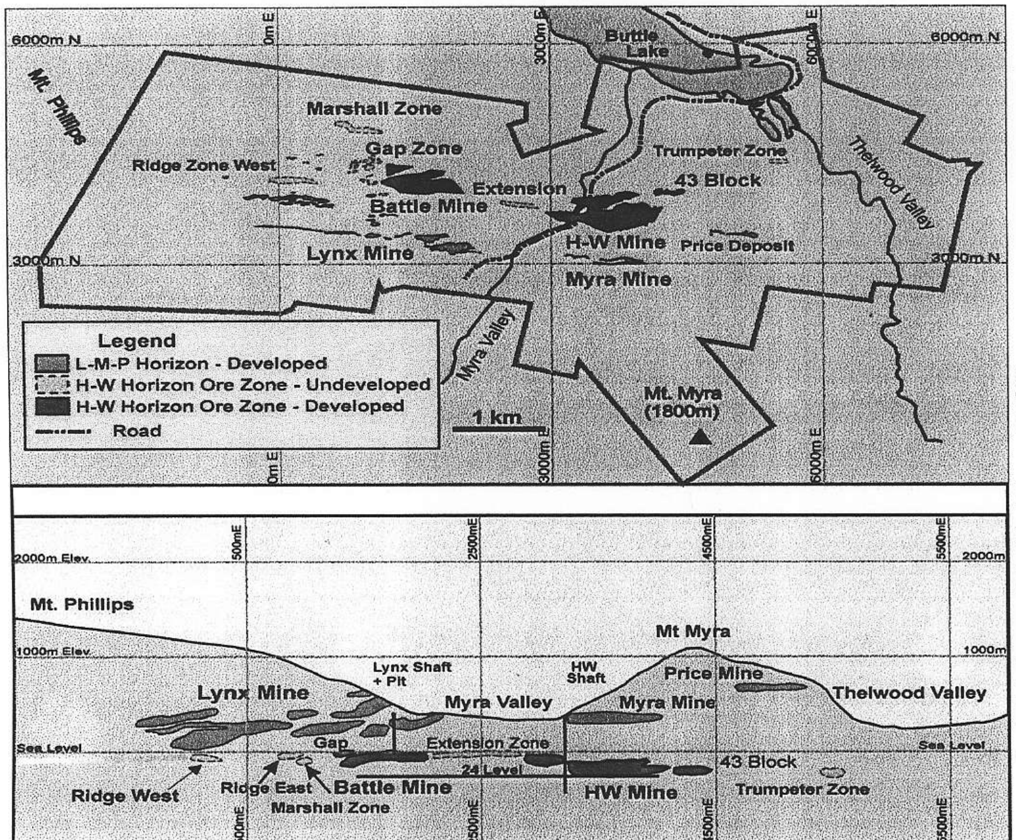

Late faults
3500mN
3700mN
3900mN
3000m Elev.
2850m Elev.
Zn-Cu-pyrite
High Cu pyrite
Low Cu pyrite
Zn-pyrite
Polymetallic
Pyrite only
QFP Rhyolite
H-W Andesite
Argillite
Rhyolitic volcaniclastics
Price Andesite
H-W Main Lens
Ser-qtz-py stockworks
H-W North Lens
Price Andesite
Growth faults
boliden
H-W Deposit - Geology Section - 3505mE

Figure 14

Orebody Geometry of VMS Deposits at Myra Falls



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Location of VHMS deposits at Myra Falls Operations
(Top) Projected plan section
(Bottom) Projected vertical longitudinal section

Average Deposit Sizes

L-M-P Horizon 2.4 M tonnes

H-W Horizon 3.7 M tonnes

General Dimensions
(Strike L x width x thickness)

Deposits	
Lynx	**2,750m x 750m x 1-6m**
Myra	**900m x 270m**
H-W	**930m x 400m x 1-60m**
Battle	**950m x 225m x 3-45m**
Gap	**330m x 25m x 10-55m**

