

1980
DIAMOND DRILLING REPORT
on the
CEDARFLAT CREEK PROPERTY

CENTERED AT CO-ORDINATES:
49° 28'N, 121° 6'W
N.T.S. 92H/6E

T. D. Lewis, P. Eng.
NORANDA EXPLORATION COMPANY, LIMITED
(No Personal Liability)
KAMLOOPS, B.C.
DECEMBER, 1980

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INTRODUCTION

Noranda Exploration Company, Limited (No Personal Liability) optioned the Cedarflat Creek Property from Chris Larsen in January, 1980. The property consists of one 12 unit claim called C.F. #27222, located on June 30, 1979.

Previous work on the property consists of numerous partially caved trenches and a slumped adit. It is not known when this work was completed, probably 30 to 40 years ago. In 1967, Craigmont Mines Limited optioned the property for the purposes of magnetic, geochemical and geological surveys (see Report on Geological, Geophysical, and Geochemical Surveys on the Rainy Nos. 1 to 32 mineral claims by R.J. Young, 1967).

During late June, 1980, Noranda crews established a 17.9 km grid, to follow-up and extend the Craigmont work. Magnetometer, C.E.M., soil geochemistry, and geological mapping surveys were performed to further assess the property.

In October, 1980, Noranda initiated a diamond drill program to test the C.E.M. conductor and soil geochemical anomaly over the metasediments. Two angle holes were drilled totalling 112.28 meters of E size core. The core was logged by T.D. Lewis and transported to the Kamloops office for storage. Ivor Saunders supervised the drilling and field operations.

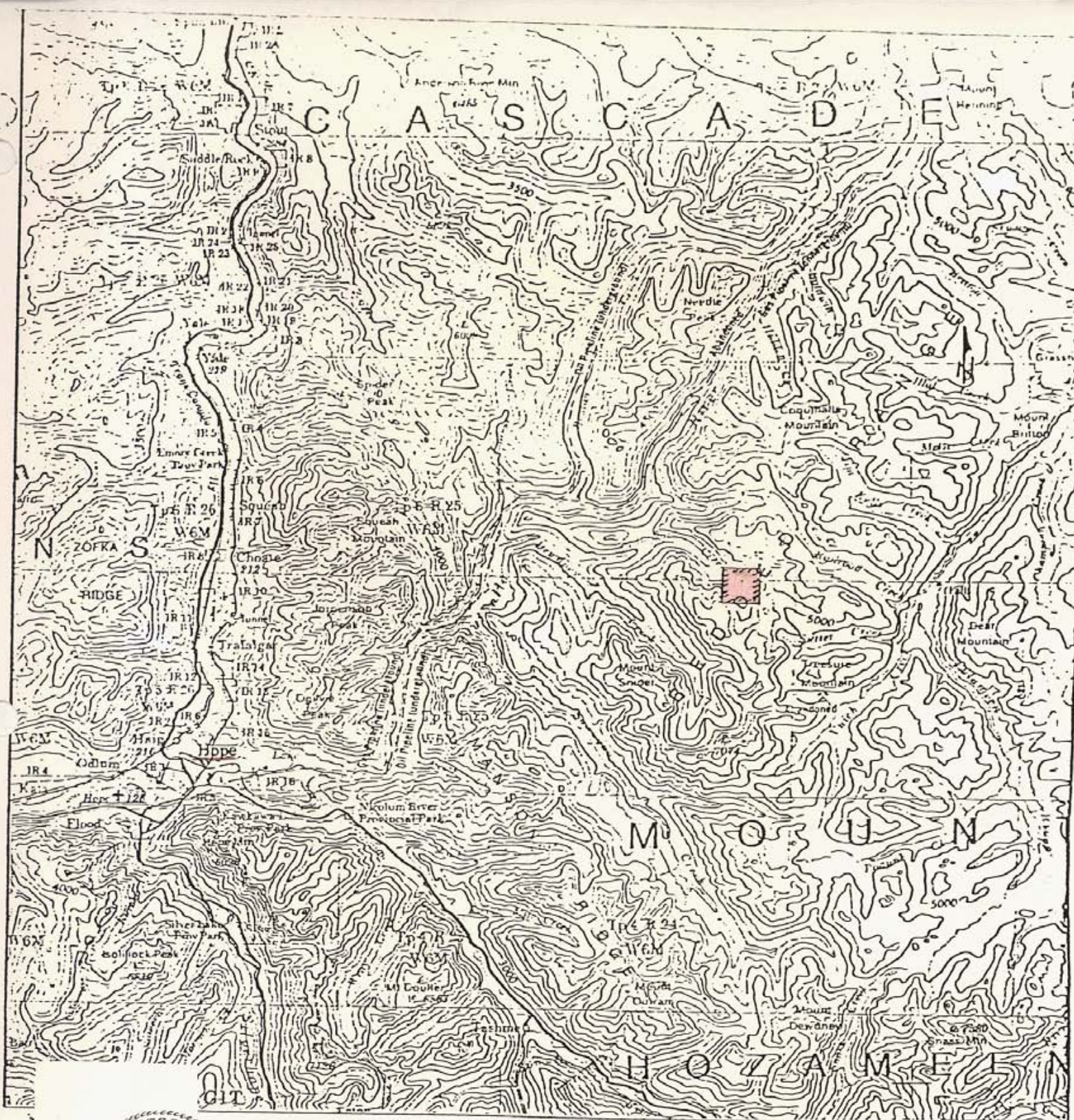
LOCATION AND ACCESS

The Cedarflat Creek Property is situated at the headwaters of Cedarflat Creek, which is 27 (air) kilometers at 075 (true) from Hope, B.C. Cedarflat Creek is a northwesterly draining tributary of Dwdney Creek, which in turn empties into the Coquihalla River.

