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NORTHERN DYNASTY EXPLORATIONS LTD.

YUKON PROJECT

NOTES ON  
1988 RECONNAISSANCE EXPLORATION

Written by:

George Gorzynski, M.A.Sc., P.Eng.

Watson Lake Mining District

Finlayson Lake Map Sheet

N.T.S. 105 G

April, 1989

YUKON PROJECT  
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1.0 INTRODUCTION

During May and August of 1988, Northern Dynasty Explorations Ltd. carried out a reconnaissance gold exploration program on the Finlayson Lake Map Sheet (105 G) on behalf of the Yukon Joint Venture. The program was initiated after the high gold potential of the area was demonstrated by recent discoveries at Grew Creek and Ketza River just west of the area.

The exploration program took advantage of both public and private data bases. Government geological maps are published as Wheeler et al. (1960) and Templeman-Kluit (1977) and an airborne magnetic map as Geological Survey of Canada (1961). Detailed regional geology maps and results from a heavy mineral reconnaissance sampling program which included assays for gold and a wide variety of other metals, were compiled by Cyprus Anvil Mining Corporation for the Finlayson Lake Map Sheet and adjacent areas in the late 1970's and early 1980's. This data has never been made public. In July, 1988 the Geological Survey of Canada released results of a reconnaissance stream sediment survey over the same map sheet; this data was used in conjunction with results of the earlier heavy minerals survey during the second phase of exploration in August, 1988.

Two properties, the LUG (Area 3 - Map 1) and the LION (Area 11 - Map 1), were staked during the program. The geology and mineralization on each property is briefly described in this report and fully described in Gorzynski 1988A and 1988B respectively.

The purpose of this report is to briefly describe other target areas that were investigated in the course of this program but not pursued further. All areas described are outlined on Map 1 (in pocket) in order from north to south. Three areas where abundant samples were taken are outlined at a larger scale on Maps 2, 3 and 4 (in pocket). Abbreviations and sampling codes used on this report and on the maps are described in Appendix 1. A full set of chemical analyses for the entire Yukon program is in Appendix 2.

## 1. SLATE RAPIDS AREA

This area is outlined on Map 1 and at a larger scale on Map 2. A total of 2.5 days were spent by GG and EE here.

The two drainages sampled and prospected returned very high gold and arsenic anomalies in the Cyprus Anvil heavy minerals survey. The G.S.C. (1988) survey did not return anomalous values.

The area is mainly underlain by typical Earn Group shales with local marble and sandstone. The shales are commonly moderately rusty due to disseminated fine grained pyrite. Hill tops between the two drainages are mainly Anvil Range basalt with local ultramafics.

No significant gold or base metal zones and no significant geochemical results were noted during this program in the area. In the vicinity of samples GY8-R-16 and EY8-R-10 (Map 2), ultramafic outcrops are partially to completely altered to iron carbonate but did not return significant gold values nor were zones of potential gold mineralization noted in the vicinity.

An attempt was made to pan the heavy mineral gold anomaly sites. Very little heavy material was panned out except for fine pyrite. Most of the material in the creeks consists of fine shale chips. It is concluded that the heavy mineral gold and arsenic anomalies are due to the super-concentration of pyrite in the presence of only minor amounts of other heavy materials. The high metal values probably reflect background concentrations within the pyrite grains.

## 2. HORTON LAKE AREA

This area was prospected by EE for 1/2 day.

The area is low, swampy with few outcrops. The Cyprus Anvil heavy mineral survey returned a very high gold value at the mouth of this creek. No sample was collected here during the G.S.C. stream sediment survey.

Outcrops of Cambrian phyllites and local "gabbro" were noted. Drillcore at site EY8-R-9 is mainly sericitic and graphitic phyllite with local "volcanics" and ultramafics. None of the core was split. Sample EY8-R-9 was a sample of phyllite from drillcore with 10% pyrite; it returned 2 ppb Au. Several small areas of quartz-carbonate veining were noted in the area.

The source of the heavy mineral gold anomaly in this drainage is not known. Given the heavy overburden and the lack of associated pathfinder elements it may be a placer concentration.

### 3. THE LUG PROPERTY

The LUG Property is fully described in Gorzynski (1988A).

The area was originally prospected by GG and EE in the spring of 1988 to follow-up a coincident gold and arsenic heavy minerals anomaly at the mouth of Hoolio Creek. The G.S.C. survey also detected a weak coincident anomaly.

The source of the anomaly is a 60 cm wide zone of semi-massive arsenopyrite in silicified lenses in Cambrian phyllites. A grab sample from the zone returned 10.34 g/t Au and a chip sample averaged 3.14 g/t Au over 60 cm.

The zone was inadvertently staked by Al Carlos and we had to settle for the areas along strike to the south. There is no outcrop at this horizon on the LUG Property but a variety of evidence suggests that one or more gold-bearing zones may traverse the property.

### 4. GONZO CREEK AREA

This area was prospected by GG for 1/2 day.

Cyprus Anvil heavy minerals sampling returned a high gold anomaly. G.S.C. stream sediment samples were not anomalous.

The area is underlain by Cambrian quartz-muscovite schists and chlorite schists. Augen gneisses occur further upstream (south). No significant mineralization, geochemical results or alteration were found in the course of this survey.

The source of the anomaly is not known.

#### 5. THE CAMPBELL CREEK AREA

This area is outlined on Maps 1 and 3. A total of 2 days were spent by GG and EE prospecting the area.

Cyprus Anvil heavy mineral sampling return several moderate gold anomalies. G.S.C. stream sediment sampling returned one low coincident gold-arsenic anomaly upstream of the area prospected; this anomaly was not known at the time of our prospecting.

The area is underlain by relatively flat lying sericitic phyllites cut by local andesitic (?) dikes. Several small rusty zones were found in the area. None returned significant gold or base metal values. Similarly several areas of abundant quartz veining did not return any encouraging values.

The source of the heavy mineral anomalies is not known.

#### 6. WOLVERINE LAKE AREA

A brief fly-around was made of this area by GG.

A thick limonitic gossan occurs near the top of the ridge immediately north of Wolverine Lake. From the air it appears to be a LION-type gossan (see Area 11 - LION Property) in quartz-sericite schists. It is presently staked by Welcome North.

A stream sediment sample was collected from a small creek west of the gossan and off staked ground. This sample returned 11 ppb Au and 76 ppm As.

## 7. BOOP CREEK AREA

Brief helicopter stops were made here by GG and MK.

Cyprus Anvil heavy mineral sampling returned a high coincident gold-arsenic anomaly from the mouth of Boop Creek. The G.S.C. did not sample the mouth of the creek but did obtain an anomalous stream sediment arsenic value upstream.

The area is underlain by a variety of lithologies and gossans. Sample site GY8-R-122 (Map 1) is an old Cyprus Anvil gossan which consists of up to 10% pyrite in a siliceous quartz-sericite schist; no significant gold or base metal values were returned from this site. Sample site GY8-R-123 is a prominent zone of iron carbonate altered ultramafic; it did not return significant precious metal values. Sample site GY8-R-124 is a rusty zone in a greisen (?) in the lower canyon of Boop Creek; this sample did not return significant gold, base metal, or tungsten values. No assays for tin were done.

## 8. FYRE LAKE AREA

Brief helicopter stops were made in this area by GG and MK.

The area and its gossans have been the subject of several exploration programs. Cyprus Anvil and predecessors explored the area for base metals in the 1960's and 1970's (Brock, 1966; Dean, 1976; others). A drill program was subsequently undertaken by unknown parties on the east side of the lake in pursuit of the source of some large massive sulphide boulders.

The Cyprus Anvil heavy minerals program returned a number of significant gold and base metal anomalies from the creeks draining into Fyre Lake. G.S.C. stream sediment sampling only returned anomalous gold, arsenic and base metal values from the creek draining the area of massive sulphide boulders.

The area is underlain by a variety of quartz-sericite schists. Samples were taken during this program from two gossans on the ridges west of Fyre Lake. The gossans sampled contain up to 5% disseminated pyrite in siliceous schists and metacherts. All three talus/soil samples taken here were anomalous ranging from 72-445 ppb Au. However, no significant precious or base metal values were detected in associated rock gossan samples.

The heavy mineral base metal anomalies probably reflect bedrock sulphide mineralization. The heavy mineral gold anomalies may be due to the over-concentration of sulphide in the heavy mineral concentrate or they may be derived from undiscovered bedrock sources.

#### 9. MONEY CREEK AREA

This area is outlined on Maps 1 and 4. A one day traverse was made here by GG.

Cyprus Anvil heavy mineral sampling returned two very high gold anomalies with a coincident arsenic anomaly in one of the creeks. G.S.C. stream sediment samples were anomalous in base metals but only one sample was weakly anomalous in gold.

The area is underlain by LION-type quartz-sericite schists with several prominent LION-type gossans up to 5 m thick. Locally (site GY8-R-162) iron carbonate altered ultramafics disrupt the schists. None of the samples taken in the area returned significant precious or base metal values.

The source of the heavy mineral anomalies is not known but may be due to over-concentration of sulphides in the heavy mineral concentrate.

#### 10. WHITHAM'S GLORY

A brief helicopter stop was made at this site by GG, MK and none other than the infamous teller of slimy tales, JW.

Sample GY8-R-128 is taken from a moderately large, prominent gossan caused by 5% pyrite in a bleached mafic volcanic and chlorite schist. This is similar to some of the more chloritic rocks found on the nearby LION claims. No significant values were returned from this zone.

A cluster of G.S.C. stream sediment anomalies in gold, arsenic and base metals occur in creeks draining the mountain immediately east of this site. On the crest of the mountain there is a very large, very rusty gossan which was staked after release of the G.S.C. stream sediment survey but prior to our arrival in August. The potential of this zone is not known but one might presume it has been examined in the past given its size and prominent location,

## 11. LION PROPERTY

The LION Property is fully described in Gorzynski (1988B).

The area was prospected and staked by GG and MK in August, 1988 to follow up on an erratic but high G.S.C. stream sediment sample. These creeks were not sampled during the Cyprus Anvil heavy minerals survey.

Large gossans up to 40 m thick occur in creek gullies on the property. They are due to 3-15% disseminated pyrite in relatively flat lying quartz-sericite schists. Minor chalcopyrite, sphalerite and rare galena were noted in association with the pyrite. The eastern portion of the property was previously explored for base metals by Cyprus Anvil when it was known as the PY claims (Adamson, 1976; Walcott, 1975). Thin copper sulphide horizons were reported within the pyritic schists.