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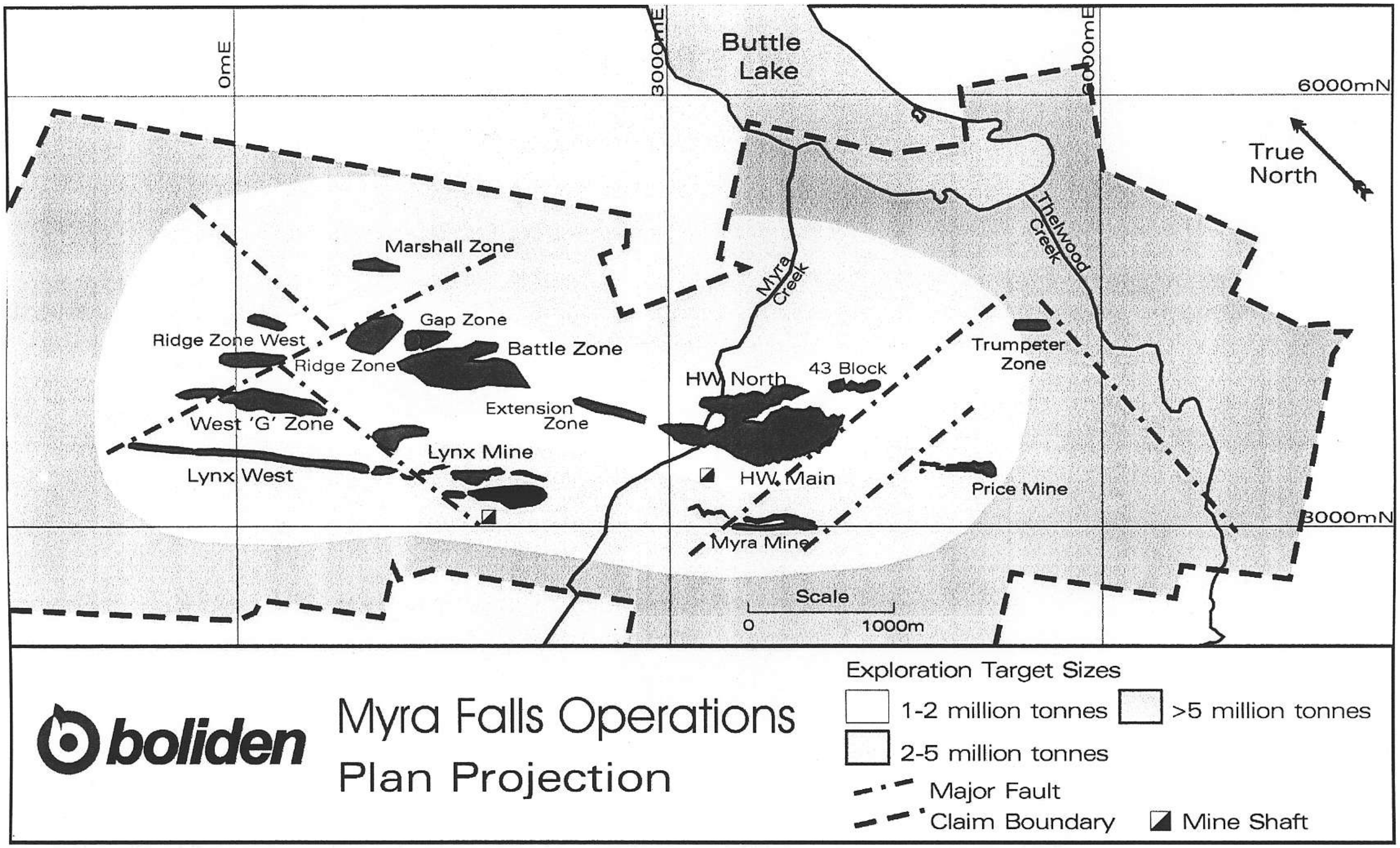
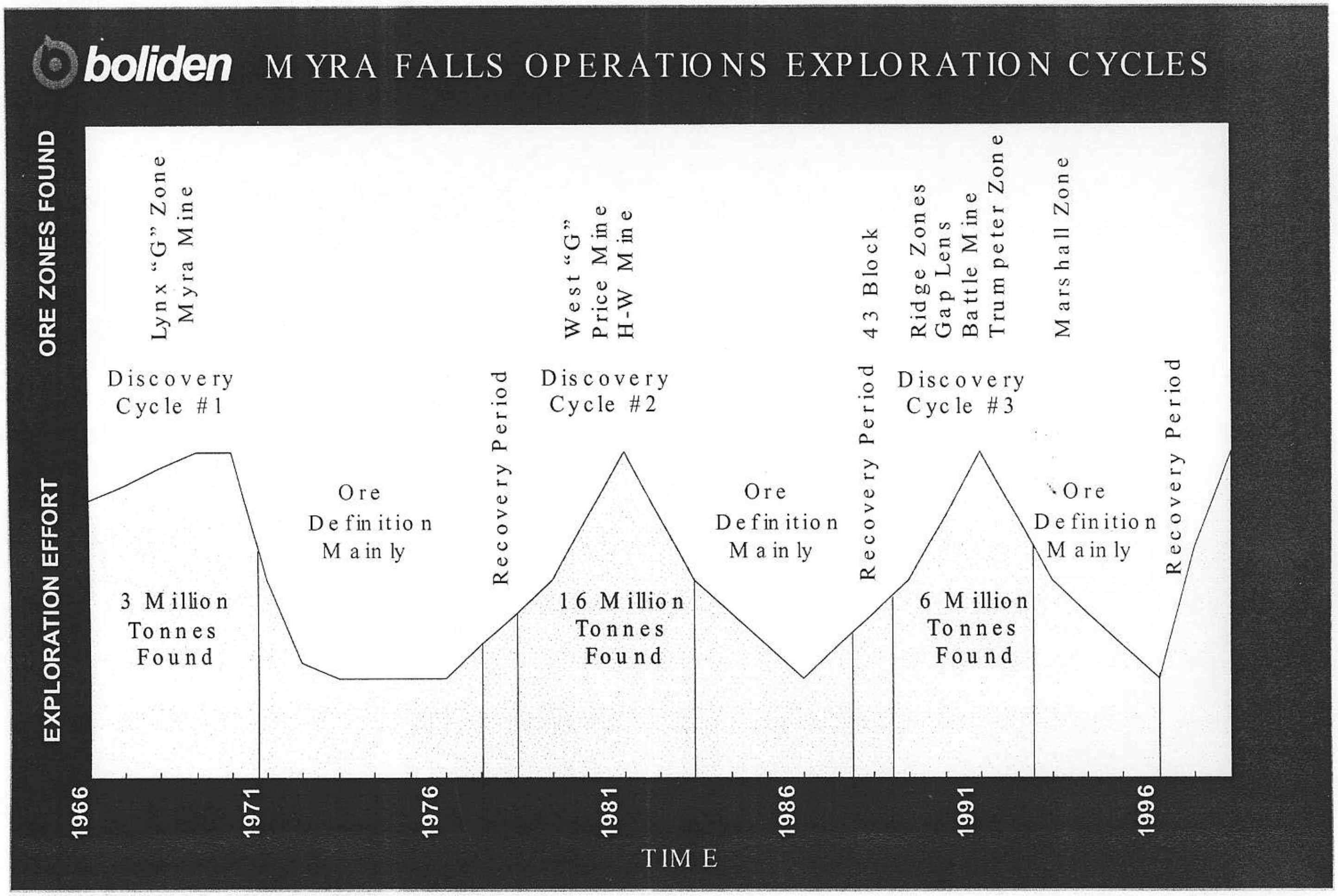
Figure 15



Target Size Required

Figure 16



Projected Exploration Cycles at Myra Falls (not up to date)

