



53B14SE0007 53B14SE0019 RANDALL LAKE

010

ONTARIO GOLD JOINT VENTURE

RANDALL LAKE PROPERTY

1985 Assessment Report

Prepared for:

Northern Dynasty Explorations Ltd.  
Newfields Minerals Inc.  
Westfield Minerals Limited

Written by:

D. W. Tupper, B.Sc.  
G. Gorzynski, B.A.Sc.  
B. A. Youngman, B.Sc.

**RECEIVED**

DEC 19 1985

**MINING LANDS SECTION**

Patricia Mining Division  
(Sioux Lookout Office)  
Claim Map: Randall Lake Area G-2182

N.T.S. Sheet 53 B/14  
91°13' Longitude; 52°50' Latitude

November, 1985



53B14SE0007 53B14SE0019 RANDALL LAKE

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SUMMARY

(i)

The twenty-two Randall Lake claims discussed in this report were staked by Northern Dynasty Explorations Ltd. in September of 1984 to cover ground on strike with the adjacent high grade Teal Au-Ag-Cu vein prospect. Grid-controlled soil geochemistry, prospecting and geological mapping have outlined two broad target areas plus numerous isolated geochemical anomalies, all on the east half of the property.

Program Results:

1. Anomalous gold values up to 1100 p.p.b. in soils across 600 metres were found, apparently associated with siliceous banded iron formation south of West Lake.
2. Local clustered gold anomalies up to 215 p.p.b. were outlined.
3. A string of single station gold anomalies up to 160 p.p.b. associated with a diorite-mafic metavolcanic contact along a strike length greater than 600 metres.

RANDALL LAKE  
1985 Assessment Report

1. General Information

1.1 Introduction

The Randall Lake property consists of twenty-two contiguous claims held by Northern Dynasty Explorations Ltd. of Vancouver in trust for the Ontario Gold Joint Venture (O.G.J.V.). The claims overlie strong linear structures extending southwest from the Teal Au-Ag-Cu prospect, east of the Agutua Arm of Weagamow Lake in the Patricia Mining District of northwestern Ontario.

The Teal showing consists of a narrow network of tetrahedrite-chalcopyrite-pyrite-bornite-quartz veins hosted in a silicified and carbonated shear zone along a diorite-metavolcanic contact within the North Caribou River Fault system. High grade samples with values of up to 4.25 ounces gold per ton and 51.01 ounces of silver per ton have been reported by various surveys (Andrews et al, 1981.)

The Randall Lake property was staked to cover areas with potential for Teal-type mineralization along the southwest extension of the regional shear zone.

2.1 Property Location and Access

The Randall Lake property is located 160 km. north of Pickle Lake, Ontario and 40 km. northeast of the termination of gravel Highway 808 at Windigo Lake (Fig. 1). The centre of the property is located at Latitude 52°50' and Longitude 91°13' on N.T.S. sheet 53 B/14. Summer access is by float-equipped aircraft from either Pickle Lake or Windigo while winter access can be gained via the Weagamow Lake (Round Lake) Indian Reserve winter haul road 10 km. to the west and an interconnected system of lakes and rivers. The Weagamow Lake settlement 18 km. to the northwest has a gravel air strip and is serviced by scheduled flights year round.

### 1.3 Claim Status and Titles

The property consists of 22 Crown Land mining claims in the Randall Lake Area (claim map G-2182) of the Patricia Mining Division (Fig. 2). These are:

<u>Claim Numbers</u>	<u>Anniversary Date</u>
Pa 817455-476	Sept. 6, 1986

All claims are held by Northern Dynasty Explorations Ltd., in trust for the Ontario Gold Joint Venture (Northern Dynasty Explorations Ltd., Westfield Minerals Limited, Newfields Minerals Inc. and Dunlop Explorations. Appendix 1.)

### 1.4 Personnel and Survey Dates

The field work described in this report was carried out between August 10 and August 15, 1985. The personnel involved and their period of employment are listed in Appendix 2.

### 1.5 Physiography

The topography between Agutua Arm of Weagamow Lake and Randall Lake is controlled by the strong linear structures of the northeast-southwest trending North Caribou River Fault. Relief increases slowly from the north boundary of the property to abrupt cliffs approximately 75 metres high on the north shore of Randall Lake and the southeast shore of Agutua Arm. The entire area is covered by till deposits of sand and gravel with numerous interspersed low cliffy outcrop ridges and swampy valleys trending approximately along 070° azimuth. Most drainages and lakes in the area also follow this trend.

The area is heavily wooded with spruce, local stands of poplar along the well drained gravel ridges, jackpine on the outcrop ridges to the south, tamarack in the muskegs and alder in the swamps.

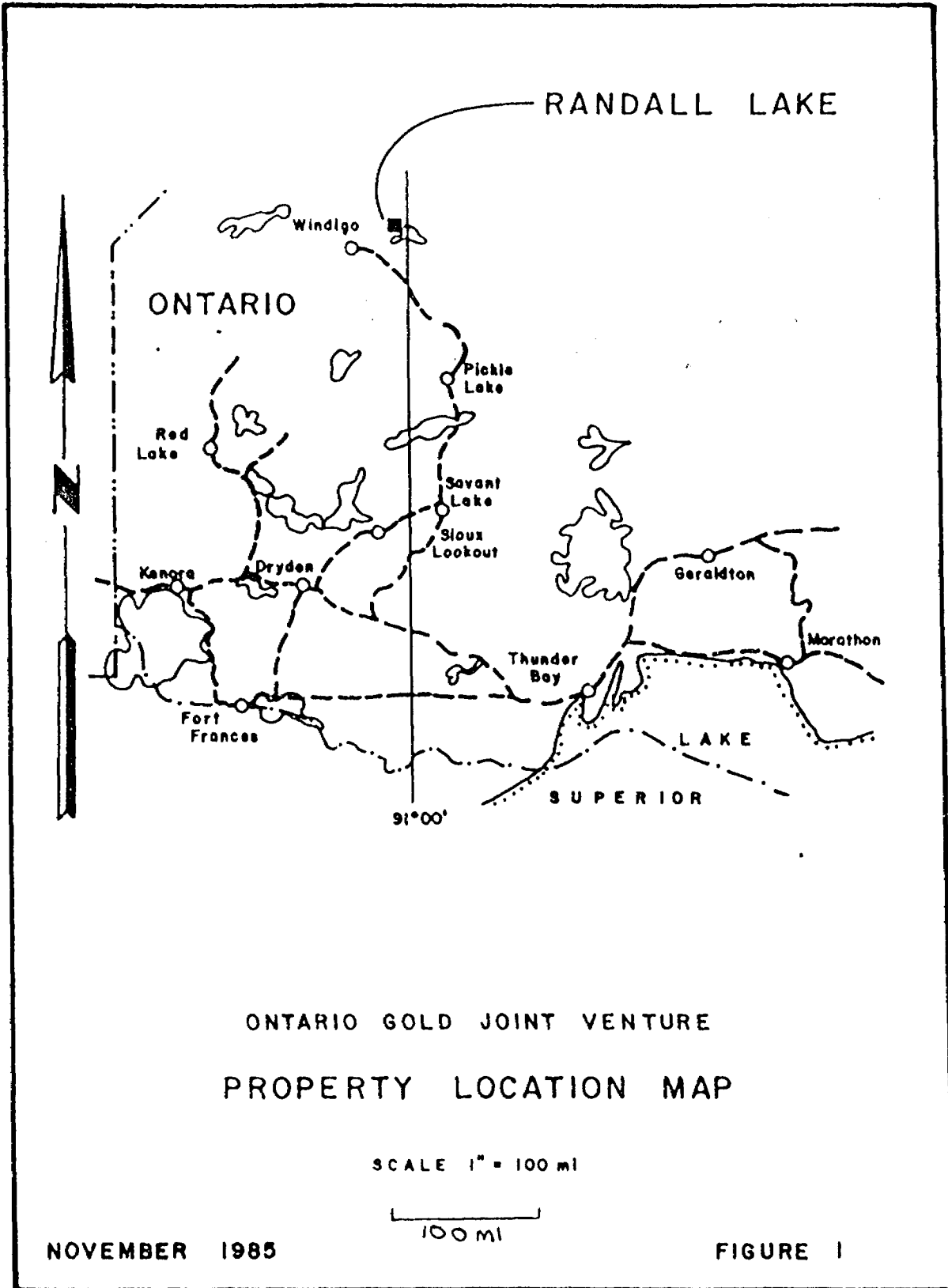
### 1.6 History

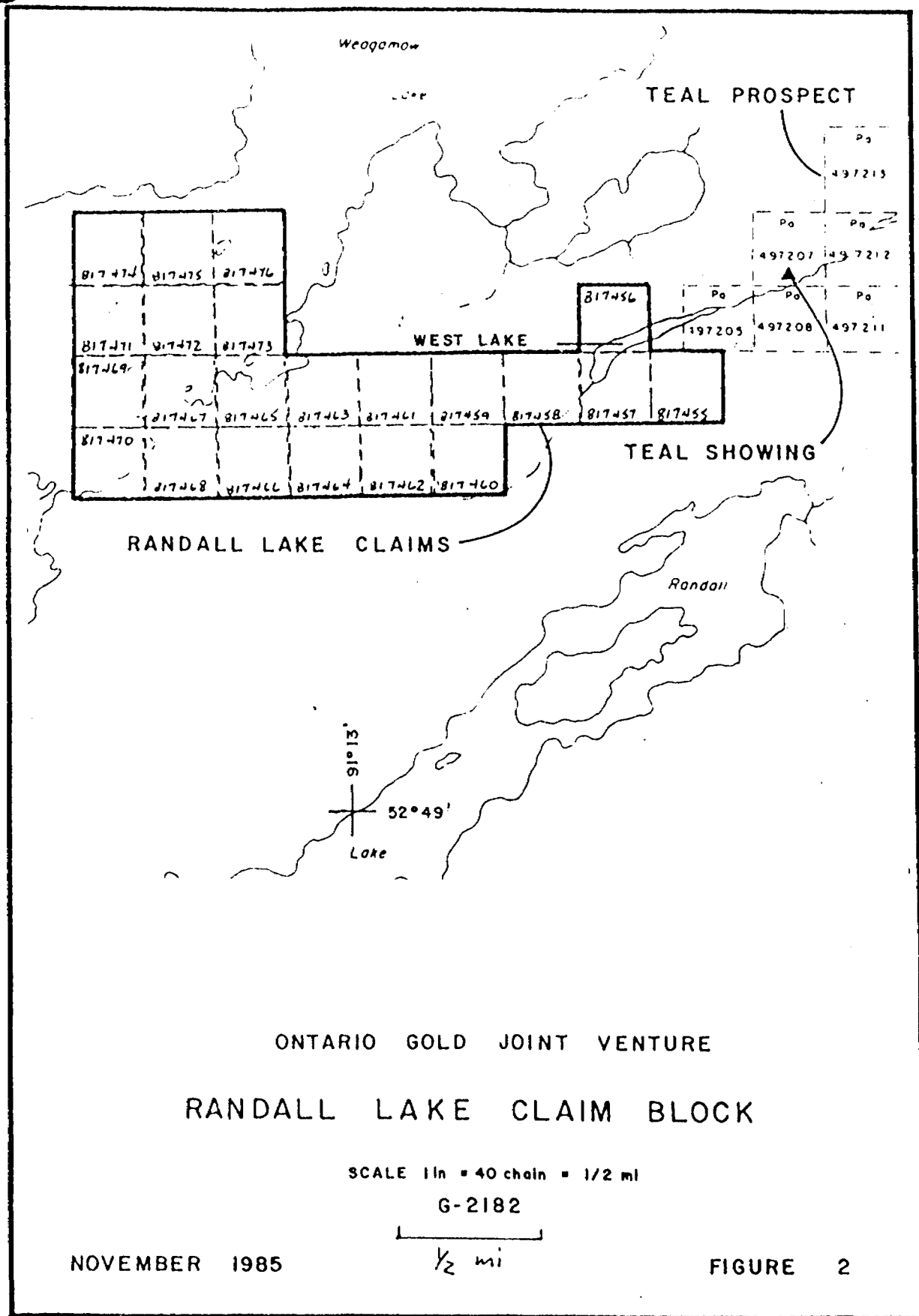
The North Caribou Lake "greenstone" belt has received geological attention since 1912. Mineral exploration in the Randall Lake area has been fairly continuous since 1957.

#### 1.6.1 Government Surveys

1912 - Tyrrell (1913) made limited geological notes during a very brief visit.

1938 - Satterly (1941) produced the first geological map (scale 1" = 1 mi.).







- 1960 - ODM - GSC (1960) flew an airborne magnetometer survey (scale 1" = 1 mi.).
- 1962 - Emslie (1962) carried out ODM reconnaissance mapping (scale 1" = 4 mi.).
- 1971 - Thurston et al. (1971) carried out ODM reconnaissance mapping (scale 1" = 4 mi.).
- 1981 - Andrews et al. (1981) conducted a preliminary evaluation of the geology and economic potential of the area for the Ontario Geological Survey.
- 1984 - Breaks et al. (1984) published a preliminary report of the first year of a three year integrated study of the North Caribou Lake area; a preliminary map of the Eyapamikama Lake area was published in 1985.
- 1985 - O.G.S. Economic Division geologists (1985) conducted a detailed geological and economic potential study of the North Caribou River Fault; reports and maps will follow (1986, Piroshco and Shields).

#### 1.6.2 Mineral Exploration

Since the discovery of Au-Ag-Cu mineralization in 1957, exploration on the adjacent Teal property by three companies (Teal Explorations, Pyrotex Mining and Exploration, and Sulpetro Minerals Ltd.) has included geological mapping, geochemical soil sampling, E.M./magnetic surveying, surface trenching and diamond drilling (approximately 2,700 m). Values of up to 0.99 ounces gold per ton, 16.33 ounces silver per ton and 2.41 percent copper across a channelled width of 1.0 metres have been reported (Harris, 1959) from a narrow sulphide-rich vein structure hosted within a silicified and carbonated shear zone. No work has been done on the property since 1979.

In 1967, Pyrotex Mining and Exploration evaluated an Au-Ag-Cu prospect (currently held by Moss Resources Ltd.), 6.5 km northeast of the Randall Lake claims. Narrow, en-echelon arsenopyrite, pyrite-chalcopyrite-quartz veins occurring with mafic metavolcanic rocks have yielded "average" values of 2.24 ounces gold per ton, 1.32 ounces silver per ton and 0.48% copper (Northern Miner, 1967, cited by Thurston et al., 1979).

In 1972, Canadian Nickel drilled a single hole from the frozen surface of Agutua Arm, 1.2 km northwest of the Randall Lake claims, intersecting highly sheared, serpentinized, talcose and carbonated ultramafic rocks throughout its entire 182 m core length.

In 1979, Sulpetro Minerals Ltd. (formerly St. Joseph Explorations Ltd.) drill tested several E.M./magnetic anomalies northeast of the Teal prospect on ground currently held by Moss Resources Ltd. and Van Horne Gold Explorations Inc. Chert-magnetite-sulphide iron formation with local mariposite yielded gold values up to 0.06 ounces per ton (?), while tourmaline-pyrite-arsenopyrite-quartz veins within fractured quartz-feldspar porphyry returned up to 0.25 ounces gold per ton.

The Randall Lake property was prospected and staked in the summer of 1984 by Dunlop Explorations for the Ontario Gold Joint Venture.

In 1985, Moss Resources conducted geological and geophysical surveys on their Agutua Arm property (formerly Pyrotex) and claims extending northeast from the Teal property.

## 2. Geological Report

### 2.1 Introduction

Limited grid controlled geological mapping was conducted from August 10 to August 15, 1985 at a scale of 1:5000 on the property (Appendix 3).

### 2.2 Regional Geology

The Randall Lake claims are underlain by Archean rocks of the Sachigo Subprovince in the Superior Province of the Canadian Shield. The property lies near the western end of the North Caribou Lake "greenstone" belt (F g. 3), a 135 km long meta-volcanic-metasedimentary assemblage extending from Weagamow Lake in the northwest to Neawagank Lake in the southeast.

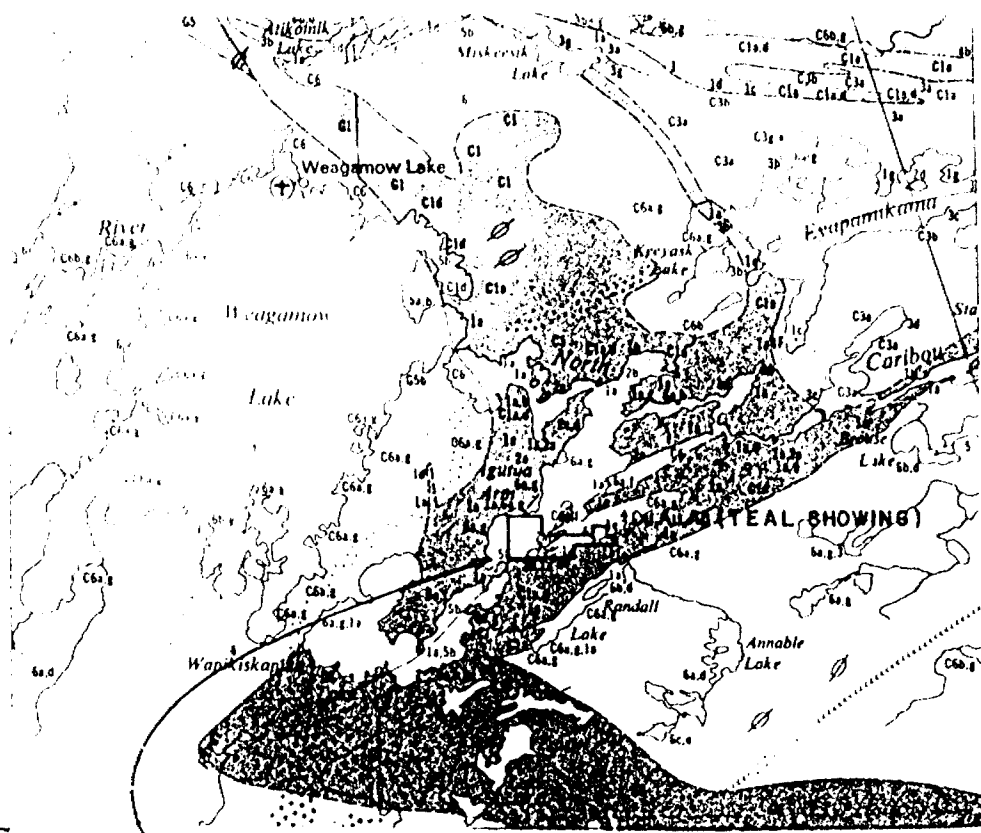
The oldest rocks in the belt are believed to be a package of shallow southeast dipping metavolcanics and pyroclastics in the Agutua Arm Area (Breaks et al, 1984). The east-facing Keeyask Lake meta-volcanic-metasedimentary package between Agutua Arm and Eyapamikama Lake, sits uncomfortably on the Agutua Arm stratigraphy and has an enigmatic relationship with the metavolcanics and metasediments paralleling Eyapamikama Lake. The rocks in the Randall Lake area have been tectonically smeared into narrow southwest-northeast striking lenses and divided by felsic to ultramafic sill-like intrusions along the feathered western end of the North Caribou River Fault system (Breaks et al, 1984). Subsequently their relationship with the stratigraphies noted above is uncertain, but it is likely they belong to the Agutua Arm meta-volcanic package.

### 2.3 Local Geology



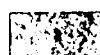

The lowest stratigraphic member in the property area is an 800 metre thick package of basaltic flows (Rayner, 1979) extending from the granite margin of the belt on the north shore of Randall Lake to near the south claim boundary. Overlying this are structurally repeated, interlayered mafic to felsic meta-volcanic and pyroclastic rocks, and minor metasedimentary rocks (Plate 1).



53°45' -



RANDALL LAKE CLAIMS

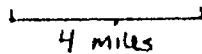
-  GRANITIC ROCK
-  MIGMATITIC ROCKS
-  METASEDIMENTARY ROCKS
-  MAFIC METAVOLCANIC ROCKS

ONTARIO GOLD JOINT VENTURE  
RANDALL LAKE  
REGIONAL GEOLOGY

NTS 53 B/4

1 inch = 4 miles

1 : 253,440



NOVEMBER 1985

FIGURE 3

The mafic metavolcanic rocks dominate the stratigraphy, and are generally strongly foliated with no preserved pillow or flow structures. Chert and magnetic iron formation has been exposed in several locations roughly paralleling the south shore of West Lake, near the mafic-intermediate volcanic contact.

Dioritic intrusions have been mapped as large elongate intrusions along the north boundary of the property and extending as thin vertical bodies southwest from West Lake. Numerous dioritic dykes with associated quartz-tourmaline veins were observed throughout the metavolcanics from the centre of the property westward. Small lenticular pods of coarse granite exist within the diorite and may represent local crystal segregations of the intrusive.

Thin bodies of serpentized peridotite have been mapped at several localities at the diorite intrusive contact, and are considered to be the source of anomalies shown in the area on government regional airborne magnetic maps (O.D.M. - G.S.C., 1960). Observations made at the Teal showing suggest that the vein host rock is a silicified and iron carbonate altered lense of ultramafic rocks intruded along the faulted diorite-metavolcanic contact.

Numerous gabbroic sills appear to have intruded into the sequence, and may in fact be coarse flow centres of the mafic metavolcanics.

The predominant foliation on the east half of the property parallels the general  $070^{\circ}$  azimuth direction of the North Caribou River Fault system. Towards Agutua Arm the foliation swings east-west, and then to the northwest. This local deformation may be due to the intrusion of a large domal ultramafic body, as intersected by drilling under Agutua Arm by Canadian Nickel in 1972, and outlined by a large magnetic high shown on regional airborne magnetic maps (O.D.M.-G.S.C., 1960). Minor one metre scale "S"-symmetry folds in the interbedded metavolcanics and the siliceous iron formation consistently plunge 40 to 60 degrees towards the east and northeast.

The various intrusives appear to have been emplaced during or prior to faulting as indicated to their elongate shapes and pervasive foliation and shearing.

