FINAL REPORT: 1998-99 OPAP

OPAP File No. OP98-179

FLOODWOOD CHUTES PROSPECT

Janes Township, District of Sudbury, Ontario

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SUMMARY

The *Floodwood Chutes Property* consists of 2 unpatented mining claim blocs, located in Janes Township, about 50 km east of the City of Sudbury, Ontario. The mining claims encompass 28 claim units, comprising 1 sixteen unit claim (1230296) and 1 twelve unit claim (1229831), with an aerial distribution of 448 ha.

Janes Township is underlain by metasedimentary rocks of the Huronian Supergroup which are intruded by generally northeast- to northwest-trending gabbro sills and(or) dykes of the Nipissing Diabase; both the Huronian and Nipissing rocks are then intruded by northwest-trending olivine diabase dykes. The Nipissing Diabase (Gabbro) consist primarily of tholeiitic to calc-alkaline rocks including melagabbro, gabbro, leucogabbro, granophyre and pegmatitic gabbro.

Previous geological work in the area and current examination of the geology, mineralization (primarily high Cu:Ni ratio) and structure of the Floodwood Chutes property, as well as the presence of several occurrences from surrounding prospects, suggests that the gabbroic rocks of the Nipissing Diabase are favourable hosts for economic Palladium-Platinum-Gold-Copper-Nickel (Pd-Pt-Au-Cu-Ni) sulphide deposits; also present are anomalous concentrations of silver (Ag). Until recently, the only comprehensive exploration program aimed at evaluating the Nipissing Diabase for their capacity to host economic Pd-Pt-Au-Cu-Ni sulphide deposits had been originated by Goldwright Explorations Inc., a private Sudbury based company.

Work was completed on the property between May 16, 1998 and February 1, 1999, in fulfillment of a 1998-99 OPAP grant. The OPAP applicant spent a total of **32 days** working on the east and west properties and **3 days** preparing reports and maps (35 days total). During this time the applicant completed and(or) supervised 18 km of line cutting, 18 km of grid geological mapping (1:1000 scale), lithogeochemical and humus sampling, 4 km of ground magnetometer and VLF-EM surveys, drilling and blasting and power washing and hand stripping.

Highest base metal values were **>10,000 ppm Cu, 1006 ppm Ni** (WR-01) and 9060 ppm Cu, 2278 ppm Ni (WR-06A), from samples at the Main Showing. These same samples returned disappointing precious metal values of **26 ppb Pd, 24 ppb Pt, 121 ppb Au** (WR-01) and **13 ppb Pd, <10 ppb Pt, 124 ppb Au** (WR-06A); the highest Pd value was **44 ppb** (WR-03B).

In view of the current results from this project, it is suggested that this immediate area is not likely a good target for future exploration of Cu-Ni-Pd-Pt sulphide deposits associated with the Nipissing gabbro.

INTRODUCTION

An exploration program consisting of line cutting, prospecting, lithogeochemical and humus sampling, geological mapping, ground geophysics, stripping, and power washing was completed on two claim blocs in Janes Township, District of Sudbury, Ontario. The primary objective of this program was to define the extent of the sulphide mineralization at surface and correlate it with other sulphide prospects in the area; if initial results were promising, a packsack drill program was to test for mineralization at depth.

Goldwright Explorations Inc., a private Sudbury company, is exploring the most significant copper-nickel-palladium-platinum (Cu-Ni-Pd-Pt) prospect in the area. This prospect is located about 1.5 km west of the present project and has returned assay values that are extremely encouraging (Table 1). In addition, many of the known Cu-Ni-Pd-Pt occurrences in the area are either hosted by, or proximal to, the Nipissing Diabase but also coincident with northwesterly-trending olivine diabase dykes (Figure 1). This coincidence required further investigation as there may be a direct relationship (i.e. structural or geochemical) between the olivine diabase dykes and the Nipissing Diabase which resulted in the Pd-Pt-Au-Cu-Ni mineralization. Both Nipissing gabbro and olivine dyke occur within the current prospect and are coincident the Floodwood Chutes Cu-Ni showing.

TABLE 1. Assay results from Goldwright's *Janes Property* (*J. Rastall Prospect*)

Sample	Location** (Trench)	Rock Type	Pt (g/t)	Pd (g/t)	Au (g/t)	Ttl PM (g/t)	Ni (%)	Cu (%)
77304	**T1 - Main**	**mafic gabbro**	**0.644**	**4.507**	**0.480**	**5.63**	**0.48**	**1.04**
77305	**T1 - Main**	**mafic gabbro**	**0.554**	**3.813**	**0.383**	**4.75**	**0.45**	**1.18**
JB97-43A	**T1 - Main**	**mafic gabbro**	**0.800**	**>7.00**	**0.460**	**>8.26**	**0.54**	**1.30**
JB97-96	**T1 - Main**	**mafic gabbro**	**0.345**	**7.14**	**0.404**	**9.64**	**--**	**--**
JB97-109	**T4 - Wilson**	**gabbro**	**1.30**	**4.56**	**0.720**	**6.58**	**1.44**	**1.45**
J6551	**T4 - Wilson**	**gabbro**	**0.569**	**4.390**	**0.431**	**5.39**	**0.53**	**1.22**
77317	**T4 - Wilson**	**gabbro**	**0.710**	**4.834**	**0.567**	**6.11**	**0.67**	**1.14**
77315	**T4 - Wilson**	**gabbro**	**0.578**	**5.170**	**1.326**	**7.07**	**0.86**	**2.62**

-- no data available; total PM = Pt+Pd+Au; **from Goldwright and are not referred to in this report

LOCATION AND ACCESS

The Floodwood Chutes Property is located centrally within Janes Township, about 50 road km northeast of Sudbury, and in the Sudbury Mining Division (Figures 1 & 2). The property can be located on NTS map sheet 41 I/9 with the approximate centre of the 2 claim blocs being located at about latitude 46° 41' and longitude of 81° 21'. Specifically, the Floodwood Chutes Property is about 5 km east of Murray and Lower Murray Lakes, and about 1.5 km south of the Floodwood Chutes, on the Sturgeon River.

Access to the property is obtained by vehicle from HWY. #17 east of Sudbury. Travel north from Hagar on HWY. #535 for about 22 km until reaching an abandoned railway bed. The **western part of the property** (claim 1230296, Floodwood Chutes West - west of the Sturgeon River) can be accessed by driving north from the railway bed for about 7 km along a gravel road. Crossing a permanent bridge over the Chiniguchi River provides access to the central part of claim 123096. Access to the **eastern part of the property** (claim 1230296 and 1229831, Floodwood Chutes East - east of the Sturgeon River) is made by turning east toward Glen Afton, on a gravel road that parallels an old railway bed for about 4.5 km. Travel north-northeast along a gravel road for about 6 km, past Sargesson Lake. The gravel road crosses the property and the showings can be reached by trail, about 100 m west from the gravel road. Alternatively, access to Floodwood Chutes East can be made by boat, about 400 m north (up stream) from the confluence of the Chiniguchi and Sturgeon Rivers.

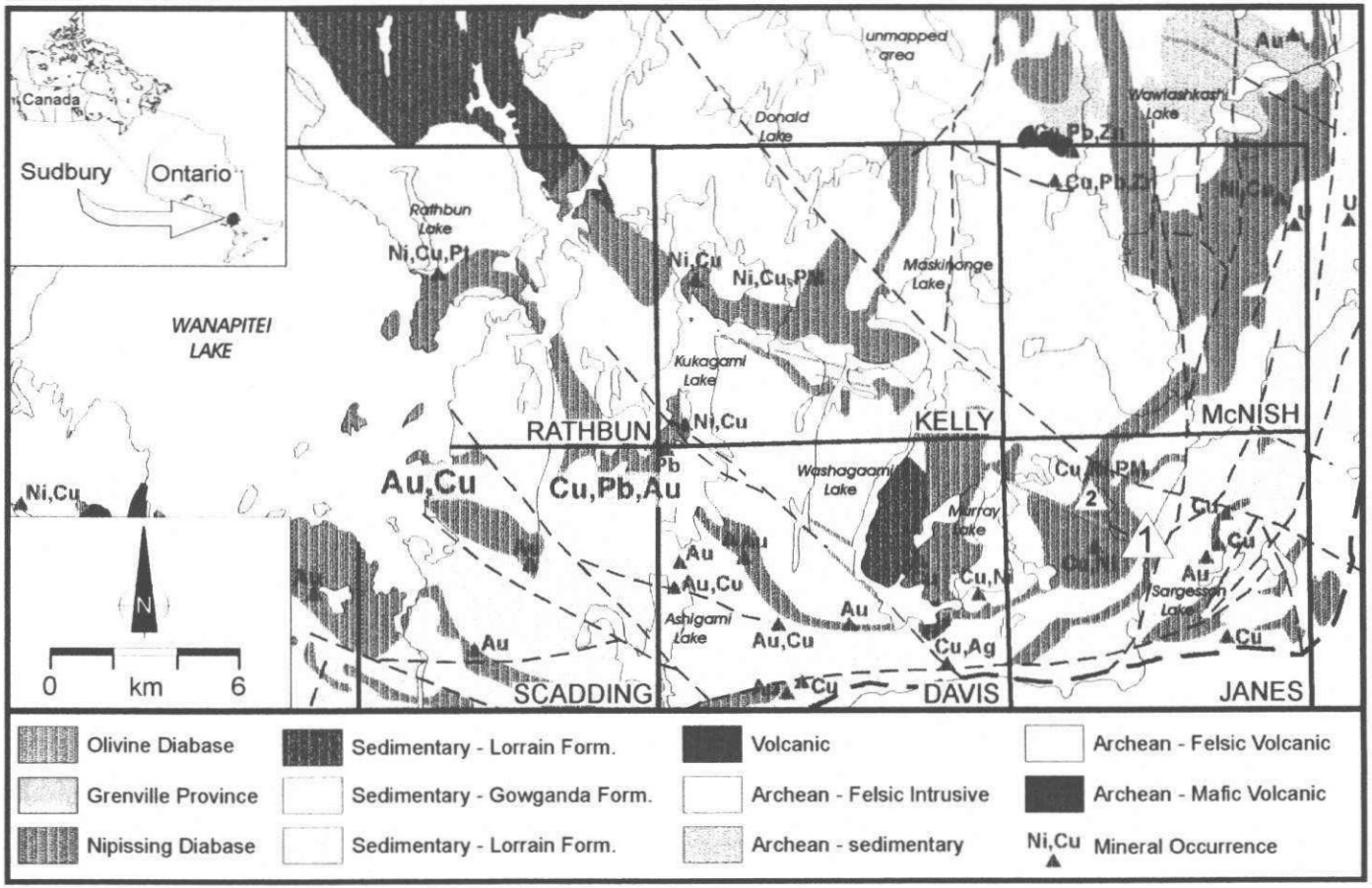


Figure 1. Regional geological map showing the location of the Floodwood Chutes Property (mineral occurrence #1 - white triangle) in Janes Township. Goldwright Explorations Ltd.'s Cu-Ni-Pd-Pt property is white triangle #2 (modified after OGS Map 2361).

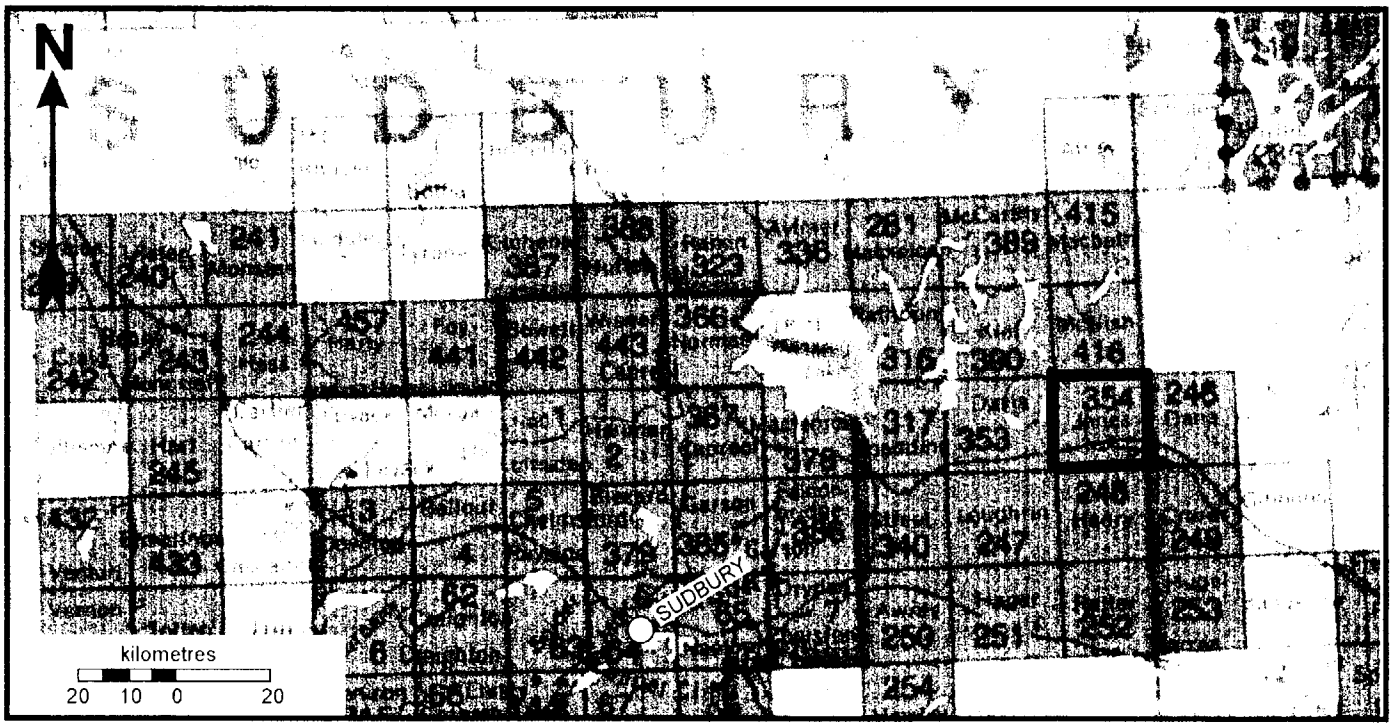


Figure 2. Location of Janes Township (outlined in red) in which the Floodwood Chutes OPAP project is located. Sudbury Mining District (map after GDIF Index map).

CLAIM STATUS

The claim ownership of 1229831 is divided equally between L. Scott Jobin-Bevans (50%) and Mike George Loney (50%) whereas claim 1230296 is divided equally between L. Scott Jobin-Bevans (50%) and Goldwright Explorations Inc. (50%). The mining claims have the following distribution:

Property	Claim No.	No. Claim Units	Area (ha)
Floodwood Chutes	1230296	16	256
	1229831	12	192
	TOTAL:	**28**	**448**

REGIONAL GEOLOGY AND MINERALIZATION

The geology of Janes Township was covered by Dressler (1979), in which the current Cu-Ni mineral occurrence (referred to as the Main Showing) is referenced as the *Ossington Explorations Ltd. and Triller Explorations Ltd. [1960]* property; herein referred to as the *Floodwood Chutes Property (East & West)*. The property is underlain by rocks of the Southern geological province of the Canadian Shield; the approximately east-west trending Grenville Front is located about 3 km south of the property (Figure 1). Several major structural trends through the area of the property are defined by northeast- to east-trending faults (Dressler, 1979).

The claim group is underlain by Huronian metasedimentary rocks of the Gowganda Formation (greywacke, quartz arenite/arkose) that have been intruded by generally northeast- to southwest-trending gabbroic rocks of the Nipissing Diabase (Figure 4). The Nipissing Diabase were emplaced into the sedimentary rock sequences as both sills and dykes (Hriskevich, 1968).

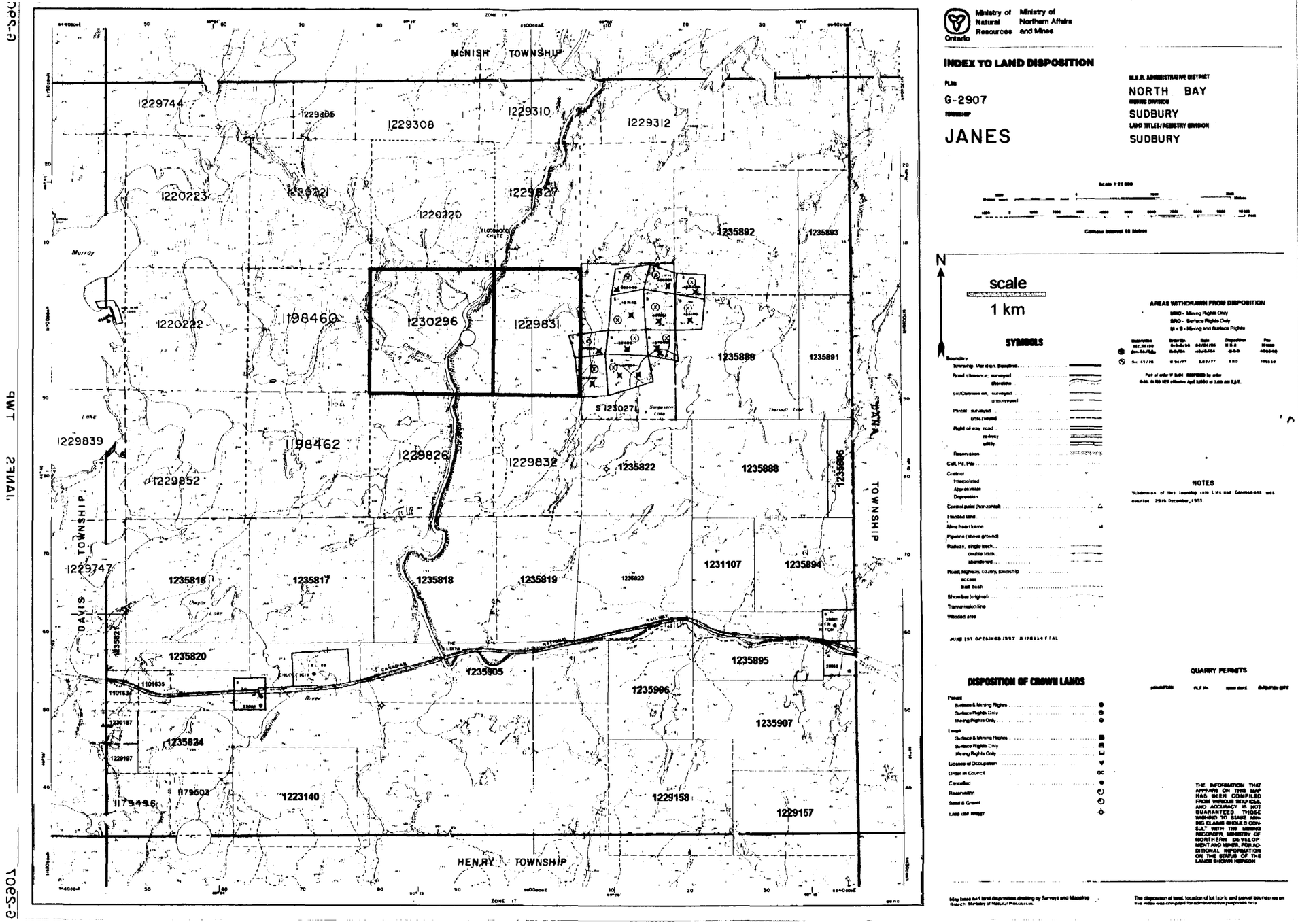


Figure 3. Claim map of Janes Township showing the location of the two claim blocs (outlined in red) and the location of the main Cu-Ni showing - yellow dot (claim map downloaded Jan. 22, 1999).

In general, Nipissing gabbros are not magnetic and therefore the northwest-trending magnetic highs that are observed through the property are attributed to olivine gabbro dykes that contain up to 20% magnetite and possibly chromite. These dykes are the youngest rocks in the area and cross-cut Huronian sedimentary rocks and Nipissing Diabase.

Gabbroic rocks in Janes Township are moderate- to well-exposed and may represent the southeastern extension of the Kukagami Lake intrusion; these gabbroic rocks may also be part of the same sill that hosts the mineralization (Rathbun Lake occurrence; Dressler, 1982) in the Wanapitei Lake intrusion. Conversely, the gabbroic rocks in this area may represent a lopolithic intrusion that may represent a deeper portion of the system that fed sills and dykes at higher crustal levels. The northwestern margin of the intrusive body dips at about 45° southeast with its southeastern contact apparently dipping northward at about 40°.

Regional mineralization within Janes Township is primarily concentrated either within gabbroic rocks of the Nipissing Diabase or is proximal to contacts between gabbroic rocks and surrounding metasedimentary rocks. Mineralization within the gabbroic rocks (hypersthene gabbro & quartz gabbro) occurs as disseminated, net-textured, bleb and semi-massive to massive magmatic sulphides (chalcopyrite + pyrrhotite + pentlandite >> pyrite). Re-mobilized sulphides are noted within shear zones that are proximal to contacts with the hosting sedimentary rocks and along joints and fractures that are within the gabbroic rocks themselves; sulphide abundance ranges from about 1% to >80%. Anomalous Ni, Cu, Pd, Pt, Au and Ag values have been reported from numerous occurrences in Janes Township.

