MAP NO.: 105 G 1	**ASSESSMENT REPORT** X **PROSPECTUS** **CONFIDENTIAL** **OPEN FILE** X	**DOCUMENT NO:** **MINING DISTRICT:** **TYPE OF WORK:**	092728 Watson Lake **GEOCHEMICAL**

REPORT FILED UNDER:	Northern Dynasty Explorations Ltd.		
DATE PERFORMED:	August 31, 1988	**DATE FILED:**	June 5, 1989
LOCATION: **LAT.:**	$61^{O}9.5'N$	**AREA:**	Lion Creek
LONG.:	$130^{O}10'W$	**VALUE $:**	1,200.00
CLAIM NAME & NO.:	LION 1-30 YB15369-398		
WORK DONE BY:	G. Gorzynski		
WORK DONE FOR:	Northern Dynasty Explorations Ltd.		

DATE TO GOOD STANDING:

REMARKS: #59 PY
An extensive rock sampling program in the pyritic schists on the western portion on the property was unsuccessful in finding precious or base metals. The source of the GSC stream sediment gold anomaly was not determined.

NORTHERN DYNASTY EXPLORATIONS

LION PROPERTY

Claims Lion 1 to 30

1988 SUMMARY REPORT

Written by:

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

Watson Lake Mining District
Claim Map - 105 G/1 Waters Creek

130°10' W longitude / 61°9.5' N latitude

December, 1988

SUMMARY

Northern Dynasty Explorations Ltd. holds the Lion Property comprising 30 contiguous claims southeast of Ross River, Yukon. The property covers extensive zones of pyritic quartz-sericite schists. This report discusses the results of the 1988 field program which consisted of prospecting and geochemical sampling.

Program Results: 1. An extensive rock sampling program in the pyritic schists on the western portion of the property did not discover any zones of significant precious or base metals.

2. The source of the G.S.C. stream sediment gold anomaly on Gossan Creek was not determined. This anomaly, however, does not reflect significant precious or base metal mineralization in the pyritic schists exposed in the creek.

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3. Statement of Expenditures
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LION PROPERTY

1988 Summary Report

1.0 Background Information

1.1 Introduction

The Lion Property is in the south-central Yukon. It comprises 30 contiguous claims held by Northern Dynasty Explorations Ltd. The claims cover areas of large pyrite gossans in quartz-sericite schists. The 1988 program included prospecting and geochemical sampling designed to evaluate the gold potential of the property.

