PORPHYRY COPPER-MOLYBDENUM POTENTIAL IN THE NORTH AREA OF THE RUBY, MONTANA EXPLORATION PROJECT, JEFFERSON COUNTY, MONTANA

Drilling on the North Anomaly Property in 2006

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TABLE OF CONTENTS

FIGURES

APPENDICES

TABLES

CERTIFICATE

I, Don "Fess" Foster, of Whitehall, Montana do hereby certify that:

1. I am self-employed as a geological, environmental, and public/government relations consultant. My address is 21 Paul Gulch Road, Whitehall, Montana 59759;

2. I am a Certified Professional Geologist (CPG #10687) with the American Institute of Professional Geologists;

3. I am a 1983 graduate of the University of Montana with a Ph.D. in geology, and a 1978 graduate of Colorado State University with a Bachelor of Science in geology;

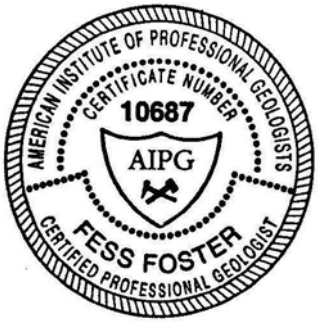
4. I have practiced my profession continuously since 1978;

5. I have written this report as an independent contractor;

6. as of the date of this certificate, I am not aware of any facts or changes with regard to the properties that would make this report misleading;

7. I disclaim all liability for the underlying data. I do not accept responsibility for interpretations and representations made in this report that were a result of erroneous, false, or misrepresented data; and

8. I disclaim any and all liability for representations or warranties, expressed or implied, contained in, or for omissions from this report or any other written or oral communications transmitted or made available to any interested party when done without written permission, or when they are inconsistent with the conclusions and statements of the report.



Fess Foster

Fess Foster, Ph.D., CPG
June 14th, 2008
Whitehall, Montana

GEOLOGICAL SUMMARY

The North Area is a porphyry copper-molybdenum system in the northern part of the Ruby Project, which is 100% owned by the O.T. Mining Corp. O.T. has conducted surface geochemistry, geophysics, and limited drilling in the porphyry system over the past 3 years as funding allowed. As a result, a very large area of low-grade copper enrichment with proximal alteration has become evident. An IP anomaly has been defined within this larger area. The project is drill ready; 19 carefully-placed holes have been permitted and bonded. A core logging and processing facility is nearby. The property is located in a very mining friendly part of Montana, and has strong support from local officials.

Based upon the sparse available data, the North Area appears to contain about 16 billion tons of continuous low-level copper enrichment (in the 200-1,000 ppm range), associated with potassic alteration and a phyllic overprint. This mass is open to the east, west, and at depth. An IP anomaly has been defined within this larger body, constitutes on the order of 6 billion tons, and is also open in the same directions.

A number of 50 to 1,600 foot intercepts of 0.1% to 0.13% Cu have been obtained. The highest grade narrow intercepts were on the order of 5 feet of 0.7% Cu. Molybdenum and silver values are also of consequence. Copper, molybdenum, silver, and gold values from three O.T. drill holes drilled southwest of the IP anomaly all increase towards the anomaly.

The porphyry is very poorly understood because it is blind, lying beneath 700-900 feet of post-mineral volcanic cover. Current knowledge of the core of the system is based on only nine (vertical) holes drilled into a 3.5 square-mile area of proximal alteration. Continued exploration should focus on underground targets similar to the “Main Stage” mineralization at nearby Butte, Montana. This includes both high-grade veins and intermediate-grade bulk-mineable zones.

The world-class porphyry system at Butte is 15 miles to the southwest, and has been studied to aid North Area exploration. The two porphyry systems are very closely related metallogenetically. They are similar with respect to age, magmatic affinity, structural setting, alteration, and overall shape. Over 95% of the Butte metal production came from the Main Stage mineralization. Most of that was mined by underground methods.

TERMINOLOGY/LOCATION/LAND

The location of O.T.’s Ruby project area (in Jefferson County) is shown in Figure 1. The “North Area” is in the northern end of the Ruby project, between the Boulder River and the South Fork of Dry Gulch (see Figure 2). The overall Ruby property consists of 681 unpatented and 13 patented claims totaling over 21 square miles. These are 100% owned by O.T. The area of porphyry potential constitutes roughly the north ½ of the property. O.T. also owns the 18-acre Basin Mill near the town of Basin, a 15 mile drive from the property. The mill facilities are used for core logging and storage, an exploration office, and equipment maintenance.

PERMITTING

The Ruby Project currently has 45 permitted drill holes and associated access roads on USFS lands. About 19 of these holes target the North Area porphyry (see Figure 2). The drill sites have been very carefully located to drill across the structural and geophysical targets discussed below. The project is bonded and ready to drill.

PUBLIC RELATIONS

Montana has in the past been considered a difficult state for mining. Although permitting continues to be more difficult than in places like Nevada, things are improving. Montana's Mineral Policy increased from the 28th to the 51st percentile in the 2007 Fraser Institute world-wide mining survey. One large and one medium-sized new mine are being permitted, and exploration is on the upswing.

The Ruby Project enjoys very strong local support. Jefferson, Silver Bow, and Madison Counties are the heart of Montana's hardrock mining industry. Three large mines are producing within a 30 mile radius of the Ruby project. County Commissioners, legislators, local development corporations, chamber of commerce's, and many businesses fully and vocally back the project.

EXPLORATION HISTORY

USGS Map GP 538 (1965) is an aeromagnetic map of the Boulder Batholith area. It shows three pronounced lows along a NNE trend; the Butte, Ruby Mine, and Montana Tunnels areas (these three areas are shown in Figure 1). Publication of this map fueled interest for porphyry copper mineralization beneath younger volcanic cover in the Ruby area. The North Area was initially explored for copper porphyry mineralization in 1968-1977 by the Anaconda Company and Union Oil (MolyCorp), who were looking for shallow open pittable deposits. Extensive searches have been done, and some of this old data has been located. However, the core is no longer available.

Anaconda defined a large IP anomaly (see the purple lines in Figure 2) and drilled 3 holes (A-1 through 3 on Figure 2). Molycorp subsequently drilled six or seven holes. It appears that five of them reached the porphyry system, and data is available for three of the five (L-1 through 3 on Figure 2). No further porphyry exploration was conducted until O.T. drilled about 1 mile southwest of the Molycorp holes in 2004.

O.T. had acquired ground at the south end of the current holdings (in the historic Ruby Mine area) in the 1980's, and started exploring for bonanza epithermal Ag-Au veins. O.T. staked additional claims to the north over the years as the ground was dropped by majors (Santa Fe, Hecla, and BHP-Utah). In late 2004, O.T. stepped out well to the north of its previous drilling, and collared core hole NA04-6. It targeted a Cu-Co-Zn MMI anomaly that was thought to reflect deep porphyry mineralization. It encountered potassic-altered Boulder Batholith and low-level copper mineralization at 687 feet. Since that time, most exploration efforts have focused on the North Area porphyry system.

SURFACE GEOCHEMISTRY

MMI (mobile metal ions) soil samples were collected the North Area in 2005 by Mark Fedikow, O.T.'s Vice President of Exploration. Anomalies are shown on Figure 2. Two WNW-trending Zn+Cu+Co anomalies in the eastern portion of the area have response ratios of up to 134 times background, and parallel the geophysical anomalies.

GEOPHYSICS

A detailed Quantitative Section IP survey was completed in the North Area in 2006 by Matrix GeoTechnologies Ltd. They defined a 12,000' E-W by 2,000' N-S chargeability high (see Figure 2). A resistivity low accompanies the chargeability high. **This geophysical feature has sufficient merit to justify using it for targeting drill holes.** This is based upon the following.

- The Matrix and Anaconda anomalies are roughly coincident and replicate each other (see Figure 2).
- G. Caffery compared the quantitative sections to the Anaconda/Molycorp drill data, and found that the anomaly appears to coincide with known geologic features as described below.
    - The strong anomaly only occurs in Cretaceous rocks, and the top of the anomaly coincides with the top of the Cretaceous rocks.
    - The assymetrical mushroom cap to the anomaly is localized in the Elkhorn Mountains Volcanics.
    - Increased chargeability appears to correlate with higher sulfide contents in the old drill holes.
    - The anomaly is offset (as it should be) along three previously identified faults.
- The six Anaconda/Molycop holes that data is available for (discussed above) were completed within the anomaly. L-1 and L-2 that contained less Cu were drilled in much weaker parts of the chargeability high (see Figure 2 and Table 4).
- Cu and Mo values in three O.T. holes increase towards the IP anomaly (see the ***OT Drill Hole Geochem*** section below for details).

The North area chargeability anomaly appears to weaken to the west (see Figure 2). However, this may actually be caused by it becoming deeper to the west.

GEOLOGY

Figure 1 shows the general geology, and Figure 3 the stratigraphic setting of the property. Following is a brief summary.

1. The late Cretaceous (75-81 Ma) Elkhorn Mountains Volcanics were erupted from the epizonal Boulder Batholith magma chamber.
2. The younger late Cretaceous (70-77 Ma) Butte Quartz Monzonite of the Boulder Batholith rose up into the Elkhorn Mountains Volcanics, intruding its own ejecta. The contact between the two is a complex metasomatized zone consisting of "hybrid" rocks.
3. After a period of erosion, the Eocene (48-50 Ma) Lowland Creek Volcanics were erupted onto a surface comprised of the Elkhorn Mountain Volcanics and Boulder Batholith. These Tertiary rocks are primarily fairly thick felsic ash-flow tuff sequences that appear to be intracauldron.
4. Younger Tertiary irregular high-level felsic bodies intruded the ash-flow tuffs.