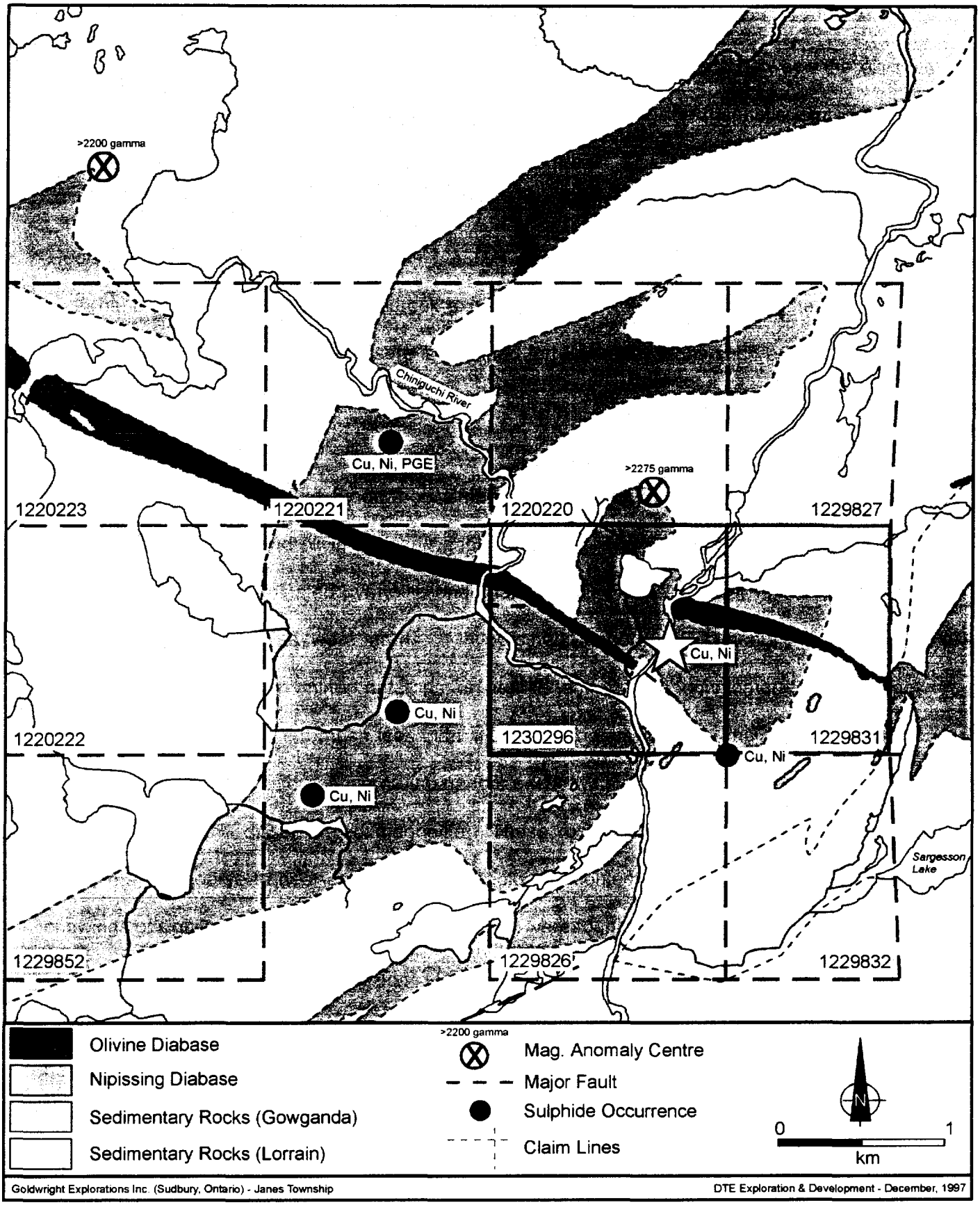


Figure 4. Location map showing the claim boundaries (red) for the 1998-99 OPAP project and the adjoining claims. Also shown are the major mineral occurrences in this area of Janes Township - the principal Cu-Ni showing of this project is represented by the white star.

EXPLORATION HISTORY

The earliest reported work on the *Floodwood Chutes Property* is from 1968-1969. As described by Dressler (1979), this work focused on exploration for base metal (Cu-Ni) deposits:

Ossington Explorations Ltd. and Triller Explorations Ltd. [1960] - 1968-69

Exploration work concentrated in the area of the confluence between the Sturgeon and Chiniguchi Rivers (Figure 4). A grab sample from a surface showing of chalcopyrite returned an assay of 2.45% Cu and 0.13% Ni. A follow-up diamond drill hole returned assays of 0.09% Cu and 0.19% Ni and intersected a >50 m wide granitic dyke which cut through the gabbroic rocks. Five diamond drill holes were also completed in order to test several east-trending EM anomalies but no assay data (base metal, PGE or Au) were reported.

WORK COMPLETED

Table 1 lists the work completed and estimated costs as applied to the property between May 16, 1998 and February 1, 1999, in fulfillment of a 1998-99 OPAP grant. The OPAP applicant spent a total of **32 days** working on the east and west properties and **3 days** preparing reports and maps (35 days total). As part of the 32 field days, line cutting was completed on two exploration grids (total of 18 line km and **10 days**) that cover the Floodwood Chutes east and west properties. Of the 18 km of exploration grid that was established over both areas, 4 km was contracted out while the remainder was completed by the applicant. Also completed was detailed geological mapping (1:1000 scale - *see* Property/Geological Maps in back pocket), lithogeochemical and humus sampling - concentrated in the region of the Main Showing, ground magnetometer and VLF-EM surveys (Appendix A), blasting of the old showing to expose fresh sulphide and power washing and hand stripping of the area around the Main Showing.

TABLE 1. Summary of Work Completed on the Floodwood Chutes prospect – Janes Twp.

Work Type	Details	Applicant Days	Cost
Line Cutting	4 km cut and picketed	contract	$1,000.00
Line Cutting	14 km cut and picketed by applicant	10	$1,000.00
Geophysics	4 km: ground magnetometer; VLF-EM	3	$300.00
Geological Mapping	1:1000 scale grid mapping and rock sampling	8	$800.00
Humus Sampling	22 samples on grid	1	$100.00
Field Assistant	contract assistance in geological mapping, power washing and geophysics	contract	$1,000.00
Prospecting	reconnaissance work; locating old trenching/showings	7	$700.00
Power Washing & Manual Stripping	washing and hand clearing area around Main Showing	3	$300.00
Drilling & Blasting	area of main Cu-Ni showing	contract	$1552.67
Sample Assay	submitted to Accurassay: 8 rock samples (Pt-Pd-Au, 28 element ICAP, whole rock)	--	$273.49
Sample Assay	submitted to Accurassay: 22 humus samples (Pt-Pd-Au, 28 element ICAP)	--	$587.67
Report Writing	geological/property report; drafting	3	$300.00
Expenses	travel (2100 km at $0.30/km)	--	$630.00
Expenses	water pump and hose rental	--	$280.00
Expenses	sample shipping costs	--	$ 12.47
	TOTAL:	**35**	**$8,836.30**

A total of 35 lithogeochemical samples were collected during the geological mapping program, however, only 8 were submitted for analysis to Accurassay Laboratories in Thunder Bay, Ontario (Appendix C). A total of 22 humus samples were collected in the region of the Main Showing to see if a geochemical fingerprint could be developed that might indicate areas of buried Cu-Ni mineralization. The humus samples were submitted for analysis to Accurassay Laboratories in Thunder Bay, Ontario (Appendix C).

A total of **3 days** were spent manually stripping and power washing an area approximately 40 m x 25 m in the area of the main Cu-Ni showing (*see* Property/Geological Map in back pocket). Power washing, hampered by extremely high relief in the area of the Main Showing - about 25 m vertical over a horizontal distance of <4 m – was not as effective as what was originally expected was therefore limited in its scope.

A 4 km ground magnetometer and VLF-EM survey was completed on the Floodwood Chutes east property. This survey took a total of **3 days** to complete. The results of these surveys are listed in Appendix A and shown as contour maps in Figures 5 and 6. The geometry of these surveys was designed to delineate the major contacts between the olivine dyke and gabbroic rocks and(or) the sedimentary rocks and to outline any strong localized conductors indicative of semi-massive to massive sulphide mineralization. Although the exploration grid was completed over the Floodwood Chutes West area, no VLF-EM or magnetometer surveys were done.

RESULTS

Prospecting and Geophysics

During the **7 days** spent prospecting, 3 of the old trenches (*ca.* 1968-69) were located, one about 400 m northeast of the Main Showing, and the other two about 730 m southeast of the Main Showing. Only one of the three trenches (the trench NE of the showing) had visible mineralization in a medium-grained gabbro, consisting of <1% finely disseminated pyrrhotite and no visible chalcopyrite. The other two trenches exposed no bedrock. No other areas of significant sulphide mineralization were encountered during the prospecting days. General prospecting failed to locate any of the old diamond drill set-up locations, although evidence of old access trails and bush roads was observed.

The ground magnetometer and VLF-EM surveys over the Floodwood Chutes East property failed to outline any significant targets that might be attributed to mineralization. However, these

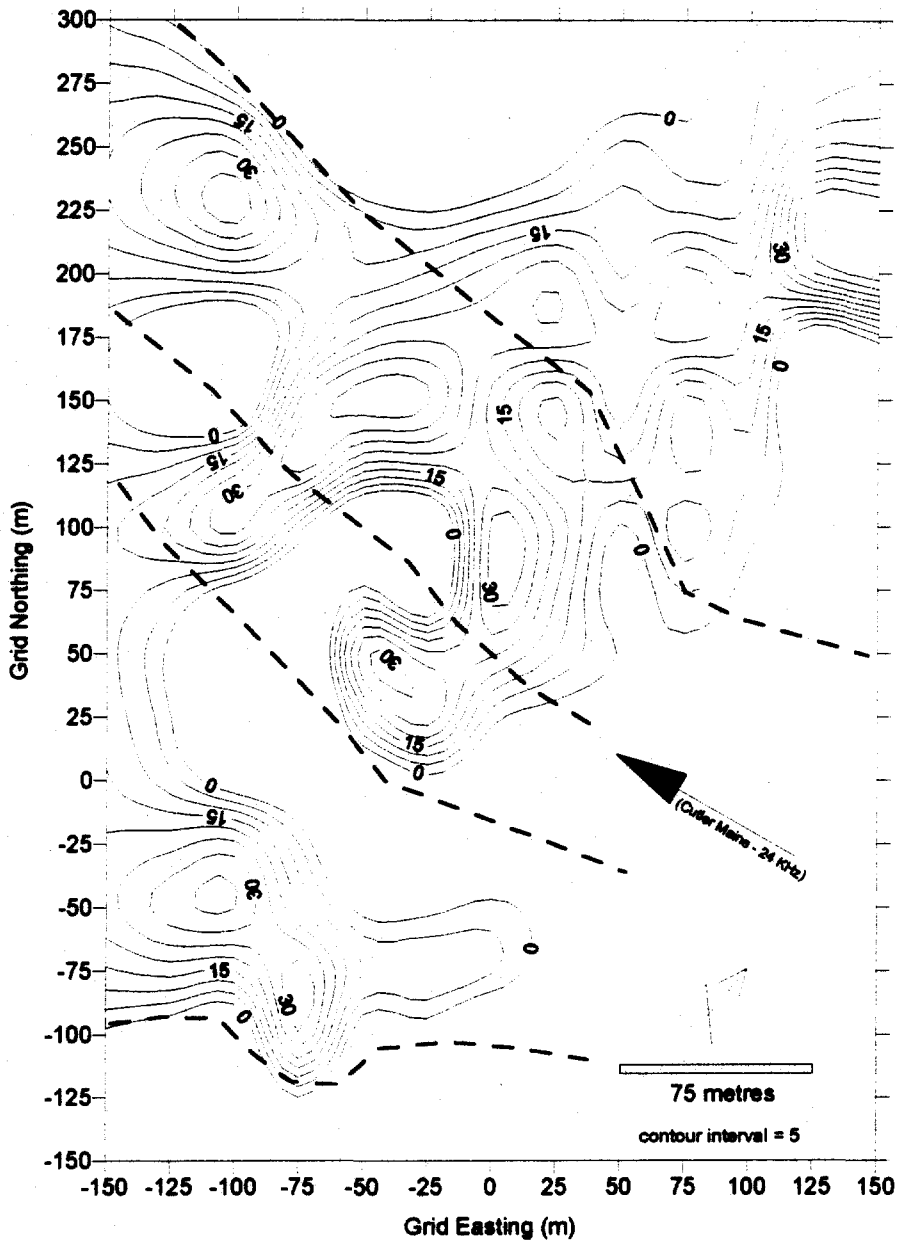


FIGURE 5. Fraser-filtered contour map of VLF-EM data - Floodwood Chutes East. Only the data highs are plotted. The highest responses correspond to Nipissing gabbros in the south and north, with the middle region representing an olivine gabbro dyke. Approximate location geological contacts are shown with dashed lines. Magnetic declination is 10 degrees west.

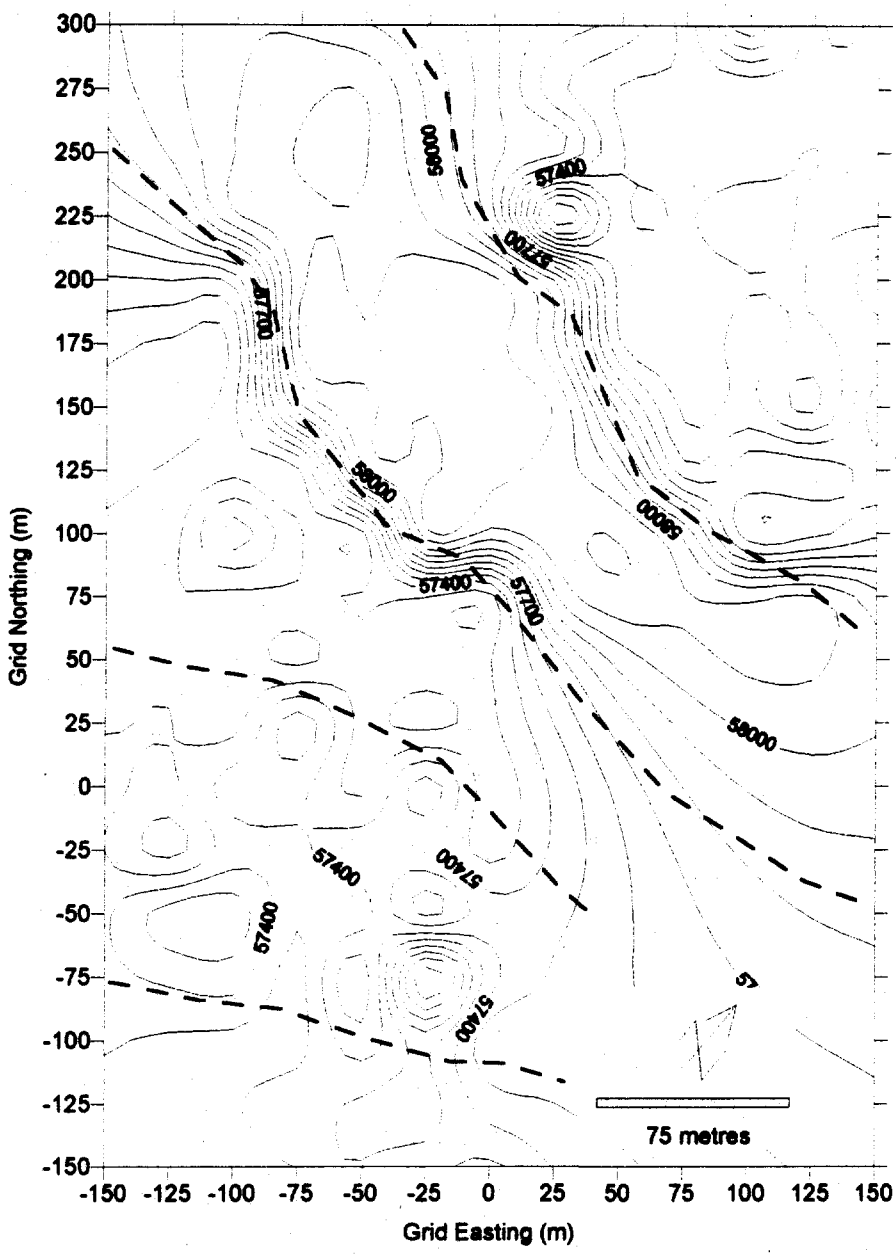


FIGURE 6. Ground magnetometer data (raw) contour map - Floodwood Chutes East. The highest responses correspond to an olivine gabbro dyke - magnetite bearing - that crosscuts the property at about 290 degrees. The Nipissing gabbros produce a moderate magnetic expression, probably due to pyrrhotite. Approximate location of geological contacts are shown as dashed lines. Contour interval is 100; magnetic declination is 10 degrees west.

surveys did succeed in delineating the major northwest-trending contacts between the olivine dyke, gabbroic rocks and(or) sedimentary rocks and fingerprinting the magnetic expression of the olivine gabbro dyke and the Nipissing gabbro in the area.

Geological Mapping

In general, there is about 30% bedrock exposure at both the Floodwood Chutes East and West areas. Most of the best exposure is confined to higher elevations such as the high cliffs that border the southern area of the Floodwood Chutes East. For the most part bedrock is covered by about 1 m to 3 m of silt, clay and organics.

Geological mapping of the Floodwood Chutes East property included the examination of gabbroic, sedimentary and olivine-bearing gabbroic rocks. The gabbros are largely medium-grained with <1% disseminated pyrrhotite and chalcopyrite. Occasional patches of pegmatitic gabbro were observed as were areas of hypersthene-gabbro. Sedimentary rocks were primarily greywackes with minor outcrops of argillite and pebble conglomerate; all of the sedimentary rocks contained much less than 1% disseminated sulphide, mainly as pyrite and pyrrhotite grains. Magnetite-bearing olivine gabbro occurs within the middle part of the property and has up to 20% disseminated magnetite. These rocks are mainly medium-grained but locally may be coarse to near-pegmatitic. No geological contacts were observed and no new showings of significant (>2%) sulphide mineralization were found.

Geological mapping of the Floodwood Chutes West property proved to have much the same lithology as the eastern part of the property, consisting of gabbroic, sedimentary and olivine-bearing gabbroic rocks. The gabbros are largely medium-grained with <1% disseminated pyrrhotite and chalcopyrite with occasional patches of pegmatitic gabbro and hypersthene-gabbro. Sedimentary rocks were primarily greywackes with minor outcrops of pebble conglomerate; all of the sedimentary rocks contained much less than 1% disseminated

sulphide, mainly as pyrite and pyrrhotite grains. Magnetite-bearing olivine gabbro occurs within the middle part of the property where it crops out as a major ridge. The olivine gabbros have up to 20% disseminated magnetite and generally <5% olivine that has undergone some alteration. The olivine gabbros are mainly medium-grained but locally may be coarse to near-pegmatitic. No geological contacts were observed and no new showings of significant (>2%) sulphide mineralization were found.

Drilling & Blasting

Two areas, one about 3 m x 2 m and the other about 4 m x 1.5 m, were drilled and blasted in order to expose a fresh face of sulphide mineralization in the area of the Main Showing. The blasts were not entirely effective due to the highly fractured and sheared nature of the mineralized gabbro. Nonetheless, the work did allow for the collection of very fresh mineralized gabbro samples.

Sampling – Lithogeochemical & Humus

Grab samples collected during the geological grid mapping (total of 35) consisted primarily of medium-grained gabbro to leucogabbro but also included samples from olivine gabbro dyke and surrounding sedimentary rocks (Table 2). Geochemical and assay results from 8 of these samples are listed in Table 3. All of the samples collected from the area of the Main Showing have anomalous Cu-Ni values but returned very poor Pt-Pd values. The highest base metal values were **>10,000 ppm Cu, 1006 ppm Ni** (WR-01) and 9060 ppm Cu, 2278 ppm Ni (WR-06A), from samples collected at the Main Showing.

TABLE 2. Descriptions of the samples collected from the exploration grid – Floodwood Chutes East.