2.4 Mineralization

Quartz-sulphide vein hosted gold and silver mineralization similar to the Teal showing has not been found on the Rank 11 Lake claims with the exception of a single 2 cm. vein approximately 150 metres west of the north end of line 14100W (TR-201, Plates 3 and 4; silver: 66.0 p.p.m.; gold: 280 p.p.b.). This north striking 5 metre long quartz-chalcopyrite-bornite-tourmaline vein is hosted in a large diorite mass near its contact with a serpentine-magnetite lense.

Rock geochemistry on the property indicates that gold and silver are associated with vein hosted copper and arsenic sulphides similar to the Teal occurrence.

Numerous samples of diorite, gabbro and mafic volcanic-hosted quartz tourmaline veins on the west half of the property produced no gold anomalies.

### 3. Geochemical Report

#### 3.1 Introduction

Geochemical sampling on thirteen of twenty-two Randall Lake claims was conducted between August 10 and August 15, 1985 (Appendix 3).

#### 3.2 Sampling Procedure

Rock and A and B - horizon soil sampling was conducted on the property. Rock samples were all grid samples from bedrock exposures, with the exception of two float boulder samples. B-horizon grid and off-grid soil samples were collected preferentially over A-horizon soils. The grid lines were compassed and flagged perpendicular to the cut 070° azimuth base line.

All samples were analyzed for gold by fire assay with an atomic absorption finish and for 30 elements by I.C.P. (see Appendix 3 for technical information.).

#### 3.3 Discussion of Anomalies

A string of moderate to high gold soil anomalies (20 to 1100 p.p.b.) and associated copper and arsenic anomalies to the southwest of West Lake between lines 4+00W, 6+00W and 8+00W are thought to be caused by sulphide quartz stringers in siliceous banded iron formation (Plate 2). Grab samples taken to date from iron formation outcrops have produced only moderate values of up to 80 p.p.b. (Plates 3 and 4).

Four clustered gold soil anomalies (L 4+00W, 2+20N-to 215 p.p.b.; L8+00W, 0+10S-to 130 p.p.b.; L10+00W, 3+40S-to 110 p.p.b.; and L12+00W, 2+90S - to 160 p.p.b.) occur over dioritic rocks. The diorite-mafic volcanic contact which underlies the line 12+00W anomaly above, appears to be outlined by a string of moderate gold anomalies.

The ridge of outcrop between 1+50S and 2+90S on line 8+00W has numerous gold soil anomalies up to 80 p.p.b. Moderate values from rock samples taken in the immediate area from mafic volcanic and gabbro-hosted quartz tourmaline veins suggest that these may be the source.

An iron carbonate-altered ultramafic with minor sulphidic quartz veins at the west end of West Lake is considered to be a continuation of the ultramafic host at the Teal showing. Grab samples from here though gave low gold and silver values, with only moderate arsenic values.

Angular float boulders of arsenopyrite-pyrite-magnetic iron formation located approximately 150 metres east of lin 4+00W on the shore of West Lake yielded moderate gold values up to 65 p.p.b..



4. REFERENCES

- Andrews, A. J., Sharpe, D.R. and Janes, D.A.  
1981: Preliminary Reconnaissance of the Weagamow-North Caribou Lake Metavolcanic-Metasedimentary Belt, Including the Opapimiskan Lake (Mussewhite) Gold Occurrences; p. 196-202 in Summary of Field Work, 1981, by the Ontario Geological Survey, edited by John Wood, O.L. White, R.B. Barlow and A.C. Colvine, Ontario Geological Survey, Miscellaneous Paper 100, 255 p.
- Breaks, F. W., Bartlett, J.R., DeKemp, E.A., Finamore, P.F., Jones, G.R., MacDonald, A.J., Shields, H.N., and Wallace, H.  
1984: "Opapimiskan Lake Project: Precambrian Geology, Quaternary Geology, and Mineral Deposits of the North Caribou Lake Area, District of Kenora, Patricia Portion", in Ontario Geological Survey "Summary of Field Work, 1984", Misc. Paper MP 119, p. 258-273.
- Emslie, R.F.  
1962: "Wunnummin Lake (NTS 53A), Ontario", GSC Map 1-1962, scale 1" = 4 mi.
- Harris, J.J.  
1959: Report on Teal Exploration Property; Assessment Files Research Office, Ontario Geological Survey, Toronto, Ontario.
- ODM-GSC  
1960: "North Caribou Lake - Airborne Magnetics Map 919G", scale 1" = 1 mi.
- Rayner, N.W.  
1978: Geological Report Weagamow Lake Project 3190, Grid #4, St. Josephs Explorations Limited; Assessment Files Research Office, Ontario Geological Survey, Toronto, Ontario.
- Satterly, J.  
1941: "Geology of the Windigo-North Caribou Lakes Area", Ont. Dept. Mines Annual Rpt. 48, pt. 9, 32 p. and 2 maps.
- Thurston, P.C., Sage, R.P., and Siragusa, G.M.  
1971: "Operation Winsk Lake: Weagamow Lake Sheet", Ont. Dept. Mines Prelim. Map P. 711, Geol. Sur., scale 1" = 2 mi.
- Tyrrell, J.B.  
1913: "Hudson Bay Expedition, 1912", Ontario Bureau of Mines, Vol XXII, 1913, pt. 1, p.p. 161.

APPENDIX 1

Property Holders

Operator	-	Northern Dynasty Explorations Ltd. 844 West Hastings Street Vancouver, B.C. V6C 1C8
Manager	-	Dunlop Explorations 208 - 170 East Third Street North Vancouver, B.C. V7L 1E6
Other Partner	-	Newfields Minerals Inc. 1205 - 750 West Pender Street Vancouver, B.C. V6C 2T8

APPENDIX 2

Personnel

Personnel

Work Period (1985)

David W. Tupper  
2657 West 2nd Avenue  
Vancouver, B.C.  
V6K 1K1

September 10 - 15  
November 7 - 31

George Gorzynski  
156 Glenholme Avenue  
Toronto, Ontario  
M6E 3C4

September 10 - 15

Bruce A. Youngman  
#208 - 170 East 3rd Street  
North Vancouver, B.C.  
V7L 1E6

September 10 - 15

H Eric Ewen  
3239 Ganymede Drive  
Burnaby, B.C.  
V3J 1A5

September 10 - 15  
November 7 - 31

APPENDIX 3

TECHNICAL DATA STATEMENTS  
AND PROCEDURE RECORDS

NORTHERN DYNASTY EXPLORATIONS LTD.  
844 WEST HASTINGS STREET  
VANCOUVER, B.C. V6C 1C8

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Sept. 23 1985

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Randall Lake Geochemical Expenditure \$5703.65

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1438 01606  
1438 01606  
1438 01606

APPENDIX 4

CHEMICAL ANALYSES

REFERENCE GUIDE TO SAMPLE NUMBERING SCHEME

1. Samples collected on grid lines:

$\frac{RL}{(1)} \quad \frac{26+00W \quad 2+80N}{(2)} \quad - \quad \frac{A}{(3)}$

- (1) Property reference  
RL = Randall Lake
- (2) Location on cut grid.
- (3) Soil horizon sampled.

2. Off-grid samples:

$\frac{E}{(1)} \quad \frac{R}{(2)} \quad \frac{5}{(3)} \quad - \quad \frac{S}{(4)} \quad \frac{3}{(5)}$

- (1) Sampler
- (2) Property reference  
R = Randall Lake
- (3) Year of Work (5 = 1985)
- (4) Sample medium  
S = soil  
R = rock  
SS = stream sediment
- (5) Sample number

ACME ANALYTICAL LABORATORIES LTD.

852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6

PHONE 253-3158

DATA LINE 251-1013

## GEOCHEMICAL ICP ANALYSIS

.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 NH, FE, CA, P, CR, MG, BA, TI, B, AL, NA, K, W, SI, ZR, CE, SM, Y, MO AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: SOILS - 80 MESH AU\*\* ANALYSIS BY FA\*\*A FROM 10 GRAM SAMPLE.

DATE RECEIVED: AUG 26 1985 DATE REPORT MAILED: *Sept. 4/85* ASSAYER: *V. Saundry* DEAN TOYE OR TOM SAUNDRY, CERTIFIED B.C. ASSAYER

NORTHERN DYNASTY FILE # 85-2086

PAGE 1

SAMPLE#	NO	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Tl	Sr	Cd	Sb	Bi	V	Cr	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au**
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	I	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	I	I	PPM	PPM	I	I	I	I	I	I	I	PPM	
RL 26+000 2+80M A	2	21	4	23	.3	30	7	4554	1.03	11	5	ND	1	43	1	2	2	10	4.73	.10	6	15	.29	161	.01	17	.40	.01	.03	1	2
RL 26+000 2+60M A	2	21	6	23	.2	30	7	4712	1.06	12	5	ND	1	45	1	2	2	10	4.95	.11	6	15	.30	166	.01	13	.47	.01	.03	1	1
RL 26+000 2+50M A	1	25	3	23	.1	29	4	1801	.99	5	5	ND	1	45	1	2	2	11	4.82	.09	8	18	.27	128	.01	10	.36	.01	.02	1	1
RL 26+000 2+20M A	3	33	3	16	.2	33	2	1891	.66	5	5	ND	1	44	1	2	2	6	5.21	.10	2	8	.18	125	.01	17	.25	.01	.02	1	10
RL 26+000 2+00M A	1	55	2	20	.3	48	2	536	.57	2	5	ND	1	64	1	2	2	10	7.28	.07	6	15	.26	152	.01	1	.47	.01	.01	1	4
RL 26+000 1+80M A	18	27	11	43	.1	155	46	34978	1.50	50	5	ND	1	53	1	2	2	16	4.92	.17	3	7	.24	992	.01	17	.24	.01	.04	2	6
RL 26+000 1+60M A	1	49	2	10	.3	74	2	571	.31	2	5	ND	1	49	1	2	2	3	5.96	.07	8	11	.25	135	.01	15	.46	.01	.01	1	2
RL 26+000 1+50M A	1	60	2	15	.4	104	16	1156	.94	2	5	ND	1	56	1	2	2	7	6.14	.11	22	23	.21	220	.01	11	1.07	.01	.01	1	4
RL 26+000 1+40M A	1	86	3	14	.5	122	24	1435	1.20	7	5	ND	1	59	1	2	2	9	6.15	.12	40	47	.23	267	.01	10	1.56	.01	.01	1	6
RL 26+000 1+30M B	1	73	7	37	.3	210	49	1906	3.83	55	5	ND	4	12	1	2	2	60	.36	.08	7	227	1.08	53	.07	3	1.51	.01	.03	1	9
RL 26+000 1+20M B	1	12	6	30	.3	61	8	286	1.82	14	5	ND	4	13	1	2	2	39	.20	.03	7	117	.69	45	.08	3	.89	.01	.04	1	40
RL 26+000 1+10M B	1	13	8	44	.3	105	13	438	3.01	10	5	ND	4	13	1	3	3	55	.20	.04	7	213	1.34	41	.11	4	1.43	.01	.05	1	5
RL 26+000 1+00M B	1	16	11	30	.1	37	6	272	1.89	2	5	ND	3	12	1	2	2	46	.19	.02	9	72	.83	61	.09	4	1.39	.01	.05	1	4
RL 26+000 0+90M B	1	148	8	40	.1	192	24	441	4.22	43	5	ND	3	16	1	2	2	85	.60	.03	3	113	1.88	70	.14	4	2.70	.05	.03	4	7
RL 26+000 0+80M B	3	34	16	47	.2	77	20	391	5.35	19	5	ND	4	8	1	3	2	156	.25	.04	5	92	.54	80	.13	2	1.93	.01	.03	2	5
RL 26+000 0+70M B	1	15	6	56	.1	7	8	218	4.13	5	5	ND	3	3	1	3	3	111	.11	.04	2	11	.99	31	.22	2	2.16	.02	.04	1	2
RL 26+000 0+60M B	1	9	5	24	.1	66	6	159	2.49	14	5	ND	3	9	1	3	2	68	.13	.02	5	142	.82	17	.12	5	.97	.01	.02	1	4
RL 26+000 0+50M B	1	11	9	19	.1	15	3	102	1.45	2	5	ND	3	5	1	2	2	39	.08	.02	4	19	.44	47	.10	2	1.07	.01	.04	1	2
RL 26+000 0+40M B	1	9	9	26	.1	50	5	172	2.03	5	5	ND	3	15	1	2	2	49	.17	.02	6	96	.82	25	.13	2	1.12	.01	.02	1	3
RL 26+000 0+30M B	1	5	5	18	.1	41	3	126	1.49	4	5	ND	3	8	1	2	2	35	.11	.01	6	90	.62	16	.10	5	.79	.01	.02	1	6
RL 26+000 0+20M B	1	13	6	22	.1	37	4	151	1.26	4	5	ND	4	8	1	2	2	30	.14	.03	6	67	.53	20	.08	2	1.08	.01	.03	1	3
RL 26+000 0+10M B	1	12	7	30	.1	34	4	163	1.88	10	5	ND	4	12	1	2	2	46	.16	.02	8	73	.64	35	.14	4	1.24	.01	.04	1	2
RL 26+000 0+00	1	6	9	12	.1	15	1	62	.92	3	5	ND	3	9	1	2	2	37	.17	.01	7	40	.27	29	.18	2	.74	.01	.02	1	1
RL 26+000 0+15 B	1	25	8	35	.1	44	3	162	2.62	11	5	ND	4	10	1	2	2	45	.14	.02	8	79	.64	32	.11	5	1.48	.01	.03	1	5
RL 26+000 0+25 B	1	102	6	55	.1	69	18	280	5.41	4	5	ND	3	5	1	4	2	153	.32	.09	11	212	.90	27	.16	3	3.42	.01	.01	3	3
RL 26+000 0+35 B	1	16	6	7	.1	37	3	45	.79	2	5	ND	1	3	1	2	2	16	.07	.03	4	144	.46	29	.03	2	.69	.01	.02	1	1
RL 26+000 0+45 B	1	25	12	67	.1	53	7	210	4.40	9	5	ND	3	9	1	2	2	119	.19	.04	5	83	1.02	32	.21	4	2.23	.01	.03	1	2
RL 26+000 0+55 A	1	75	18	28	.2	34	4	101	1.28	3	5	ND	2	23	1	2	2	14	.88	.09	27	32	.27	107	.03	7	.81	.01	.05	1	1
RL 26+000 0+65 A	3	163	14	64	.3	67	70	3612	4.56	9	5	ND	6	26	1	2	2	79	1.15	.15	37	104	.68	164	.05	11	2.26	.02	.08	1	2
RL 26+000 0+75 A	6	1151	8	13	.1	202	54	17557	1.87	17	9	ND	9	40	1	2	3	39	4.88	.16	187	43	.11	464	.02	11	2.07	.02	.01	2	6
RL 26+000 0+85 A	1	135	21	36	.2	32	6	240	1.75	2	5	ND	3	10	1	2	2	38	.50	.05	20	37	.44	85	.06	3	1.40	.02	.05	1	1
RL 26+000 0+95 A	1	314	20	39	.3	74	10	160	2.18	4	5	ND	4	24	1	2	2	36	.98	.09	34	45	.43	144	.08	5	1.90	.01	.06	1	2
RL 26+000 1+05 A	1	264	13	21	.1	33	6	166	2.01	4	5	ND	4	33	1	2	2	20	1.35	.19	64	45	.16	146	.02	9	1.36	.02	.02	1	1
RL 26+000 1+15 A	3	258	10	37	.5	111	13	196	3.57	8	7	ND	8	44	1	2	2	34	2.24	.17	76	86	.30	181	.05	12	3.62	.03	.05	1	1
RL 26+000 1+25 B	1	93	9	57	.1	92	12	271	3.69	13	5	ND	5	14	1	4	3	71	.36	.03	10	95	.98	106	.13	9	2.64	.01	.10	1	1
RL 26+000 1+35 A	1	37	13	35	.1	24	5	93	1.47	5	5	ND	2	18	1	3	2	16	.51	.11	19	38	.28	73	.03	10	1.25	.02	.10	1	1
S18 C/F/A AU	21	59	42	136	7.0	70	26	1164	4.01	38	16	8	39	52	16	16	20	60	.48	.13	36	60	.88	178	.08	40	1.72	.06	.10	12	48



NORTHERN DYNASTY FILE # 65-2066

SAMPLE	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	F	La	Cr	Mg	Ba	Li	P	Al	Na	K	Si	PPM	PPM
RL26+00M 1+45 B	1	52	11	46	.3	54	10	175	3.42	7	5	ND	5	11	1	2	2	91	.25	.01	10	86	.93	56	.17	4	2.45	.01	.05	1	3	
RL26+00M 1+55 A	1	17	6	17	.1	13	3	38	.57	2	5	ND	1	13	1	2	2	9	.24	.08	9	16	.21	53	.03	8	.66	.02	.05	1	1	
RL26+00M 1+65 B	1	11	9	22	.1	31	4	103	1.45	2	5	ND	2	6	1	2	2	46	.16	.01	4	50	.68	25	.14	2	1.06	.02	.05	1	1	
RL26+00M 1+75 A	1	26	9	13	.1	13	1	64	.93	2	5	ND	1	8	1	2	2	27	.18	.03	6	31	.34	24	.07	2	.93	.01	.02	1	1	
RL26+00M 2+05 A	1	22	4	26	.1	6	2	25	.55	2	5	ND	1	27	1	2	2	4	1.90	.09	7	6	.10	73	.01	10	.47	.01	.01	1	1	
RL26+00M 2+15 B	1	25	15	32	.2	36	4	156	3.12	4	5	ND	3	8	1	2	2	114	.30	.01	7	62	.96	33	.21	2	1.75	.01	.02	1	2	
RL26+00M 2+25 A	1	179	16	30	.2	33	5	86	2.03	5	5	ND	5	9	1	2	2	35	.20	.05	19	50	.48	61	.07	3	1.66	.01	.02	2	4	
RL26+00M 2+35 B	1	8	9	19	.2	15	1	116	1.56	2	5	ND	7	6	1	2	2	105	.18	.01	6	30	.34	22	.25	2	.84	.01	.02	1	4	
RL26+00M 2+45 B	1	39	11	45	.1	45	7	177	2.21	4	5	ND	6	13	1	2	4	40	.30	.04	18	80	.77	57	.10	7	1.59	.02	.05	2	2	
RL26+00M 2+55 A	1	43	9	59	.2	14	2	45	.87	2	5	ND	1	11	1	2	2	13	.15	.07	6	27	.17	78	.02	4	1.04	.02	.02	1	1	
RL26+00M 2+65 A	1	36	10	31	.1	16	1	67	1.13	2	5	ND	2	7	1	2	2	37	.11	.04	6	37	.33	23	.12	3	.97	.01	.02	1	6	
RL22+00M 3+00M B	1	11	7	17	.1	23	4	116	1.20	2	5	ND	2	17	1	2	2	26	.40	.02	7	42	.53	32	.07	3	.76	.01	.03	1	3	
RL22+00M 2+90M B	1	30	9	35	.2	11	22	261	2.28	5	5	ND	4	17	1	2	2	36	.32	.02	16	106	.87	55	.08	5	1.36	.01	.04	1	2	
RL22+00M 2+80M B	1	47	6	31	.1	121	12	212	2.42	9	5	ND	6	16	1	2	2	39	.33	.06	15	129	1.14	28	.10	5	1.25	.02	.03	1	4	
RL22+00M 2+70M B	1	35	8	28	.2	89	9	187	2.70	15	5	ND	4	16	1	2	2	51	.27	.05	8	122	1.03	21	.11	3	1.24	.01	.03	1	15	
RL22+00M 2+60M B	1	15	9	28	.1	67	9	223	2.63	7	5	ND	2	15	1	2	2	56	.22	.05	8	115	.85	34	.12	6	1.11	.01	.04	1	2	
RL22+00M 2+50M B	1	25	10	38	.2	125	16	287	3.28	10	5	ND	3	16	1	2	2	54	.23	.06	9	169	1.20	34	.12	5	1.53	.01	.04	1	4	
RL22+00M 2+40M B	1	21	9	40	.2	83	12	221	2.81	5	5	ND	5	15	1	2	2	50	.23	.07	9	113	.96	38	.11	3	1.63	.01	.05	1	1	
RL22+00M 2+30M B	1	15	8	29	.2	61	7	167	2.33	6	5	ND	3	19	1	2	2	53	.22	.04	8	104	.93	31	.12	5	1.29	.01	.03	1	1	
RL22+00M 2+20M B	1	7	6	29	.2	27	3	152	1.86	2	5	ND	4	15	1	2	2	48	.17	.01	10	68	.58	25	.12	3	1.08	.01	.03	1	5	
RL22+00M 2+10M B	1	6	8	27	.1	24	2	145	1.41	2	5	ND	5	13	1	2	2	35	.14	.01	11	57	.56	26	.13	4	1.03	.01	.03	1	1	
RL22+00M 2+00M B	1	17	10	63	.1	35	7	440	2.94	3	5	ND	11	29	1	2	2	50	.49	.01	20	60	.94	89	.15	10	2.25	.02	.17	1	2	
RL22+00M 1+90M B	1	7	8	22	.1	19	3	205	1.16	5	5	ND	5	13	1	3	2	21	.29	.03	12	39	.40	27	.06	3	.78	.02	.03	1	1	
RL22+00M 1+80M A	1	17	11	37	.2	35	6	492	1.94	13	5	ND	6	26	1	2	2	27	1.30	.09	16	50	.55	91	.07	15	1.41	.01	.10	2	1	
RL22+00M 1+70M A	1	26	4	10	.3	26	3	751	.62	4	5	ND	1	40	1	2	2	6	3.90	.12	5	16	.23	109	.01	16	.42	.01	.02	1	1	
RL22+00M 1+60M A	1	28	2	22	.3	21	2	266	.51	3	5	ND	1	38	1	2	2	5	4.20	.07	3	10	.19	76	.01	15	.27	.01	.01	1	6	
RL22+00M 1+50M A	1	66	7	46	.4	42	3	235	.54	9	5	ND	4	42	1	2	2	7	4.07	.20	11	32	.25	102	.02	12	1.03	.01	.03	2	1	
RL22+00M 1+40M A	1	36	4	32	.1	14	3	737	.68	8	5	ND	1	35	1	2	2	4	4.34	.07	3	8	.12	99	.01	13	.28	.01	.01	1	1	
RL22+00M 1+20M A	1	58	6	18	.3	36	6	490	1.58	12	5	ND	4	33	1	2	2	15	3.88	.07	13	36	.22	133	.02	7	.66	.01	.02	1	1	
RL22+00M 1+10M A	1	79	6	31	.1	61	16	1754	2.77	51	5	ND	3	40	1	2	2	22	4.75	.10	10	43	.29	212	.02	7	.70	.01	.01	1	4	
RL22+00M 1+00M B	1	22	6	42	.1	141	14	240	3.21	12	5	ND	3	17	1	2	2	57	.26	.02	8	204	1.41	27	.11	3	1.39	.01	.02	1	1	
RL22+00M 0+90M B	1	27	9	41	.1	182	15	209	4.24	14	5	ND	2	14	1	2	3	79	.20	.01	6	292	1.69	16	.14	2	1.49	.01	.01	1	2	
RL22+00M 0+80M B	1	59	7	46	.2	163	14	197	5.09	42	5	ND	4	15	1	2	3	100	.21	.02	8	232	1.28	30	.17	6	2.18	.01	.02	2	3	
RL22+00M 0+70M A	1	141	10	25	.3	139	37	1275	3.13	11	5	ND	4	32	1	2	2	30	1.90	.08	28	126	.36	134	.04	2	1.35	.01	.01	1	1	
RL22+00M 0+60M A	1	32	4	41	.2	50	5	387	1.34	4	5	ND	5	38	1	2	2	18	3.72	.08	24	52	.48	110	.04	11	1.05	.01	.05	1	1	
RL22+00M 0+50M B	1	32	8	53	.1	56	7	267	1.92	7	5	ND	8	27	1	4	2	28	1.90	.05	26	63	.70	87	.07	10	1.35	.01	.10	1	4	
STD C/FA-AU	21	56	38	135	7.1	67	26	1096	3.99	37	18	8	38	52	16	15	22	60	.48	.11	37	58	.88	173	.07	41	1.72	.06	.10	12	51	

