

Ministry of Energy & Mines Energy & Minerals Division Geological Survey Branch



ASSESSMENT REPORT TITLE PAGE AND SUMMARY

2007 Geological Report on the Sphinx Property				TOTAL COST	\$866,263.82
AUTHOR(S) Charles C. Downie, P.Geo, Chris S. Gallagher, M. Sc.	SIGNATUR	E(S)			
NOTICE OF WORK PERMIT NUMBER(S)/DATE(S)MX5-557				YEAR OF WORK 20	007-2008
STATEMENT OF WORK - CASH PAYMENT EVENT NUMBER(S)/DATE(S	5) <u>4219727</u>	June 06 2008,	<u>4219752 Ju</u>	ine 06 2008 , 422027;	<u>3 June 09 2008</u>
PROPERTY NAME					
CLAIM NAME(S) (on which work was done) see attached					
COMMODITIES SOUGHT Mo, W, Au, Ag, Pb, Zn, Cu					
MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN MINFILE 0	82FNE004, (94, 095, 132,			
MINING DIVISION NELSON / FORT STEELE	NTS <u>0</u>	32F057, 067			
LATITUDE 49° 38' N LONGITUDE 116°40'W (at centre of work)					
OWNER(S)					
1) EAGLE PLAINS RESOURCES LTD	_ 2)				
MAILING ADDRESS					
200-16 11th Ave. S.					
Cranbrook, B.C., V1C 2P1					
OPERATOR(S) [who paid for the work]					
1) EAGLE PLAINS RESOURCES LTD	_ 2)				
MAILING ADDRESS					
200-16 11th Ave. S.					
Cranbrook, B.C., V1C 2P1					
PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure	e, alteration,	mineralization,	size and atti	tude):	
Middle Proterozoic Purcell Supergroup, Upper Paleozoic Windermere Sup	pergroup; we	stern flank of th	e Purcell Ar	nticlinorium;homoclina	al north-south
trending sequence of sediments; Toby Formation quartzite, limestone, ark	kose,pebble	conglomerate;	Dutch Creel	k, Mount Nelson	
Formation laminated argillite, phyllite, quartzite, dolomite, minor amphibolite	e;quartz mor	zonite plug; IOC	CG, molybd	enum; significant mine	eralization
1000 x 300m; airborne, high resolution Time Domain Electro Magnetic geo	ophysical su	vey; phyllitic, ar	gillic, low F	-type, CXlimax type, s	karn
REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMEN	T REPORT	NUMBERS <u>ME</u>	MPR ASSR	PT 7416,8628,11604	,12935
MINFILE 082FNE004, 094, 095, 132,					

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED
			(incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			See Appendix 2
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL			
(number of samples analysed for)			
Soil			See Appendix 2
Silt			
Rock			See Appendix 2
Other Drillcore 2432 30 element ICF	P plus Mo assay finish		See Appendix 2
DRILLING			
(total metres; number of holes, size)			
Core <u>2343.7 m, 8 holes, NQ</u>			See Appendix 2
Non-core			
RELATED TECHNICAL			
Sampling/assaying			
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY/PHYSICAL			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/trail			
Trench (metres)			
Underground dev. (metres)			
Other SEE ATTACHED			See Appendix 2
		TOTAL C	COS T \$ 866,263.82

BC Geological Survey Assessment Report 30196a

2007 GEOLOGICAL REPORT FOR THE **Sphinx Property**

VOLUME I

Nelson / Fort Steele Mining Division, Southeastern B.C. Mapsheets 82F057, 82F067 Latitude 49°38' N, Longitude 116°40'W

Prepared for:

EAGLE PLAINS RESOURCES LTD.

Suite 200 – 16-11th Ave. South Cranbrook, B.C. V1C 2P1

By

C.C. Downie, P.Geo. V.P. Exploration 716 Summit Place Cranbrook, B.C. V1C 5L4 and C. S. Gallagher, M, Sc. Chief GeoTechnologist 616 Nelson St. Kimberley, B.C. V1A 2M6

August 2008

SUMMARY

The Sphinx Mo-W porphyry system has been defined by 46 diamond drill holes for a total of 13621.7m of drilling and consists of a tabular, steeply-west dipping Cretaceous (?) quartz monzonite intrusive body with a true thickness of 85m and a strike length of 230m. A pervasive phyllic + local potassic alteration system, 700m by 350m in size, is developed in the host Mt. Nelson pelitic rocks and the intrusive itself. Mo mineralization, open to depth and to the west, is hosted in a qtz-py stockwork and fractures within the alteration zone and it should be noted that best grades on the property are located along the contact zone of the property. An NI43-101 compliant inferred resource estimate of 53Mt @ 0.035% Mo with a cutoff of 0.01% Mo was completed in early 2006. Future drilling will concentrate on increasing the grade of the deposit and exploring for secondary porphyry systems.

The Sphinx property consists of 15218.9 hectares located in the Grey Creek / Baker Creek area 60 km west of Kimberley, in southeastern British Columbia. The claims are owned 100% by Eagle Plains Resources Ltd, with part of the property carrying an underlying NSR.

The property is underlain by a northerly trending sequence of argillite and quartzite units of the Mount Nelson Formation. This assemblage abuts the older conglomerate unit of the Toby formation to the west.

The Sphinx claims cover four known Minfile occurrences. Three of the occurrences (Five Metals, Grey Creek Iron North and South) are iron formation or specular hematite, probably hosted by schistose conglomerate; the other (Jodi or Sly) is molybdenum mineralization that occurs in a stockwork of thin quartz veins in a shattered white quartzite unit.

A high resolution VTEM geophysical survey was flown over the property in early 2004. A total of 99 line km were completed, and three significant geophysical anomaly areas were outlined. The geophysics was followed up with a three day field program to assess the geology and mineralization, and to attempt to locate the historic Minfile occurrences.

In 2005, Eagle Plains optioned the Jodi claims which cover the historic Jodi or Sly Minfile occurrence. The Jodi claims overly brittle sedimentary units that have been intruded by Cretaceous (?) ganitoid rocks. Molybdenum and associated tungsten mineralization occurs as disseminations and within quartz-pyrite stockwork veins hosted by both sedimentary and intrusive rocks. Chemical alteration of rock units suggests the presence of a substantial porphyry-style mineralizing system. The area was first identified by Cominco Ltd. in 1978, which carried out surface work and limited diamond drilling from 1978 to 1984. Cominco completed a soil geochemical survey which resulted in the delineation of a 1700m x 500m tungsten-moly soil anomaly. Five drill holes were completed by Cominco, but no results were released. In 1997, Barkhor Resources drilled 10 holes into the soil anomaly and encountered significant molybdenum mineralization over a 1000m x 300m area. Results from only one hole were ever released (DDH JI97-06) which included:

18.3m to 45.2m (26.9m) @ 0.072 % Mo

including 28.8m to 34.8m (6.0m) @ 0.232% Mo

After acquiring the Jodi claims, Eagle Plains retained David Pighin, P.Geo. who was involved with the original Cominco and Barkhor work, to undertake due diligence and data confirmation related to the historic work. All core from the 1997 Barkhor program was secured and examined and available assay results were compiled and interpreted. Some of the unsampled core was split and sent for analysis.

Based on the results from the historic work and the due diligence, Eagle Plains completed a total of 14 diamond drill holes, for a total of 10,921' (3,330m), in 2005. The area outlined by this and past diamond drilling programs measures approximately 400 x 1000m. Most holes intersected significant molybdenum mineralization over a broad area, with the mineralized zone open to depth and to the west. Analytical results include 47.0m grading .10% Mo (.167% MoS₂).Other fieldwork on the Sphinx property in 2005 included soil geochemical sampling, geological mapping and reinterpretation of airborne geophysics data. A 1.5km exploration trail was completed in order to provide access to future drill sites.

In April 2006, Eagle Plains retained Barry Price P.Geo. to prepare a resource estimate on the Sphinx mineralization. Based on a thorough review of the geological and analytical data, Price arrived at a resource estimate of approximately 60 million tonnes with an average grade of 0.035% Mo. Within this envelope of very consistent fracture and vug-controlled molybdenite mineralization, are numerous intercepts of higher grade, up to 1.1% Mo. within 1-3 meter intercepts. Prices' resource estimate corresponds to the NI 43-101 category of an Inferred Mineral Resource.

2006 exploration work on the property involved a two phase program consisting of groundwork during August of 2006 and a diamond drill program during September and October of 2006. The ground program involved geologic mapping and channel sampling along the exploration trail constructed in 2005. To the north of the deposit, along the power line, work included prospecting and geochemical surveys (soils) (Figures 7a to d). The ground program provided valuable information pertaining to post-mineralization faulting within the deposit (Sphinx fault). The 24 day, 4 hole diamond drill program totaled 1700m and was successful in intersecting high-grade Mo mineralization. Results included hole SX06015 grading 0.042% Mo over it's entire length (481.89m) including 79m @ 0.068% and hole SX06016 grading 47.0m @ 0.045% Mo including 6.0m @ 0.135% Mo along the contact zone of the quartz monozite intrusive body. The drill program also provided valuable information pertaining to the geometry and magmatic evolution of the intrusive system.

The 2007 exploration program focused on higher grade Mo mineralization along the intrusive contact and in structurally controlled fault zones to the south. The program included eight diamond drillholes totalling 2,343.7m in length. The program was successful in intersecting higher grade Mo mineralization including hole SX07022 which intersected .077% Mo over 30.0m including 9.0m @ 0.104% Mo and SX07025 which intersected .085% Mo over 29.0m including 19.0m @ 0.104% Mo and also including 3.0m @ 0.276% Mo. Total expenditures for the 2007 exploration project were \$866,263.82.

It is believed that the Sphinx property has extremely high potential to host both an economic porphyry stockwork style molybdenum deposit and Iron Oxide Copper Gold (IOCG) mineralization. Further work on the property is recommended including field truthing of geophysical and geochemical anomalies, more geological mapping in areas of interest and diamond drilling, both in the area of the resource and to test new areas identified by 2006 fieldwork. A budget for this proposed work is included with this report.

To date, EPL has spent approximately \$1.76M in exploration on the property.

Charles C. Downie, P.Geo

V.P. Exploration, Eagle Plains Resources

Chris Gallagher, M.Sc.

Chief GeoTechnologist, Eagle Plains Resources

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1.0 LOCATION, ACCESS AND INFRASTRUCTURE

The Sphinx property consists of 15218.9 hectares located in the Grey Creek / Baker Creek area 60 km west of Kimberley, 15 km east of Crawford Bay, in southeastern British Columbia. The claims are centered at approximately Latitude 49°38' N, Longitude 116°40'W on NTS Mapsheets 082F057 and 067.

The property area is road-accessible from both the east and west via the Grey Creek Pass, a seasonally maintained secondary road, and a number of logging and historical exploration trails established on the property. Elevations range from 1700 - 2500 meters. Tree cover consists of mature stands of fir, spruce and larch and part of the property has been logged. The property area is subject to moderate precipitation, and the lower parts of the property are free of snow cover from June to October. The Sphinx claims straddle a a high-voltage hydro-electric line. Rail facilities are located at Marysville, 60km east of the property, which could be used to ship ore to the Teck-Cominco smelter at Trail, B.C., approximately 100 kilometers west of the Sphinx property.