Sample #	Location	Rock Type	Description
OP98-WR-01	1+19W/0+16S	gabbro	mg; altered; moderately foliated; ~10% cpy, po, (pn)
OP98-WR-02	0+23W/0+79S	quartz vein	white bull quartz in sediments; 2% d.s.
OP98-WR-	0+79W/0+79S	gabbro	mg; moderately fractured; ~2% po>cpy, (pn)
OP98-WR-	0+79W/0+79S	gabbro	mg; massive; ~3% po>cpy, (pn)
OP98-WR-04	1+19W/0+16S	gabbro	mg; altered; ~5% cpy, po, (pn)
OP98-WR-05	1+19W/0+16S	gabbro	mg; ~10% cpy, po, (pn); smears of sulphide on
OP98-WR-	1+19W/0+16S	melagabbro	mg; ~15% cpy, po, (pn); smears of sulphide on
OP98-WR-	1+19W/0+16S	melagabbro	mg; ~10% cpy, po, (pn); smears of sulphide on
OP98-WR-07	0+97W/1+07S	greywacke	massive; <1% d.s.; clasts up to 2 mm size
OP98-WR-08	1+00W/0+68S	gabbro	mg; massive; <1% d.s., po
OP98-WR-09	0+98W/1+52N	greywacke	fractured; ~1% d.s., po, py
OP98-WR-10	0+96W/2+69N	olivine	mg; locally very coarse; ~15-20% magnetite; <1%
OP98-WR-11	0+23W/1+40N	olivine	mg; massive; ~10% magnetite; <`% d.s., po
OP98-WR-12	0+26W/0+32S	gabbro	mg; massive; <1% d.s., po>>cpy
OP98-WR-13	0+49W/0+37S	gabbro	mg; massive; <1% d.s., po>>cpy
OP98-WR-14	0+74W/0+12S	gabbro	mg; massive; <1% d.s., po>>cpy
OP98-WR-15	0+75W/0+27N	gabbro	mg; weakly foliated; ~1% d.s., po>cpy
OP98-WR-16	0+02E/0+65S	gabbro	mg; massive; <1% d.s., po>>cpy
OP98-WR-17	0+29E/2+10N	gabbro	mg; moderately foliated; ~1% d.s., po>cpy
OP98-WR-18	0+52E/2+65N	gabbro	mg; massive; <1% d.s., po>>cpy
OP98-WR-19	0+52E/0+91N	olivine	mg; massive; locally near-pegmatitic; 10% magnetite
OP98-WR-20	0+77E/1+04N	gabbro	mg; moderately foliated; ~1% d.s., po, cpy
OP98-WR-21	0+71E/2+-04N	gabbro	mg; massive; <1% d.s., po>cpy
OP98-WR-22	0+73E/2+46N	gabbro	mg; massive; ~1% d.s., po>cpy
OP98-WR-23	1+22E/0+91N	gabbro	mg; moderately foliated; vari-textured; ~1% d.s., po
OP98-WR-24	1+22E/0+91N	gabbro	mg; altered; locally fine-grained; mafic dyke?
OP98-WR-25	1+25E/2+56N	gabbro	mg; massive; <1% d.s.
OP98-WR-26	1+50E/2+67N	gabbro	mg; massive; <1% d.s., po>cpy
OP98-WR-27	1+51E/1+28N	gabbro	mg; massive; <1% d.s.
OP98-WR-28	1+55E/0+86N	gabbro	mg; moderately foliated; ~1% d.s., po, cpy
OP98-WR-29	1+34W/0+33S	gabbro	mg; strongly foliated/fractured; 1% d.s., po>cpy
OP98-WR-30	1+48W/0+20S	gabbro	mg; strongly foliated/altered; ~1% d.s., po, py
OP98-WR-31	1+25W/0+18S	gabbro	mg; moderately fractured; <1% d.s., po, cpy, py
OP98-WR-32	1+21W/0+68N	gabbro	mg; massive; 3% d.s., po>>cpy
OP98-WR-33	1+44W/0+64N	gabbro	mg; massive to weakly foliated; 3% d.s., po>>cpy

mg=medium-grained; cpy=chalcopyrite; po=pyrrhotite; pn=pentlandite; py=pyrite; d.s.= disseminated sulphide

These same samples returned disappointing precious metal values of **26 ppb Pd, 24 ppb Pt, 121 ppb Au** (WR-01) and **13 ppb Pd, <10 ppb Pt, 124 ppb Au** (WR-06A); the highest palladium value was **44 ppb** (WR-03B). The precious metal values are at or near background values for Nipissing gabbros in the area of Janes Township, as established from other work by the applicant. One sample of gabbro (JB98-238), collected under the auspices of a separate regional project, came from a small reef in the Sturgeon River (normally underwater), about 500 m north (~350 AZ) from the Main Showing of Floodwood Chutes East. Although the sample had about 5% disseminated, bleb and veinlet chalcopyrite, it returned assay values of only 198 ppm Cu, 141 ppm Ni and below detection for Pt-Pd (Table 3), at or below background values for the gabbros.

A total of 22 humus samples were collected from the eastern exploration grid in the area proximal to the main Cu-Ni showing. The purpose of this survey was to test the humus for its potential use as a means to identify buried Cu-Ni-Pt-Pd mineralization. Descriptions and locations of the samples are listed in Table 4 and results of the assays are listed in Table 5. The results (Table 5) were very discouraging with all of the Pd-Pt values returning assays below detection limits (Pd = 10 ppb, Pt = 15 ppb). Ten of the 22 samples returned Au values that were greater than background (Au = 5 ppb) but none of these values could be correlated to anything of geological interest.

Cu and Ni values did offer some trends that may prove useful in future exploration. Both Cu and Ni values showed a very general increase heading toward the Main Showing with the highest values of 449 ppm Cu and 294 ppm Ni centered at L 0+75W/0+25S (HS-19), about 37 m east of the Main Showing. The second highest value was 314 ppm Cu and 152 ppm Ni, centered at L 1+25W/BL0 (HS-22), about 18 m north-northwest of the Main Showing.

TABLE 3. Assay Results from Grab (Whole Rock) Samples – Floodwood Chutes East

Tag#	Sample#	Pd (ppb)	Au (ppb)	Pt (ppb)	Cu (ppm)	Ni (ppm)	Cr (ppm)	Co (ppm)	V (ppm)	SiO_2 (wt.%)	Al_2O_3 (wt.%)	Fe_2O_3 (wt.%)	MgO (wt.%)	TiO_2 (wt.%)
50459	*JB98-238	<10	10	<15	198	141	97	19	27	--	--	--	--	--
50463	OP98-WR-01	26	121	24	>10,000	1006	--	39	--	--	--	--	--	--
44558	OP98-WR-02	--	--	--	23	8	270	3	16	--	--	--	--	--
44559	OP98-WR-03A	39	41	--	802	427	94	42	60	--	--	--	--	--
44560	OP98-WR-03B	44	40	--	1046	671	68	76	60	--	--	--	--	--
44561	OP98-WR-04	--	89	--	5832	680	27	38	124	--	--	--	--	--
44562	OP98-WR-05	--	82	--	9359	1119	29	82	67	49.29	12.97	14.03	6.68	0.54
44563	OP98-WR-06A	13	124	--	9060	2278	45	119	62	--	--	--	--	--
44564	OP98-WR-06B	11	113	--	8939	3000	36	148	57	--	--	--	--	--

*=results from different project; detection limits: Pd=10 ppb, Pt=15 ppb, Au=5 ppb; "—"=below detection limit; na=not analyzed

TABLE 4. Descriptions of the humus samples from the exploration grid – Floodwood Chutes East.

Sample #	Grid Location	Description/Comments
HS98-01	L 0/BL 0	dark grey to black; 5 cm thick layer; on silty layer
HS98-02	L 0/0+25 S	black layer; 3 cm thick; on silty layer
HS98-03	L 0/0+50 S	black layer; 5 cm thick; on silty/sandy layer
HS98-04	L 0/0+75 S	black layer; 10 cm thick; on silty/sandy layer
HS98-05	L 0/1+00 S	black layer; 15 cm thick; on silty layer
HS98-06	L 25W/1+00 S	black layer; 15 cm thick; on silty layer
HS98-07	L 25W/0+75 S	black layer; <2 cm thick; poorly developed; on silty layer
HS98-08	L 25W/0+50 S	black layer; 3 cm thick; on silty layer
HS98-09	L 25W/0+25 S	black layer; 2 cm thick; on silty/sandy layer
HS98-10	L 25W/BL 0	black layer; 2 cm thick; on silty/sandy layer
HS98-11	L 50W/BL 0	black layer; 1 cm thick; on silty/sandy layer
HS98-12	L 50W/0+25 S	black layer; 1 cm thick; poorly developed; on silty layer
HS98-13	L 50W/0+50 S	black layer; 1 cm thick; poorly developed; on brown silty layer
HS98-14	L 50W/0+75 S	black layer; 1 cm thick; on silty/sandy layer
HS98-15	L 50W/1+12.5	black layer; 10-15 cm thick; on silty layer
HS98-16	L 75W/1+00 S	black layer; 2-4 cm thick; on silty layer
HS98-17	L 75W/0+75 S	black layer; 2 cm thick; on silty layer
HS98-18	L 75W/0+50 S	black layer; <2 cm thick; on silty layer
HS98-19	L 75W/0+25 S	black layer; 3 cm thick; on silty layer
HS98-20	L 75W/BL 0	black layer; 1 cm thick; on silty layer
HS98-21	L 100W/BL 0	black layer; 7 cm thick; on silty layer
HS98-22	L 125W/BL 0	black layer; 20 cm thick; on silty layer with many pebbles

TABLE 5. Assay Results from Humus Sampling Program – Floodwood Chutes East

Sample #	Pd (ppb)	Au (ppb)	Pt (ppb)	Cu (ppm)	Ni (ppm)	As (ppm)	Cd (ppm)	Co (ppm)	Cr (ppm)	V (ppm)
HS98-01	--	--	--	144	143	18	1.2	8	25	18
HS98-02	--	--	--	114	101	17	1.0	10	49	31
HS98-03	--	--	--	130	80	26	1.1	7	33	29
HS98-04	--	--	--	125	109	15	1.1	8	27	15
HS98-05	--	--	--	138	106	21	1.6	6	23	10
HS98-06	--	--	--	129	102	21	1.8	8	44	18
HS98-07	--	--	--	162	116	22	1.6	8	69	29
HS98-08	--	--	--	103	108	19	1.3	7	24	21
HS98-09	--	--	--	196	157	22	1.5	8	25	18
HS98-10	--	28	--	194	218	20	1.4	11	28	14
HS98-10*	--	9	--	na	na	na	na	na	na	na
HS98-11	--	--	--	192	175	20	2.0	7	21	11
HS98-12	--	6	--	221	198	38	1.4	9	35	27
HS98-13	--	--	--	151	224	22	1.5	10	31	29
HS98-14	--	--	--	189	133	35	1.2	6	28	15
HS98-15	--	--	--	84	97	13	1.0	6	29	11
HS98-16	--	7	--	217	150	23	1.3	7	26	17
HS98-17	--	8	--	235	247	23	1.1	10	31	17
HS98-18	--	10	--	156	180	18	0.9	8	25	13
HS98-19	--	12	--	449	294	31	1.7	11	33	14
HS98-19*	--	9	--	na	na	na	na	na	na	na
HS98-20	--	10	--	160	212	14	1.2	9	29	14
HS98-21	--	21	--	136	65	18	0.7	5	35	31
HS98-22	--	--	--	314	152	19	2.1	6	29	13

*=check; detection limits: Pd=10 ppb, Pt=15 ppb, Au=5 ppb; "—"=below detection limit; na=not analyzed

Power Washing & Manual Stripping

About 800 m^2 (40 x 20 m) was exposed to bedrock in an area that stretches from about 2 m southeast of the Main Showing to about 30 m north of the Main Showing. This part of the project exposed moderately to strongly sheared medium-grained gabbroic rocks. The foliation was oriented at about 340 to 355 AZ and appeared to be *turning* northward into the north-trending Floodwood Chutes Fault (this fault parallels the Sturgeon River). No new areas of heavy (>2%) sulphide mineralization were uncovered. Rust-stained, moderate to strongly foliated gabbro was uncovered to the southeast of the Main Showing. Chip samples showed no mineralization so the red staining can be attributed to Fe-oxide minerals in the rocks and Fe-alteration along foliation and joint planes.

None of the *felsic* rocks alluded to in the old assessment files could be found. However, coarse-grained to near-pegmatitic patches of feldspar-rich gabbro were observed within the darker medium-grained rocks in the area; these may be the rocks mentioned in the reports

CONCLUSIONS AND RECOMMENDATIONS

Although the ***Floodwood Chutes Property – East and West*** is underlain by gabbroic rocks of the Nipissing Diabase, which are known to host disseminated to massive Cu-Ni-Pd-Pt sulphides, this project has shown that this particular area is not likely a good target for future exploration. However, a more intense program inclusive of diamond drilling might be in order, so as to further evaluate the Floodwood Chutes Property. Therefore, it is recommended that the following programs be considered:

(1) **Grid soil sampling of the "B" soil horizon.** Recent work in areas around the Sudbury Basin has shown that sampling of the "B" horizon may be of use to exploration for precious and base metals. In addition, the preliminary humus sampling that was completed on the east grid should be expanded over the entire east grid and onto the west grid, especially in light of the elevated Cu-Ni values proximal to the Main Showing.

(2) **Lithogeochemical Sampling.** A program inclusive of the submission of the sample from the current grid mapping program as well as the collection of more samples from both grids and submission of reconnaissance samples in order to define any regional geochemical trends that may indicate regions of sulphide mineralization at or near surface.

(3) A more **expansive trenching and stripping program** aimed at exposing the mineralized and non-mineralized regions, contacts between rock units and some of the old trenches *ca.* 1968-69.

(5) **Diamond drilling program** aimed at testing the strike-length and depth of the Cu-Ni mineralization at the Main Showing, testing any anomalous geophysical targets (including some of the targets not drilled in 1968-69) and the possibility of unknown mineralization.

Minimum analyses for all samples should include base and precious metals (Ni, Cu, Au, Ag, Co), platinum group elements (Pt, Pd, Rh), sulphur (S) and selenium (Se).

REFERENCES

Dressler, B.O., 1982. Geology of the Wanapitei Lake Area, District of Sudbury. Ontario Geological Survey, Report 213 (map 2450-51), 131 pp.

Dressler, B.O., 1979. Geology of McNish and Janes Townships, District of Sudbury. Ontario Geological Survey, Report 191 (map 2425), 91 pp.

Hriskevich, M.E. 1968. Petrology of the Nipissing Diabase Sill of the Cobalt Area, Ontario, Canada. Geological Society of America Bulletin, v. 79, p. 1387-1404.

Lightfoot, P.C., De Souza, H.A.F., and Doherty, W., 1991. Mineral potential of the Nipissing Diabase: some geochemical considerations. *In* Summary of fieldwork and other activities. Ontario Geological Survey, Miscellaneous Paper 157, p. 237-246.

Nicholls, P.R.J. and Pearson, W.N., 1995. Report on Mineral Exploration Properties in Ontario. Prepared for Kirkland-Wright Gold Ltd. by Pearson, Hofman & Associates Limited, 41 pp.

CERTIFICATE OF QUALIFICATION

I, Scott Jobin-Bevans of 225 Ferndale Avenue, Sudbury, Ontario, do hereby certify that:

1. I am a consulting geologist with the mineral exploration company DTE Exploration & Development of Sudbury, Ontario.

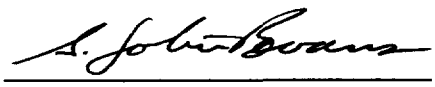
2. I am a graduate of the University of Manitoba, Winnipeg, Manitoba with a B.Sc. (Hons.) Geology - 1995, and M.Sc. Geology - 1997.

3. I am a member of the Society of Economic Geologists and the Canadian Institute of Mining, Metallurgy and Petroleum.

4. I have been an exploration geologist and prospector for ten years.

5. I have an active prospector's license for the province of Ontario (# H14027).

6. This report is intended to be an overview of the potential of the properties with recommendations and conclusions that are based solely on the available data.



Scott Jobin-Bevans (B.Sc., M.Sc. Geology)
Jan. 1999

APPENDIX A

Geophysical Survey Data

Ground Magnetometer: Geometrics G-826 Proton Precession Magnetometer

VLF-EM: Geonics EM-16

Magnetometer and VLF-EM Survey - Floodwood Chutes Property - East (4 line km grid)
S. Jobin-Bevans - November, 1998
Station: Cutler Maine (NAA 24.0 KHz; incident signal at 104 az)
Facing: North
Magnetometer Corrections were calculated daily using averages from multiple station readings

Floodwood Chutes - East

Date	Stat (Easting)	Line (Northing)	In	Out	Mag-Raw	Mag-Factor	Mag-Corr	Comments
11/9/98	-150	0	26	-41	57344	0.9997152	57328	west edge of o/c hill
	-150	50	22	-36	57276	0.9997152	57260	west edge of o/c hill toward river
	-125	-150	21	-40	57273	0.9997152	57257	river valley
	-125	-125	15	-30	57295	0.9997152	57279	river valley
	-125	-100	1	-32	57303	0.9997152	57287	edge of hill
	-125	-75	4	-31	57437	0.9997152	57421	top of ridge of o/c
	-125	-50	-2	-11	57559	0.9997152	57543	spruce/pine
	-125	-25	12	-17	57183	0.9997152	57167	spruce/pine - near showing
	-125	0	20	-16	57293	0.9997152	57277	spruce/pine - near showing
	-125	25	21	-24	57319	0.9997152	57303	spruce/pine
	-125	50	23	-25	57298	0.9997152	57282	spruce/pine - open area
	-125	75	22	-20	57315	0.9997152	57299	spruce/pine
	-125	100	26	-31	57275	0.9997152	57259	edge of hill going down to low area
	-100	-150	25	-41	57282	0.9997152	57266	river valley
	-100	-125	18	-38	57311	0.9997152	57295	river valley
	-100	-100	14	-11	57294	0.9997152	57278	edge of hill
	-100	-75	3	-4	57465	0.9997152	57449	top of ridge of o/c
	-100	-50	-1	-5	57573	0.9997152	57557	spruce/pine
	-100	-25	9	-4	57366	0.9997152	57350	spruce/pine
	-100	0	22	-16	57463	0.9997152	57447	spruce/pine
	-100	25	27	-34	57282	0.9997152	57266	spruce/pine
	-100	50	17	-32	57270	0.9997152	57254	spruce/pine - open area
	-100	75	4	-38	57290	0.9997152	57274	spruce/pine
	-100	100	-8	-38	57553	0.9997152	57537	alder valley by road
	-100	125	-2	-28	57290	0.9997152	57274	alders
	-100	150	22	-27	57306	0.9997152	57290	edge of o/c hill
	-100	175	11	-40	57255	0.9997152	57239	edge of o/c hill
	-100	200	1	-46	57467	0.9997152	57451	edge of o/c hill
	-100	225	-1	-32	58101	0.9997152	58084	edge of o/c hill
	-100	250	10	-20	58120	0.9997152	58103	edge of o/c hill
	-100	275	22	-22	58111	0.9997152	58094	edge of o/c hill
	-100	300	31	-26	58099	0.9997152	58082	edge of o/c hill - goes down to north
	-75	-150	17	-42	57318	0.9997152	57302	river valley
	-75	-125	2	-20	57353	0.9997152	57337	river valley
	-75	-100	-9	-19	57285	0.9997152	57269	edge of hill
	-75	-75	-1	-20	57282	0.9997152	57266	top of ridge of o/c
	-75	-50	21	-11	57333	0.9997152	57317	spruce/pine
	-75	-25	19	-20	57400	0.9997152	57384	spruce/pine
	-75	0	22	-15	57446	0.9997152	57430	spruce/pine
	-75	25	26	-18	57568	0.9997152	57552	spruce/pine
	-75	50	17	-11	57192	0.9997152	57176	edge of alder valley by old road
	-75	75	6	-31	57302	0.9997152	57286	alder valley by road
	-75	100	1	-10	57328	0.9997152	57312	alders
	-75	125	-5	3	57307	0.9997152	57291	edge of o/c hill
	-75	150	-1	-2	57989	0.9997152	57972	edge of o/c hill
	-75	175	22	-30	58225	0.9997152	58208	top of o/c hill
	-75	200	26	-28	58197	0.9997152	58180	top of o/c hill
	-50	-150	11	-35	57320	0.9997152	57304	river valley