NORTHERN DYNASTY FILE # 85-2086

PAGE 2

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	F	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Autl	
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM
RL22+00M 0+50M A	1	27	9	48	.2	26	6	1851	1.11	6	5	ND	1	31	1	4	2	14	3.95	.09	13	37	35	131	.05	11	.56	.01	.03	2	1	
RL22+00M 0+50M B	1	18	10	34	.1	28	5	203	1.21	2	5	ND	5	16	1	2	2	20	1.16	.07	18	53	46	56	.05	7	.75	.01	.06	1	0	
RL22+00M 0+30M A	1	71	2	30	.1	25	3	463	.89	6	5	ND	1	56	1	3	2	10	9.45	.06	4	9	13	214	.01	13	.30	.01	.01	1	1	
RL22+00M 0+10M A	1	402	1	27	.2	48	4	741	1.76	30	5	ND	1	66	1	2	2	19	8.39	.15	22	20	17	234	.01	14	.74	.01	.01	1	1	
RL22+00M BLD A	1	316	4	24	.1	51	3	483	.42	2	5	ND	1	40	1	2	2	8	7.09	.13	23	18	10	226	.01	9	.78	.01	.01	1	1	
RL22+00M 0+10S A	2	252	2	17	.1	49	6	1383	.67	4	5	ND	1	40	1	2	2	15	6.53	.13	27	17	11	306	.01	7	.92	.01	.01	1	1	
RL22+00M 0+20S A	1	175	2	17	.1	38	9	642	1.06	11	5	ND	1	22	1	2	2	18	4.56	.12	21	12	69	199	.01	10	.75	.01	.01	1	1	
RL22+00M 0+30S B	1	125	10	51	.1	118	18	268	3.98	44	5	ND	1	7	1	5	2	109	.22	.03	8	103	124	47	.19	6	2.07	.01	.04	1	2	
RL22+00M 0+40S B	1	122	14	81	.2	120	22	428	5.30	10	5	AD	2	7	1	2	2	163	.29	.03	9	71	184	67	.26	6	3.39	.01	.03	1	9	
RL22+00M 0+50S B	1	44	16	45	.2	38	8	171	2.20	4	5	ND	3	5	1	2	2	80	.23	.02	9	29	73	52	.13	5	1.62	.01	.01	1	0	
RL22+00M 0+60S B	1	22	10	23	.1	22	5	157	1.79	4	8	ND	2	5	1	5	2	56	.26	.03	4	23	53	16	.06	4	.91	.03	.03	1	2	
RL22+00M 0+70S B	1	58	11	29	.1	10	4	106	3.72	8	5	ND	2	5	1	11	2	109	.21	.08	9	30	53	45	.05	6	2.78	.01	.02	1	1	
RL22+00M 0+80S B	1	21	9	36	.2	34	6	290	2.56	5	9	ND	2	5	1	3	2	66	.16	.02	5	68	111	21	.12	3	1.67	.01	.02	1	1	
RL22+00M 0+90S B	1	42	18	15	.1	6	1	56	3.30	6	5	ND	2	4	1	6	2	117	.10	.04	9	27	12	57	.02	5	1.36	.01	.02	1	1	
RL22+00M 1+00S B	1	32	10	29	.1	38	7	153	2.99	10	5	ND	3	7	1	2	2	82	.11	.02	7	69	72	24	.18	7	1.58	.01	.02	1	1	
RL22+00M 1+10S B	1	74	19	22	.1	17	4	77	1.62	7	5	ND	1	5	1	5	2	43	.10	.04	10	40	82	63	.04	3	1.98	.01	.02	1	1	
RL22+00M 1+20S B	1	22	15	41	.2	43	7	205	3.49	8	5	ND	3	3	1	3	3	96	.13	.02	10	88	121	27	.26	5	2.55	.01	.02	1	9	
RL22+00M 1+30S B	1	28	12	29	.1	28	6	118	2.44	15	5	ND	3	6	1	9	3	84	.10	.02	7	53	81	40	.18	5	1.58	.01	.03	1	0	
RL22+00M 1+40S B	1	5	13	46	.2	65	11	268	2.80	7	5	ND	1	9	1	2	4	77	.30	.03	4	120	167	22	.35	4	2.22	.01	.01	1	1	
RL22+00M 1+50S B	1	3	5	7	.1	10	1	69	.65	2	5	ND	1	2	1	2	2	37	.14	.01	2	23	25	9	.18	1	.39	.01	.01	1	2	
RL22+00M 1+60S B	1	60	10	34	.3	54	8	132	2.81	16	5	ND	3	6	1	6	2	71	.11	.02	9	61	56	46	.16	7	2.10	.01	.02	1	1	
RL22+00M 1+70S B	1	29	13	36	.1	52	6	164	3.53	50	5	ND	2	6	1	2	2	96	.14	.02	7	81	78	32	.16	9	1.50	.01	.02	1	2	
RL22+00M 1+80S B	2	28	17	59	.2	53	17	1029	6.20	8	5	ND	1	6	1	2	2	212	.58	.06	7	102	184	86	.09	6	2.55	.01	.01	1	1	
RL22+00M 1+90S B	1	28	12	53	.2	71	21	232	6.49	4	5	ND	2	3	1	5	4	210	.06	.03	8	147	184	50	.14	7	2.95	.01	.01	1	1	
RL22+00M 2+00S B	1	26	7	20	.1	22	3	91	1.43	2	5	ND	2	6	1	2	2	51	.10	.02	7	43	40	35	.08	3	.89	.01	.01	1	1	
RL22+00M 2+10S B	1	122	12	40	.3	55	10	149	5.55	20	5	AD	5	6	1	10	2	99	.13	.05	11	96	72	39	.17	9	2.68	.01	.02	2	5	
RL22+00M 2+20S B	1	33	5	49	.2	53	8	143	2.84	7	5	ND	2	9	1	3	2	80	.28	.02	7	109	99	76	.28	6	2.30	.02	.02	1	1	
RL22+00M 2+30S B	1	57	8	47	.2	40	10	188	4.62	20	5	ND	2	8	1	2	2	113	.15	.03	9	75	86	55	.19	8	2.13	.01	.02	1	2	
RL22+00M 2+40S A	7	35	6	33	.4	14	54	18541	.78	30	5	ND	1	43	1	3	2	18	5.45	.15	9	20	16	740	.01	11	.50	.01	.01	1	4	
RL22+00M 2+50S B	1	7	5	17	.1	15	3	188	.82	2	5	ND	1	5	1	2	2	22	.18	.01	2	28	35	33	.08	3	.53	.02	.01	1	1	
RL22+00M 2+60S B	1	9	11	17	.1	7	2	83	.96	2	5	ND	1	4	1	2	2	31	.10	.03	4	16	19	18	.04	3	.65	.01	.01	1	1	
RL22+00M 2+70S B	1	15	6	18	.1	18	3	96	1.71	6	5	ND	1	5	1	2	2	78	.10	.02	6	48	53	13	.11	4	1.27	.01	.01	1	2	
RL22+00M 2+80S B	1	39	12	35	.1	15	5	145	4.32	9	5	ND	2	5	1	5	2	166	.25	.05	8	41	51	22	.15	8	1.79	.02	.02	1	1	
RL22+00M 2+90S B	1	193	11	42	.1	49	13	143	3.89	13	5	ND	4	5	1	6	3	61	.09	.05	9	85	45	34	.13	7	2.78	.01	.01	1	15	
RL22+00M 3+00S B	1	33	9	55	.2	54	9	221	3.02	7	5	ND	3	9	1	2	2	88	.26	.03	7	82	113	43	.26	7	2.67	.03	.01	1	3	
RL22+00M 3+10S B	1	62	14	49	.1	56	12	214	4.58	9	5	ND	4	8	1	6	2	109	.13	.04	7	83	141	60	.19	8	2.74	.01	.04	1	1	
RL22+00M 3+20S B	1	17	11	29	.1	17	4	137	1.85	3	5	ND	1	3	1	2	2	59	.13	.03	5	16	47	34	.05	4	1.04	.01	.01	1	15	
STD C/FA-AU	20	60	40	125	7.1	68	28	1207	4.06	40	17	9	39	53	17	15	20	59	.48	.15	41	61	88	181	.08	40	1.72	.07	.10	11	52	

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Ag11	Ag11
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	%	PPM	PPM	
RL22+00W 3+30S B	1	17	7	37	.1	11	3	163	2.17	4	5	ND	1	6	1	2	2	84	.35	.05	4	16	.42	21	.06	5	.80	.05	.02	1	1	
RL22+00W 3+40S A	7	370	6	28	.4	113	46	11313	4.31	33	5	ND	2	38	1	2	2	22	3.84	.15	42	31	.16	250	.02	12	1.44	.01	.01	2	1	
RL22+00W 3+60S A	1	47	8	39	.3	20	4	311	1.08	6	5	ND	4	36	1	2	2	12	2.71	.07	17	26	.20	102	.02	9	.89	.01	.05	1	1	
RL22+00W 3+90S A	1	83	8	54	.2	33	5	336	2.77	26	5	ND	4	47	1	2	2	24	3.68	.08	29	28	.28	129	.03	10	.97	.01	.05	1	1	
RL22+00W 4+10S A	1	67	7	55	.2	31	5	263	1.38	6	5	ND	8	37	1	2	2	31	2.53	.07	35	44	.43	111	.05	14	1.50	.01	.12	1	1	
RL22+00W 4+30S A	1	64	4	35	.1	21	3	226	1.65	5	3	ND	2	39	1	2	2	12	2.96	.11	25	22	.17	125	.02	9	.84	.01	.02	1	1	
RL22+00W 4+30S B	1	46	12	82	.1	39	10	355	3.01	11	5	ND	14	29	1	2	2	48	1.00	.08	34	65	.88	122	.11	15	2.11	.02	.20	1	1	
RL14+00W 2+20W A	1	10	7	21	.1	5	1	115	.28	3	5	ND	1	33	1	2	2	2	3.00	.05	4	15	84	.01	7	.17	.01	.02	1	1		
RL14+00W 2+10W A	1	6	3	13	.1	7	1	60	.40	4	5	ND	1	47	1	2	2	2	4.45	.05	2	2	.16	81	.01	7	.14	.01	.01	1	1	
RL14+00W 2+00W A	1	13	3	16	.1	15	1	129	.53	6	3	ND	1	47	1	2	2	2	4.43	.05	2	3	.15	99	.01	8	.19	.02	.01	1	1	
RL14+00W 1+90W A	4	32	3	13	.1	26	1	169	.41	9	5	ND	1	43	1	2	2	3	5.02	.07	2	8	.16	71	.01	13	.20	.01	.01	1	1	
RL14+00W 1+60W A	2	50	5	28	.1	31	2	137	.88	11	5	ND	1	37	1	2	2	11	4.09	.09	9	30	.28	87	.02	12	.63	.01	.03	1	1	
RL14+00W 1+50W A	2	74	4	25	.1	44	5	372	1.24	17	5	ND	1	40	1	2	2	11	5.19	.13	7	15	.19	176	.01	22	.39	.05	.01	1	1	
RL14+00W 1+40W A	1	52	7	43	.1	36	4	306	1.55	13	5	ND	3	32	1	2	2	21	3.36	.10	15	36	.40	101	.04	14	.89	.02	.07	1	4	
RL14+00W 1+30W A	3	53	6	26	.1	25	3	331	1.09	16	5	ND	1	31	1	4	2	9	3.94	.11	4	10	.18	87	.01	21	.26	.01	.02	1	1	
RL14+00W 1+20W A	1	69	5	33	.1	32	5	501	1.44	22	5	ND	1	33	1	2	2	20	3.32	.08	13	39	.33	145	.03	15	.81	.01	.06	1	1	
RL14+00W 1+10W A	1	96	10	73	.1	66	12	1939	5.62	282	5	ND	4	42	1	2	2	34	2.81	.32	21	49	.42	328	.04	21	1.11	.01	.08	1	1	
RL14+00W 1+00W A	1	131	4	17	.1	451	19	630	1.68	79	5	ND	1	70	1	2	2	9	4.78	.11	7	78	.42	162	.01	23	.28	.01	.01	1	1	
RL14+00W 0+90W B	2	11	9	38	.1	766	46	232	12.76	4	5	ND	2	4	1	2	11	44	.13	.02	12	839	2.86	24	.02	15	.36	.01	.02	1	1	
RL14+00W 0+80W B	1	6	13	30	.1	413	23	137	13.81	2	5	ND	3	3	1	2	5	48	.08	.01	12	447	.78	11	.02	12	.20	.01	.01	1	1	
RL14+00W 0+70W B	1	87	5	51	.1	109	37	366	6.54	45	9	ND	7	11	1	2	2	238	.53	.17	35	123	2.76	129	.30	7	3.00	.01	.68	1	1	
RL14+00W 0+60W A	1	115	5	39	.1	48	5	258	1.49	13	5	ND	1	36	1	2	2	28	4.00	.11	16	46	.47	126	.03	16	.85	.02	.06	1	1	
RL14+00W 0+50W A	4	42	10	26	.1	17	3	1828	13.64	2043	5	ND	1	59	1	2	2	31	4.70	.36	15	7	.19	416	.01	47	.16	.02	.01	5	1	
RL14+00W 0+40W A	1	91	5	35	.1	26	3	176	1.10	17	5	ND	1	29	1	2	2	17	3.85	.08	9	21	.23	116	.02	14	.50	.01	.04	1	1	
RL14+00W 0+30W A	1	110	4	32	.1	36	3	957	2.24	34	5	ND	1	35	1	2	2	23	4.32	.10	17	27	.33	158	.03	12	.77	.01	.07	1	1	
RL14+00W 0+10W A	1	194	2	25	.1	30	2	210	1.17	11	5	ND	1	41	1	2	2	18	5.98	.10	7	14	.14	157	.01	17	.34	.01	.01	1	12	
RL14+00W 0+30S A	1	89	4	15	.1	32	2	262	.94	9	5	ND	1	50	1	2	2	7	7.93	.11	4	14	.14	218	.01	11	.34	.01	.01	1	1	
RL14+00W 0+40S A	1	133	6	21	.1	36	6	601	3.00	74	5	ND	1	42	1	2	2	42	6.51	.16	8	14	.14	225	.01	15	.61	.01	.01	1	4	
RL14+00W 0+50S A	2	73	5	27	.2	34	24	2680	2.83	11	5	ND	1	40	1	2	2	10	4.00	.12	14	18	.12	224	.01	13	.96	.01	.01	1	1	
RL14+00W 0+60S B	2	163	135	82	.2	114	53	4956	6.79	139	5	ND	3	22	1	3	2	141	1.45	.12	22	142	2.54	190	.04	11	3.72	.01	.02	1	6	
RL14+00W 0+70S B	1	20	9	42	.1	19	4	173	4.87	6	5	ND	4	12	1	2	2	126	.19	.05	11	58	.72	46	.18	7	2.20	.01	.01	1	1	
RL14+00W 0+80S B	3	7	9	26	.1	23	3	115	1.08	3	5	ND	1	6	1	2	2	47	.19	.02	4	44	.56	46	.17	2	.87	.01	.01	1	1	
RL14+00W 0+90S B	1	51	11	36	.1	16	5	136	3.59	4	5	ND	2	4	1	2	2	116	.15	.04	10	29	.54	36	.05	4	1.57	.01	.01	1	1	
RL14+00W 1+00S B	1	8	12	40	.1	46	3	190	2.91	3	5	ND	3	3	1	2	2	116	.13	.01	7	95	1.01	22	.30	5	1.64	.01	.01	1	1	
RL14+00W 1+10S B	1	11	8	34	.1	42	6	153	2.24	4	5	ND	2	3	1	3	2	63	.10	.01	5	72	1.04	28	.14	3	1.35	.01	.01	1	1	
RL14+00W 1+20S B	1	7	7	30	.1	43	5	152	1.30	3	5	ND	1	5	1	3	2	41	.18	.02	4	40	.85	216	.13	2	.95	.01	.01	1	1	
RL14+00W 1+30S B	1	6	6	20	.1	17	2	91	1.00	4	5	ND	3	7	1	2	2	33	.10	.01	9	50	.34	17	.10	2	.75	.01	.01	1	1	
STD C/FA-AU	20	59	38	134	7.1	88	26	1167	4.00	38	17	8	38	51	16	15	21	60	.48	.14	38	59	.88	175	.08	39	1.72	.06	.10	12	52	

