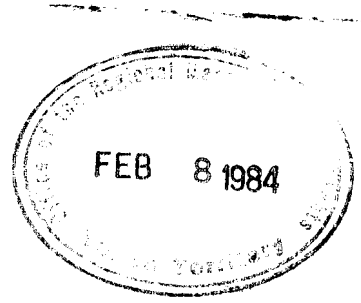

OMEGA 1-32 CLAIMS

EXPLORATION REPORT No. 1:

Geology, Geochemistry, and Geophysics, 1983

DAWSON MINING DISTRICT

NTS: 115 P/14

LATITUDE: 63°59' N

LONGITUDE: 137°10' W

AUTHOR: J. Biczok, H.B.Sc.

OWNER: NORANDA EXPLORATION CO. LTD. (N.P.L.)/

MATTAGAMI LAKE EXPLORATION LTD.

DATE: JANUARY, 1984

091507

This report has been examined by the Geological Evaluation Unit under Section 53 (4) Yukon Quartz Mining Act and is allowed as representation work in the amount of $_____.

Regional Manager, Exp'oration and Geological Services for Commissioner of Yukon Territory.

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CHAPTER ONE: INTRODUCTION

1-1: Location and Access

The Omega 1-32 claims are situated in the Syenite Range Mountains, 110 km east of Dawson City, Yukon at 63°59' N and 137°10' W (Fig. 1). They are 35 km northeast of the Klondyke Highway and 20 km northeast of the Clear Creek road. A winter cat trail from the Clear Creek road along Ross Creek passes within 4 km of the claims to the north. Access to the property so far has been by helicopter from Barlow Dome on the Clear Creek road.

1-2: Physiography

The Omega claims are situated in an area of gently rolling relatively low hills and local plateaus with elevations ranging from 1000 m to 1200 m. The area is underlain by generally recessive sediments consequently relief is low, steep hillsides are uncommon. Immediately to the south of the claims, the hills give way to mountains within one kilometre as the margins of the Lost Horse's granite stock are approached.

The majority of the claims are covered by low shrubs and grasses, giving way to spruce trees in some of the valley bottoms.

1-3: History of the Claims

The OMEGA 1-32 claims were staked by personnel from Mattagami Lake Exploration Co. Ltd. on July 14th, 1982 and recorded on July 26th (Fig. 2). Grant numbers YA 65102-YA 65133 were then assigned to the claims. Upon acceptance of this report the claims will be in good standing until July 26, 1988.

Exploration in this area was initiated in 1981 in response to a G.S.C. Ba-in-silt anomaly of >10% Ba on Lost Horse's Creek, several miles to the north of the current claims. Follow-up detailed sampling led to the 1982 discovery of a 10 m thick horizon of shale-hosted, bedded barite. Following staking of the OMEGA claims only a minor amount of geological mapping and prospecting was completed in 1982.