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Figure 17

	Mill Throughput (000's tonnes)	Conc. Production (tonnes) Cu	Zn	Total conc.	Head Grades Au	Ag	Cu	Zn	Ore Sources (%) B-G	H-W	Lynx	Pit	Myra	Metal Prices Cu	Zn	Au	Ag	
1966	0	0	0		0.0	0.0												
1967	209	13,218	21,565	34,783	2.4	68.6	1.9	8.2				100						
1968	300	0	0		2.4	75.4	1.9	9.3				100						
1969	339	0	0		1.4	52.8	1.7	7.2			15.1	84.9		0.66				
1970	351	25,349	32,277	57,627	1.4	48.0	2.0	6.4			39	61		0.59				
1971	351	23,659	34,476	58,135														
1972	344	22,168	30,508	52,676	1.4	58.3	1.8	6.1			48.9	49.8	1.3	0.49	0.18	58.36	1.69	
1973	321	12,084	39,769	51,853	3.1	161.1	1.2	8.0			59	20	21	0.81	0.22	97.22	2.56	*
1974	270	9,362	33,880	43,242	2.7	140.6	1.1	7.5			41	26.6	32.4	0.93	0.37	159.25	4.71	*
1975	261	8,053	31,222	39,275	2.9	140.6	1.2	7.8			52	18	40					*
1976	269	9,012	32,299	41,311	3.1	140.6	1.2	7.9			49	8.6	42.4					*
1977	269	8,848	31,885	40,732	2.7	126.9	1.1	7.5			49	8	43					*
1978	269	10,317	36,298	46,615	3.1	139.9	1.2	8.0			64		36	0.63	0.33	192.00	5.27	*
1979	267	10,455	36,566	47,021	3.1	131.0	1.3	8.5			68		32					
1980	278	10,195	32,468	42,663	2.7	124.1	1.2	7.6			70		30					
1981	246	8,118	28,139	36,257	2.7	127.2	1.1	7.4			66		34		0.39			
1982	288	9,077	32,943	42,021	2.7	127.9	1.1	7.3		1	72		27	0.67	0.34			
1983	248	7,942	29,251	37,193	2.7	121.0	1.1	7.5			77		23	0.72		425.18	11.44	
1984	204	5,937	23,697	29,635	2.4	105.6	1.0	7.4			72		28	0.62		360.45	8.14	
1985	586	33,042	53,979	95,925	2.1	59.4	1.6	6.2		56	40		4	0.65		317.27	6.14	
1986	1,067	90,100	100,300	190,400	2.5	49.3	2.3	5.9		78	22			0.62	0.36	368.00	5.47	
1987	1,090	100,200	86,500	186,700	2.2	40.1	2.5	4.9		82	18			0.80	0.37	447.00	7.01	
1988	1,255	118,790	96,640	215,430	2.3	39.2	2.5	4.8		90.5	9.5			1.18	0.56	437.00	6.53	
1989	1,229	101,188	79,305	180,493	2.1	33.6	2.1	4.0		91.3	8.7			1.29	0.78	382.00	5.51	
1990	1,171	83,577	69,636	153,213	2.2	29.3	1.9	3.7		93	7			1.21	0.69	384.00	4.83	
1991	1,081	65,900	55,222	121,122	2.1	26.2	1.7	3.3		92.6	7.4			1.06	0.51	362.00	4.05	
1992	1,172	68,352	58,720	127,072	2.0	27.1	1.7	3.2		91.4	8.6			1.04	0.56	344.00	3.95	
1993	433	28,220	18,705	46,925	1.9	21.9	1.9	2.8		90.4	9.6			0.87	0.44	359.80	4.31	
1994	252	16,389	9,555	25,944	1.9	27.2	1.9	2.8		100				1.05	0.45	384.16	5.29	
1995	1,197	84,741	53,230	137,971	1.9	22.5	2.0	2.7	5	95				1.33	0.47	384.06	5.20	
1996	1,268	67,888	87,082	154,970	1.7	21.9	1.6	3.9	24	76				1.04	0.47			
1997	1,257	63,693	113,912	177,605	1.6	21.0	1.5	5.4	35	65				1.03	0.60	330.00	4.90	
1998	1,047	60,249	95,450	123,942	1.6	23.0	1.7	5.6	28.6	71.4				0.75	0.46	294.00	5.54	
1999	740	40,004	69,163	109,157	1.6	20.0	1.6	5.7	34.1	65.9				0.71	0.49	276.00	5.22	
2000	1,171	66,922	94,758	161,680	1.6	26.7	1.7	5.0	34.5	59.2		6.3		0.82	0.51	279.29	4.95	
2001	998	49,630	105,483	155,113	1.5	25.1	1.6	6.5	43.5	56.3		0.2		0.72	0.40	271.19	4.37	
2002	773	27,567	93,054	120,621	1.5	46.6	1.2	7.3	47.2	50.8		0.2		0.71	0.36	317.30	4.59	
	22,870	1,360,247	1,847,927	3,185,322														