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SAMPLE#	No PPH	Cu PPH	Pb PPH	Zn PPH	Ag PPH	Ni PPH	Co PPH	Mn PPH	Fe %	As PPH	U PPH	Au PPH	Tl PPH	Sr PPH	Cd PPH	Sb PPH	Bi PPH	V PPH	Ca %	P %	La PPH	Cr PPH	Mg %	Ba PPH	Ti %	Si PPH	Al %	Na %	K %	Ca %	Fe PPH	Au PPH
RL14+00M 1+40S B	1	13	7	28	.1	18	2	129	2.50	4	5	ND	5	7	1	4	2	80	.08	.02	6	39	.36	28	.17	2	1.14	.01	.04	1	4	
RL14+00M 1+50S B	1	4	9	17	.1	15	1	95	1.56	5	5	ND	4	6	1	2	2	38	.09	.01	7	40	.35	14	.14	2	.71	.01	.02	1	21	
RL14+00M 1+60S B	1	52	14	55	.2	74	12	260	5.13	20	5	ND	5	9	1	3	3	100	.16	.02	8	95	1.47	27	.22	2	2.57	.01	.05	1	7	
RL14+00M 1+70S B	1	36	13	42	.1	42	9	180	3.51	10	5	ND	8	8	1	2	2	59	.14	.02	13	73	.67	48	.14	2	2.13	.01	.05	1	8	
RL14+00M 1+80S B	1	12	10	30	.2	28	4	154	2.92	9	5	ND	5	8	1	2	2	53	.11	.01	6	61	.45	22	.13	3	1.14	.01	.03	1	10	
RL14+00M 1+90S B	1	9	6	11	.1	8	1	69	.99	2	5	ND	1	7	1	3	2	25	.13	.01	5	19	.22	15	.05	2	.59	.01	.01	1	3	
RL14+00M 2+00S B	1	13	8	40	.1	39	13	224	3.63	2	5	ND	1	2	1	5	2	124	.04	.02	2	101	1.77	10	.04	2	1.97	.01	.02	1	2	
RL14+00M 2+10S B	1	22	9	24	.1	19	2	93	3.55	9	5	ND	5	10	1	5	4	67	.12	.01	8	54	.39	32	.14	2	2.05	.01	.02	2	8	
RL14+00M 2+20S B	1	24	9	20	.1	18	2	86	2.45	6	5	ND	8	6	1	3	2	55	.07	.01	10	47	.35	24	.13	2	2.32	.01	.02	1	3	
RL14+00M 2+30S B	1	16	7	17	.1	15	1	84	2.51	12	5	ND	4	7	1	2	2	92	.09	.01	8	40	.33	21	.19	2	.92	.01	.03	1	3	
RL14+00M 2+40S B	1	7	3	13	.1	19	3	78	1.35	5	5	ND	2	5	1	3	2	24	.11	.01	5	35	.32	12	.07	2	.78	.01	.02	1	4	
RL14+00M 2+50S B	1	4	6	4	.1	5	1	25	.37	2	5	ND	2	5	1	2	2	13	.05	.01	5	16	.11	13	.06	2	.45	.01	.02	1	12	
RL14+00M 2+60S B	1	13	11	28	.1	21	2	106	3.96	3	5	ND	4	12	1	4	2	91	.11	.01	6	25	.66	44	.15	2	2.28	.01	.02	1	15	
RL14+00M 2+70S B	1	6	6	18	.1	13	2	122	1.97	2	5	ND	3	27	1	4	2	50	.29	.01	6	14	.63	15	.19	2	.92	.01	.03	1	2	
RL14+00M 2+80S B	1	15	11	37	.1	13	2	149	3.60	2	5	ND	8	23	1	4	2	78	.29	.01	10	13	.71	58	.21	2	2.40	.01	.04	2	1	
RL14+00M 2+90S B	1	35	11	44	.2	32	5	185	3.84	2	7	ND	3	8	1	4	3	92	.27	.01	2	42	.95	29	.24	2	2.59	.01	.02	1	2	
RL14+00M 3+00S B	1	20	5	22	.1	25	3	100	2.14	9	5	ND	2	6	1	4	2	55	.10	.01	7	57	.49	18	.10	2	1.24	.01	.01	1	2	
RL14+00M 3+10S B	1	7	7	32	.1	12	3	132	2.85	2	5	ND	8	17	1	2	2	73	.17	.01	7	12	.78	50	.21	2	1.41	.02	.06	1	1	
RL14+00M 3+20S B	1	7	9	25	.1	9	1	67	2.99	3	5	ND	7	21	1	2	2	73	.15	.01	7	11	.48	38	.28	2	1.61	.01	.05	1	2	
RL14+00M 3+30S B	1	18	6	32	.1	23	3	124	3.24	15	5	ND	4	7	1	5	2	59	.09	.02	7	53	.51	22	.13	2	1.34	.01	.03	1	3	
RL14+00M 3+40S B	1	48	8	49	.1	49	11	241	3.48	10	5	ND	6	9	1	5	2	57	.14	.02	11	77	.86	39	.14	3	2.22	.01	.05	1	6	
RL14+00M 3+50S B	1	8	6	15	.1	16	3	110	1.60	8	5	ND	4	7	1	2	2	32	.08	.01	7	47	.31	23	.08	2	.92	.01	.03	1	4	
RL14+00M 3+60S B	1	52	5	34	.2	53	11	196	2.83	13	5	ND	4	7	1	5	2	46	.15	.02	7	69	.86	36	.12	2	1.87	.01	.05	1	6	
RL14+00M 3+70S A	1	130	4	22	.1	29	5	283	1.36	5	5	ND	3	17	1	3	2	21	1.45	.08	15	47	.38	44	.04	6	.72	.01	.03	1	12	
RL14+00M 3+80S A	2	113	2	15	.1	16	4	579	.59	2	8	ND	2	39	1	2	2	10	4.40	.08	12	15	.17	100	.01	11	.61	.02	.02	1	8	
RL14+00M 3+90S A	1	19	2	7	.2	5	1	48	.17	3	8	ND	1	33	1	2	2	3	3.90	.03	2	5	.08	52	.01	11	.16	.02	.01	1	2	
RL14+00M 4+10S A	1	13	2	31	.2	8	1	71	.16	2	8	ND	1	32	1	2	2	4	4.36	.08	2	5	.19	28	.01	23	.12	.03	.01	1	10	
RL14+00M 4+60S A	1	11	4	49	.1	6	1	210	.13	3	7	ND	1	37	1	3	2	3	5.00	.05	2	3	.29	36	.01	15	.10	.02	.01	1	4	
RL14+00M 4+70S A	1	17	12	46	.3	36	7	229	3.23	6	5	ND	9	14	1	2	3	48	.23	.01	11	67	.70	60	.11	4	2.07	.01	.11	1	5	
RL14+00M 4+80S B	1	18	7	42	.1	28	2	150	2.94	26	5	ND	5	6	1	2	2	67	.10	.04	7	78	.44	18	.14	2	.83	.01	.03	1	4	
RL14+00M 4+90S B	1	7	3	26	.1	18	3	245	2.07	12	5	ND	4	6	1	2	2	48	.09	.05	8	51	.34	28	.10	2	.70	.01	.03	1	16	
RL14+00M 5+00S B	1	9	5	34	.1	20	2	115	2.00	10	5	ND	5	5	1	3	2	45	.08	.02	9	61	.35	16	.10	4	.69	.01	.02	1	42	
RL14+00M 5+10S B	1	24	6	55	.1	43	8	341	2.67	18	5	ND	3	8	1	4	2	47	.14	.04	8	82	.56	31	.11	2	1.06	.01	.04	1	9	
RL14+00M 5+20S B	1	16	5	43	.1	31	5	294	2.46	10	5	ND	7	8	1	3	2	4	.14	.03	7	80	.62	25	.11	3	1.04	.01	.04	1	5	
RL14+00M 5+30S B	1	8	6	43	.1	21	6	334	1.90	9	5	ND	3	7	1	4	2	35	.13	.03	8	60	.36	35	.08	2	.81	.01	.04	1	5	
RL14+00M 5+40S B STD C/FA-AU	1 21	68 59	10 38	77 137	.5 6.9	59 70	20 24	653 1099	4.18 3.99	24 38	5 16	ND 8	5 38	10 52	1 17	3 15	2 22	65 60	.16 .48	.06 .11	10 36	103 58	.86 .88	52 173	.13 .07	4 40	1.86 1.72	.01 .06	.08 .10	1 11	5 51	

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SAMPLE#	No 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	Li %	B PPM	Al %	Na %	K %	W PPM	Other PPM
RL11+00W 5+80S B	1	14	10	50	.4	30	6	358	2.31	11	5	ND	5	10	1	2	2	50	.17	.02	6	79	.52	27	.13	2	.98	.01	.05	1	1
RL14+00W 5+80S B	1	37	13	103	.3	57	12	516	4.10	19	5	ND	6	8	1	2	2	85	.16	.02	3	104	1.57	161	.26	2	2.45	.01	.25	2	7
RL14+00W 6+00S B	1	25	9	65	.2	41	7	398	3.53	15	5	ND	4	11	1	2	3	77	.20	.03	4	89	.96	61	.21	2	1.75	.01	.06	1	10
RL12+00W 1+40W A	1	21	5	15	.4	16	6	207	.90	2	5	ND	3	80	1	2	2	10	5.06	.08	10	24	.27	68	.02	9	.74	.01	.03	1	1
RL12+00W 1+30W A	1	55	7	21	.3	33	6	160	1.83	4	5	ND	4	79	1	2	2	20	4.12	.11	19	56	.30	102	.03	8	1.46	.02	.06	1	1
RL12+00W 1+30W B	1	23	5	34	.1	39	6	223	1.83	5	5	ND	6	24	1	2	2	29	.76	.04	15	72	.59	47	.08	2	1.21	.02	.07	1	2
RL12+00W 1+20W B	1	35	12	60	.2	78	11	267	4.02	22	5	ND	4	29	1	2	3	113	.32	.03	6	123	1.56	27	.21	2	1.94	.01	.06	1	1
RL12+00W 1+10W B	3	61	13	108	.2	84	22	755	8.50	8	5	ND	4	50	1	2	2	255	.35	.04	2	99	2.92	35	.27	2	3.18	.01	.03	1	1
RL12+00W 1+00W B	1	19	7	25	.1	39	6	140	2.11	7	5	ND	4	11	1	2	2	32	.17	.02	7	71	.53	28	.09	2	1.42	.01	.05	1	1
RL12+00W 0+90W B	1	15	5	30	.1	37	5	175	2.35	9	5	ND	4	11	1	2	2	40	.16	.01	7	86	.63	33	.10	2	1.57	.01	.08	1	1
RL12+00W 0+80W B	1	23	6	37	.2	66	9	193	3.81	25	5	ND	3	18	1	2	4	83	.17	.04	5	150	.97	21	.16	2	1.31	.01	.04	1	1
RL12+00W 0+70W B	1	10	5	21	.1	26	3	119	1.69	8	5	ND	4	10	1	2	2	32	.16	.01	7	56	.45	21	.10	2	1.08	.01	.04	1	1
RL12+00W 0+60W B	1	29	9	39	.1	59	10	225	3.04	13	5	ND	5	17	1	2	2	65	.22	.01	7	114	1.01	39	.14	2	1.92	.01	.05	1	2
RL12+00W 0+50W B	1	8	4	18	.1	30	2	102	1.54	6	5	ND	2	8	1	2	2	30	.12	.01	5	53	.38	17	.09	2	.82	.01	.03	1	1
RL12+00W 0+40W A	1	63	5	20	.2	178	7	293	1.47	10	5	ND	4	49	1	2	2	19	3.77	.06	22	54	.54	69	.03	9	1.09	.02	.06	1	1
RL12+00W 0+40W B	1	35	9	35	.2	104	8	258	2.22	13	5	ND	6	26	1	2	2	33	1.10	.03	22	67	.67	69	.08	7	1.54	.02	.10	1	1
RL12+00W BLO A	1	66	3	10	.3	24	2	246	.58	3	5	ND	7	78	1	2	2	14	8.75	.06	15	14	.41	79	.01	20	.52	.01	.03	1	1
RL12+00W BLO B	1	32	16	75	.3	46	11	840	3.78	9	5	ND	15	40	1	2	2	56	1.63	.03	27	68	1.18	128	.14	15	2.76	.04	.34	1	1
RL12+00W 0+10S B	1	30	17	74	.2	46	9	453	3.64	6	5	ND	17	38	1	3	2	59	1.27	.01	31	68	1.12	142	.15	12	2.92	.03	.28	1	2
RL12+00W 0+20S B	1	64	5	17	.4	47	10	150	1.32	11	5	ND	6	64	1	2	2	15	3.09	.08	37	42	.33	79	.03	6	1.25	.02	.03	1	1
RL12+00W 0+30S B	1	42	3	37	.1	63	12	331	2.62	29	5	ND	7	18	1	2	2	43	.36	.04	16	110	.85	40	.12	4	1.45	.02	.07	1	3
RL12+00W 0+40S B	1	36	15	93	.2	69	22	1209	4.01	12	5	ND	8	23	1	3	2	74	.55	.03	18	117	1.21	114	.15	5	2.56	.01	.15	1	2
RL12+00W 6+50S B	1	28	9	90	.1	54	12	687	3.34	6	5	ND	7	17	1	2	2	57	.46	.03	12	83	.98	90	.13	6	2.48	.02	.13	1	1
RL12+00W 6+60S B	1	15	3	37	.1	30	12	578	2.18	6	5	ND	4	10	1	2	2	43	.26	.02	8	65	.53	40	.09	2	1.05	.01	.05	1	2
RL12+00W 6+70S B	1	265	13	53	.4	118	24	1542	5.16	32	5	ND	13	36	1	2	2	125	2.41	.13	113	245	1.29	136	.12	2	4.11	.01	.05	1	4
RL12+00W 0+80S B	1	173	23	62	.2	118	45	1683	7.04	59	5	ND	8	23	1	2	2	120	1.96	.08	30	94	.56	165	.10	2	4.87	.01	.02	1	1
RL12+00W 0+90S B	3	91	29	106	.3	65	71	2368	9.98	9	5	ND	5	18	1	2	2	220	.73	.05	15	78	.95	104	.19	2	2.75	.03	.04	1	1
RL12+00W 1+00S B	1	58	22	44	.1	57	33	714	5.71	9	5	ND	8	18	1	2	2	94	.50	.03	24	90	.36	106	.12	2	2.72	.02	.05	1	1
RL12+00W 1+10S B	1	4	7	24	.1	12	2	153	1.53	2	5	ND	4	41	1	2	2	29	.41	.01	6	5	.69	51	.16	2	1.50	.02	.16	1	2
RL12+00W 1+20S B	1	10	5	32	.1	26	5	165	2.54	12	5	ND	4	12	1	2	3	16	.16	.01	8	54	.51	30	.19	8	1.34	.01	.05	1	1
RL12+00W 1+30S B	1	7	8	19	.1	13	1	108	2.01	3	5	ND	6	14	1	2	2	68	.13	.01	12	35	.33	26	.19	4	1.08	.01	.07	1	1
RL12+00W 1+40S B	1	20	11	36	.1	38	6	210	3.77	11	5	ND	6	13	1	2	2	78	.15	.01	10	69	.66	58	.19	8	2.08	.01	.10	1	2
RL12+00W 1+50S B	2	50	17	49	.1	52	13	264	4.56	12	5	ND	7	11	1	2	2	82	.22	.02	16	86	1.14	42	.18	3	3.32	.01	.04	2	1
RL12+00W 1+60S B	1	17	9	20	.1	26	3	118	1.86	9	5	ND	4	9	1	2	2	34	.14	.01	8	56	.46	22	.10	5	1.30	.01	.03	1	30
RL12+00W 1+70S B	2	28	13	51	.1	49	8	293	5.56	20	5	ND	7	12	1	2	2	102	.15	.03	12	87	.87	39	.28	8	2.29	.01	.08	1	3
RL12+00W 1+80S B	2	50	13	62	.1	55	9	275	6.35	30	5	ND	6	13	1	2	2	133	.17	.05	10	108	.90	61	.31	5	2.32	.01	.07	1	2
STD C/FA-AU	21	60	40	137	7.1	72	27	1185	3.99	39	17	B	39	53	17	15	21	61	.46	.11	39	57	.88	177	.08	39	1.72	.06	.11	12	48

## NORTHERN DYNASTY FILE # 85-2086

PAGE 7

SAMPLE#	Pb	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	Al	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	F	La	Cr	Mg	Ba	Ti	S	Al	Na	K	M	AUT
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	PPM	PPM	
RL12+00M 1+90S B	1	72	12	37	.1	74	10	214	5.51	23	6	ND	6	15	1	2	2	85	.21	.06	22	179	1.25	27	.24	10	2.94	.01	.03	1	15
RL12+00M 2+00S B	1	59	7	58	.2	53	13	318	5.43	7	5	ND	4	6	1	2	2	136	.14	.03	11	112	1.53	24	.28	9	2.37	.01	.04	1	7
RL12+00M 2+10S B	1	22	4	20	.1	26	5	103	2.00	13	5	ND	5	7	1	2	2	42	.14	.03	12	59	.42	22	.09	6	1.31	.01	.03	1	2
RL12+00M 2+20S B	1	14	8	22	.1	28	6	141	2.66	9	5	ND	8	8	1	2	2	53	.18	.05	17	80	.53	21	.12	7	1.38	.01	.03	1	1
RL12+00M 2+30S B	2	4	4	7	.2	7	1	47	.84	8	5	ND	3	6	1	2	2	35	.07	.01	6	30	.15	12	.11	2	.50	.01	.03	1	4
RL12+00M 2+40S B	1	36	16	40	.1	40	11	227	4.81	28	5	ND	5	12	1	2	2	106	.18	.05	11	92	.89	38	.23	12	1.69	.01	.04	1	1
RL12+00M 2+50S B	1	43	11	21	.1	27	5	110	2.50	17	5	ND	5	9	1	2	2	46	.13	.04	13	69	.43	29	.14	6	1.72	.01	.03	1	6
RL12+00M 2+60S B	2	65	16	59	.1	82	12	582	7.64	8	5	ND	6	8	1	2	2	86	.28	.09	17	34	2.96	42	.29	11	4.57	.01	.08	1	2
RL12+00M 2+70S B	1	22	7	31	.1	40	8	196	3.72	19	5	ND	6	9	1	2	2	71	.12	.05	12	93	.54	25	.19	8	1.22	.01	.05	1	1
RL12+00M 2+80S B	1	24	11	43	.1	34	9	720	3.02	8	5	ND	11	17	1	2	2	46	.24	.12	18	71	.72	108	.12	10	1.99	.01	.11	1	1
RL12+00M 2+90S B	1	12	7	27	.1	25	6	144	2.78	25	5	ND	6	7	1	2	2	48	.10	.04	11	69	.39	19	.12	7	1.12	.01	.04	1	160
RL12+00M 3+00S B	1	15	7	16	.1	22	4	155	2.16	16	5	ND	9	7	1	2	2	33	.13	.05	14	61	.52	16	.08	5	.74	.01	.03	1	105
RL12+00M 3+10S B	1	9	7	37	.1	21	7	911	2.63	11	5	ND	6	6	1	2	2	46	.09	.06	7	63	.35	26	.11	5	.99	.01	.04	2	7
RL12+00M 3+20S B	1	11	5	19	.2	19	4	188	2.22	15	5	ND	4	6	1	2	2	41	.09	.04	9	60	.51	21	.11	5	.75	.01	.03	1	1
RL12+00M 3+30S B	1	24	11	19	.1	37	9	156	2.12	20	5	ND	8	9	1	2	2	27	.17	.05	13	63	.45	23	.08	8	1.14	.01	.05	1	3
RL12+00M 3+40S B	1	14	6	20	.1	29	6	138	1.95	12	5	ND	4	8	1	2	2	30	.13	.02	9	59	.15	29	.09	6	1.26	.01	.04	1	6
RL12+00M 3+50S B	1	42	11	61	.1	62	18	513	4.18	44	5	ND	5	9	1	2	3	66	.16	.05	10	129	.85	39	.18	6	1.71	.01	.06	1	5
RL12+00M 3+60S B	1	18	9	29	.1	24	6	265	2.43	20	5	ND	5	9	1	2	2	48	.13	.04	9	66	.37	41	.12	5	.86	.01	.03	1	5
RL12+00M 3+70S B	1	15	7	28	.1	24	8	219	2.42	15	5	ND	6	6	1	2	2	38	.08	.03	9	68	.33	22	.11	4	.98	.01	.04	1	7
RL12+00M 3+80S B	1	23	16	57	.2	46	13	389	3.26	8	6	ND	12	24	1	3	2	44	.29	.02	18	75	.90	87	.14	12	2.56	.02	.15	1	1
RL12+00M 4+40S B	1	38	6	33	.1	57	11	189	3.40	15	5	ND	6	7	1	2	2	42	.12	.05	9	102	.40	34	.13	8	2.23	.01	.08	1	1
RL12+00M 4+50S B	1	9	11	35	.1	27	5	222	2.88	10	5	ND	4	7	1	2	2	51	.09	.05	8	97	.43	28	.11	7	1.35	.01	.04	2	2
RL12+00M 4+60S B	1	50	15	37	.1	67	15	222	2.93	14	5	ND	6	9	1	2	2	38	.13	.06	10	106	.48	47	.11	9	2.20	.01	.06	1	8
RL12+00M 4+70S B	1	18	10	61	.1	44	13	259	3.10	9	5	ND	6	8	1	2	2	47	.10	.06	10	113	.69	51	.12	7	2.05	.01	.05	1	1
RL12+00M 4+80S B	1	17	9	53	.1	39	10	714	3.39	20	5	ND	5	8	1	2	3	51	.13	.08	8	111	.53	40	.12	7	1.27	.01	.04	1	73
RL12+00M 4+90S B	1	18	8	46	.2	34	10	202	3.06	16	5	ND	7	7	1	3	2	45	.11	.06	10	74	.50	24	.12	7	1.44	.01	.04	1	24
RL12+00M 5+00S B	1	17	8	40	.4	32	8	224	3.66	18	5	ND	5	8	1	2	2	68	.09	.05	9	100	.40	33	.17	6	1.90	.01	.04	1	4
RL12+00M 5+10S B	1	49	15	57	.1	66	18	282	4.53	29	5	ND	5	9	1	2	2	63	.14	.08	12	111	.83	42	.19	8	2.42	.01	.07	1	2
RL12+00M 5+20S B	1	34	14	62	.1	53	15	307	4.33	23	5	ND	6	9	1	3	2	60	.11	.08	10	109	.80	48	.19	10	2.60	.01	.07	1	1
RL12+00M 5+30S B	1	41	8	55	.1	62	16	753	3.46	24	5	ND	5	10	1	2	3	48	.15	.09	12	92	.70	48	.13	10	2.13	.01	.07	1	2
RL12+00M 5+40S B	1	37	13	43	.1	62	16	292	3.33	25	5	ND	8	14	1	3	2	44	.20	.08	15	83	.73	74	.13	10	2.33	.01	.10	2	1
RL12+00M 5+50S B	1	18	9	40	.2	39	9	172	3.01	18	5	ND	8	9	1	2	2	43	.13	.05	10	80	.50	38	.11	6	1.68	.01	.06	1	1
RL12+00M 5+60S B	1	18	11	32	.1	35	8	169	3.09	21	5	ND	6	7	1	2	2	48	.11	.05	10	93	.49	22	.13	6	1.26	.01	.04	1	1
RL12+00M 5+70S B	1	10	12	34	.1	26	6	141	2.87	10	5	ND	5	9	1	2	2	48	.13	.04	11	86	.41	30	.11	6	1.20	.01	.05	1	1
RL12+00M 5+80S B	1	86	10	28	.3	32	13	563	2.31	10	5	ND	5	14	1	2	2	32	.49	.11	33	63	.51	60	.06	9	1.68	.02	.06	1	1
RL12+00M 6+00S B	1	72	12	24	.2	31	9	446	2.29	11	5	ND	8	13	1	2	2	33	.48	.09	33	70	.51	37	.07	7	1.28	.01	.05	1	1
STD C/FA-AU	21	61	40	135	6.9	68	28	1228	4.64	39	19	8	39	54	18	16	22	57	.48	.15	41	61	.88	184	.08	38	1.73	.06	.11	12	53