Neither this program nor the Cyprus Anvil program discovered significant precious or base metal mineralization. The source of the G.S.C. stream sediment gold anomaly was not determined during this survey; it may be due to an undiscovered bedrock source or it may be a spurious placer or sulphide-rich sediment anomaly.

## 12. 7184 PEAK AREA

Two brief helicopter stops were made in this area by GG and, on one occasion, EE.

A very large coincident heavy mineral gold-arsenic anomaly was detected on this creek by Cyprus Anvil. G.S.C. stream sediment sampling did not detect any anomaly at this site.

From the air and from examination of debris in the cirque bowl, the area appears to be underlain by augen gneiss and other granitoids. Minor rusty patches appear on the walls of the cirque. The creek was resampled twice in this program and on both occasions insufficient sample material was gathered despite the collection of two kraft sample bags of material.

The source of this heavy minerals anomaly remains unknown.

## 2.0 CONCLUSIONS

1. Heavy mineral sampling produces better resolution of precious and base metal anomalies that are derived from surface showings than standard stream sediment sampling. (e.g.- the Hoolio Creek Gold Occurrence anomalies).

Heavy minerals sampling, however, is highly prone to producing large anomalies from high background concentrations of pyrite in bedrock. There appear to be far more of these inconsequential anomalies produced during heavy mineral surveys than is the case for stream sediment surveys.

Heavy minerals sampling is also more prone to picking up gold anomalies from minor placer gold concentrations than is stream sediment sampling.

Ideally heavy minerals sampling should be used in conjunction with stream sediment sampling to take advantages of the best attributes of both. The utilization of pathfinder elements is important in either technique.

2. The Finlayson Lake Map Sheet is host to numerous prominent gossans. However, very few zones of economic significance have been found to date.
3. Most of the areas examined have been prospected in the past. In some areas such as Money Creek several generations of sample flags are evident.

3.0 REFERENCES

- Adamson, T.J.  
1976: PY Mineral Claim Group - Report on 1975 Field Work (Geology, Geochemistry, Geophysics); Assessment Report, Watson Lake Mining District, Yukon, 8p., 2 appendices, 1 figure.
- Brock, J.S.  
1966: Magnetic and Electromagnetic Geophysical Surveys, Tak Mineral Claim Group; Assessment Report, Watson Lake Mining District, Yukon, 10p., 3 appendices, 6 maps.
- Dean, P.  
1973: Fyre Lake Project, Summary of 1973 Field Work and Proposed Exploration; Watson Lake Mining District, Yukon, 21p., 1 appendix, 16 figures.
- Geological Survey of Canada  
1961: Waters Creek - Airborne Magnetics Map 1360G; Scale 1 inch = 1 mile, Sheet 105 G/1.
- Geological Survey of Canada  
1988: Regional stream sediment and water geochemical data, southeastern Yukon (105G); Geological Survey of Canada Open File 1648.
- Gorzynski, G.  
1988A: LUG Property, 1988 Summary Report, (Geology, Geochemistry, Geophysics); Assessment Report, Watson Lake Mining District, Yukon, 16p., 5 appendices, 3 figures, 4 plates.
- Gorzynski, G.  
1988B: LION Property, 1988 Summary Report; Assessment Report, Watson Lake Mining District, Yukon, 13p., 5 appendices, 5 figures.
- Templeman-Kluit, D.J.  
1977: Quiet Lake (105F) and Finlayson Lake (105G) map areas, Yukon Territory; Geological Survey of Canada, Open File Report 486.
- Walcott, P.E.  
1975: A Report on an Induced Polarization Survey on Py Claims; Assessment Report, Watson Lake Mining District, Yukon, 9p., 1 appendices, 12 maps.
- Wheeler, J.O., Green, L.H., and Roddick, J.A.  
1960: Finlayson Lake map area, Yukon Territory; Geological Survey of Canada, Map 8-1960.

Appendix 1

Abbreviations

## Appendix 1

### Abbreviations

GG = George Gorzynski - Geologist  
EE = H. Eric Ewen - Prospector  
MK = Mark Kilby - Field Technician

### Sample numbering scheme :

e.g. :  $\frac{G}{1} \frac{Y}{2} \frac{8}{3} - \frac{R-10}{4} - \frac{132}{5}$

1 = Sampler code : G = GG

E = EE

M = MK

2 = Project designation : Y = Yukon

3 = Year : 8 = 1988

4 = Sample Type : R-10 = Rock

S = Soil

SS = Stream Sediment

5 = Sequential sample number

Note : On maps in pocket, only sampler code (1) and sample number (5) are included. Sample type is designated by map symbol and project and year are all Yukon and 1988 respectively. All samples plotted on maps correlate to analytical results recorded in Appendix 2.

Appendix 2

Chemical Analyses

ACME ANALYTICAL LABORATORIES LTD. DATE RECEIVED: MAY 20 1988  
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6  
PHONE(604)253-3158 FAX(604)253-1716 DATE REPORT MAILED: May 26/88

GEOCHEMICAL ANALYSIS CERTIFICATE

- SAMPLE TYPE: P1-P2 SOIL P3-P4 STREAM SED P5 ROCK  
AU\* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

ASSAYER: *C. Leong* D. TOYE OR C. LEONG, CERTIFIED B.C. ASSAYERS

NORTHERN DYNASTY File # 88-1515 Page 1

SAMPLE#	AU*	ppb
EY8-S 1	4	N LUG - U/M TRENCH
EY8-S 2	1	" "
EY8-S 3	1	SLATE FALLS RAPIDS
EY8-S 4	3	SLATE RAPIDS
EY8-S 5	4	" "
EY8-S 6	1	" "
EY8-S 7	1	" "
EY8-S 8	3	CAMPBELL CREEK
EY8-S 9	6	" "
EY8-S 10	2	" "
EY8-S 11	1	" "
EY8-S 12	1	" "
EY8-S 13	2	HORTON LAKE
EY8-S 14	1	" "
EY8-S 15	1	" "
EY8-S 16	3	" "
EY8-S 17	3	HORTON LK
EY8-S 18	1	" "
EY8-S 19	2	" "
GY8-S 1	9	N of Lug ✓
GY8-S 2	152	Hoodia AU ✓
GY8-S 3	2	CAMPBELL CREEK
GY8-S 4	2	" "
GY8-S 5	6	" "
GY8-S 6	3	" "
GY8-S 7	2	" "
GY8-S 8	9	" "
GY8-S 9	14	" "
GY8-S 10	7	" "
GY8-S 11	31	" "
GY8-S 12	17	" "
GY8-S 13	51	" "
GY8-S 14	3	" "
GY8-S 15	6	" "
GY8-S 16	3	" "
GY8-S 17	1	EAST OF HOODIA

NORTHERN DYNASTY

FILE # 88-1515

Page 2

SAMPLE#

AU\*

ppb

GY8-S 18

2 SLATE FALLS

GY8-S 19

1 "

SAMPLE#	AU*
	ppb
EY8-SS 1	1 <i>North of Log Cabin Trench</i>
EY8-SS 2	1 <i>LOG</i>
EY8-SS 3	1 "
EY8-SS 4	1 "
EY8-SS 5	1 "
EY8-SS 6	1 "
EY8-SS 7	1 "
EY8-SS 8	1 "
EY8-SS 9	1 <i>SCARLE RAPIDS</i>
EY8-SS 10	1 "
EY8-SS 11	1 "
EY8-SS 12	1 "
EY8-SS 13	1 "
EY8-SS 14	1 "
EY8-SS 15	2 "
EY8-SS 16	6 "
EY8-SS 17	1 "
EY8-SS 18	1 "
EY8-SS 19	3 "
EY8-SS 20	1 "
EY8-SS 21	1 "
EY8-SS 22	1 "
EY8-SS 23	1 "
EY8-SS 24	1 "
EY8-SS 25	1 <i>CAMPBELL CREEK</i>
EY8-SS 26	1 "
EY8-SS 27	1 "
EY8-SS 28	1 "
EY8-SS 29	1 "
EY8-SS 30	1 "
EY8-SS 31	1 "
EY8-SS 32	1 "
EY8-SS 33	3 "
EY8-SS 34	1 "
EY8-SS 35	1 "
EY8-SS 36	1 "

SAMPLE#	AU*	ppb
EY8-SS 37	1	CAMPBELL CR.
EY8-SS 38	1	"
EY8-SS 39	1	SIMPSON CR.
EY8-SS 43	1	SLATE RAPIDS
EY8-SS 44	1	"
GY8-SS 1	1	NoS Lug - U/in Trenches.
GY8-SS 2	2	NoS Lug ✓
GY8-SS 3	1	NoS Lug ✓
GY8-SS 4	12	HOOLLO MOUNT ✓
GY8-SS 5	14	HOOLLO MOUNT ✓
GY8-SS 6	1	SLATE RAPIDS
GY8-SS 7	2	"
GY8-SS 8	3	"
GY8-SS 9	1	"
GY8-SS 10	1	"
GY8-SS 11	1	"
GY8-SS 12	1	"
GY8-SS 13	1	"
GY8-SS 14	1	"
GY8-SS 15	1	"
GY8-SS 16	1	"
GY8-SS 17	3	CAMPBELL CREEK
GY8-SS 18	13	"
GY8-SS 19	8	"
GY8-SS 20	1	"
GY8-SS 21	1	"
GY8-SS 22	1	"
GY8-SS 23	1	EAST OF HOOLLO
GY8-SS 24	1	"
GY8-SS 25	1	"
GY8-SS 26	1	"
GY8-SS 27	1	"
GY8-SS 28	1	"
GY8-SS 29	1	SLATE FALLS

SAMPLE#	AU*	ppb
EY8-R 1	1	N LOG ✓
EY8-R 2	1	SLATE RAPIDS
EY8-R 3	1	"
EY8-R 4	1	CAMPBELL CK
EY8-R 5	1	"
EY8-R 6	2	"
EY8-R 7	1	"
EY8-R 8	2	HORTON LAKE
EY8-R 9	4	"
EY8-R 10	2	
GY8-R 1	1	<del>Log</del> N of Log - Old Trenches
GY8-R 2	10340	HOLLIDAY AV ✓
GY8-R 3	3140	" ✓
GY8-R 4	98	HOLLIDAY N of LOG ✓
GY8-R 5	630	" ✓
GY8-R 6	1	SLATE RAPIDS
GY8-R 7	1	CAMPBELL CK
GY8-R 8	2	"
GY8-R 9	1	"
GY8-R 10	5	"
GY8-R 11	4	"
GY8-R 12	21	"
GY8-R 13	31	"
GY8-R 14	7	END OF HOLE
GY8-R 15	1	"
GY8-R 16	2	SLATE FALLS

## GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MN PB SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: Pulp HG ANALYSIS BY FLAMELESS AA.