120°0'0"W



130°0'0"W

120°0'0"W

60°0"N

2.0 TENURE

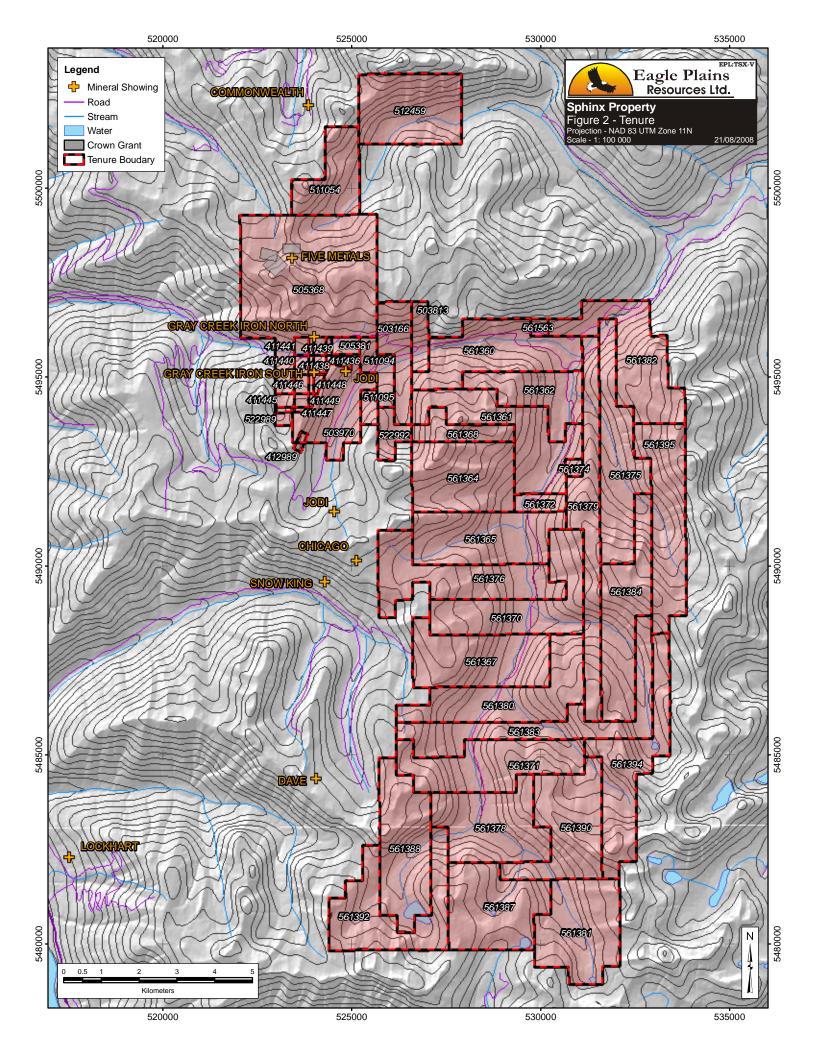
The property consists of both 2 post and four post legacy claims and MTO claims located in the Nelson and Fort Steele Mining divisions on NTS Mapsheets 082F057 and 067. Total property area is 15218.9 hectares owned 100% by Eagle Plains Resources Ltd. Part of the property carries a 2% NSR. A list of all pertinent tenure details follows.

Table 1 – Tenure Details

Tenure Number	Owner	Tenure Name	Good To Date (YYYY/MM/DD)	Mining District	Area (Ha)	Tag Number
561360	100% EPL	SX	2011/11/30	12 Nelson	523.447	
561361	100% EPL	SX	2011/11/30	12 Nelson	523.617	
561362	100% EPL	SX	2011/11/30	12 Nelson	314.109	
561364	100% EPL	SX	2011/11/30	12 Nelson	502.75	
561365	100% EPL	SX	2011/11/30	12 Nelson	523.797	
561367	100% EPL	SX	2011/11/30	12 Nelson	524.105	
561368	100% EPL	SX	2011/11/30	12 Nelson	146.62	
561370	100% EPL	SX	2011/11/30	12 Nelson	523.958	
561371	100% EPL	SX	2011/11/30	12 Nelson	524.369	
561372	100% EPL	SX	2011/11/30	12 Nelson	62.845	
561374	100% EPL	SX	2011/11/30	12 Nelson	20.946	
561375	100% EPL	SX	2011/11/30	12 Nelson	523.626	
561376	100% EPL	SX	2011/11/30	12 Nelson	523.898	
561378	100% EPL	SX	2011/11/30	12 Nelson	524.517	
561379	100% EPL	SX	2011/11/30	12 Nelson	523.784	
561380	100% EPL	SX	2011/11/30	12 Nelson	524.193	
561381	100% EPL	SX	2011/11/30	12 Nelson	524.776	
561382	100% EPL	SX	2011/11/30	12 Nelson	523.397	
561383	100% EPL	SX	2011/11/30	12 Nelson	524.251	
561384	100% EPL	SX	2011/11/30	12 Nelson	524.001	
561387	100% EPL	SX	2011/11/30	12 Nelson	524.722	
561388	100% EPL	SX	2011/11/30	12 Nelson	523.488	
561390	100% EPL	SX	2011/11/30	12 Nelson	524.522	
561392	100% EPL	SX	2011/11/30	12 Nelson	515.137	
561394	100% EPL	SX	2011/11/30	12 Nelson	524.378	
561395	100% EPL	SX	2011/11/30	12 Nelson	523.756	
561563	100% EPL	SX	2011/11/30	12 Nelson	20.934	
522992	100% EPL	SPHINX SE	2018/01/10	5 Fort Steele	83.791	
522989	100% EPL	SPHINX SW	2018/01/10	5 Fort Steele	20.946	

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Tenure	Owner	Tenure Name	Good To Date	Mining District		Pag
Number	Owner	Tenure Name	(YYYY/MM/DD)	Mining District	Area (Ha)	Tag Number
412989	100% EPL	JODI NO 11	2018/07/30	5 Fort Steele	25	
503970	100% EPL		2018/07/30	5 Fort Steele	377.026	
511094	100% EPL		2018/07/30	5 Fort Steele	104.711	
511095	100% EPL		2018/07/30	5 Fort Steele	41.892	
503166	100% EPL	DLP (Pighin claim)	2018/11/25	12 Nelson	209.402	
503813	100% EPL	JODI 20	2018/11/25	5 Fort Steele	83.753	
411441	100% EPL	SPHINX 10	2018/11/25	12 Nelson	25	726764M
411445	100% EPL	SPHINX 14	2018/11/25	12 Nelson	25	726768M
411446	100% EPL	SPHINX 15	2018/11/25	12 Nelson	25	724971M
411447	100% EPL	SPHINX 16	2018/11/25	12 Nelson	25	724972M
411448	100% EPL	SPHINX 17	2018/11/25	12 Nelson	25	724973M
411449	100% EPL	SPHINX 18	2018/11/25	12 Nelson	25	724974M
411436	100% EPL	SPHINX 5	2018/11/25	12 Nelson	25	726759M
411438	100% EPL	SPHINX 7	2018/11/25	12 Nelson	25	726761M
411439	100% EPL	SPHINX 8	2018/11/25	12 Nelson	25	726762M
411440	100% EPL	SPHINX 9	2018/11/25	12 Nelson	25	726763M
512459	100% EPL	SPHINX NE	2018/11/25	12 Nelson	501.821	
511054	100% EPL	SPHINX TOP	2018/11/25	12 Nelson	292.946	
505368	100% EPL		2018/11/25	12 Nelson	1339.73	
505381	100% EPL		2018/11/25	12 Nelson	41.88	



3.0 HISTORY AND PREVIOUS WORK

The original Sphinx claims were staked by Eagle Plains Resources in 2002 to cover the Five Metals (Minfile 082FNE132) occurrence. Subsequently, more claims have been acquired to cover the Grey Creek Iron North and South (Minfile 082FNE094, 095) and Jodi-Sly (Minfile 082FNE004) occurrences.

Most of the current Sphinx claims have seen very limited work in the past. The Grey Creek Iron showings have seen a small amount of trenching, with a shallow adit developed at the Grey Creek North occurrence. This work is believed to have been carried out in the early 1900's.

At the Five Metals occurrence, iron ore with values in silver, lead and copper was reported to occur at the head of Houghton Creek (EMPR AR 1902-163). By 1905, over \$10,000 was spent in development by the Five Metals Company At this time, men were still engaged in "running a deep level to tap the main ledge". This "ledge" was reported to be 30 metres wide. A furnace with 40 tonnes/day capacity was planned.

This occurrence has been created based on its given location at the head of Houghton Creek and on the north side of Sphinx Mountain (The Nelson Miner, 1905). Although in the same vicinity, the Gray Creek occurrences are well defined by J.T. Fyles in a 1956 report (Property File) as being to the south of Sphinx Mountain. Three Crown grants exist near the location at which the Five Metals should occur: Palouser (Lot 8797), Spokane (Lot 8796) and Tekoa (Lot 8798).

Mineralization in the area of the Jodi-Sly occurrence was first identified by Cominco Ltd. in 1978, which carried out surface work and limited diamond drilling from 1978 to 1984. Cominco completed a soil geochemical survey which resulted in the delineation of a 1700m x 500m tungsten-moly anomaly. 4-6 drill holes were completed, but no results were released. In 1997, Barkhor Resources drilled 10 holes into the soil anomaly and encountered significant mineralization over a 1000m x 300m area. Results from only one hole were ever released (DDH JI97-06), but a private consultant reported that "typical drill intersections are averaging 0.03-0.038% Mo over core lengths ranging from 90 to 230m".

The 2004 work program consisted of an airborne, high resolution Time Domain Electro Magnetic geophysical survey, followed by a short field program. Geophysical data collection was done by Geotech Ltd. and data processing and interpretation was contracted to SJ Geophysics and Condor Consulting. The survey area covered 8.12 square kilometers and comprised 26 lines and 8 tie lines, for a total of 99 line kilometers. The survey was flown in early March 2004 with helicopter support provided by Bighorn Helicopters using an AStar 350B2.

The field program was carried out over a period of three days from June 22 - 242004. Two field technicians collected a total of 21 rock samples. The rock samples were shipped to Eco-Tech Laboratories in Kamloops, B.C. for analysis. The samples were analyzed for 30 element ICP using aqua-regia digestion. All samples were collected, handled, cataloged and prepared for shipment by Bootleg Exploration Inc.

Overall project supervision was by C.C. (Chuck) Downie, P.Geo Exploration Manager, Bootleg Exploration.

All exploration and reclamation work was carried out in accordance to Ministry of Environment, Ministry of Mines and WCB regulations.

Total expenditures by Eagle Plains Resources on the property in 2004 were \$31,389.32.