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SAMPLE#	NO	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Ta	Sr	Cd	Sr	Ba	V	Ca	P	La	Cr	Hg	Ba	Ti	B	Al	Na	K	M	Au**	
	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH
RL12+00W 6+105 B	1	41	5	26	.1	24	7	306	1.95	7	5	ND	9	11	1	2	2	30	.36	.07	22	57	.39	25	.06	3	.93	.01	.03	1	1	1
RL12+00W 6+205 B	1	46	4	26	.1	23	9	330	1.58	2	5	ND	3	10	1	2	2	23	.34	.06	16	45	.39	31	.05	6	1.09	.01	.03	1	1	1
RL12+00W 6+305 B	1	20	2	18	.1	17	5	168	1.00	5	5	ND	3	7	1	2	2	16	.19	.03	6	27	.30	17	.05	3	.63	.01	.01	1	1	1
RL10+00W 0+10W A	2	28	2	12	.1	22	6	1532	.24	5	5	ND	1	58	1	2	2	3	7.68	.10	2	8	.30	108	.01	21	.26	.05	.01	1	1	1
RL10+00W 0+20W A	2	26	2	12	.1	16	1	160	.20	2	5	ND	1	58	1	2	2	2	7.70	.08	2	6	.31	73	.01	19	.21	.04	.01	1	1	1
RL10+00W BLD	2	8	2	20	.1	5	1	101	.09	2	5	ND	1	36	1	2	2	2	4.60	.05	2	3	.26	37	.01	17	.08	.04	.01	1	4	4
RL10+00W 0+205 A	4	49	2	19	.1	26	2	303	.30	2	5	ND	1	36	1	2	2	13	4.57	.12	3	5	.20	59	.01	17	.24	.01	.01	1	1	1
RL10+00W 0+405 A	2	57	3	14	.1	36	3	1202	.29	3	5	ND	1	51	1	2	2	4	6.42	.09	8	7	.22	113	.01	12	.49	.01	.01	1	4	4
RL10+00W 0+605 A	1	129	7	34	.2	98	11	755	1.94	18	5	ND	6	54	1	3	2	25	5.31	.10	60	40	.54	155	.04	12	2.07	.02	.09	1	1	1
RL10+00W 0+705 A	1	502	11	28	.3	317	19	926	2.33	33	5	ND	13	55	1	3	2	29	5.58	.20	173	59	.45	174	.03	12	3.50	.02	.03	1	4	4
RL10+00W 0+805 B	1	41	10	50	.1	37	12	517	4.42	24	5	ND	5	15	1	2	2	115	.76	.04	14	44	.78	80	.16	2	2.64	.01	.03	1	5	5
RL10+00W 0+905 B	3	184	13	43	.1	106	29	1492	5.14	28	5	ND	26	37	1	4	2	62	2.30	.14	84	86	.37	175	.06	10	6.87	.03	.05	2	1	1
RL10+00W 1+005 A	2	300	5	14	.2	52	7	234	1.05	8	5	ND	3	48	1	2	2	9	5.38	.11	93	25	.17	111	.01	11	1.31	.01	.01	1	4	4
RL10+00W 1+105 B	1	12	5	57	.1	41	9	347	2.93	4	5	ND	3	7	1	3	2	76	.27	.02	7	37	1.37	35	.10	3	1.98	.01	.03	1	2	2
RL10+00W 1+205 B	1	14	6	30	.1	28	9	270	1.79	4	5	ND	3	10	1	2	2	33	.23	.02	10	62	.55	46	.08	3	1.31	.01	.04	1	2	2
RL10+00W 1+305 B	1	24	10	38	.2	37	10	203	2.36	6	5	ND	5	12	1	2	2	38	.25	.03	12	60	.57	70	.08	7	1.95	.01	.07	1	1	1
RL10+00W 1+405 B	1	12	4	21	.1	21	5	106	1.33	5	5	ND	3	9	1	2	2	23	.19	.02	8	36	.40	33	.07	4	1.04	.01	.04	1	2	2
RL10+00W 1+505 B	1	18	3	27	.1	26	4	138	1.72	6	5	ND	5	10	1	2	2	27	.19	.04	9	47	.50	36	.07	4	1.27	.01	.07	1	1	1
RL10+00W 1+605 B	1	19	9	45	.1	29	7	321	2.52	4	5	ND	8	18	1	2	2	40	.26	.04	15	55	.70	52	.11	8	1.67	.01	.11	1	65	65
RL10+00W 1+705 B	1	7	3	8	.1	7	1	69	.54	2	5	ND	1	7	1	2	2	15	.12	.01	7	22	.18	17	.03	2	.42	.01	.01	1	1	1
RL10+00W 1+805 B	1	57	6	37	.1	24	8	276	3.46	2	5	ND	2	8	1	2	2	126	.51	.02	3	41	.83	28	.24	3	1.46	.04	.03	1	2	2
RL10+00W 1+905 B	1	4	5	10	.1	7	1	76	.70	2	5	ND	3	8	1	2	2	18	.12	.01	8	23	.16	24	.07	4	.39	.01	.02	1	2	2
RL10+00W 2+005 B	1	17	8	67	.2	65	16	1478	4.37	5	3	ND	2	14	1	2	2	97	.38	.07	7	90	2.32	94	.31	5	2.98	.02	.12	1	1	1
RL10+00W 2+105 B	1	7	5	20	.2	15	4	346	1.55	3	5	ND	4	9	1	2	2	29	.14	.02	7	33	.34	30	.09	5	.92	.01	.04	1	3	3
RL10+00W 2+205 B	1	12	4	29	.1	25	6	187	2.14	5	5	ND	6	13	1	2	2	35	.21	.03	11	45	.53	41	.10	5	1.47	.01	.05	1	34	34
RL10+00W 2+305 B	1	23	13	64	.1	30	8	355	3.28	6	5	ND	6	11	1	2	2	43	.23	.05	10	49	1.12	45	.17	5	2.47	.01	.05	1	1	1
RL10+00W 2+405 B	2	29	16	113	.1	51	18	546	6.95	11	5	ND	4	11	1	3	2	183	.25	.09	7	143	2.44	102	.33	3	3.75	.01	.31	1	2	2
RL10+00W 2+505 B	1	24	14	173	.1	57	28	2863	7.20	6	5	ND	2	9	1	2	2	170	.33	.09	6	142	2.46	148	.14	2	3.42	.01	.06	1	1	1
RL10+00W 2+605 B	1	8	5	18	.1	18	3	121	1.86	7	5	ND	5	7	1	2	2	37	.10	.01	7	44	.32	18	.10	5	.85	.01	.04	1	3	3
RL10+00W 2+705 B	1	10	4	18	.1	19	5	123	2.17	15	5	ND	3	7	1	3	2	40	.12	.02	7	50	.32	17	.11	5	.79	.01	.04	1	1	1
RL10+00W 2+805 B	1	16	4	21	.1	26	5	177	1.58	6	5	ND	6	10	1	2	2	25	.25	.06	11	58	.51	18	.08	5	.89	.01	.04	1	1	1
RL10+00W 2+905 B	1	6	6	14	.1	15	3	133	1.38	4	5	ND	9	8	1	2	2	25	.15	.02	10	43	.31	19	.08	4	.64	.01	.03	1	33	33
RL10+00W 3+005 B	1	7	5	14	.1	16	3	77	1.04	3	5	ND	3	8	1	2	2	17	.19	.04	8	28	.29	16	.06	3	.62	.01	.03	1	3	3
RL10+00W 3+105 B	1	6	7	20	.1	14	4	193	1.41	3	5	ND	6	12	1	2	2	24	.26	.02	13	24	.36	29	.09	6	.90	.01	.06	1	1	1
RL10+00W 3+205 B	1	5	6	18	.1	12	3	123	1.35	3	5	ND	4	9	1	2	3	22	.17	.01	9	23	.32	20	.08	3	.78	.01	.04	1	1	1
RL10+00W 3+305 B	1	7	5	20	.1	19	4	118	1.81	6	5	ND	5	9	1	2	2	30	.15	.02	9	39	.37	23	.10	5	.51	.01	.05	1	1	1
STR C/FA-AU	21	58	41	135	7.1	47	27	1154	4.04	41	18	8	38	51	16	15	23	60	.48	.13	34	58	.88	172	.07	39	1.72	.06	.11	12	48	48

## NORTHERN DYNASTY FILE # 85-2086

PAGE 52

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Tl	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Other
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM
RL10+00W 3+40S B	1	5	3	14	.1	13	3	75	1.24	3	5	ND	4	7	1	2	2	29	.14	.01	7	42	.28	15	.10	2	.57	.01	.03	1	110
RL10+00W 3+50S B	1	6	3	13	.1	15	3	78	1.28	6	5	ND	4	5	1	2	2	27	.12	.02	8	41	.29	14	.07	2	.60	.01	.03	1	1
RL10+00W 3+60S B	1	8	4	21	.1	29	6	137	1.92	7	5	ND	5	9	1	2	3	30	.25	.04	9	54	.40	38	.08	2	.98	.01	.04	1	2
RL10+00W 3+70S A	2	18	2	21	.3	16	2	158	.48	2	5	ND	3	40	1	2	2	8	6.03	.08	4	9	.29	40	.01	4	.34	.02	.01	1	4
RL10+00W 3+90S A	2	10	2	36	.1	5	1	79	.14	2	5	ND	3	47	1	2	2	2	7.26	.06	2	5	.24	27	.01	12	.14	.03	.01	1	6
RL10+00W 4+10S BS	1	20	7	57	.1	17	5	3170	3.85	152	5	ND	4	23	1	2	2	14	2.18	.10	18	29	.29	136	.03	8	.69	.01	.02	1	6
RLB+00W 8L0 B	1	10	6	30	.1	27	7	189	1.86	7	5	ND	4	11	1	2	2	30	.35	.02	9	53	.54	37	.09	2	1.18	.01	.04	1	15
RLB+00W 0+10S B	1	11	7	31	.1	27	6	263	1.71	2	5	ND	6	12	1	2	3	27	.29	.03	14	69	.59	35	.09	2	1.05	.01	.05	1	130
RLB+00W 0+20S B	1	7	7	25	.1	17	5	259	1.31	2	5	ND	5	12	1	2	2	24	.29	.02	12	40	.35	56	.06	2	.99	.01	.04	1	95
RLB+00W 0+30S B	1	6	5	22	.2	9	2	147	.97	2	5	ND	2	6	1	2	2	17	.14	.02	7	29	.17	21	.08	2	.36	.01	.03	1	8
RLB+00W 0+40S B	1	35	7	35	.1	50	9	169	2.99	28	5	ND	3	7	1	2	4	44	.12	.03	8	120	.61	19	.12	2	1.10	.01	.03	1	40
RLB+00W 0+50S B	1	19	12	56	.1	41	10	385	2.76	5	5	ND	11	23	1	2	2	39	.90	.03	24	76	.89	86	.12	6	1.91	.02	.13	1	6
RLB+00W 0+80S A	1	35	4	14	.1	15	2	535	.91	15	5	ND	4	52	1	2	2	5	6.78	.12	11	15	.29	109	.01	4	.52	.01	.01	1	8
RLB+00W 0+90S A	2	49	3	11	.2	24	1	229	.35	2	5	ND	4	59	1	2	2	8	7.69	.09	8	8	.27	96	.01	4	.49	.02	.01	1	4
RLB+00W 1+00S A	2	111	6	26	.2	49	3	690	.76	2	5	ND	5	55	1	2	2	9	6.01	.15	29	18	.26	123	.01	2	1.04	.01	.01	1	1
RLB+00W 1+10S A	1	78	5	32	.2	42	7	778	1.77	6	6	ND	6	53	1	2	2	21	5.06	.15	54	36	.45	174	.03	6	1.89	.02	.07	1	1
RLB+00W 1+20S A	1	56	10	28	.3	36	7	626	1.25	2	5	ND	7	49	1	2	2	15	3.97	.12	44	26	.22	128	.03	2	1.33	.01	.03	1	1
RLB+00W 1+30S A	2	70	5	25	.4	33	6	647	1.20	3	6	ND	7	55	1	2	2	13	5.34	.14	52	25	.26	131	.02	2	1.49	.01	.02	1	8
RLB+00W 1+40S B	1	6	7	19	.1	4	1	31	.67	2	5	ND	3	4	1	2	2	12	.07	.03	7	8	.09	44	.02	2	.75	.01	.03	1	4
RLB+00W 1+50S B	2	11	9	13	.1	6	2	42	.74	2	5	ND	3	4	1	2	2	15	.07	.05	9	8	.17	35	.02	2	.86	.01	.04	1	80
RLB+00W 1+60S A	1	733	8	40	.3	183	11	940	2.07	7	5	ND	9	32	1	2	2	22	3.30	.24	80	54	.48	209	.05	8	2.63	.01	.06	1	24
RLB+00W 1+70S B	1	47	7	41	.1	14	5	176	1.92	3	5	ND	3	8	1	2	2	62	.28	.03	11	22	.32	51	.08	2	.92	.02	.03	1	14
RLB+00W 1+80S B	1	76	10	43	.1	79	25	204	2.83	32	5	ND	4	8	1	2	2	47	.19	.03	12	78	.58	50	.12	2	1.59	.01	.03	1	75
RLB+00W 1+90S B	1	59	10	43	.1	39	9	166	2.02	16	5	ND	4	6	1	2	3	49	.14	.02	8	57	.56	30	.14	2	1.08	.01	.03	1	11
RLB+00W 2+00S B	1	12	5	16	.1	22	3	95	1.81	8	5	ND	3	5	1	2	2	44	.08	.02	7	66	.36	16	.12	2	.75	.01	.02	1	20
RLB+00W 2+10S B	1	28	12	60	.1	48	13	335	3.48	5	5	ND	9	19	1	2	2	48	.25	.03	15	81	.97	83	.12	10	2.72	.01	.12	1	65
RLB+00W 2+20S B	1	20	7	38	.1	44	12	210	3.18	8	5	ND	5	10	1	2	3	47	.22	.02	11	79	.67	65	.15	4	1.90	.01	.04	1	8
RLB+00W 2+30S B	1	6	4	19	.1	20	4	126	1.19	2	5	ND	4	8	1	2	2	21	.23	.02	9	49	.42	27	.07	2	.84	.01	.02	1	25
RLB+00W 2+40S B	1	7	6	21	.1	20	4	139	1.37	2	5	ND	5	8	1	2	2	23	.19	.04	9	49	.44	25	.07	2	.87	.01	.03	1	22
RLB+00W 2+50S B	1	12	5	26	.2	31	6	150	1.62	3	5	ND	4	7	1	2	2	28	.16	.03	9	79	.59	24	.09	2	1.10	.01	.03	1	16
RLB+00W 2+60S B	1	16	7	33	.1	33	6	208	1.91	4	5	ND	6	12	1	2	2	30	.28	.03	13	67	.64	56	.09	2	1.39	.01	.05	1	20
RLB+00W 2+70S B	1	48	6	31	.1	58	11	257	3.10	17	5	ND	4	8	1	2	2	50	.21	.04	11	157	.84	50	.12	2	1.75	.01	.03	1	20
RLB+00W 2+80S B	1	11	7	28	.1	31	6	171	2.24	5	5	ND	5	9	1	2	2	39	.15	.02	19	84	.61	33	.11	2	1.24	.01	.04	1	18
RLB+00W 2+90S B	1	7	6	27	.1	22	5	111	1.87	4	5	ND	4	7	1	2	2	37	.13	.02	8	59	.46	27	.10	2	1.14	.01	.04	1	12
RLB+00W 3+00S B	1	93	14	85	.1	140	44	1171	5.17	43	5	ND	4	6	1	2	2	141	.23	.04	16	221	1.40	73	.17	9	2.46	.01	.05	1	6
RLB+00W 3+10S A	3	34	6	25	.3	38	4	2890	.25	4	5	ND	2	30	1	2	2	6	4.90	.10	2	9	.18	94	.01	6	.22	.01	.01	1	4
STD C/FA-AU	21	61	40	137	7.3	70	29	1125	4.05	39	17	8	37	49	16	15	21	57	.48	.16	39	61	.88	184	.08	40	1.72	.06	.11	12	50



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PAGE 10

SAMPLE#	Mo	Cu	Pb	Zn	Aq	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	F	La	Cr	Mg	Ba	Ti	P	Al	Na	K	M	Ag++	
	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	1	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	1	1	PPH	PPH	1	PPH	1	PPH	1	1	1	1	PPH	PPE
RL8+00W 3+20S A	2	10	5	24	.2	15	1	188	.13	2	5	ND	1	35	1	2	2	2	5.90	.09	2	2	.22	28	.01	18	.10	.01	.02	1	1	
RL8+00W 3+60S A	1	21	2	78	.1	22	3	978	.43	2	5	ND	1	39	1	2	2	5	5.18	.10	2	7	.21	44	.01	11	.27	.02	.03	1	22	
RL8+00W 3+70S B	1	11	8	39	.1	18	4	227	2.36	3	5	ND	1	6	1	3	2	80	.37	.02	3	27	.68	16	.30	3	1.09	.02	.03	1	20	
RL8+00W 3+80S B	1	43	6	50	.1	54	9	263	4.47	11	5	ND	2	8	1	2	2	122	.17	.02	5	170	.90	30	.18	5	1.74	.01	.04	1	1	
RL8+00W 3+90S B	1	57	8	20	.1	39	7	107	3.23	8	5	ND	4	6	1	4	3	46	.11	.02	8	94	.43	22	.10	7	2.15	.01	.03	1	7	
RL8+00W 4+50S A	1	34	4	12	.2	14	2	40	.82	4	5	ND	2	26	1	3	2	16	.93	.04	16	44	.19	49	.04	4	.90	.01	.02	1	7	
RL8+00W 4+60S B	1	22	7	47	.1	47	10	227	2.76	9	5	ND	6	14	1	2	2	57	.27	.02	9	87	.90	36	.19	6	1.77	.01	.06	1	12	
RL8+00W 4+70S B	1	27	10	40	.1	38	7	234	3.45	20	5	ND	5	13	1	3	2	71	.17	.03	11	81	.66	35	.16	7	1.71	.02	.08	2	1	
RL8+00W 4+80S B	1	23	14	41	.2	37	9	315	3.46	4	5	ND	9	20	1	5	2	51	.24	.02	13	83	.82	77	.13	11	2.83	.02	.18	1	3	
RL8+00W 4+90S B	1	18	11	59	.1	30	8	489	2.86	18	5	ND	3	9	1	2	2	65	.15	.04	8	69	.56	56	.16	12	1.22	.01	.07	1	5	
RL6+00W 2+5S A	1	122	3	25	.2	22	1	217	.23	2	5	ND	1	42	1	2	2	8	7.63	.08	2	4	.14	40	.01	13	.17	.06	.02	1	1	
RL6+00W 2+6S A	1	241	8	66	.3	42	1	216	.15	3	5	ND	1	38	1	2	2	7	7.59	.12	2	3	.21	46	.01	24	.11	.02	.03	1	1	
RL6+00W 2+7S A	1	1148	2	31	.1	69	2	307	.16	2	5	ND	1	49	1	3	2	4	9.76	.11	6	11	.20	64	.01	22	.16	.03	.01	2	1	
RL6+00W 2+8S A	1	400	2	24	.4	58	2	613	.16	2	5	ND	1	45	1	2	2	5	8.77	.09	2	5	.20	71	.01	15	.16	.01	.01	1	1	
RL6+00W 2+9S A	1	58	8	27	.2	29	11	297	1.12	4	5	ND	1	27	1	3	2	20	3.84	.66	10	22	.32	48	.04	9	.74	.03	.04	1	1	
RL6+00W 3+0S B	1	24	8	30	.2	25	8	194	1.55	8	5	ND	2	7	1	3	2	41	.31	.01	4	32	.37	27	.10	4	.86	.01	.04	1	2	
RL6+00W 3+1S A	1	75	8	20	.2	22	10	301	1.41	8	5	ND	2	27	1	2	2	22	3.35	.07	27	32	.29	63	.05	7	1.07	.01	.03	1	1	
RL6+00W 3+2S B	1	36	7	18	.1	34	10	297	2.86	23	5	ND	4	7	1	2	2	43	.36	.04	8	44	.42	19	.09	6	1.32	.02	.02	1	20	
RL6+00W 3+3S B	1	49	8	36	.1	36	10	236	3.26	15	5	ND	1	5	1	4	2	80	.17	.03	6	64	.69	24	.17	7	1.35	.01	.03	2	1100	
RL6+00W 3+4S B	1	77	9	56	.2	57	19	359	3.89	16	5	ND	4	8	1	5	3	85	.21	.05	7	122	1.06	38	.18	8	1.95	.01	.08	1	38	
RL6+00W 3+5S B	1	25	8	28	.1	25	8	167	2.69	16	5	ND	3	6	1	4	4	64	.14	.04	4	59	.49	14	.15	6	.94	.01	.03	1	49	
RL6+00W 3+6S B	1	96	7	49	.2	48	14	328	3.73	20	5	ND	3	7	1	5	2	77	.19	.07	8	62	.79	36	.18	8	1.67	.02	.04	1	5	
RL6+00W 3+7S B	1	20	6	39	.2	25	5	187	2.34	6	5	ND	2	4	1	4	2	65	.16	.05	5	61	.52	24	.15	5	1.03	.01	.03	1	5	
RL6+00W 2+40W B	1	10	6	25	.1	25	5	185	1.76	6	5	ND	2	7	1	2	2	33	.13	.02	7	71	.45	28	.09	5	.99	.01	.04	1	4	
RL6+00W 2+20W B	1	12	7	32	.2	35	11	457	2.86	7	5	ND	5	7	1	2	4	48	.13	.05	11	89	.57	20	.11	7	1.09	.01	.04	1	215	
RL4+00W 2+00W B	1	16	6	53	.2	29	7	268	2.42	7	5	ND	4	14	1	2	2	60	.15	.03	11	56	.68	23	.15	6	1.39	.01	.04	1	34	
RL4+00W 1+90W B	1	15	11	43	.1	23	2	283	4.14	3	5	ND	2	11	1	2	2	131	.27	.01	6	58	.99	16	.31	7	1.42	.02	.03	1	5	
RL4+00W 1+80W B	1	9	6	39	.2	18	7	268	4.80	3	5	ND	6	11	1	2	2	76	.20	.02	7	18	.77	16	.20	7	1.09	.02	.04	1	21	
RL4+00W 1+70W B	2	26	7	10	.2	7	2	69	.89	2	5	ND	1	30	1	2	2	27	.29	.03	6	19	.17	18	.03	3	.91	.01	.02	1	14	
RL4+00W 1+60W B	1	13	7	13	.2	5	1	50	.68	2	5	ND	1	24	1	3	2	22	.20	.03	6	14	.14	22	.04	2	.74	.01	.02	1	31	
RL4+00W 1+50W B	1	3	4	6	.1	7	1	58	.85	2	5	ND	3	7	1	2	2	23	.06	.01	8	23	.13	17	.06	3	.52	.01	.03	1	4	
RL4+00W 1+40W B	1	9	8	13	.2	15	2	83	1.13	7	5	ND	3	12	1	2	2	40	.11	.02	8	36	.32	15	.12	4	.85	.01	.02	2	6	
RL4+00W 1+30W B	1	40	7	31	.1	44	8	170	2.73	14	5	ND	4	9	1	4	5	54	.12	.03	11	71	.67	26	.14	8	1.53	.01	.03	1	4	
RL4+00W 1+20W B	1	5	8	8	.2	11	1	75	.95	2	5	ND	3	9	1	2	2	34	.09	.01	9	36	.23	16	.11	5	.71	.01	.02	1	8	
RL4+00W 1+10W B	1	15	11	31	.1	17	3	133	2.71	5	5	ND	5	15	1	4	3	57	.14	.04	11	51	.39	34	.14	8	1.64	.01	.03	1	16	
RL4+00W 1+00W B	1	2	7	3	.1	5	1	42	.45	2	5	ND	5	8	1	2	2	18	.08	.01	10	18	.09	9	.09	3	.39	.01	.03	1	5	
STD C/FA-KU	19	57	39	137	7.2	70	28	1201	4.05	41	17	8	37	51	17	16	22	61	.48	.15	39	59	.88	171	.08	40	1.72	.06	.11	11	53	