The area is cut by N- to NE- trending high-angle faults, and a WNW-trending fault along the Boulder River. The Lowland Creek tuffs dip shallowly (15 to 25^0) to the northwest, causing the porphyry system to shallow to the east in the North Area (see Figure 3).

ALTERATION AND HOST ROCKS

Porphyry copper mineralization occurs in all three Cretaceous units (the Elkhorn Mountains Volcanics, hybrid rocks, and quartz monzonite; see Figure 3). Mineralization is associated with widespread potassic (K-feldspar and biotite) alteration that is overprinted by structurally-controlled phyllic alteration.

Molycorp had the advantage of a strong geologic program (headed by Bob Leonardson), and access to all 10 Anaconda and Molycorp holes (which were drilled over a large area). The one available report describes a complex series of quartz diorite and granodiorite porphyries and intrusion breccias, in addition to the quartz monzonite. Breccias were commonly associated with higher grades. The intrusive system is obviously more complicated than indicated by the 3 O.T. holes that are clustered at the southwest end of the area. Keep in mind that this was a very shallow near-surface intrusive complex.

DRILLING

Overview:

The North Area porphyry is very poorly understood for the following reasons.

- **The great majority of the porphyry system is blind, and occurs beneath post-mineral volcanic cover.** The system is covered by 700-900' of Lowland Creek Volcanics.
- None of the earlier core remains. Extensive searches have been done, and some of the old Anaconda/Molycorp hard copy data has been located.
- O.T. has only drilled in the extreme southwestern portion of the system (holes NA04-6, 05C-6, and 05C-7 on Figure 2).
- All drilling to date has been **vertical**.

Only 11 holes are known to have been drilled into the porphyry within the 3.5 square mile area of proximal alteration (3 by O.T. and 8 by Anaconda/Molycorp). O.T. has data on 6 of the 8 older holes.

The downhole geochemistry is summarized below. It shows the following trends and geometries that I consider to be very positive.

- **Low-level (200-1000 ppm) copper is pervasive and consistent throughout the Cretaceous rocks. Low-level Mo (20-50 ppm is also common).**
- **All holes bottomed in porphyry copper mineralization and it remains open to depth, the east, and the west.**

- **Cu, Mo, Au, and Ag in the three O.T. holes increase from south to north, as they approach the Matrix North Area geophysical anomaly**.
- A number of 50 to 1,500 foot intercepts in the 0.1% to 0.13% Cu range have been encountered as detailed below. **This is about 10% of the minimum grade that would be required to be economic, and the thickness of these intercepts certainly indicates mineable dimensions.**

OT Drill Hole Geochem:

Downhole Cu and Mo geochemistry for the three O.T. holes is given in Figures 4-6. These three holes were drilled over a 2,600-foot horizontal distance with NA04-6 on the south, 05C-6 in the middle, and 05C-7 on the north (see Figure 2). **Cu, Mo, Au, and Ag all increase from south to north, as they approach the Matrix North Area geophysical anomaly**. Figures 4-6 and Tables 1-3 below document that:

1. **The Cretaceous rocks are continuously enriched with copper.**
2. **The copper mineralization is open at depth.**
3. **Copper and Mo increase to the north, towards the Matrix IP anomaly.**

The weighted average copper grade through **all** Cretaceous rocks for each O.T. hole is shown in Table 1.

Table 1: Weighted Average of Copper in Cretaceous Rocks in O.T. Drill Holes (in feet).

Hole Number	Total Depth	From	To	Thickness	Cu (ppm)
NA04-6 (southern hole)	3,215	585	3,215	2,630	313
05C-6 (middle hole)	2,516	1,274	2,516	1,242	368
05C-7 (northern hole)	2,735	975	2,735	1,760	785

The highest grade narrow copper intercepts (in drill thickness, not true thickness) were:

- 6.5 feet of 6,750 ppm (0.67%) Cu from 3015.0 to 3021.5 feet in hole NA04-6.
- 3.5 feet of 6,510 ppm (0.65%) Cu from 1,047.5 to 1,051 feet in hole 05C-7.

Hole 05C-7 (the northernmost hole) had several fairly thick intercepts of approximately 0.1% Cu as shown in Table 2 below.

Table 2: Significant Copper Intercepts in Hole 05C-7 (in feet).

From (feet)	To (feet)	Thickness (ft)	Cu (ppm)
975	1,065	90	1,217
1,435	1,497	62	929
1,580	1,635	55	1,063
2,035	2,100	65	982

Hole 05C-7 (the northernmost hole) also contained the most elevated Mo, and Mo values increased down the hole as shown in Table 3 below.

Table 3: Downhole Weighted Averages of Molybdenum in Cretaceous Rocks in O.T. Drill Hole 05C-7 (in feet).

From	To	Thickness	Mo (ppm)
975	1800	825	28
1800	2200	400	44
2200	2735	535	76

Au and Ag values also increase to the north. The 1,760 feet of Cretaceous rocks in hole 05C-7 had a weighted average of 0.85 ppm Ag (MRI recovers 2.2 ppm Ag at the Continental Pit in Butte).

Anaconda and Molycorp Drill Hole Geochem:

Available data for the Anaconda and Molycorp holes indicate that they too carried consistent low-level copper, occasional molybdenum, and bottomed in mineralization (see Appendix A for a breakdown of these analyses).

Table 4: Weighted Average of Copper in Cretaceous Rocks in Anaconda and Molycorp Drill Holes (in feet).

Hole Number	Total Depth	From	To	Thickness	Cu (ppm)
A-1	1255	0	1255	1255	0.09%
A-2	2425	811[1]	2425[1]	1614	0.10%
A-3[2]	2274	200	1771	1571	0.06%
L-1[3]	2723				
L-2[3]	1985				
L-3	3000	1540	3000	1460	0.10%

[1] Assumes that the analyses were incorrectly posted as discussed in Appendix A.
[2] It appears that no analyses were done below 1771 feet.
[3] No significant intersections of >0.05% Cu were reported in these holes.

Note that hole A-2 carried **1,109 feet of 0.13% Cu** from 811-1920 feet. The strongest Mo values occurred in L-3. It carried a number of 10-50 foot intercepts of 100-350 ppm Mo (see Appendix A). Mo increased downhole.

The O.T. and Anaconda/Molycorp data show a number of 50 to 1,500 foot intercepts in the 0.1% to 0.13% Cu range. **This is about 10% of the minimum grade that would be required to be economic, and the thickness of these intercepts certainly indicates mineable dimensions.**

SIZE OF THE SYSTEM

The North Area porphyry appears to be a very large system, based upon the limited available data. It remains open to the east, west, and at depth. The following discussion is an attempt to approximate the possible size of the system. It is obviously a blue sky arm wave, because very limited data is available.

It can be argued that the system is closed off to the north and south by holes 05C-8 and 06C-1, as described below.

- Hole O5C-8 (see Figure 2) was a wide step out O.T. hole cited to evaluate the northern end of the porphyry system. The hole had to be terminated earlier than planned due to slow drilling and an early winter. The upper 1,117 feet of the hole encountered fine-grained intermediate-composition igneous rocks thought to be Elkhorn Mountains Volcanics. These rocks contained potassic alteration, widespread tourmaline, and traces of chalcopyrite. Butte quartz monzonite was encountered from 1,117 feet to the bottom of the hole at 1,386 feet. It also contained potassic alteration and traces of chalcopyrite and molybdenite. Although the copper and molybdenum contents are lower than in the other three O.T. holes to the south, the alteration and mineralization here should not be dismissed. This could be a higher level of the porphyry system, and significant mineralization might occur at depth.
- Hole 06C-1 (see Figure 2) was a wide step out hole O.T. cited to evaluate the southern end of the porphyry system. Cretaceous rocks were encountered at 1857'. Approximately 130' of Elkhorn Volcanics overlay quartz monzonite porphyry of the Boulder Batholith. Only 450' of the quartz monzonite was drilled because it had only minor potassic and phyllic alteration. Most alteration was argillic and propylitic, and weakened down hole. Sulfide content was also not as strong as north of Dry Gulch. In order to conserve funds, only 18 samples of the strongest mineralized porphyry were analyzed. As expected, their geochemistry was flat. This hole does show that Cretaceous rocks occur within drillable depths south of Dry Gulch. Another deep hole should eventually be considered between NAO4-6 and 06C-1 to more accurately locate the southern edge of the core alteration.

There appears to be about 16 billion tons of potassic altered porphyry with continuous low-level copper enrichment. The North Area chargeability anomaly occurs within this mass, and appears to represent about 6 billion tons of material. Again, both of these masses are open to the east, west, and at depth. Figure 7 shows the plan boundaries of these areas. The basis for these calculations is as follows.

- Rock density is 12 ft^3/ton
- The system is 3,000' vertical. (The deepest hole [NA04-6] drilled 2,630' of porphyry and never drilled out of it, so this is a reasonable guess.)
- Potassic alteration and low-level copper extend 2,000' south of the chargeability high (as evidenced by holes NA04-6 and 05C-6).
- Potassic alteration and low-level copper extend 1,500' north of the chargeability high (1/2 of the distance between the northern edge of the chargeability high and 05C-8).