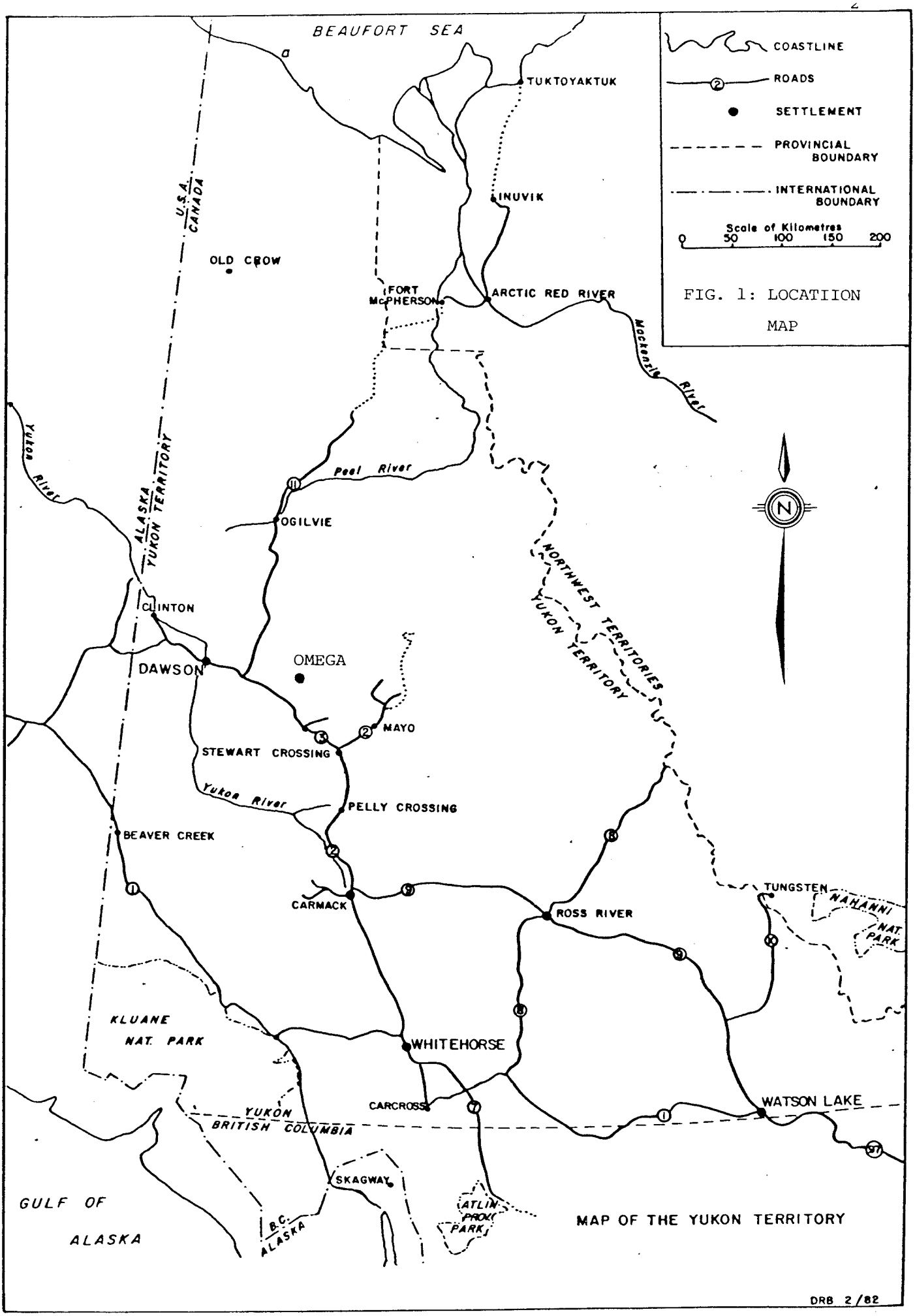


FIG. 1: LOCATIION MAP

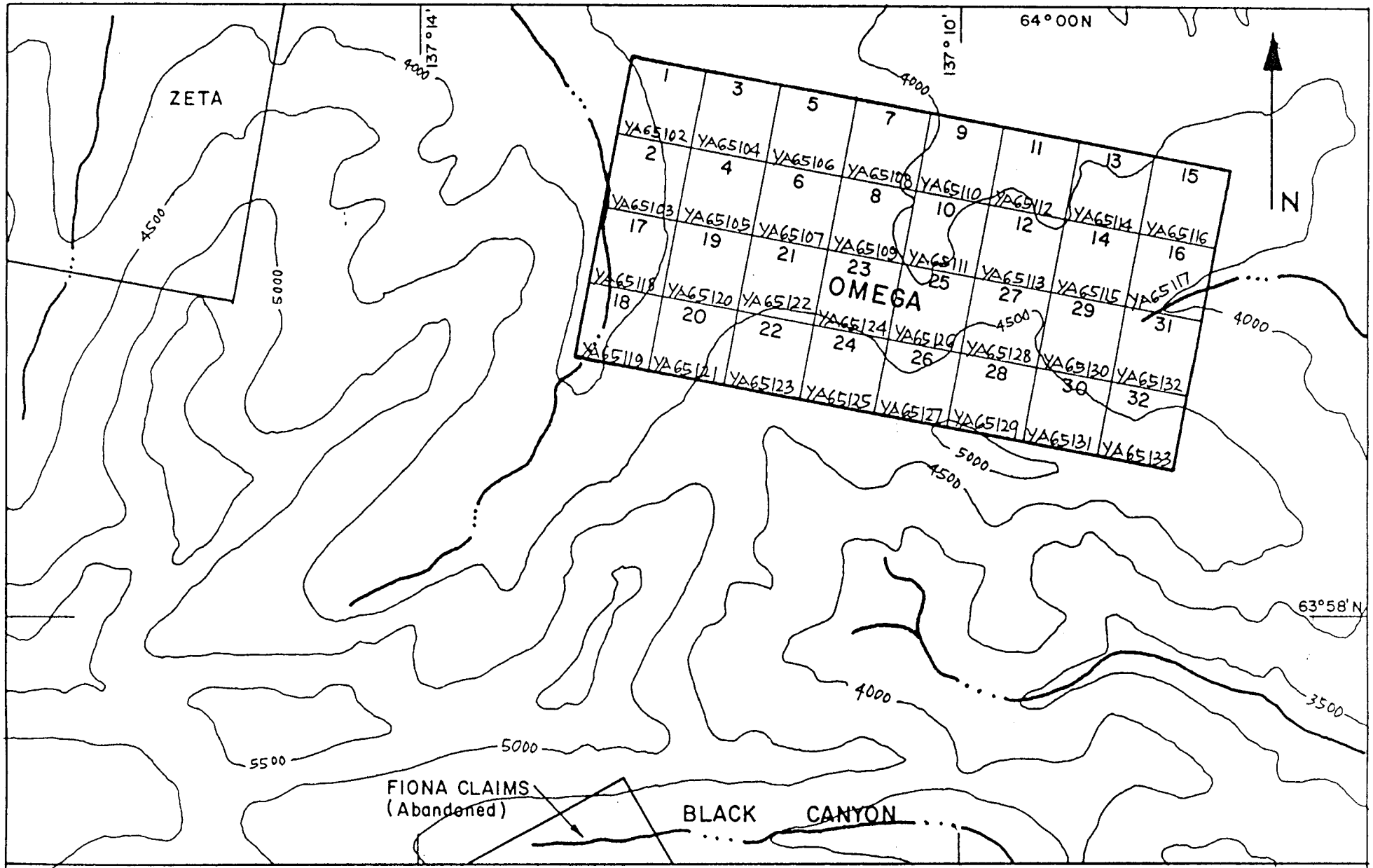


FIG. 2 : Claim Map

OMEGA 1-32

NTS-115-P-14

Scale : 1:31680 (1/2 " = 1 mile)

1-4: 1983 Work Program

A crew of four geologists conducted detailed exploration of the property from a base camp on Lost Horse's Creek during the period July 14-28. This consisted of geological mapping, 4.59 km of grid set-up, 3 km of VLF surveying and collection of over 300 soil samples plus silt and pan concentrate samples. The following personnel were involved in the work:

Del Ferguson	Party Chief
Andrew Lane	Senior Assistant
Stuart MacKenzie	Junior Assistant
Mark McKim	Junior Assistant

Helicopter support for camp moves was provided by a Bell 47 helicopter on contract from Trans North Turbo Air.

CHAPTER TWO: GEOLOGY

2-1: General Geology

The OMEGA 1-32 claims lie in the east-central part of a 40 X 80 km Ordovician-Silurian sedimentary basin referred to by company personnel as the Syenite Range Basin. The basin trends east from the Tintina Trench at the junction of the Klondyke and North Klondyke Rivers to the vicinity of Hobo Creek.

