



41016NW0058 2.8333 SILK

010

REPORT OF WORK

Claims 756360, 756361

SILK TOWNSHIP

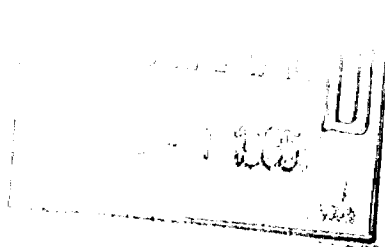
PORCUPINE MINING DIVISION

GEOLOGY, GEOPHYSICS

RECEIVED

AUG 02 1985

MINING LANDS SECTION





41016NW0058 2.8333 SILK

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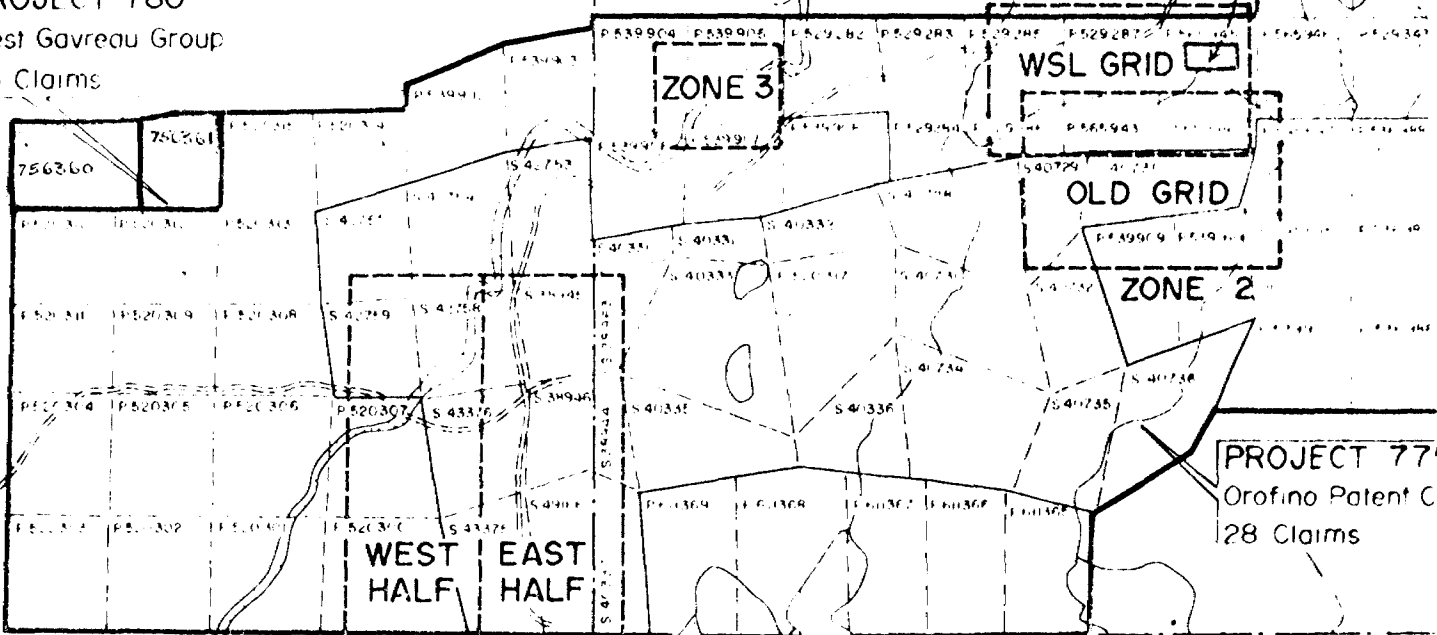


SILK TWP.
HORWOOD TWP.

Swayze
River

Anomaly 'A'

PROJECT 780
West Gavreau Group
23 Claims

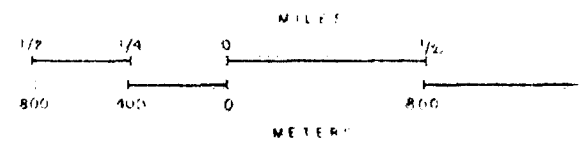


PROJECT 77
Orofino Patent C
28 Claims

ZONE 1

NEWTON TWP.