- This being the case, the potassic altered porphyry with low-level copper enrichment is 12,000' E-W by 5,500' N-S by 3,000' thick = **16 billion tons**
- The North Area chargeability high is 12,000' E-W by 2,000' N-S by 3,000' thick = **6 billion tons.**

IMPLICATIONS OF THE NEARBY BUTTE PORPHYRY SYSTEM

Most of the North Area porphyry is buried and blind. O.T. has studied the porphyry system at nearby Butte, Montana to help guide exploration in the North Area. **Butte is the fourth largest porphyry copper system in the world, and the second largest silver district in the U.S.** The Butte District contains two large open pits, 50 vertical miles of shafts, and 10,000 horizontal miles of level workings. Twenty-seven of the underground mines exceeded 3,000 feet in depth. See Appendix B for an overview of Butte and its underground production.

Over 95% of the Butte metal production was from "Main Stage" mineralization. This consists of both high-grade veins and intermediate-grade/bulk underground mineable zones. The Main Stage mineralization postdates and crosscuts the "Pre-Main Stage" mineralization, which consists of low-grade disseminated and stockwork-controlled mineralization more typical of porphyry deposits.

The North Area is about 15 miles northeast of Butte, Montana, and the two are closely related metallogenetically. Following are some of the important geological similarities between the Butte and North Area porphyry systems.

- They are both late Cretaceous, and hosted by the same igneous phase of the Boulder Batholith (the Butte Quartz Monzonite).
- Most porphyry copper and molybdenum occurrences in Idaho and Montana occur along the northeast-trending Great Falls Tectonic Zone (GFTZ). It is a deep-seated crustal flaw that has been periodically active since at least the Proterozoic. It experienced dextral movement during the late Cretaceous, and both Butte and Ruby occur along the axis of the GFTZ. The two properties therefore have similar structural settings.
- Both are very large systems. Most of the underground workings in Butte were concentrated in a 7 square mile area, and were as deep as 5,000 feet. The North Area porphyry as presently understood is 3.5 square miles in plan and 2,600 feet deep. It is still open in 3 directions and at depth.
- The two systems have a curved, arcuate shape in plan, with east-west trending linear features on the north side of the main system.
- Both contain potassic alteration (K-feldpar and biotite) overprinted by phyllic alteration.
- Both contain widespread low-level copper.

IMPORTANT ISSUES

Following is a list of key topics that need to be refined as more data becomes available.

- *Does the North Area contain Main Stage-type mineralization?* This is probably the single most important issue to be resolved. The Main Stage mineralization at Butte postdates and cross cuts the Pre-Main Stage (lower grade disseminated and stockwork-controlled chalcopyrite and molybdenite) mineralization. Main Stage mineralization is

associated with sericitic alteration, contains considerable sphalerite, and numerous copper species other than chalcopyrite. Most of the North Area material drilled to date appears to be more like the Pre-Main Stage mineralization. However, **localized zones of Main Stage-type mineralization appear to have been encountered in the North Area** as described below.

- Holes NA04-6 and 05C-6 contain at least two occurrences of young sphalerite associated with sericitic alteration in fault gouge. This sphalerite postdates the widespread chalcopyrite-molybdenum mineralization, and is darker colored than earlier sphalerite. The best intercept of this material was 0.66% Zn over 5 feet.
- A 1977 Molycorp report refers to late sphalerite-tennantie-tetrahedrite-galena mineralization in breccias that was probably the last period of mineralization in hole L-2.
- The 2006 43-101 Ruby 43-101 report (page 22) states that Molycorp hole L-7 had chalcocite (in addition to chalcopyrite and molybdenite), but no analytical data are available.

- *How deep should the system be explored?* The North Area appears to be at a higher level in the Boulder Batholith than Butte. This is because more Elkhorn Mountains Volcanics occur peripheral to and over the northern half of the batholith (see Figure 1). It can therefore be argued that the analog to Butte could be quite deep in the North Area. **This is a major concern for the project.** On the flip side of the coin, Butte was exposed at surface, and it is unknown how much higher vertically the veins extended.

- *What is the primary structural orientation (F1) of the system?* The lack of surface exposures make structural analyses difficult. **The general orientation of the mineralized system appears to trend E-W**, based upon the geophysics. Other data supporting this orientation are:
  - Veins north of the Boulder River in Cretaceous rocks trend E-W.
  - The overall Butte District (15 miles away) trends E-W.
  - Most vein shows throughout the Boulder Batholith trend E-W.

RECOMMENDATIONS

- Due to the depth of post-mineral cover, **North Area exploration should focus on Main Stage-type underground targets.** These could be either discrete veins carrying several percent copper, or lower grade bulk-mineable zones carrying 1.5 percent or so copper.

- All holes drilled to date have been vertical; future holes should be **angled** if possible. However, some of the currently permitted holes will need to be steep in order to test the geophysical anomaly.

- A structural model was developed for the Butte District, as part of O.T.'s research. Almost all Butte Main Stage Veins appear to have formed on WNW antithetic and ENE synthetic structures related to the GFTZ. This, coupled with the overall E-W orientation of the North Area geophysical anomaly justify the **very strong recommendation that future holes be oriented N-S (or S-N).** The Butte structures and recommended drill orientation are graphically displayed in Figure 8.

- As discussed above, the productive part of the system could be deep. Therefore, **holes should be drilled as deep as possible.**

- The North Area IP anomaly appears to weaken to the west (see Figure 2). However, this may actually be caused by it becoming deeper to the west. Therefore, the western (apparently weaker) part of the anomaly may be as strong (or stronger) than the eastern portion. Note that the Main Stage Veins at Butte extend a considerable distance west of the Pre-Main Stage mineralization. It can be argued that Main Stage-type veins should be present in the western part of the anomaly. **The western (more diffuse) portion of the North Area chargeability anomaly should definitely be drilled.**

- On the order of 25,000 feet of drilling will be required to test the North Area.

- Downhole geophysics could be very useful, and should be investigated.

- Alteration zonation is a valuable tool that has been used at many porphyries worldwide. Studies of Ruby core focusing on alteration (XRD, XRF, and thin sections) would be relatively inexpensive and could provide very useful data.

- Additional review and compilation of data on Butte would be of value. This would include review of the older (pre 1950) data. In particular, a compilation of alteration and metal zonation would aid the exploration at Ruby. However, the imposing amount of data needs to be considered. Only summary reports should be examined so that the project does not become an endless research endeavor.

- The area north of the Boulder River should not be dismissed. Bedrock is Elkhorn Volcanics and the Boulder Batholith. Exposures are poor, and many are covered by glacial debris. O.T. controls most of this ground, and the only work to date has been hole 05C-8 at the western edge of the area. It contained potassic alteration, widespread tourmaline, and traces of chalcopyrite and molybdenite. Geophysics and MMI should be considered for this area.

- Finally, and perhaps most importantly, it should be stressed that very little is known about the North Area porphyry system, and continued exploration here should keep an open mind. Thorough exploration will require considerable deep drilling and continued geophysics. It is a very large system with very limited drilling. The full extent (horizontally and vertically) is presently unknown. The existing geophysical, geochemical, and drill data have not closed the system. Is the IP anomaly the core of the system? The potassic alteration overprinted by phyllic alteration argues that it is. However, perhaps it is the distal fringe of the system, analogous to the western portion of the Butte District.