The sedimentary strata have been assigned an Ordovician-Silurian age by Green and Roddick (1961) based on fossil evidence and consequently correlated with the Road River Formation. While the age may be correct, mapping by Mattagami/Noranda geologists suggests that the strata were deposited in a local, fault-bounded basin and for the most part are lithologically dissimilar from the Road River Formation. However, mapping has so far been restricted to the southern half of the basin, therefore, any overall conclusions are somewhat speculative.

The Ordovician-Silurian strata of the basin appear to overly the "Grit Unit" (Unit 3 of Green and Roddick, 1961), a thick sequence of quartzite, slate, phyllite and limestone (Map 1, Table 1). This is overlain, at least on the south side of the basin, by an Ordovician-Silurian limestone formation, Unit 8 of Bostock (1964). This formation is exposed 4 km south of the OMEGA and consists of very fine-grained, dolomitic quartzite, overlain by thinly laminated, dolomitic limestone. One large ($> 1000\ m^3$) allocthonous block of sheared graphitic schist was discovered within the lower member.

Detailed mapping by company personnel has partially delineated ten members within the Ordovician-Silurian clastic sequence (Map 1, Table 1). Generally, these members become finer-grained and more argillaceous up-section (to the north in this area). The oldest unit is a thin black shale member followed by thick sequences of poorly sorted, weakly bedded, coarse quartzite and conglomerates, which grade upwards into shale and chert in the centre of the basin. A local volcaniclastic quartzite unit was discovered 4 km east of the OMEGA.

The lack of bedding and great thickness of the lower conglomeratic and quartzite members and their relatively sharp transition up-section into

TABLE 1

TABLE OF FORMATIONS

Cretaceous

4. Lost Horses Stock

(a) Hornblende±biotite monzonite/syenite
(b) K-feldspar phyric monzonite/syenite
(c) Hornblende diorite
(d) Quartz porphyry
(e) Biotite porphyry

Ordovician or Later

3. Clastic Formation

(a) Black shale with siliceous interbeds
(b) Quartzite, minor conglomerate and shale
(c) Grey-green quartzite with a volcaniclastic component
(d) Light Clastic Unit 1: chert pebble conglomerate, quartzite, shale
(e) Black shale
(f) Light Clastic Unit 2: Lithic pebble conglomerate, chert pebble conglomerate, beige quartzite
(g) Black Clastic Unit: Greywacke, chert pebble conglomerate, coarse grained quartzite
(h) Buff sandstone/quartzite
(i) Black shale with interbedded quartzite, local stratiform barite, phosphatic shale
(j) Black shale with interbedded chert

2. Limestone Formation

(a) Thinly laminated dolomitic limestone
(b) Foliated graphitic schist
(c) Very fine grained dolomitic quartzite

Cambrian (?)

1. Quartzite, slate, phyllite, limestone

black shales and chert suggests that this basin was fault-bounded, possibly a graben. The preponderance of black, organic-rich shale and chert indicates that the basin was euxinic throughout much of its formation.

Following the cessation of sedimentation and later folding, the sedimentary strata were intruded by a number of Cretaceous plutons. The largest one crops out 1.5 km southwest of the OMEGA claims and has been referred to as the "Lost Horse's Stock" by company geologists. Bostock (1964) mapped the stock as having a syenite-monzonite core and a granite-quartz monzonite margin. Our mapping of the stock has been minimal and restricted to marginal areas. Hornblende±biotite are the dominant mafic minerals present and the syenite is locally K-feldspar phyric. Two smaller stocks and one dyke swarm were discovered 2-4 km northeast of the OMEGA claims. A sample of the syenite from one of these stocks assayed 2.9% Ba indicating that it may have digested barium rich strata at depth. Dykes of hornblende diorite, quartz porphyry and/or biotite porphyry are found near most of the stocks.

2-2: Detailed Geology

The OMEGA claims are underlain by strata in the upper portion of the local stratigraphic column (Table 1). The following description is modified after Jago, 1982. The oldest strata on the claims are part of the "Light Clastic Unit no. 2" (3f). This consists dominantly of lithic, pebbly quartzite (chert, quartz, shale fragments) with lesser chert pebble conglomerate and subordinate beige quartzite. The latter may form in isolated lenses within the former rock unit. Overlying this unit is the Black Clastic Unit (3g) made up of greywacke, chert pebble conglomerate and coarse grained quartzite. The greywacke is medium to coarse grained and contains abundant shale, cherty shale, quartz and chert fragments in an argillaceous matrix. The chert pebble conglomerate contain both white and grey to black chert fragments while the coarse grained quartzite consist largely of angular, white quartz fragments and lesser light coloured chert fragments. A unique buff sandstone/quartzite (3h) forms isolated lenses within 3G and is exposed 500 m northwest of the claims. An upper black shale (3I) member with interbedded quartzite forms the host rock for a stratiform barite submember. The black shales are organic-rich, thinly laminated and locally rusty weathering. Bedded barite on Lost Horse's Creek (Omega Claims) occurs in a structurally thickened (?) section up to 8 meters thick. The rock is light

to dark grey weathering, thinly laminated and weakly pelletal. The youngest member of this clastic formation is a black, laminated shale (3J) unit with thin interbeds of locally dominant black chert. This unit is predominant immediately north of the claims.

CHAPTER THREE: GEOCHEMISTRY

3-1: Soil Geochemistry

In order to trace the extent of the barite horizon, a grid was set up along the presumed strike. A 1.0 km long base line trending 100° was established 80 m north of the barite outcrop and cross-lines turned off of this line at 100 m intervals. Three intermediate lines at 25 m intervals were established immediately east of the barite outcrop (L50+25E to L50+75E). Soil samples, generally from the B horizon, were collected at 20 m spacings along most cross-lines and at 10 m intervals above the barite outcrop. Samples were analyzed for Cu, Zn, Pb, and Ag by the Noranda Laboratory in Vancouver and for Ba and P_2O_5 by Bondar-Clegg in Vancouver. The range of values for each element is presented in Table 2 along with the logarithmic mean, logarithmic standard deviation and threshold ($\bar{x}$ + 2xSt. Dev.) calculated from 225 samples. Contour maps for each element except Pb have been prepared and are presented in Fig. 3 a-e. The range of Pb values (2-14) did not warrant plotting or contouring. The remaining elements are discussed individually in the following sections.