SCALE 1 31,680



SUMMARY AND CONCLUSIONS

The primary value of the claims seem to be that they provide a more solid configuration of ground around a potential mine. Initial exploration of the two claims has yielded no single feature to suggest any economic potential.

INTRODUCTION

The following is a report of work on linecutting, geology and two varieties of geophysical testing on two recently staked claims in southeast Silk Township. The claims were staked in May and recorded on June 4, 1985. Preliminary prospecting and technical work was done June 6 through 10.

LOCATION

Claims numbered 756360 and 756361 tie on to the northwest corner of the West Gauvreau Group (23 claims) Project 780. This group forms the west portion of the unpatented claim groups around the Orofino patented claims which include the Orofino Mine.

ACCESS

The claims are reached by proceeding north for one-half mile along the well blazed west boundary of the Orofino claim groups in Southeast Silk Township, Porcupine Mining Division, from its intersection with the Wolf Road (Mile 7). The Wolf Road turns off easterly from the LeSage Road, 30 miles south of its intersection with Highway 101 West, near Ivanhoe Lake.

GENERAL GEOLOGY

For a description of the general geology and rock types, reference is made to "Summary Report - Exploration Activities on the Orofino Joint Venture Property, Projects #775, 780, 781, 782 and 783, Silk and Horwood Townships, Timmins area, Ontario; O.M.E.P. Report, Assessment Work, December 1981.

GEOLOGY

Only five (5) rock exposures were found on the two claims and three of these were extensions of the same rock along strike. The rock is a very thinly bedded multi-layered tuff with intervening quasi continuous chert beds and lenses. The dense nature of this minutely bedded volcano-chemical sediment restricted its erosion by glacial scour. The remainder of the work area is covered but is presumed to be the same rock type largely because observations of surrounding exposures on other claims are of the same rock type. Exposures are clean and bare due to the ravages of ground fires within the last 35 years.

Intermediate to Felsic Tuff:

A number of small, weathered green-grey outcrops of an intermediate to felsic tuff containing minor (1%) disseminated pyrite occur in the southeast portion of claim 756361. On the weathered surface this rock type displays prominent foliation, trending 058° and dipping steeply (70°) to the north. Minor quartz-carbonate stringers from 0.5 to 3 cm. wide (average width of 1 cm) occur at random parallel to the foliation.

Cherty Tuff:

Two weathered, light to dark grey outcrops of cherty tuff occur in the east-central and south eastern portion of claim 756361. On the weathered and fresh surface this rock type displays bedding which trends at 045-058° and dips steeply (70°) to the north. Minor quartz stringer 2-4 cm. wide occur randomly throughout this rock type both parallel -- and at oblique angles -- to the foliation. The east-central outcrop displays minor synistral shearing trending 000° with displacement (2-5 cm) of the east-west trending quartz stringers.

GEOPHYSICS

Because of the limited amount of outcrop in the area a program of reconnaissance magnetic and VLF-EM geophysics was conducted over the claims. Encouraging results from these initial surveys suggest two anomalous zones. The following sections outline the procedure and results obtained from these surveys.

Pickett lines were cut and chained over the property every 120 meters in a north-south direction with stations every 30 meters. A total of seven (7)

N-S lines were cut including three along claim lines for a total of 3520 meters. This was done to facilitate geological mapping, geophysical surveying and future geochemical traversing. Ninety-eight (98) readings were taken with each of two instruments for magnetic and VLF responses. A slightly greater number of readings were taken with magnetometer to monitor magnetic drift using the south claim boundary as base line with three established base stations.

VLF - EM

Procedure

In early June, 1985 Orofino Resources Ltd. personnel conducted a reconnaissance VLF-EM survey over cut lines, at station spacings of 30 m, on the two claims of the property. This survey employed the Geonics EM 16 portable unit, 42 X 14 X 19 cm. in size and weighing 1.6 kg, which measures the in-phase and quadrature components of a vertical magnetic field as a percentage of a horizontal primary field. This unit has a sensitivity of $\pm 150\%$ for the in-phase and $\pm 40\%$ for the quadrature with $\pm 1\%$ resolution.