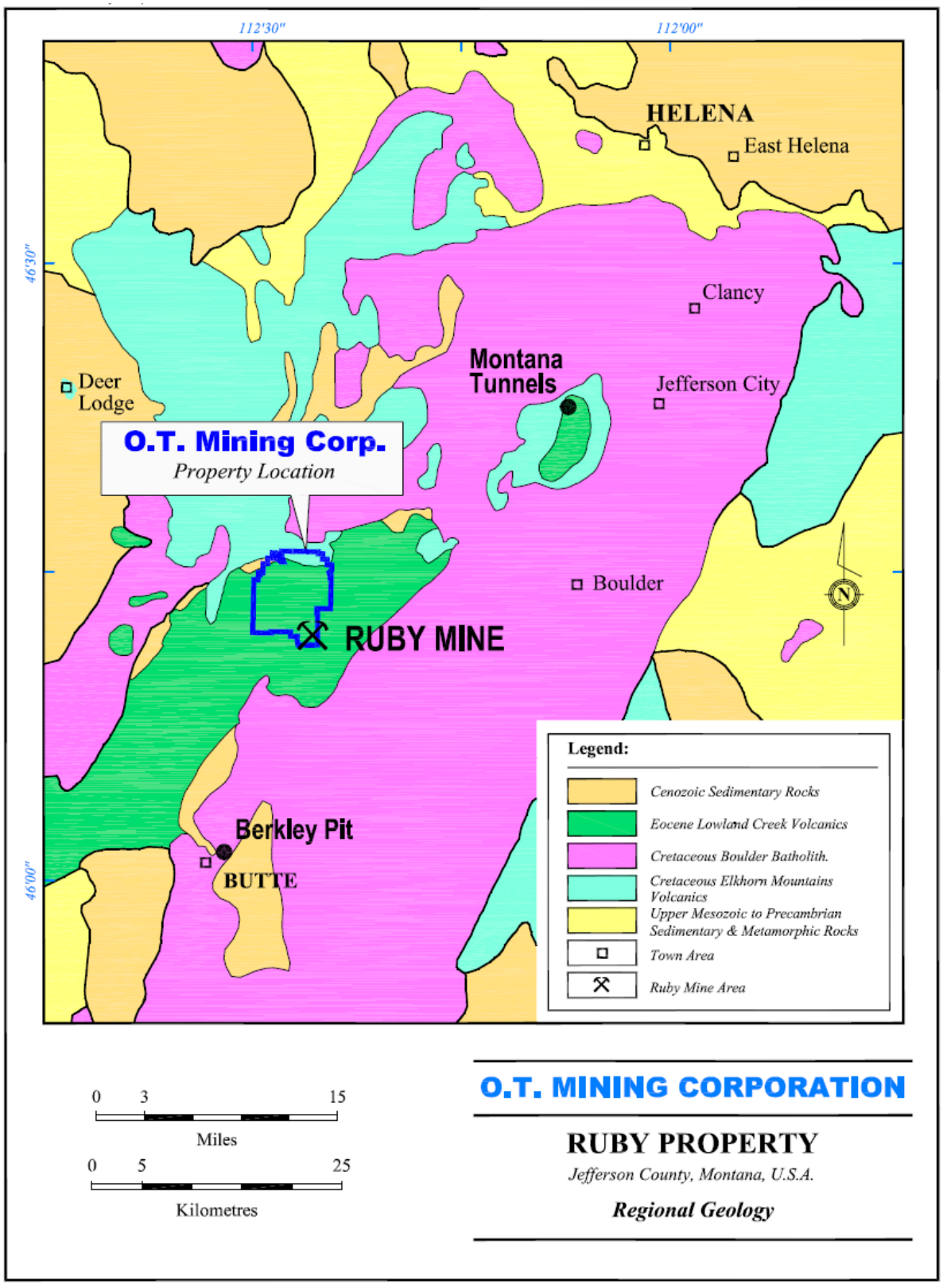


Figure 1: Location and geological summary map for the Ruby Property

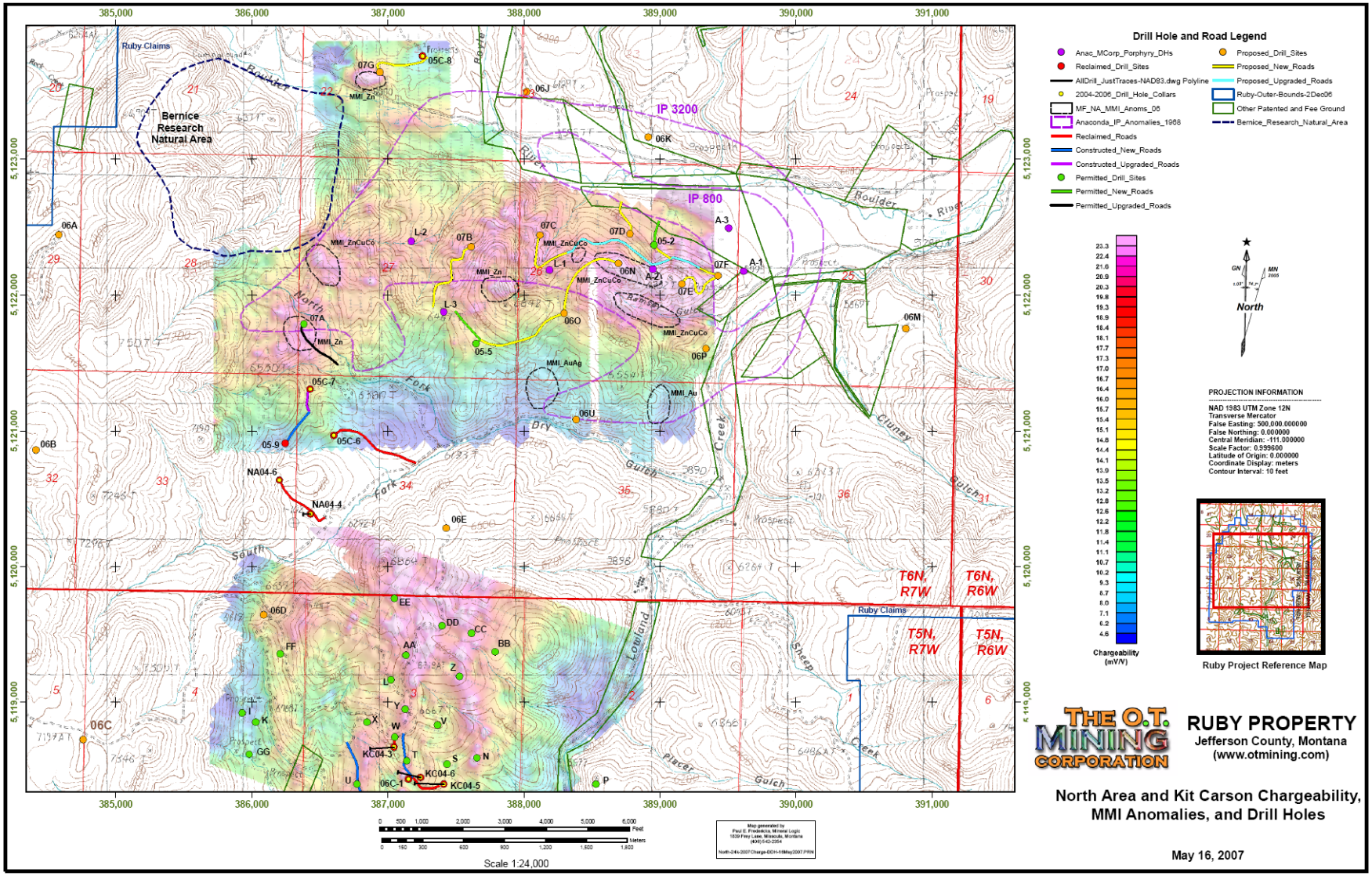


Figure 2: Target compilation showing drill holes, drill roads, Anaconda and Matrix IP anomalies, MMI geochemical anomalies, and land status. Note that the 18 orange "Proposed Drill Sites" have now been permitted, as well as the yellow "Proposed New Roads" and blue "Proposed Upgraded Roads" that lead to them.

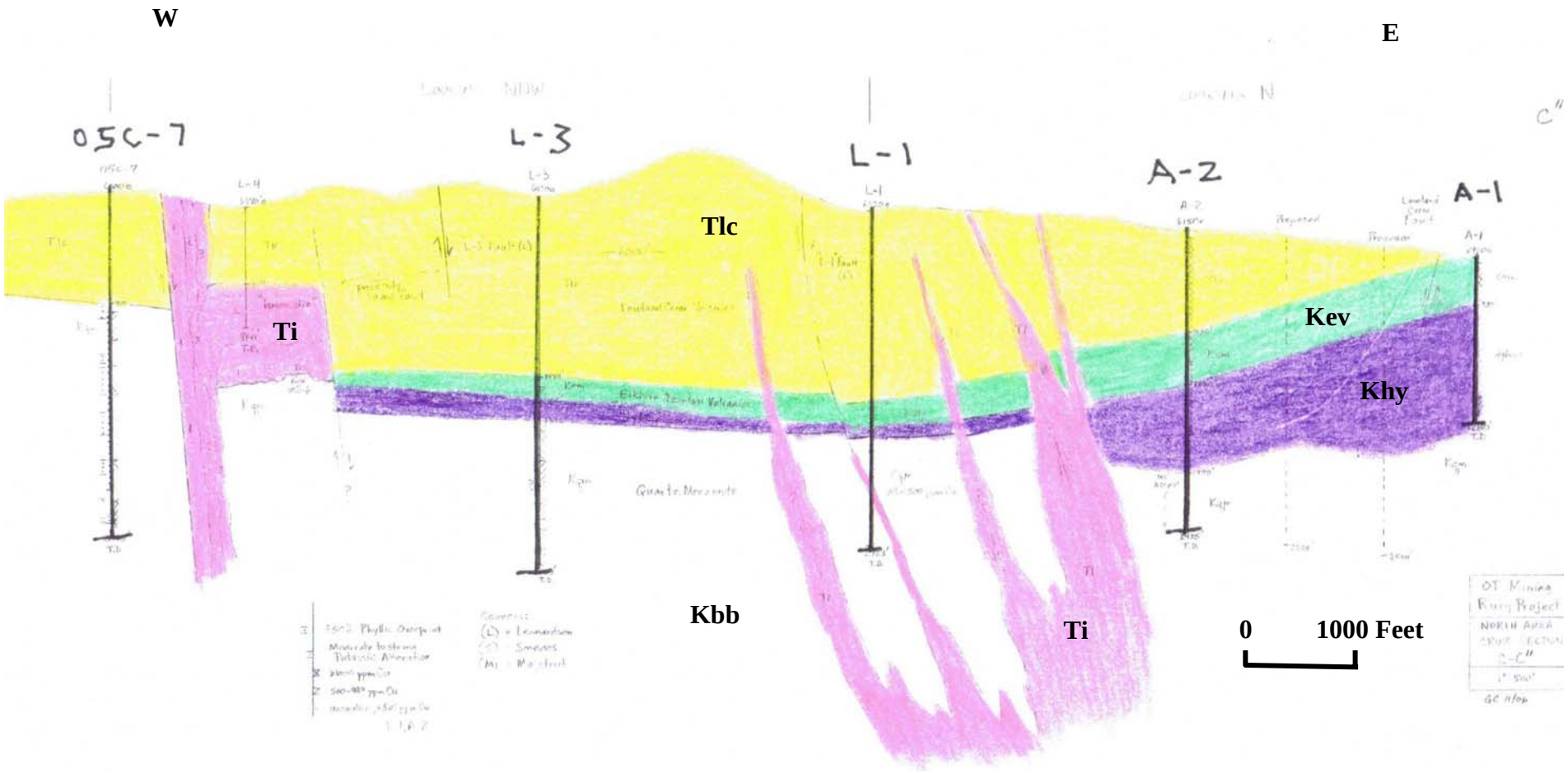


Figure 3: East-West Cross Section through the axis of the North Area resistivity showing drill holes that pierced the porphyry system. This figure gives a feel for the stratigraphic relations on the property. Tlc = Tertiary Lowland Creek Volcanics, primarily ash-flow tuffs. Ti = Tertiary intrusive rocks. Kev = Elkhorn Volcanic rocks. Khy = hybrid rocks. Kbb = Boulder Batholith, largely quartz monzonite. Note how the Cretaceous rocks shallow to the East.

