



MEMORANDUM REPORT

Field Program, September 2008

December 15, 2008

Introduction

Aurora conducted a short field program in the fall of 2008, running from September 3-27. The primary goals were to prepare the Wrigley site for a larger field program in 2009 and to validate our position in the community by providing employment and demonstrating our intention to continue to work on the site.

Field Work

A variety of useful projects of short duration were undertaken. These were:

- 1) Establishment of a tent camp on the site proposed in our current land use permit application.
- 2) A series of 234 soil samples were taken from fault traces (gullies) on the higher parts of the property, particularly near the 36-North zone and adjacent areas.
- 3) A GPS-based control survey was conducted of historical surveyed baselines and those historical drill sites not previously located.
- 4) Some 14 aerial survey control points were surveyed and targets laid out in preparation for aerial photography and detailed map production in 2009.
- 5) Historical surveyed baselines were re-cut to provide access to work areas.
- 6) Access trails were cut from camp to the Bourne Zone and extended to the Zebra Zinc fault and the 12-North zone.
- 7) Two new drill pads were constructed, ready for use.

The locations of these activities are shown on **Figure 1, 2008 Field Work Plan**.

Camp Establishment

Aurora has an application pending with the Mackenzie Valley land and Water Board for more comprehensive drilling and other exploration activities anticipated in the coming years. This includes provision for a tent camp on the property, of nominal 24-man size. This is sufficient to house drilling and some other personnel for a four-drill program or all personnel for a smaller program. We anticipate that substantial operational savings would accrue by keeping drilling crews near their rigs as weather delays are minimized and helicopter time reduced. A site on the ridge near the small lake (Foot Lake) was selected as most practical because it is roughly central to all of the known areas of interest, has enough flat ground, has abundant potable water year-round and, because of exposure to wind would be more comfortable in terms of biting insects than sites on the lowlands.

For this period of work three tent floors were constructed, along with an outhouse. No additional permits were needed; this level of occupation does not require a Land Use Permit in the Northwest Territories. Surrounding these, large quantities of woody deadfall were cleared and piled in anticipation of burning during the winter months. The area cleared is sufficient to support construction of a cook-tent, dry and 4-5 more residential tents. Some additional clearing will be required for a full 24-man camp but the present area is sufficient for most requirements, and having the debris cleared permits construction work to begin while some snow remains, potentially as early as the beginning of April. Thus, we now have the possibility for a very early start to drilling in 2009, up to two months earlier than would have been possible in 2008, with potential to mobilize equipment and supplies via winter trail rather than with a helicopter.

At the end of this work episode all fuels and most other supplies were removed to Wrigley. Some construction materials and tools were cached on site, stored in the outhouse. As well, a fuel containment tub, a generator shelter, a kitchen table/benches and some shelving were constructed and remain for future use.

Soil Sampling

Soil sampling in 2007 demonstrated that detailed sampling of fault-associated topographic depressions can yield anomalous values that appear to reflect fault-hosted Zn-Pb mineralization. Historical grid-spaced sampling was typically too widely spaced to delineate such structures, particularly in structurally complex areas such as the 36-North zone where many fault zones are relatively narrow and some have limited length. During the 2008 program some 234 soil samples were taken from linear topographic depressions along the height of land in the central part of the property. As well, a small number of samples were taken from fault lineations in the Zip-Zap Fault area, in places not well covered in 2007. Locations of the soil samples are shown on Figure 1, and results are presented in [Figure 2, 2008 Detailed Zn Geochemistry](#) and [Figure 3, 2008 Detailed Pb Geochemistry](#).

Like the results of 2007, they show an unusually close correlation of soil lead and zinc values whenever anomalously high levels are found. This contrasts to common experience in zinc exploration where the low mobility of lead ions in the environment typically produces small anomalies much closer to their source, while zinc tends to spread out and move significant distances downhill. This is probably because of low solubility of the Zn oxides found near surface at Wrigley.

The sampling has returned highly anomalous values of both zinc and lead in the 36-North area, and as expected they correspond closely to topographic depressions associated with faulting. A broader pattern of anomalously high metals extends to the southeast, toward a soil anomaly identified in 1974 a short distance north of drillhole 12-6-74. Much of this area is mantled by overburden and the pattern of faulting is not clearly expressed on the surface, but the suggestion remains of discontinuous mineralization over a distance of 900 meters between the 36-North showings and the 2007 drilling.

In addition, a distinct rectilinear pattern of anomalies emerged in the 48-North area, along two sets of faults striking 040 and 130 degrees. These include many of the highest sample values found and are narrower than anomalies seen elsewhere, suggesting that mineralization in the 48-North area is found in sub-vertical fault veins of limited width. These were not well tested by historical drilling, where only two of five vertical holes encountered significant mineralization.