* = estimated head grades

Figure 18

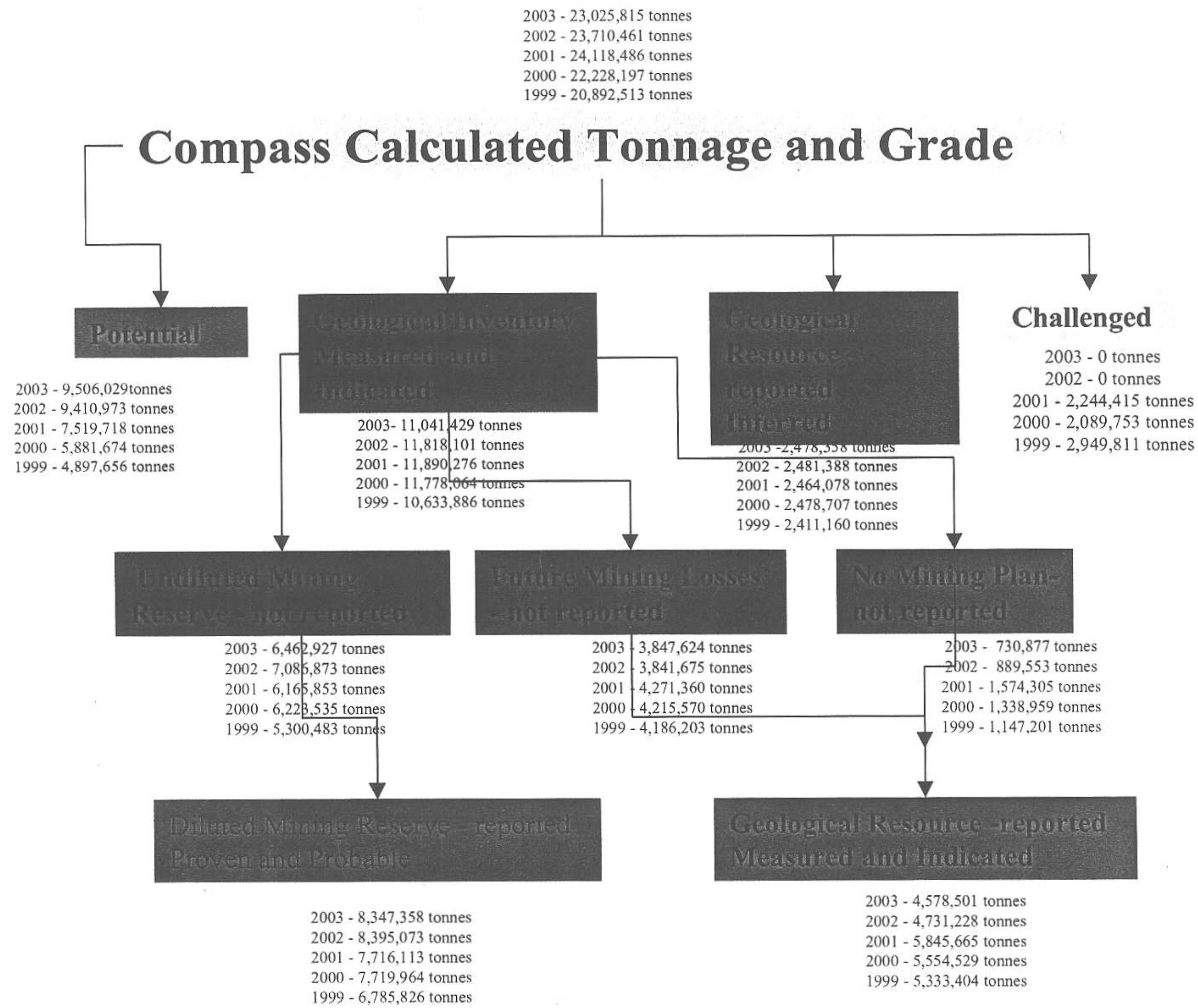
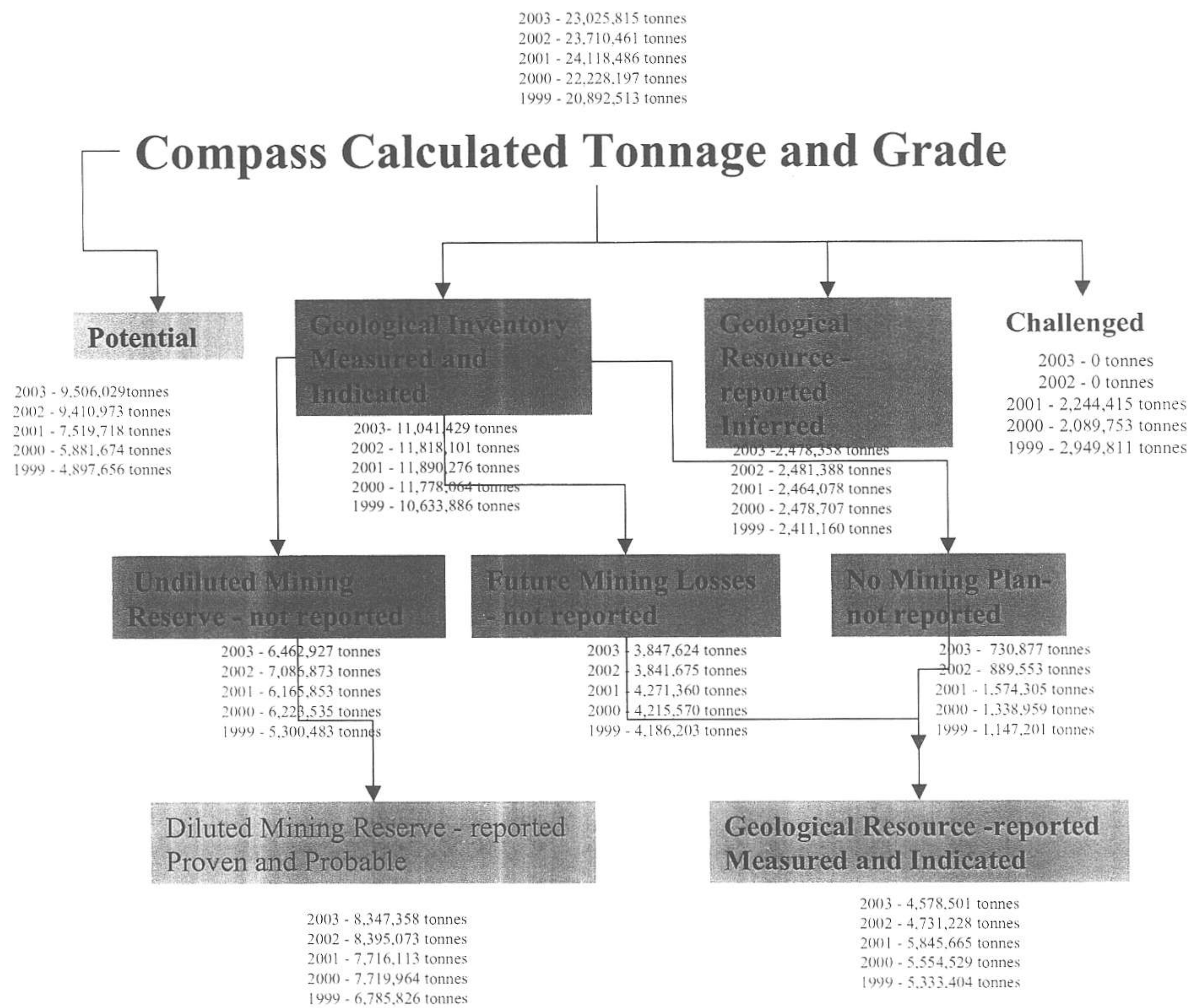