Date	Stat (Easting)	Line (Northing)	In	Out	Mag-Raw	Mag-Factor	Mag-Corr	Comments
	-50	-125	22	-30	57303	0.9997152	57287	river valley
	-50	-100	10	-22	57474	0.9997152	57458	edge of hill
	-50	-75	2	-10	57582	0.9997152	57566	top of ridge of o/c
	-50	-50	2	-10	57375	0.9997152	57359	spruce/pine
	-50	-25	11	-10	57472	0.9997152	57456	spruce/pine
	-50	0	1	-11	57291	0.9997152	57275	spruce/pine
	-50	25	-4	-2	57279	0.9997152	57263	alders
	-50	50	-7	-19	57299	0.9997152	57283	alders
	-50	75	-1	-22	57322	0.9997152	57306	alder valley by road
	-50	100	22	-31	57299	0.9997152	57283	edge of o/c hill
	-50	125	7	-31	58097	0.9997152	58080	edge of o/c hill
	-50	150	-3	-30	58200	0.9997152	58183	top of o/c hill
	-50	175	21	-33	58225	0.9997152	58208	top of o/c hill
	-50	200	24	-32	58197	0.9997152	58180	top of o/c hill
	-50	225	31	-33	58205	0.9997152	58188	top of o/c hill
	-50	250	30	-27	58223	0.9997152	58206	top of o/c hill
	-50	275	30	-27	58207	0.9997152	58190	top of o/c hill
	-50	300	31	-27	58025	0.9997152	58008	top of o/c hill - goes down to north
	-25	-150	21	-40	57346	0.9997152	57330	river valley
	-25	-125	15	-30	57278	0.9997152	57262	river valley
	-25	-100	1	-32	57275	0.9997152	57259	edge of hill
	-25	-75	4	-31	56829	0.9997152	56813	top of ridge of o/c
	-25	-50	1	-11	57636	0.9997152	57620	spruce/pine
	-25	-25	12	-17	57439	0.9997152	57423	spruce/pine
	-25	0	2	-16	57561	0.9997152	57545	edge of alder valley
	-25	25	-3	-24	57185	0.9997152	57169	alder valley by road
	-25	50	-2	-25	57295	0.9997152	57279	base of o/c hill in alders
	-25	75	22	-20	57321	0.9997152	57305	edge of o/c hill
	-25	100	11	-31	58200	0.9997152	58183	edge of o/c hill
	-25	125	2	-41	58204	0.9997152	58187	top of o/c hill
	-25	150	-7	-38	58220	0.9997152	58203	top of o/c hill
	-25	175	14	-11	58265	0.9997152	58248	top of o/c hill
	-25	200	26	-15	58270	0.9997152	58253	top of o/c hill
	0	-150	11	-35	57296	0.9997152	57280	river valley
	0	-125	22	-30	57467	0.9997152	57451	river valley
	0	-100	10	-22	57575	0.9997152	57559	edge of hill
	0	-75	2	-10	57368	0.9997152	57352	top of ridge of o/c
	0	-50	-2	-10	57465	0.9997152	57449	spruce/pine
	0	-25	11	-10	57284	0.9997152	57268	spruce/pine
	0	0	1	-11	57272	0.9997152	57256	alders
	0	25	0	2	57292	0.9997152	57276	alders by road in valley
	0	50	-2	-13	57315	0.9997152	57299	edge of o/c hill
	0	75	-6	-15	57292	0.9997152	57276	edge of o/c hill
	0	100	11	-41	58086	0.9997152	58069	edge of o/c hill
	0	125	17	-39	58232	0.9997152	58215	near top of o/c hill
	0	150	31	-44	58240	0.9997152	58223	top of hill
	0	175	31	-46	58245	0.9997152	58228	top of hill
	0	200	30	-46	58240	0.9997152	58223	top of hill
11/10/98	25	75	10	-41	58010	0.9997152	57993	low area - alders
	25	100	1	-33	58187	0.9997152	58170	edge of hill
	25	125	2	-32	58167	0.9997152	58150	near top of o/c hill
	25	150	22	-32	58202	0.9997152	58185	top of o/c hill
	25	175	3	-30	58008	0.9997152	57991	top of o/c hill
	25	200	10	-37	57895	0.9997152	57879	shallow low area
	25	225	28	-38	56836	0.9997152	56820	top of o/c hill

Date	Stat (Easting)	Line (Northing)	In	Out	Mag-Raw	Mag-Factor	Mag-Corr	Comments
	25	250	27	-40	57643	0.9997152	57627	top of o/c hill
	25	275	28	-40	57446	0.9997152	57430	top of o/c hill
	25	300	28	-40	57568	0.9997152	57552	top of o/c hill
	50	75	12	-33	58187	0.9997152	58170	edge of hill
	50	100	3	-33	58204	0.9997152	58187	top of o/c hill
	50	125	2	-25	57967	0.9997152	57950	sprice/pine
	50	150	-1	-24	57668	0.9997152	57652	sprice/pine
	50	175	11	-26	57319	0.9997152	57303	low area - alders
	50	200	19	-24	57279	0.9997152	57263	top of o/c hill
	50	225	21	-29	57294	0.9997152	57278	sprice/pine
	50	250	21	-31	57323	0.9997152	57307	sprice/pine
	50	275	27	-32	57306	0.9997152	57290	sprice/pine
	50	300	31	-36	57477	0.9997152	57461	sprice/pine
	75	75	10	-41	58123	0.9997152	58106	edge of hill
	75	100	3	-33	57986	0.9997152	57969	edge of o/c hill
	75	125	7	-32	57459	0.9997152	57443	near top of hill
	75	150	22	-32	57294	0.9997152	57278	top of hill
	75	175	5	-30	57267	0.9997152	57251	open area
	75	200	10	-37	57287	0.9997152	57271	sprice/pine
	75	225	28	-38	57310	0.9997152	57294	sprice/pine
	75	250	27	-40	57287	0.9997152	57271	sprice/pine
	75	275	29	-40	57303	0.9997152	57287	sprice/pine
	75	300	29	-40	57267	0.9997152	57251	sprice/pine
	100	75	17	-33	58095	0.9997152	58078	near top of o/c hill
	100	100	18	-29	57456	0.9997152	57440	top of hill
	100	125	16	-28	57567	0.9997152	57551	top of hill
	100	150	16	-29	57346	0.9997152	57330	alders
	100	175	21	-32	57344	0.9997152	57328	open swamp area
	100	200	28	-31	57313	0.9997152	57297	open swamp area
	100	225	32	-32	57352	0.9997152	57336	alders
	100	250	36	-31	57284	0.9997152	57268	spruce/pine
	100	275	35	-33	57281	0.9997152	57265	spruce/pine
	100	300	36	-41	56836	0.9997152	56820	spruce/pine
	125	75	21	-35	58121	0.9997152	58104	near top of o/c hill -
	125	100	22	-29	57489	0.9997152	57473	top of hill
	125	125	19	-28	57568	0.9997152	57552	open o/c area
	125	150	18	-30	57192	0.9997152	57176	alders
	125	175	19	-30	57297	0.9997152	57281	open swamp area
	125	200	3	-19	57323	0.9997152	57307	open swamp area
	125	225	1	-32	57302	0.9997152	57286	alders
	125	250	33	-31	57319	0.9997152	57303	spruce/pine
	125	275	36	-33	57279	0.9997152	57263	spruce/pine
	125	300	36	-41	57294	0.9997152	57278	spruce/pine
	150	75	17	-33	57949	0.9997152	57932	edge of top of hill
	150	100	18	-29	57598	0.9997152	57582	top of hill
	150	125	16	-28	57477	0.9997152	57461	spruce/pine
	150	150	16	-29	57585	0.9997152	57569	pine/spruce
	150	175	10	-20	57378	0.9997152	57362	pine/spruce
	150	200	1	-14	57475	0.9997152	57459	alders swamp
	150	225	6	-19	57294	0.9997152	57278	spruce/pine
	150	250	36	-31	57267	0.9997152	57251	spruce/pine
	150	275	35	-33	57287	0.9997152	57271	spruce/pine
	150	300	36	-41	57310	0.9997152	57294	spruce/pine

FRASER FILTER of VLF-EM data - Floodwwod Chutes East

Station Easting	Line Northing	In	Out	m1+m2	Filtered Value (z)	Plot Point (x)	Plot Point (y)
-125	-150	21	-40	36	-31	-125	-137.5
-125	-125	15	-30	16	-14	-125	-112.5
-125	-100	1	-32	5	5	-125	-87.5
-125	-75	4	-31	2	30	-125	-62.5
-125	-50	-2	-11	10	31	-125	-37.5
-125	-25	12	-17	32	12	-125	-12.5
-125	0	20	-16	41	4	-125	12.5
-125	25	21	-24	44	4	-125	37.5
-125	50	23	-25	45			
-125	75	22	-20	48			
-125	100	26	-31				
-100	-150	25	-41	43	-26	-100	-137.5
-100	-125	18	-38	32	-30	-100	-112.5
-100	-100	14	-11	17	-9	-100	-87.5
-100	-75	3	-4	2	29	-100	-62.5
-100	-50	-1	-5	8	41	-100	-37.5
-100	-25	9	-4	31	13	-100	-12.5
-100	0	22	-16	49	-28	-100	12.5
-100	25	27	-34	44	-48	-100	37.5
-100	50	17	-32	21	-31	-100	62.5
-100	75	4	-38	-4	24	-100	87.5
-100	100	-8	-38	-10	43	-100	112.5
-100	125	-2	-28	20	-8	-100	137.5
-100	150	22	-27	33	-33	-100	162.5
-100	175	11	-40	12	-3	-100	187.5
-100	200	1	-46	0	32	-100	212.5
-100	225	-1	-32	9	44	-100	237.5
-100	250	10	-20	32			
-100	275	22	-22	53			
-100	300	31	-26				
-75	-150	17	-42				
-75	-125	2	-20	-7	27	-75	-112.5
-75	-100	-9	-19	-10	50	-75	-87.5
-75	-75	-1	-20	20	21	-75	-62.5
-75	-50	21	-11	40	8	-75	-37.5
-75	-25	19	-20	41	2	-75	-12.5
-75	0	22	-15	48	-25	-75	12.5
-75	25	26	-18	43	-36	-75	37.5
-75	50	17	-11	23	-27	-75	62.5
-75	75	6	-31	7	-13	-75	87.5
-75	100	1	-10	-4	25	-75	112.5
-75	125	-5	3	-6	54	-75	137.5
-75	150	-1	-2	21			
-75	175	22	-30	48			
-75	200	26	-28				
-50	-150	11	-35	33	-21	-50	-137.5
-50	-125	22	-30	32	-28	-50	-112.5
-50	-100	10	-22	12	1	-50	-87.5
-50	-75	2	-10	4	8	-50	-62.5

FRASER FILTER of VLF-EM data - Floodwwod Chutes East

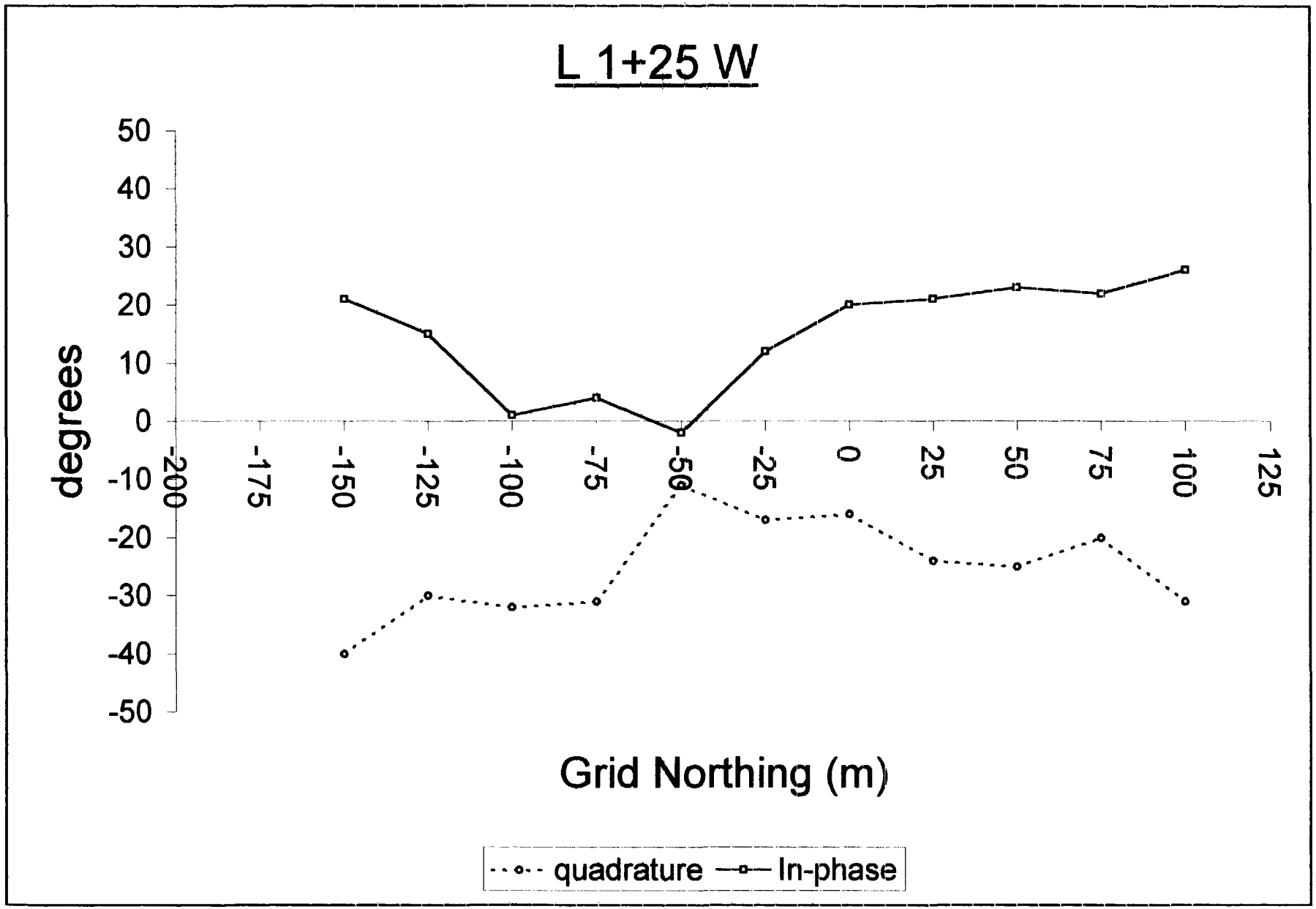
Station Easting	Line Northing	In	Out	m1+m2	Filtered Value (z)	Plot Point (x)	Plot Point (y)
-50	-50	2	-10	13	-16	-50	-37.5
-50	-25	11	-10	12	-23	-50	-12.5
-50	0	1	-11	-3	-5	-50	12.5
-50	25	-4	-2	-11	32	-50	37.5
-50	50	-7	-19	-8	37	-50	62.5
-50	75	-1	-22	21	-17	-50	87.5
-50	100	22	-31	29	-11	-50	112.5
-50	125	7	-31	4	41	-50	137.5
-50	150	-3	-30	18	37	-50	162.5
-50	175	21	-33	45	16	-50	187.5
-50	200	24	-32	55	5	-50	212.5
-50	225	31	-33	61	0	-50	237.5
-50	250	30	-27	60	-60	-50	262.5
-50	275	30	-27	61			
-50	300	31	-27				
-25	-150	21	-40	36	-31	-25	-137.5
-25	-125	15	-30	16	-11	-25	-112.5
-25	-100	1	-32	5	8	-25	-87.5
-25	-75	4	-31	5	9	-25	-62.5
-25	-50	1	-11	13	-14	-25	-37.5
-25	-25	12	-17	14	-19	-25	-12.5
-25	0	2	-16	-1	21	-25	12.5
-25	25	-3	-24	-5	38	-25	37.5
-25	50	-2	-25	20	-7	-25	62.5
-25	75	22	-20	33	-38	-25	87.5
-25	100	11	-31	13	-6	-25	112.5
-25	125	2	-41	-5	45	-25	137.5
-25	150	-7	-38	7			
-25	175	14	-11	40			
-25	200	26	-15				
0	-150	11	-35	33	-21	0	-137.5
0	-125	22	-30	32	-32	0	-112.5
0	-100	10	-22	12	-3	0	-87.5
0	-75	2	-10	0	12	0	-62.5
0	-50	-2	-10	9	-8	0	-37.5
0	-25	11	-10	12	-14	0	-12.5
0	0	1	-11	1	-9	0	12.5
0	25	0	2	-2	7	0	37.5
0	50	-2	-13	-8	36	0	62.5
0	75	-6	-15	5	43	0	87.5
0	100	11	-41	28	34	0	112.5
0	125	17	-39	48	13	0	137.5
0	150	31	-44	62			
0	175	31	-46	61			
0	200	30	-46				
25	75	10	-41	11	13	25	87.5
25	100	1	-33	3	22	25	112.5
25	125	2	-32	24	-11	25	137.5
25	150	22	-32	25	13	25	162.5

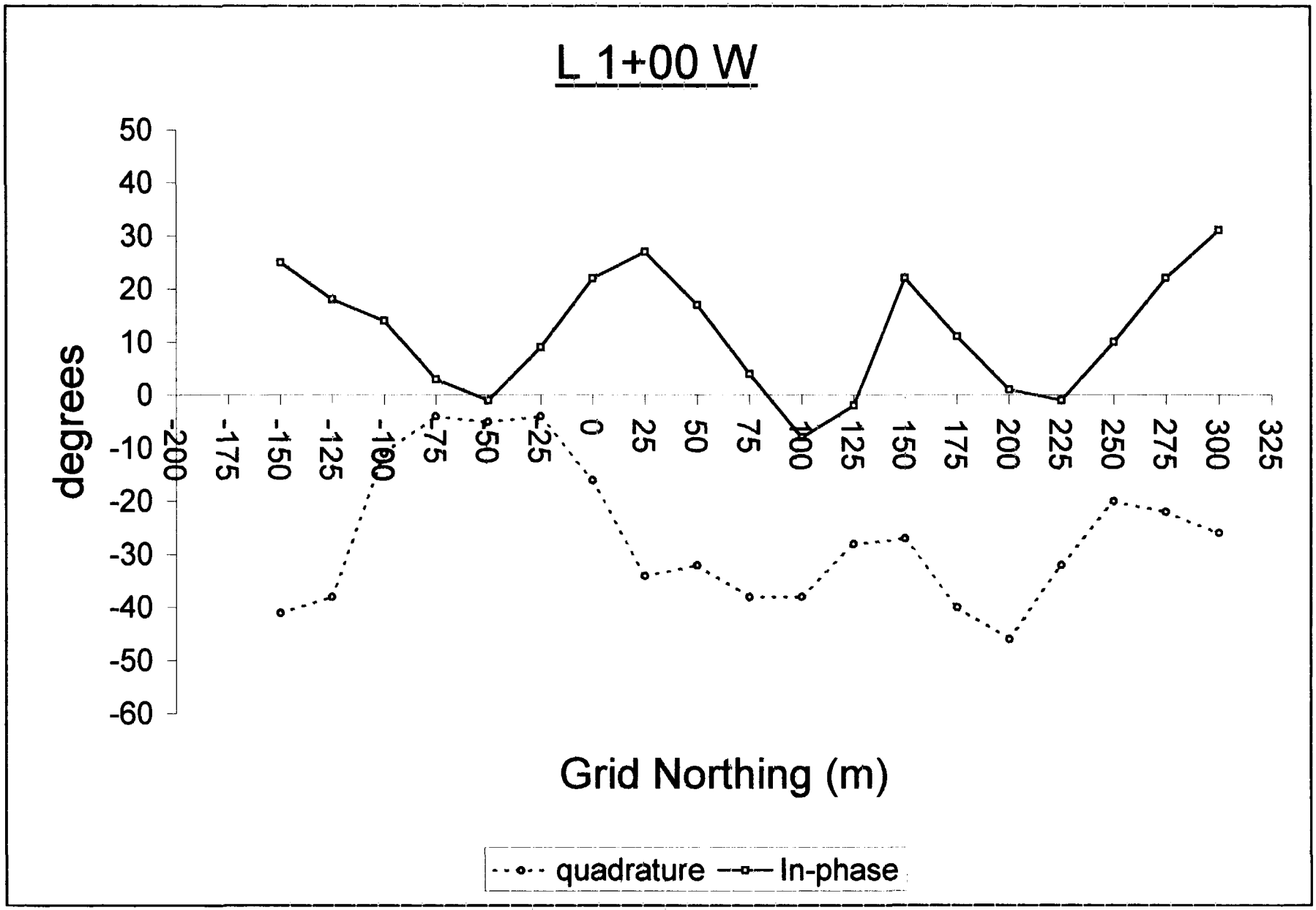
FRASER FILTER of VLF-EM data - Floodwwod Chutes East

Station Easting	Line Northing	In	Out	m1+m2	Filtered Value (z)	Plot Point (x)	Plot Point (y)
25	175	3	-30	13	42	25	187.5
25	200	10	-37	38	17	25	212.5
25	225	28	-38	55	1	25	237.5
25	250	27	-40	55			
25	275	28	-40	56			
25	300	28	-40				
50	75	12	-33	15	-14	50	87.5
50	100	3	-33	5	5	50	112.5
50	125	2	-25	1	29	50	137.5
50	150	-1	-24	10	30	50	162.5
50	175	11	-26	30	12	50	187.5
50	200	19	-24	40	8	50	212.5
50	225	21	-29	42	16	50	237.5
50	250	21	-31	48			
50	275	27	-32	58			
50	300	31	-36				
75	75	10	-41	13	16	75	87.5
75	100	3	-33	10	17	75	112.5
75	125	7	-32	29	-14	75	137.5
75	150	22	-32	27	11	75	162.5
75	175	5	-30	15	40	75	187.5
75	200	10	-37	38	18	75	212.5
75	225	28	-38	55	3	75	237.5
75	250	27	-40	56			
75	275	29	-40	58			
75	300	29	-40				
100	75	17	-33	35	-3	100	87.5
100	100	18	-29	34	3	100	112.5
100	125	16	-28	32	17	100	137.5
100	150	16	-29	37	23	100	162.5
100	175	21	-32	49	19	100	187.5
100	200	28	-31	60	11	100	212.5
100	225	32	-32	68	3	100	237.5
100	250	36	-31	71			
100	275	35	-33	71			
100	300	36	-41				
125	75	21	-35	43	-6	125	87.5
125	100	22	-29	41	-4	125	112.5
125	125	19	-28	37	-15	125	137.5
125	150	18	-30	37	-33	125	162.5
125	175	19	-30	22	12	125	187.5
125	200	3	-19	4	65	125	212.5
125	225	1	-32	34	38	125	237.5
125	250	33	-31	69			
125	275	36	-33	72			
125	300	36	-41				
150	75	17	-33	35	-3	150	87.5
150	100	18	-29	34	-8	150	112.5
150	125	16	-28	32	-21	150	137.5