Of the 21 rock samples collected, six returned anomalous values. Sample S-12, dolomitic float with fractures containing galena and sphalerite returned values of 2180 ppm Zn. Sample S-13,, a 45 cm wide zone of quartz veins, returned 1836 ppm Zn. Sample S-14, a 30 cm wide quartz shear, returned 112 g/T Ag, 240 ppm Bi, and 1.23 % Pb and S-15, from the same location returned 1198 ppm Pb. Sample S-17, a 1 meter wide quartzite band, returned 1.28% Cu and S-16, from the same location, returned 2458 ppm Pb.

2005 exploration by Eagle Plains Resources Ltd. has concentrated on the zone of molybdenum mineralization in the area of the Jodi – Sly Minfile occurrence. Eagle Plains completed 14 diamond drill holes, for a total of 10,921' (3,330m), in 2005. The area outlined by this and past diamond drilling programs measures approximately 400 x 1000m. Most holes intersected significant molybdenum mineralization over a broad area, with the mineralized zone open to depth and along strike in one direction. Analytical results include 47.0m grading 0.10% Mo (0.167% MoS2). Other fieldwork on the Sphinx property in 2005 included soil geochemical sampling (1138 samples) and geological mapping. A 1.5km exploration trail was completed in order to provide access to future drill sites. Total 2005 exploration expenditures by Eagle Plains Resources on the Sphinx property was \$559,146.75

In April 2006, Eagle Plains retained Barry Price P.Geo. to prepare a resource estimate on the Sphinx mineralization. Based on a thorough review of the geological and analytical data, Price arrived at a resource estimate of approximately 60 million tonnes with an average grade of 0.035% Mo. Within this envelope of very consistent fracture and vug-controlled molybdenite mineralization, are numerous intercepts of higher grade, up to 1.1% Mo. within 1-3 meter intercepts. Prices' resource estimate corresponds to the NI 43-101 category of an Inferred Mineral Resource.

2006 exploration work on the property involved a two phase program consisting of groundwork during August of 2006 and a diamond drill program during September and October of 2006. The ground program involved geologic mapping and channel

sampling along the exploration trail constructed in 2005. To the north of the deposit, along the power line, work included prospecting and geochemical surveys (soils). The ground program provided valuable information pertaining to postmineralization faulting within the deposit (Sphinx fault). The 24 day, 4 hole diamond drill program totaled 1700m and was successful in intersecting high-grade Mo mineralization. Results included hole SX06015 grading 0.042% Mo over it's entire length (481.89m) including 79m @ 0.068% and hole SX06016 grading 47.0m @ 0.045% Mo including 6.0m @ 0.135% Mo along the contact zone of the quartz monozite intrusive body. The drill program also provided valuable information pertaining to the geometry and magmatic evolution of the intrusive system.

4.0 GEOLOGY

4.1 REGIONAL GEOLOGY

Regionally the area is underlain by rocks of the Middle Proterozoic Purcell Supergroup and by Upper Paleozoic rocks of the Windermere Supergroup. The area is located on the western flank of the Purcell Anticlinorium, a broad, north-plunging arch-like structure in Helikian and Hadrynian aged rocks. The anticlinorium is allocthonous, carried eastward and onto the underlying cratonic basement by generally north trending thrusts throughout the Laramide orogeny during late Mesozoic and early Tertiary time.

The oldest rocks exposed in the area are greenish, rusty weathering thin bedded siltites and quartzites of the greater than 4000m thick Lower Aldridge Formation, along with the facies-related, dominantly fluvial Fort Steele Formation (the base of which is unexposed). The Sullivan deposit is located some 20-30m below the upper contact of the Lower Aldridge Formation. Overlying the Lower Aldridge is a continuous section of Middle Aldridge quartz wackes, subwackes and argillites some 3000+ m thick. Within the Middle Aldridge formation, fourteen varied marker horizons can be correlated over hundreds of kilometres. These represent the only accurate stratigraphic control. A number of aerial extensive, locally thick gabbroic sills are present within the Lower and Middle Aldridge Formations. These sills and dykes; the "Moyie Sills", locally were intruded into wet, unconsolidated sediments, and have been dated to 1445 Ma, providing a minimum age for Aldridge sedimentation and formation of the Sullivan deposit. The Middle Aldridge is overlain conformably by the Upper Aldridge, 300 to 400 meters of thin, fissile, rusty weathering siltite/argillite.

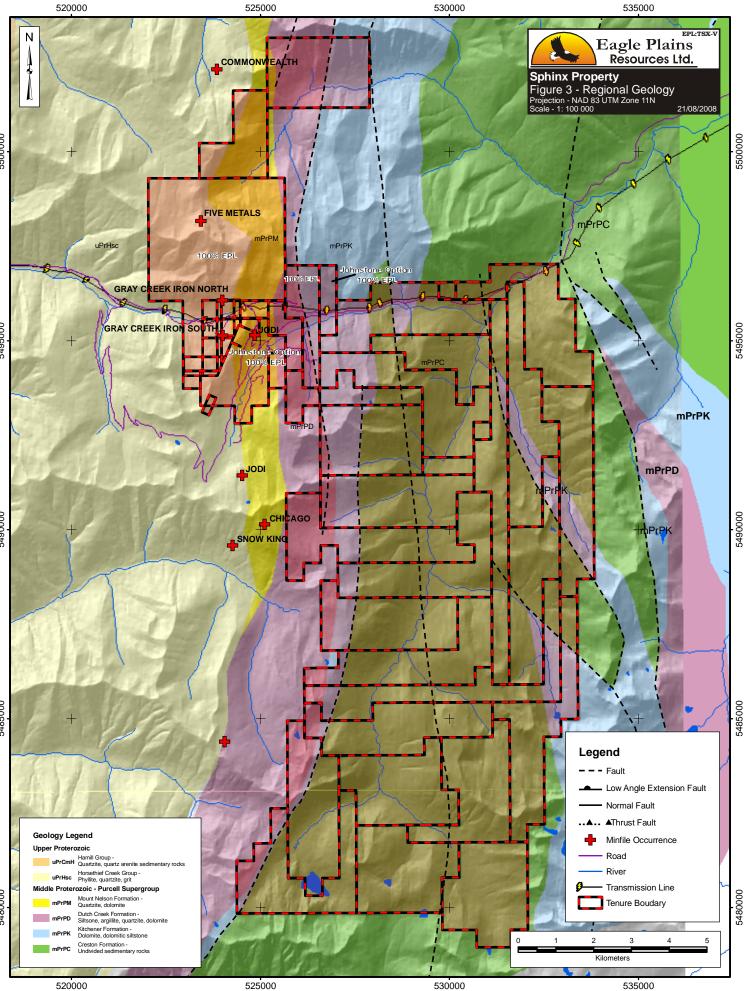
Conformably overlying the Aldridge Formation is the Creston Formation, comprising approximately 1800 meters of grey, green and maroon, cross-bedded and ripple marked platformal quartizes and mudstones. The Kitchener-Siyeh Formation, which includes 1200 to 1600 meters of grey-green and buff coloured dolomitic mudstone are shallow water sediments overlying the Creston Formation.

The upper portion of the Purcell Supergroup consists of the Dutch Creek and Mount Nelson Formations. The Dutch Creek formation consists of approximately 1200 meters of dark grey, calcareous dolomitic mudstones. Overlying the Dutch Creek formation is the Mount Nelson formation, 1000 meters of grey-green and maroon mudstone and calcareous mudstones. This unit marks the top of the Purcell Supergroup.

Overlying the Purcell Supergroup is the Windermere Supergroup. Regionally, the Windermere Supergroup varies in thickness from 80 metres to over 3 kilometres and is in sharp contact with the underlying Belt-Purcell Supergroup across an unconformity with considerable topography, interpreted as a result of a local basement high, the "Windermere High" (Reesor 1973). The Windermere Supergroup was deposited above this unconformity and consists of a basal conglomeratic unit, the Toby Formation, and the overlying argillite and pebble conglomerate dominated Horsethief Creek Formation.

The Sphinx property in a regional sense is crudely surrounded by large granitic batholiths. These large granitic bodies are mapped as the White Creek batholith, the Fry Creek batholith, the Nelson Batholith and the Bayonne batholith. Small plutons, plugs and dykes are widely scattered throughout the area. Age determinations on these granitic bodies suggest that they range in age from early to mid-Cretaceous.

Structure in the region is dominated by intensely developed north trending, steeply dipping foliation that sub-parallels the strike and dip of the meta-sediments. Small scale asymmetrical and isoclinal folds are commonly found at outcrop large folds on a scale of kilometers have been mapped in the region by government workers. The dominant fault in the area is the Redding Creek fault. Two kilometers west of the Redding Creek fault a similar fault cuts the eastern part of the Sphinx property. These structures appear to be high angle reverse faults that dip to the west. Leclair and Reesor estimate that the Redding Creek fault may have 1000 meters of reverse movement, west side up.



4.2 PROPERTY GEOLOGY

The Sphinx property sits astride an angular unconformity which marks the contact between mid-Proterozoic and upper Proterozoic sediments. The upper Proterozoic Toby Formation and Horsethief Group sediments occupy the west half property, the mid-Proterozoic, Mt. Nelson, Dutch Creek and Kitchener sedimentary formations occupy the east half of the property. A small quartz monzonite cupola intrudes the Mt. Nelson meta-sediments near the center of the known molybdenite mineralization.

The southern part of the Sphinx property hosts widespread molybdenite mineralization and most geological work is currently focused in and around the mineralized area. Outcrop in the area underlain by the moly mineralization is very rare. However, drill hole data coupled with outcrop data from the surrounding ridges is sufficient to provide a preliminary geological map for the southern part of the Sphinx property (Figure 4).

In the southern part of the property intense thermal alteration has totally recrystallized the Mt. Nelson sediments, such that original sedimentalogical characteristics are totally destroyed. However, geological mapping has sub-divided the meta-sediments into three distinct metamorphic facies. All the known moly mineralization on the property is hosted by the following alteration assemblages and the associated altered quartz monzonite cupola.

A calc-silicate interlayered diopside-garnet skarn facies is traceable throughout the southern part of the Sphinx property. In drill holes this unit ranges between 20 and 75 meters in thickness. The calc-silicate is generally finely layered by green, white and black banding. These layers are formed by actinolite, sericite, biotite and aphanitic quartz. The diopside-garnet skarn is generally a very calcareous, coarsely crystalline, apple green, orange and black rock. The skarn occurs in layers from 20 cm to 200 cm in thickness. The skarn is composed mainly of crystalline diopside, pyrite, grossularite, calcite and magnetite. The skarn is coarsely crystalline and typically vuggy.

The sericitic quartzite facies occurs irregularly throughout the mineralized area in well defined bands with drill indicated thickness from 2.0 meters to 50 meters. The sericitic quartzite is a massive, hard, white to light green rock, with an aphanitic, glossy texture with a composition of roughly 90% quartz and 10% sericite. The irregular thickness and distribution of this facies may be the result of a late stage thermal metamorphic event that altered much of the original sericitic quartzite phyllite facies described below.