2003 - 23,025,815 tonnes
2002 - 23,710,461 tonnes
2001 - 24,118,486 tonnes
2000 - 22,228,197 tonnes
1999 - 20,892,513 tonnes
Compass Calculated Tonnage and Grade
Potential
2003 - 9,506,029tonnes
2002 - 9,410,973 tonnes
2001 - 7,519,718 tonnes
2000 - 5,881,674 tonnes
1999 - 4,897,656 tonnes
Geological Inventory Measured and Indicated
2003- 11,041,429 tonnes
2002 - 11,818,101 tonnes
2001 - 11,890,276 tonnes
2000 - 11,778,064 tonnes
1999 - 10,633,886 tonnes
Geological Resource - reported Inferred
2003 -2,478,358 tonnes
2002 - 2,481,388 tonnes
2001 - 2,464,078 tonnes
2000 - 2,478,707 tonnes
1999 - 2,411,160 tonnes
Challenged
2003 - 0 tonnes
2002 - 0 tonnes
2001 - 2,244,415 tonnes
2000 - 2,089,753 tonnes
1999 - 2,949,811 tonnes
Undiluted Mining Reserve - not reported
2003 - 6,462,927 tonnes
2002 - 7,086,873 tonnes
2001 - 6,165,853 tonnes
2000 - 6,223,535 tonnes
1999 - 5,300,483 tonnes
Future Mining Losses - not reported
2003 - 3,847,624 tonnes
2002 - 3,841,675 tonnes
2001 - 4,271,360 tonnes
2000 - 4,215,570 tonnes
1999 - 4,186,203 tonnes
No Mining Plan- not reported
2003 - 730,877 tonnes
2002 - 889,553 tonnes
2001 - 1,574,305 tonnes
2000 - 1,338,959 tonnes
1999 - 1,147,201 tonnes
Diluted Mining Reserve - reported Proven and Probable
2003 - 8,347,358 tonnes
2002 - 8,395,073 tonnes
2001 - 7,716,113 tonnes
2000 - 7,719,964 tonnes
1999 - 6,785,826 tonnes
Geological Resource - reported Measured and Indicated
2003 - 4,578,501 tonnes
2002 - 4,731,228 tonnes
2001 - 5,845,665 tonnes
2000 - 5,554,529 tonnes
1999 - 5,333,404 tonnes

Figure 18


2003 - 23,025,815 tonnes
2002 - 23,710,461 tonnes
2001 - 24,118,486 tonnes
2000 - 22,228,197 tonnes
1999 - 20,892,513 tonnes
Compass Calculated Tonnage and Grade
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1999 - 4,897,656 tonnes
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1999 - 10,633,886 tonnes
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2002 - 2,481,388 tonnes
2001 - 2,464,078 tonnes
2000 - 2,478,707 tonnes
1999 - 2,411,160 tonnes
Challenged
2003 - 0 tonnes
2002 - 0 tonnes
2001 - 2,244,415 tonnes
2000 - 2,089,753 tonnes
1999 - 2,949,811 tonnes
Undiluted Mining Reserve - not reported
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2002 - 7,086,873 tonnes
2001 - 6,165,853 tonnes
2000 - 6,223,535 tonnes
1999 - 5,300,483 tonnes
Future Mining Losses - not reported
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2002 - 3,841,675 tonnes
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1999 - 4,186,203 tonnes
No Mining Plan- not reported
2003 - 730,877 tonnes
2002 - 889,553 tonnes
2001 - 1,574,305 tonnes
2000 - 1,338,959 tonnes
1999 - 1,147,201 tonnes
Diluted Mining Reserve - reported Proven and Probable
2003 - 8,347,358 tonnes
2002 - 8,395,073 tonnes
2001 - 7,716,113 tonnes
2000 - 7,719,964 tonnes
1999 - 6,785,826 tonnes
Geological Resource -reported Measured and Indicated
2003 - 4,578,501 tonnes
2002 - 4,731,228 tonnes
2001 - 5,845,665 tonnes
2000 - 5,554,529 tonnes
1999 - 5,333,404 tonnes