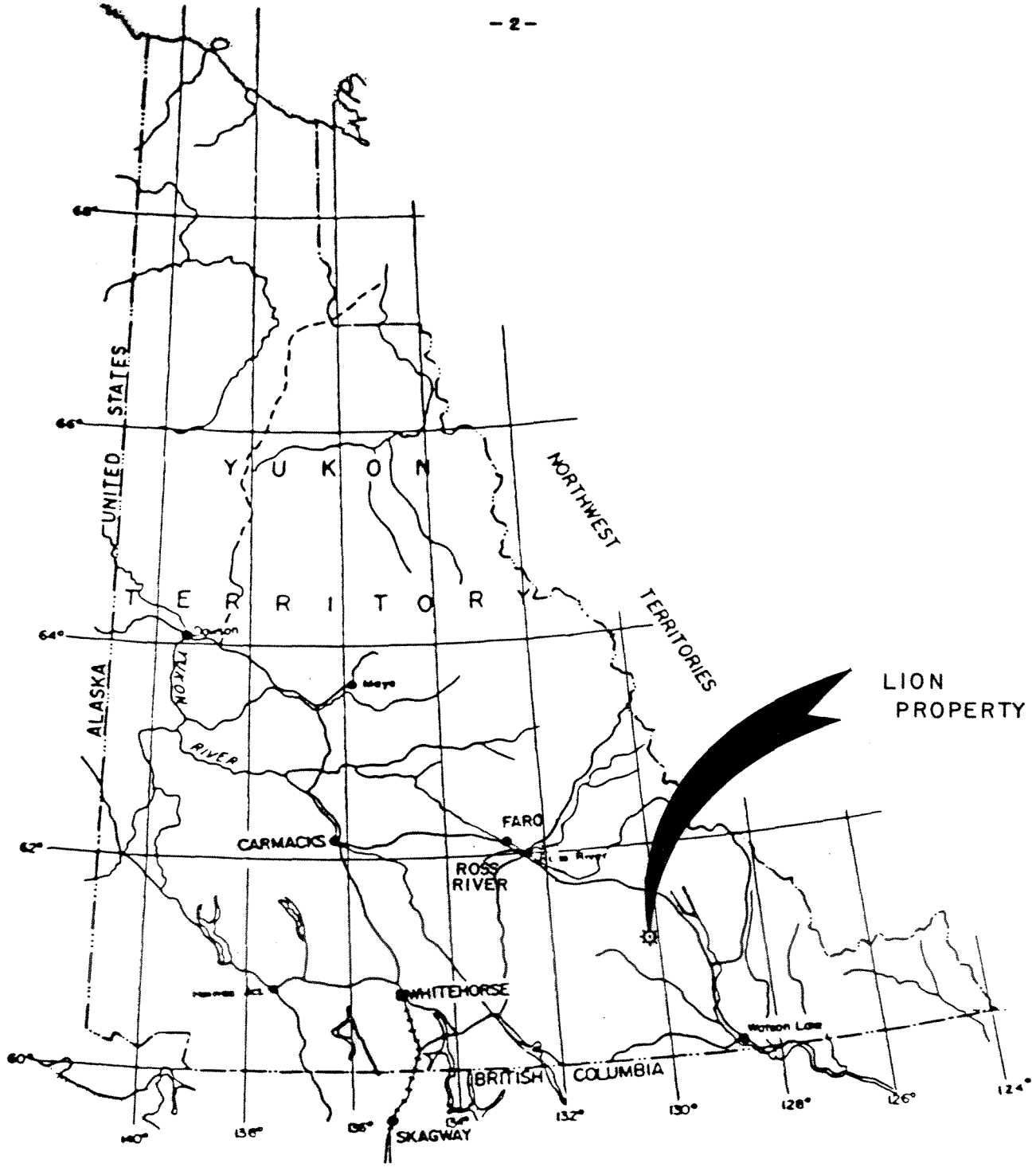
1.2 Location and Access

The Lion Property is located 140 km (90 mi) southeast of the town of Ross River in the Yukon Territory (Fig. 1). The centre of the property is located at 130°10' W longitude/ 61°9.5' N latitude on N.T.S. sheet 105 G/1. Access to the property is by helicopter from the TransNorth Helicopter Base in Ross River. The nearest staging area is on the Robert-Campbell Highway where it passes within 35 km (21 mi) of the property at a point near Francis Lake.

1.3 Physiography

Most of the property is on a moderate north facing slope of an unnamed mountain in the Simpson Ranges. Elevations range from 4,000 to 5,000 ft above sea level. Vegetation is subalpine and dominated by dwarf spruce and fir.

Most bedrock exposure is in deeply cut creek gullies. Areas of the property between creeks are characterized by moss and tree covered scree.



YUKON JOINT VENTURE

NORTHERN DYNASTY EXPLORATIONS LTD.

LION PROPERTY

LOCATION MAP

1 inch = 100 miles

NOV 1988

FIGURE 1

1.4 Claim Status and Titles

The Lion Property is located in the Watson Lake Mining District. It comprises 30 contiguous claims consecutively named Lion 1 to Lion 30 (Fig. 2). Expiry dates are as follows :

YB15369 - 15398	Lion 1 to 30	September 14, 1989.

The claims are held by Northern Dynasty Explorations Ltd. (Appendix 1).

1.5 Personnel and Survey Dates

The field work described in this report was conducted on August 31, 1988. Report writing and drafting were done during December, 1988. A detailed list of personnel involved on the project is in Appendix 2.

1.6 History

1958-59: Wheeler *et al.* (1960) mapped the Finlayson Lake map sheet (NTS 105G) at a scale of 1"=4 mi. for the Geological Survey of Canada.

1961: An airborne magnetic survey was carried out by the Geological Survey of Canada (1961) over map sheet 105G as part of a regional series of surveys.

1958-76: Various Geological Survey of Canada mapping projects on the Finlayson Lake (105G) and Quiet Lake (105F) map sheets were carried out and compiled by Templeman-Kluit (1977).

1975: Cyprus Anvil Mining Corporation staked 24 claims (the PY property) covering part of the area occupied by the Lion Property. Crone J.E.M. and induced polarization surveys were carried out after some mapping and prospecting in search for massive sulphides (Adamson, 1976; Walcott, 1975). No significant mineralization was discovered.

1987: The Geological Survey of Canada (1988) conducted a regional stream sediment and water geochemical survey over map sheet 105G. A strong but erratic gold-arsenic anomaly was detected on Gossan Creek (Figure 4).

1988: Northern Dynasty personnel staked the Lion Property to cover a large gossan upstream from the stream sediment gold-arsenic anomaly on Gossan Creek.