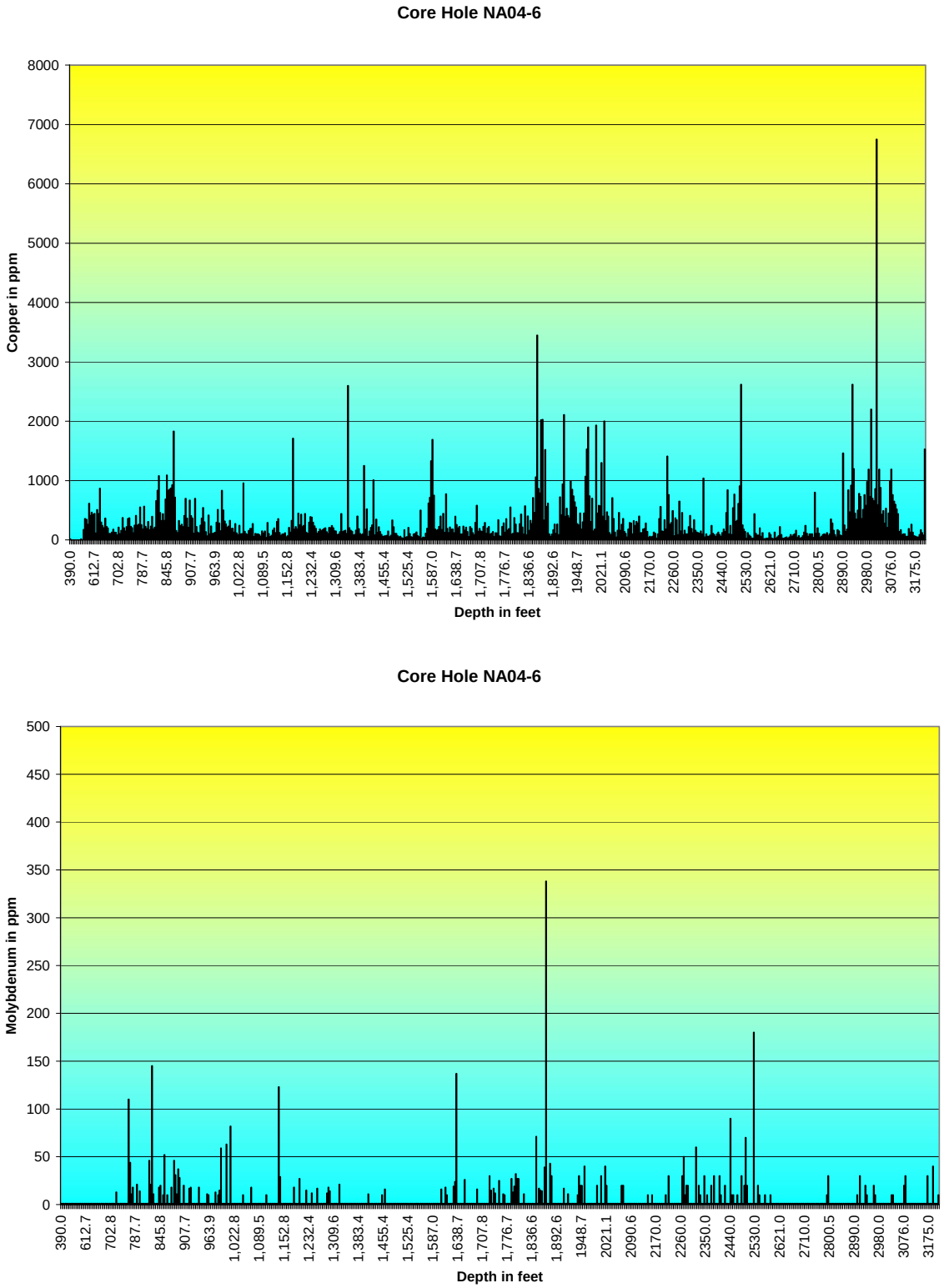


Figure 4: Downhole copper and molybdenum values in hole NA04-6. Copper mineralization begins at the top of the Cretaceous rocks (at 585 feet).

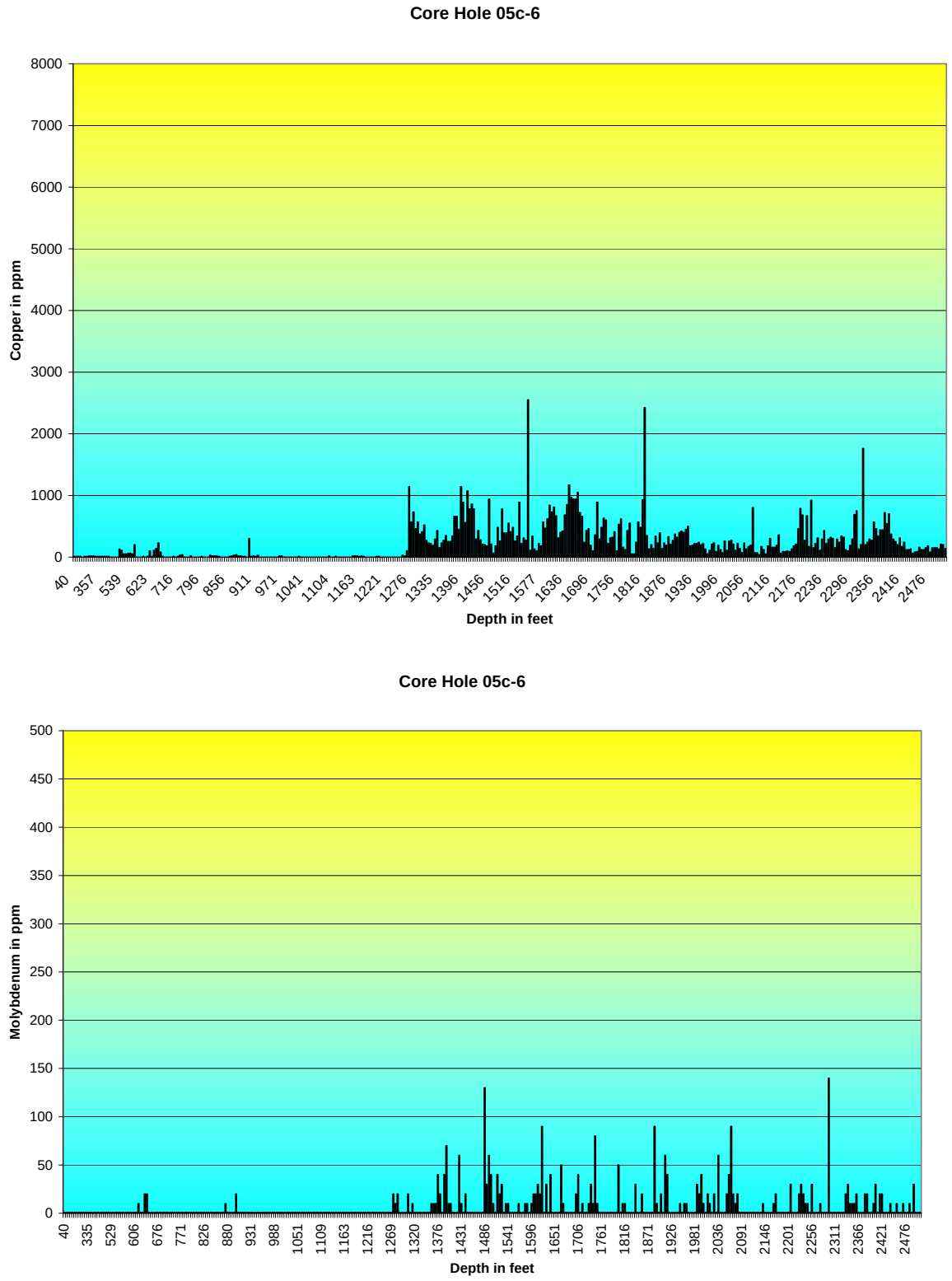


Figure 5: Downhole copper and molybdenum values in hole 05C-6. Copper mineralization begins at the top of the Cretaceous rocks (at 1283 feet).