Barium (Fig. 3a)

Barium values range from 89 to >96,000 ppm with an anomalous threshold of 8,772 ppm. The highest values naturally are found on top of the barite outcrop. A linear anomaly trends northwest and southeast (118°-298°) from that point and includes several highly anomalous locations: >37,000 ppm Ba at L49+00E, 49+60N; 45,000 ppm Ba at L52+00E, 48+60N; and 10,820 ppm Ba at L55+00E, 48+60N. The anomaly appears to extend off the grid to the east at L54+00E, 48+00N. The west end of the anomaly appears to be masked by overburden in the valley of Bear Creek.

TABLE 2: SUMMARY OF SOIL SAMPLE STATISTICAL DATA

ELEMENT	RANGE (ppm)	LOGARITHMIC MEAN (ppm)	LOGARITHMIC STANDARD DEVIATION	THRESHOLD (ppm)
Cu	6-640	22.1	.272	77.3
Zn	28-1600	97.1	.344	473.4
Pb	2-14	4.6	.208	12.0
Ag	0.2-9.2	0.29	.292	1.1
Ba	89- 96,000	1340	.408	8,772.1
P_2O_5	600-12,400	2173	.239	6,533.1

n = 225

Phosphorous - P_2O_5 (Fig. 36)

Immediately beneath the barite horizon exposed on Lost Horses Creek is a unit of sheared and contorted black, phosphatic shale. Phosphatic horizons are commonly associated with exhalative Pb-An-Ba or Ba deposits in the Selwyn Basin (Goodfellow, Pers. comm.) and for these reasons the samples were analyzed for P_2O_5.

Phosphate values range from 600 ppm to 12,400 ppm in the B horizon samples with an anomalous threshold of 6,533 ppm. The areal distribuation of anomalous samples closely follows that of barium. A linear anomaly extends NW-SE from the barite exposure with the greatest concentrations at L49+00E, 49+60N; L52+00E, 48+60N, and at L50+30E, 49+10N, which is on top of the barite outcrop. There is no significant phosphorous anomaly to correlate with the barium anomaly on L54+00E at 48+60N.

Silver (Fig. 3c)

Silver values somewhat surprisingly range from 0.2 ppm to a high of 9.2 ppm with an anomalous threshold of 1.1 ppm. The vast majority of anomalous samples ($>$ 1.1 ppm) are confined to the linear northwest trending anomaly coincident with the Ba-P_2O_5 anomaly. The greatest concentrations occur at L49+00E, 49+60N; L50+50E, 48+60E and L52+00E, 48+60N, locations virtually identical to the concentrations of Ba and P_2O_5. One minor spot anomaly occurs at the west end of the grid at L45+00E, 48+80E.

Zinc (Fig. 3d)

Zinc values range from 28 to 1600 ppm with an anomalous threshold of 473 ppm. The distribution of anomalous samples closely corresponds to those of Ba, P_2O_5 and Ag but is slightly more irregular. The western anomalous area appears to have been modified by groundwater and streamflow. The anomaly is centred at L49+00E, 49+60N but trends northeast from there in contrast to the northwest trend of the previous anomalies. This is no doubt due to the mobility of zinc and subsequent hydromorphic dispersion. The greatest zinc concentration is on L50+25E at 48+80N. approximately 15 m south of the barite exposure. This may be due to leaching from the phosphatic shale horizon or an unexposed zinc rich shale

horizon. Samples of black shale collected in 1982 contained 275-925 ppm Zn as opposed to the 100-200 ppm concentration of the barite horizon. The eastern concentration at L52+00E, 48+60N again is coincident with the Ba-P_2O_5-Ag anomaly. Sampling in this area is not detailed enough to ascertain whether or not the Zn anomaly is actually displaced slightly from the other anomalies or not.

Copper (Fig. 3e)

Copper values range from 6 to 640 ppm with an anomalous threshold of 77.3 ppm. As with the previous examples, the greatest concentrations lie along a linear northwest trending anomaly which passes over, or near, the barite outcrop. The greatest concentrations are again at L49+00E, 49+60N, and L50+50E, 48+60N, with a lesser concentration on L52+00E at 48+60N. A weak concentration ($<$ 52 ppm) is coincident with the weak silver anomaly on the westernmost line L45+00E and L46+00E at 48+80E.

3-2: Stream Geochemistry

Thirty four silt samples and twenty panned concentrates were collected along Lost Horses Creek and its tributaries near the barite outcrop (Fig. 4). Ba-in-silt values range from 0.836% to 1.51% along Lost Horses Creek below the junction with Mooseberry Creek. There are no significant anomalies on any of the small tributaries in this area including Bear Creek, which drains the Ba-P_2O_5-Ag-Zn-Cu anomaly on L49+00E at 48+60N. Ba-in-silt values on Lost Horses Creek above the junction with Mooseberry Creek range from 0.407% to 0.836% below the barite exposure and 0.197% to 0.547% upstream from the exposure. Values along Mooseberry Creek range from 0.73% to 0.94% in the lower part and 0.23% to 0.398% in the upper part with an apparent cutoff in anomalous values between L52+00E and L53+00E. The anomalous Ba levels on Mooseberry Creek are comparable to those on Lost Horses Creek immediately below the barite horizon and suggest that Mooseberry Creek drains an extension of the barite horizon approximately 200 m east of the barite exposure. The most anomalous Ba-in-silt levels are below the Mooseberry-Lost Horses junction, suggesting that both streams do indeed contribute

barite to the main stream.