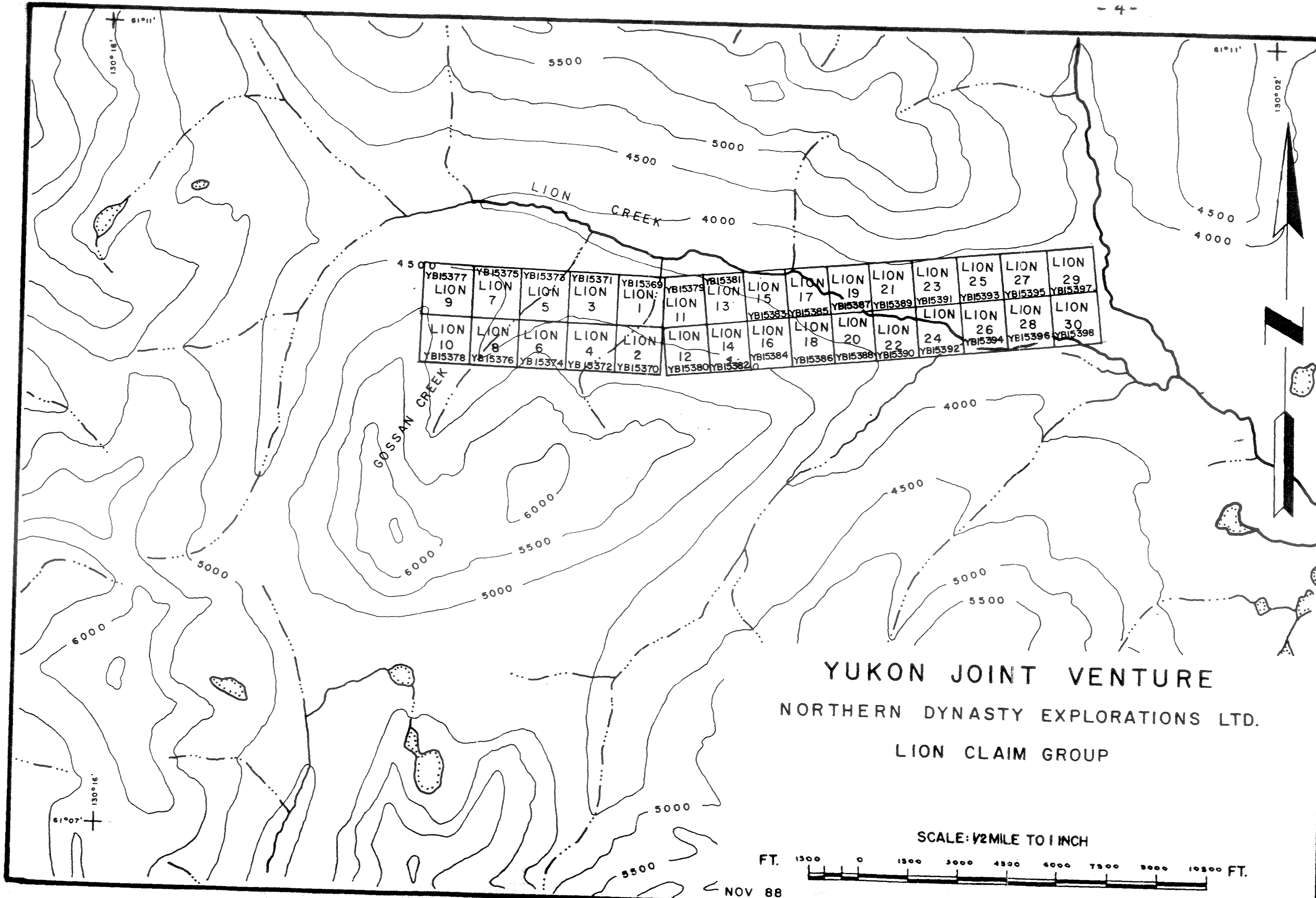

YUKON JOINT VENTURE
NORTHERN DYNASTY EXPLORATIONS LTD.
LION CLAIM GROUP
SCALE: 1/2 MILE TO 1 INCH
FT. 1500 0 1500 3000 4500 6000 7500 9000 10500 FT.
NOV 88
LION CREEK
GOSSAN CREEK
61°11'
130°16'
130°02'
61°07'
N
4000
4500
5000
5500
6000
LION 1 YB15369
LION 2 YB15370
LION 3 YB15371
LION 4 YB15372
LION 5 YB15373
LION 6 YB15374
LION 7 YB15375
LION 8 YB15376
LION 9 YB15377
LION 10 YB15378
LION 11 YB15379
LION 12 YB15380
LION 13 YB15381
LION 14 YB15382
LION 15 YB15383
LION 16 YB15384
LION 17 YB15385
LION 18 YB15386
LION 19 YB15387
LION 20 YB15388
LION 21 YB15389
LION 22 YB15390
LION 23 YB15391
LION 24 YB15392
LION 25 YB15393
LION 26 YB15394
LION 27 YB15395
LION 28 YB15396
LION 29 YB15397
LION 30 YB15398

FIGURE 2

2.0 Prospecting and Geochemistry Report

2.1 Introduction

The Lion property was staked to cover large gossans upstream from a Geological Survey of Canada (1988) stream sediment gold anomaly. A preliminary program of prospecting and rock, soil, and stream sediment geochemistry was carried out mainly in the Gossan and Fox Creek drainages on the Lion Property (Figures 4 and 5). Some work was also done elsewhere on the property as well (Figure 3).

2.2 Geology and Mineralization

No systematic geological investigation was done on the property. The property covers a pyritic quartz-sericite schist unit which dips shallowly to the north. Overlying the quartz-sericite schist unit are massive granitoids (mainly augen gneisses) which, from a distance appear to cap several of the local mountains. Details of the regional geology are described in Wheeler et al. (1960) and Templeman-Kluit (1977). Airborne magnetics for the area are described in Geological Survey of Canada (1961). Adamson (1976) gives further details on the geology of the immediate property area.