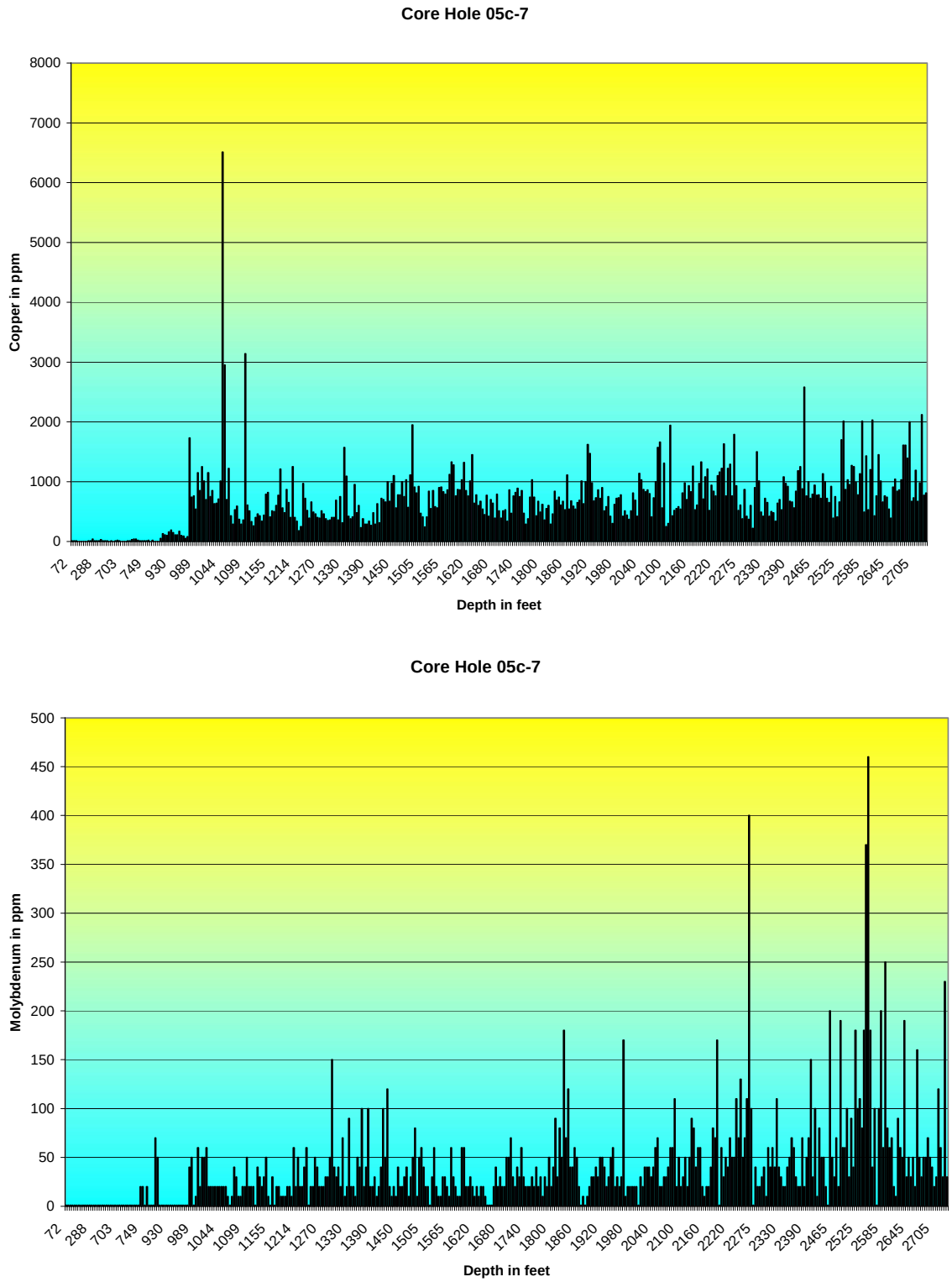


Figure 6: Downhole copper and molybdenum values in hole 05C-7. Copper mineralization begins at the top of the Cretaceous rocks (at 924 feet).

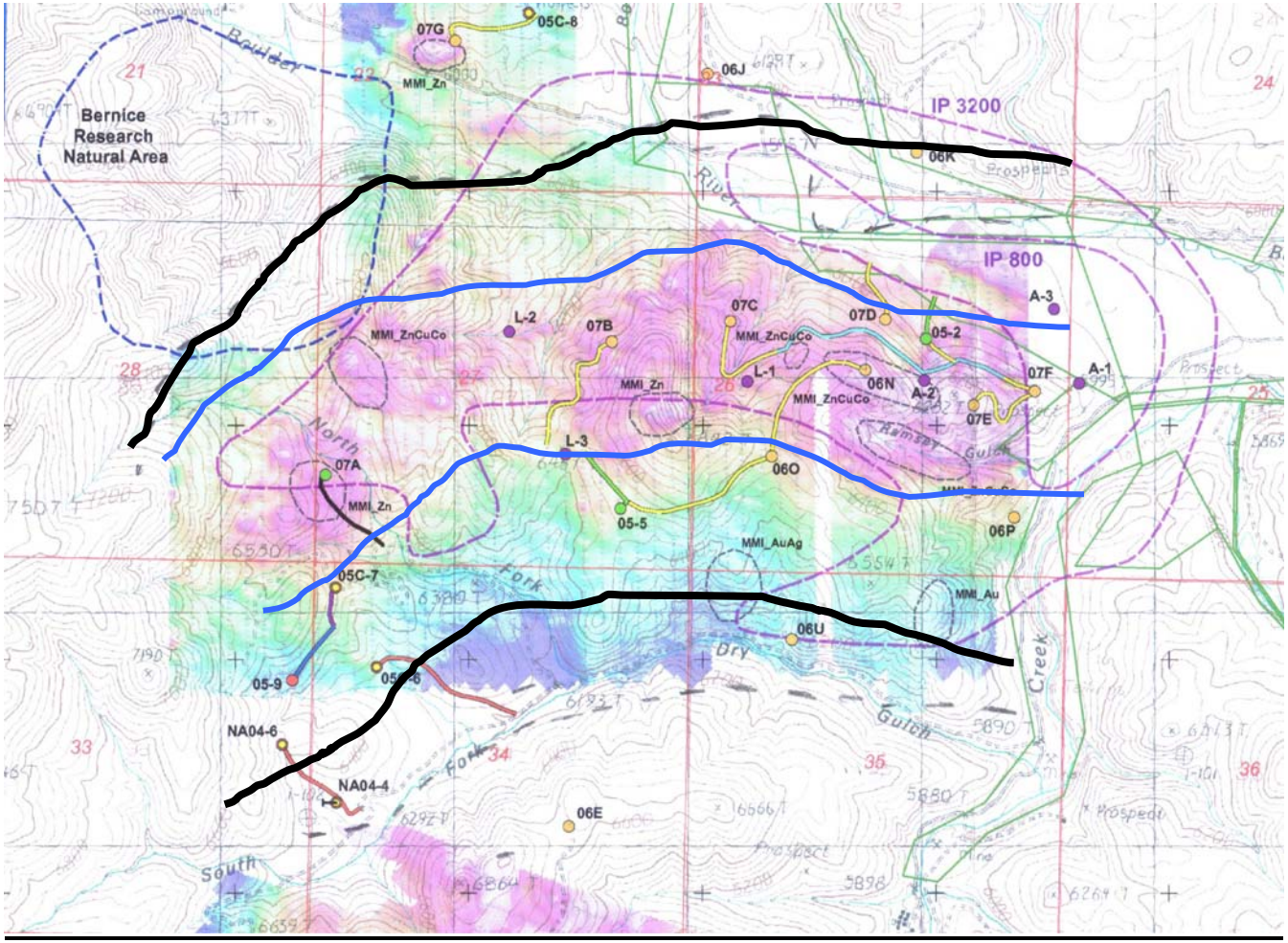


Figure 7: (Cropped from Figure 2.) The estimated outer limits of low-level copper enrichment and accompanying potassic alteration with phyllic overprint are shown with the heavy black lines. This area encompasses about 16 billion tons as detailed in the text. The estimated plan area of the North Area geophysical anomaly is outlined with the heavy blue line. This area encompasses about 6 billion tons as also detailed in the text. Both of these areas are open to the east, west, and at depth.