Ba-in-panned sample results mirror the Ba-in-silt values along Lost Horses Creek. The values are highest below the junction with Mooseberry Creek (33.6% to 54.8% Ba) again indicating that both branches are contributing barite. Ba-in-pan values range from 23.0 to 37.5% immediately downstream from the barite outcrop and 1.35% to 20.20% upstream.

Both Ba-in-silt and Ba-in-panned samples levels remain elevated for 25 m upstream from the barite outcrop (0.547% and 20.20% respectively). The reason for this is uncertain but it may be due to dispersion caused by local glaciation, mechanical transport downslope (the barite outcrop is on the south dipping flank of a ridge) or perhaps the presence of a barite rich horizon. Our work is not detailed enough at this stage to draw any conclusions on this matter.

CHAPTER FOUR: GEOPHYSICS

The phosphatic shale horizon underlying the barite outcrop is highly sheared and contorted, consequently it was expected to offer a significant resistivity contrast with the barite horizon. A VLF survey was therefore completed over the grid utilizing a GEONICS EM 16 unit and the Hawaiian transmitter (Fig. 5).

A weak cross-over was revealed on line L50+50E at 48+90N and undoubtedly reflects the sheared, barite-phosphatic shale contact. The cross-over disappears on L51+00E but reappears on L52+00E and 53+00E in an area coincident with the soil geochemical anomaly. The strongest cross-over occurs at the west end of the grid (L55+00E, 48+10N) and is coincident with a weak Ba-in-soil anomaly. West of Lost Horses Creek VLF patterns are dominated by stream effects. One major anomaly parallels Gitlucki Creek and the other parallels Bear Creek. A moderate cross-over appears to occur on L49+00E, 50+00N but is incompletely defined due to a lack of readings. This VLF anomaly may correlate with the very strong soil geochemical anomaly in the area.

In conclusion it appears that the VLF survey has been partially successful in tracing the barite-phosphatic shale contact, especially in the drier east half of the grid. The low cost and limited time required for this type of survey makes it a useful compliment to soil geochemical surveys on this property.

CHAPTER FIVE: MINERALIZATION

To date only one exposure of bedded barite has been found on the OMEGA claims and that is on the east bank of Lost Horses Creek at The exposure consists of steeply dipping (80° North, east-trending), thinly laminated, fine-grained pelletal barite. It is exposed over a width of 8 m or a true thickness of approximately 7 m. The footwall consists of sheared and contorted phosphatic black shale which has a -90° dip. The northern limit (hanging wall) of the barite horizon is not exposed.

Five chip samples were collected across the exposure and results are presented in Table 3. Additional analyses over the past two years indicate that the barite is quite pure with negligible levels of heavy metals and that its specific gravity is 4.5. These results indicate, so far, that the barite is quite suitable for use as drilling mud. In fact, the specifications are apparently superior to the barite produced at the Samovar mine near Ross River. Further tests are currently being run on the barite by Avon Lea Industries in Saskatchewan.

TABLE 3: Analyses of Chip Samples Across the Barite Horizon

SAMPLE NO.	ELEMENT						
	Cu	Pb	Zn	Ag	Ba	P	% Barite
Chip 1*	16	4	120	0.1	54.37%	1100	92.37
Chip 2	14	L2	110	L0.1	53.20%	1100	90.38
Chip 3	18	6	140	0.1	51.48%	1400	87.46
Chip 4	20	5	125	0.3	48.54%	1300	82.47
Chip 5	20	4	100	0.5	52.52%	900	89.23
					Average:		88.38%

* Samples chip 1-4 are 5 ft. long and begin at the north end of the barite exposure. Sample Chip 5 is 6 ft. long and ends at the southern limit of the barite.

CHAPTER SIX: CONCLUSIONS

The barite exposed on the OMEGA claims was probably produced by sedimentary exhalative processes along the margins of a fault-bounded basin (graben ?) in Ordovician-Silurian times. So far the ore appears to be of a suitable grade and meets the specifications required for use in drilling muds.

Geochemical and geophysical surveys indicate that the barite horizon extends from L49+00E, 49+80N to L55+00E, 48+00N, a distance of 650 metres. Combined with a known thickness of at least 7 m, an assumed depth of 50 m and the Specific Gravity of 4.5, this points to a deposit exceeding 1 million tons.

The assumed size and grade of the deposit coupled with it's proximity to the Dempster Highway (and hence the major barite users in the Beaufort Sea) make this an attractive property. However, current demand is relatively small and Noranda does not have a guaranteed customer for the ore. Consequently, rather than proceed with development of the property on our own, it is recommended that a major user of barite (eg. Gulf, Dome, Esso, Baroid or Melchem) be brought in as a partner. This would ensure a market for the ore.

LIST OF REFERENCES

Bostock, H.S., 1964. Geology, McQuesten, Yukon Territory; Geol. Surv. Can., Map 1143A.

Green, L.H. and Roddick, J.A. Geology, Larsen Creek, Yukon Territory. Geol. Surv. of Can. Map 1283A

Jago, B., 1982. Yukon Uranium Project, 1982. Mattagami Lake Exploration Ltd. Internal Company Report.

STATEMENT OF QUALIFICATIONS

I, John Biczok, of the City of Whitehorse, in the Yukon Territory, do hereby certify :

THAT I have been employed as a Geologist by Noranda Exploration Company, Limited (No Personal Liability) since October 1, 1982, and by Mattagami Lake Exploration Limited (No Personal Liability) (a Noranda subsidiary) for three years previous to that date;

THAT I am a graduate of Lakehead University in Thunder Bay, Ontario, with an Honours Bachelor of Science Degree in Geology;

THAT I am currently completing a Master of Science Degree in Geology with the University of Manitoba;

THAT I am a member of the Geological Association of Canada, and the Canadian Institute of Mining and Metallurgy;

THAT I supervised the work described in this report.