The prominent gossans which occur in all the main drainages on the property are due to 1-15% disseminated, medium to coarse grained pyrite hosted within the quartz-sericite schists. These pyrite zones range up to 40 m (130 ft) in thickness. Minor chalcopyrite, sphalerite, and rare galena were observed in association with the pyrite. Common bull white quartz veins in the area also locally host pyrite-chalcopyrite mineralization. No economic precious or base metal values were detected in the course of this survey.

A large soil copper anomaly with values ranging over 1% Cu was outlined by Adamson (1976) east of Fox Creek; this anomaly appears to be due to thin horizons of copper sulphide mineralization within the pyritic quartz-sericite schists.

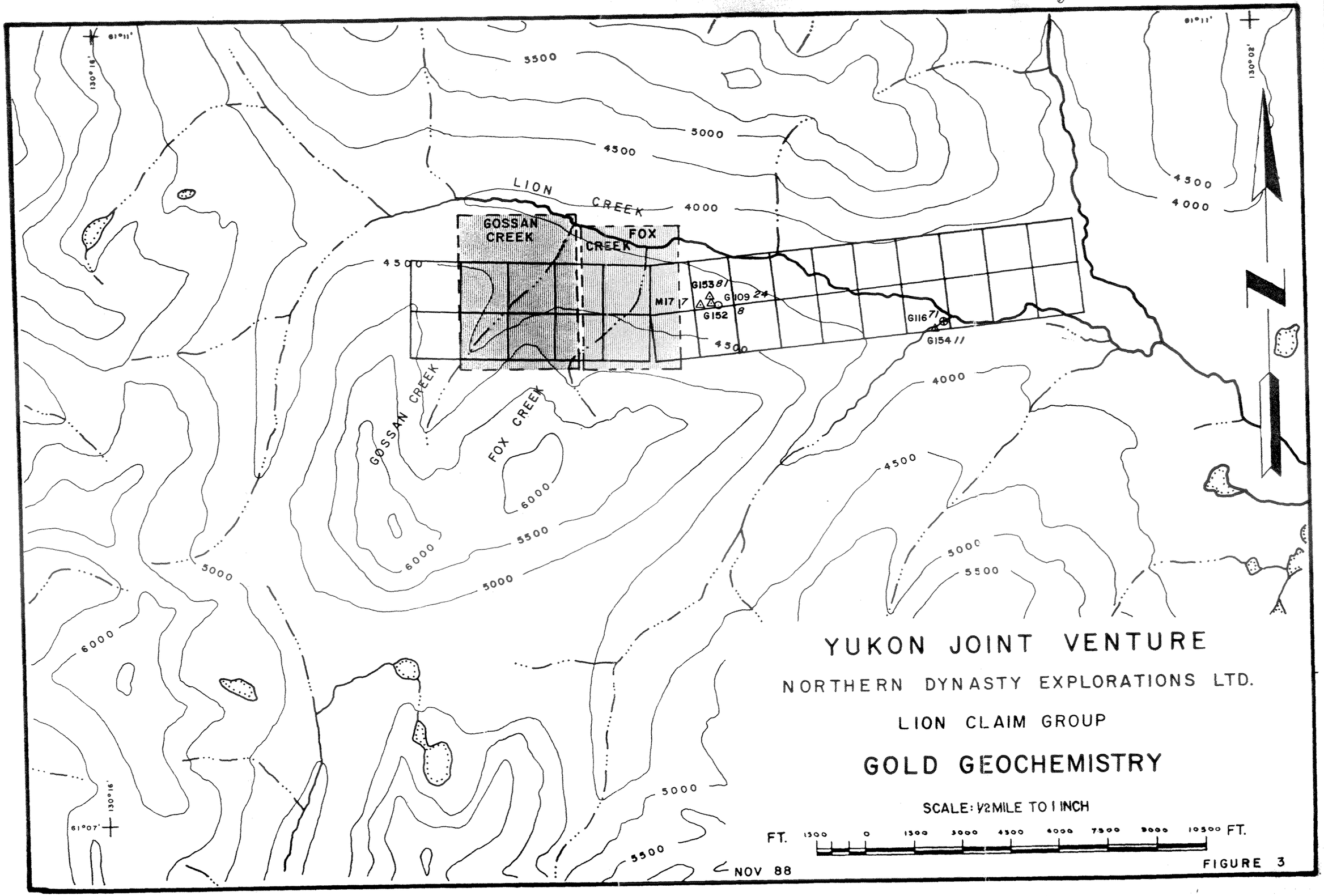
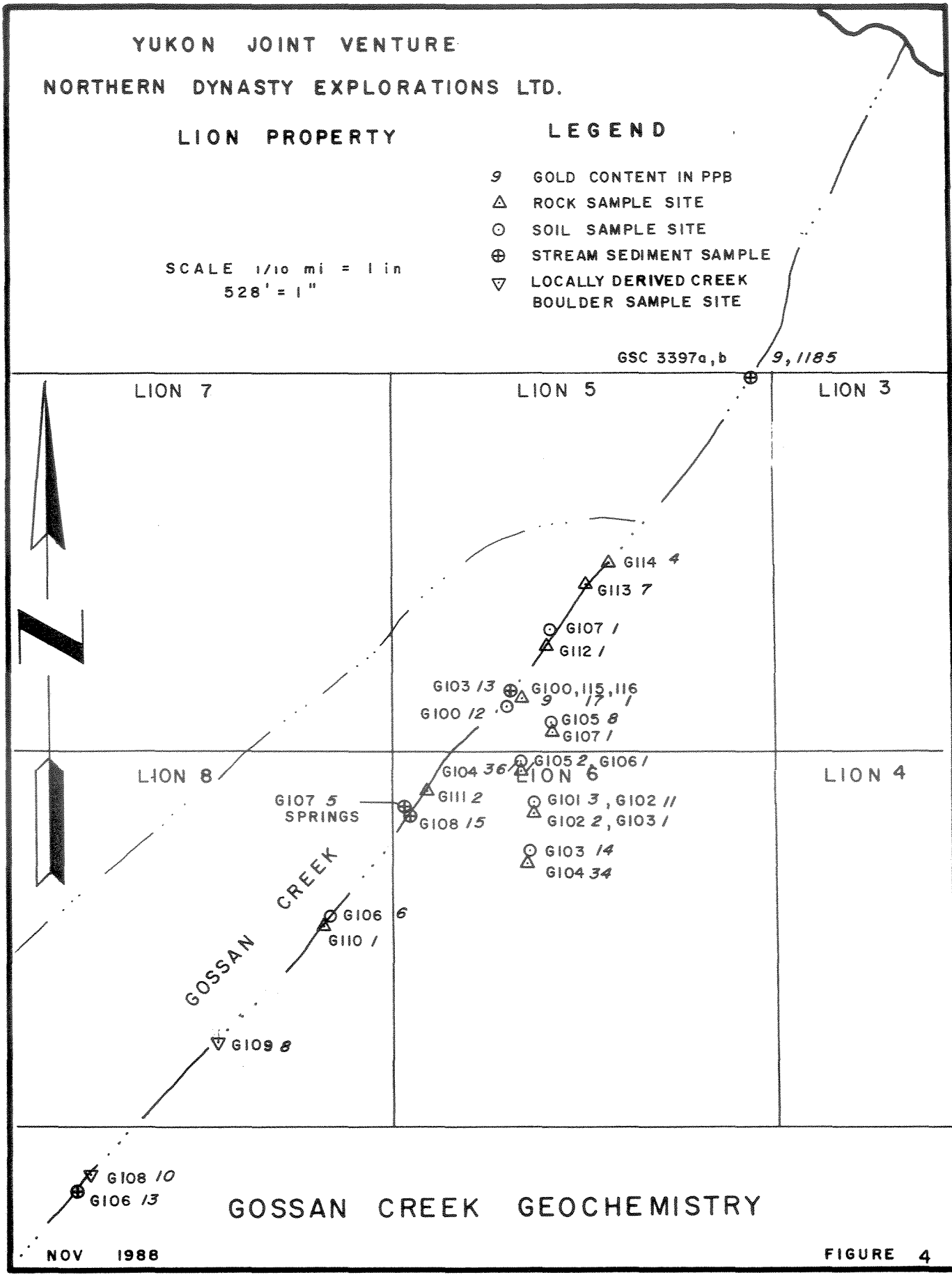
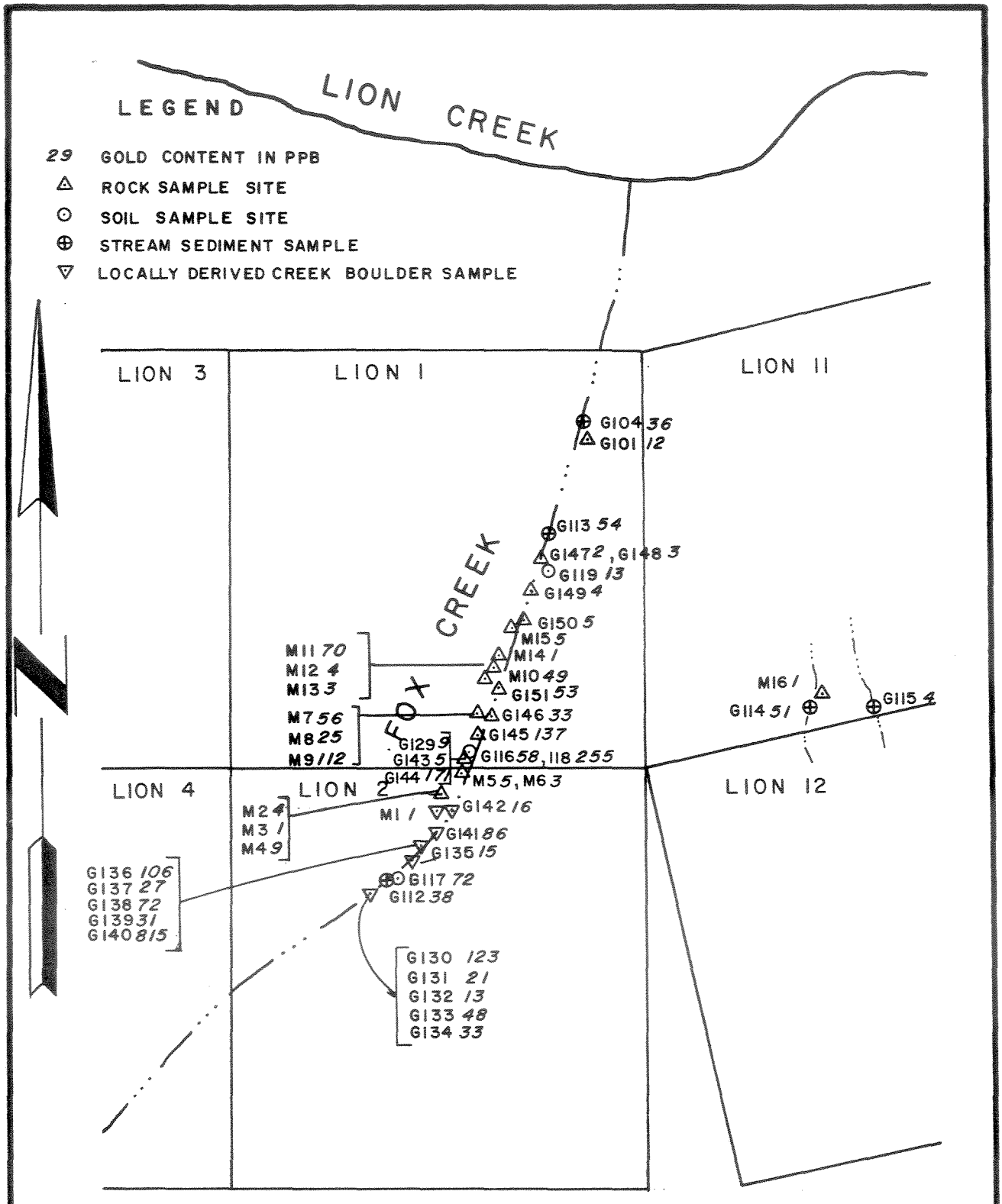