## NORTHERN DYNASTY FILE # 05-2086

PAGE 11

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Mg	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	M	Aux
	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	I	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	I	I	PPH	PPH	I	PPH	I	I	I	I	I	PPH	PPH
RL4+00N 0+90N B	1	4	4	4	.1	5	1	32	.89	2	5	ND	3	8	1	2	2	17	.08	.01	4	18	.07	14	.04	2	.31	.01	.01	1	1
RL4+00N 0+90M B	1	14	11	30	.1	20	3	147	3.14	7	5	ND	6	9	1	2	2	42	.11	.04	5	43	.49	32	.12	2	1.41	.01	.04	1	11
RL4+00N 0+70N B	1	5	5	5	.1	1	1	21	.29	2	5	ND	1	5	1	2	2	7	.04	.02	6	7	.03	23	.01	2	.38	.01	.01	1	7
RL4+00N 0+60N B	1	6	7	14	.1	8	1	140	.97	2	5	ND	3	10	1	2	2	20	.15	.03	7	25	.23	27	.07	2	.55	.01	.02	1	10
RL4+00N 0+50N B	1	9	11	34	.1	25	4	149	3.32	6	5	ND	6	9	1	2	4	55	.15	.04	6	84	.44	28	.11	2	1.03	.01	.05	1	60
RL4+00N 0+40N B	1	4	7	22	.1	19	3	124	1.31	3	5	ND	4	8	1	2	2	24	.12	.02	8	47	.40	19	.08	2	.79	.01	.03	1	4
RL4+00N 0+30N B	1	5	8	27	.1	18	3	140	1.80	3	5	ND	4	9	1	2	2	31	.19	.04	10	47	.41	33	.07	2	.95	.01	.05	1	8
RL4+00N 0+20N B	1	12	11	48	.1	29	6	448	2.84	5	5	ND	8	18	1	3	2	42	.31	.04	13	55	.75	72	.11	2	1.66	.01	.12	1	8
RL4+00N 0+10N B	1	10	14	51	.1	30	7	524	3.04	5	5	ND	9	18	1	2	2	46	.27	.03	12	58	.82	71	.11	2	1.87	.01	.11	1	1
RL4+00N 0+00N B	1	6	9	40	.2	19	11	747	2.31	2	5	ND	7	10	1	2	2	38	.19	.09	9	46	.50	40	.11	1	.96	.01	.04	1	2
RL4+00N 0+10S B	1	8	12	61	.1	15	3	168	1.70	2	5	ND	5	10	1	2	2	31	.15	.05	8	33	.41	36	.06	2	.95	.01	.04	1	11
RL4+00N 0+20S B	1	10	8	14	.1	4	1	51	.91	2	5	ND	8	15	1	2	2	24	.13	.02	8	10	.17	35	.06	2	.84	.01	.02	1	4
RL4+00N 0+30S B	1	3	9	8	.1	1	1	43	1.10	2	5	ND	11	30	1	2	2	37	.20	.01	3	9	.11	22	.14	2	.64	.01	.02	1	1
RL4+00N 0+40S B	1	3	9	5	.1	3	1	32	.48	2	5	ND	7	7	1	2	2	18	.57	.01	10	13	.10	25	.06	2	.51	.01	.02	1	3
RL4+00N 0+50S B	1	7	10	19	.1	12	2	142	1.26	2	5	ND	4	8	1	2	2	27	.10	.01	9	30	.28	47	.07	2	.97	.01	.02	1	2
RL4+00N 0+60S B	1	21	16	58	.2	39	15	1218	3.49	9	5	ND	9	17	1	2	3	54	.43	.04	15	38	.55	145	.10	2	2.62	.01	.07	1	1
RL4+00N 0+70S B	1	8	7	19	.1	13	2	132	1.29	5	5	ND	3	16	1	2	2	42	.26	.01	6	28	.38	40	.09	2	1.03	.01	.03	1	1
RL4+00N 2+05 A	1	46	15	25	.4	23	12	485	1.54	5	5	ND	4	20	1	2	2	24	1.05	.04	22	29	.33	71	.04	2	.96	.01	.06	1	1
RL4+00N 2+15 B	1	42	5	42	.2	43	11	309	2.72	10	5	ND	6	8	1	3	4	55	.27	.02	8	75	.84	37	.13	2	1.37	.01	.06	1	2
RL4+00N 2+25 B	1	53	13	44	.2	37	14	1904	2.29	13	5	ND	4	12	1	2	2	38	.58	.03	12	45	.52	99	.07	2	1.49	.01	.05	1	1
RL4+00N 2+35 B	1	132	21	55	.3	99	77	2673	6.34	94	5	ND	8	9	1	2	2	56	.43	.05	18	218	.63	105	.10	2	2.93	.01	.03	1	19
RL4+00N 2+45 B	1	94	12	15	.4	38	11	387	2.08	391	5	ND	3	20	2	2	2	13	.81	.06	12	22	.13	86	.02	2	.54	.01	.02	1	40
RL4+00N 2+55 B	1	124	12	63	.2	78	17	346	3.85	22	5	ND	5	13	1	2	2	62	.35	.03	7	44	.99	82	.12	2	2.51	.02	.05	1	4
RL4+00N 2+65 B	1	26	11	25	.1	23	4	141	1.29	7	5	ND	3	7	1	2	2	46	.18	.01	7	48	.58	31	.11	2	1.10	.01	.02	1	2
RL4+00N 2+75 B	1	19	9	37	.2	30	4	201	1.91	4	5	ND	4	5	1	2	2	51	.13	.01	3	112	.82	16	.14	2	1.26	.01	.02	1	1
RL4+00N 2+85 B	1	55	7	23	.1	40	7	147	2.24	14	5	ND	2	4	1	2	3	47	.15	.01	2	67	.70	14	.11	2	1.11	.01	.02	1	1
RL4+00N 2+95 B	1	54	11	39	.1	46	10	191	2.30	6	5	ND	3	4	1	2	3	57	.21	.01	3	44	.83	18	.16	2	1.46	.02	.03	1	2
RL4+00N 3+05 B	1	101	9	65	.1	71	18	357	3.85	8	5	ND	2	6	1	2	2	54	.18	.02	6	70	.91	39	.13	2	1.98	.01	.02	1	2
RL4+00N 3+15 B	1	37	8	37	.1	33	8	187	1.86	5	5	ND	3	5	1	2	2	41	.16	.02	6	59	.70	27	.09	5	1.24	.01	.03	1	1
RL4+00N 3+25 B	1	80	8	71	.2	70	15	319	3.08	4	5	ND	2	4	1	2	3	73	.20	.02	2	106	.92	35	.14	2	1.89	.01	.02	1	9
RL4+00N 3+35 B	1	51	7	28	.2	35	7	173	2.45	10	5	ND	3	6	1	2	2	55	.17	.02	4	65	.70	23	.11	2	1.26	.01	.02	1	1
RL4+00N 3+45 B	1	66	4	29	.1	54	11	264	2.82	13	5	ND	3	5	1	4	2	53	.17	.01	4	89	.90	20	.12	2	1.39	.01	.02	1	7
RL4+00N 3+55 B	1	63	16	60	.2	54	17	454	4.83	18	5	ND	5	14	1	2	2	70	.38	.05	9	60	.77	100	.09	4	2.40	.01	.06	1	4
RL4+00N 3+65 B	1	107	14	64	.4	54	21	440	3.75	12	5	ND	4	12	1	2	2	47	.21	.09	10	55	.63	79	.07	5	2.83	.01	.08	1	1
RL4+00N 3+75 A	1	163	23	38	.9	34	25	330	3.06	9	5	ND	2	11	1	2	2	32	.29	.13	8	32	.18	68	.02	2	1.64	.01	.04	1	1
RL4+00N 3+85 B	1	128	10	142	.1	60	18	404	3.29	10	5	ND	3	7	1	2	2	55	.16	.03	9	65	1.13	47	.14	7	2.28	.02	.05	1	1
STB C/FA-AU	20	59	39	134	7.0	68	25	1110	4.05	38	18	8	37	50	14	15	22	57	.48	.12	38	56	.88	176	.07	41	1.72	.06	.10	12	51

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PAGE 12

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Er	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	PPM
RL4+00M 3+9S B	1	102	11	63	.5	43	19	524	3.06	10	5	ND	3	8	1	2	2	63	.17	.05	8	50	.71	56	.12	4	1.77	.01	.04	1	1
RL4+00M 4+0S B	1	85	9	72	.4	44	14	401	3.37	13	5	ND	3	8	1	3	2	69	.20	.05	7	63	.81	38	.17	4	1.82	.02	.05	1	7
RL4+00M 4+1S B	1	607	12	65	.3	105	26	664	3.45	25	5	ND	6	7	1	2	2	54	.21	.03	22	75	.81	41	.13	5	2.53	.02	.06	1	3
RL4+00M 4+2S B	1	55	11	78	.4	35	8	294	3.35	6	5	ND	4	7	1	2	2	80	.18	.05	5	67	.88	35	.23	4	1.69	.01	.05	1	1
RL4+00M 4+3S B	1	57	11	94	.3	42	10	330	4.44	8	5	ND	3	7	1	2	2	106	.19	.05	5	71	.99	45	.25	6	2.10	.02	.05	1	3
RL4+00M 4+4S B	1	134	12	93	.2	72	16	362	5.34	10	5	ND	5	7	1	2	2	101	.19	.07	7	84	1.15	37	.25	5	2.44	.02	.06	1	1
RL4+00M 4+5S B	1	63	7	62	.2	25	8	281	2.98	6	5	ND	3	8	1	2	2	79	.24	.06	6	29	.88	44	.21	5	1.34	.02	.05	1	9
RL4+00M 4+6S B	1	31	5	43	.2	52	7	212	2.74	4	8	ND	6	4	1	2	2	76	.14	.02	3	110	1.74	60	.24	2	1.93	.01	.12	1	1
RL4+00M 4+7S B	1	70	10	79	.5	37	9	241	3.27	8	5	ND	4	9	1	2	2	80	.21	.04	8	53	.71	41	.19	5	1.73	.01	.04	1	2
RL4+00M 4+8S B	2	101	11	80	.1	53	13	394	6.76	12	5	ND	5	6	1	2	2	114	.18	.07	6	76	1.51	27	.22	7	2.43	.02	.04	1	1
RL4+00M 4+9S B	1	17	6	53	.2	44	7	300	2.40	3	5	ND	5	9	1	2	2	52	.23	.04	8	111	1.21	65	.20	3	1.67	.02	.11	1	1
RL4+00M 5+0S B	1	12	7	47	.1	44	5	220	2.37	3	5	ND	5	4	1	2	2	65	.13	.03	2	71	1.14	37	.30	2	1.61	.02	.05	1	1
RL4+00M 5+1S B	1	16	10	52	.2	32	7	388	3.07	2	5	ND	5	6	1	2	2	79	.20	.04	7	34	1.41	49	.29	3	2.06	.02	.12	1	1
RL4+00M 5+2S B	1	67	9	75	.4	34	11	288	2.56	6	5	ND	4	9	1	2	2	55	.19	.04	10	41	.64	47	.14	4	1.72	.02	.05	1	2
RL4+00M 5+3S B	1	161	11	74	.2	60	14	354	4.22	6	5	ND	5	7	1	2	2	86	.21	.08	7	67	.95	43	.22	5	2.19	.02	.05	1	2
RL4+00M 5+4S B	1	95	10	79	.2	53	12	360	4.57	6	5	ND	4	8	1	2	2	103	.24	.12	7	64	.99	45	.23	4	2.02	.02	.04	1	1
RL4+00M 5+5S B	1	48	9	53	.1	33	8	303	2.79	6	5	ND	3	8	1	2	2	64	.26	.05	5	51	.77	39	.17	5	1.49	.02	.03	1	2
STD C/FN-AU	21	58	41	134	7.1	70	26	1151	3.99	39	16	8	38	52	16	15	22	59	.48	.13	37	55	.88	172	.07	41	1.72	.06	.10	12	49

## NORTHERN DYNASTY FILE # 85-2086

PAGE 10

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Hg	Ba	Ti	B	Al	Mg	I	N	Au**
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	%	PPM	PPM
ERS-51	1	38	7	41	.1	19	5	140	2.60	2	5	ND	1	5	1	2	2	115	.26	.04	2	41	.61	24	.12	2	1.39	.02	.03	1	15
ERS-52	6	377	13	35	.1	12	16	280	10.38	10	5	ND	7	5	1	6	2	87	.09	.13	2	9	.53	41	.05	2	2.79	.01	.05	8	6
ERS-53	3	68	9	28	.1	5	9	112	4.12	6	5	ND	5	3	1	4	2	99	.02	.03	6	11	.36	27	.04	2	1.82	.01	.03	2	3
ERS-54	7	156	12	31	.1	10	7	149	8.72	5	5	ND	4	7	1	5	2	82	.12	.06	2	9	.40	36	.04	2	1.89	.01	.04	2	14
ERS-55	1	101	12	49	.1	22	6	184	4.00	2	5	ND	4	16	1	3	2	108	.26	.05	4	35	.72	36	.17	2	2.39	.02	.04	1	2
ERS-56	7	48	13	52	.1	38	13	2592	14.94	2	5	ND	15	5	1	2	2	71	.29	.05	24	21	1.41	60	.09	2	3.88	.01	.03	1	2
ERS-57	1	48	8	81	.2	38	11	333	6.27	2	5	ND	6	40	1	2	2	156	.39	.04	2	32	2.04	41	.36	2	3.19	.01	.04	1	1
ERS-58	1	9	8	32	.1	9	2	110	2.88	2	5	ND	3	24	1	2	2	75	.21	.02	6	12	.48	42	.25	2	1.70	.01	.05	1	2
ERS-59	1	9	10	55	.1	20	5	213	3.97	3	5	ND	4	33	1	2	2	114	.25	.03	6	19	1.16	85	.39	2	2.44	.02	.20	1	1
ERS-510	2	98	10	75	.2	264	46	615	9.87	190	5	ND	2	7	1	2	5	223	.55	.03	2	1249	1.35	55	.17	2	1.42	.01	.05	1	1
ERS-511	5	238	13	93	.2	235	70	1162	13.33	591	5	ND	2	8	1	9	2	182	.35	.06	2	761	.78	29	.05	2	1.49	.01	.03	1	1
GRS-51	1	36	8	67	.1	128	18	540	4.58	52	5	ND	6	14	1	2	2	81	.18	.06	8	250	2.21	31	.08	2	2.24	.01	.04	1	2
GRS-52	5	45	16	75	.1	184	25	2354	7.14	76	5	ND	7	22	1	4	2	82	.30	.08	11	335	2.36	121	.05	2	2.70	.01	.04	1	2
GRS-53	6	93	17	102	.3	97	30	2560	6.50	14	7	ND	10	36	1	4	3	96	.55	.20	42	206	2.14	98	.04	2	3.09	.01	.07	1	2
GRS-54	2	29	13	53	.1	15	9	242	8.38	5	6	ND	4	6	1	2	2	423	.10	.04	2	8	.87	25	.16	2	1.98	.01	.03	1	1
GRS-55	1	79	7	88	.1	117	20	361	5.69	26	5	ND	2	11	1	2	2	148	.44	.03	2	146	1.32	50	.57	2	2.66	.02	.06	1	38
GRS-56	1	37	5	59	.1	18	10	194	4.49	6	5	ND	5	31	1	2	2	102	.35	.08	8	13	1.52	50	.26	3	2.44	.01	.06	1	5
GRS-57	2	41	10	71	.1	35	1	317	8.97	3	5	ND	3	6	1	2	2	250	.13	.07	2	91	1.98	112	.47	2	2.87	.01	.11	1	2
TRS-51	1	21	70	21	.1	15	2	65	.64	4	5	ND	1	9	1	2	2	14	.27	.07	3	22	.18	34	.02	2	.55	.02	.05	1	1
TRS-52	1	9	5	10	.1	14	2	49	.67	2	5	ND	1	4	1	2	2	18	.12	.02	2	13	.26	31	.04	2	.53	.03	.04	1	4
TRS-53	1	6	4	6	.1	8	1	33	.46	2	5	ND	1	5	1	2	2	10	.11	.03	2	11	.13	16	.02	2	.47	.02	.01	2	1
TRS-54	1	44	21	10	.1	40	2	22	.45	5	5	ND	1	22	2	2	2	8	1.30	.12	5	11	.27	57	.01	3	.33	.02	.05	1	1
TRS-55	1	3	3	10	.1	16	2	58	.75	2	5	ND	1	2	1	2	2	21	.09	.02	2	29	.26	14	.08	2	.47	.02	.02	1	4
TRS-56	1	52	16	59	.2	23	7	338	3.49	4	5	ND	7	22	1	2	2	87	.19	.04	6	38	1.14	37	.21	2	1.86	.01	.03	1	2
TRS-57	1	10	6	15	.1	38	3	69	1.46	3	5	ND	1	8	1	2	2	32	.08	.02	5	79	.42	13	.06	2	.72	.01	.01	1	2
TRS-58	1	164	6	24	.1	22	7	83	2.20	2	5	ND	1	3	1	2	2	155	.15	.04	2	4	.42	13	.14	2	.90	.02	.02	2	3
TRS-59	1	401	10	51	.1	222	58	331	6.66	3	5	ND	6	24	1	2	2	129	.62	.05	13	101	1.68	140	.28	2	3.37	.13	.05	1	5
YRS-51	1	15	5	29	.1	40	4	140	1.72	3	5	ND	1	6	1	2	2	58	.26	.02	2	56	.92	90	.26	2	1.29	.03	.02	1	3
YRS-52	1	18	7	19	.1	3	4	99	1.80	4	5	ND	1	4	1	2	2	60	.06	.05	3	3	.37	32	.08	2	.82	.01	.03	1	3
YRS-53	1	107	69	137	.2	331	30	416	6.01	1884	5	ND	10	11	1	2	2	68	.32	.07	27	174	.51	53	.09	2	2.52	.01	.03	1	22
YRS-54	1	86	17	79	.1	177	27	229	4.54	324	5	ND	8	10	1	2	2	63	.30	.07	43	255	.59	35	.10	5	3.06	.01	.02	1	34
YRS-55	1	49	11	35	.3	90	11	570	7.44	151	5	ND	3	3	1	2	2	49	.18	.04	2	301	1.07	33	.15	2	2.13	.01	.08	27	80
YRS-56	4	50	16	56	.1	30	9	299	13.01	20	5	ND	3	2	1	5	2	176	.05	.04	2	81	.81	31	.09	2	2.35	.01	.03	1	1
YRS-57	1	13	7	71	.5	196	17	374	3.34	8	5	ND	2	7	1	3	2	41	.13	.03	7	268	1.22	33	.08	4	.96	.01	.02	1	2
YRS-551	1	25	10	58	.1	35	8	705	2.25	8	5	ND	11	22	1	2	2	36	1.21	.09	28	56	.91	69	.09	11	1.16	.03	.15	1	2
STD C/FA-AU	21	62	40	134	6.9	70	28	1163	4.06	41	15	8	41	55	17	16	20	64	.48	.14	40	61	.89	180	.08	39	1.72	.06	.11	11	48

NORTHERN DYNASTY FILE # 85-2086

PAGE 14

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Mi	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Hg	Ba	Ti	B	Al	Mg	K	N	Au**
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	1	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	1	1	PPM	PPM	1	PPM	1	PPM	1	1	1	PPM	PPM
ERS-R1	1	224	5	13	.1	8	7	217	3.47	2	5	ND	8	6	1	2	2	17	.14	.07	13	5	.30	24	.06	37	.56	.04	.05	1	2
ERS-R2	1	66	7	13	.1	5	5	169	2.48	5	5	ND	6	5	1	2	2	12	.08	.04	6	3	.29	10	.06	53	.55	.04	.03	1	1
ERS-R3	1	128	7	3	.1	10	2	114	2.65	5	5	ND	3	2	1	2	3	4	.02	.01	2	1	.03	2	.02	124	.10	.01	.01	1	2
ERS-R4	1	287	2	19	.5	218	26	824	3.30	318	5	ND	2	35	1	2	3	51	2.37	.02	5	280	1.56	13	.01	9	.42	.02	.01	1	1
ERS-R1	1	21	9	20	.1	189	9	1298	3.05	22	7	ND	8	481	1	2	2	19	11.23	.02	8	185	4.90	5	.01	10	.72	.02	.01	1	1
GRS-R2	4	18	5	28	.1	375	17	1214	3.58	54	5	ND	2	115	1	2	6	29	2.88	.02	10	646	2.76	19	.01	7	1.05	.01	.01	1	1
GRS-R3	2	122	9	136	.1	146	33	1116	7.45	28	5	ND	4	75	1	2	2	77	5.74	.03	12	201	3.91	88	.01	5	2.67	.01	.08	1	1
GRS-R4	1	16	2	10	.1	11	3	154	1.18	4	5	ND	1	5	1	2	2	14	.28	.02	3	12	.27	10	.03	10	.38	.02	.01	1	1
GRS-R5	1	104	7	25	.1	11	7	238	1.94	3	5	ND	8	39	1	2	2	28	.77	.21	22	8	.57	30	.10	38	.83	.03	.07	1	2
GRS-R6	1	51	9	80	.1	46	17	451	5.75	2	5	ND	5	9	1	2	2	140	.43	.10	8	96	2.50	95	.17	6	2.72	.03	.39	1	2
GRS-R7	1	17	7	39	.1	17	5	349	3.80	2	5	ND	9	8	1	2	2	63	.25	.05	11	48	1.36	267	.12	7	1.87	.08	.50	1	1
GRS-R8	1	5	3	6	.1	12	2	82	.73	2	5	ND	1	2	1	2	2	10	.25	.09	2	14	.23	13	.03	6	.31	.02	.03	1	3
TRS-R1	2	175	24	28	.1	117	6	2839	28.54	5	5	ND	4	10	1	2	2	4	.78	.03	87	1	.72	22	.01	7	.12	.01	.01	4	2
TRS-R2	1	81	5	22	.1	31	5	185	1.23	2	5	ND	3	7	1	4	4	19	.43	.03	4	43	.52	22	.06	26	.52	.06	.04	1	1
TRS-R3	1	177	6	47	.1	158	23	472	4.67	2	5	ND	6	48	1	2	2	118	2.46	.07	18	105	1.79	261	.23	10	3.33	.29	1.05	1	3
YRS-R1	1	40	2	5	.1	5	3	115	1.33	4	5	ND	1	2	1	3	2	9	.10	.02	2	4	.14	11	.03	22	.21	.01	.03	1	1
YRS-R2	1	24	17	16	.1	53	7	647	1.37	2751	5	ND	7	17	1	5	2	2	.39	.01	10	8	.11	39	.01	5	.14	.01	.08	1	65
YRS-R3	1	6	15	19	.1	22	3	502	.89	1883	5	ND	3	25	1	2	2	1	.56	.01	5	6	.17	21	.01	4	.08	.01	.05	1	8
YRS-R4	6	52	6	29	.4	41	11	233	3.40	15	5	ND	1	8	1	2	2	47	.69	.03	3	43	.74	38	.10	7	.77	.08	.05	1	4
STD C/FA-MU	20	61	62	140	7.0	73	28	1194	4.05	41	16	8	38	53	17	15	20	61	.48	.15	39	59	.88	181	.08	41	1.73	.06	.11	11	49

APPENDIX 5

AUTHORS' CERTIFICATIONS

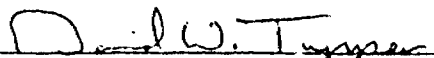
APPENDIX 5

AUTHORS' CERTIFICATIONS

AUTHOR'S CERTIFICATION

I, David Wilson Tupper, of 2657 West 2nd Avenue, Vancouver, British Columbia, hereby certify as follows:

1. That I graduated from the University of British Columbia with a Bachelor of Science degree in geology in 1985.
2. That I have practised my profession continually since that time.
3. That I authored this report based on the 1985 field program on the Randall Lake Property.