Exploration in the area sampled in 2008 should employ drilling angled across the fault depressions. Because overburden is thinner in much of this area, excavator trenching would be very useful to locate and follow mineralized bodies on surface, and the new permitting in process includes provision for excavator use.

The surveying described below has permitted accurate positioning of the historical soil sampling results for the first time. Integration of this data with the 2007 and 2008 geochemical results provides a much better picture of soil anomalies than was available before, with more positional accuracy and with greater detail in areas of interest. Further detailed sampling of lineations should be carried out on the northern portions of the property, along with detailed surface prospecting, to clarify the position and orientation of geochemical anomalies found there in preparation for drilling.

Surveying

An RTK-GPS surveying unit was employed on the property, the first time such equipment was available when snow cover was absent. In suitable conditions this method produces surveyed point absolute accuracy of centimeter-scale, more than adequate for any exploration needs. Three phases of surveying were accomplished.

- A) First, a series of 14 air-photo control points were surveyed and targets constructed. This level of survey control is required to produce detailed topographic maps of the high accuracy needed for digital geological modeling, project engineering, design and construction, and environmental studies. Consequently, aerial photography of the entire Wrigley project area can be undertaken as soon as snow melts in 2009, and maps and orthophotos produced in a sufficiently short time to be useful during that field season.
- B) Second, many of the baselines originally cut in 1973-74 were relocated and surveyed. This includes the primary baseline on the height of land, from its origin to about the 48-North area, a traverse of surveyed baselines and cross-lines that runs from the grid origin to the Bourne and Zebra Zinc areas, and parts of baselines cut along the 1700ft West alignment and the 2400ft West alignment. During the course of this work, many historical cross-lines were identified and their intersections with the baselines surveyed. While not yet complete this process locates the Cominco geochemical and geophysical grid accurately both in relation to the topography and in absolute coordinates.
- C) Third, all but four of the historical drill sites were found and the drill collars surveyed. All significant drill-holes can now be utilized with confidence in digital geological modeling and their relation to fault-associated topography is now clearer. The collars of one hole in the 36-North zone and one in the 12-North zone could not be precisely located with. Two sites hosting four drill-holes in the 76-north zone were not visited because of difficult access and time constraints.

This survey work should be extended in 2009 in conjunction with the surveying of new drill-holes. I recommend the purchase of used RTK-GPS survey instrumentation in 2009 because this would be substantially cheaper than renting the equipment for a full field season.

Access Trails

At present there are no roads on or near the Wrigley property. Past petroleum exploration has left a number of seismic trails, mostly found to the north and to the west of the property. All of these have overgrown with brush to a significant extent, and the nearest lie several kilometers from the areas of present interest. Parts of these could be cleared of brush and reopened for winter access, potentially allowing major equipment and supplies to reach the property by land transport at much lower cost than present helicopter transport means. This advantage is largely limited to the January-April time period when ice thickness permits pickup-size or larger trucks to cross the Mackenzie River. Summer-season operation would be more constrained, at minimum requiring boat transportation across the river and a low-ground-pressure vehicle capable of crossing soft terrain without disturbing the surface.

The current permit application includes provision for reopening and extending of the seismic trails onto the Wrigley property to a large clearing termed the 12-Laydown, anticipating winter operation. This would demand the minimum construction effort and expense. Summer operation would require additional construction and permitting, and greater expense. The preferred work season for trail construction is winter, when frozen ground permits clearing without disturbing the ground surface and ice conditions permit easy access.

On the property, many areas of interest sit at higher elevations where soils are thin or absent. Local topography often includes steep, bare slopes and gullies that hamper access by heavy equipment. A system of exploration trails capable of accommodating 4x4 vehicles would require significant construction effort and ground disturbance, and a long and potentially contentious permitting process could be anticipated. Until such efforts become necessary ground transportation will be limited to ATV trails and, in some cases, to walking trails. A network of these is now in place (constructed within the 1.5m width limit for trails not requiring an NWT land use permit), and are shown on Figure 1.

During the 2007 work program a good walking route called the 12 Trail was cut from Foot Lake to the 12 North zones, ending at the 12 Laydown. This joined a second trail cut to the Bourne Zone drill sites, the two forming the route for the drilling waterline, pumps and heaters. The 12 Trail now provides worker access from the new camp to planned drill sites at the 12- North zone with about a 15 minute walk. Both the 12 and Bourne Trails have steep sections that prevent use of these routes by ATVs.