The dominant metamorphic facies in the area of interest is a sericite-quartz phyllite. This rock is generally light yellowish white in colour and is composed of approximately 60% sericite and 40% quartz. The sericite-quartz phyllite has a finely laminated texture formed by thin alternating layers of finely crystalline sericite and aphanitic quartz. Contact relationships between the sericite-quartz phyllite facies and the adjacent metamorphic facies suggest that much of the sericite-quartz phyllite was formed at the expense of the older facies. Drilling indicates that the sericite-quartz phyllite facies is increasing in width and intensity at depth.

A quartz monzonite cupola and numerous monzonite and aplitic dykes intrude the above molybdenite bearing meta-sediments. In plan the cupola has a near surface measurement of 100 meters by 180 meters elongated northerly parallel to the dominant foliation pattern. Drilling shows that the intrusive dips steeply west parallel to the dip of the dominant foliation. Drilling also indicates that quartz monzonite body is widening at depth. The quartz monzonite consists of light gray aphanitic quartz surrounding white and light green feldspar, with rare pink feldspar and abundant orange feldspar developed near moly-quartz veinlets. Texturally the quartz monzonite consists of equigranular, coarsely crystalline sub-hedral feldspar, with rare large phenocrysts, in an aphanitic quartz matrix, with some of the quartz forming "quartz eyes". Core from the 2006 drill program reveals banded quartz textures within the intrusive similar to that of 'Brain Rock' documented at other deposits such as Climax and Henderson. Miarolitic cavities are abundant through out the intrusive. Argillic alteration is well developed throughout the quartz monzonite, with of the feldspar altered to kaolinite. Original biotite is altered to sericite and chlorite, with strong development of late stage potassic feldspar in areas adjacent to quartz-moly veinlets.

Structure

Structure on the property is dominated by a South striking, moderate- to steeply-dipping transposition foliation, S_{0-1} , defined by compositional layering and preferentially oriented phylosilicates. This transposition fabric defines the map pattern for lithologic units on the property. Small scale, gently-north-plunging asymmetric folds are common in phyllitic argillite outcrops and thin bedded siltstones which are outside the zone of intense thermal alteration. The axial plane cleavage for these small folds is parallel to S_{0-1} . A second north striking cleavage, S_2 which dips 40 to 50 degrees to the east is also noted. The youngest cleavage on the property, S_3 , was noted during 2006 mapping of the access trail. This well developed cleavage strikes east and dips steeply (55 to 80 degrees) to the south. It is important to note that these three cleavages, present in the host rocks, are the dominant control on mineralized veins and fractures in the system.

A major north striking reverse fault cuts the Sphinx claim block 900 meters east of the known molybdenite mineralization. This fault dips west and moves upper Dutch Creek sediments over upper Kitchener sediments. This fault appears to have cut away 1800 meters of the Dutch Creek formation.

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4.3 MINERALIZATION

Molybdenite mineralization on the Sphinx property has been outlined by soil geochemistry and verified by diamond drilling. This work has discovered a zone of molybdenite mineralization that in plan has a surface measurement of at least 1000 meters by 250 to 300 meters wide and depth of at least 300 meters. Mineralization remains open to the east, west and to to depth.

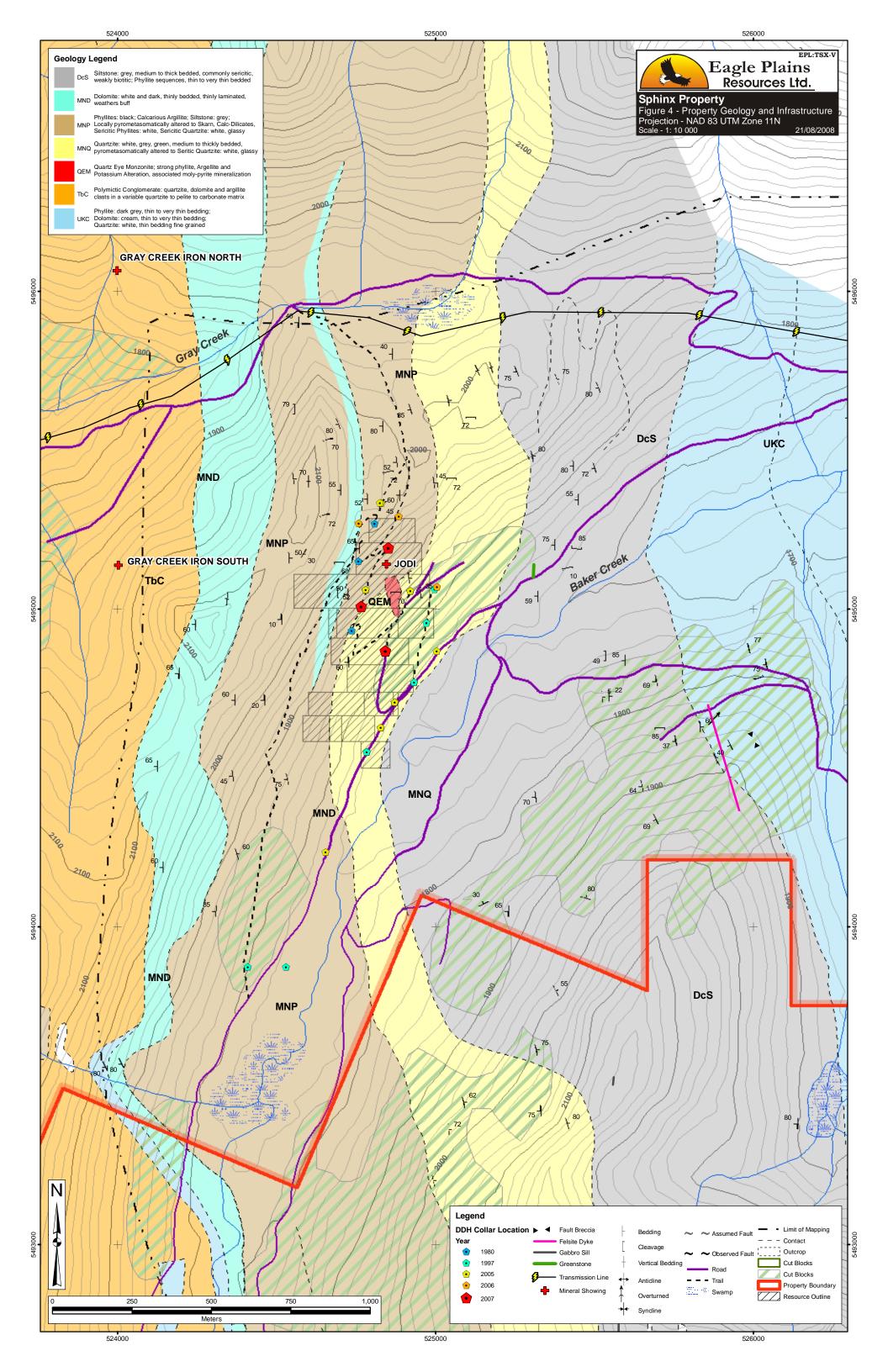
The molybdenum mineralization is hosted in quartz-molybdenite-pyrite stockworks. This mineralized stockwork is the latest geological event on the Sphinx claims and is developed only in the area of intense thermal alteration. Mineralization is best developed within a 50m thick zone defined by the quartz monzonite contact. Ore grade mineralization is also present in the quartz monzonite body itself, in the sericitic quartzite, in the sericite-quartz phyllite, and is poorly developed in the calc-silicate-skarn facies.

At least three fracture sets form the quartz-moly-pyrite stockwork. The dominant set parallels the north striking trend of the regional cleavage, a second set of fractures strikes east-west and dips south between 60° and 80° , a third set fractures strike north-east and dips to the north at 80° .

The stockwork is formed mainly by a white, drusy quartz gangue with lesser K-feldspar and rare fluorite. The principle sulphides molybdenite and pyrite are deposited mainly as selvages along the vein contacts. Molybdenite and pyrite also line quartz crystal druses in the veins. The quartz molybdenite-pyrite veins also host magnetite that is locally abundant. Rare yellow sphalerite and scheelite also occur in some of the moly bearing veins.

Where the mineralized stockwork is developed in the meta-sediments, phyllic alteration is also well developed forming quartzsericite envelopes around the molybdenite-pyrite bearing veins. Within the quartz monzonite, strong phyllic and potassic alteration is developed as quartz sericite and k-feldspar envelopes around molybdenite-pyrite bearing veins. Argillic alteration of feldspar in the monzonite is well developed in areas of good molybdenite mineralization.

The best molybdenum grades occur in drill holes which are drilled in or near the quartz monzonite cupola. To date a total of 30 drill holes have tested molybdenite bearing stockwork. In nearly all of the holes molybdenite occurs continuously from the top to the bottom of the hole.



5.0 2007 WORK PROGRAM

The 2007 exploration program focused on higher grade Mo mineralization along the intrusive contact and in structurally controlled fault zones to the south. The program included eight diamond drillholes totalling 2,343.7m in length. Two North-South holes were drilled, perpendicular to section, to test for cross-faults and to aid in geostatistical analysis of the geochemical dataset.

		Azimuth Dip (Deg) (Deg)		UTM NAD83 Zone 11N			Location Method	Hole Status	Finish Date	Core Size	Geologist
	(,	(3)	(3)	Easting	Northing						
SX07019	488	0.00	-50	524842	5494869	1823.5	DGPS-COR	COMPLETE	11-May-07	NQ	Aaron Higgs
SX07020	76.5	270.00	-45	524842	5494869	1823.5	DGPS-COR	ABANDONED	12-May-07	NQ	Aaron Higgs
SX07021	158.9	270.00	-54	524842	5494869	1823.5	DGPS-COR	ABANDONED	14-May-07	NQ	Aaron Higgs
SX07022	408.09	270.00	-45	524842	5494869	1823.5	DGPS-COR	COMPLETE	20-May-07	NQ	Aaron Higgs
SX07023	262	0.00	-65	524851	5495193	1957.2	DGPS-COR	COMPLETE	23-May-07	NQ	Aaron Higgs
SX07024	228.7	90.00	-60	524851	5495193	1957.2	DGPS-COR	COMPLETE	25-May-07	NQ	Aaron Higgs
SX07025	337	90.00	-60	524765	5495009	1911.6	DGPS-COR	COMPLETE	29-May-07	NQ	Aaron Higgs
SX07026	383.8	90.00	-85	524765	5495009	1911.6	DGPS-COR	COMPLETE	02-Jun-07	NQ	Aaron Higgs

Table 2 – 2007 DDH Collar Locations

A differentially corrected Trimble XRS Pro (with sub-meter accuracy) was used to locate drill collars and exploration trails. All field data was collected using Palm Pilot devices and Eagle Plains Resources' 3rd generation digital field data collection system. The data was compiled into a GIS database to aid in cartography, and geochemical analysis.

All drill core samples were shipped to Eco-Tec Laboratories in Kamloops, British Columbia for analysis. The samples were analyzed for 30 elements by way of AR / ICP-OES; samples exceeding 300 ppm Mo were also assayed using an AAS finish. All samples were collected, handled, cataloged and prepared for shipment by Bootleg Exploration Inc. staff, a wholly owned subsidiary of Eagle Plains Resources Ltd, or by subcontractors. All exploration and reclamation work was carried out in accordance to the BC Mines Act and BC Workers Compensation board requirements. The diamond drill program was carried out under BC Mines permit # MX-5-557.