FRASER FILTER of VLF-EM data - Floodwwod Chutes East

Station Easting	Line Northing	In	Out	m1+m2	Filtered Value (z)	Plot Point (x)	Plot Point (y)
150	150	16	-29	26	-19	150	162.5
150	175	10	-20	11	31	150	187.5
150	200	1	-14	7	64	150	212.5
150	225	6	-19	42	29	150	237.5
150	250	36	-31	71			
150	275	35	-33	71			
150	300	36	-41				


L 1+25 W
50
40
30
20
10
0
-10
-20
-30
-40
-50
degrees
-200
-175
-150
-125
-100
-75
-50
-25
0
25
50
75
100
125
Grid Northing (m)
quadrature
In-phase


L 1+00 W
degrees
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30
20
10
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-10
-20
-30
-40
-50
-60
-200
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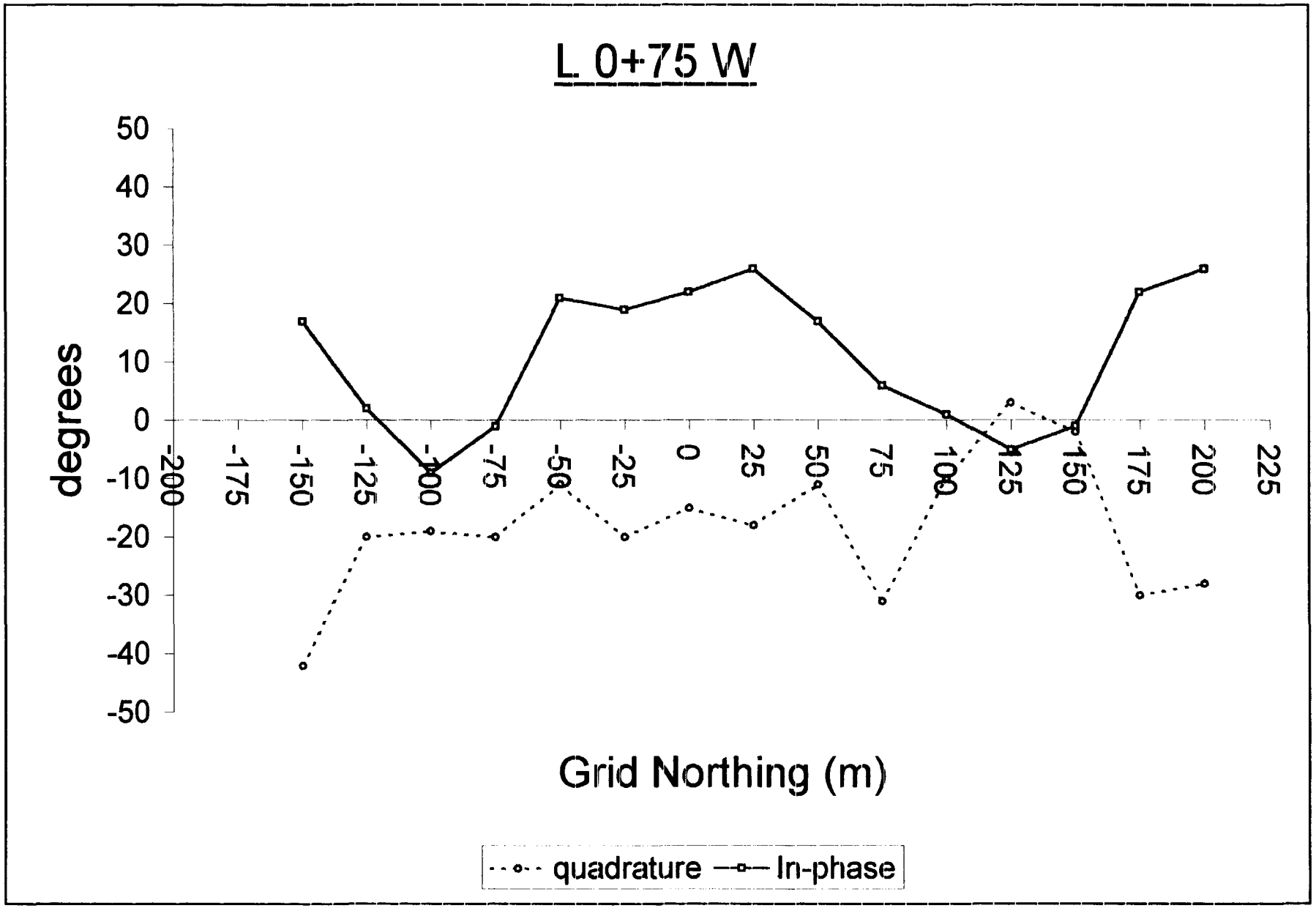
-150
-125
-100
-75
-50
-25
0
25
50
75
100
125
150
175
200
225
250
275
300
325
Grid Northing (m)
quadrature
In-phase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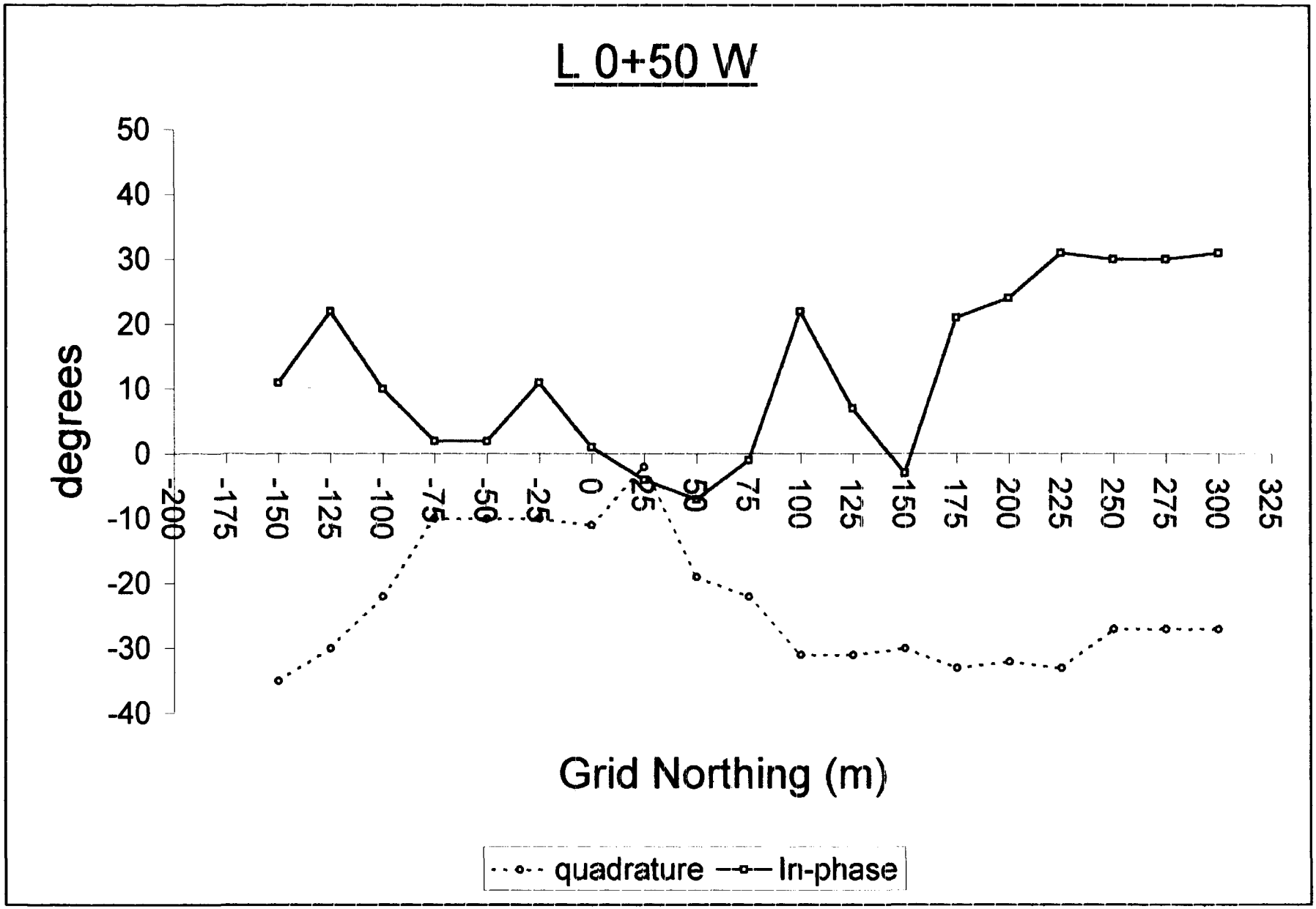
-40
-50
-200
-175
-150
-125
-100
-75
-50
-25
0
25
50
75
100
125
150
175
200
225
Grid Northing (m)
quadrature
In-phase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degrees
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20
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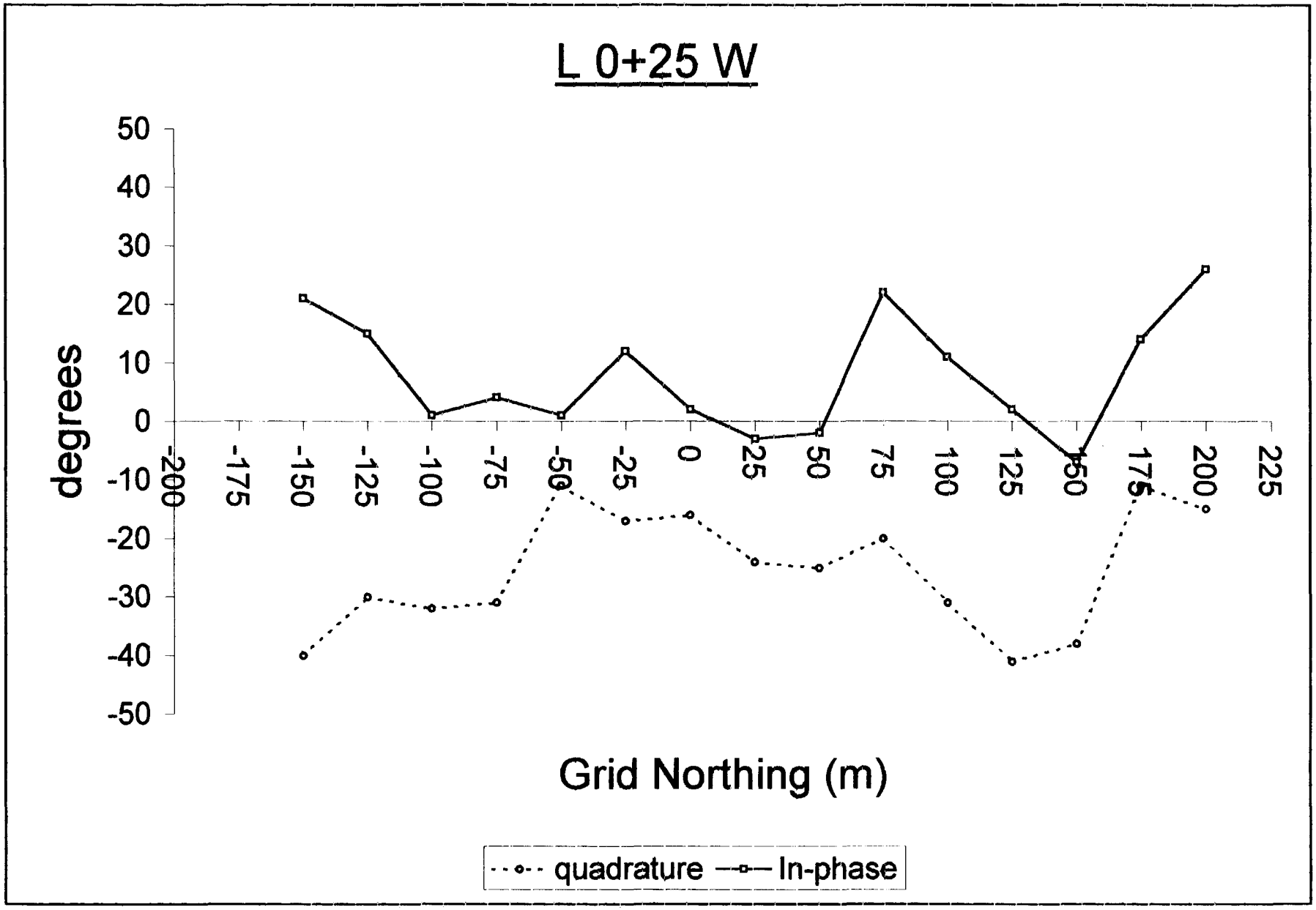
0
-10
-20
-30
-40
-200
-175
-150
-125
-100
-75
-50
-25
0
25
50
75
100
125
150
175
200
225
250
275
300
325
Grid Northing (m)
quadrature
In-phase


L 0+25 W
degrees
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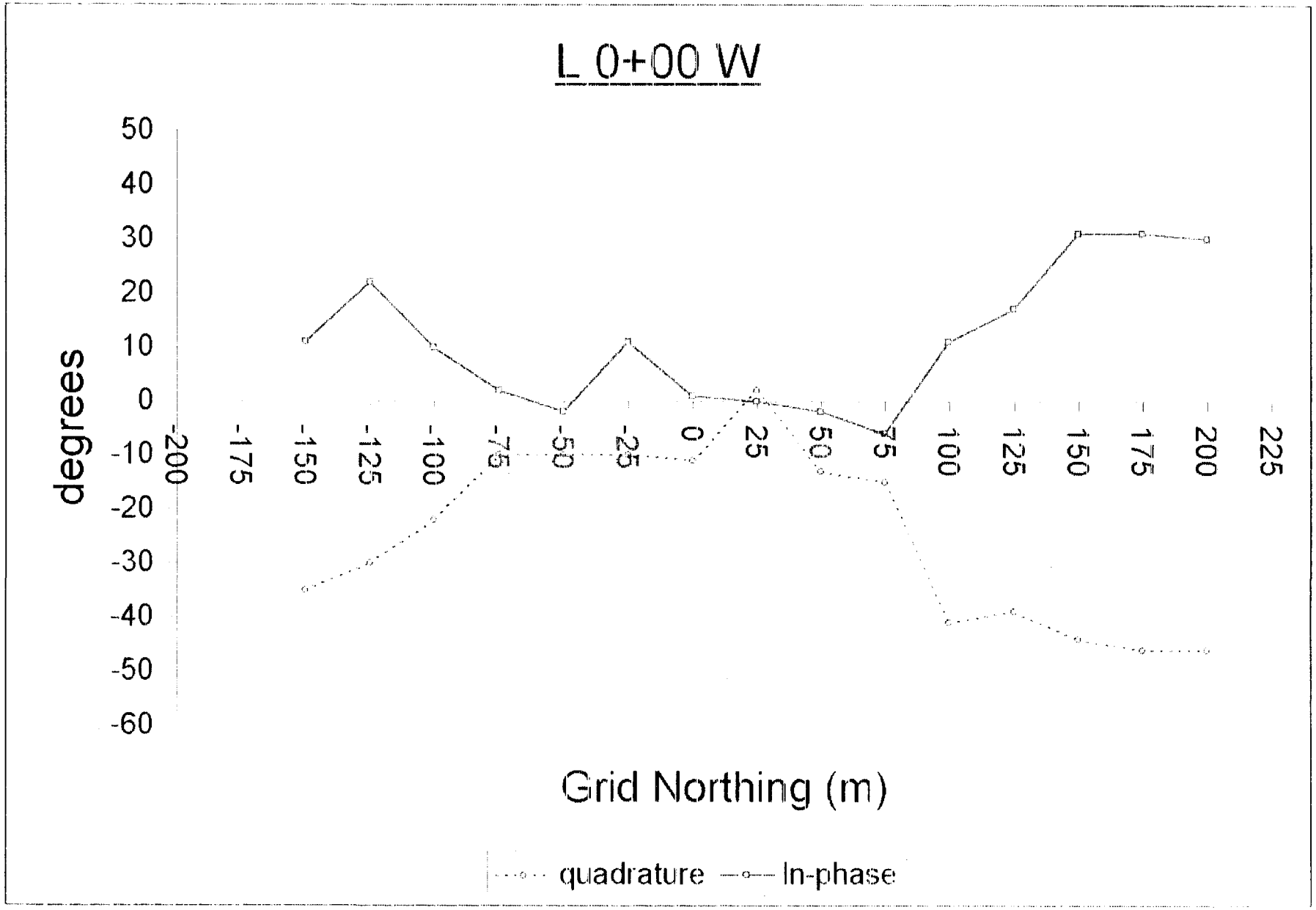
40
30
20
10
0
-10
-20
-30
-40
-50
-200
-175
-150
-125
-100
-75
-50
-25
0
25
50
75
100
125
150
175
200
225
Grid Northing (m)
quadrature
In-phase


L 0+00 W
degrees
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20
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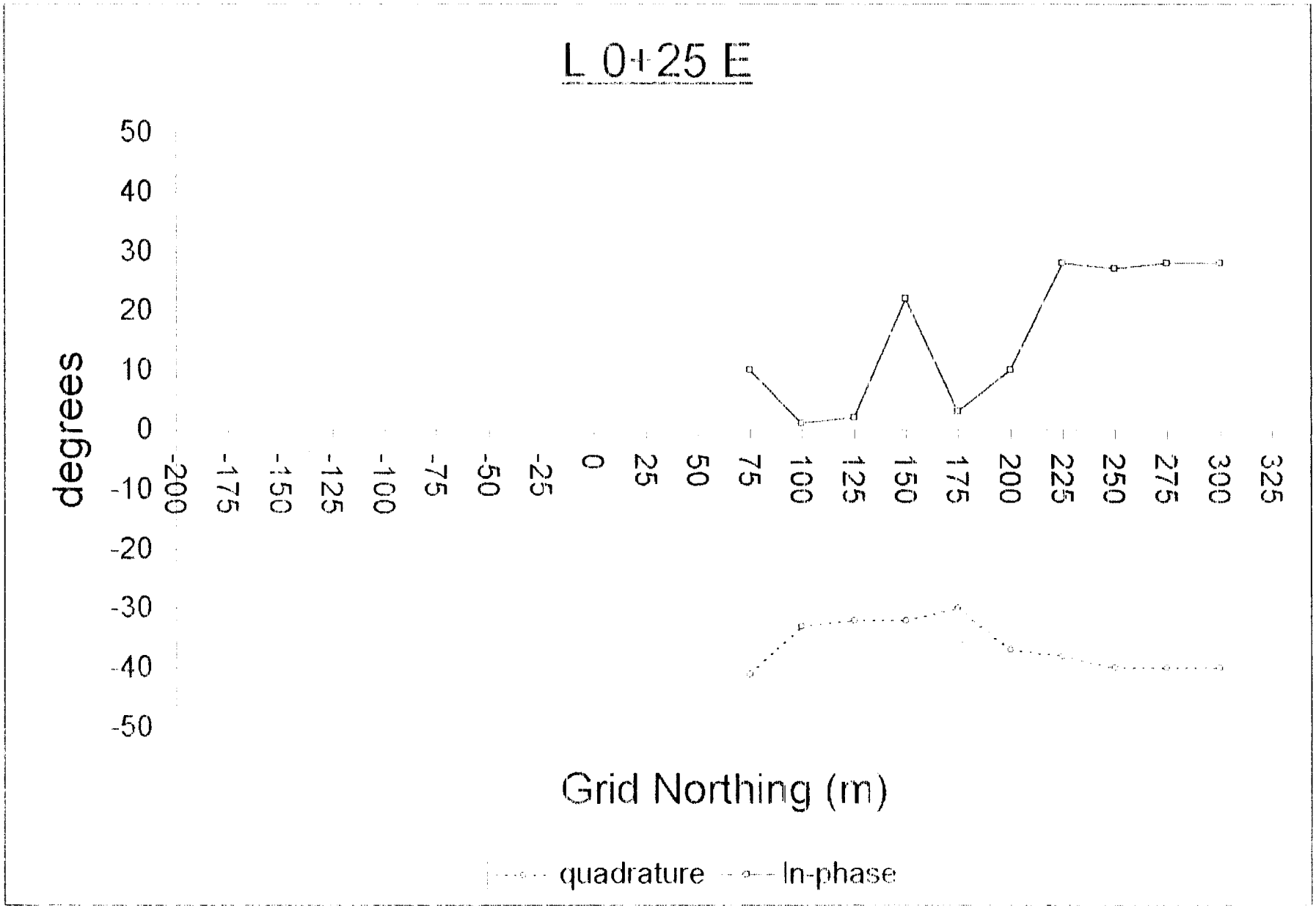
0
-10
-20
-30
-40
-50
-60
-200
-175
-150
-125
-100
-75
-50
-25
0
25
50
75
100
125
150
175
200
225
Grid Northing (m)
quadrature
In-phase