61°11'
130°18'
5500
5000
4500
4000
LION CREEK
GOSSAN CREEK
FOX CREEK
4500
M17 17
G153 81
G109 24
G152 8
G116 71
G154 11
4500
GOSSAN CREEK
FOX CREEK
4000
4500
5000
5500
6000
6000
5500
5000
5000
6000
5000
5500
61°07'
130°16'
4500
4000
61°11'
130°18'
NOV 88
YUKON JOINT VENTURE
NORTHERN DYNASTY EXPLORATIONS LTD.
LION CLAIM GROUP
GOLD GEOCHEMISTRY
SCALE: ½ MILE TO 1 INCH
FT. 1500 0 1500 3000 4500 6000 7500 9000 10500 FT.

FIGURE 3


YUKON JOINT VENTURE
NORTHERN DYNASTY EXPLORATIONS LTD.
LION PROPERTY
LEGEND
9 GOLD CONTENT IN PPB
ROCK SAMPLE SITE
SOIL SAMPLE SITE
STREAM SEDIMENT SAMPLE
LOCALLY DERIVED CREEK BOULDER SAMPLE SITE
SCALE 1/10 mi = 1 in
528' = 1"
GSC 3397a,b 9,1185
LION 7
LION 5
LION 3
LION 8
LION 6
LION 4
G114 4
G113 7
G107 1
G112 1
G103 13
G100,115,116 9 17 1
G100 12
G105 8
G107 1
G104 36
G105 2, G106 1
G107 5 SPRINGS
G111 2
G108 15
G101 3, G102 11
G102 2, G103 1
G103 14
G104 34
GOSSAN CREEK
G106 6
G110 1
G109 8
G108 10
G106 13
GOSSAN CREEK GEOCHEMISTRY
NOV 1988
FIGURE 4



YUKON JOINT VENTURE

NORTHERN DYNASTY EXPLORATIONS LTD.

LION PROPERTY

FOX CREEK GOLD GEOCHEMISTRY

SCALE 1/10 mi = 1 in
528' = 1"

NOV 1988

FIGURE 5

2.3 Rock Geochemistry

2.3.1 Introduction

Rock samples from bedrock exposures were collected at the discretion of field personnel. All samples were shipped unprepared to Acme Analytical Laboratories in Vancouver, British Columbia. Here they were crushed to -100 mesh and analysed for gold by acid leach or fire assay with an atomic absorption finish. All samples were also analysed for 30 elements by induced cation plasma (I.C.P.) spectrometry (Appendix 4).