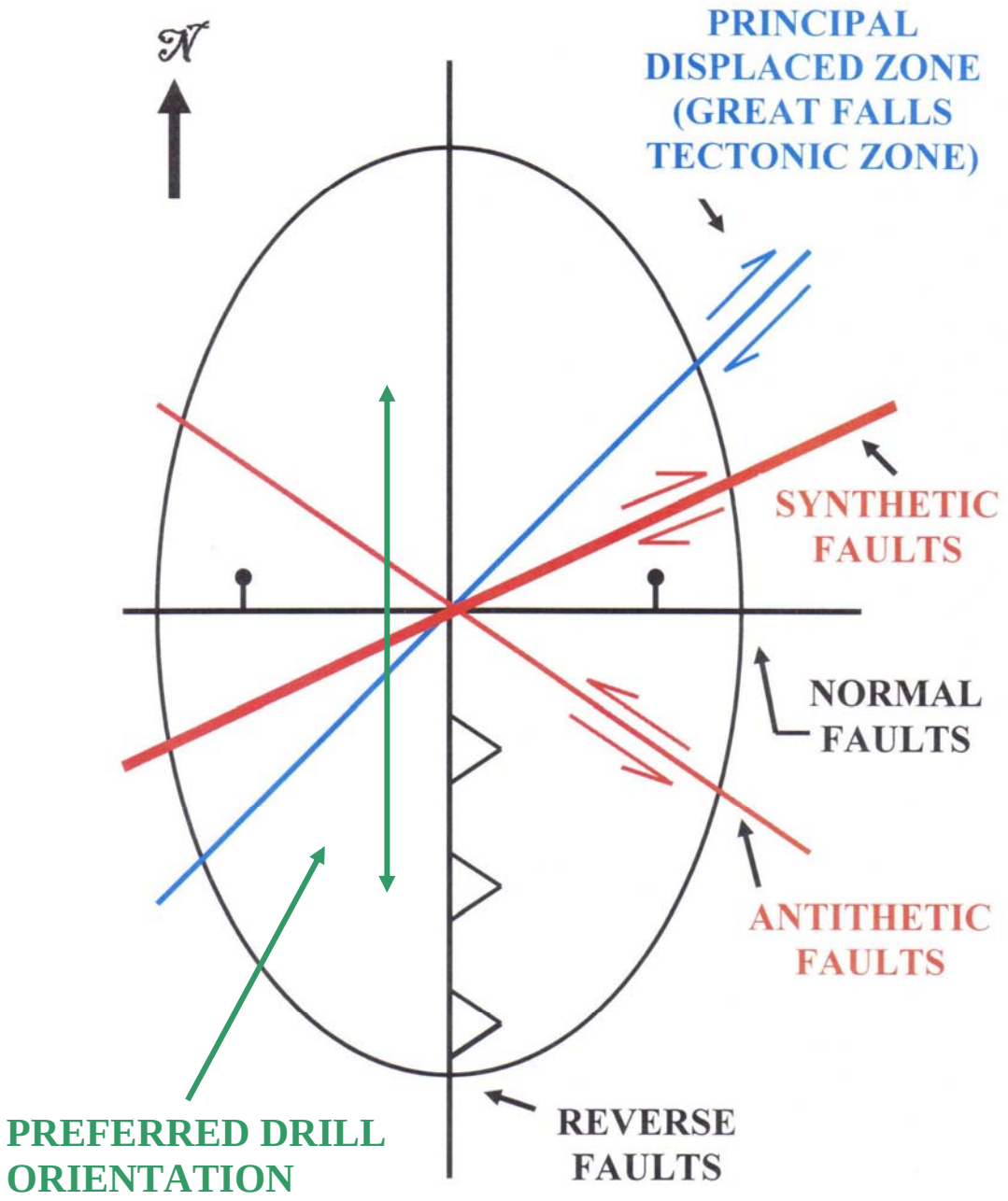


Figure 8: Strain elipse orientated for the late Cretaceous in southwestern Montana. Almost every vein in the Butte District is either along a synthetic (the Anaconda Veins) or antithetic (the Blue and Horsetail Veins) orientation. Therefore, it is recommended that future drilling at Ruby be oriented approximately north-south, as shown by the green arrowed line. This orientation would approximately bisect the synthetic and antithetic trends.

APPENDIX A: SUMMARY OF ALL AVAILABLE ANACONDA AND MOLYCORP DRILL HOLE ANALYSES FOR COPPER AND MOLYBDENUM

Summary of all available Anaconda and Molycorp drill hole analyses for Cu and Mo. Individual assays were available for the Molycorp holes, but not the Anaconda holes. The Anaconda geochem was eyeballed from composite geochem on cross sections. Mo was not run on the Anaconda holes. In general, areas with > 0.05% Cu and > 0.01% Mo were compiled

From	To	Feet	% Cu
ACM-1			
0	35	35	0.13
60.4	162.2	101.8	0.06
162.2	229.7	67.5	0.21
229.7	1140	910.3	0.07
1140	1251	111	0.18
1251	1280 (TD)	29	0.04
ACM-2			
53	965.2	912.2	0.13
965.2	1161.8	196.6	0.16
1161.8	1666.7 (TD?)	504.9	0.03
Notes: Around 953' and 1557' ran 0.40-0.49 %. There were no analyses from 1666.7 to 2425 (the TD). However, they show copper mineralization in the top 750' of the hole, in unaltered Tertiary tuffs. It appears that these analyses were mistakenly plotted 758' up the hole from where they were actually taken.			
ACM-3			
200	721.6	521.6	0.02
721.6	807.6	86	0.23
807.6	1079.4	271.8	0.05
1079.4	1094.9	15.5	0.15
1094.9	1198.9	104	0.07
1198.9	1212.9	14	0.18
1212.9	1582.9	370	0.04
1582.9	1586.9	4	0.8
1586.9	1610.9	24	0.07
1610.9	1613.9	3	0.2
1613.9	1644.9	31	0.08
1644.9	1686.4	41.5	0.13
1686.4	1770.9	84.5	0.05
Notes: There were no analyses from 1770.9 to 2274 (TD). It is unclear whether the analyses were not taken or not posted.			

From	To	Feet	% Cu
LC-1			
1834	1837	3	0.088
1887	1903	16	0.055
2219	2223	4	0.053
Notes: There were scattered Mo values up to 45 ppm			
LC-2			
1221	1239	18	0.075
1291	1299	8	0.087
1311	1331	20	0.158
1382	1436	54	0.104
1474	1481	7	0.055
1508	1523	15	0.106
1554	1572	18	0.08
1586	1593	7	0.082
1619	1625	6	0.057
1643	1657	14	0.054
1665	1672	7	0.057
1860	1926 (TD)	66	0.066
Notes: There were sporadic Mo values all at or below 70 ppm			
LC-3			
1540	1564	24	0.028
1564	1594	30	0.122
1594	1683	89	0.063
1683	1703	20	0.091
1703	1744	41	0.129
1744	1794	50	0.08
1794	1903	109	0.057
1903	1961	58	0.154
1961	1969	8	0.49
1969	2020	51	0.106
2020	2038	18	0.37
2038	2062	24	0.115
2062	2089	27	0.062
2089	2113	24	0.115
2113	2131	18	0.288
2131	2149	18	0.134
2149	2254	105	0.063
2254	2264	10	0.12
2264	2354	90	0.054
2354	2394	40	0.067

From	To	Feet	% Cu
LC-3 Contd.			
2394	2444	50	0.078
2444	2453	9	0.022
2453	2486	33	0.147
2486	2513	27	0.057
2513	2547	34	0.099
2547	2589	42	0.054
2589	2608	19	0.267
2608	2622	14	0.084
2622	2631	9	0.235
2631	2662.5	31.5	0.024
2662.5	2669	6.5	0.23
2669	2713	44	0.016
2713	2740	27	0.245
2740	2766	26	0.094
2766	2807	41	0.045
2807	2826	19	0.114
2826	2839.5	13.5	0.062
2839.5	2862.5	23	0.347
2867.5	2891	23.5	0.025
2891	2911	20	0.074
2911	2951	40	0.057
2951	3000 (TD)	49	0.104

Summary of all Molycorp drill hole analyses for molybdenum in hole LC-3.

From	To	Feet	Mo (ppm)
1564	1574	10	140
2189	2214	25	340
2274	2301	27	153
2384	2394	10	115
2401	2418	17	215
2444	2453	9	135
2513	2524	11	195
2537	2556	19	109
2573	2598	25	329
2608	2616	8	135
2631	2639.8	8.8	130
2938	2990	52	226
Notes: Molybdenum values were 95 ppm and higher			

APPENDIX B: SUMMARIES OF THE BUTTE DISTRICT, AND ITS UNDERGROUND POTENTIAL

- ***A Primer on the Butte, Montana Mining District, and Its Implications for the Ruby Exploration Project***

- ***Summary of Butte Underground Production***

A PRIMER ON THE BUTTE, MONTANA MINING DISTRICT, AND ITS IMPLICATIONS FOR THE RUBY EXPLORATION PROJECT

(Fess Foster, January 2008)

SUMMARY

The Butte, Montana porphyry system is enormous. The O.T. Mining Corporation's (O.T.) Ruby project 15 miles to the NE of Butte is very similar metallogenetically. The Ruby system occurs beneath 700 to 900 feet of younger volcanic rocks, and is not exposed at surface. It has therefore experienced little previous exploration.

O.T. is conducting deep drilling for underground targets at Ruby. Butte is world renowned for its rich underground ores. O.T. is researching how the Butte veins formed, and is using this information to guide the exploration program at Ruby.

Following is a very brief overview of the Butte District, and a discussion of the implications for the Ruby Project.

BRIEF OVERVIEW OF THE BUTTE DISTRICT

Global Ranking:

The Butte District is truly a world class ore system. It is the **fourth largest copper porphyry deposit in the world.**

Past Production:

Butte has been in almost continuous production since 1884. Records were not kept in the early days, however, the production was very significant.

- Silver was the predominant metal mined in the 1860's and 1870's. Butte was the leading mining district in the youthful Montana Territory.
- Copper was discovered in 1882, and 25 companies were mining copper in the district by 1885. High-grade ore was hauled by ox cart to Utah, shipped by rail to the east coast, then by boat to Wales for smelting.
- Manganese and zinc were mined starting in about 1917. Butte was the largest manganese producer in the United States for many years.
- Open pit mining began at the Berkley Pit in 1955, and for a time it was the largest truck-operated pit in the U.S.
- Molybdenum production began in 1980 with the opening of the Continental Pit.

Recorded production from the Butte District totals approximately:

- 23 billion pounds of copper;
- 5 billion pounds of zinc;
- 4 billion pounds of manganese;
- 855 million pounds of lead;
- 327 million pounds of molybdenum;

- 725 million ounces of silver; and
- 3 million ounces of gold.

The total value of recorded production is about $50 billion, using 2004 metal prices. At least half of the value was in copper. The copper produced from Butte could pave a 4 lane interstate highway 4 inches thick from Butte to Salt Lake City, Utah.

Remaining Reserves and Resources:

The Butte District is likely to continue production for many years to come.

- The Continental Pit has remaining reserves of 400 million tons of 0.35% Cu, 0.027% Mo, and 0.065 oz/ton Ag.
- A new open pit between the Berkley and Continental Pits is being developed. This will mine a 500 million ton orebody grading 0.5% Cu with a 2:1 strip ratio.
- A block cave resource of 130 million tons of >1% Cu, 0.345 oz/ton Ag, and 0.005 oz/ton Au remains.
- The Anaconda Company drilled 10 deep vertical holes into the core of the district (as deep as 7,000 feet) between 1978 and 1981. They encountered deep mineralization approximated at 5-6 **billion** tons of 0.6% Cu and 0.05% Mo.