A water quality / quantity survey of Baker Creek was conducted by Nanrich Water Management Consultants Ltd. as part of EPL's environmental baseline studies. Continuous monitoring of water flow data was conducted from July 3rd to October 2nd, 2007 via a remote station; water quality grab samples were taken from Baker Creek during the spring, summer and fall. For a complete review of the study, please refer to Appendix V.

On-site geological work was the responsibility of David Pighin, P.Geo., with overall project supervision provided by C.C. Downie, P.Geo. Quality control protocol including the use of standards and duplicate assays were employed during the course of the 2007 diamond drilling program. Total expenditures for the 2007 exploration program were \$866,263.82.

6.0 2007 RESULTS

2007program was designed with two main goals in mind: to increase grade of the overall deposit and to test open mineralization to the west of the deposit (Figure 5).

The program was successful in intersecting higher grade Mo mineralization including hole SX07022 which intersected .077% Mo over 30.0m including 9.0m @ 0.104% Mo and SX07025 which intersected .085% Mo over 29.0m including 19.0m @ 0.104% Mo and also including 3.0m @ 0.276% Mo. A table highlighting significant intercepts from the program follows.

Hole Number	From (m)	To (m)	Length	Mo (%)	MoS2 (%)*
Number	(11)	(m)	(m)	(%)	(70)*
SX07019	27	113	86	0.054	0.089
Including	62	65	3	0.114	0.191
Including	77	85	8	0.111	0.185
	363	372	9	0.073	0.121
Including	363	365	2	0.214	0.357
SX07020	14	19	5	0.121	0.202
SX07021	14	21	7	0.098	0.164
Including	19	21	2	0.2	0.333
	31	50	19	0.054	0.09
SX07022	229	259	30	0.077	0.129
Including	242	251	9	0.104	0.173
	262	278	16	0.068	0.114
SX07024	77	87	10	0.055	0.092
SX07025	135	142	7	0.073	0.122
Including	139	142	3	0.102	0.17
	146	175	29	0.085	0.142
Including	156	175	19	0.104	0.173
Also Including	156	159	3	0.276	0.46
	232	241	9	0.078	0.131
Including	234	238	4	0.112	0.186
	262	269	7	0.123	0.205
Including	265	268	3	0.203	0.339
	293	305	12	0.072	0.12
SX07026	185	202	17	0.056	0.093
	221	225	4	0.061	0.102
	231	242	11	0.063	0.105

Diamond Drill hole SX07019 was drilled by Apex Diamond Drilling between May 4 and May 11, 2007. It was located on Pad E of section 4850E of the Sphinx complete map with UTM units of the collar being 524842.0668E and 5494868.886N at an elevation of 1823.544 m. The hole ended up being 488 m deep on a 0° azimuth and -50° dip using NQ size core rods. The hole was drilled to test the subsurface geometry of the intrusive unit as well as test the control of the east-west S₂ cleavage on mineralization. The hole was logged by Aaron Higgs.

Lithology: SX07019 collared into the unit 5 quartzite at 12.2 m. The sericitic quartzite unit is characterized by greyish to yellowish white in colour and massively recrystallized quartz with thin sericite lamina. This unit continues until 137.25 m where the alteration drops out and the sediments turn to unit 3 biotitic quartzite. This unit is characterized as quartzite with fresh biotite overprinting interbedded with minor argillite. The fabric is much more apparent in this unit than the number 5 quartzite and is accentuated by the sericitic laminae. The compositional layering in the sedimentary rock, which is thought to be S_{o-1} , sits at an average of 23° to core axis but is slightly variable with a 40° and 43° angle at 49.12 and 225.47 m respectively as well as a angle of 7° at 76.58 m. The quartzite and biotitic overprinting eventually drops out and we have a common meta-siltstone(unit 1) that continues at 193.03 m. Throughout the sedimentary units, there are very common quartz monzonite (unit 21) dykes averaging 0.5-1m in width but as large as 9m and as small as 20 cm wide. This unit is characterized by a light grey matrix, with light green feldspar (saucerite?) and medium equigranular crystals. The meta-siltstone unit that hosts the dykes continues until it contacts with the large quartz monzonite body at 243.21m. This quartz monzonite continues for 144.07 m to 387.28 m when it contacts again with weakly altered meta-siltstone. The meta-siltstone continues until the end of the hole at 488m, intruded by a large dyke/top of larger intrusive unit from 411.54 to 437.48 m. Again there are also common metre scale intrusive dykes within the meta-siltstone continuing until the end of the hole at 488 m.

Alteration: The alteration in the unit 5 quartzite is characterized with the SS code, which means that it is highly altered and in most places completely overprinted by silica and sericite alteration (little or no primary textures are preserved). This intense alteration continues in the rock but with a gradual decrease in silica content and increase in the sericitic component proximal to the intrusive unit. The sericite alteration becomes the dominant alteration at 193.03 m (code S) but also becomes slightly less pervasive down the hole. The silica finally all but drops out near the end of the hole at 472.55 m, leaving only minor sericite alteration. Throughout the SS and S coded alteration, it should be noted that although the alteration is quite pervasive, it is also quite variable, or patchy, with sections of fairly unaltered seds within the highly altered quartzite. This is particularly seen in the unit 3, biotitic quartzite. The quartz monzonite intrusive units are highly altered by potassic alteration(code SK), which includes a high level of sericite alteration as well. This alteration assemblage has the following characteristics.

a)Pervasive sericite and potassic alteration overprinting. Complete replacement by fine to medium-grained silver-grey sericite and/or complete cream coloured potassic overprinting.

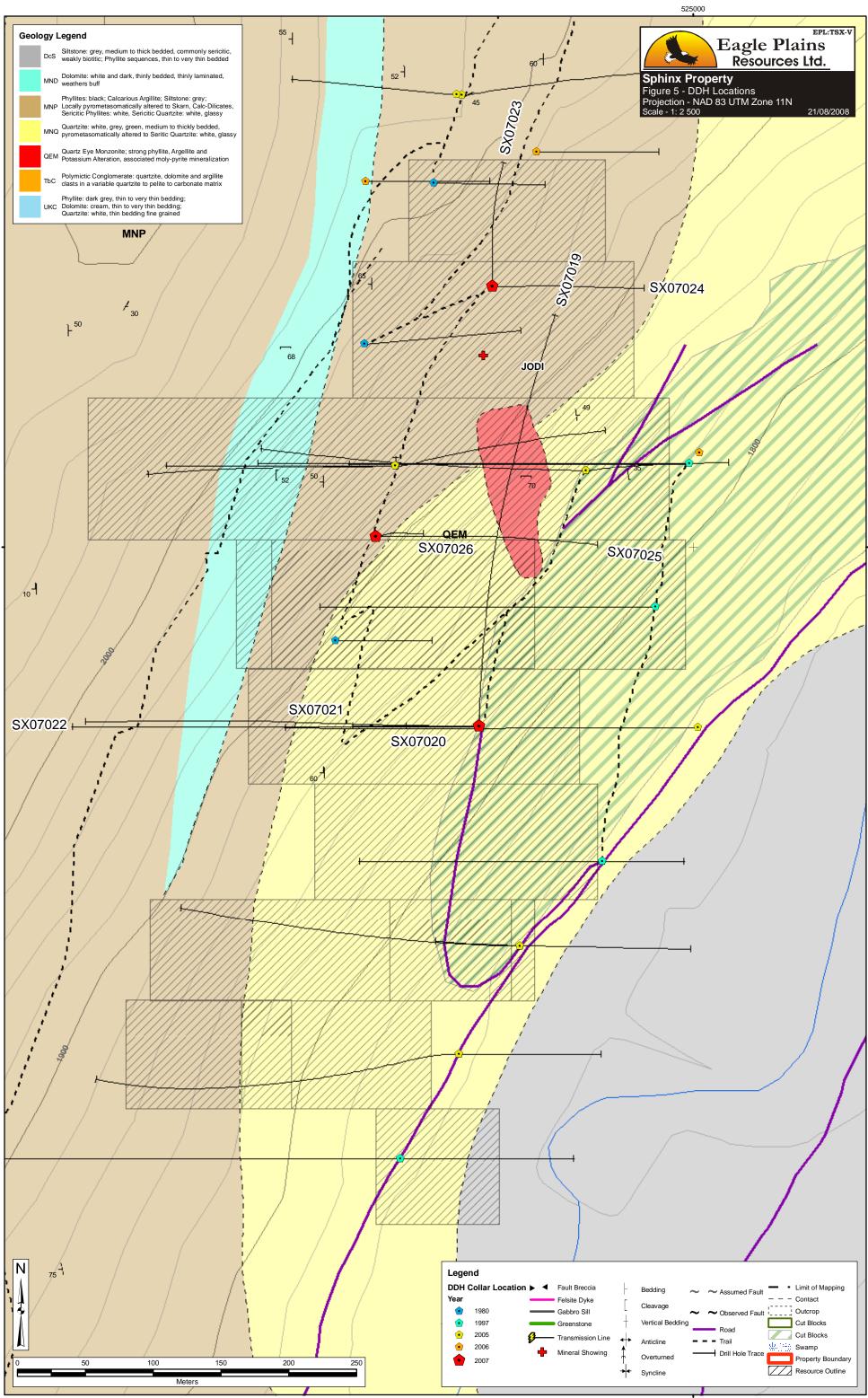
b)Cream coloured potassic overprinting on qtz vn envelopes.

c)Potassic replacement as zoned k-spar porphyroblasts and proximal potassic overprinting or phenocrysts.

d)Replacement of biotite grains with soft greenish clay minerals (chlorite?)

e)Complete replacement of feldspar grains to white sericite-kaolinite phenocrysts.

Mineralization and Veining: Veining and mineralization in both the sediments and quartz monzonite intrusive is characterized by Standard Molybdenum Mineralization which is described as a stock work of drusy white quartz-orthoclase-muscovite veins, ranging from sub-mm to cm in scale and commonly mineralized with pyrite-molybdenite-magnetite and rare scheelite and fluorite. The pyrite and molybdenite commonly forms as selvages on the vein edges and occurs as coarser-grained material in the vugs. The veins generally have a low angle to core axis, averaging around 21°. It can be however as low as 2° and as high as 47° in true stockwork form. The veining seems to be influenced by the alteration as there is a much higher vein density(22/m) in areas of high SS alteration as well as high SK alteration but the mineralization in the veining still exists even when the density drops to 5/m in the fairly unaltered meta-siltstone. There is a trace of both pyrite and moly in the large intrusive stock disseminated throughout.