2.3.2 Discussion

Numerous anomalous values in precious and base metals were returned from grab samples but no zones of significant mineralization were discovered during the survey. Sample GY8-R-140 returned the highest gold (815 ppb) and the highest copper (over 3%) value. This sample was collected from a 10 cm (4 in) wide bull white quartz vein with 7% clotty chalcopyrite in a locally derived creek boulder (Figure 5). Other high gold values noted in Figures 4 and 5 are associated with chalcopyrite-bearing quartz-sericite schists and quartz veins.

2.4 Soil Geochemistry

2.4.1 Introduction

Soil, till and talus samples were often collected in association with rock grab samples. All samples were shipped unprepared to the laboratory where they were dried, sieved to retrieve the -80 mesh fraction, and analysed for gold by acid digestion and atomic absorption, and 30 elements by acid digestion and induced cation plasma (I.C.P.) spectometry. Results are tabulated in Appendix 4.

2.4.2 Discussion

From the limited soil sampling that was done it appears that base metal values in soils are enriched throughout the property - almost all soils collected returned high values in Cu, Pb, Zn and Ag. The highest values in copper were associated with visible copper sulphide mineralization in bedrock.

Several high gold values in soils were also reported. The highest value of 225 ppb gold (sample GY8-R-118) was taken from the site of rock GY8-R-144 which ran 171 ppb gold; this is a malachite stained 20 centimetre wide quartz vein.

Gold and especially base metals appear to be unusually enriched in the fine fraction of soils and talus on the property. This fine fraction often returns metal values that are higher than those found in associated mineralized bedrock.

2.5 Stream Sediment Geochemistry

2.5.1 Introduction

Stream sediments were collected from several creeks and many were collected from the vicinity of gossans in Gossan and Fox Creeks (Figures 4 and 5). Samples varied from coarse gravels to good channel silts. The creeks were all fast flowing and varied from 1-2 metres (3-7 ft) in width and 5-40 centimetres in depth. All samples were shipped unprepared to the laboratory where they were dried, sieved to retrieve the -80 mesh fraction. Some of the coarse gravel samples did not produce sufficient -80 mesh material for analysis and so were pulverized to -100 mesh and analysed; these samples are marked "p" in Appendix 4. All samples were analysed for gold and 30 elements in similar fashion to the soil samples (Section 2.4.1).

2.5.2 Discussion

The Geological Survey of Canada (1987) anomalous sample (#3397) was taken on Gossan Creek downstream from the pyrite gossans and the samples collected during this survey. This G.S.C. sample was analysed twice and returned values of 9 and 1185 ppb gold.

All samples collected in this survey on the main channel of Gossan Creek did not produce sufficient -80 mesh material for analysis and as such, the values plotted on Figure 4 are not representative of the fine fraction of the stream sediment geochemistry. The validity and source of the Geological Survey of Canada sample anomaly thus remains unknown.

The four samples collected on Fox Creek and the first small drainage to the east (Figure 5) returned values of 36-54 ppb gold and elevated base metal values. The source of these anomalies is uncertain. They may reflect undiscovered mineralization or simply high background values associated with the pyritic gossans.

A sample (GY8-SS-116) returned 71 ppb gold from a large creek at the east end of the property. This is the only gold anomaly detected which does not have associated elevated base metal values. The source of this anomaly is not known.

3.0 Conclusions

1. No significant precious or base metal mineralization was found during this limited survey on the property.

2. Very large (up to 40 m thick) zones of disseminated pyrite (1-15%) mineralization in quartz-sericite schists occur on the property. Minor chalcopyrite, sphalerite and rare galena are associated with these zones.

3. Intense sampling focused on the large gossans in the Gossan and Fox Creek drainages failed to detect any significant zones of mineralization. Other portions of the property received little or no attention during this survey.

4. The source of the Geological Survey of Canada stream sediment gold anomaly (9 and 1185 ppb Au) in Gossan Creek is not known. All samples taken in the main channel of Gossan Creek during this survey contained insufficient sample material for proper analysis.

5. The source of stream sediment anomalies in other creeks on the property is not known. They may have been concentrated from high background pyritic quartz-sericite schist debris or they may have been derived from one or more as of yet undiscovered sources.

4.0 Recommendations

1. A one day detailed stream sediment survey should be undertaken by two persons to determine the distribution of the stream sediment gold anomalies. The survey should mainly test areas both upstream and downstream of the survey described here. Personnel should resist the temptation of concentrating on the prominent but barren gossans described in this report.

   One person should sample Gossan Creek and all its tributaries from its headwaters to its mouth; extra large samples (two kraft soil bags) should be taken to ensure sufficient sample material for analysis. The second person should sample the anomalous creek at the east end of the property (site GY8-SS-116 - Figure 3); both the main channel of this creek and all tributaries should be sampled as far upstream as is possible in one day.

2. No further sampling of the gossans should be undertaken at this time.

5.0 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.

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.