DATE RECEIVED: AUG 20 1988

DATE REPORT MAILED: Aug 31/88

ASSAYER: *C. Leong* D. TOYE OR C. LEONG, CERTIFIED B.C. ASSAYERS

NORTHERN DYNASTY EXPLORATION

File # 88-1515R

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Tb	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	PPM	PPB		
GT8-S 2	2	1075	24	212	.4	92	59	632	4.32	2657	5	ND	13	36	1	3	11	32	.56	.031	289	32	.75	227	.01	23	2.48	.01	.13	1	100	HOOLO AW
GT8-SS 4	1	37	12	135	.3	40	15	2104	3.33	265	5	ND	2	57	1	3	2	38	1.43	.104	28	24	.67	316	.01	8	1.15	.01	.13	1	90	"
GT8-SS 5	1	47	10	131	.4	33	13	1945	2.87	96	5	ND	3	56	1	3	2	36	1.31	.096	25	23	.63	309	.01	26	1.12	.01	.12	1	70	HOOLO AW
GT8-R 2	1	1672	1729	144	7.5	27	40	187	15.76	20056	5	7	8	7	2	63	9	6	.09	.013	11	9	.43	8	.01	12	.99	.01	.10	1	20	HOOLO AW
GT8-R 3	1	859	510	224	3.2	35	27	488	9.31	19769	5	2	12	12	2	20	2	11	.31	.025	53	19	.88	24	.01	5	1.83	.01	.12	1	30	"
GT8-R 4	1	524	9	25	.2	9	7	395	.83	101	5	ND	3	27	1	3	2	4	1.88	.021	27	7	.19	19	.01	2	.35	.01	.07	1	10	HOOLO AW
GT8-R 5	1	19699	8	160	11.7	3	7	61	3.01	14	5	ND	1	2	1	4	6	2	.08	.004	3	4	.04	9	.01	8	.12	.01	.03	1	60	"
STD C	17	57	41	131	7.2	67	27	1084	4.01	44	18	7	36	47	18	17	20	56	.48	.080	39	56	.94	176	.06	32	1.97	.06	.13	12	1400	X

## GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO<sub>3</sub>-H<sub>2</sub>O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: P1-P3 ROCK P4 STREAM SED. P5-P6 SOIL AU\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE. P, -20 mesh, Pulverized.

DATE RECEIVED: SEP 6 1988

DATE REPORT MAILED: Sept 14/88

ASSAYER: C. Leong, D. TOYE OR C. LEONG, CERTIFIED B.C. ASSAYERS

NORTHERN DYNASTY EXPL. LTD. PROJECT YUKON File # 88-4299 Page 1

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB	
✓ GT8-R-100	13	36	28	101	.3	15	9	327	3.25	6	5	ND	3	14	1	2	3	13	.40	.023	5	16	.95	41	.07	2	.84	.01	.08	1	9	LION-GOSSAN CK
GT8-R-101	4	27	89	78	1.2	11	4	208	2.73	12	5	ND	2	3	1	2	10	8	.11	.020	2	7	.54	40	.01	2	.49	.01	.07	1	12	LION
✓ GT8-R-102	1	40	9	46	.2	10	5	416	3.63	21	5	ND	8	46	1	2	2	33	.37	.040	10	44	1.54	46	.10	2	1.81	.01	.07	1	2	"
✓ GT8-R-103	1	15	8	33	.1	7	8	599	2.45	5	5	ND	17	61	1	2	2	17	.42	.035	19	13	.85	104	.03	2	1.37	.01	.13	1	1	"
✓ GT8-R-104	8	53	92	31	1.1	2	2	42	2.36	36	5	ND	4	4	1	2	3	4	.01	.006	8	3	.01	38	.01	2	.11	.01	.05	1	34	"
✓ GT8-R-105	1	49	15	227	.3	15	12	652	4.31	17	5	ND	5	40	1	2	2	34	.48	.041	9	49	1.77	71	.08	2	1.96	.01	.08	1	2	"
✓ GT8-R-106	1	23	179	114	.7	3	5	484	.87	3	5	ND	1	288	1	2	2	3	.02	.005	3	4	.16	335	.01	6	.23	.01	.07	1	1	"
✓ GT8-R-107	1	37	71	127	.5	12	5	661	3.00	12	5	ND	2	37	1	2	2	21	.42	.034	4	31	1.53	280	.10	2	1.66	.01	.07	5	1	"
✓ GT8-R-108	3	49	12	50	.4	23	24	256	5.71	5	5	ND	2	13	1	2	2	14	.03	.031	2	7	.98	4	.01	2	.84	.01	.04	2	10	"
✓ GT8-R-109	1	124	8	69	.3	46	31	1219	6.26	11	5	ND	1	30	1	2	2	71	.69	.062	4	12	1.98	41	.33	2	2.42	.01	.10	1	8	"
✓ GT8-R-110	9	143	28	12	.3	11	34	194	2.92	8	5	ND	15	27	1	2	2	3	.84	.033	15	2	.09	18	.06	8	.34	.01	.17	1	1	"
✓ GT8-R-111	8	58	24	70	.3	9	6	323	6.40	9	5	ND	11	34	1	2	2	14	.22	.060	10	17	.64	99	.04	2	.83	.01	.18	1	2	"
✓ GT8-R-112	2	28	9	158	.2	11	5	653	2.23	3	5	ND	4	40	1	2	2	28	.48	.040	5	43	1.66	58	.12	2	1.51	.02	.05	1	1	"
✓ GT8-R-113	3	7	40	94	.2	7	2	396	2.45	6	5	ND	4	8	1	2	9	17	.06	.021	3	14	1.32	208	.14	2	.97	.01	.12	1	7	"
GT8-R-114	7	164	31	105	.3	7	5	263	12.76	9	5	ND	16	20	1	2	2	27	.14	.082	9	17	.46	95	.06	2	.72	.01	.13	1	4	"
✓ GT8-R-115	1	24	11	77	.4	14	8	255	3.23	5	5	ND	5	13	1	2	3	12	.22	.016	4	14	.83	23	.06	2	.75	.01	.11	2	17	"
✓ GT8-R-116	1	27	11	83	.2	9	8	336	2.40	3	5	ND	4	33	1	2	2	16	.57	.057	7	23	1.02	78	.06	2	.98	.01	.08	1	1	"
GT8-R-117	1	38	3	38	.1	20	9	160	2.33	9	5	ND	4	3	1	2	2	11	.10	.020	11	11	.44	22	.03	2	.81	.01	.09	2	1	LUG
GT8-R-118	1	50	5	81	.3	33	15	444	4.84	2	5	ND	12	12	1	2	2	32	.21	.058	40	29	1.24	70	.08	3	2.38	.01	.30	1	1	"
GT8-R-119	1	42	7	52	.3	26	10	876	4.57	39	5	ND	12	35	1	2	2	22	2.34	.051	20	24	.89	28	.02	4	1.95	.01	.12	2	2	N. LUG
GT8-R-120	1	29	5	43	.2	25	13	336	3.55	11	5	ND	4	8	1	2	2	21	.32	.036	26	19	.69	26	.02	2	1.36	.01	.05	2	1	"
GT8-R-121	1	15	3	35	.3	18	8	261	1.84	4	5	ND	3	4	1	2	2	11	.15	.031	14	9	.40	17	.02	2	.74	.01	.04	3	2	LUG
GT8-R-122	5	3	62	78	.5	4	3	54	2.69	23	5	ND	9	25	1	2	2	1	.03	.013	13	3	.01	10	.01	2	.12	.02	.13	1	1	300P
GT8-R-123	1	3	2	12	.1	761	35	491	3.64	94	5	ND	1	20	1	2	2	15	.24	.002	2	794	17.57	168	.01	12	.21	.01	.04	2	1	"
GT8-R-124	1	10	14	18	.4	2	2	159	1.54	4	5	ND	24	3	1	2	2	2	.16	.050	30	2	.01	121	.01	17	.28	.02	.15	2	1	"
GT8-R-125	1	8	6	35	.2	9	1	66	.84	2	5	ND	20	3	1	2	8	1	.02	.004	15	8	.11	66	.01	2	.28	.01	.12	2	12	FIRE LAKE
GT8-R-126	1	5	3	15	.2	1	1	47	.63	2	5	ND	14	3	1	2	2	1	.03	.004	5	2	.04	66	.01	2	.26	.01	.13	1	1	"
GT8-R-127	4	22	28	114	.5	4	1	150	3.99	6	5	ND	13	148	1	2	2	3	.71	.013	21	3	1.23	169	.06	2	2.38	.06	.60	104	3	"
GT8-R-128	1	81	5	90	.3	73	26	695	4.22	19	5	ND	2	69	1	2	2	66	1.30	.137	14	82	1.79	128	.35	5	2.07	.04	.10	1	2	WEST OF LION
✓ GT8-R-129	1	136	10	63	.4	13	12	406	4.62	24	5	ND	6	31	1	3	2	29	.40	.039	6	47	2.09	58	.11	2	2.16	.01	.14	1	9	LION
✓ GT8-R-130	86	142	8	59	.8	5	2	118	4.17	71	5	ND	3	12	1	2	6	18	.02	.017	3	10	.27	100	.01	2	.67	.01	.05	1	123	"
✓ GT8-R-131	150	170	6	28	.3	3	3	264	1.26	2	6	ND	2	23	1	2	2	6	.53	.018	8	4	.49	52	.01	2	.51	.01	.12	3	21	"
✓ GT8-R-132	2	43	6	27	.4	15	8	196	3.42	10	5	ND	4	40	1	3	2	26	.44	.041	12	28	1.69	54	.11	2	1.64	.01	.10	2	13	"
✓ GT8-R-133	8	897	8	140	1.0	4	11	975	1.90	10	5	ND	12	13	1	2	2	2	.38	.020	23	2	.19	66	.01	3	.66	.01	.18	1	48	"
✓ GT8-R-134	37	571	124	201	1.0	11	11	898	4.27	6	5	ND	6	24	1	3	2	21	.73	.032	17	5	1.25	64	.01	2	1.87	.01	.13	1	33	"
✓ GT8-R-135	3	115	10	12	.1	2	1	492	.62	2	5	ND	1	77	1	2	2	1	.99	.006	5	3	.06	18	.01	2	.11	.02	.02	2	15	"
STD C/AU-R	18	58	43	132	6.8	67	29	1059	4.11	43	22	8	37	47	18	21	20	58	.49	.093	39	56	.91	176	.07	32	1.96	.06	.13	12	485	X