SX07020 (Figure 6a):

Diamond Drill hole SX07020 was drilled by Apex Diamond Drilling between May 11 and May 12, 2007. It was located on Pad E of section 4875N of the Sphinx complete map with UTM units of the collar being 524842.0668E and 5494868.886N at an elevation of 1823.544 m. The hole ended up being 75.56 m deep on a 270° azimuth and -45° dip using NQ size core rods. The hole had to be abandoned at 75.65 m due to stuck rods. This hole was an attempt to test the updip extension of mineralization intersected in hole SX06015. The hole was logged by Dave Pighin.

Lithology: The hole collared into quartzite (unit 5) at after 11.28 m of casing. This unit of quartzite with minor argillite continues until 19.3 m when it is intruded by a dark amphibolite unit that continues until 30.2 m, with the exception of a 2 m quartz monzonite dyke at 25.15 m. After 30.5 m, the hole returns to a quartzite unit but is characterized by unit 1 to the end of the hole at 75.56 m. At 45.9 m, there is a 30cm quartz monzonite dyke.

Alteration: The alteration of the quartzite in this hole is characterized by the code SS, with both sericite and silica alteration present. The silica alteration was found to be more pervasive than the sericite. The quartz monzonite in the hole has its distinctive potassic (SK) alteration.

SX07021 (Figure 6a):

The hole was drilled by Apex Diamond Drilling between May 12th and 14th, 2007. It was located on Pad E of section 4875N of the Sphinx complete map with UTM units of the collar being 524842.0668E and 5494868.886N at an elevation of 1823.544 m. The hole went for a total length of 158.9 m at an azimuth of 270 and a dip of -54 using NQ size core rods. The hole attempted to continue the hole SX07020 that had to be abandoned. The hole was shut down as the dip was too steep and close to SX06015. This hole was logged by Dave Pighan.

Lithology: The hole collared into the unit 5 quartzite after 13m of casing. This unit continues until 33.2 m but is intruded by a 8 m Amphibolite sill at 22.7 m and ends with a 1.5 m quartz monzonite dyke. After this dyke the quartzite returns but transitions to unit 1 with less pervasive silica alteration, which continues until the end of the hole at 158.9 m. This unit is commonly intruded by quartz monzonite dykes that range from 0.5 to 7 m in length. Furthermore, the unit is intruded at 126 m by a intrusive dyke swarm where the dykes ranges in thickness from 5 to 40 cm and lasts until 140 m.

Alteration: The alteration in this hole is characterized by the code SS with intense silicification and pervasive sericite alteration with the exception of the amphibolite sill and the quartz monzonite dykes with have codes of AMP and SK. After 34.8, the silica alteration becomes only slightly less intense, coincident with the transition to the lithologic unit 1.

SX07022 (Figure 6a):

Diamond Drill hole SX07022 was drilled by Apex Diamond Drilling between May 14 and May 20, 2007. It was located on Pad E of section 4875N of the Sphinx complete map with UTM units of the collar being 524842.0668E and 5494868.886N at an elevation of 1823.544 m. The hole ended up being 407.9 m deep on a 270° azimuth and -45° dip using NQ size core rods. This hole was moved off section by 0.5 m to replace SX07020 which was abandoned, again testing the updip extension of the mineralization intersected in hole SX06015. The hole was logged by Dave Pighin.

Lithology: After 10.3 m of casing, the hole collared into unit 5 quartzite. This unit continues, with frequent intrusions of quartz monzonite dykes ranging from 20 cm to a dyke swarm 23 m in length, until 144 m. There are also two metre scale amphibolite sills at 17.69 and 26.7 m. From 144 m until 290 m, there is a continuous succession of quartzite, both units 1 and 5 with only a few minor quartz monzonite intrusions. At 290 m, the rock transitions to a meta-siltstone (unit 2) and eventually into the unit 7 skarn from 338.6-350 m. From here to the end of the hole at 408.09 m, is the calc-silicate unit (#6), which is characterized by alternating bands of quartz, biotite, actinolite and sericite with a calcareous matrix.

Alteration: The quartzite rock unit in this hole, whether unit 1 or 5, have the alteration code of SS, with both silica and sericite alteration being very strong. The quartz monzonite units have the alteration code of SK, the dyke swarm from 63 to 86 m being higly kaolinitized in particular. The strong sericite and silica alteration seen in the quartzites becomes a lot weaker, and sericite becomes more dominant after 330.3 m. This code S alteration continues until the end of the hole with the exception of the skarn unit between 338.6 to 350 m, with the code CS, describing the alternating layers of sediment present in the skarn and calc-silicate units.

SX07023: (Figure 6c):

Diamond Drill hole SX07023 was drilled by Apex Diamond Drilling between May 21 and May 23, 2007. It was located on Pad K of section 4850E of the Sphinx complete map with UTM units of the collar being 524851.8E and 5495192.9N at an elevation of 1957.2 m. The hole ended up being 262 m deep on a 0° azimuth and -65° dip using NQ size core rods. This hole was drilled to test the updip mineralization in the megablock, the intrusive and depth and provide general geologic information. The hole was logged by Aaron Higgs.

Lithology: After 3.66 m of casing, this hole collared into the unit 6 calc-silicate strata, which continued until 47.5 m, with the exception of a 1 m quartz monzonite dyke at 45.9 m. At 47.5 m, a 4 m quartz monzonite dyke inrudes the contact between the calc-silicate unit and the meta-siltstone unit 1. This unit continues to 92 m, when it transitions to the highly altered unit 5 quartzite and continues to 172.5 m where the remainder of the hole is characterized but the unit 1 meta-siltstone to 262 m. *EAGLE PLAINS RESOURCES LTD* 2007 GEOLOGICAL REPORT ON THE SPHINX PROPERTY

Alteration: Alteration of the calc-silicate unit consists of moderate garnet and diopside alteration / contact metamorphism. Alteration in the quartz monzonite units is characterized by typical potassic and sericitic alteration, although potassic alteration is notably weaker than usual. The SS alteration in the meta-siltstone and quartzite is persistent from 80.46 to 256.82 m, with the strongest silica alteration from 80.46 to 192.96 m, after which it tapers of slightly until the sericite alteration takes over at 256.82 m to the end of the hole, with code S.

Mineralization and Veining: The veining in this hole is fairly consistent but never with any very high density. The highest density occurs between 58.39 and 165.96 m with an average of 10 veins per metre. These quartz veins, have a white colour with the occasional blue tinge to it when there is a significant amount of associated molybdenite mineralization and average 0.25 cm in width. After 192.65 m, the quartz veining dies down significantly in close association with the less pervasive silica alteration. As per mineralization, from 3.66 to 37.22 m, in the calc-silicate unit we see blebby occurrences of pyrite with a trace of molybdenite.

SX07024 (Figure 6c):

Diamond Drill hole SX07024 was drilled by Apex Diamond Drilling between May 23 and May 25, 2007. It was located on Pad K of section 4850E with UTM units of the collar being 524851.8E and 5495192.9N at an elevation of 1957.2 m. The hole ended up being 228.7 m deep on a 90° azimuth and -60° dip using NQ size core rods. This hole was planned to test a 500 ppm Mo soil anomaly as well as the subsurface extent of the quartz monzonite intrusive. The hole was logged by Dave Pighin.

Lithology: After 4.57 m of casing, the hole collared into unit 6 calc-silicate, which continues until 22.7 m, including a 1 m skarn section at 11 m. After 22.7 m, the hole intersects the unit 1 meta-siltstone which continues until 195.6 m, with the exception of a 2 m quartz monzonite dyke at 27.6 m. From 196.6 m to the end of the hole at 228.7 m, the lithology consists of unit 10 meta-siltstone which is characterized by phyllitic siltstone with bands of argillite.

Alteration: The alteration in this hole consists of calc-silicate alteration until 22.7 m, and then pervasive silica and sericite alteration until 195.6 m, with the exception of the potassic-sericite alteration associated with the quartz monzonite dyke at 27.6 m. The alteration loses most of its silica component after 195.6 m, closely coinciding with the lithologic contact between units 1 and 10.

Mineralization and Veining: Mineralization in this hole consisted of small qtz veinlets that contained on average 2% pyrite and a trace of molybdenite with some higher concentrations of molybdenite between 22.7 and 147 m.

SX07025:(Figure 6c):

Diamond Drill hole SX07025 was drilled by Apex Diamond Drilling between May 25 and May 29, 2007. It was located on Pad L of section 5000N of the Sphinx complete map with UTM units of the collar being 524765.8E and 5495008.5N at an elevation of 1911.6 m. The hole ended up being 337 m deep on a 90° azimuth and -60° dip using NQ size core rods. This hole was planned to test along strike continuity of molybdenite grade between sections G and H, as well as to test the subsurface geometry of the intrusive. The hole was logged by Dave Pighan.

Lithology: After 5 m of casing, the hole collars into the unit 6 calc-silicate until 35.5 m, with the exception of a 3 m quartz monzonite dyke at 29.7 m. At 35.5 m there is a ~10 m quartz monzonite dyke after which the sedimentary unit transitions into unit 1 meta-siltstone. This unit continues until 69.9 m, with the exception of a ~5 m amphibolite dyke at 48.5 m. After 69.9 m, a larger body of intrusive is intersected and continues until 232 m. For another 26 m after this, dyke swarms remain common within the meta-siltstone. Dykkes range in thickness from 2 cm to 1 m and have sharp, irregular contacts. From 258 m until the end of the hole at 337 m, the meta-siltstone returns but is less deformed and altered as we get deeper in the hole. Within this sequence there is also two very small quartz monzonite dykes as well as a ~2 m amphibolite dyke at 317 m.

Alteration: The calc-silicate unit has the alteration code CS which continues until 33.5 m, with the exception of the potassic altered quartz monzonite dyke at 29.7 m. The meta-siltstone and quartzite after this is altered by the SS code with the highest silica alteration registered between 52 and 58.5 m. The large intrusive body is altered by the code SK, representing fairly intensive saucerite and potassic alteration. The dyke swarm zone between 232 to 258 m, has more sericite alteration which afterwards take a back seat to the silica alteration for the rest of the hole.

Mineralization and Veining: The calc-silicate hosts common veinlets of quartz-pyrite veins with up to 5% pyrite. The metasiltstone and quartzite hosts rare to common quartz veinlet stringers with an average of 3% pyrite and 0.5% molybdenite. The quartz monzonite hosts quartz veinlet stringers with 3% pyrite, 0.5% molybdenite and a trace of scheelite.

SX07026 (Figure 6b):

Diamond Drill hole SX07025 was drilled by Apex Diamond Drilling between May 29 and June 2, 2007. It was located on Pad L of section 5000N of the Sphinx complete map with UTM units of the collar being 524765.8E and 5495008.5N at an elevation of 1911.6 m. The hole ended up being 383.8 m deep on a 90° azimuth and -85° dip using NQ size core rods. This hole was planned to test along strike continuity of molybdenite grade between sections G and H, as well as to test the grade of mineralization along the western margin of the intrusive. The hole was logged by Dave Pighin.