John Biczok

John L. Biczok
District Geologist
Noranda Exploration Co. Ltd. (N.P.L.)

OMEGA, 1983

STATEMENT OF COSTS

Helicopter Contract Charges	$10,612.09
Helicopter Fuel	2,568.86
Vehicle Rental	467.00
Wages: 56 mandays X $125/day	7,000.00
Assays: Bondar Clegg: (78 Rock Samples)	1,545.50
Noranda Lab: (307 soil samples, 34 silt samples 21 panned samples)	4,343.95
Camp Supplies:	
Groceries	1,317.55
Hardware	632.13
Miscellaneous	513.04
Expediting	745.95
Travel and Hotels	950.93
Radio Rentals	162.50
Freight	623.88
Drafting: 10 days X $125/day	1,250.00
Report Writing: 4 days X $150/day	600.00
GRAND TOTAL:	$33,333.38

L 45+00 E | L 46+00 E | L 47+00 E | L 48+00 E | L 49+00 E | L 49+50 E | L 50+25 E | L 50+35 E | L 50+50 E | L 50+75 E | L 51+00 E | L 52+00 E | L 53+00 E | L 54+00 E | L 55+00 E

52+00 N | 51+00 N | 50+00 N | 49+00 N | 48+00N | 47+00 N

Beardung Ck.

Gitlucki Ck.

Mooseberry Ck.

Barile (Lost Horses) Creek

True | Grid

Legend

- Soil Sample
- Horizon Soil Sample
- Stream Sediment Sample
- Heavy Mineral Concentrate Sample

Contour Intervals (ppm)

1000
2000
5000
10 000
20 000
> 50 000

0 | 50 | 100 | 200
Metres

Fig. : 3a

REVISED

OMEGA 1-32 CLAIMS

SOIL SAMPLE RESULTS

Barium (ppm)

PROJECT: OMEGA

PROJ. Nº 917
N.T.S. 115P/14
DWG. Nº

SURVEYED BY: D.F. A.L.S.M. M.M DATE: AUG., 1983
DRAWN BY: S.A. MacKenzie SCALE: 1:2000

NORANDA EXPLORATION CO. LTD.

OFFICE: WHITEHORSE, Y.T.

091507

L 45+00 E | L 46+00 E | L 47+00 E | L 48+00 E | L 49+00 E | L 49+50 E | L 50+25 E | L 50+35 E | L 50+50 E | L 50+75 E | L 51+00 E | L 52+00 E | L 53+00 E | L 54+00 E | L 55+00 E

52+00 N
51+00 N
50+00 N
49+00 N
48+00N
47+00 N

Beardung Ck.
Gitlucki Ck.
Mooseberry Ck.
Barite (Lost Horses) Creek

True
Grid

Legend

- Soil Sample
- Horizon Soil Sample
- Stream Sediment Sample
- Heavy Mineral Concentrate Sample

Contour intervals (%)

0.2
0.4
0.6
0.8
1.0
1.2

0 50 100 200
Metres

Fig.: 3b

REVISED	OMEGA 1-32 CLAIMS
	SOIL SAMPLE RESULTS
	Phosphate (P_2O_5) - (%)
	PROJECT: OMEGA
PROJ. Nº 917	SURVEYED BY: D.F. A.L.S.M. M.M DATE: AUG. 1983
N.T.S. 115P/14	DRAWN BY: S.A. MacKenzie SCALE: 1:2000
DWG. Nº	NORANDA EXPLORATION CO. LTD.
	OFFICE: WHITEHORSE, Y.T.

091E 07

L 45+00 E | L 46+00 E | L 47+00 E | L 48+00 E | L 49+00 E | L 49+50 E | L 50+25 E | L 50+35 E | L 50+50 E | L 50+75 E | L 51+00 E | L 52+00 E | L 53+00 E | L 54+00 E | L 55+00 E

52+00 N | 51+00 N | 50+00 N | 49+00 N | 48+00N | 47+00 N

Beardung Ck | Gitlucki Ck | Baille (Lost Horses) Creek | Mooseberry Ck

N (True) | N (Grid)

Legend

- Soil Sample
- Horizon Soil Sample
- Stream Sediment Sample
- Heavy Mineral Concentrate Sample

Contour Intervals (ppm)

0.5
1.0
1.5
2.0
2.5
3.0

0 50 100 200
Metres

Fig.: 3c

REVISED
PROJ. Nº 917
N.T.S. 115P/14
DWG. Nº

OMEGA 1-32 CLAIMS

SOIL SAMPLE RESULTS

Silver (ppm)

PROJECT: OMEGA

SURVEYED BY: D.F. A.L.S.M. M.M DATE: AUG., 1983

DRAWN BY: S.A. MacKenzie SCALE: 1:2000

NORANDA EXPLORATION CO. LTD.

OFFICE: WHITEHORSE, Y.T.

OCT 07

L 45+00 E | L 46+00 E | L 47+00 E | L 48+00 E | L 49+00 E | L 49+50 E | L 50+25 E | L 50+35 E | L 50+50 E | L 50+75 E | L 51+00 E | L 52+00 E | L 53+00 E | L 54+00 E | L 55+00 E

52+00 N
51+00 N
50+00 N
49+00 N
48+00N
47+00 N

Beardung Ck.
Gitlucki Ck.
Mooseberry Ck.
Battle (Lost Horses) Creek

True
Grid

Legend

- Soil Sample
- Horizon Soil Sample
- Stream Sediment Sample
- Heavy Mineral Concentrate Sample

Contour Intervals (ppm)

100
200
300
400
500

0 50 100 200
Metres

091507

Fig. : 3d

REVISED
PROJ. Nº 917
N.T.S. 115P/14
DWG. Nº

OMEGA 1-32 CLAIMS

SOIL SAMPLE RESULTS

Zinc (ppm)

PROJECT: OMEGA

SURVEYED BY: D.F. A.L.S.M. M.M DATE: AUG. 1983

DRAWN BY: S.A.MacKenzie SCALE: 1:2000

NORANDA EXPLORATION CO. LTD.