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB	
✓ GT8-R-136	50	8	2	1	.3	2	1	15	.16	4	5	ND	6	4	1	2	2	2	.06	.020	10	6	.01	9	.01	3	.09	.01	.03	3	105	LION
✓ GT8-R-137	3	61	79	456	1.5	14	4	482	3.56	84	5	ND	2	50	1	2	11	9	.17	.093	14	5	.01	86	.01	2	.37	.01	.04	1	27	"
✓ GT8-R-138	2	68	23	26	.3	87	41	178	4.27	63	5	ND	3	63	1	2	2	35	1.39	.190	26	98	.84	13	.37	2	1.11	.01	.22	1	72	"
✓ GT8-R-139	1	183	24	68	.4	215	62	418	7.10	91	5	ND	1	29	1	2	2	44	1.00	.201	12	219	2.42	6	.24	2	2.27	.01	.07	1	31	"
✓ GT8-R-140	8	32506	11	284	21.4	12	16	460	6.02	6	5	ND	3	3	6	2	2	12	.04	.001	2	7	1.26	17	.01	3	1.58	.01	.04	6	815	"
✓ GT8-R-141	2	293	21	69	.3	347	73	718	10.38	75	5	ND	2	42	1	2	2	47	2.18	.165	12	186	2.54	13	.17	2	2.68	.01	.08	1	86	"
✓ GT8-R-142	1	439	9	14	.7	4	1	102	.56	2	5	ND	20	9	1	2	2	1	.14	.005	36	4	.02	238	.01	3	.19	.01	.12	3	16	"
✓ GT8-R-143	13	329	21	149	.4	283	13	993	7.22	19	6	ND	8	9	1	2	2	136	.05	.123	26	1353	6.59	126	.01	2	5.04	.01	.04	1	5	"
✓ GT8-R-144	2	4050	7	52	2.7	17	4	152	1.65	12	5	ND	1	1	1	2	2	8	.03	.009	2	26	.42	22	.01	3	4.2	.01	.03	1	171	"
✓ GT8-R-145	11	1627	30	128	1.4	32	6	671	2.36	7	5	ND	4	1	1	2	2	44	.04	.014	6	18	1.68	11	.01	2	1.62	.01	.01	3	137	"
✓ GT8-R-146	45	533	23	77	.4	8	9	385	2.84	2	5	ND	4	30	1	2	2	13	.70	.027	13	5	.30	76	.01	2	.36	.01	.12	1	33	"
✓ GT8-R-147	57	303	347	135	.8	43	24	3957	1.21	2	5	ND	11	40	2	2	2	8	1.94	.023	27	20	.83	329	.06	6	1.13	.01	.14	4	2	"
✓ GT8-R-148	10	42	19	62	1.3	41	10	3451	4.44	12	5	ND	6	67	1	2	2	21	.87	.057	9	21	2.01	26	.14	2	2.37	.01	.11	1	3	"
✓ GT8-R-149	15	24	21	44	.4	17	4	515	1.62	6	5	ND	2	12	1	2	2	12	.27	.054	3	14	.64	109	.05	5	.61	.01	.09	6	4	"
✓ GT8-R-150	2	25	8	94	.3	11	3	788	1.70	9	5	ND	3	10	1	2	2	7	.25	.050	5	5	1.12	35	.02	2	.92	.01	.05	1	5	"
✓ GT8-R-151	60	173	10	45	.4	4	3	121	2.73	14	5	ND	8	5	1	2	2	7	.04	.052	8	5	.21	40	.01	4	.48	.01	.13	4	53	"
✓ GT8-R-152	5	209	111	74	.4	5	3	434	1.67	9	5	ND	1	22	1	2	2	4	.39	.028	2	4	.19	27	.01	2	.42	.01	.04	1	8	"
✓ GT8-R-153	16	590	6	26	1.3	3	3	43	1.34	13	5	ND	3	3	1	2	2	2	.02	.009	2	6	.04	28	.01	2	.14	.01	.06	6	81	"
✓ GT8-R-154	5	62	76	140	1.1	9	4	177	1.80	12	5	ND	4	5	1	2	3	5	.09	.029	6	9	.28	96	.02	3	.42	.01	.11	1	11	"
GT8-R-155	4	81	6	107	1.3	37	4	150	2.33	43	5	ND	3	8	1	3	3	34	.05	.056	8	13	.03	129	.01	2	.25	.01	.06	2	2	Money CK
GT8-R-156	13	82	1924	82	1.6	3	2	64	4.01	506	7	ND	10	40	1	16	4	18	.02	.114	20	7	.03	520	.01	2	.46	.01	.16	1	195	"
GT8-R-157	4	63	2294	73	8.6	3	2	21	7.82	716	6	ND	29	28	1	32	2	3	.01	.184	32	3	.01	772	.01	2	.53	.01	.14	1	33	"
GT8-R-158	17	14	114	19	.5	5	1	44	1.42	176	8	ND	4	38	1	2	2	82	.01	.055	12	52	.01	609	.01	3	.30	.01	.12	1	46	"
GT8-R-159	10	89	178	113	.8	9	2	108	10.82	1264	8	ND	12	25	1	17	2	24	.01	.278	22	7	.02	405	.01	2	1.60	.01	.17	1	3	"
GT8-R-160	4	4	17	4	.4	3	2	14	2.89	13	5	ND	14	5	1	2	2	1	.01	.008	21	16	.01	15	.01	3	.17	.01	.28	1	1	"
GT8-R-161	1	6	22	4	.3	5	1	49	.67	13	5	ND	1	2	1	2	2	1	.01	.002	2	4	.01	33	.01	2	.02	.01	.03	3	1	"
GT8-R-162	1	25	3	51	.2	396	28	695	3.39	294	5	ND	1	23	1	60	2	9	.34	.005	2	187	7.92	53	.01	2	.08	.01	.04	1	1	"
GT8-R-163	1	5	2	26	.1	873	46	448	3.79	8	5	ND	1	7	1	2	2	13	.15	.003	2	564	14.33	15	.01	2	.11	.01	.04	2	1	"
GT8-R-164	4	57	7	65	.2	27	3	140	3.77	37	5	ND	4	49	1	3	2	31	.01	.050	10	11	.06	665	.01	5	.25	.01	.09	1	1	"
GT8-R-165	1	47	6	32	.1	438	35	525	3.26	54	5	ND	1	26	1	3	2	17	.41	.008	2	349	7.53	185	.01	2	.24	.01	.03	1	1	"
✓ MK8-R-1	6	444	7	52	.5	46	4	334	1.82	5	5	ND	2	35	1	2	2	47	.70	.264	19	40	1.08	77	.01	22	1.12	.01	.06	1	1	LION
✓ MK8-R-2	16	99	11	29	.2	11	2	161	.88	6	5	ND	2	10	1	2	2	6	.08	.033	7	10	.23	44	.01	6	.29	.01	.05	3	4	"
✓ MK8-R-3	15	87	2	22	.2	12	1	122	1.07	2	5	ND	2	19	1	2	2	14	.23	.102	3	11	.16	40	.01	2	.31	.01	.08	1	1	"
✓ MK8-R-4	16	233	2	29	.4	29	3	190	1.56	2	5	ND	3	3	1	2	2	25	.11	.045	3	27	.57	40	.01	3	.76	.01	.07	1	9	"
✓ MK8-R-5	37	166	8	39	.5	49	3	310	1.46	8	5	ND	3	2	1	2	2	47	.04	.017	11	39	.91	22	.01	20	.87	.01	.06	2	5	"
✓ MK8-R-6	17	64	3	13	.2	7	1	108	.78	2	5	ND	2	4	1	2	2	5	.03	.011	4	7	.14	24	.01	2	.19	.01	.03	3	3	"
STD C/AU-R	18	57	40	132	6.8	68	29	1049	4.05	43	22	7	36	48	18	19	18	57	.49	.092	38	56	.91	172	.06	32	2.04	.06	.14	11	530	X

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB	
✓ MK8-R-7	20	76	11	174	.3	8	2	174	1.76	56	5	ND	4	16	1	2	2	3	.28	.022	4	7	.11	38	.01	4	.15	.01	.08	6	56	40N
✓ MK8-R-8	15	340	6	41	.5	12	2	121	1.10	8	5	ND	3	185	1	2	2	23	1.22	.439	10	18	.05	152	.01	8	.36	.01	.09	1	25	"
✓ MK8-R-9	48	113	47	41	1.1	10	2	45	4.22	50	5	ND	4	12	1	2	2	5	.03	.025	8	6	.01	54	.01	8	.16	.01	.09	5	112	"
✓ MK8-R-10	55	100	151	65	1.3	3	2	66	4.02	33	5	ND	4	21	1	2	17	10	.01	.035	12	3	.01	230	.01	2	.23	.01	.11	1	49	40N
✓ MK8-R-11	8	170	166	995	.9	13	10	5237	8.35	57	5	ND	4	36	7	2	2	34	.11	.023	5	14	.95	14	.01	3	.99	.01	.02	9	70	"
✓ MK8-R-12	8	75	39	530	1.2	18	19	228	7.65	22	5	ND	5	32	1	2	3	11	.01	.036	38	5	.04	529	.01	2	.30	.01	.06	3	4	"
✓ MK8-R-13	2	31	13	56	.2	4	1	100	1.49	6	5	ND	4	17	1	2	2	5	.01	.015	9	8	.02	66	.01	2	.20	.01	.07	6	3	"
✓ MK8-R-14	2	62	11	12	.3	2	1	53	1.57	7	5	ND	13	3	1	2	2	1	.01	.013	27	1	.02	68	.01	3	.24	.01	.13	1	1	"
✓ MK8-R-15	6	209	170	90	1.6	16	10	389	4.02	16	5	ND	6	60	1	2	3	23	.50	.228	8	11	.56	35	.01	2	.80	.01	.06	4	5	40N
✓ MK8-R-16	8	453	6	55	.5	21	19	245	4.10	10	5	ND	10	30	1	2	2	24	.52	.040	9	35	1.71	61	.10	2	1.96	.01	.12	1	1	"
✓ MK8-R-17	6	624	9	81	.4	19	18	320	4.66	5	5	ND	10	35	1	2	2	29	.63	.041	11	43	2.04	69	.12	2	2.44	.01	.11	2	7	"
MK8-R-18	1	1146	17380	11357	10.9	10	18	326	1.39	32	5	ND	7	646	23	6	33	3	12.36	.033	15	6	.22	27	.01	5	.34	.01	.07	3	37	40N
STD C/AU-R	18	59	42	132	6.8	64	29	1059	4.07	42	24	7	40	48	18	16	20	58	.49	.091	38	56	.90	178	.07	32	1.98	.06	.13	12	530	