To operate this instrument a transmitting station situated approximately parallel to the strike of the geology -- in this case Cutler, Main, U.S.A. -- must be selected; readings are taken along lines perpendicular to this strike direction.

To take readings orient the reference coil by swinging the instrument back and forth until minimum sound intensity is reached. Adjust the quadrature component dial on the cover of the instrument to further minimize sound. After finding the minimum signal strength from both adjustments an inclinometer reading is taken to take all readings while facing the same direction, even if travelling in the opposite direction along lines.

Data interpretation is facilitated by plotting recorded values on a survey line map (VLF-EM Map).

For additional directions on the use and interpretation of the data from this instrument consult the Geonics EM 16 Operating Manual, distributed by Geonics Ltd., Mississauga, Ontario.

Interpretation of Results

In the northwest quadrant of the survey area, the values of in phase and quadrature occur in parallel fashion with gradual slope corresponding to the general confines of a swamp. This is evident as well in the northeast corner and in the

southeast. A wide variation of the in phase in the southeast corresponds to a ridge of covered bedrock with a X over of in phase along the south margin where there could well be a fault as this is the prevailing direction of a major fault system in the general area. A possible north to northwest trending fault has been postulated from magnetic results along the common claim boundary of 360 and 361 and the position of in phase and quadrature along L16E would supplement this contention. Two "one line" moderate X overs occurred on L8E at 6N and 10N but are only of interest when in conjunction with other evidence which may be obtained from further surveys. They conform to a lobe of covered rock bordered by a swamp. Such a small area surveyed does hamper any broad interpretation.

MAGNETOMETER

Procedure

Coincident with the VLF-EM survey a reconnaissance magnetic geophysical survey was conducted over the same lines and at the same station spacings. The magnetic survey employed the Unimag II proton magnetometer model G846, 9 X 9 X 68 cm in size and weighing 3 kg, which measures the total magnetic field intensity within an accuracy of 10 gammas.

To conduct a survey with the Unimag II the operator must first take precautions not to bias or disturb the earth's magnetic field by allowing unwanted magnetic objects (keys, knife, jewellery, etc.) to come in close contact with the sensor. During the survey, readings are taken simply by depressing the push button releasing --- and waiting for a digital readout to appear and recording this value for the given survey station.

Corrections for diurnal variations in the earth's magnetic field were made by adjusting measured station values along a traverse to correspond with the changes in reference station (tie line and baseline crossings) values over time.

Data interpretation is facilitated by plotting values on a survey line map and contouring (Magnetometer Map).

Interpretation of Results

Contouring of magnetometric readings indicates the supposition that the entire work area is underlain by southwest trending volcano-chemical sediments is probably valid. Matching of comparable magnetic values within a 100 gamma range indicates a series of narrow linear troughs aligned in parallel fashion and resembling a pattern resulting from the juxtaposition of sedimentary layers. Inter-

pretation of magnetic values over such a small area hinders interpretation. However an imbricate system of elongate narrow lows reflected an assumption of bedded cherty sediments within more tuffaceous or volcano- effusive layers containing a varying quantity of minor magnetite producing varying susceptibilities but generally higher than the chert rich lenses.