L 0+25 E
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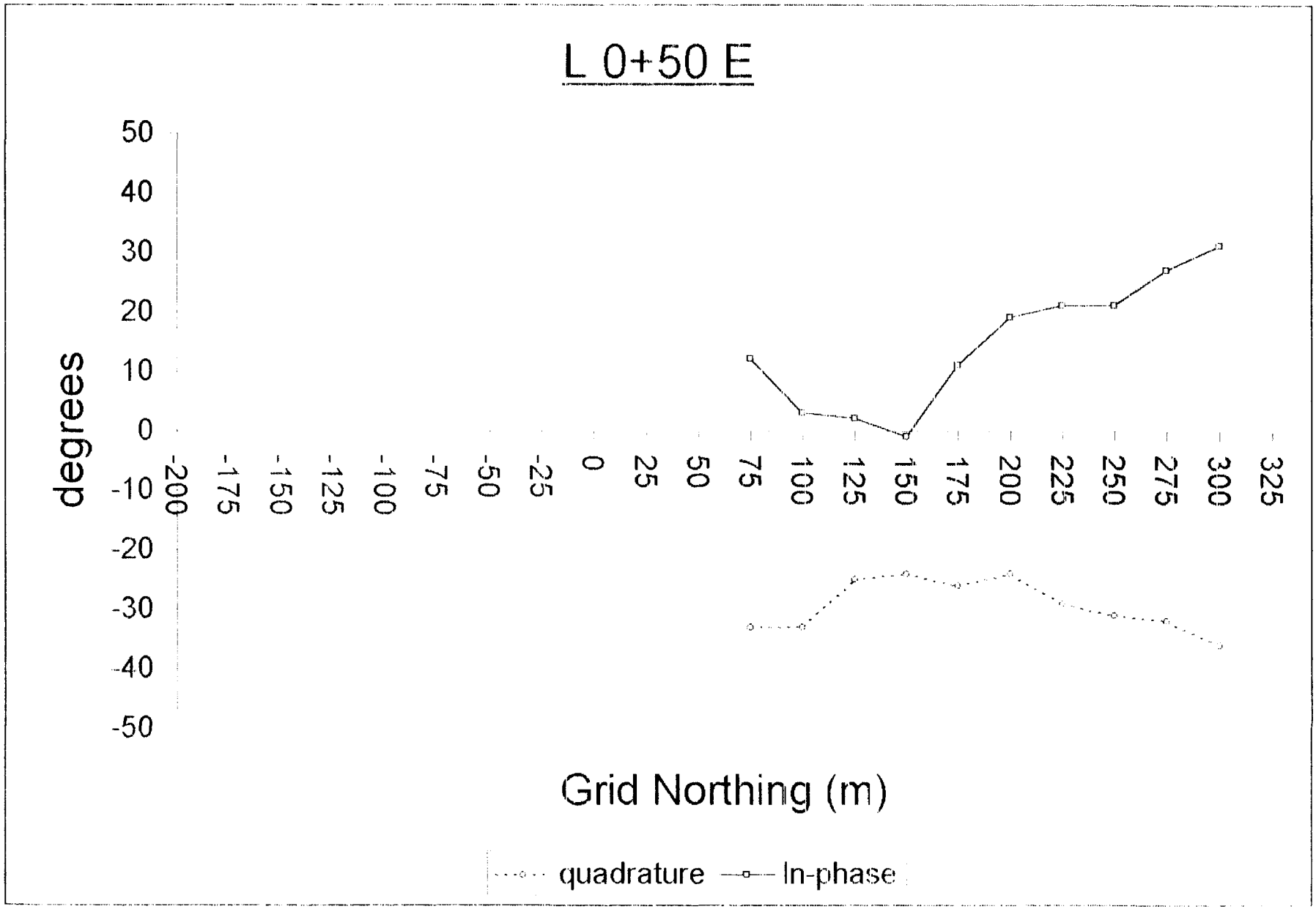
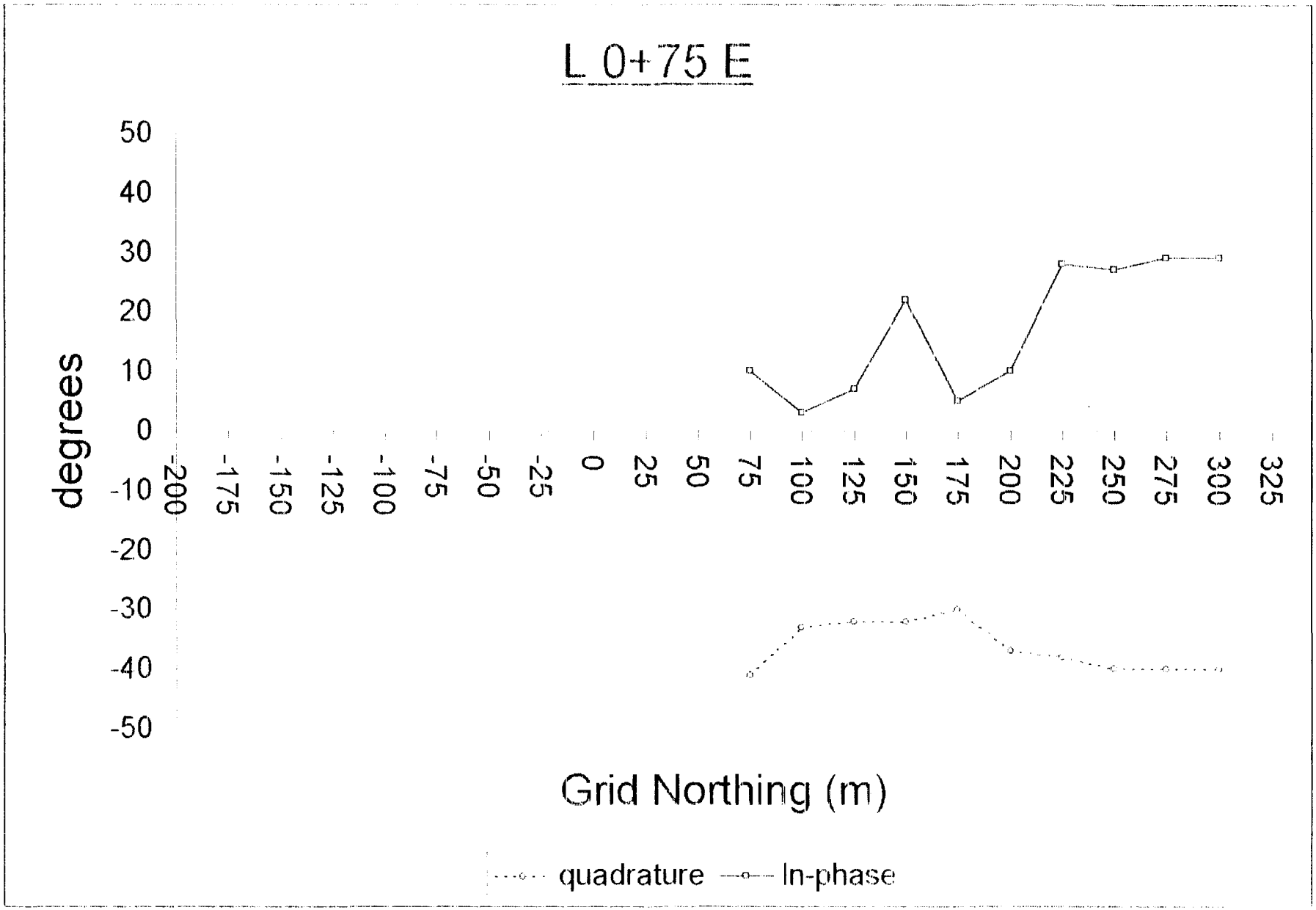
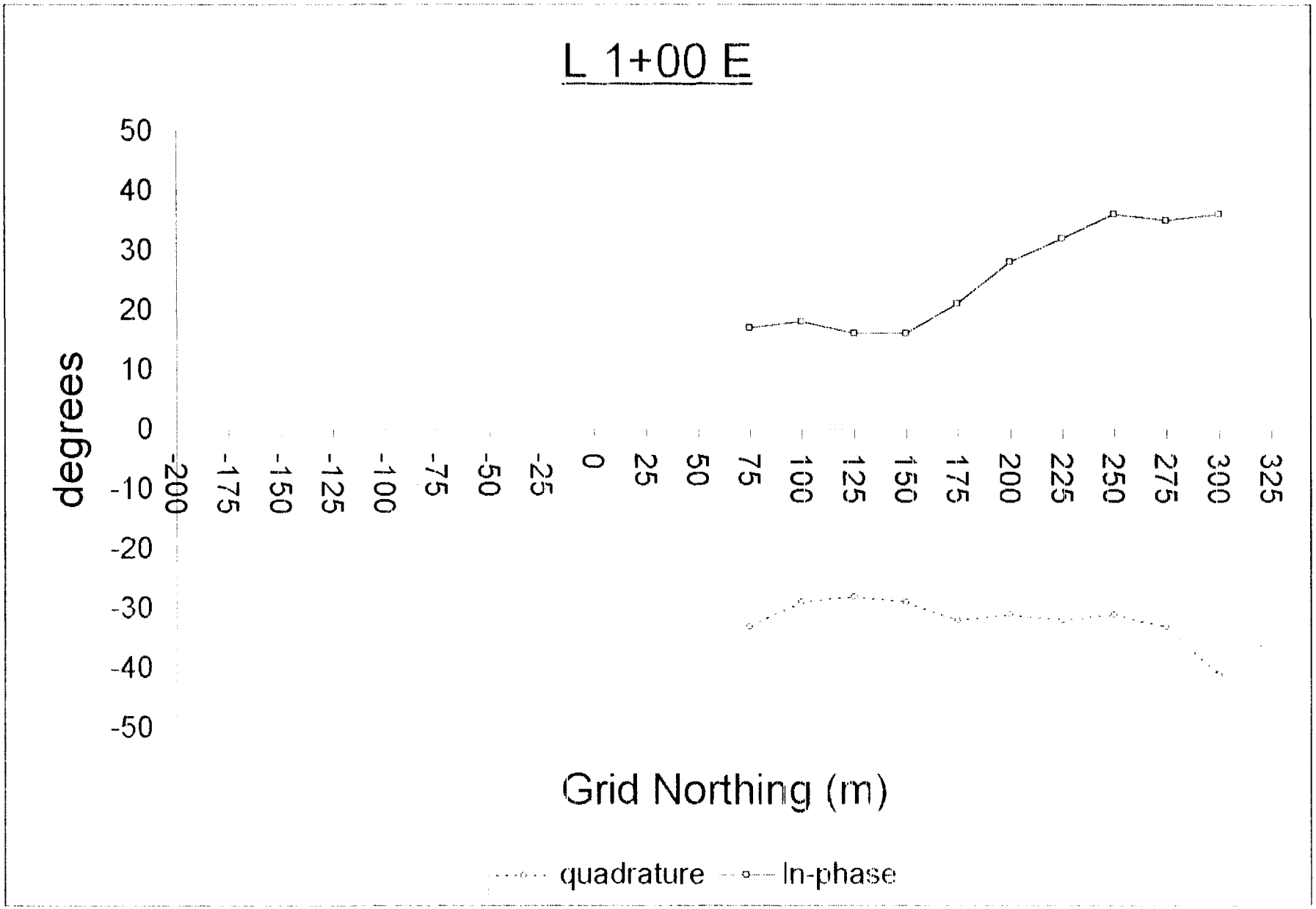
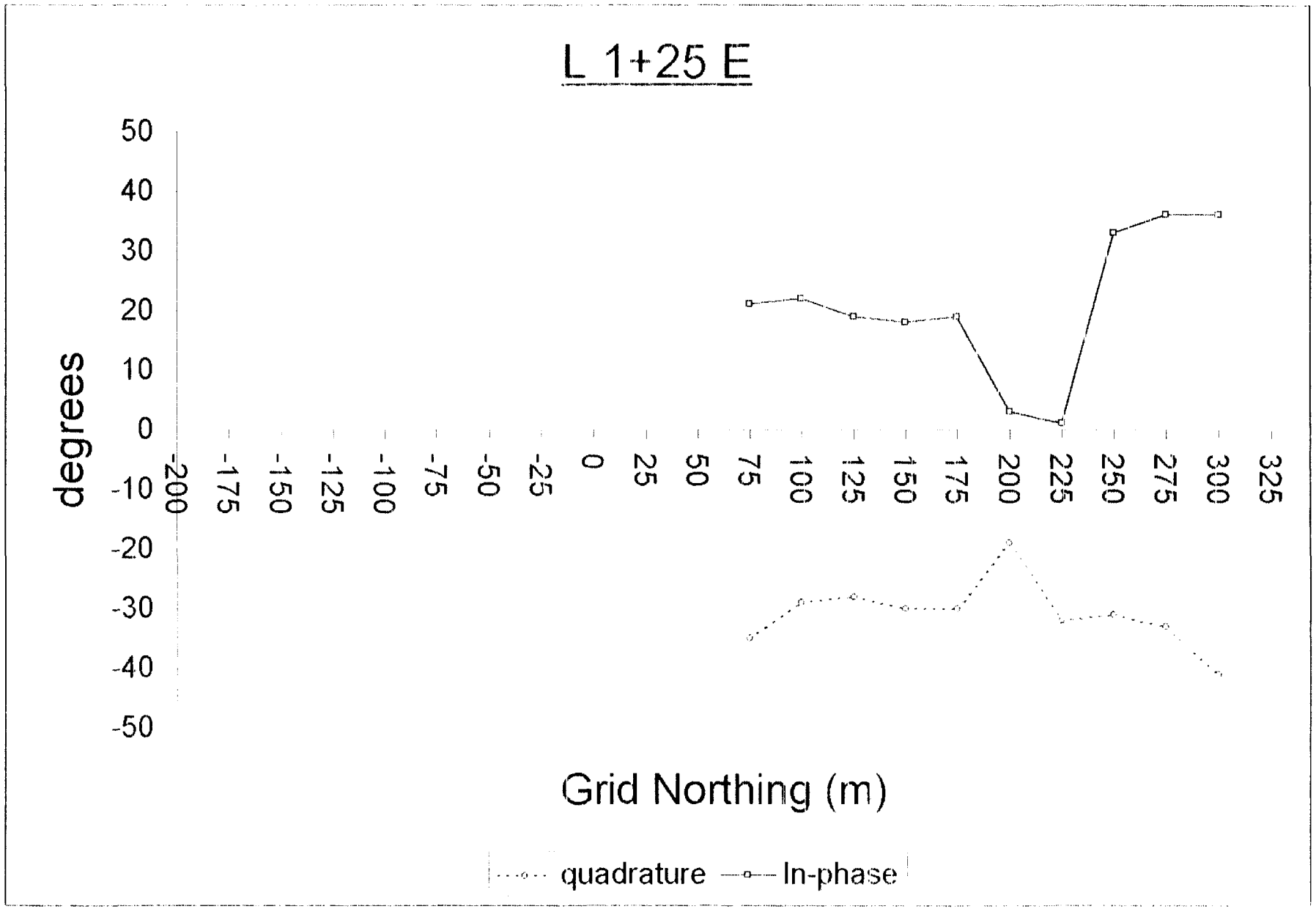
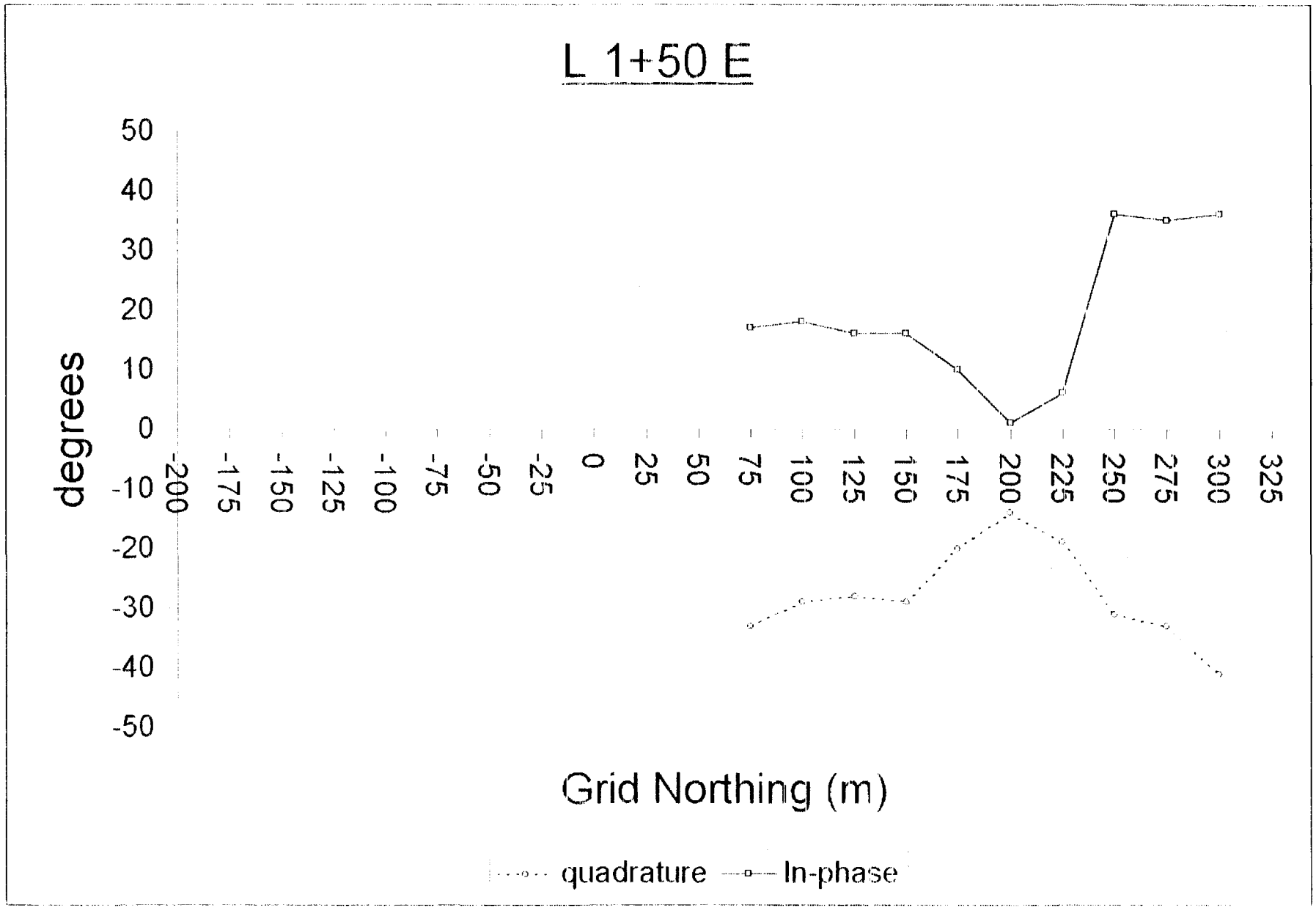
30
20
10
0
-10
-20
-30
-40
-50
degrees
-200
-175
-150
-125
-100
-75
-50
-25
0
25
50
75
100
125
150
175
200
225
250
275
300
325
Grid Northing (m)
quadrature
In-phase


L 0+50 E
degrees
50
40
30
20
10
0
-10
-20
-30
-40
-50
-200
-175
-150
-125
-100
-75
-50
-25
0
25
50
75
100
125
150
175
200
225
250
275
300
325
Grid Northing (m)
quadrature
In-phase


L 0+75 E
degrees
50
40
30
20
10
0
-10
-20
-30
-40
-50
-200
-175
-150
-125
-100
-75
-50
-25
0
25
50
75
100
125
150
175
200
225
250
275
300
325
Grid Northing (m)
quadrature
In-phase


L 1+00 E
degrees
50
40
30
20
10
0
-10
-20
-30
-40
-50
-200
-175
-150
-125
-100
-75
-50
-25
0
25
50
75
100
125
150
175
200
225
250
275
300
325
Grid Northing (m)
quadrature
In-phase


L 1+25 E
50
40
30
20
10
0
-10
-20
-30
-40
-50
degrees
-200
-175
-150
-125
-100
-75
-50
-25
0
25
50
75
100
125
150
175
200
225
250
275
300
325
Grid Northing (m)
quadrature
In-phase


L 1+50 E
degrees
50
40
30
20
10
0
-10
-20
-30
-40
-50
-200
-175
-150
-125
-100
-75
-50
-25
0
25
50
75
100
125
150
175
200
225
250
275
300
325
Grid Northing (m)
quadrature
In-phase

APPENDIX B

Technical Information relating to the Instrumentation used in the Geophysical Surveys

Ground Magnetometer: Geometrics G-826 Proton Precession Magnetometer

VLF-EM: Geonics EM-16

EM16 SPECIFICATIONS

MEASURED QUANTITY	Inphase and quad-phase components of vertical magnetic field as a percentage of horizontal primary field. (i.e. tangent of the tilt angle and ellipticity).
SENSITIVITY	Inphase: ±150% Quad-phase: ± 40%
RESOLUTION	±1%
OUTPUT	Nulling by audio tone. Inphase indication from mechanical inclinometer and quad-phase from a graduated dial.
OPERATING FREQUENCY	15-25 kHz VLF Radio Band. Station selection done by means of plug-in units.
OPERATOR CONTROLS	ON/OFF switch, battery test push button, station selector switch, audio volume control, quadrature dial, inclinometer.
POWER SUPPLY	6 disposable 'AA' cells.
DIMENSIONS	42 x 14 x 9cm
WEIGHT	Instrument: 1.6 kg Shipping: 5.5 kg

PRINCIPLES OF OPERATION GEONICS EM-16 (VLF)

The VLF-transmitting stations operating for communications with submarines have a vertical antenna. The Antenna current is thus vertical, creating a concentric horizontal magnetic field around them. When these magnetic fields meet conductive bodies in the ground, there will be secondary fields radiating from these bodies. (See Figures 3 & 4). This equipment measures the vertical components of these secondary fields.