✓ ASSAY REQUIRED FOR CORRECT RESULT -

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Tl PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au# PPB	
GT8-SS-100	1	32	10	105	.2	27	12	1230	2.43	110	5	ND	1	45	1	2	2	25	1.02	.104	20	16	.53	237	.01	5	.77	.01	.05	1	8	LUG
✓ GT8-SS-101	1	15	6	79	.1	18	7	1009	1.79	7	5	ND	1	42	1	2	2	24	.81	.098	12	14	.42	223	.01	4	.68	.01	.05	1	3	"
✓ GT8-SS-102	1	24	17	112	.2	30	17	1698	3.14	123	5	ND	1	47	1	2	2	32	1.04	.094	17	20	.70	301	.01	2	.92	.01	.06	1	11	N. LUG - HOOLIO AY
✓ GT8-SS-103 P	8	225	73	246	.5	14	18	910	3.38	6	5	ND	14	26	2	2	2	15	.19	.049	29	13	.62	111	.03	5	.86	.01	.13	1	13	LION - GOSSAN CK.
✓ GT8-SS-104 P	31	624	47	183	.5	22	20	864	3.70	8	5	ND	13	31	1	2	2	17	.15	.072	27	12	.54	188	.01	2	.88	.01	.08	1	36	LION
○ GT8-SS-105 P	1	14	12	46	.1	12	7	299	2.12	13	5	ND	12	23	1	2	2	10	.27	.037	20	11	.37	53	.05	2	.84	.01	.18	1	4	JIMPSON MTN
✓ GT8-SS-106 P	7	218	89	236	.5	13	13	729	3.09	14	5	ND	16	30	1	2	2	15	.18	.050	32	8	.36	74	.02	2	.56	.01	.15	1	13	LION
GT8-SS-107	5	92	41	127	.6	22	27	735	5.44	11	5	ND	12	37	1	2	2	17	.38	.073	49	19	1.07	79	.05	2	1.10	.01	.14	1	5	"
GT8-SS-108 P	6	190	84	238	.5	13	13	746	2.97	11	5	ND	15	28	2	2	2	15	.19	.049	31	8	.39	109	.02	2	.61	.01	.15	1	15	"
GT8-SS-109	13	2318	35	720	.9	98	13	327	3.62	4	5	ND	7	58	2	2	2	15	.80	.086	69	17	.65	130	.02	2	2.34	.01	.07	2	24	"
GT8-SS-110	1	23	21	106	.5	23	9	409	2.64	107	5	ND	10	35	1	2	2	22	.56	.107	41	23	.56	92	.02	2	1.25	.01	.09	20	4	BOP
GT8-SS-111	1	14	23	103	.4	13	8	398	2.65	104	5	ND	12	29	1	2	2	19	.56	.124	40	19	.48	72	.02	4	1.04	.01	.08	53	4	FIRE LAKE
✓ GT8-SS-112 P	29	679	26	171	.4	18	17	651	3.22	10	5	ND	11	12	1	2	2	16	.17	.055	20	10	.69	112	.01	4	.96	.01	.10	1	38	LION
✓ GT8-SS-113	37	855	62	214	1.0	24	23	934	4.51	20	5	ND	14	43	1	2	2	19	.18	.093	50	13	.49	126	.01	2	.88	.01	.07	1	54	"
✓ GT8-SS-114	12	1361	79	227	.4	30	19	1249	3.96	17	5	ND	4	33	1	2	2	19	.43	.095	299	14	.42	88	.01	4	.83	.01	.07	1	51	"
✓ GT8-SS-115 P	4	175	42	212	.3	11	6	357	2.79	16	5	ND	12	13	1	2	2	8	.07	.035	25	6	.28	103	.01	2	.55	.01	.11	1	4	"
✓ GT8-SS-116	3	62	30	122	.3	11	11	988	2.34	14	5	ND	5	37	1	2	2	17	.45	.060	28	12	.49	208	.02	3	.99	.01	.11	1	71	"
GT8-SS-117	17	94	57	386	1.4	62	20	1670	3.65	76	8	ND	3	101	8	11	2	38	.25	.167	19	16	.25	567	.01	2	.71	.01	.07	2	11	WIDE LEVEL LAKE
GT8-SS-118 P	3	66	61	119	2.0	11	4	201	6.98	132	5	ND	10	16	1	2	2	17	.03	.084	15	10	.10	404	.01	2	.54	.01	.09	1	3	MONEY CREEK
GT8-SS-119 P	3	132	40	150	.8	15	20	1980	5.61	26	5	ND	4	9	1	2	2	23	.05	.093	14	14	.18	115	.02	2	.78	.01	.09	1	2	"
GT8-SS-120	3	586	53	575	1.5	55	46	4519	3.55	131	7	ND	9	12	5	2	2	23	.13	.113	25	28	.32	231	.02	2	5.05	.01	.08	1	7	"
GT8-SS-121 P	3	48	48	417	.4	36	10	857	2.90	13	5	ND	12	10	2	2	2	30	.16	.037	25	23	.66	260	.05	2	1.08	.01	.29	1	1	"
GT8-SS-122	2	43	35	360	.6	42	10	640	3.16	16	5	ND	4	35	2	2	2	30	.60	.056	32	28	.64	275	.04	6	1.11	.01	.16	1	1	"
GT8-SS-123 P	3	90	43	782	.5	58	17	1642	2.70	16	5	ND	10	10	6	2	2	26	.15	.036	24	25	.68	246	.04	2	1.01	.01	.24	3	3	"
GT8-SS-124 P	2	36	19	686	.3	93	11	578	3.34	34	5	ND	8	15	5	2	2	26	.18	.034	18	30	.61	165	.02	3	.86	.01	.11	3	3	"
STD C/AU-S	18	58	41	131	6.8	68	29	1013	4.16	42	22	8	37	47	18	16	18	58	.50	.093	39	56	.92	177	.06	32	2.01	.06	.13	12	48	X