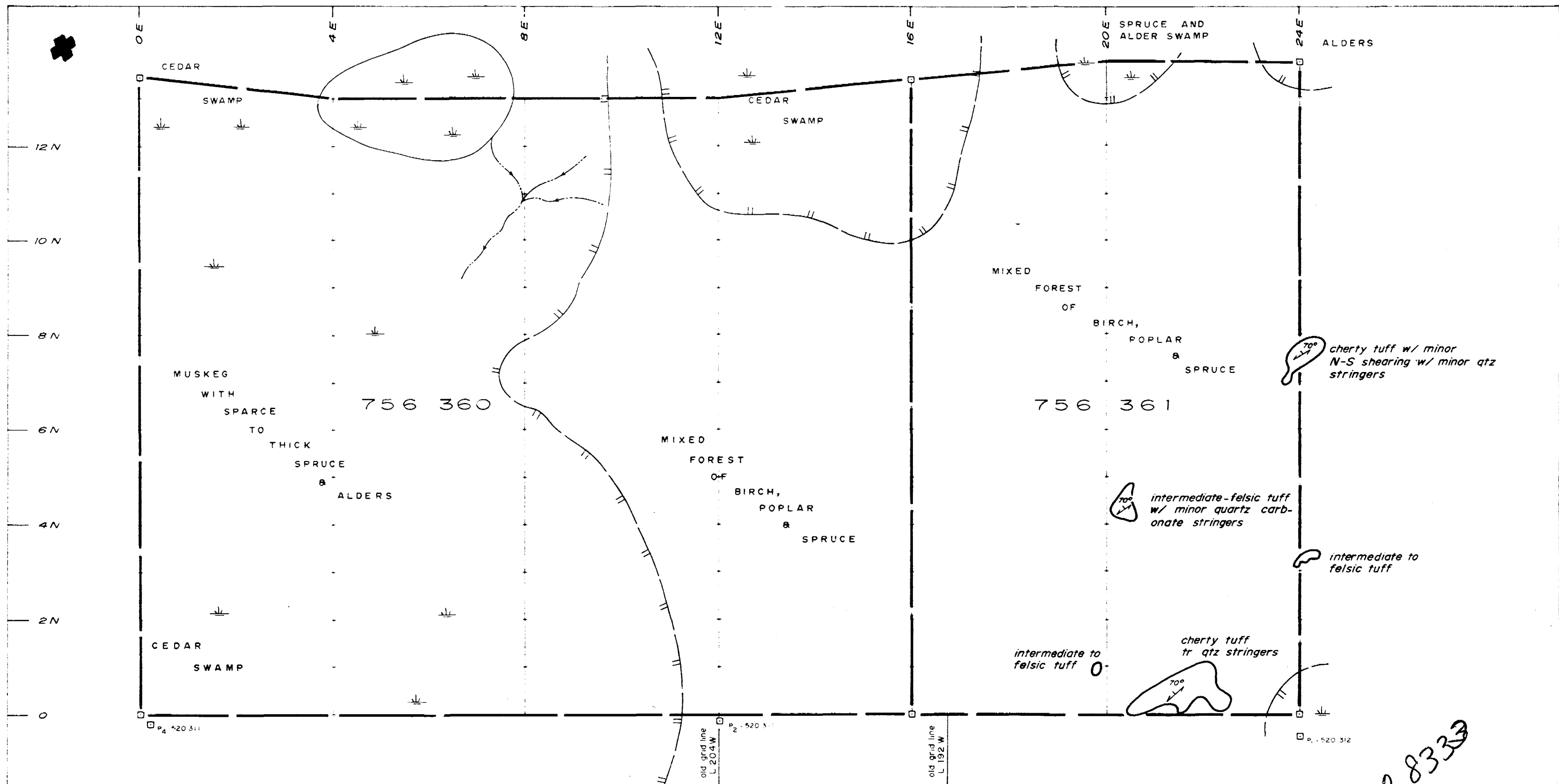
Magnetic contouring indicates local crenulations in the predominantly SW trend may represent arching of similar layers while discontinuous segmented lows probably reflect minor faults. Within the system utilized such minor variation may be the result of uncorrected magnetic drift. Thus segmentation of lows may be more apparent than real. A possible NW trending fault is perhaps evident from conflicting readings along the common claim boundary between 756360 and 756361. This could only be substantiated by further traverses to the north to detect similar disturbance of the predominant SW trend of formations. The overall magnetic print is that of an orderly series of volcano-sedimentary limbs with little lithologic variation.