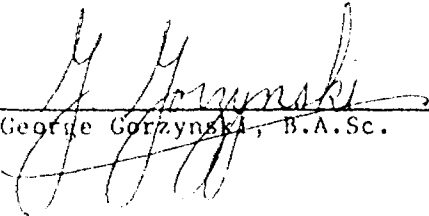
  
David Wilson Tupper, B.Sc.



AUTHOR'S CERTIFICATION

I, George Gorzynski, of 156 Glenholme Avenue, Toronto, Ontario,  
hereby certify as follows:

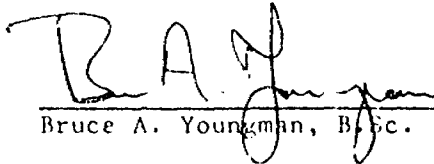
1. That I graduated from the University of Toronto with  
a Bachelor of Applied Science degree in geological  
engineering/mineral exploration in 1978.
2. That I have practised my profession continually since  
that time.
3. That I co-authored this report based on the 1985 field  
program on the Randall Lake Property.

  
George Gorzynski, B.A.Sc.

AUTHOR'S CERTIFICATION

I, Bruce A. Youngman, of 208 - 170 East 3rd Street, North Vancouver, British Columbia, hereby certify as follows:

1. That I graduated from the University of British Columbia with a Bachelor of Science degree in geology in 1981.
2. That I have practised my profession continually since that time.
3. That I co-authored this report based on the 1985 field program on the Randall Lake Property.

  
Bruce A. Youngman, B.Sc.



53B14SE0007 53B14SE0019 RANDALL LAKE

900

File \_\_\_\_\_



Ministry of Natural Resources

GEOPHYSICAL - GEOLOGICAL - GEOCHEMICAL  
TECHNICAL DATA STATEMENT

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT  
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT  
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s): Geological / Geochemical  
Township or Area Randall Lake Area  
Claim Holder(s) Northern Dynasty  
Explorations Ltd.  
Survey Company Dunlop Exploration  
Author of Report D. W. Tupper  
Address of Author 844 W. Hastings St, Vancouver  
Covering Dates of Survey Aug. 10 - Dec. 10, 1985  
(linecutting to office)  
Total Miles of Line Cut 3.57 km (2.2 miles)

MINING CLAIMS TRAVERSED

List numerically

<u>Pa</u>	<u>817 455</u>
<u>Pa</u>	<u>817 456</u>
<u>Pa</u>	<u>817 457</u>
<u>Pa</u>	<u>817 458</u>
<u>Pa</u>	<u>817 459</u>
<u>Pa</u>	<u>817 460</u>
<u>Pa</u>	<u>817 461</u>
<u>Pa</u>	<u>817 462</u>
<u>Pa</u>	<u>817 463</u>
<u>Pa</u>	<u>817 464</u>
<u>Pa</u>	<u>817 465</u>
<u>Pa</u>	<u>817 466</u>
<u>Pa</u>	<u>817 467</u>
<u>Pa</u>	<u>817 468</u>
<u>Pa</u>	<u>817 469</u>
<u>Pa</u>	<u>817 470</u>
TOTAL CLAIMS <u>16</u>	

If space insufficient, attach list

SPECIAL PROVISIONS  
CREDITS REQUESTED

DAYS  
per claim

ENTER 40 days (includes  
line cutting) for first  
survey.

ENTER 20 days for each  
additional survey using  
same grid.

- Geophysical
  - Electromagnetic \_\_\_\_\_
  - Magnetometer \_\_\_\_\_
  - Radiometric \_\_\_\_\_
  - Other \_\_\_\_\_
- Geological \_\_\_\_\_
- Geochemical \_\_\_\_\_

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer \_\_\_\_\_ Electron agnetic \_\_\_\_\_ Radiometric \_\_\_\_\_  
(enter days per claim)

DATE: Dec 10, 1985 SIGNATURE: David W. Tupper  
Author of Report or Agent

Res. Geol. \_\_\_\_\_ Qualifications \_\_\_\_\_

Previous Surveys

File No.	Type	Date	Claim Holder

GEOCHEMICAL SURVEY - PROCEDURE RECORD

Numbers of claims from which samples taken 817456, 817457, 817458  
817459, 817460, 817461, 817462, 817463, 817464  
817465, 817466, 817468, 817470.

Total Number of Samples 451  
 Type of Sample Rock, Soil, Stream Sediments  
(Nature of Material)  
 Average Sample Weight 0.3 kg.  
 Method of Collection hammer, mallet.

Soil Horizon Sampled A<sub>1</sub>, B<sub>2</sub>.  
 Horizon Development A<sub>1</sub>-A<sub>2</sub>-B<sub>1</sub>-B<sub>2</sub>-C  
 Sample Depth -1 to -60 cm.  
 Terrain variable: hilly to flat; steep to overburden; ridges to swamps.  
 Drainage Development poor to moderate.  
 Estimated Range of Overburden Thickness 0-15 m; covers 20% to 60%.

**SAMPLE PREPARATION**  
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis  
soil - 80 mesh.  
stream sediment - 80 mesh.  
rock pulp - 100 mesh.

General Method of Analysis  
A<sub>1</sub> - 10 gram sample  
- fine assay with atomic absorption finish.  
others - 0.5 gram sample  
- 30 element I.C.P.

**ANALYTICAL METHODS**

Values expressed in: per cent   
 p. p. m.   
 p. p. b.

(Cu) (Pb) (Zn) (Ni) (Co) (Ag) (Mo) (As) (circle)

Others see below.

Field Analysis (\_\_\_\_\_ tests)

Extraction Method \_\_\_\_\_

Analytical Method \_\_\_\_\_

Reagents Used \_\_\_\_\_

Field Laboratory Analysis

No. (\_\_\_\_\_ tests)

Extraction Method \_\_\_\_\_

Analytical Method \_\_\_\_\_

Reagents Used \_\_\_\_\_

Commercial Laboratory (451 tests)

Name of Laboratory Acme Analytical Labs

Extraction Method Aqua Regia

Analytical Method see below.

Reagents Used \_\_\_\_\_

General I.C.P.

0.5 gm sample digested with 3:1-2 HCl-HNO<sub>3</sub>-H<sub>2</sub>O at 95°C for one hour, then diluted to 10mls with H<sub>2</sub>O.

other elements: Mn, Fe, Li, Sr, Th, Cd, V, Cu, P, Ba, Cr, Mg, Be, Ti, B, Al, Na, K, W, Au.





Ministry of Resources

Report of Work (Geophysical, Geological, Geochemical and Expenditures)

# 85-136

- Instructions: - Please type or print. - If number of mining claims traversed exceeds space on this form, attach a list. Note: - Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns. - Do not use shaded areas below.

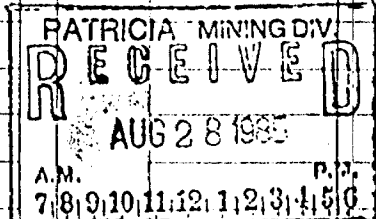
Ontario E.P. Ote Mining Hands

2875 Mining Act 28751

Form header containing: Type of Survey(s) GEOLOGICAL / GEOCHEMICAL, Claim Holder(s) NORTHERN DYNASTY EXPLORATIONS LTD., Address 844 W. HASTINGS ST., VANCOUVER, B.C. V6C 1C8, Survey Company DUNLOP EXPLORATIONS, Date of Survey (from & to) 10 Day 8 85 15 Day 8 85, Total Miles of line Cut 2.1, Name and Address of Author (of Geo-Technical report) GEORGE GABRYNSKI, DAVE TUPPER, BRUCE YOUNGMAN / BOX 350 PICKLE LAKE, ONT.

Table with 3 columns: Special Provisions, Geophysical, Days per Claim. Rows include: For first survey: Enter 40 days. (This includes line cutting); For each additional survey: Enter 20 days (for each); Man Days: Complete reverse side and enter total(s) here; Airborne Credits: Note: Special provisions credits do not apply to Airborne Surveys.

Table with 4 columns: Mining Claim Prefix, Mining Claim Number, Expend. Days Cr., Mining Claim Prefix, Mining Claim Number, Expend. Days Cr. Lists mining claims 817454 through 817470.



Expenditures (excludes power stripping) section containing: Type of Work Performed SECTION 77-191514 Soil/Rock GEOCHEMICAL ANALYSES, Calculation of Expenditure Days Credits: Total Expenditures \$ ÷ 15 = Total Days Credits

Pa. 817451 Total number of mining claims covered by this report of work 15

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right. Date AUG. 24 / 85, Recorded Holder or Agent (Signature) [Signature]

For Office Use Only: Total Days Cr. Recorded 291, Date Recorded Aug. 28, 1985, Date Approved & Recorded [Signature], Branch Director [Signature]

Certification Verifying Report of Work: I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true. Name and Postal Address of Person Certifying BRUCE A. YOUNGMAN P.O. BOX 350 PICKLE LAKE, ONT. P0N 3A0, Date Certified AUG. 24 / 85, Certified By [Signature]

### Assessment Work Breakdown

Man Days are based on eight (8) hour Technical or Line-cutting days. Technical days include work performed by consultants, draftsmen, etc..

Type of Survey <b>GEOCHEMICAL</b>						
Technical Days		Technical Days Credits		Line-cutting Days	Total Credits	No. of Claims
30	X	7	=	210	+	4
			=	214	+	15
					=	14.3

Type of Survey <b>GEOLOGICAL</b>						
Technical Days		Technical Days Credits		Line-cutting Days	Total Credits	No. of Claims
11	X	7	=	77	+	-
			=	77	+	15
					=	5.1

Type of Survey						
Technical Days		Technical Days Credits		Line-cutting Days	Total Credits	No. of Claims
[ ]	X	7	=	[ ]	+	[ ]
			=	[ ]	+	[ ]
					=	[ ]

Type of Survey						
Technical Days		Technical Days Credits		Line-cutting Days	Total Credits	No. of Claims
[ ]	X	7	=	[ ]	+	[ ]
			=	[ ]	+	[ ]
					=	[ ]

Type of Survey(s) **GEOCHEMICAL EXPENDITURES** 2775 Township or Area **RANDALL LAKE (G-2182)**  
 Claim Holder(s) **NORTHERN DYNASTY EXPLORATIONS LTD.** Prospector's Licence No. **T-1884**  
 Address **844 W. HASTINGS ST. VANCOUVER, B.C. V6C 1C8**  
 Survey Company **Dundup Explorations** Date of Survey (from & to) **10 3 85 15 8 85** Total Miles of line Cut  
 Name and Address of Author (of Geo-Technical report) **George Gorbunski, Dave Tupper, Bruce Youngman / Box 350 Pickle Lake, Ont.**

Credits Requested per Each Claim in Columns at right Mining Claims Traversed (List in numerical sequence)

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
For each additional survey: using the same grid: Enter 20 days (for each)	- Other	
	Geological	
	Geochemical	
Man Days	Geophysical	Days per Claim
Complete reverse side and enter total here	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Airborne Credits	Geophysical	Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	- Electromagnetic	
	- Magnetometer	
	- Radiometric	

Mining Claim			Mining Claim		
Prefix	Number	Expend. Days Cr.	Prefix	Number	Expend. Days Cr.
Pa	817454	1			
	817455	60			
	817456	41			
	817457	41			
	817458	41			
	817459	41			
	817460	6			
	817461	1			
	817462	1			
	817463	1			
	817464	1			
	817465	1			
	817466	1			
	817467	1			
	817468	1			
	817469	20			
	817470	1			
	817471	20			
	817472	20			
	817473	20			
	817474	20			
	817475	20			
	817476	20			

Expenditures (excludes power stripping)  
 Type of Work Performed **SECTION 77-19 Soil/Rock GEOCHEMICAL ANALYSES**  
 Performed on Claim(s) **817454; 817456; 817457; 817458; 817459; 817460; 817461; 817462; 817463; 817464; 817465; 817466; 817467; 817468**  
 Calculation of Expenditure Days Credits **217470** Total Days Credits  
 Total Expenditures **\$ 5700.00** + **15** = **380**  
 Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Pa. 817451 Total number of mining claims covered by this report of work. **23**

For Office Use Only  
 Total Days Recorded **380** Date Recorded **Aug. 28, 1985** Mining Recorder **[Signature]**  
 Date Approved or Recorded **[Signature]** Branch Director **[Signature]**

Date **Aug 24/85** Recorded Holder or Agent (Signature) **[Signature]**

Certification Verifying Report of Work  
 I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying **Bruce A. Youngman P.O. Box 350, Pickle Lake, Ont. P0V 3A0**  
 Date Certified **Aug 24/85** Certified by (Signature) **[Signature]**  
 1362 (81/9) **V6C 1C8**





Ministry of  
Natural  
Resources

Order of  
the Minister

Dec 20th

Room 6643, Whitney Block  
Queen's Park  
Toronto, Ontario  
M7A 1W3  
416/965-4888

The Mining Act

In the matter of mining claims:

PA 817451, et al, in the  
Areas of Seeseep Lake, Keeyask Lake,  
and Randall Lakes as listed on  
Report of Work 132, 33, 34, 35, 36 & 37.

On consideration of an application from the recorded holder, Northern Dynasty Explorations Ltd  
under Section 77 Subsection 22 of The Mining Act, I hereby order that the time for filing reports and plans in support of  
Geological & Geochemical Expenditures assessment work recorded on August 28, 1985  
be extended until and including December 20, 1985.

85-10-10

Date

Signature of Director, Land Management Branch

Copies:

Northern Dynasty Explorations Ltd  
844 West Hastings Street  
Vancouver, B.C.  
V6C 1C8

Mining Recorder  
Sioux Lookout, Ontario



Recorded Holder: NORTHERN DYNASTY EXPLORATIONS LTD  
 Township or Area: SEELEY LAKE AREA

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
<b>Geophysical</b> Electromagnetic ..... days Magnetometer ..... days Radiometric ..... days Induced polarization ..... days Other ..... days Section 77 (19) See "Mining Claims Assessed" column <b>Geological</b> ..... days <b>Geochemical</b> ..... days Man days <input type="checkbox"/> Airborne <input type="checkbox"/> Special provision <input type="checkbox"/> Ground <input type="checkbox"/> <input type="checkbox"/> Credits have been reduced because of partial coverage of claims. <input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	\$5700.00 SPENT ON ASSAYING SAMPLES TAKEN FROM MINING CLAIMS:  PA 817456 to 468 inclusive 817470-76  380 DAYS CREDIT ALLOWED WHICH MAY BE GROUPED IN ACCORDANCE WITH SECTION 76(6) OF THE MINING ACT R.S.O. 1980.

Special credits under section 77 (16) for the following mining claims

No credits have been allowed for the following mining claims

not sufficiently covered by the survey       insufficient technical data filed

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geological - 40; Geochemical - 40; Section 77(19) - 60.



Recorded Holder	NORTHERN DYNASTY EXPLORATIONS LTD
Township or Area	RANDALL LAKE AREA

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	
Electromagnetic _____ days	
Magnetometer _____ days	
Radiometric _____ days	
Induced polarization _____ days	
Other _____ days	
Section 77 (19) See "Mining Claims Assessed" column	
Geological _____ 5.5 _____ days	PA 817456 to 468 inclusive 817470
Geochemical _____ 15.3 _____ days	
Man days <input checked="" type="checkbox"/> Airborne <input type="checkbox"/>	
Special provision <input type="checkbox"/> Ground <input checked="" type="checkbox"/>	
<input type="checkbox"/> Credits have been reduced because of partial coverage of claims.	
<input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	

Special credits under section 77 (16) for the following mining claims

No credits have been allowed for the following mining claims

not sufficiently covered by the survey       insufficient technical data filed  

PA 817454

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geological - 40; Geochemical - 40; Section 77(19) - 60.



**NORTHERN DYNASTY EXPLORATIONS LTD.**

844 West Hastings Street, Vancouver, B.C. V6C 1C8 (604) 682-3727

December 16, 1985

Mr. Arthur Barr  
The Land Management Branch  
Mining Lands Section  
Whitney Block, Queen's Park  
Toronto, Ontario  
M7A 1W3

Dear Mr. Barr:

Please find enclosed two complete copies of the 1985 Assessment Report for our Randall Lake Property (Patricia Mining Division, N.T.S. Sheet 53 B/14). This property is registered under the name of Northern Dynasty Explorations Ltd. of Vancouver, B.C.

If you have any questions concerning this report, please don't hesitate to call myself, Mr. B. Youngman or Mr. G. Gorzynski at the above telephone number.

Yours sincerely,

*David W. Tupper*

D. W. Tupper

DWT/ck  
Encl.

**RECEIVED**

DEC 19 1985

**MINING LANDS SECTION**

SUBSIDIARY: NEW DYNASTY MINES (U.S.), INC.



Ministry of  
Natural  
Resources

Feb. 10/86

1986 01 24

Your Files: 85-36 & 85-137  
Our File: 2.8751

Mining Branch  
Ministry of Northern Development and Mines  
P.O. Box 120  
Sioux Lookout, Ontario  
POV 2T0

Dear Sir:

Enclosed are two copies of a Notice of Intent with statements listing a reduced rate of assessment work credits to be allowed for a technical survey. Please forward one copy to the recorded holder of the claims and retain the other. In approximately fifteen days from the above date, a final letter of approval of these credits will be sent to you. On receipt of the approval letter, you may then change the work entries on the claim record sheets.

For further information, if required, please contact Mr. R.J. Pichette at 416/965-4888.

Yours sincerely,

S.E. Hundt  
Director  
Land Management Branch

Whitney Block, Room 6643  
Queen's Park  
Toronto, Ontario  
M7A 1W3

R.J. SH/mc

Encls.

cc: Northern Dynasty Explorations Ltd  
844 West Hastings Street  
Vancouver, B.C.  
V6C 1C8

Bruce A. Youngman  
P.O. Box 350  
Pickle Lake, Ontario  
P8V 3A0

Mr. G.H. Ferguson  
Mining & Lands Commissioner  
Toronto, Ontario



Ministry of  
Natural  
Resources

Ontario

Notice of Intent  
for Technical Reports

1986 01 24

2.8751/85-136  
85-137

An examination of your survey report indicates that the requirements of The Ontario Mining Act have not been fully met to warrant maximum assessment work credits. This notice is merely a warning that you will not be allowed the number of assessment work days credits that you expected and also that in approximately 15 days from the above date, the mining recorder will be authorized to change the entries on his record sheets to agree with the enclosed statement. Please note that until such time as the recorder actually changes the entry on the record sheet, the status of the claim remains unchanged.

If you are of the opinion that these changes by the mining recorder will jeopardize your claims, you may during the next fifteen days apply to the Mining and Lands Commissioner for an extension of time. Abstracts should be sent with your application.

If the reduced rate of credits does not jeopardize the status of the claims then you need not seek relief from the Mining and Lands Commissioner and this Notice of Intent may be disregarded.

If your survey was submitted and assessed under the "Special Provision-Performance and Coverage" method and you are of the opinion that a re-appraisal under the "Man-days" method would result in the approval of a greater number of days credit per claim, you may, within the said fifteen day period, submit assessment work breakdowns listing the employees names, addresses and the dates and hours they worked. The new work breakdowns should be submitted direct to the Land Management Branch, Toronto. The report will be re-assessed and a new statement of credits based on actual days worked will be issued.

February 25, 1986

Your Files: 85-136 & 85-137  
Our File: 2.8751

Mining Recorder  
Ministry of Northern Development and Mines  
P.O. Box 309  
Sioux Lookout, Ontario  
POV 2T0

Dear Sir:

RE: Notice of Intent dated January 24, 1986  
Geological and Geochemical Surveys and  
Assaying on Mining Claims PA 817454,  
et al, in the Randall Lake and Seeley Lake  
Areas

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The Geological and Geochemical Surveys and Assaying  
assessment work credits as shown on the attached  
statements have been approved as of the above date.

Please inform the recorded holder of these mining  
claims and so indicate on your records.

Yours sincerely,

S.E. Yundt, Director  
Land Management Branch

Mining Lands Section  
Whitney Block, 6th Floor  
Queen's Park  
Toronto, Ontario  
M7A 1W3

Telephone: (416) 965-4888

SH/mc

cc: Northern Dynasty Explorations Ltd  
844 West Hastings Street  
Vancouver, B.C.  
V6C 1C8

Bruce A. Youngman  
P.O. Box 350  
Pickle Lake, Ontario  
P8V 3A0

Mr. G.H. Ferguson  
Mining & Lands Commissioner  
Toronto, Ontario

Resident Geologist  
Sioux Lookout, Ontario

Encl.