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Tb	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au*	
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	PPM	PPB		
GT8-S-100	28	21	111	63	1.1	7	1	295	4.97	11	5	ND	8	9	1	2	5	28	.05	.038	5	18	.97	41	.34	2	.93	.01	.07	1	12	LION
✓GT8-S-101	7	169	247	214	1.0	32	13	572	9.97	28	5	ND	9	55	1	3	2	39	.08	.133	28	45	1.02	100	.05	2	2.06	.01	.13	1	6	"
✓GT8-S-102	4	71	32	44	1.2	3	7	770	4.21	13	5	ND	18	5	1	2	2	22	.02	.040	10	5	.23	54	.01	2	1.52	.01	.07	1	4	"
✓GT8-S-103	30	185	458	334	1.4	15	8	330	5.76	40	5	ND	13	52	1	4	30	18	.01	.070	46	7	.06	69	.01	2	.41	.01	.09	1	14	"
✓GT8-S-104	6	208	490	891	1.6	24	45	2304	8.44	43	5	ND	23	68	3	2	2	31	.10	.086	45	27	1.01	266	.05	2	2.08	.02	.12	1	36	"
✓GT8-S-105	10	173	142	131	1.4	8	5	231	4.53	22	5	ND	5	12	1	2	4	29	.05	.056	14	12	.31	49	.06	2	1.01	.01	.08	1	8	"
✓GT8-S-106	21	92	251	53	.8	7	11	417	7.23	16	5	ND	34	23	1	2	2	7	.12	.074	29	5	.38	83	.01	4	.61	.01	.15	1	6	"
✓GT8-S-107	20	309	102	125	.5	9	6	353	13.95	13	5	ND	48	5	1	2	2	33	.02	.133	9	46	.34	16	.34	2	.97	.01	.05	1	1	"
GT8-S-108	7	33	152	962	1.0	13	25	3556	9.94	52	5	ND	34	51	6	2	2	6	.31	.224	23	3	.15	211	.01	2	2.19	.01	.22	1	2	BOOP
GT8-S-109	1	15	8	65	.1	529	37	803	3.33	23	5	ND	3	12	1	2	2	33	.13	.039	11	216	2.87	124	.02	8	.92	.01	.06	1	7	"
GT8-S-110	1	45	81	114	1.2	12	15	2348	8.02	53	6	ND	181	115	1	2	2	12	.22	.074	221	8	.14	158	.01	2	.65	.01	.09	12	12	"
GT8-S-111	2	51	51	142	1.1	10	5	602	3.65	5	8	ND	30	7	1	2	53	16	.08	.075	146	14	.44	65	.04	9	1.10	.01	.13	1	72	FIRE LAKE
GT8-S-112	4	80	77	113	2.4	3	2	230	8.56	10	5	ND	99	7	1	2	181	4	.02	.033	54	4	.17	109	.01	2	.65	.02	.23	1	445	"
GT8-S-113	10	102	667	438	2.2	17	3	182	5.84	6	5	ND	23	37	1	2	21	12	.03	.037	24	9	1.07	442	.03	2	4.70	.02	.27	14	96	"
GT8-S-114	14	2158	1502	3555	5.3	493	110	2965	20.95	23	5	ND	4	60	15	2	14	145	.27	.095	49	145	.11	1385	.01	2	3.43	.01	.06	1	29	WEST OF LION
GT8-S-115	3	215	25	345	.7	172	39	631	16.27	115	5	ND	4	46	1	7	2	87	.30	.166	18	172	1.84	427	.30	2	3.60	.02	.09	1	22	"
✓GT8-S-116	13	529	83	136	.7	21	16	675	6.07	30	5	ND	28	15	1	2	2	20	.06	.065	30	18	.49	54	.02	5	.98	.01	.12	1	58	LION
✓GT8-S-117	15	367	103	148	.6	19	14	671	5.73	31	5	ND	17	26	1	2	6	20	.10	.075	30	15	.57	97	.01	4	1.25	.01	.09	1	72	"
✓GT8-S-118	233	1241	134	132	2.7	30	7	354	9.98	109	5	ND	20	154	1	2	2	31	.06	.177	93	54	.38	111	.01	2	.82	.01	.29	1	255	"
✓GT8-S-119	248	775	1634	247	7.2	53	52	3748	10.02	24	7	ND	39	19	2	2	2	13	.27	.053	100	28	1.25	238	.07	2	2.05	.01	.11	1	13	"
GT8-S-120	16	116	39	208	4.8	59	9	377	4.72	171	5	ND	3	119	1	16	4	53	.11	.276	30	19	.06	414	.01	2	.69	.01	.13	1	4	MONEY CK
GT8-S-121	3	26	84	33	.7	3	1	24	3.26	94	6	ND	30	13	1	2	2	1	.01	.048	24	2	.01	475	.01	2	.47	.01	.06	1	18	"
GT8-S-122	2	22	421	32	.6	7	4	196	1.16	66	6	ND	20	104	1	3	2	6	.03	.091	34	6	.06	1247	.01	2	.51	.01	.06	1	10	"
GT8-S-123	26	426	73	676	2.8	23	13	1329	44.53	5169	8	ND	8	10	3	3	2	37	.02	.853	5	5	.01	201	.01	2	1.65	.01	.07	1	33	"
GT8-S-124	4	19	70	27	.5	3	2	70	1.26	134	5	ND	12	82	1	7	2	3	.01	.070	31	2	.01	849	.01	2	.26	.01	.06	3	10	"
GT8-S-125	4	28	1456	73	3.9	3	1	40	4.38	1435	5	ND	38	40	1	22	2	5	.01	.079	20	3	.01	116	.01	2	.30	.01	.27	1	58	"
GT8-S-126	11	12	122	30	1.2	4	1	32	7.35	94	5	ND	23	30	1	7	2	9	.01	.063	11	5	.04	24	.01	2	.32	.01	.74	2	10	"
GT8-S-127	1	63	25	326	.4	1149	56	1487	6.93	31	5	ND	6	12	2	2	2	35	.20	.037	17	238	3.04	230	.02	2	.96	.01	.13	1	48	"
GT8-S-128	14	43	8	161	.6	73	9	214	4.80	93	5	ND	4	15	1	3	2	77	.02	.071	68	12	.06	136	.01	2	.53	.01	.08	1	1	"
GT8-S-129	1	36	32	105	.4	378	29	1736	3.86	52	5	ND	3	22	1	2	2	34	.18	.045	17	195	1.44	451	.01	2	1.15	.01	.08	1	6	"
YL 4N 700W	2	11	14	37	.2	23	7	174	2.43	19	5	ND	3	18	1	2	2	37	.27	.042	15	21	.43	307	.01	4	1.08	.01	.08	1	1	LUG
YL 4N 675W	1	16	11	69	.4	24	6	191	2.19	19	5	ND	2	30	1	2	2	29	.55	.066	15	19	.39	396	.01	3	1.04	.01	.07	1	1	"
YL 4N 650W	1	16	15	109	.3	27	8	253	2.58	20	5	ND	3	23	1	2	2	33	.37	.057	18	23	.49	408	.02	4	1.13	.01	.08	1	2	"
YL 4N 625W	1	15	12	92	.3	27	8	240	2.16	14	5	ND	4	23	1	2	2	29	.35	.073	20	21	.42	307	.02	2	.90	.01	.07	1	9	"
YL 4N 600W	1	15	22	89	.5	26	9	369	2.44	21	5	ND	3	38	1	2	2	30	.71	.068	19	20	.44	478	.02	2	.99	.01	.07	2	1	"
YL 4N 575W	1	17	12	74	.3	27	9	329	2.42	30	5	ND	2	32	1	2	2	29	.57	.072	18	21	.48	349	.01	2	.97	.01	.05	1	1	"
STD C/AU-S	18	57	41	132	6.7	68	29	1056	4.19	45	18	7	37	47	18	16	18	58	.49	.091	39	55	.91	175	.06	32	1.97	.06	.13	12	49	X

NORTHERN DYNASTY EXPL. LTD. PROJECT YUKON FILE # 88-4299

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB	
YL 4N 550W	1	41	22	105	.7	28	8	312	2.06	4	5	ND	1	119	1	2	2	36	2.33	.072	16	22	.60	635	.01	6	1.15	.01	.09	1	3	LOG
YL 4N 525W	2	18	16	106	.1	22	10	435	2.57	10	5	ND	1	36	1	2	2	43	.55	.054	17	25	.51	287	.01	4	1.14	.01	.08	1	4	"
YL 4N 500W	2	25	16	111	.2	29	10	407	2.70	7	5	ND	3	42	1	2	2	48	.68	.057	19	29	.59	411	.01	3	1.32	.01	.09	1	1	"
YL 4N 475W	2	35	13	128	.2	32	11	478	2.77	7	5	ND	3	39	1	2	2	50	.62	.053	19	28	.60	387	.01	3	1.37	.01	.10	1	3	"
YL 4N 450W	2	33	15	121	.3	35	10	395	2.77	7	5	ND	3	38	1	2	2	50	.63	.051	20	29	.59	470	.01	3	1.47	.01	.10	1	28	"
YL 4N 425W	1	21	11	71	.2	21	6	320	1.79	2	5	ND	1	58	1	2	2	31	1.28	.049	13	20	.46	363	.01	2	1.00	.01	.07	1	1	"
YL 4N 325W	1	22	15	91	.3	25	10	1031	2.22	9	5	ND	1	83	1	2	2	32	1.82	.084	15	22	.55	334	.01	4	1.06	.01	.06	1	1	"
YL 4N 300W	1	29	15	97	.3	29	9	368	2.45	14	5	ND	5	102	1	2	2	28	3.52	.105	22	23	.91	333	.02	6	.98	.01	.04	2	26	"
YL 4N 275W	2	18	12	76	.1	30	10	258	2.99	9	5	ND	4	19	1	2	2	35	.32	.051	20	31	.62	276	.01	2	1.40	.01	.05	1	3	"
YL 4N 250W	2	14	12	68	.1	25	3	171	2.58	7	5	ND	3	13	1	2	2	37	.29	.040	17	29	.50	323	.01	2	1.27	.01	.05	1	1	"
YL 4N 225W	2	12	15	74	.1	18	7	217	2.50	3	5	ND	4	17	1	2	2	37	.27	.050	20	23	.39	336	.02	3	1.08	.01	.06	1	1	"
YL 4N 200W	2	34	16	92	.4	31	10	342	2.26	19	5	ND	2	78	1	2	2	34	2.21	.105	19	23	.63	334	.02	7	.97	.01	.10	2	5	"
YL 4N 175W	2	31	19	106	.2	31	10	366	2.75	15	5	ND	3	33	1	2	2	42	.54	.065	21	26	.55	301	.02	2	1.15	.01	.11	1	72	"
YL 4N 150W	2	25	13	126	.4	29	10	375	2.60	9	5	ND	4	43	1	2	2	47	.60	.102	20	27	.60	291	.01	4	1.20	.01	.14	1	1	"
YL 4N 125W	2	33	14	137	.3	29	9	383	2.30	14	5	ND	2	57	1	2	2	38	1.34	.059	15	23	.58	325	.01	7	1.05	.02	.12	2	10	"
YL 4N 100W	2	15	15	182	.1	24	12	796	3.44	21	5	ND	2	18	1	2	2	53	.22	.145	16	34	.53	246	.01	2	1.38	.01	.09	1	1	"
YL 4N 75W	1	14	18	111	.2	25	13	586	3.19	25	5	ND	4	16	1	2	2	46	.21	.107	19	35	.58	295	.01	4	1.46	.01	.08	1	1	"
YL 4N 50W	1	18	14	109	.2	28	10	481	2.97	17	5	ND	5	19	1	2	2	44	.29	.078	22	37	.66	281	.01	4	1.62	.01	.08	1	1	"
YL 4N 25W	1	11	13	213	.1	25	9	449	2.60	5	5	ND	3	16	1	2	2	38	.29	.034	17	29	.54	218	.01	2	1.40	.01	.07	1	1	"
YL 4N 0W	2	10	17	106	.1	20	6	259	2.51	12	5	ND	4	12	1	2	2	33	.22	.029	20	23	.41	119	.02	3	.87	.01	.06	1	1	"
YL 4N 25E	2	7	11	91	.1	16	5	194	2.33	9	5	ND	3	13	1	2	2	31	.24	.051	18	24	.40	97	.02	2	.76	.01	.06	1	1	"
0+00 0+05N A1	1	38	9	62	.3	18	5	148	1.18	7	5	ND	1	90	1	2	2	20	2.16	.051	8	12	.26	517	.01	2	.69	.01	.04	1	1	"
0+00 0+05N A2	1	45	9	50	.4	25	6	495	1.20	3	5	ND	1	123	1	2	2	19	2.95	.054	10	16	.30	642	.01	4	.74	.01	.04	2	1	"
0+00 0+05N A3	1	22	4	29	.4	9	3	549	.40	2	5	ND	2	234	1	2	2	6	5.65	.069	3	4	.26	553	.01	8	.25	.01	.03	1	2	LOG SOIL
0+00 0+05N T1	1	80	14	109	.7	45	12	679	2.65	22	5	ND	1	55	1	2	2	38	1.10	.061	27	27	.56	494	.01	2	1.20	.01	.09	1	1	TEST PIT
0+00 0+05N T2	1	61	17	133	.6	38	11	414	2.27	9	5	ND	1	80	1	2	2	37	1.63	.068	21	27	.58	384	.01	3	1.19	.01	.09	1	3	"
STD C/AD-S	18	58	37	132	6.6	67	29	1062	4.02	38	22	6	37	47	17	20	19	57	.48	.091	38	56	.89	177	.07	32	1.97	.06	.14	11	48	X

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MN PB SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: P1 SOIL P2 ROCK AU\*\* ANALYSIS BY PA+AA FROM 10 GM SAMPLE.