Templeman-Kluit, D.J.
1977: Quiet Lake (105F) and Finlayson Lake (105G) map areas, Yukon Territory; Geological Survey of Canada, Open File 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

Property Holder

Appendix 1

Property Holder

Northern Dynasty Explorations Ltd.
844 West Hastings Street
Vancouver, British Columbia
V6C 1C8

Telephone : (604) 682-3727

Appendix 2

Personnel and Survey Dates

Appendix 2

Personnel involved in work on Lion Property during 1988 :

Personnel	Occupation	Survey Dates
George Gorzynski 3836 West 16 Avenue Vancouver, British Columbia V6R 3C7	Geologist	Field : August 31,1988 Office : December, 1988.
Mark Kilby 3282 West 6 Avenue Vancouver, British Columbia V6K 1X8	Technician	Field: August 31, 1988

Appendix 3

Statement of Expenditures

APPENDIX 3

Yukon Quartz Mining Act Representation Work

Statement of Expenditures

LION Claim Group
to December 31, 1988

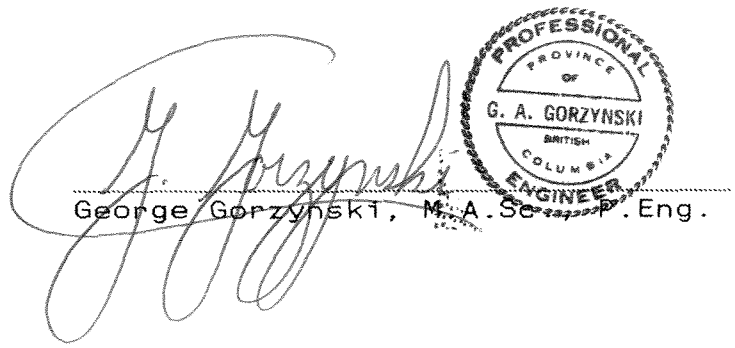
Note : Only expenditures applicable to the Lion Property under the Yukon Quartz Mining Act are included in this statement.

631/633 Field Equipment and Supplies	73.81
643 Rotary Wing	1,409.90
647 Miscellaneous Transport (Truck Rental)	169.71
649 Meals and Lodging (while engaged in field work)	214.71
651 Consulting Fees and Wages - Field	440.00
- Office	1,102.50
657 Drafting	62.18
659 Assays and Analyses	113.90
	3,586.71
Administration - 10%	358.67
TOTAL	$ 3,945.38

APPENDIX 3

AFFIDAVIT SUPPORTING STATEMENT OF EXPENDITURES

I, George Gorzynski of Vancouver, British Columbia, do hereby state that, to the best of my knowledge and belief, the statement of costs presented in this report (1988 Summary Report - Lion Property) is both correct and true.



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

Appendix 4

Chemical Analyses

Complete Set Lion Assays

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

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 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
GY8-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
GY8-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
GY8-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
GY8-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
GY8-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
GY8-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
GY8-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
GY8-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
GY8-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
GY8-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
GY8-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
GY8-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
GY8-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
GY8-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
GY8-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
GY8-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
GY8-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
GY8-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
GY8-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
GY8-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
GY8-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
GY8-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
GY8-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
GY8-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

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
GY8-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
GY8-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
GY8-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
GY8-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
GY8-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
GY8-R-141	2	283	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
GY8-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
GY8-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
GY8-R-144	2	4090	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	.42	.01	.03	1	171
GY8-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
GY8-R-146	49	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
GY8-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
GY8-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
GY8-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
GY8-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
GY8-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
GY8-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
GY8-R-153	16	590	6	26	1.8	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
GY8-R-154	5	82	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
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
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

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
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
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
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
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
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

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
GY8-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
GY8-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
GY8-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
GY8-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	.58	.01	.15	1	13
GY8-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
GY8-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
GY8-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
GY8-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
GY8-SS-113	37	856	62	214	1.0	24	23	934	4.51	20	5	ND	14	43	1	2	2	19	.18	.099	50	13	.49	126	.01	2	.88	.01	.07	1	54
GY8-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
GY8-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
GY8-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

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
GY8-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
GY8-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
GY8-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
GY8-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
GY8-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
GY8-S-105	10	173	142	131	1.4	8	5	231	4.53	22	5	ND	5	12	1	2	4	29	.05	.066	14	12	.31	49	.06	2	1.01	.01	.08	1	8
GY8-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
GY8-S-107	20	309	102	126	.5	8	6	363	13.96	13	5	ND	48	5	1	2	2	33	.02	.138	9	46	.84	16	.34	2	.97	.01	.05	1	1
GY8-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
GY8-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
GY8-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	64	.38	111	.01	2	.82	.01	.29	1	255
GY8-S-119	248	775	1634	247	7.2	53	52	3748	10.02	24	7	ND	39	19	2	2	2	13	.27	.058	100	28	1.25	238	.07	2	2.05	.01	.11	1	13
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

Appendix 5

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 program on the Lion Property.

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA G. A. GORZYNSKI

G. A. GORZYNSKI BRITISH COLUMBIA ENGINEER

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