Lithology: The hole collars into unit 6 calc-silicate and continues until 55 m, with the exception of a 1 m quartz monzonite dyke at 14.1 m. Here the rock transitions to the unit 1 meta-siltstone which continues until 81 m, with the exception of a 10 cm quartz *EAGLE PLAINS RESOURCES LTD* 2007 GEOLOGICAL REPORT ON THE SPHINX PROPERTY

monzonite dyke at 72.8 m. At 81 m, the alteration increases and the meta-siltstone transitions into the unit 5 quartzite. This unit continues until 170 m, with frequent intrusions of quartz monzonite dykes averaging 3-4 m in width. After this there is a \sim 30 quartz monzonite body. The unit 5 quartzite with common quartz monzonite dyke intrusives returns at 201.2 m until 240 m. The quartz monzonite is intersected from here until the end of the hole at 383.8 m.

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Alteration: The unit 5 quartzite is altered by both silica and sericite; silica alteration throughout this unit is much stronger and its strongest from 81 m to 97.5 m. The quartz monzonite intrusive untis are altered strongly by both potassic and sericite alteration.

Mineralization and Veining: The mineralization in the calc-silicate unit at the beginning of the hole until 55 m comprises of veinlets with 3% pyrite, and a trace of both molybdenite and scheelite. Within both the quartzite and quartz monzonite unit, drusy quartz veinlets are common, sometimes intersecting to form stockwork sections. Molybdenite mineralization exists as part of the veinlets or filling of fractures. The best intervals of molybdenite mineralization are from 91 to 170 m and 283 to 358 m.

7.0 Conclusions And Recommendations

- 1) Mineralization is spatially associated with an altered Cretaceous (?) aged quartz monzonite intrusive that has hydrothermally altered Mt. Nelson pelitic sediments to brittle, sericitic quartz-rich rocks.
- 2) Mo mineralization, hosted in fractures and quartz-pyrite veins and stockwork, is defined by a 700m by 350m zone within the altered rocks and is open to the west and to depth; although the best grade is encountered along the contact zone of the intrusive.
- 3) Subsurface geometry of the intrusive appears to be tabular and steeply-dipping to the west and sub-parallel to the regional transposition fabric; the intrusive has a strike length of ~230m and a true thickness of 85m; it also appears to thicken at depth.
- 4) North and Southern extensions of the mineralized intrusive end abruptly between sections suggesting the possibility of post-mineralization faulting that may have offset the southern portion of the intrusive body.
- 5) Intense sericite and silica alteration of pelitic sediments associated with moderate to intense Mo mineralization extends at least 350m to the south of the known intrusive; this cannot be explained by present extents of the quartz monzonite body and is consistent with either a secondary or sibling mineralized intrusive at depth or post-mineral strike-slip fault movement of the quartz monzonite body to the south.
- 6) The 2007 drill program was successful in a number of major objectives, primarily confirmation of high grade mineralization along the western margin of the deposit and along the cupola of the instrusive.

Continued exploration should focus on defining new mineralized targets such as satellite or deeply buried mineralized intrusive and increasing the grade of the existing inferred and indicated resource.

Phase I of the work program consists primarily of ground work on the property including detailed geological mapping, a soil geochemical survey, ground geophysics (IP and Mag), reanalysis of the 2004 airborne VTEM survey and reanalysis of existing core.

Geologic mapping should examine a number of major structures that have been mapped on surface to the south of the deposit. These structures may be spatially associated with the southern termination of the quartz monzonite intrusive (syn- to post-intrusive?). As well, they are spatially associated with higher grade mineralization. Associated intense alteration south of these structures occurs in the absence of any major intrusive bodies, possibly representing the cupola of a down dropped deeply buried intrusive. Structural mapping with a focus on brittle – cataclastic kinematic indicators could shed light onto this theory and should be completed prior to any deep drilling.

The ground geophysical survey would aim to delineate pyrite mineralization associated with alteration / mineralization proximal to the known intrusive and possibly identify separate or satellite alteration systems as well.

Soil geochemical surveys should be utilized as recce tools to evaluate new ground staked to the south.

Reanalysis of the 2004 VTEM survey is required as there is a much better understanding of deposit and satellite intrusive bodies / structures that may host molybdenum mineralization.

Reanalysis of core in the search for deeply buried secondary intrusive could include several techniques:

- Dating of the different phases of molybdenum mineralization using Re-Os analyses could shed light on the multi-episodic evolution of the mineralized system.
- Lithologic / geochemical studies should be focused on various phases of the intrusive and the related alteration system in order to develop an alteration index for vectoring exploration drillholes.
- The use of a hand held spectrometer, such as a PIMA, would characterize the geochemistry and crystallinity of phyllic and potassic alteration assemblages in the drill core and could prove valuable for targeting further intrusions at depth
- Crystallinity is a function of temperature and can be used to determine proximity to a heat source.

• K / Al ratios of sericite and illite can be used to differentiate regional versus hydrothermal alteration.

Phase II of the exploration program, consisting of 2000m of drilling, should be focused on increasing the grade of the indicated and inferred resources to at least 0.05% Mo; infill drilling should be focused on the contact zone of the quartz monzonite intrusive where the best grades have been encountered.

To facilitate this, a number of north – south trending holes should be collared to:

- Gain increased knowledge of the intrusives geometry, especially at depth;
- Test the presence of a possible fault to the south between sections F and G;
- Test the dominant grain of mineralization in the meta-sedimentary host rocks.

If data from the first two components of the program are consistent with the presence of a satellite intrusive or a fault offsetting the southern extension of the intrusive unit, a third and final phase of drilling, consisting of a deep hole (\sim 1000m) to the south of the fault zone might be warranted to test for Mo mineralization.

Total cost of Phase I groundwork and reinterpretation, including 21 days field work, airborne geophysical analysis, Re-Os dating and PIMA work is estimated to be \$252,626.00. Phase II of the drill program is estimated to cost approximately \$750,000. A detailed break down of cost estimates follows in Tables 4a and 4b.

Table 4a – Phase I Exploration Budget

Personnel:			# persons	Rate (/day)	Days	
	Project Manager / Senior Geolog	gist	1	\$500	30	\$15,000.00
	Project Geologists		2	\$450	15	\$13,500.00
	Geological Technicians		3	\$350	21	\$22,050.00
	Geological Technician with First	Aid	1	\$450	21	\$9,450.00
					Total Personnel:	\$60,000.00
				Total Samples	Rate (/sample)	
Analytical:	Soils / Silts (Prep)			1,500	\$3.00	\$4,500.00
	Soils / Silts (30 Element ICP-MS	S)		1,500	\$16.00	\$24,000.00
	Rocks (Prep)			100	\$6.00	\$600.00
	Rocks (30 Element ICP-OES)			100	\$12.00	\$1,200.00
					Total Analytical:	\$30,300.00
Helicopter Support:			Туре	Wet Rate (/hr)	Hrs	
			Long Ranger	\$ 1,200.00	10	\$12,000.00
Ground Geophysics:		Line kms	Crew Days	IP (/day)	Mag (/km)	
		24	12	\$3,000	180	\$40,320.00
Geophysical Interpretat	tion:					\$25,000.00
Re-Os Dating:						\$10,000.00
PIMA Survey:						\$5,000.00
Equipment Rental:						
trucks, ATVs						\$6,000.00
communication includin	g radios, satellite phone					\$2,000.00
					Total Equipment:	\$8,000.00
Pre-Field:						
Base Map preparation						\$2,000.00
Ongoing compilation of	data into GIS database including structural	l analysis				\$5,000.00
					Total Pre-Field:	\$7,000.00
Meals/groceries:			# persons	Rate (/day)	Days	
			6	\$40.00	21	\$5,040.00
	Field Personnel in Cranbrook					\$5,000.00
Shipping:						\$2,000.00
Fuel:						\$2,000.00
Supplies: office and field						\$2,500.00
Reclamation of exploration	on site as required:					\$500.00
Filing fees:						\$5,000.00
Report writing and reproc	duction:					\$10,000.00
					Subtotal :	\$229,660.00
					10% contingency:	\$22,966.00
					TOTAL:	\$252,626.00

Table 4b – Phase II Exploration Budget

Personnel:		# persons	Rate (/day)	Days		
	Project Manager / Senior Geologist	1	\$500	40	\$20,000.00	
	Project Geologists	2	\$450	30	\$27,000.00	
	GIS Technician	1	\$350	15	\$5,250.00	
	Geological Technicians	1	\$350	30	\$10,500.00	
	Geological Technician with First Aid	1	\$450	30	\$13,500.00	
			Tot	tal Personnel:	\$76,250.00	
Analytical:	Core (Prep)		1,500	\$7.00	\$10,500.00	
	Core (30 Element ICP-MS)		1,500	\$12.00	\$18,000.00	
	Core (Mo Assay)		1000	\$10.00	\$10,000.00	
			То	tal Analytical:	\$38,500.00	
Helicopter Support:		Туре	Wet Rate(/hr)	Hrs		
		Long Ranger	\$ 1,200.00	20	\$24,000.00	
Drilling:			Meters	Rate (/meter)		
			2000	\$160.00	\$320,000.00	
Equipment Rental:						
trucks, ATVs					\$6,000.00	
communication inclu	uding radios, satellite phone				\$2,000.00	
			Total Equi	oment Rental:	\$8,000.00	
Consultants / Sub-Co	ontractors: Pad building; Core Proce	ssing; Environ	mental Monito	oring	\$150,000.00	
Pre-Field:						
Base Map preparation	n				\$2,000.00	
Ongoing compilation	of data into GIS database including st	ructural analys	sis		\$5,000.00	
			Т	otal Pre-Field:	\$7,000.00	
Meals/groceries:		# persons	Rate (/day)	Days		
		8	\$40.00	30	\$9,600.00	
Accommodation:	Camp Rental				\$5,000.00	
Shipping:					\$2,000.00	
Fuel:					\$20,000.00	
Supplies: office and fie	eld				\$2,500.00	
Reclamation of explora	ation site as required:				\$500.00	
Filing fees:					\$5,000.00	
Report writing and rep	roduction:				\$10,000.00	
				Subtotal :	\$678,350.00	
			10%	% contingency:	\$67,835.00	
				TOTAL:	\$746,185.00	