*YUT LUG*

DATE RECEIVED: SEP 20 1988 DATE REPORT MAILED: *Sept 27/88* ASSAYER: *C. Leong*. D. TOYE OR C. LEONG, CERTIFIED B.C. ASSAYERS

NORTHERN DYNASTY EXPL. LTD. PROJECT LUG File # 88-4654 Page 1

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Tb	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au**	
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	%	PPM	PPB	
MTBS-1	2	17648	19	192	23.9	41	34	458	10.67	45	5	ND	22	43	2	3	3	21	1.20	.068	39	28	.52	70	.01	2	1.79	.01	.09	1	3215	<i>AL. LUG</i>
MTBS-2	1	168	16	76	.2	40	12	905	1.68	28	5	ND	3	57	3	2	2	18	3.23	.042	17	19	.47	365	.01	4	.62	.01	.07	1	6	"
MTBS-3	1	310	27	128	.6	65	20	1755	2.78	43	5	ND	5	90	2	2	2	29	3.48	.095	30	31	.81	555	.02	2	1.05	.02	.16	1	48	"
MTBS-4	1	84	36	139	.1	79	22	2947	2.97	89	5	ND	6	80	2	2	2	28	2.56	.084	25	28	.80	469	.02	2	1.03	.02	.14	1	10	"
MTBS-5	1	915	29	170	.1	83	84	1997	4.77	118	5	ND	16	69	3	3	2	29	2.12	.082	85	42	.91	385	.03	3	1.46	.01	.14	1	1	"
STD C/AU-S	17	59	40	132	6.7	70	31	1029	3.84	40	20	8	38	49	19	16	19	61	.46	.091	40	57	.85	178	.07	33	1.85	.06	.16	11	51	X

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Tb PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au** PPB	
MYBR-19	1	19	5	40	.1	13	6	201	1.75	12	5	ND	5	125	1	2	2	16	1.47	.011	15	25	.52	70	.05	2	1.42	.08	.35	6	1	N. LUG
MYBR-20	1	26	2	36	.1	13	9	215	1.73	4	5	ND	3	4	1	2	2	5	.05	.015	10	13	.36	13	.01	2	.74	.01	.04	7	1	"
MYBR-21	1	16526	5	218	9.9	10	8	123	4.22	11	5	ND	2	5	2	2	2	7	.04	.012	5	13	.25	58	.01	4	.55	.01	.10	8	430	"
MYBR-22	1	8606	6	98	4.1	10	7	329	3.95	10	5	ND	6	8	1	2	2	14	.17	.028	15	15	.81	47	.03	4	1.32	.01	.10	3	193	"
MYBR-23	1	4831	3	65	4.6	13	8	178	3.45	12	5	ND	7	7	1	2	2	12	.08	.028	16	16	.40	58	.02	2	.77	.01	.11	4	220	"
MYBR-24	1	23	2282	2211	2.9	20	12	764	1.54	42	5	ND	9	254	22	2	2	10	9.66	.034	25	17	.49	44	.05	6	1.74	.01	.02	1	3	"
MYBR-25	1	56	8	41	.1	34	26	429	3.54	7	5	ND	9	9	1	2	2	28	.22	.037	27	26	.75	44	.05	5	1.24	.03	.12	3	1	"
MYBR-26	1	38	20	73	.1	21	10	393	2.91	5	5	ND	5	19	1	2	2	22	.41	.047	19	24	.69	31	.03	2	1.53	.02	.05	2	1	"
MYBR-27	1	29	6	78	.2	34	18	928	4.62	6	5	ND	4	31	1	2	2	20	2.69	.029	14	19	1.42	43	.02	2	2.44	.01	.09	4	1	"
MYBR-28	1	29	5	46	.1	14	5	514	2.28	87	5	ND	1	33	1	2	2	7	.70	.013	3	6	.57	32	.01	2	.78	.01	.04	2	1	"
STD C/AU-R	16	58	43	135	6.9	68	30	1013	4.02	43	18	8	37	47	18	20	15	55	.48	.093	38	57	.90	179	.07	33	2.03	.06	.15	11	460	X

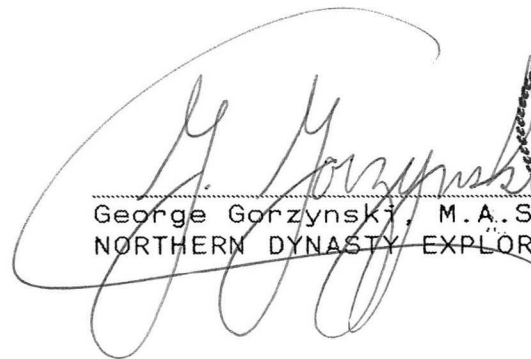
Appendix 3

Author's Certification

AUTHOR'S CERTIFICATION

I, George Gorzynski, of 3836 West 16 Avenue, Vancouver, British Columbia, hereby certify as follows :

1. That I am a registered Professional Engineer in the Province of British Columbia.
2. That I graduated from the University of Toronto with a Bachelor of Applied Science Degree in Geological Engineering / Mineral Exploration in 1978, and from the University of British Columbia with a Master of Applied Science Degree in Economic Geology in 1986.
3. That I have practised my profession since 1978.
4. That I supervised and participated in the fieldwork and then authored this report based on the 1988 Yukon reconnaissance exploration program.

  
George Gorzynski, M.A.Sc., Eng.  
NORTHERN DYNASTY EXPLORATIONS LTD.



62°00'