Figure 19

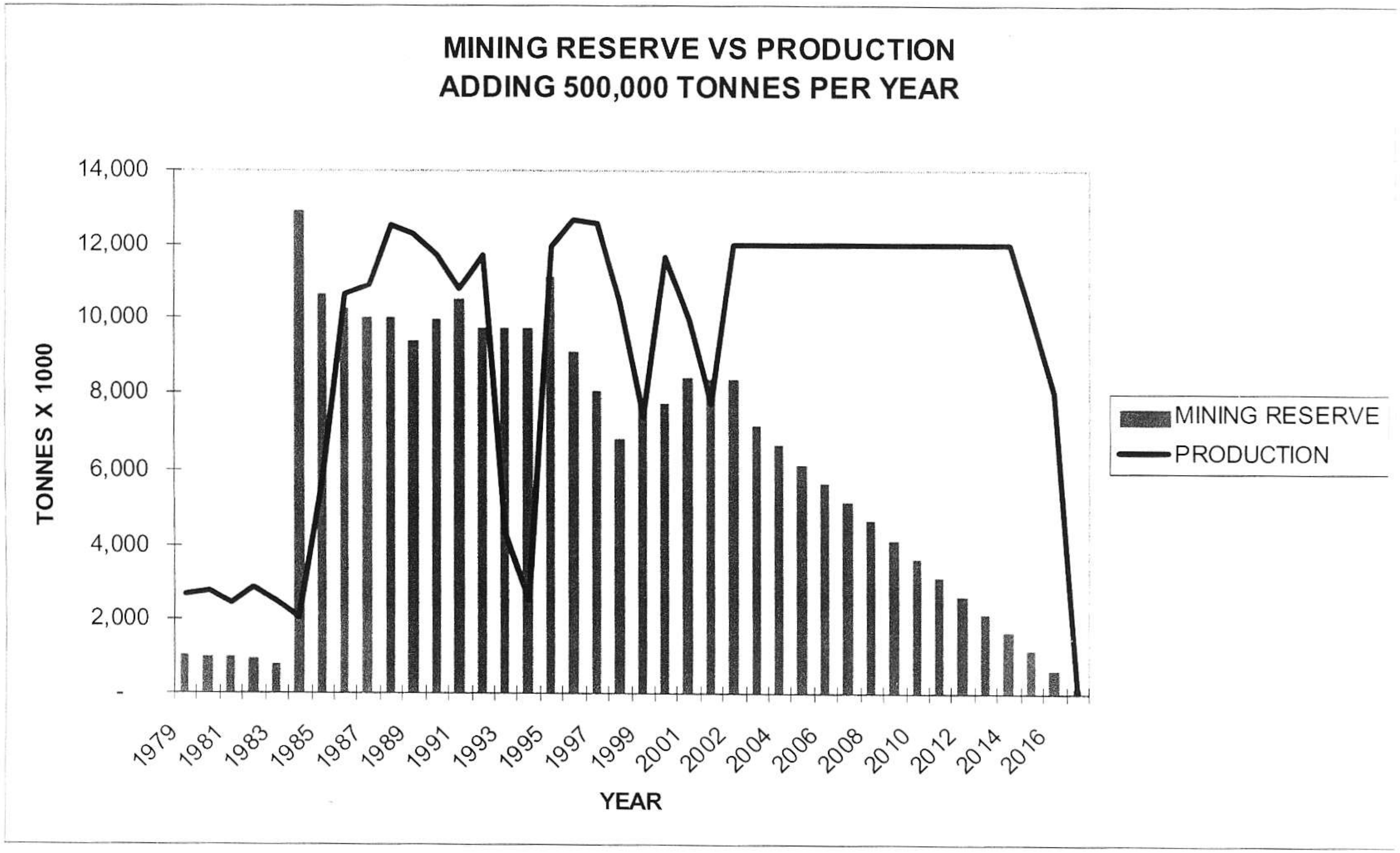

MINING RESERVE VS PRODUCTION
ADDING 500,000 TONNES PER YEAR
TONNES X 1000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
-
1979
1981
1983
1985
1987
1989
1991
1993
1995
1997
1999
2001
2002
2004
2006
2008
2010
2012
2014
2016
YEAR
MINING RESERVE
PRODUCTION