OFFICE: WHITEHORSE, Y.T.

L 45+00 E | L 46+00 E | L 47+00 E | L 48+00 E | L 49+00 E | L 49+50 E | L 50+25 E | L 50+35 E | L 50+50 E | L 50+75 E | L 51+00 E | L 52+00 E | L 53+00 E | L 54+00 E | L 55+00E

52+00 N
51+00 N
50+00 N
49+00 N
48+00N
47+00 N

Beardung Ck.
Gitlucki Ck.
Mooseberry Ck.
Baille (Lost Horses) Creek

N (True)
N (Grid)

Legend

- Soil Sample
- Horizon Soil Sample
- Stream Sediment Sample
- Heavy Mineral Concentrate Sample

Contour Intervals (ppm)

25
50
75
100

0 50 100 200
Metres

Fig. : 3e

091507

REVISED

OMEGA 1-32 CLAIMS

SOIL SAMPLE RESULTS

Copper (ppm)

PROJECT: OMEGA

PROJ. Nº 917 | SURVEYED BY: D.F. A.L. S.M. M.M DATE: AUG. 1983

N.T.S. 115P/14 | DRAWN BY: S.A. MacKenzie SCALE: 1:2000

DWG. Nº

NORANDA EXPLORATION CO. LTD.

OFFICE: WHITEHORSE, Y.T.

L 45+00 E | L 46+00 E | L 47+00 E | L 48+00 E | L 49+00 E | L 49+50 E | L 50+25 E | L 50+35 E | L 50+50 E | L 50+75 E | L 51+00 E | L 52+00 E | L 53+00 E | L 54+00 E | L 55+00 E

1.34%, 37.0%
.98%, 49.0%
1.51%, 46.0%
1.03%, 41.3%
1.34%, 54.1%
1.23%, 53.8%
1.09%, 33.60%
.297% .986%, 50.30%
.30% .882%, 50.40%
1.25%, 54.80%
.184% .954%, 43.50%
.439% .836%, 51.70%
38.1%
.588%
.333%
.813%
0.73%
.94%
.836%
33.1%
.582%
23.0%
.54%
40.0%
10.4%
0.70%
.407%
30.7%
.736%
.547%
20.20%
.398%
.35%
5.3%
.23%
.208%
2.8%
.33%
.197%
1.35%
261%

Beardung Ck
Gitlucki Ck
Mooseberry Ck.
Barite (Lost Horses) Creek

BL
BL 100

True
Grid

52+00 N
51+00 N
50+00 N
49+00 N
48+00N
47+00 N

Legend

- Soil Sample
- Horizon Soil Sample (Panned)
- Stream Sediment Sample
- Heavy Mineral Concentrate Sample
- Barite Outcrop

.147, 1.35%
% Ba in silt & panned concentrate samples

0 50 100 200
Metres

Fig.: 4

REVISED
PROJ. Nº 917
N.T.S. 115P/14
DWG. Nº

OMEGA 1-32 CLAIMS
BARIUM IN STREAM SAMPLE RESULTS

PROJECT: OMEGA
SURVEYED BY: D.F. A.L.S.M.M.M DATE: AUG. 1983
DRAWN BY: S.A. MacKenzie SCALE: 1:2000
NORANDA EXPLORATION CO. LTD.
OFFICE: WHITEHORSE, Y.T.

091E07

4500E 4600E 4700E 4800E 4900E 4950E 5050E 5100E 5200E 5300E 5400E 5500E

5200N

5100N

5000N – BL (100°)

4900N

4800N

4700N

Beardung Ck.

Gitlucki Ck.

Barite Lost Horses Creek

Mooseberry Ck.

LEGEND

VLF Survey

Instrument ..... GEONICS EM-16

Operators ..... SM, AL

Date surveyed ..... JUL 1983

Readings ..... DIP ANGLES IN PERCENT

Results ..... FRASER FILTERED

Contour values ..... 0, 5, 10, 15 %

Transmitting station ... LUALUALEI, HAWAII

Frequency ..... 23.4 KHz.

..... CREEK

0 20 40 80 160 metres

Fig. : 5a

REVISED	OMEGA 1-32 CLAIMS
	VLF Survey (FRASER FILTERED)
PROJ. No. 917	SURVEY BY: SM, AL. DATE: JUL. 83 – NOV 83
N.T.S. 115-P-14	DRAWN BY: AI SCALE: 1:2000
DWG. No. 5	**NORANDA EXPLORATION** OFFICE: Whitehorse

091504

4500E 4600E 4700E 4800E 4900E 4950E 5050E 5100E 5200E 5300E 5400E 5500E

5200N

5100N

5000N – BL (100°)

4900N

4800N

4700N

Beardung Ck.

Gitlucki Ck.

Mooseberry Ck.