The EM16 is simply a sensitive receiver covering the frequency band of the VLF-transmitting stations with means of measuring the vertical field components.

The receiver has two inputs, with two receiving coils built into the instrument. One coil has normally vertical axis and the other is horizontal.

The signal from one of the coils (vertical axis) is first minimized by tilting the instrument. The tilt-angle is calibrated in percentage. The remaining signal in this coil is finally balanced out by a measured percentage of a signal from the other coil, after being shifted by 90°. This coil is normally parallel to the primary field, (See instrument Block Diagram - Figure 2).

Thus, if the secondary signals are small compared to the primary horizontal field, the mechanical tilt-angle is an accurate measure of the vertical real-component, and the compensation 1/2-signal from the horizontal coil is a measure of the quadrature vertical signal.

Some of the properties of the VLF radio wave in the ground are outlined by Figures 4 thru 9.

ACCOMPANYING NOTES FOR FIGURES 2 - 9

FIGURE 2 is the block diagram of the EM16. The diagram is self-explanatory. Both the coils (reference and signal coil) are housed in the lower part of the handle. The directions of the axis of the coils are as follows: The reference coil axis is basically horizontal and is kept more or less parallel to the primary field during measurement. The signal coil is at right angles to the reference coil and its axis is, of course, vertical.

The signal amplifier has the two inputs, one connected to the signal coil and one to the reference channel. By tilting the coils, the operator minimizes the signal from the signal (vertical axis) coil. Any remaining signal is reduced to zero by the quadrature control in the reference channel. The signal amplifier has zero output

1.0 GENERAL INFORMATION

1.1 INTRODUCTION

The Model G-816 Portable Proton Magnetometer is a complete system designed for all man-carry field applications requiring simple operation and stable measurements of the total intensity of the earth's magnetic field. The G-816 is accurate and stable to within ±1 gamma over a range from 20,000 to 90,000 gammas. Since the instrument measures total field intensity, the accuracy of each measurement is independent of sensor leveling. Furthermore, the measurement is based upon an atomic constant* and is independent of temperature, humidity, and sensor orientation. The inherent simplicity of the G-816 proton magnetometer allows rapid, accurate measurements to be obtained from a rugged, compact field instrument. This is a precision instrument and reasonable attention must be given to handling, battery condition, and magnetic environment.

1.2 MAGNETIC ENVIRONMENT

It is important that the earth's magnetic field is not obscured by allowing unwanted magnetic objects to come close to the sensor. Such objects include rings, keys, watches, belt buckles, pocket knives, metal pencils, zippers, some hats, etc. When the sensor is used on the staff, 1 gamma surveys are easily performed provided the sensor is kept at a distance of 3 feet from the operator. When the sensor is used in the backpack, certain articles of clothing and some types of batteries within the console will cause a 5 to 10 gamma shift in readings. The G-816, however, still provides 1 gamma sensitivity and repeatability despite the presence of such a base line shift. The backpack feature is recommended for use in difficult terrain where "hands free" operation is required.

Prior to survey use, objects that are suspected to be magnetic may be checked in the following manner:

1. Attach sensor to staff and connect coiled signal cable to console. Sensor should not be moved or turned during the test, and the suspected article should be far away initially.

* Proton Gyromagnetic Ratio: $(2.67513 \pm 0.00002) \times 10^4$ Radians/Gauss second.

2. Cycle the magnetometer a few times by depressing the READ button--releasing--and waiting for a reading each cycle.

3. Observe measurement readings. Each reading should repeat to ±1 gamma. (A slow shift may occur over several minutes due to a diurnal change in the earth's field.)

4. Place the suspected article at the distance from the sensor expected during actual survey operation.

5. Cycle magnetometer several times and note the readings.

6. Remove the article and repeat steps 2 and 3 to check for diurnal shifts in the earth's field. If a diurnal shift is present, repeat entire test.

7. If the readings obtained in step 5 differ by more than ±1 gamma (±one count) from those obtained in steps 3 and 6, then the article is magnetic.

IF THE ARTICLE IS HIGHLY MAGNETIC, OR IF THE SENSOR IS INSIDE OR NEAR A BUILDING OR VEHICLE, THE PROTON PRECESSION SIGNAL WILL BE LOST, GIVING COMPLETELY ERRATIC READINGS AND LOSS OF ±1 COUNT REPEATABILITY.

The magnetometer should not be operated in areas that are known sources of radio frequency energy, power line noise (transformers), in buildings or near highly magnetic objects. The sensor should always be placed on the staff above the ground, or in the "backpack". The sensor will NOT operate properly when placed directly on the ground.

1.3 SPECIFICATIONS

Sensitivity:	±1 gamma throughout range
Range:	20,000 to 90,000 gammas (worldwide)
Tuning:	Multi-position switch with signal amplitude indicator light on display
Gradient Tolerance:	Exceeds 500 gammas/ft
Sampling Rate:	Manual pushbutton, one reading each 5 seconds.

Output:	5 digit numeric display with readout directly in gammas
Power Requirements:	Twelve self-contained 1.5 volt "D" cell universally available flashlight-type batteries. Charge state or replacement signified by flashing indicator light on display.
Temperature Range:	Console and sensor: -40° to +85° C Battery pack: 0° to +50° C (limited use to -15° C; lower temperature battery belt operation — optional)
Accuracy (Total Field):	±1 gamma through 0° to +50° C temperature range
Sensor:	High signal, noise cancelling, interchangeably mounted on separate staff or attached to back pack
Size:	Console: 3.5 x 7 x 11 inches (9 x 18 x 28 cm) Sensor: 3.5 x 5 inches (9 x 13 cm) Staff: 1 inch diameter x 8 ft. length (3 cm x 2.5 m)

Weight:	Lbs.	Kgs.
Console (w/batteries):	5.5	2.5
Sensor and signal cable:	4	1.8
Aluminum staff:	2	.9
	11.5	5.2

.4 INVENTORY INSPECTION

When received from the manufacturer, the G-816 magnetometer should include the following items:

1.	G-816 magnetometer console	1 each
2.	Sensor	1 each
3.	Collapsible sensor staff	1 each
4.	Signal cable-staff (long)	1 each
5.	Signal cable-backpack (short)	1 each
6.	Adjustable carrying harness	1 each

APPENDIX C

Assay Certificates

(Accurassay Assay Labs, Thunder Bay, Ontario)

ACCURASSAY LABORATORIES

A DIVISION OF ASSAY LABORATORY SERVICES INC.

1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
PHONE (807) 623-6448
FAX (807) 623-6820

DTE Exploration & Development
225 Ferndale Ave.
Sudbury, Ontario
P3B 3C2
Fax (705) 522-2951
Att'n: Scott Jobin-Bevans

Dec 15, 1998

Job# 9841168

SAMPLE # Accurassay	Customer	Palladium ppb	Gold ppb	Platinum ppb
1	HS98-1	<10	<5	<15
2	HS98-2	<10	<5	<15
3	HS98-3	<10	<5	<15
4	HS98-4	<10	<5	<15
5	HS98-5	<10	<5	<15
6	HS98-6	<10	<5	<15
7	HS98-7	<10	<5	<15
8	HS98-8	<10	<5	<15
9	HS98-9	<10	<5	<15
10	HS98-10	<10	28	<15
11	Check HS98-10	<10	9	<15
12	HS98-11	<10	<5	<15
13	HS98-12	<10	6	<15
14	HS98-13	<10	<5	<15
15	HS98-14	<10	<5	<15
16	HS98-15	<10	<5	<15
17	HS98-16	<10	7	<15
18	HS98-17	<10	8	<15
19	HS98-18	<10	10	<15
20	HS98-19	<10	12	<15
21	Check HS98-19	<10	9	<15
22	HS98-20	<10	10	<15
23	HS98-21	<10	21	<15
24	HS98-22	<10	<5	<15

Certified By:

ACCURASSAY LABORATORIES

A DIVISION OF ASSAY LABORATORY SERVICES INC.
1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
PHONE (807) 623-6448
FAX (807) 623-6820

DTE Exploration & Development
225 Ferndale Ave.
Sudbury, Ontario
P3B 3C2
Fax (705) 522-201

Jan 22, 1999

Job #9841168

SAMPLE #	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm
HS98-1	<.3	0.35	18	37	240	0.2	<3	0.26	1.2	8	25	144	0.84	0.04	7
HS98-2	<.3	0.81	17	38	130	0.3	4	0.22	1.0	10	49	114	1.79	0.05	9
HS98-3	<.3	0.66	28	30	72	0.2	<3	0.16	1.1	7	33	130	1.30	0.04	5
HS98-4	<.3	0.34	15	38	75	0.2	<3	0.23	1.1	8	27	125	0.75	0.03	11
HS98-5	<.3	0.25	21	39	149	0.2	<3	0.23	1.6	6	23	138	0.35	0.05	8
HS98-6	<.3	0.50	21	37	127	0.2	<3	0.34	1.8	8	44	129	0.75	0.05	7
HS98-7	0.4	0.66	22	40	100	0.2	<3	0.21	1.6	8	69	162	1.19	0.05	10
HS98-8	<.3	0.38	19	46	111	0.2	<3	0.16	1.3	7	24	103	0.77	0.05	9
HS98-9	<.3	0.42	22	34	108	0.2	<3	0.15	1.5	8	25	198	0.95	0.06	6
HS98-10	<.3	0.33	20	38	165	0.2	<3	0.26	1.4	11	28	194	0.82	0.05	8
HS98-11	<.3	0.35	20	35	116	0.2	<3	0.18	2.0	7	21	192	0.77	0.06	6
HS98-12	<.3	0.60	36	26	72	0.2	<3	0.19	1.4	9	35	221	1.43	0.08	6
HS98-13	0.7	0.51	22	29	161	0.2	<3	0.22	1.5	10	31	151	1.33	0.05	8
HS98-14	<.3	0.64	35	37	34	0.2	<3	0.12	1.2	6	28	189	0.88	0.04	5
HS98-15	<.3	0.33	13	33	26	0.2	<3	0.17	1.0	6	29	84	0.59	0.03	10

SAMPLE #	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Se ppm	Si %	Sn ppm	Sr ppm	Ti %	V ppm	W ppm	Zn ppm
HS98-1	0.10	198	4	0.02	143	334	117	<2	<5	0.05	<5	20	0.03	18	4	42
HS98-2	0.31	273	2	0.02	101	617	91	<2	<5	0.04	<5	15	0.08	31	<2	48
HS98-3	0.16	108	1	0.02	80	989	59	<2	<5	0.04	<5	11	0.05	29	<2	30
HS98-4	0.09	97	3	0.02	109	471	87	<2	<5	0.04	<5	15	0.03	15	<2	32
HS98-5	0.04	36	2	0.02	106	635	89	<2	<5	0.04	<5	22	0.01	10	<2	49
HS98-6	0.13	169	<1	0.02	102	153	85	<2	<5	0.05	<5	23	0.03	18	<2	62
HS98-7	0.30	154	2	0.02	116	269	104	<2	<5	0.04	<5	13	0.02	29	<2	46
HS98-8	0.06	75	2	0.02	108	105	106	<2	<5	0.04	<5	14	0.03	21	<2	41
HS98-9	0.06	78	3	0.02	157	605	132	<2	<5	0.04	<5	13	0.03	18	<2	55
HS98-10	0.06	144	6	0.02	218	617	192	<2	<5	0.04	<5	20	0.02	14	<2	70
HS98-11	0.05	144	2	0.02	175	484	211	<2	<5	0.06	<5	11	0.02	11	<2	46
HS98-12	0.12	239	3	0.02	198	984	156	<2	<5	0.04	<5	11	0.04	27	<2	68
HS98-13	0.11	177	2	0.02	224	297	129	<2	<5	0.04	<5	15	0.05	29	<2	59
HS98-14	0.07	74	1	0.02	133	931	83	<2	<5	0.04	<5	7	0.03	15	<2	30
HS98-15	0.08	46	1	0.02	97	601	69	<2	<5	0.03	<5	10	0.03	11	<2	28

Certified By: [signature]

ACCURASSAY LABORATORIES
A DIVISION OF ASSAY LABORATORY SERVICES INC.
1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
PHONE (807) 623-6448
FAX (807) 623-6820

DTE Exploration & Development
225 Ferndale Ave.
Sudbury, Ontario
P3B 3C2
Fax (705) 522-2061

Jan 22, 1999

Job #9841100

SAMPLE #	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm
HS98-16	<.3	0.37	23	33	87	0.2	<3	0.19	1.3	7	26	217	0.61	0.05	9
HS98-17	<.3	0.47	23	30	101	0.2	<3	0.22	1.1	10	31	235	1.00	0.06	7
HS98-18	<.3	0.38	18	33	107	0.2	<3	0.13	0.9	8	25	156	0.70	0.09	8
HS98-19	<.3	0.44	31	32	178	0.2	<3	0.21	1.7	11	33	449	1.03	0.09	10
HS98-20	<.3	0.33	14	33	146	0.1	<3	0.18	1.2	9	29	160	0.78	0.08	8
HS98-21	<.3	0.56	18	32	46	0.1	<3	0.27	0.7	5	35	138	0.91	0.04	2
HS98-22	<.3	0.46	19	34	82	0.2	<3	0.18	2.1	6	29	314	0.60	0.04	6

SAMPLE #	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Se ppm	Si %	Sn ppm	Sr ppm	Ti %	V ppm	W ppm	Zn ppm
HS98-16	0.08	58	1	0.02	150	<10	105	<2	<5	0.03	<5	12	0.03	17	<2	39
HS98-17	0.08	112	<1	0.02	247	547	161	<2	<5	0.04	<5	16	0.03	17	<2	54
HS98-18	0.05	115	<1	0.02	180	904	116	<2	<5	0.04	<5	18	0.02	13	<2	32
HS98-19	0.07	129	2	0.02	294	1047	169	<2	<5	0.03	<5	13	0.02	14	<2	47
HS98-20	0.06	127	2	0.02	212	233	141	<2	<5	0.04	<5	17	0.02	14	<2	68
HS98-21	0.18	113	<1	0.02	65	582	49	<2	<5	0.04	<5	11	0.04	31	<2	44
HS98-22	0.04	72	2	0.02	152	552	85	<2	<5	0.06	<5	10	0.02	13	<2	46

Certified By ____________

ACCURASSAY LABORATORIES
A DIVISION OF ASSAY LABORATORY SERVICES INC.
1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
PHONE (807) 623-6448
FAX (807) 623-6820

DTE Exploration & Development
225 Ferndale Ave.
Sudbury, Ontario
P3B 3C2
Fax (705) 522-2951

Jan 14, 1996

Job #9841167

Sample #	Al2O3 %	BaO %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	SrO %	TiO2 %	LOI %	Total %
44562	12.97	0.010	7.71	0.008	14.03	0.35	6.68	0.175	1.40	<.001	49.29	0.021	0.54	3.4	96.60
44565	10.81	0.005	10.12	0.045	9.85	0.21	14.39	0.200	1.11	0.889	52.39	0.013	0.35	0.5	100.89

Certified By:

ACCURASSAY LABORATORIES

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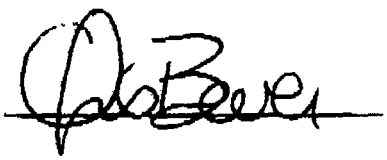
1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
PHONE (807) 623-6448
FAX (807) 623-6820

DTE Exploration & Development
225 Ferndale Ave.
Sudbury, Ontario
P3B 3C2
Fax (705) 522-2951
Att'n: Scott Jobin-Bevans

Dec 15, 1998

Job# 9841167

SAMPLE # Accurassay	Customer	Palladium ppb	Gold ppb	Platinum ppb
1	44558	<10	<5	<15
2	44559	39	41	<15
3	44560	44	40	<15
4	44561	<10	89	<15
5	44562	<10	82	<15
6	44563	13	124	<15
7	44564	11	113	<15
8	44565	14	12	<15
9 Check	44565	14	16	<15

Certified By: 

ACCURASSAY LABORATORIES
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1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
PHONE (807) 623-6448
FAX (807) 623-6820

DTE Exploration & Development
225 Ferndale Ave.
Sudbury, Ontario
P3B 3C2
Fax (705) 522-2951

Jan 14, 1999

Job #9841167

SAMPLE #	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm
44558	<.3	0.68	<2	6	70	<.1	<3	0.12	<.5	3	270	23	1.32	0.15	<1
44559	<.3	2.05	25	<5	26	<.1	<3	0.81	<.5	42	94	802	3.80	0.06	<1
44560	0.7	2.04	9	7	23	<.1	<3	0.88	<.5	76	88	1046	4.47	0.05	<1
44561	0.9	2.01	6	8	21	0.1	<3	0.74	1.2	38	27	5832	4.84	0.04	<1
44562	0.9	1.82	<2	15	18	<.1	<3	0.67	1.1	82	29	9359	5.34	0.04	<1
44563	1.3	1.84	<2	15	19	0.1	<3	0.63	3.3	119	45	9060	7.06	0.05	<1
44564	0.9	1.70	<2	17	17	0.1	<3	0.63	2.1	148	36	8939	7.32	0.04	<1
44565	<.3	3.67	<2	10	37	<.1	<3	2.21	<.5	9	56	318	1.11	0.09	<1

	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Se ppm	Si %	Sn ppm	Sr ppm	Ti %	V ppm	W ppm	Zn ppm
44558	0.45	554	<1	0.05	8	1042	4	<2	<5	0.04	<5	5	<.01	16	<2	18
44559	1.41	494	1	0.06	427	349	10	<2	<5	0.04	<5	41	0.14	60	<2	53
44560	1.48	535	2	0.06	671	1371	<2	<2	<5	0.04	<5	30	0.14	60	<2	60
44561	1.16	448	2	0.06	680	1017	3	<2	<5	0.05	<5	28	0.23	124	<2	69
44562	1.17	451	3	0.06	1119	1005	<2	<2	<5	0.07	<5	26	0.16	67	<2	140
44563	1.22	477	4	0.06	2278	1288	<2	3	<5	0.03	<5	23	0.15	62	<2	255
44564	1.11	415	3	0.06	3000	253	<2	3	<5	0.05	<5	24	0.15	57	<2	220
44565	0.65	143	1	0.55	125	<10	<2	<2	<5	0.03	<5	73	0.04	13	<2	31

Certified By:

ACCURASSAY LABORATORIES
A DIVISION OF ASSAY LABORATORY SERVICES INC.

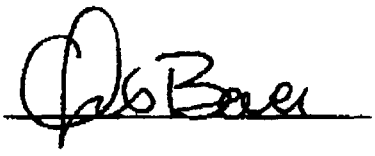
1070 LITHIUM DRIVE, UNIT 2
Page 2HUNDER BAY, ONTARIO P7B 6G3
PHONE (807) 623-6448
FAX (807) 623-6820

Goldwright Explorations
RR #1
Markstay, Ontario
P0M 2G0
Fax (705) 522-2951
Att'n: C. Lilly

Oct. 15, 1998

Job# 9840799

SAMPLE # Accurassay	Customer	Palladium ppb	Gold ppb	Platinum ppb
30	50441	26	17	34
31 Check	50441	28	18	29
32	50442	26	12	38
33	50443	34	13	<15
34	50444	<10	33	<15
35	50445	<10	<5	<15
36	50446	<10	<5	<15
37	50447	<10	6	<15
38	50448	<10	6	<15
39	50449	27	18	34
40	50450	12	<5	19
41 Check	50450	13	<5	19
42	50451	44	7	40
43	50452	<10	<5	<15
44	50453	14	8	20
45	50454	22	10	18
46	50455	34	33	57
47	50456	<10	<5	<15
48	50457		1023	
49	50458		391	
50	50459	<10	10	<15
51 Check	50459	<10	7	17
52	50460	<10	5	<15
53	50461	43	11	36
54	50462	<10	6	16
55	50463	26	121	24

Certified By: 

ACCURASSAY LABORATORIES
A DIVISION OF ASSAY LABORATORY SERVICES INC.