M. Gilman

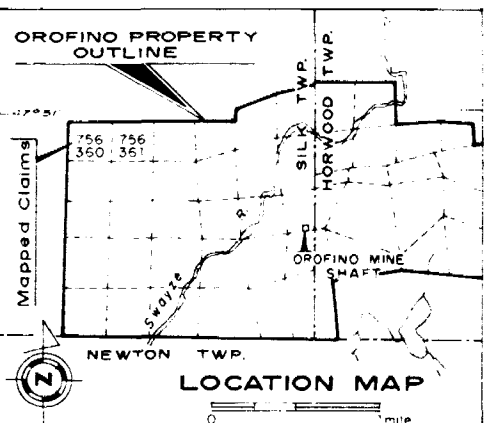
C E R T I F I C A T E

1. I am a geologist employed by Orofino Resources Limited.
2. I have an M. Sc. degree from the University of Toronto and have several years additional graduate work.
3. I have been practising my profession for forty (40) years.
4. This report is the result of my work in the field and in the writing thereof.

M. Gilman



28333



- Legend:
- Outcrop
 - Swamp
 - Topographic downslope



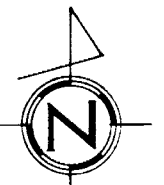
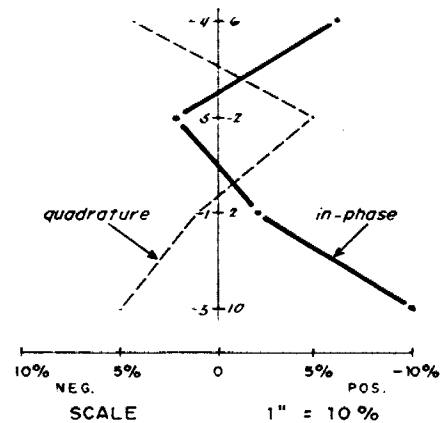
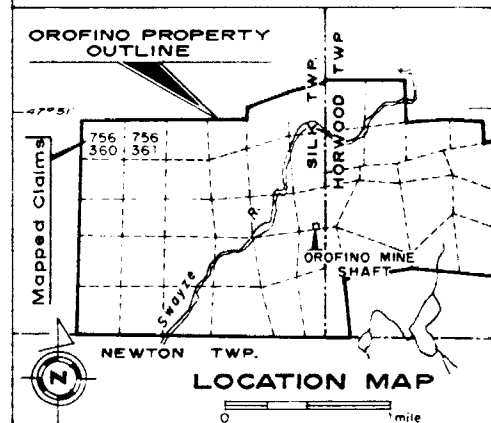
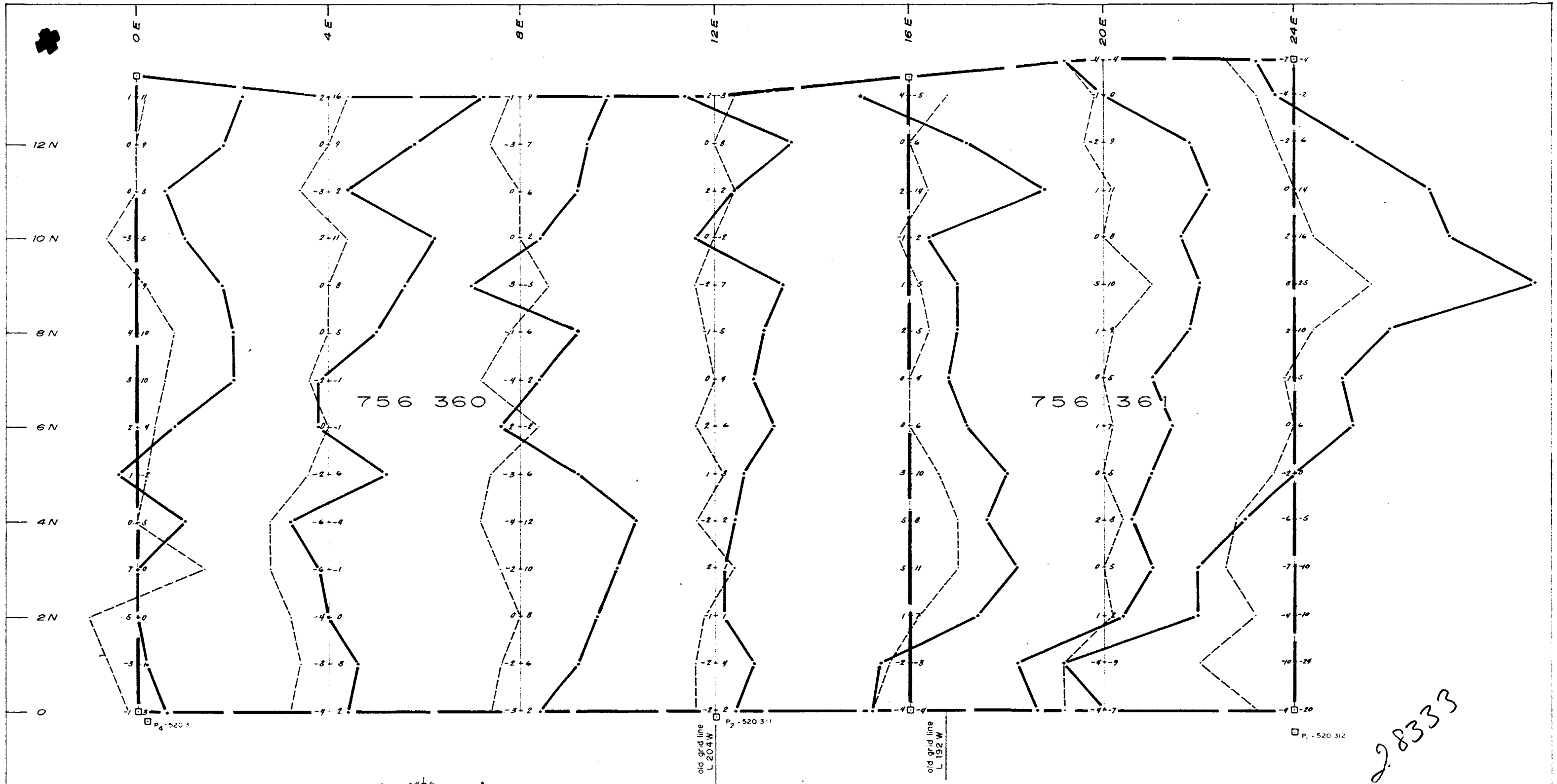
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OROFINO RESOURCES LIMITED
 OROFINO PROPERTY — Proj. No. 422
 Silk and Horwood Townships, Ontario — N.T.S. 41 O/16