Figure 20

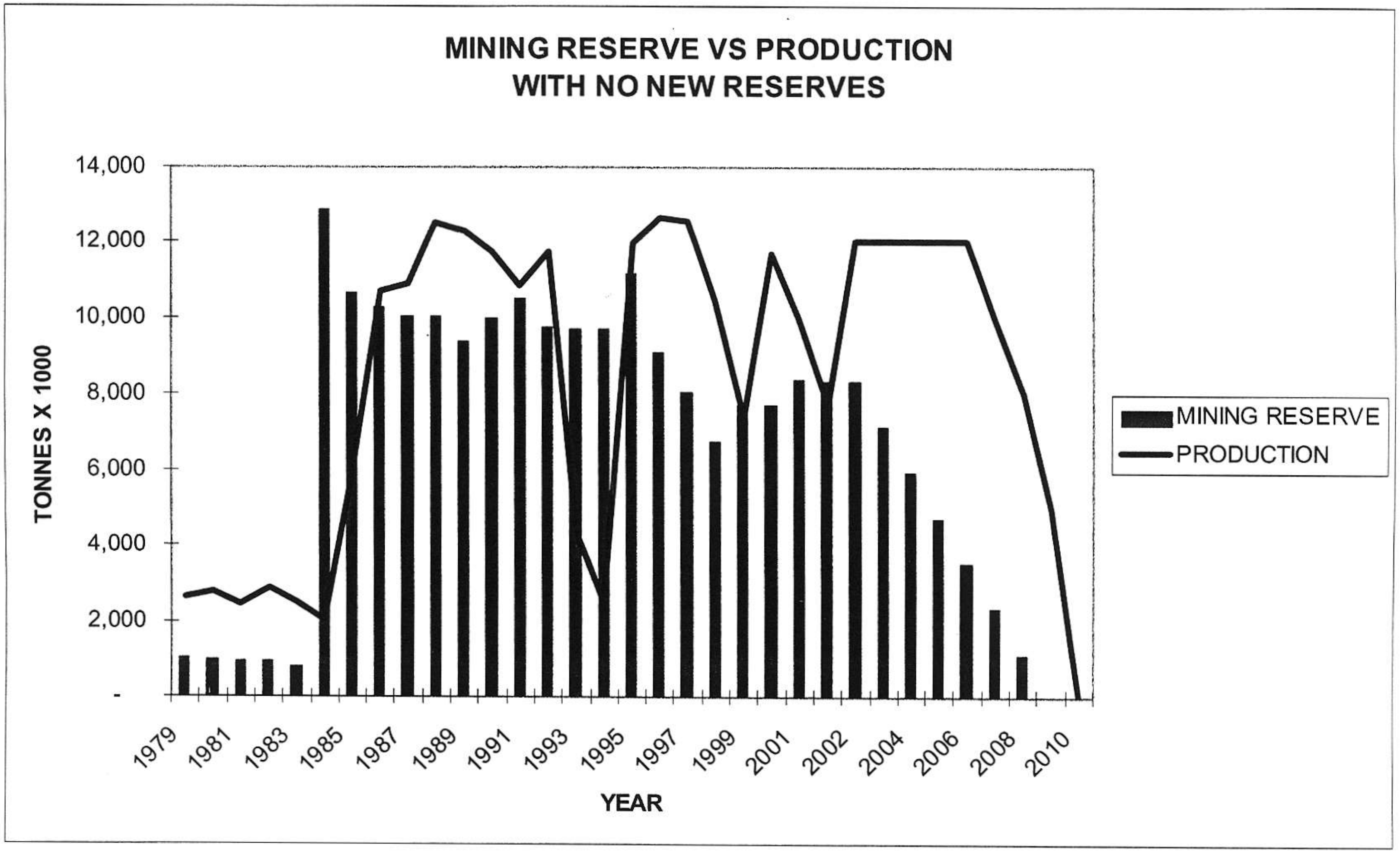
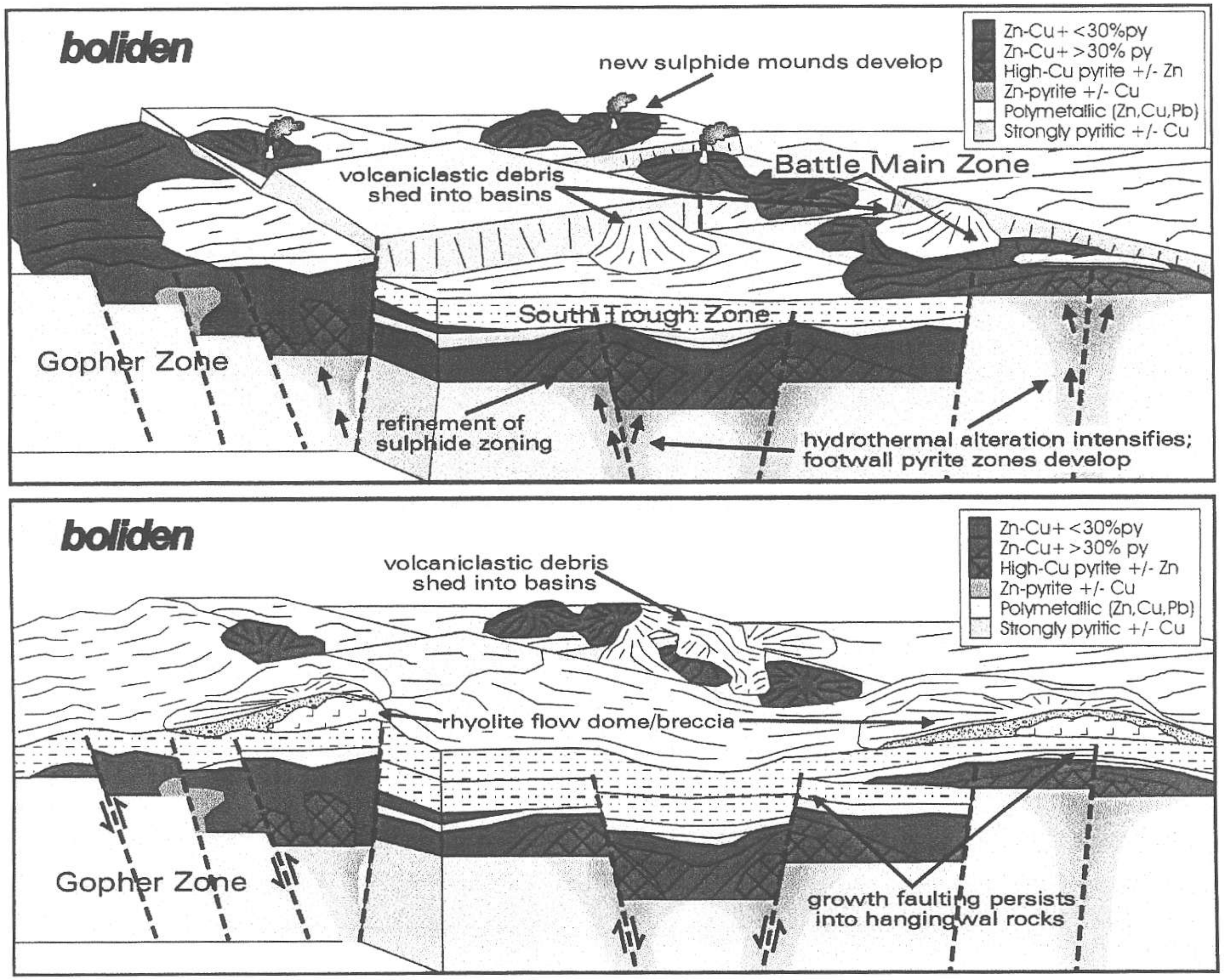
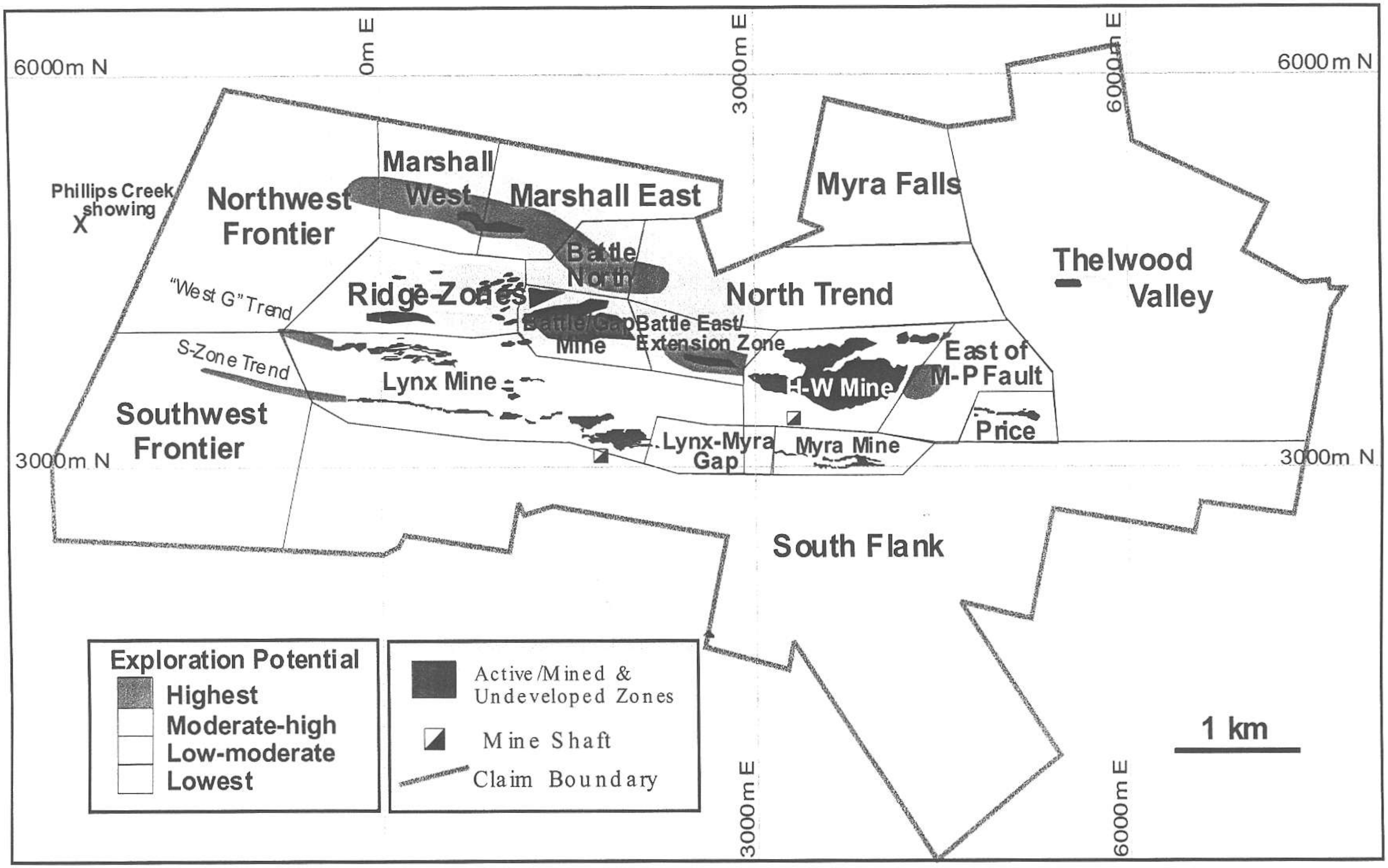