Bastle (Lost Horses) Creek

N

LEGEND

VLF Survey

Instrument ..... GEONICS EM-16

Operators ..... SM, AL

Date surveyed ..... JUL 1983

Profile scale ..... 1 cm. = 5%

□ – – – – – □ ..... QUADRATURE

○ ——— ○ ..... IN-PHASE

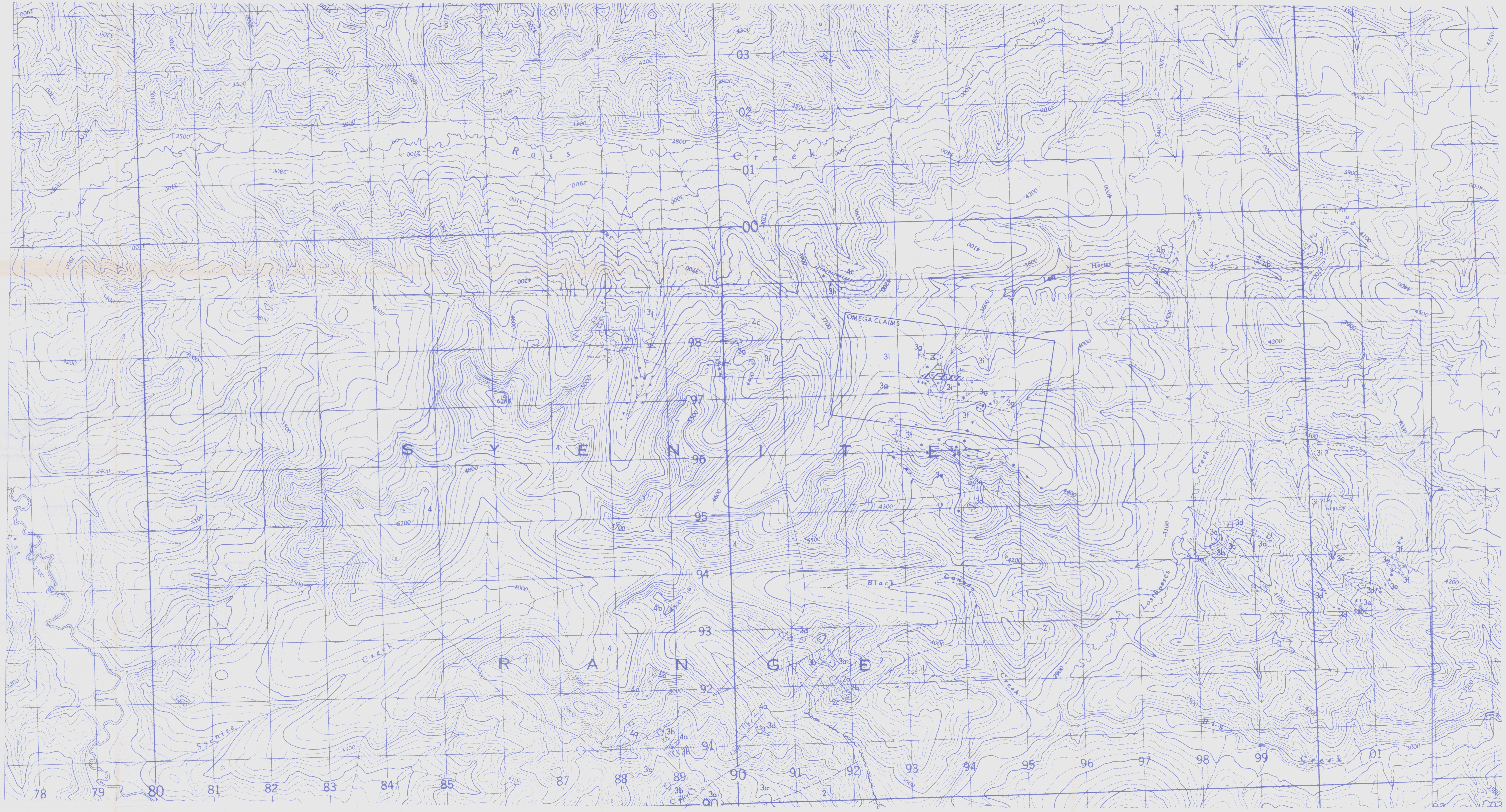
..... CREEK

0 20 40 80 160 metres

091507

Fig. : 5b

REVISED	OMEGA 1-32 CLAIMS
	VLF Survey (RAW DATA PROFILE)
PROJ. No. 917	SURVEY BY: SM, AL DATE: JUL 83 – NOV 83
N.T.S. 115-P-14	DRAWN BY: AI SCALE: 1:2000
DWG. No.	NORANDA EXPLORATION
	OFFICE: Whitehorse



Legend

CRETACEOUS

4 LOST HORSE'S STOCK

(a) Hbl ± Bio Monzonite/Syenite (b) K - Feldspar Porphyritic Monzonite/Syenite.
(c) Hbl - Diorite (d) Quartz Porphyry (e) Biotite Porphyry.

ORDOVICIAN (OR LATER ?)

3 CLASTIC FORMATION

(a) Black shale with siliceous interbeds.
(b) Quartzite, minor conglomerate and shale.
(c) Green - grey quartzite with volcaniclastic component.
(d) Light Clastic Unit 1 : Chert pebble conglomerate > quartzite > shale.
(e) Black shale.
(f) Light Clastic Unit 2 : Lithic pebbly quartzite > chert pebble conglomerate > beige quartzite.
(g) Black Clastic Unit : Greywacke > chert pebble conglomerate, coarse grained quartzite.
(h) Buff sandstone/quartzite.
(i) Black shale with interbedded quartzites, local barite, phosphatic shale.
(j) Black shale with interbedded chert.

2 LIMESTONE

(a) Thinly laminated dolomitic limestone.
(b) Sheared graphitic schist.
(c) Very fine grained dolomitic quartzite.

ORDOVICIAN (OR EARLIER ?)

1 Quartzite, slate, phyllite, limestone

SYMBOLS

Ba horizon
Bedding, inclined
Foliation, strike & dip
Geological contact defined, approximate
C Calcite veins
Float
Outcrop
Fault

SCALE
1: 20,000

Metres 400 200 0 400 800 1200 1600 2000 Metres

Map I

REVISED	SYENITE RANGE
	GEOLOGY
PROJ. No. Matt. 106	SURVEY BY: J.L.B. et al. DATE: Feb./83
N.T.S. 115P/14,15-116A/2,3	DRAWN BY: [signature] SCALE: 1: 20,000
DWG. No.	NORANDA EXPLORATION OFFICE: Whitehorse