76

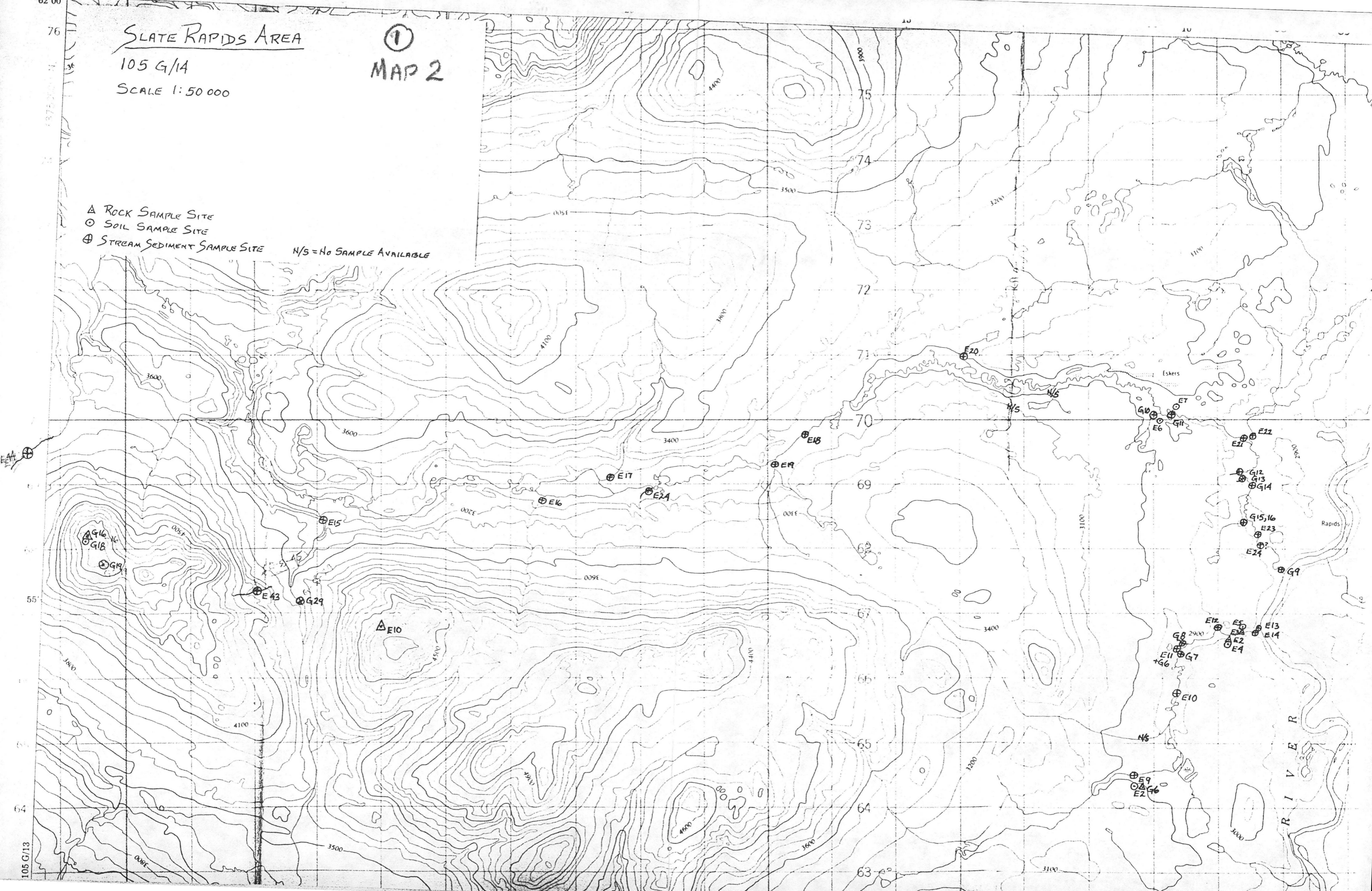
# SLATE RAPIDS AREA

## ① MAP 2

105 G/14

SCALE 1:50 000

- △ ROCK SAMPLE SITE
- SOIL SAMPLE SITE
- ⊕ STREAM SEDIMENT SAMPLE SITE
- N/S = NO SAMPLE AVAILABLE



105 G/13

RIVER

RAPIDS

Eskers

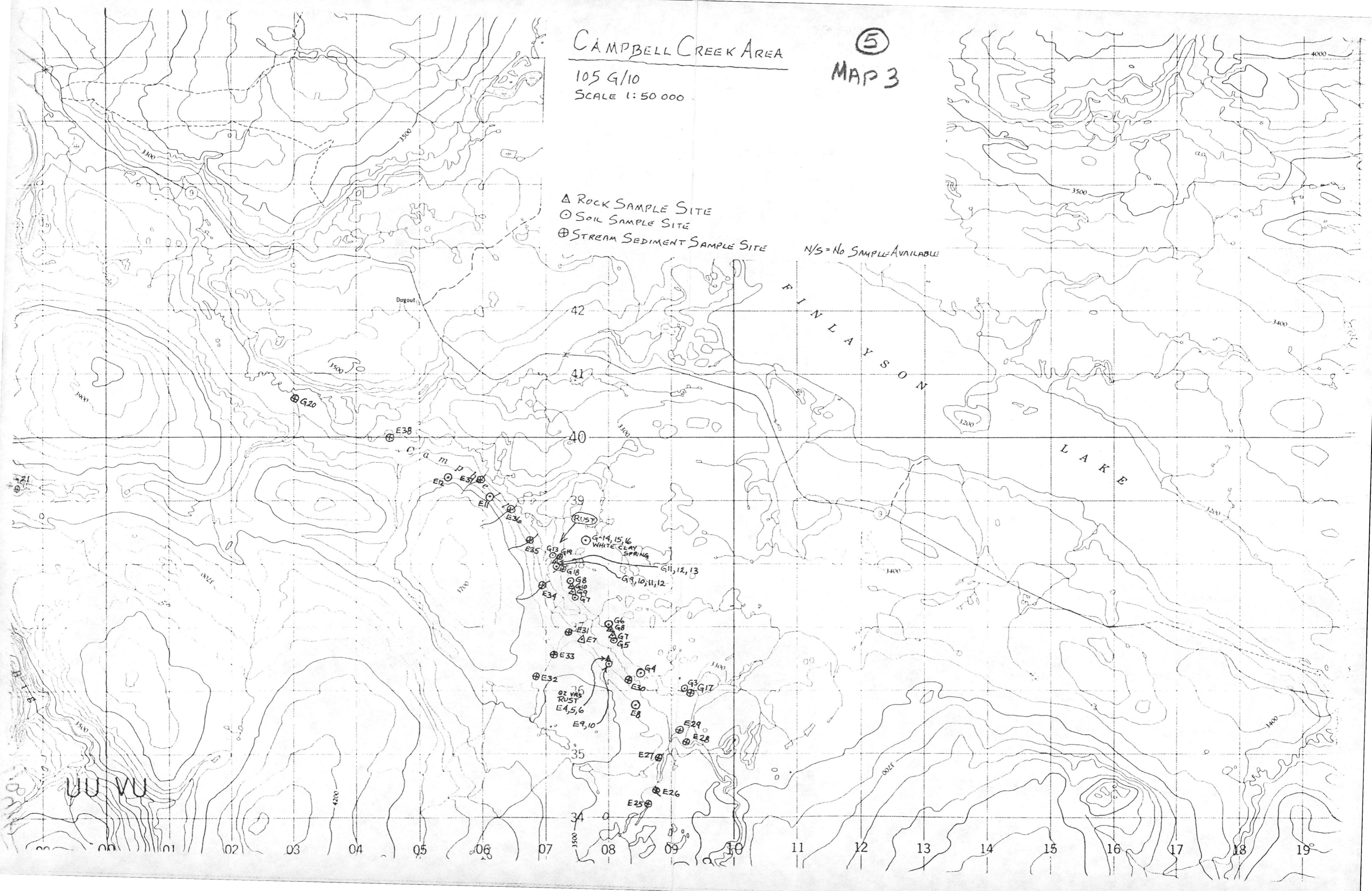
Rapids

CAMPBELL CREEK AREA

105 G/10  
SCALE 1:50 000

⑤  
MAP 3

- △ ROCK SAMPLE SITE
- SOIL SAMPLE SITE
- ⊕ STREAM SEDIMENT SAMPLE SITE
- N/S = NO SAMPLE AVAILABLE



UU WU

MONEY CREEK AREA

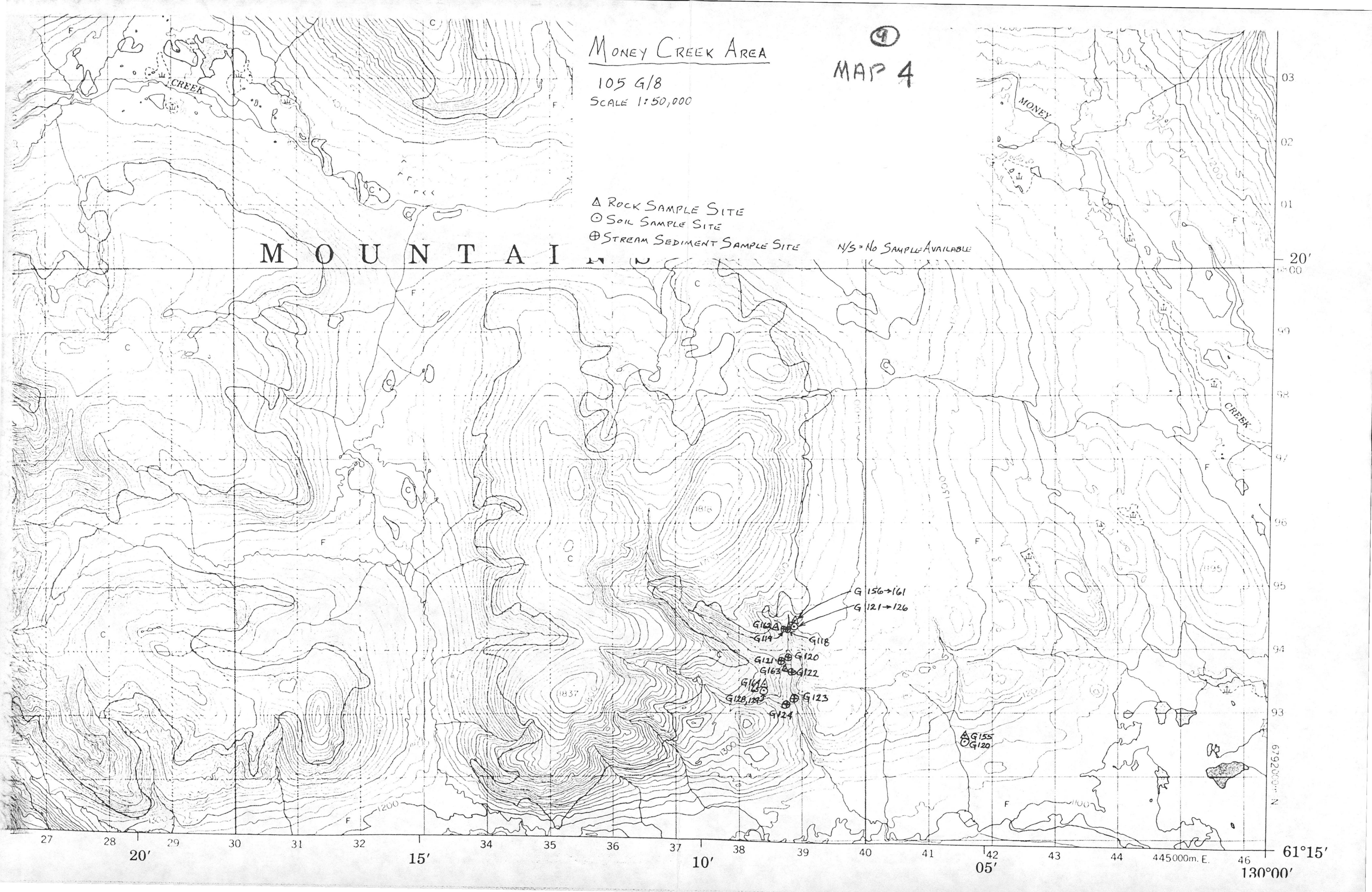
105 G/8  
SCALE 1:50,000

④  
MAP 4

- △ ROCK SAMPLE SITE
- SOIL SAMPLE SITE
- ⊕ STREAM SEDIMENT SAMPLE SITE

N/S = NO SAMPLE AVAILABLE

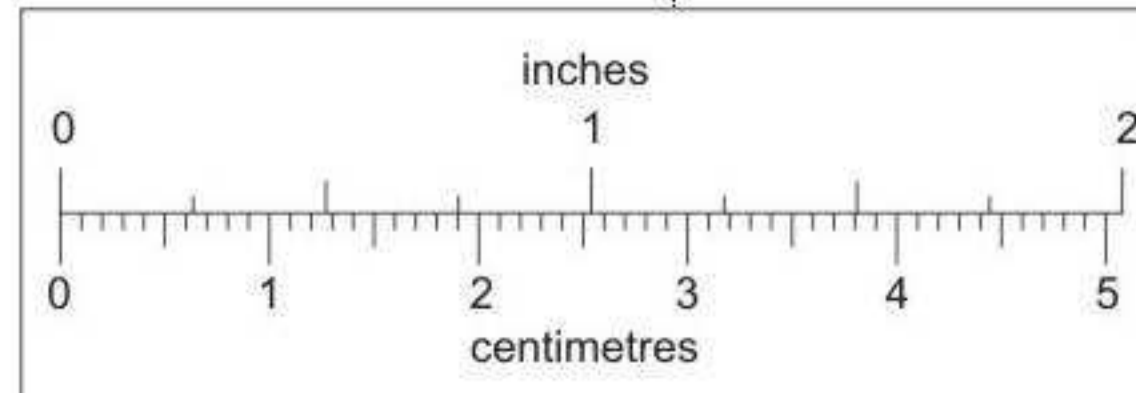
M O U N T A I N



27 28 29 30 31 32 34 35 36 37 38 39 40 41 42 43 44 45 46  
 20' 15' 10' 05' 61°15'  
 130°00'



ED AS A GUIDE  
 DEPARTMENT  
 RESPONSIBILITY  
 MISSIONS.



This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.  
 YUKON  
 GEOLOGICAL SURVEY

# CLAIM OWNERSHIP REFERENCE MAP

DEPARTMENT OF INDIAN AFFAIRS & NORTHERN DEVELOPMENT  
 WHITEHORSE, YUKON TERRITORY

SCALE 1:250 000



## MAP 1

DATE REVISED
31 MARCH 81
9 FEB 82
24 MARCH 83
10 FEB 84
15 MARCH 85
31 MAY 86
30 APRIL 87
31 MAY 88