MINING RESERVE VS PRODUCTION
WITH NO NEW RESERVES
TONNES X 1000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
-
1979
1981
1983
1985
1987
1989
1991
1993
1995
1997
1999
2001
2002
2004
2006
2008
2010
YEAR
MINING RESERVE
PRODUCTION

Figure 21



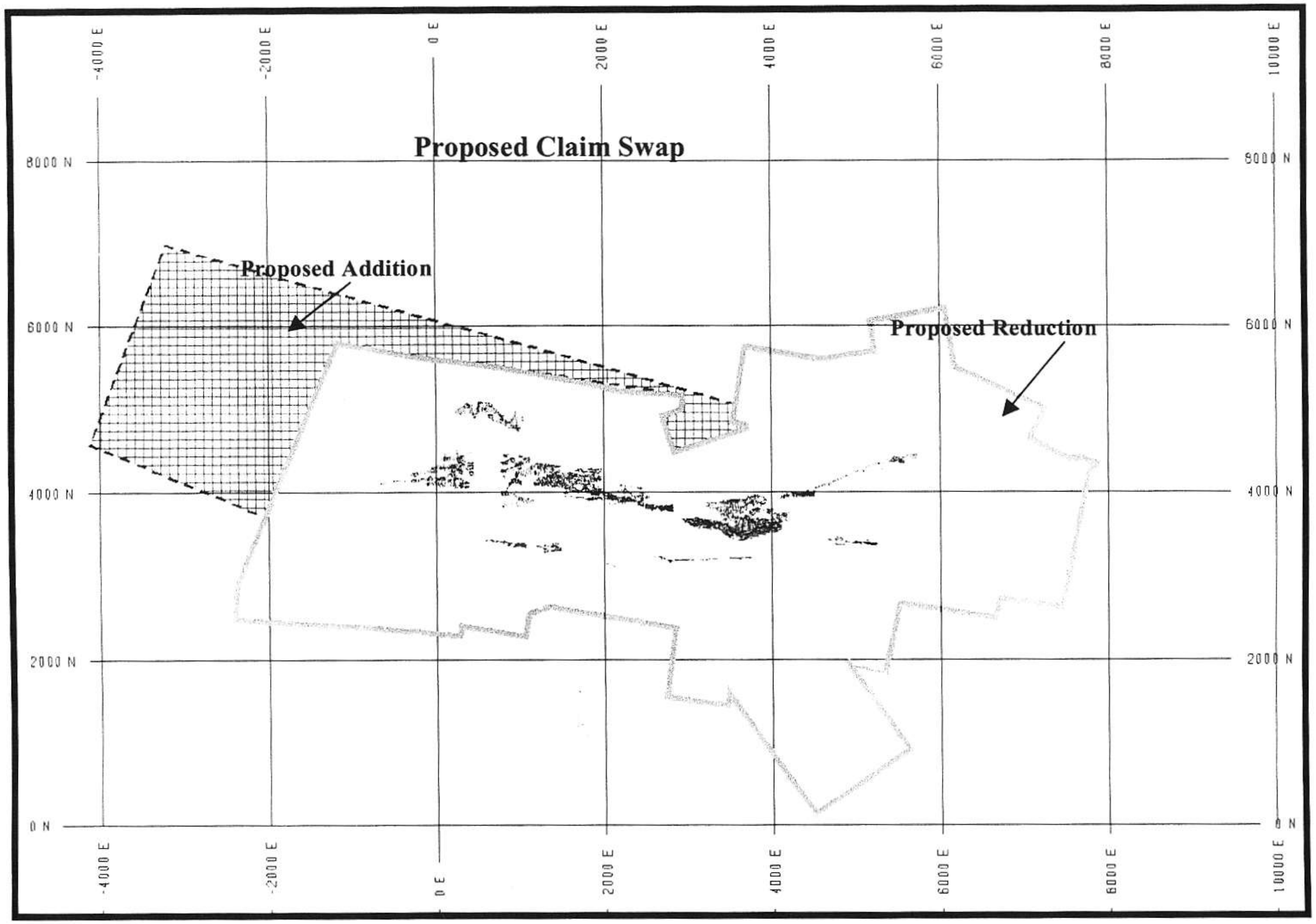
Ore Forming Process

Figure 22



Exploration Potential

Figure 23



Claim Swap