**FOR ADDITIONAL**

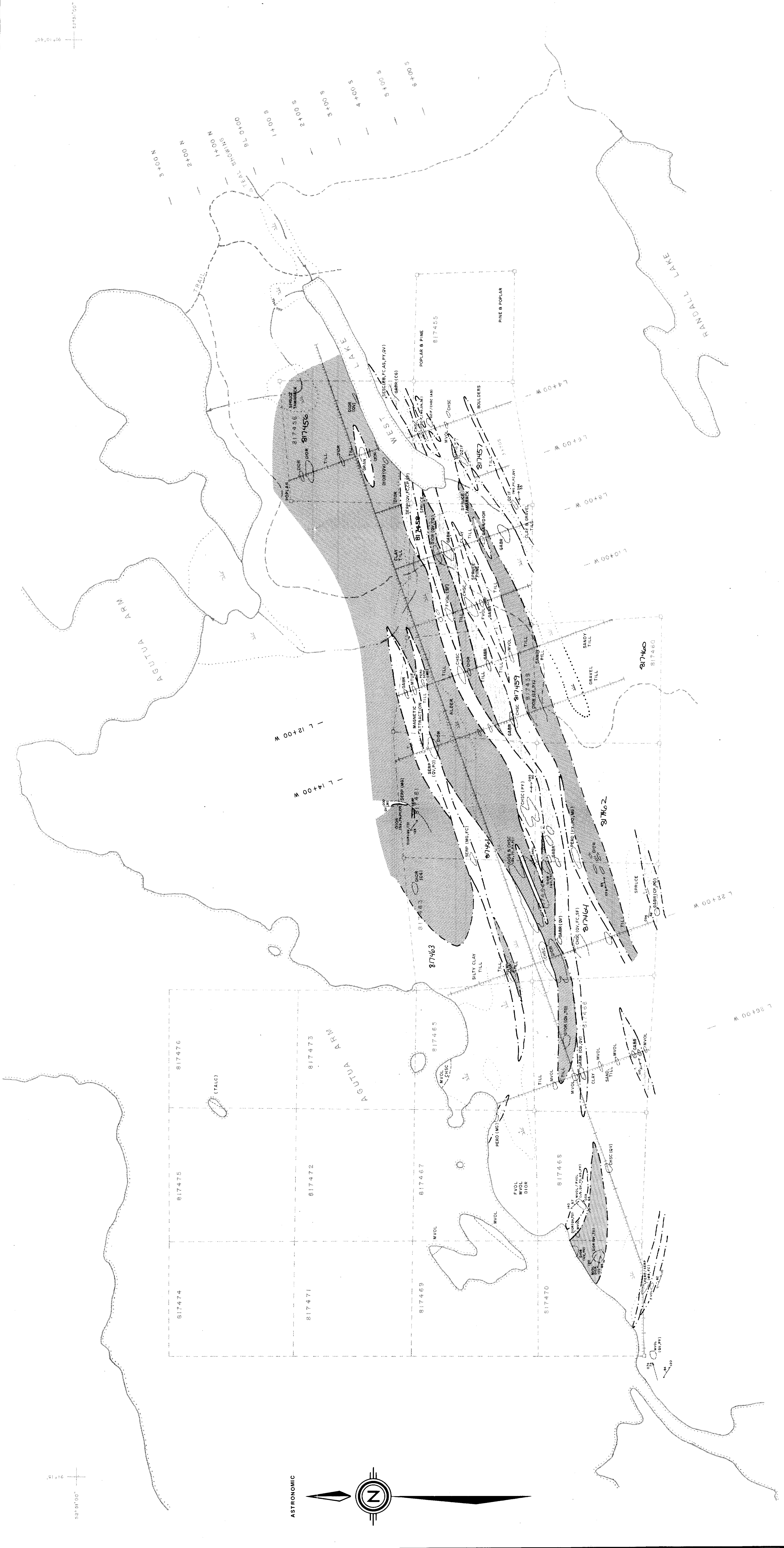
**INFORMATION**

**SEE MAPS:**

53B/14 SE-0019

# 1-4





**LEGEND:**

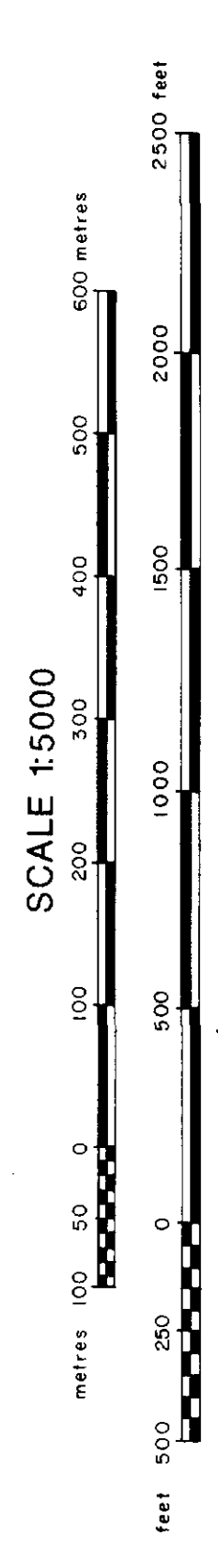
- MUSKEG
- SWAMP
- CREEK
- CLAIM CORNER & LINES
- CLAIM NUMBER
- COMPASS & FLAGGED LINE WITH 10 m STATIONS
- OV QUARTZ VEIN
- TO TOURMALINE
- MG MAGNETITE
- PY PYRITE
- AS ARSENIC
- CP CHALCOPYRITE
- GN GRUNERITE
- SE SERICITE
- FC IRON CARBONATE
- SF STRONG FOLIATION
- CG COARSE GRAINED
- FB FLOAT BOULDERS
- IB INTERBEDDED
- WVOL MAFIC VOLCANIC
- CHSC CHLORITE SCHIST
- FVOL FELSIC VOLCANIC
- SESC SERICITE SCHIST
- ARGL ARGILLITE
- OZIF SILICEOUS IRON FORMATION
- MTUF MAFIC LAPILLI TUFF
- GABR GABBRO
- PERD PERIDOTITE
- SERP SERPENTINE
- DIOR DIORITE
- GRAN GRANITE

- OUTCROP
- GEOLOGIC CONTACT (OBSERVED, INFERRED)
- BEDDING (S<sub>0</sub>)
- MAIN FOLIATION (S<sub>m</sub>)
- MINOR 'S' SYMMETRY FOLD AXIS
- LINEATION (KINK FOLD)

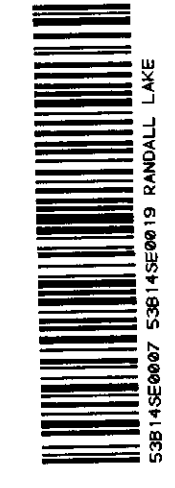
**ONTARIO GOLD JOINT VENTURE**  
 NORTHERN DYNASTY EXPLORATIONS LTD.  
 RANDALL LAKE CLAIM BLOCK

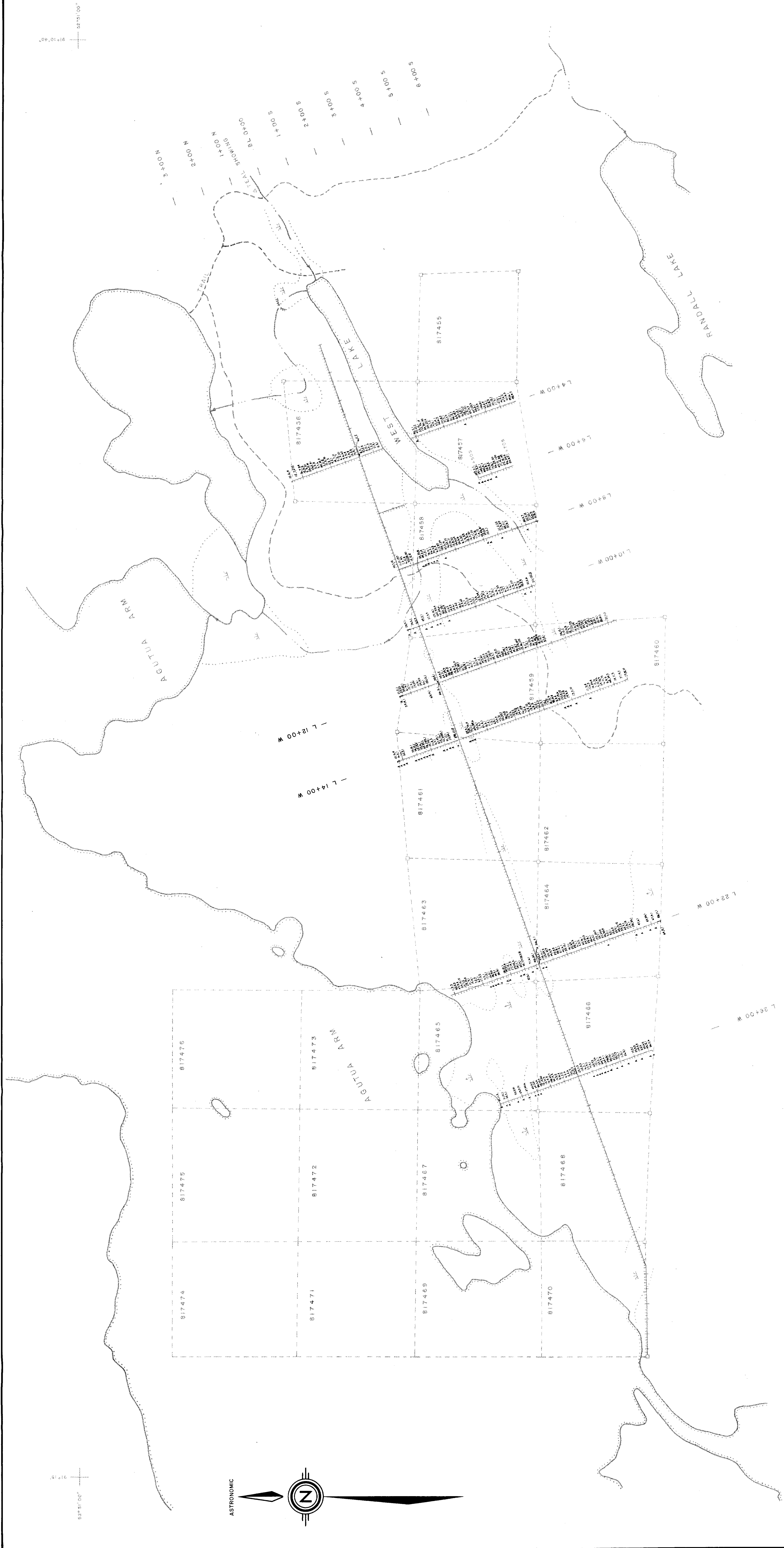
**GEOLOGY**

NTS 53 B/14 RANDALL LAKE G-2182



53B/14SE-0019 #1





**ONTARIO GOLD JOINT VENTURE**  
 NORTHERN DYNASTY EXPLORATIONS LTD  
 RANDALL LAKE CLAIM GROUP

**Cu,As,Au - GRID SOIL GEOCHEMISTRY**

28151

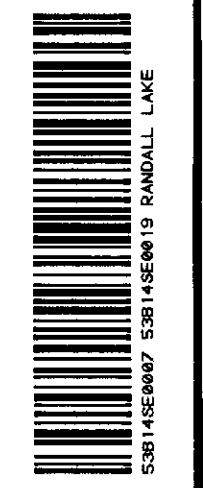
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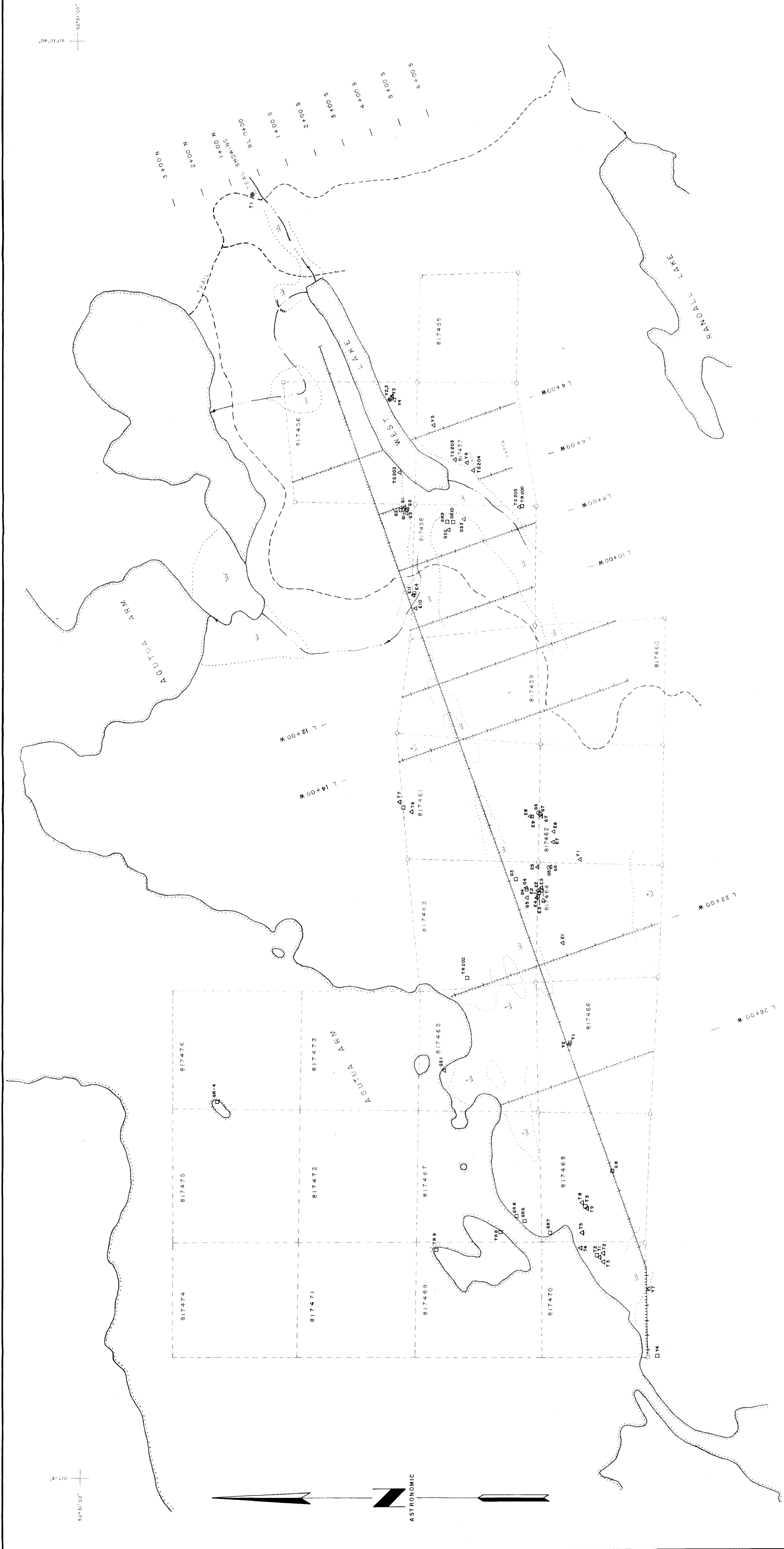
SCALE 1:5000



- LEGEND:**
- MUSKEG
  - SWAMP
  - CREEK WITH DIRECTION OF FLOW
  - CLAIM CORNER, CLAIM LINE & CLAIM NUMBER
  - COMPASS & FLAGGED LINE WITH 10 METRE STATIONS
  - SOIL SAMPLE LINE WITH As in ppm, B, Au in ppb
  - AN 'A' INDICATES A-SOIL HORIZON, 'ALL OTHER SAMPLES ARE B-SOIL HORIZON.

53B/14SE-0019 #2





ONTARIO GOLD JOINT VENTURE  
 NORTHERN DYNASTY EXPLORATIONS LTD.  
 RANDALL LAKE CLAIM BLOCK

**SAMPLE LOCATION MAP**

NTS 53B/14 RANDALL LAKE G-2182

SCALE 1:5000



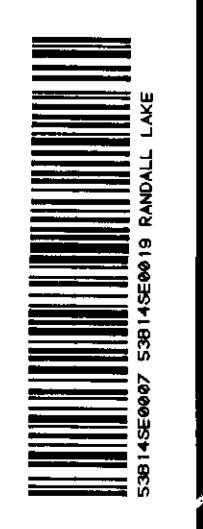
28751

53B/14SE-0019 #3

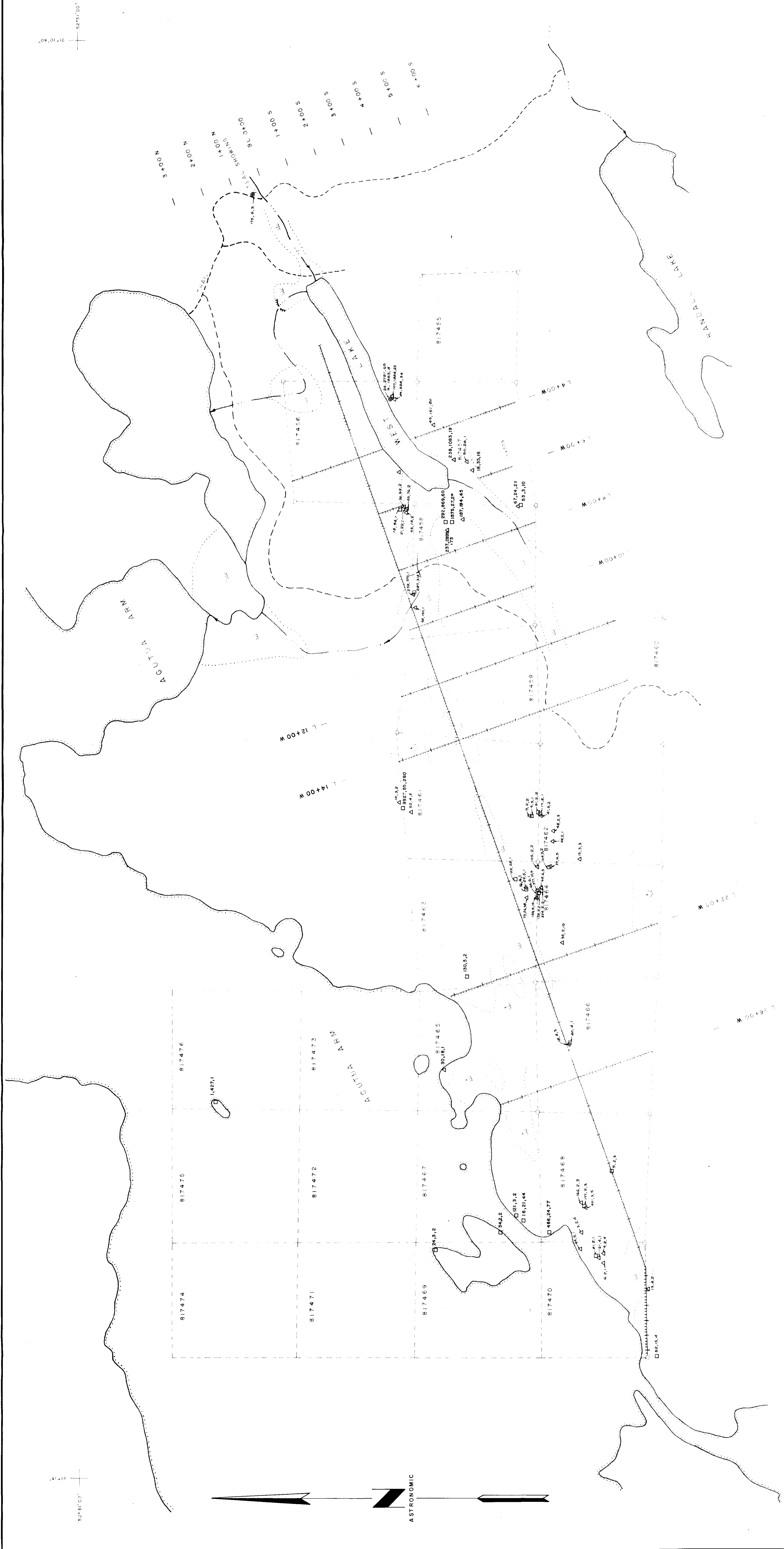
AUGUST 1985

PLATE 3

- LEGEND**
- MUSKEG
  - SWAMP
  - CREEK WITH DIRECTION OF FLOW
  - CLAIM CORNER, CLAIM LINE & CLAIM NUMBER
  - COMPASS & FLAGGED LINE WITH 10 METRE STATIONS
  - ROCK SAMPLE & NUMBER
  - SOIL SAMPLE & NUMBER
  - FLOAT BOULDER SAMPLE AND NUMBER
  - 1984 SAMPLES



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ONTARIO GOLD JOINT VENTURE  
 NORTHERN DYNASTY EXPLORATIONS LTD.  
 RANDALL LAKE CLAIM BLOCK

Cu,As,Au - GEOCHEMISTRY

NTS 53B/14 RANDALL LAKE G-2182

SCALE 1:5000

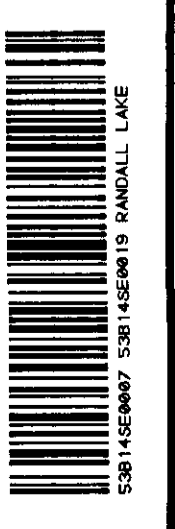


53B/14SE-0019 #4

AUGUST 1985

PLATE 4

- LEGEND**
- MUSKEG
  - SWAMP
  - CREEK WITH DIRECTION OF FLOW
  - CLAIM CORNER, CLAIM LINE & CLAIM NUMBER
  - COMPASS & FLAGGED LINE WITH 10 METRE STATIONS
  - ROCK SAMPLE & Cu in ppm, As in ppm, Au in ppb
  - SOIL SAMPLE & Cu in ppm, As in ppm, Au in ppb
  - FLOAT BOULDER SAMPLE & Cu in ppm, As in ppm, Au in ppb
  - 1984 Cu, As, Au VALUES



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