8.0 References

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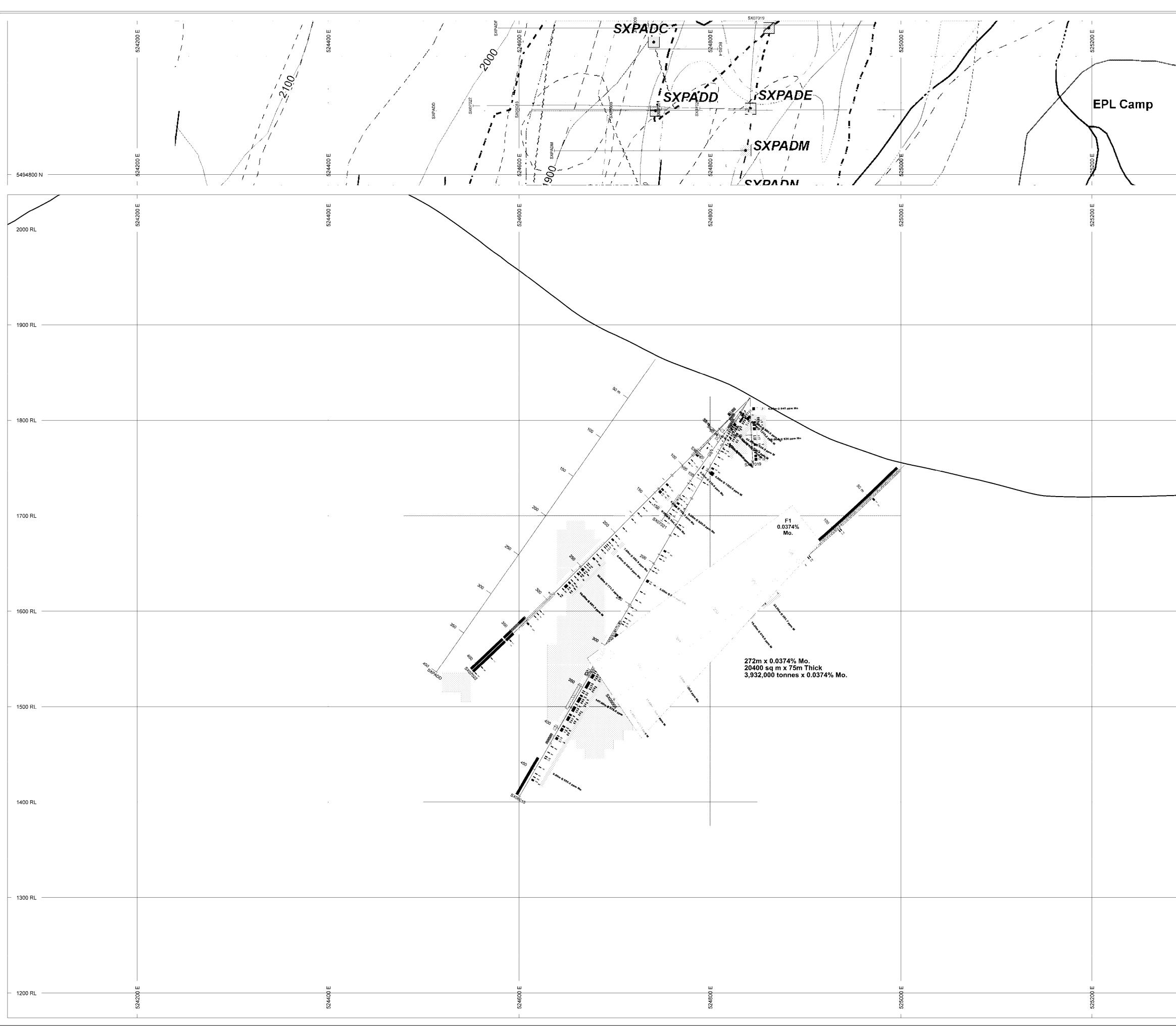
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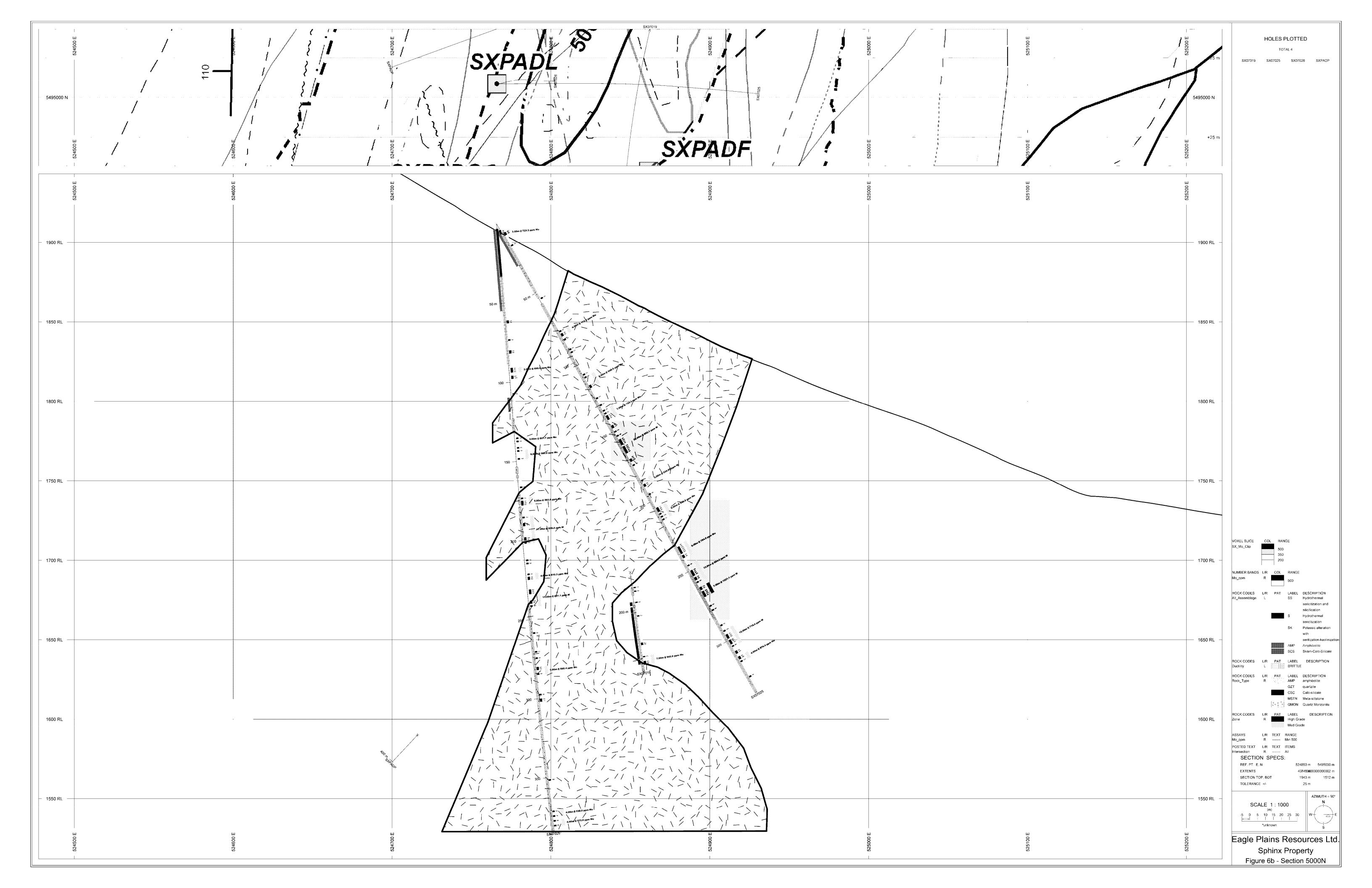
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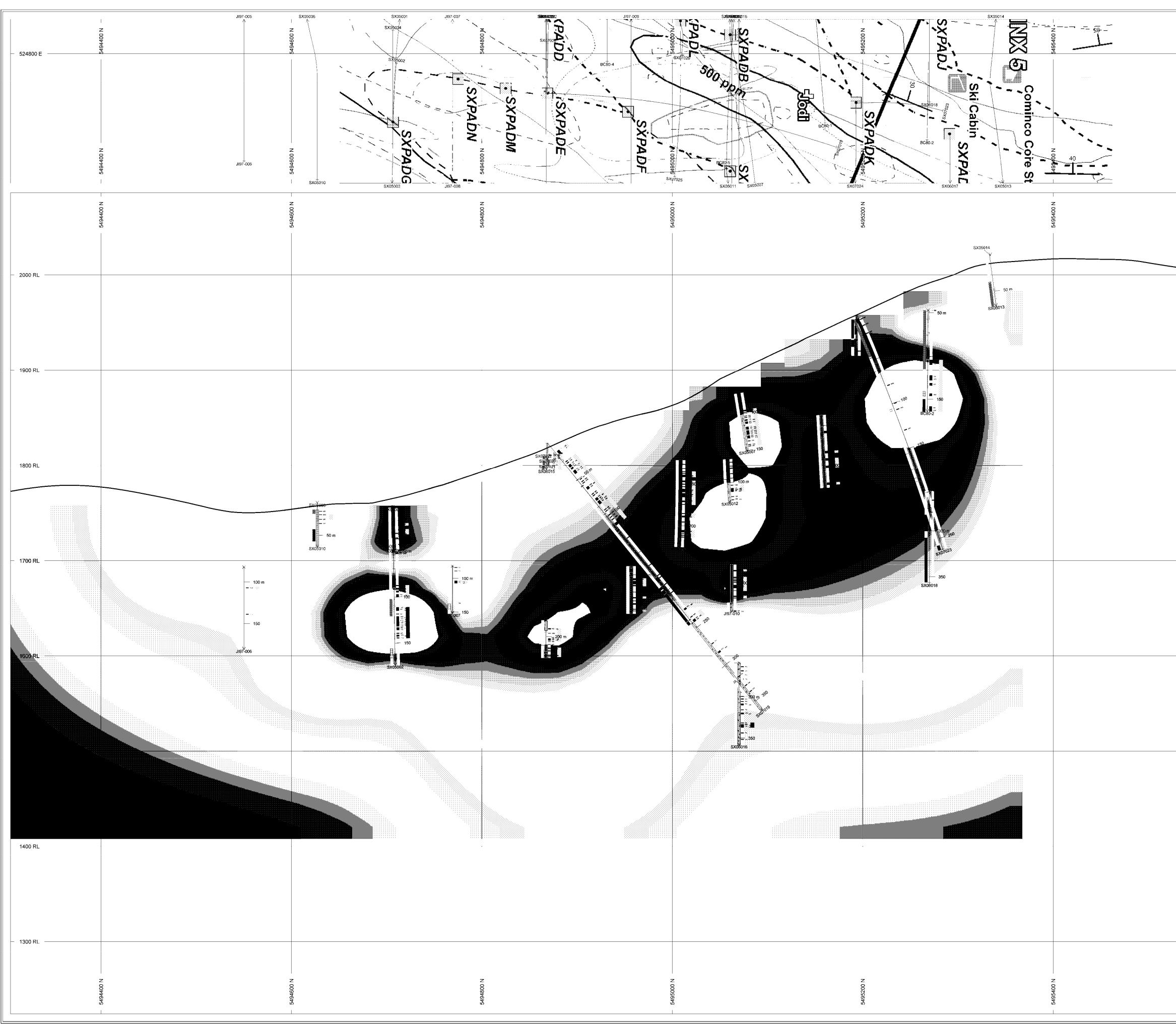
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		— 1800 RL —			
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			NUMBER BANDS L/F	200	
		— 1600 RL —	Mo_ppm R	500	ESCRIPTION
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				LMST lin	ornfels mestone Juartz Diorite
				SKN si	uartzite karn iltstone
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	330.669566 279.242299 232.6893157 194.1638918			
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		PSTN QMON OBN		
	and silicifica S Hydrotherm	al sericitization		
	ROCK CODES PAT LABEL Ductility BRITTLE			
	T400 KL ROCK CODES PAT LABEL Zone High Grade Med Grade			
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ب ۲	Sphinx Property Figure 6c - Section 48			