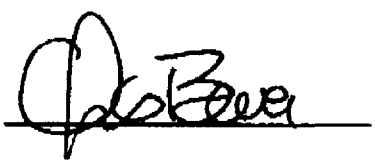
1070 LITHIUM DRIVE, UNIT 2
Page 2HUNDER BAY, ONTARIO P7B 6G3
PHONE (807) 623-6448
FAX (807) 623-6820

Goldwright Explorations
RR #1
Markstay, Ontario
P0M 2G0
Fax (705) 522-2951
Att'n: C. Lilly

Oct. 15, 1998

Job# 9840799

SAMPLE # Accurassay	Customer	Copper ppm	Nickel ppm	Cobalt ppm
30	50443	123	161	32
31	50444	151	43	15
32	50445	154	39	22
33	50446	139	32	17
34	50447	247	57	11
35	50448	286	88	19
36	50449	443	176	26
37	50450	125	40	11
38	50451	108	65	15
39	50452	136	49	22
40	50453	285	100	16
41	50454	598	263	30
42	50455	1371	381	37
43	50456	107	35	14
44	50457	>10,000	947	8
45	50463	>10,000	1006	39

Certified By: 

Ontario Ministry of Northern Development and Mines

Declaration of Assessment Work Performed on Mining Land

Mining Act, Subsection 65(2) and 66(3), R.S.O. 1990

Transaction Number (office use)
W0070.00219
Assessment Files Research Imaging

41I09NW2012 2.20691 JANES 900

of subsection 65(2) and 66(3) of the Mining Act. Under section 8 of the Mining Act
ie assesment work and correspond with the mining land holder. Questions about this
f Northern Development and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury.

PROVINCIAL RECORDING OFFICE - SUDBURY
RECEIVED
NOV 0 8 2000
A.M. 12:00 m.n. P.M.
7 8 9 10 11 12 1 2 3 4 5 6

Instructions: - For work performed on Crown Lands before **recording** a claim, use form 0240.
- Please type or print in ink.

2.20691

1. Recorded holder(s) (Attach a list if necessary)

Name	Client Number
Gold WRIGHT Explorations Inc	303574
Address	**Telephone Number**
General Delivery	705-967-0216
Hagar Ont	**Fax Number**
	705-967-0598
Name	**Client Number**
Address	**Telephone Number**
	Fax Number

2. Type of work performed: Check (✓) and report on only ONE of the following groups for this declaration.

Geotechnical: prospecting, surveys, assays and work under section 18 (regs) ✓ Physical: drilling stripping, trenching and associated assays Rehabilitation

Work Type	Office Use
Line cutting stripping Geophysics mapping Sampling trenching	Commodity
	Total $ Value of Work Claimed 8412
Dates Work Performed From Day 17 Month 05 Year 98 To Day 31 Month 1 Year 99	NTS Reference
Global Positioning System Data (if available) Township/Area Janes	Mining Division Sudbury
M or G-Plan Number 6-2907	Resident Geologist District Sudbury

Please remember to:
- obtain a work permit from the Ministry of Natural Resources as required;
- provide proper notice to surface rights holders before starting work;
- complete and attach a Statement of Costs, form 0212;
- provide a map showing contiguous mining lands that are linked for assigning work;
- include two copies of your technical report.

3. Person or companies who prepared the technical report (Attach a list if necessary)

Name	Telephone Number
Scott Jobin-Bevans	705-674-5888
Address	**Fax Number**
225 Ferndale Ave Sudbury	705-674-5333
Name	**Telephone Number**
Address	**Fax Number**
Name	**Telephone Number**
Address	**Fax Number**

4. Certification by Recorded Holder or Agent

I, Brian Wright (Print Name), do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Signature of Recorded Holder or Agent		Date
Brian Wright		NOV 7/00
Agent's Address	**Telephone Number**	**Fax Number**
GENERAL DELIVERY HAGAR ONT. POM 1X0	705-967-0216	705-967-0598

0241 (03/97)

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5. Work to be recorded and distributed. Work can only be assigned to claims that are contiguous (adjoining) to the mining land where work was performed, at the time work was performed. A map showing the contiguous link must accompany this form.

W0070.00219 2 20601

	Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Value of work assigned to other mining claims.	Bank. Value of work to be distributed at a future date
eg	TB 7827	16 ha	$26,825	N/A	$24,000	$2,825
eg	1234567	12	0	$24,000	0	0
eg	1234568	2	$ 8,892	$ 4,000	0	$4,892
1	1230296	16	8912	4700		2012
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
	Column Totals					

I, BRIAN James WRIGHT (Print Full Name), do hereby certify that the above work credits are eligible under subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

Signature of Recorded Holder or Agent Authorized in Writing	Date
Brian Wright	Nov 8/ 2000

6. Instruction for cutting back credits that are not approved.

Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you wish to prioritize the deletion of credits:

- ☒ 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.
- ☐ 2. Credits are to be cut back starting with the claims listed last, working backwards; or
- ☐ 3. Credits are to be cut back equally over all claims listed in this declaration; or
- ☐ 4. Credits are to be cut back as prioritized on the attached appendix or as follows (describe):

Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

For Office Use Only

Received Stamp

Deemed Approved Date	Date Notification Sent
Date Approved	Total Value of Credit Approved
Approved for Recording by Mining Recorder (Signature)	

0241 (03/97)

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Ontario Ministry of Northern Development and Mines

Statement of Costs for Assessment Credit

Transaction Number (office use): W0070.00219

Personal information collected on this form is obtained under the authority of subsection 6(1) of the Assessment Work Regulation 6/96. Under section 8 of the Mining Act, the information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to the Chief Mining Recorder, Ministry of Northern Development and Mines, 6th Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

Work Type	Units of Work Depending on the type of work, list the number of hours/days worked, metres of drilling, kilometres of grid line, number of samples, etc.	Cost Per Unit of work	Total Cost
Linecutting	18 km	350/km	6300
Prospecting	6 days	150/day	900
Geological Mapping	9 days	300/day	1300
Report Writing	3 day	300/day	900
Drilling + Blasting			1552.67
Geological Assistant	10 days	150/day	1500.00
Associated Costs (e.g. supplies, mobilization and demobilization).			
Assays			861.16
Water pump and hose rental			280.00
Transportation Costs			
2100 km at 0.30/km			630.00
Food and Lodging Costs			
42 days at 50/day			2100
		Total Value of Assessment Work	16824

PROVINCIAL RECORDING OFFICE - SUDBURY
RECEIVED
NOV 0 8 2000
A.M. 12:00 P.M.
7 8 9 10 11 12 1 2 3 4 5 6

Calculations of Filing Discounts:

1. Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work.
2. If work is filed after two years and up to five years after performance, it can only be claimed at 50% of the Total Value of Assessment Work. If this situation applies to your claims, use the calculation below:

TOTAL VALUE OF ASSESSMENT WORK 16824 x 0.50 = 8412 Total $ value of worked claimed.

Note:
- Work older than 5 years is not eligible for credit.
- A recorded holder may be required to verify expenditures claimed in this statement of costs within 45 days of a request for verification and/or correction/clarification. If verification and/or correction/clarification is not made, the Minister may reject all or part of the assessment work submitted.

Certification verifying costs:

I, BRIAN James WRIGHT (please print full name), do hereby certify, that the amounts shown are as accurate as may reasonably be determined and the costs were incurred while conducting assessment work on the lands indicated on the accompanying Declaration of Work form as President (recorded holder, agent, or state company position with signing authority) I am authorized to make this certification.

RECEIVED
NOV 0 8 2000
GEOSCIENCE ASSESSMENT

Signature	Date
Brian Wright	Nov 8/00

0212 (02/96)

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Ontario

Geoscience Assessment Office
933 Ramsey Lake Road
6th Floor
Sudbury, Ontario
P3E 6B5

Telephone: (888) 415-9845
Fax: (877) 670-1555

Visit our website at:
www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm

December 22, 2000

Brian Wright
GOLDWRIGHT EXPLORATIONS INC
GENERAL DELIVERY
HAGAR, ONTARIO
P0M-1X0

Dear Sir or Madam:

Submission Number: 2.20691

Subject: Transaction Number(s):		**Status**
	W0070.00219	Approval

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice. Allowable changes to your credit distribution can be made by contacting the Geoscience Assessment Office within this 45 Day period, otherwise assessment credit will be cut back and distributed as outlined in Section #6 of the Declaration of Assessment work form.

Please note any revisions must be submitted in DUPLICATE to the Geoscience Assessment Office, by the response date on the summary.

If you have any questions regarding this correspondence, please contact JIM MCAULEY by e-mail at james.mcauley@ndm.gov.on.ca or by telephone at (705) 670-5858.

Yours sincerely,

Lucille Jerome

ORIGINAL SIGNED BY
Lucille Jerome
Acting Supervisor, Geoscience Assessment Office
Mining Lands Section

Correspondence ID: 15542
Copy for: Assessment Library

Work Report Assessment Results

Submission Number: 2.20691

Date Correspondence Sent: December 22, 2000 **Assessor:** JIM MCAULEY

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W0070.00219	1230296	JANES	Approval	December 21, 2000

Section:
12 Geological GEOL
16 Drilling PDRILL
9 Prospecting PROSP
14 Geophysical MAG
14 Geophysical VLF

At the discretion of the Ministry, the assessment work performed on the mining lands noted in this work report may be subject to inspection and/or investigation at any time.

Correspondence to:

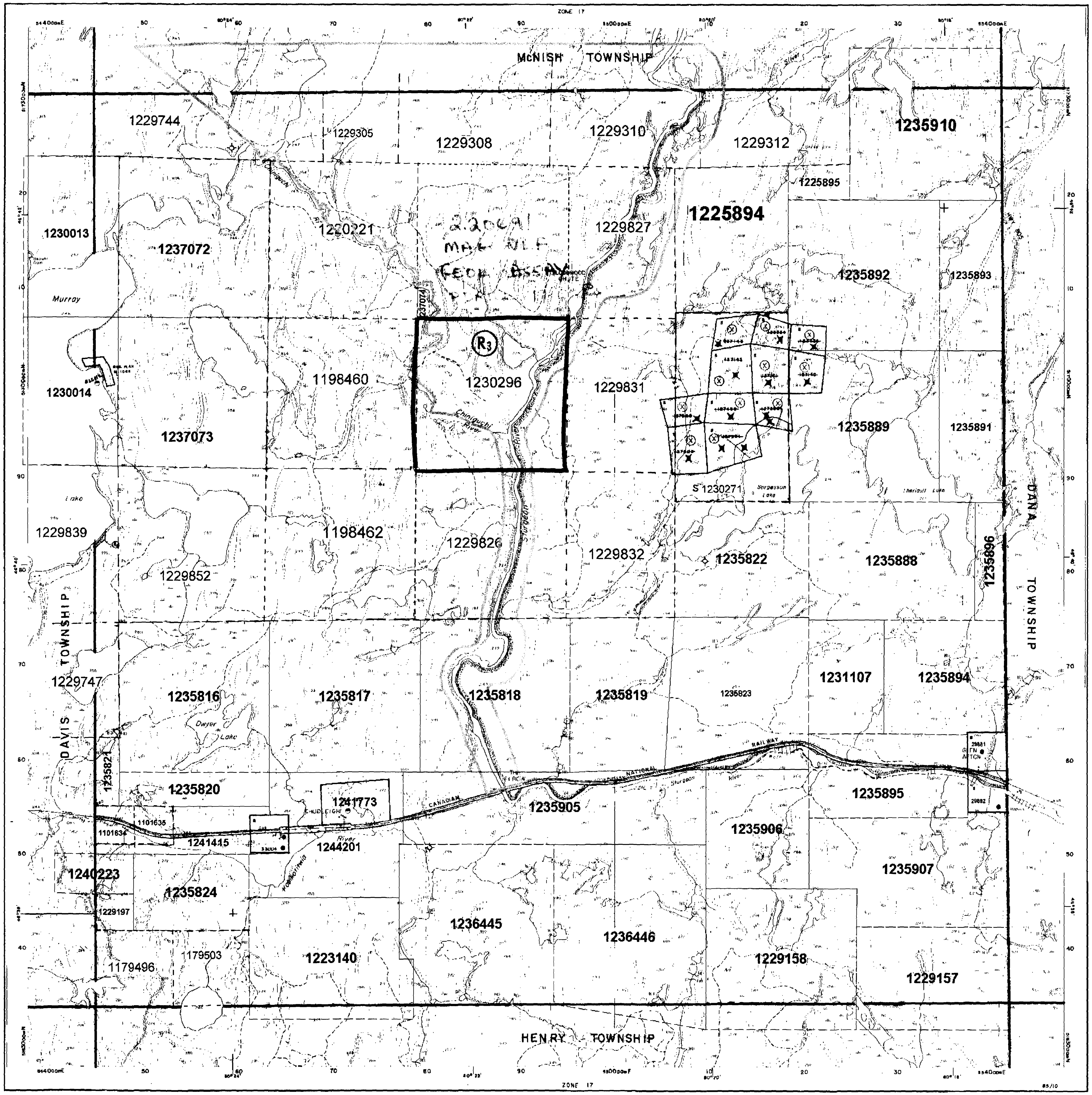
Resident Geologist
Sudbury, ON

Assessment Files Library
Sudbury, ON

Recorded Holder(s) and/or Agent(s):

Brian Wright
GOLDWRIGHT EXPLORATIONS INC
HAGAR, ONTARIO

Correspondence ID: 15542



Ministry of Natural Resources

Ministry of Northern Development and Mines

Ontario

INDEX TO LAND DISPOSITION

PLAN

G-2907

TOWNSHIP

JANES

M.N.R. ADMINISTRATIVE DISTRICT

NORTH BAY

MINING DIVISION

SUDBURY

LAND TITLES/REGISTRY DIVISION

SUDBURY

Scale 1:20 000

Contour Interval 10 Metres

SYMBOLS

Boundary

- Township, Meridian, Baseline
- Road allowance; surveyed
- shoreline
- Lot/Concession; surveyed
- unsurveyed
- Parcel; surveyed
- unsurveyed
- Right-of-way; road
- railway
- utility
- Reservation
- Cliff, Pit, Pile
- Contour
- Interpolated
- Approximate
- Depression
- Control point (horizontal)
- Flooded land
- Mine head frame
- Pipeline (above ground)
- Railway; single track
- double track
- abandoned
- Road; highway, county, township
- access
- trail, bush
- Shoreline (original)
- Transmission line
- Wooded area

AREAS WITHDRAWN FROM DISPOSTION

M.R.O. - MINING RIGHTS ONLY
S.R.O. - SURFACE RIGHTS ONLY
M.+S. - MINING AND SURFACE RIGHTS

	Description	Order No.	Date	Disposition	File
Ⓢ	Sec. 43/70	W.94/77	5/12/77	SRO	188530

Part of order W 2/94 REOPENED by order O-ML Q/90 NER effective April 3/1990 at 7.00 AM E.S.T.

Ⓡ SEC. 35 W - LL - P173/99 ONT MAY 12/99 M+S

NOTES

Subdivision of this Township into Lots and Concessions was annulled 29th December, 1953.

JUNE 1ST OPENINGS 1997 S.176334 ETAL

DISPOSITION OF CROWN LANDS

Patent
- Surface & Mining Rights
- Surface Rights Only
- Mining Rights Only

Lease
- Surface & Mining Rights
- Surface Rights Only
- Mining Rights Only

- Licence of Occupation
- Order-in-Council
- Cancelled
- Reservation
- Sand & Gravel
- LAND USE PERMIT

QUARRY PERMITS

DESCRIPTION	FILE No.	ISSUE DATE	EXPIRATION DATE

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER MINISTRY OF NORTHERN DEVELOPMENT AND MINES. FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

Map base and land disposition drafting by Surveys and Mapping Branch, Ministry of Natural Resources.

The disposition of land, location of lot fabric and parcel boundaries on this index was compiled for administrative purposes only.

200

41I09NW2012 2.20691 JANES

Janes SP015

Property/Geology Map: Floodwood Chutes West Grid

Drawn: January, 1999 - S. Jobin-Bevans

magnetic declination 10°W

metres

0 25 50 75

main road

talus - sediments 1

major ridge

pine

TL 1+50 N

1

30

<1% po

2

old grown in road

alder/poplar

4

BL 0+00

valley

flood plain

alder

Sturgeon River

>80% outcrop - gabbro

80

<1% po, cpy

L 2+00 E

L 2+25 E

L 2+50 E

L 2+75 E

L 3+00 E

L 3+25 E

L 3+50 E

L 3+75 E

L 4+00 E

L 4+25 E

L 4+50 E

L 4+75 E

L 5+00 E

L 5+25 E

L 5+50 E

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L 8+00 E

L 8+25 E

L 8+50 E

L 8+75 E

L 9+00 E

L 9+25 E

L 9+50 E

L 9+75 E

L 10+00 E

L 10+25 E

LEGEND

4 Olivine Gabbro

3 Mineralization: mainly po>cpy+pn; 1-15% total sulphide

2 Nipissing Gabbro: generally medium-grained with ~1% disseminated sulphide (po>cpy)

1 Sedimentary Rocks: Gowganda Formation, mainly greywacke; subordinate arkose; <1% sulphide

- Inclined bedding - strike and dip observed
- Inclined foliation - strike and dip observed
- sulphide showing (>2% total sulphide)
- whole rock sample location
- humus sample location
- geological contact - assumed
- outcrop
- picket station - geophysical survey point

py=pyrite, cpy=chalcopyrite, po=pyrrhotite

Claim: 1230296

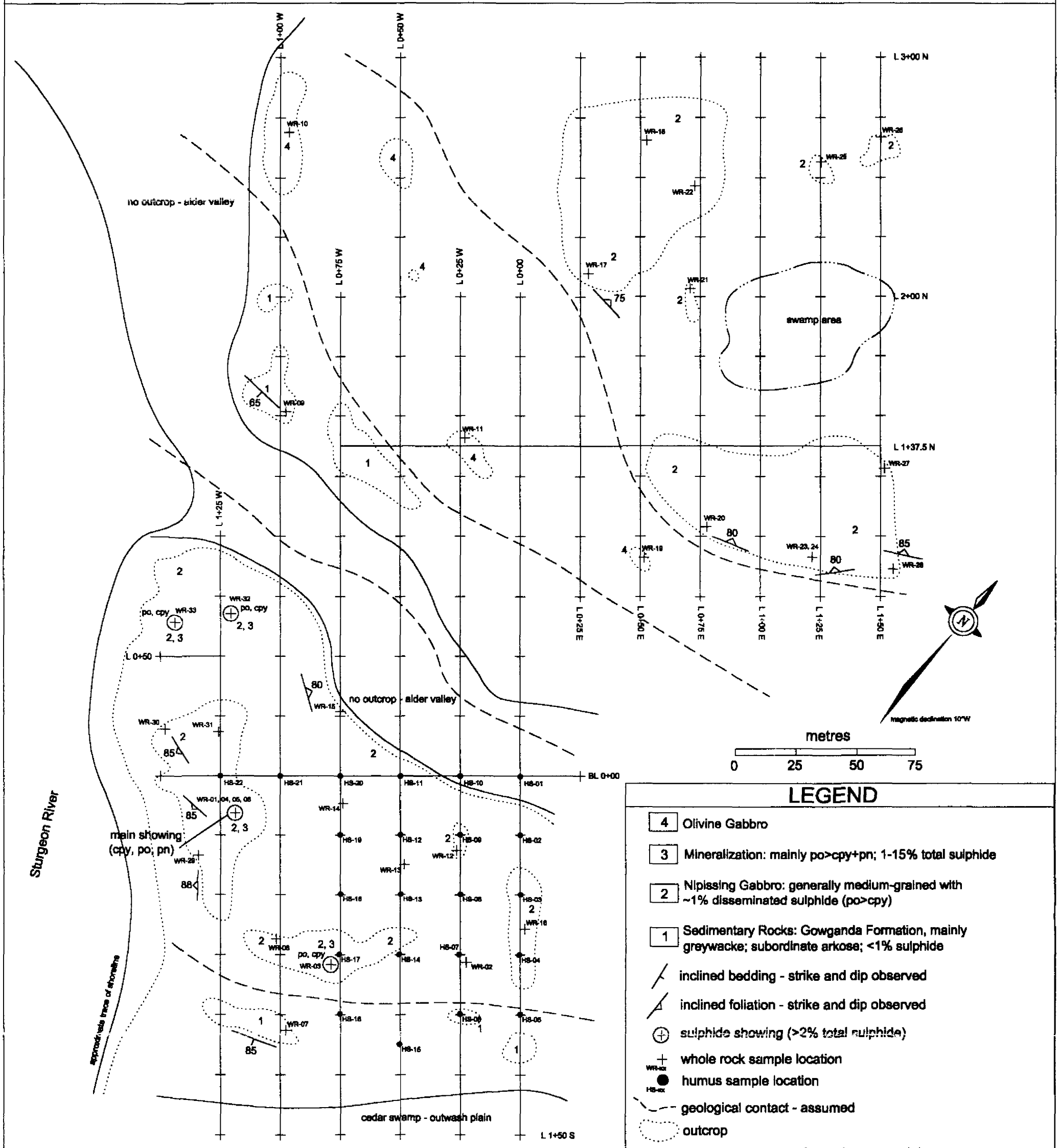
Mapping Scale = 1:1000

41I09NW2012 2.20691 JANES 210

Janes 5P015

Property/Geology Map: Floodwood Chutes East Grid

Drawn: January, 1999 - S. Jobin-Bevans



LEGEND

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