Mining Methods:

Over 80% of the metal production from Butte was from underground mining. The Butte District contains approximately 50 miles of vertical shafts and approximately 10,000 miles of horizontal workings. Twenty-seven of the underground mines exceeded 3,000 feet in depth. The district encompasses approximately 15 square miles. Most of the underground workings were concentrated in a 7 square-mile area in the center of the district termed the "Butte Hill," or the "Richest Hill on Earth."

Most of the early production was from narrow underground vein mining. Block cave underground mining began in 1947. Open pit mining in the Berkley Pit began in 1955. The Continental Pit was started in 1980. Today, only the Continental Pit is in production.

Dimensions and Grades of Underground Orebodies:

Most Butte orebodies are veins, and they have been mined with both underground and open pit methods. **Over 95% of the Butte metal production was from veins.** The 3 most important vein types are summarized below.

- Some of the larger "Anaconda Veins" were over 2 miles long, and were described as being "generally almost continuously mineralized over long distances." They were mined down 5,000 feet. Their average width was 20-30 feet, and ranged from 5 to over 100 feet wide. Grades were "up to tens of percent copper." One vein shipped 37,000 tons of 45 percent copper from 1882-1884.
- The "Blue Veins" ore shoots were 1,000 to 2,400 feet long, and were mined over vertical distances of 600-1,800 feet. They ranged from 5-20 feet wide.
- The famous rich "horsetail orebodies" were hundreds of feet long, up to 2,000 feet vertical, and up to 200 feet wide.

IMPLICATIONS FOR THE RUBY PROJECT

The Ruby Project a very attractive target for Butte-type veins. It is only 15 miles away, and shares a number of geological characteristics with Butte. Following are some of the important geological similarities between the Butte and Ruby porphyry systems.

- They are both late Cretaceous, and associated with the same igneous phase of the Boulder Batholith (the Butte Quartz Monzonite).
- Most porphyry Cu and Mo occurrences in Idaho and Montana occur along the northeast-trending Great Falls Tectonic Zone (GFTZ). It is a deep-seated crustal flaw that has been periodically active since at least the Proterozoic. It experienced dextral movement during the late Cretaceous, and both Butte and Ruby occur along the axis of the GFTZ. The two properties therefore have similar structural settings.
- Both are very large systems. Most of the underground workings in Butte were concentrated in a 7 square mile area, and were as deep as 5,000 feet. The Ruby porphyry as presently understood is 3.5 square miles in plan and 2,600 feet deep. It is still open in 3 directions and at depth.
- The two systems have a curved, arcuate shape in plan, with east-west trending linear features on the north side of the main system.
- Both contain potassic alteration (K-feldpar and biotite) overprinted by phyllic alteration.
- Both contain widespread low-level copper.

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Date: January 31, 2007

Memo To: J. Hess, R. Christensen, M. Fedikow, O. Maki, T. Weitz

From: Fess Foster

Subject: Summary of Butte Underground Production

BACKGROUND

At long last, I was able to find some specific data regarding tonnage and grades for underground production at Butte. They cover the period 1875-1944 inclusive, and would therefore have all been underground production from Main Stage Veins. One table lists production data by mine, the other by company.

The tables were prepared by the Anaconda Company, and include data from old production reports, stope plans, long sections, etc. They therefore appear to be accurate and comprehensive.

This is the **first and only** reliable data on Butte underground production that I have been able to locate. Keep in mind that these tables only include data through 1944, and they do not include unrecorded production. **Therefore, the total Butte underground production is even greater than that given in these tables.**

Note that in addition to the production from the Main Stage Veins discussed in this report, **Butte also produced over 33 million tons at 1% Cu from underground block caving** in 1944 through 1962.

The tables were apparently done in about 1944, before the advent of calculators and word processing/spreadsheets; this must have been an immensely difficult task at the time. They are difficult to read, and too large for me to scan at home. I used the table with mine data for the following summary. If anyone would like copies of the tables, let me know and I will mail them to you.

SUMMARY OF PRODUCTION DATA FROM INDIVIDUAL MINES

I compared the data in the table listing production from individual mines to MBMG MC-19, which shows the location of **some** of the mines. To the extent possible, I broke out the data as per vein type. However, not all mines listed on the table were shown on the map. Also, I only totaled up production figures for mines that had produced over 1 million tons of ore.

In the end, I was able to find mine locations for about 84% of the production listed in the table. We only need reasonable estimates of grades and tonnages; this compilation should be sufficiently accurate for our purposes. The production data does not show a great deal of spikes; most production figures are relatively close to the averages given below.

Grade and Tonnage of Mines in the ENE-Trending Anaconda Vein Set:

- **14 mines produced over 1 million tons of ore each from the Anaconda Vein set, totaling over 72 million tons. Five of them mined over 5 million tons, and the largest tonnage (12.3 million tons) was from the Anaconda Mine.** Almost all of the production came from the copper dominant Central Zone, and the Cu-Zn ores of the Intermediate Zone. Lesser volumes (about 3% of the total) came from the Peripheral Zone Mn-Zn-Ag mineralization.
  - **The average grade for all of the copper dominant ores was 4-5% Cu and 5-6 opt Ag.** The grades of the individual mines ranged from 2 to 6% Cu and 1-7 opt Ag. Nine of these mines exceeded 1 million tons of ore production.
  - **The average grade for the Zn-rich ores was 12-13% Zn, and 5-6 opt Ag.** Four of these mines exceeded 1 million tons of ore.
  - **The average grade of the Peripheral Zone ores was about 24% Mn, 1.5% Zn, and 1 opt Ag.** One of these mines exceeded 1 million tons of ore.

Just How Big was an Individual Anaconda Vein?

- It appears that about 5 of the Anaconda Veins were the big, fat veins that made Butte famous. From north to south they were:
  - The Black Rock Vein.
  - The "Mountain Con" Vein.
  - The "Anselmo" Vein.
  - The Original-Anaconda Vein.
  - The Emma Vein.

- It is interesting to note that 2 or 3 of the larger underground **mines** (not veins) contain about the same amount of copper as a large open pit.

- The Original-Anaconda Vein appears to have been by far the largest. **It has workings along it for over 1 mile of strike length, and down to over 3000 feet deep. This one vein produced approximately 40 million tons of ore averaging about 4.5% Cu and 5 opt Ag.** This is approximately the same amount of copper as in a very large open pit.

Grade and Tonnage of Mines in the NW-Trending Blue Vein Set:

- **6 mines produced over 1 million tons of ore each from the Blue Vein set, totaling over 28 million tons. Three of them mined over 5 million tons, and the largest tonnage (8.7 million tons) was from the Bell-Diamond Mine.** All of the production came from the copper dominant Central Zone, and the Cu-Zn ores of the Intermediate Zone.

- The copper dominant ores were slightly lower grade than ores from the Anaconda Vein set. **Their average grade was about 4% Cu and 5 opt Ag.** The grades of the individual mines ranged from 3 to 6% Cu and 3-6 opt Ag. Six of these mines exceeded 1 million tons of production.
- None of the mines on the Blue Veins exceeded 1 million tons of production from Zn-rich ores.

Grade and Tonnage of Mines in the Horsetail Zone:

- **8 mines produced over 1 million tons of ore each from the Horsetail Zone, totaling over 52 million tons. Five of them mined over 5 million tons, and the largest tonnage (12.6 million tons) was from the Leonard Mine.** Most of the production came from the copper dominant Central Zone. Only minor production came from the Cu-Zn ores of the Intermediate Zone.
  - These ores had less Ag than ores from the Anaconda and Blue Vein Sets. **Their average grade was about 4.5% Cu and 1.5 opt Ag.** The grades of the individual mines ranged from 3 to 6% Cu and 3-6 opt Ag.
  - None of the mines on the Horsetail Zone exceeded 1 million tons of production from Zn-rich ores.

Production and Average Grade of the Entire Butte District:

The following total production figures were given for all of the mines, broken out by ore type.

- **A total of 162.6 million tons of copper ore averaging 4.4% Cu and 2.7 opt Ag.** Most of this production came from the Central and Intermediate Zones. This is about the equivalent copper to that produced from 5-7 large open pit mines.

- **A total of 14.5 million tons of zinc ore averaging 11.9% Zn and 5.6 opt Ag.** Most of this production came from the Intermediate Zone. However, most of these ores were mined at the extreme northern and southern portions of the Intermediate Zone (from the Black Rock and Emma Mine areas, respectively). The great majority of the mines in the Intermediate Zone mined primarily copper ore.

- **A total of 3.4 million tons of silver ore averaging 23.6 opt Ag.** Many of these mines were in the Peripheral Zone, but others were in the Central and Intermediate Zone. I suspect that all of these were mainly supergene silver occurring near the surface.

- **A total of 2 million tons of manganese ore averaging 24.5% Mn, 1.6 % Zn, and 0.91 opt Ag.** Most of this production came from the Peripheral Zone.

HOW MUCH BUTTE METAL PRODUCTION CAME FROM UNDERGROUND?

Note that above total 14.4 billion lbs Cu, 3.5 billion lbs Zn, and 607 million ounces Ag. These account for 63%, 70%, and 84%, respectively of the total Butte production to date for these metals given in MBMG MC-19. Underground mining continued in Butte for another 30 years after the date of these tables. Clearly, the great majority of Butte metal production came from underground.

Figure F-1 in the 1973 SEG guidebook is a bar graph that includes underground copper production from 1945 through 1973. I added this to the above total for copper, and for the first time we have a reasonable estimate of the amount of copper that has been produced by the Butte underground mines. It is 17 billion lbs.

Approximately 74% of the copper produced from the Butte District came from underground mining. The percentages of Zn, Pb, Mn, and Ag mined from underground is even higher.

Fess Foster