To remedy this, in 2008 a new route termed the Ridge Trail was cut from the camp to the Bourne Zone following the more gentle terrain to the south. This ends about 100m east of drillhole DB-07-6, about a 20 minute walk from camp. From the end of the Ridge Trail, another route termed the Zip-Zap Trail was scouted and cut to the north, following the even slopes of the Zip-Zap fault linear. This reaches the 12-North zone at drillhole D12-07-5 and continues down onto flatter ground, curving south to the 12 Laydown.

Slopes along the Ridge and Zip-Zap Trails are gentle enough to permit operation of ATVs or snowmobiles along their entire length, but would require occasional widening for that use. Nevertheless, they now constitute a basic vehicle transportation network joining the camp, Bourne and 12-North zones with the expected terminus of the winter access trail.

A walking route was scouted and cut from the junction of the Ridge and Zip-Zap trails to the Zebra Zinc fault zone, crossing the Bourne Trail near drillhole RB-07-3. Steep terrain along this route prevents ATV use. Large cliffs along the Zebra Zinc fault are formidable barriers, and surface access to this area will always be constrained.

The Cominco baseline was cut to create a good walking route from the camp to the 36-North and adjacent zones. Occasional steep sections preclude ATV use, but nearby gentle terrain can be used in future to provide useful vehicle transportation to this area. Several days work are needed to cut such a trail because of the large amount of fire-killed deadfall throughout the area. A route should be scouted that can be extended to the north end of the property, since the baseline alignment becomes unusable beyond the 48-North zone.

In summary, a useful network of walking trails is now in place joining all of the areas of immediate interest. As well, several of these were routed with vehicle use in mind and a modest amount of widening and extension of these would provide ATV access to the zones of major interest and the potential winter access trail from Wrigley.

Drill Pads

It is desirable to minimize the time from arrival of a drill and crew at Wrigley to the start of coring. To this end, at the end of the 2007 program three potential drill sites had been cleared on the south extension of the Bourne Zone and a timber-crib drill pad was constructed at the first of these, located about 90m south of drillhole DB-07-7. This remains in place, needing only minor adjustment and placing of the decking to receive a drill. Sufficient 2x12 decking for this, along with enough cribbing timbers and blocking for construction of another pad, are presently stockpiled at the site of drillhole D12-07-3.

Two more drill sites were selected and cleared during the 2008 program. One of these is situated at the 12-North zone, about 100m northwest of drillhole D12-07-1. This would test the vertical extension of the ore zone identified in 2007. The other site is located in the Zebra Zinc fault zone, within an area of very high soil samples taken in 2007. This would test for mineralization in the Zebra Zinc fault about 1000m south of D12-07-1. On each site, a timber-cribbed drill pad was constructed, ready to receive their decking as described above. A complete 2x12 deck is on hand at each of these sites, as is a plywood-and-2x4 drill shack, retained in good condition from the 2007 program.

Another complete set of drill pad cribbing and decking timbers is located in Wrigley, stored at the Dept. of Transport Highways yard south of town. It is best to have enough timbers for two pads per drill so one can be built while the other is in use. Presently there are enough materials on the property and in Wrigley for a two-drill program but additional timbers will be needed for a larger program.

Locations of the three drill pads that are ready for use in 2009 are given in Table 1, below and are shown on Figure 1. Coordinates are UTM Zone 10, NAD 83.

TABLE 1 – DRILL PAD LOCATIONS

<u>Drill Pad #</u>	<u>Zone</u>	<u>Northing</u>	<u>Easting</u>
A	Bourne	6999470	467945
B	12-North	7000475	467995
C	Zebra Zinc	6999700	467715

Budget

A preliminary budget for this field program was prepared in late August. Estimated cost was \$113,250 plus 10% contingency, for a total of \$124,575. Final invoicing has been received as of this writing and actual expenditures for the 2008 field program totaled \$113,711.39. As in previous field programs, the portion of cost for helicopter transportation was high, some 41% of total, underscoring the value of reducing dependence on helicopter support.

Conclusions

The 2008 field program accomplished its goals, on time and on budget. A significant percentage of the adult population of Wrigley derived direct financial benefits from the work, as did the Pehdzeh Ki Band organization. It was clear that, while community opinions vary widely, a large majority of individuals are favorably disposed to Aurora’s activities and look forward to benefits accruing from further work on the Wrigley property. The tasks accomplished have created the basis of an earlier as well as less costly start to exploration in 2009, set the stage for significant savings on an ongoing basis, and have moved the project forward on several technical fronts.

Respectfully Submitted:



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