GEOLOGY

WORK BY: TOM ATKINS JUNE 1985
 DRAWN BY: RODEL ORTIZ JUNE 1985



SCALE 1:2400



OROFINO RESOURCES LIMITED
 OROFINO PROPERTY — Proj. No. 422
 Silk and Horwood Townships, Ontario — N.T.S. 41 O/16

VLF-EM SURVEY

WORK BY: TOM ATKINS JUNE 1985
 DRAWN BY: RODEL ORTIZ JUNE 1985

1985 08 15

File: 2.8333

Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

We received reports and maps on August 2, 1985 for Geophysical (Magnetometer and Electromagnetic) and Geological Surveys submitted under Special Provisions (credit for Performance and Coverage) on Mining Claims P 756360-61 in Silk Township.

This material will be examined and assessed and a statement of assessment work credits will be issued.

We do not have a copy of the report of work which is normally filed with your office prior to the submission of this technical data. Please forward a copy as soon as possible.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: (416)965-4888

A. Barr:mc

cc: Orofino Resources Limited
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Toronto, Ontario
M5X 1C7

Warren F. Gilman
107 Wilson Avenue
Timmins, Ontario
P8N 2S8

Mining Lands Section

File No 28333

Control Sheet

TYPE OF SURVEY GEOPHYSICAL
 GEOLOGICAL
 GEOCHEMICAL
 EXPENDITURE

MINING LANDS COMMENTS:

L.D.
Sgt.

Dennis K.
Signature of Assessor

Aug. 28/85
Date