Access to the property is gained by a fifteen minute helicopter trip from Hope, B.C. A logging landing offers good landing site, and is only .5 km from the showings (adit). Until recently, a four wheel drive road offered access from the Coquihalla River, up Dewdney Creek, and on to a side road up Cedarflat Creek. However, bridge washouts and numerous slides have rendered the road impassable.

CLAIM STATISTICS

The Cedarflat Creek Property is covered by one 12 unit claim staked by Chris Larsen, R.R. #3, Chilliwack, B.C., V2P 6H5. The claim was optioned

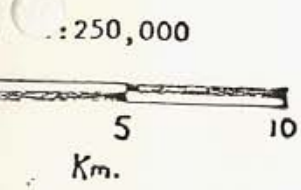


Thomas D. Lewis
 PROFESSIONAL
 ENGINEER
 THOMAS D. LEWIS
 BRITISH COLUMBIA

INDEX MAP
 Showing the General Location
 of
 C.F.NO. 27333 Mineral Claim
 Cedarflat Creek Area, B.C.
 Noranda Exploration Company, Limited

FIG. 1

New Westminster
 Mining Division
 December, 1980



to Noranda Exploration Company, Limited (No Personal Liability) in December, 1979. The claim is located within the New Westminster Mining Division.

<u>Claim Name</u>	<u>Record No.</u>	<u>Record Date</u>	<u>Units</u>
C.F. No. 27333	495	July 9, 1979	12

DIAMOND DRILLING

Equipment

Two E size (21.5 mm diameter) diamond drill were drilled powered by a portable winkee drill. The drill was flown onto the property by a 206B Jet Ranger owned by Highland Helicopters.

Drilling of the Cedarflat Creek Property was contracted out to Drilcor Industries Limited, of Vancouver, B.C. Ivor Saunders, a Noranda employee from Kamloops, supervised the drilling program.

Drilling Statistics

<u>Hole No.</u>	<u>Location</u>	<u>Direction/Dip</u>	<u>Depth</u>	<u>Collared</u>	<u>Completed</u>
NC - 1	101N, 102+50E	060°/-60°	55.38m	16Oct.80	22Oct.80
NC - 2	100N, 102E	060°/-60°	56.9m	23Oct.80	27Oct.80

Drilling Results

The diamond drill program was initiated to test a coincident C.E.M., and Cu - Zn soil geochemical anomaly. These anomalies were found earlier this year by Noranda crews (see Geological, Geochemical and Geophysical Report on the Cedarflat Creek Property, T. Lewis, July 1980).

Two angle holes were drilled on the anomaly. The holes were oriented perpendicular to both strike and dip. In addition, the holes were staggered along the strike of the stratigraphy, to maximize the test area.

Diamond drilling and assay results on the property indicate the anomalies were due to weak pyrrhotite-sphalerite-pyrite carbonate veinlets. The veinlets are very narrow (<2mm) and occur at infrequent intervals at varying angles to the core. Selected intervals were split and assayed by Kamloops Research and Assay Laboratory. All assays have been entered adjacent to the appropriate sample interval on the drill log sheets. Gold and silver values are reported in terms of ounces per ton, while copper and zinc are reported in percentages.


Thomas D. Lewis
 Thomas D. Lewis, P. Eng.
 District Geologist

Noranda Exploration Company, Limited
(No Personal Liability).


APPENDIX I

Statement of Qualifications

STATEMENT OF QUALIFICATIONS

I, Thomas D. Lewis of the City of Kamloops, Province of British Columbia, do certify that:

1. I have been employed as a geologist by Noranda Exploration Company, Limited since April, 1979.
2. I am a graduate of Queen's University with a Bachelor of Applied Science in Geology (1975).
3. I am a member of the Association of Professional Engineers of the Province of British Columbia.
4. I am a member of the Canadian Institute of Mining and Metallurgy.


Thomas D. Lewis
Thomas D. Lewis, P.Eng.,
Geologist,
Noranda Exploration Company, Limited
(No Personal Liability)

APPENDIX II

DRILL LOGS

NORANDA EXPLORATION COMPANY, LIMITED

Collared 16 Oct 80	Completed 22 Oct 80	Core Size E	Property Cedarflat Creek	Project No 48	NTS No. 92H/6 E
FIELD COORDINATES			SURVEYED COORDINATES		
Lat. 101N	Elev.	Dip -60°	Lat.	Elev.	Dip
Dep. 102+50E	Depth 55.38m	Bearing 060°	Dep.	Depth	Bearing
			Hole No. DDH NC-1		

Footage	Rec'y	Graphic Log	Description	% Sulp.	Est. Grade	Sample No.	Lt.	bedding angle to core axis	Au	Ag	Cu	Zn
0m-3.2m		o/b	overburden									
3.2m-11.98m	80%		Fine grained, grey, weakly bedded <u>siltstone</u> . Siltstone shows evidence (brecciation) of post depositional slumping. Minor sulphides (mainly pyrrhotite and sphalerite) along hairlike carbonate veinlets at 40° to core axis.	< 1%				50°				
			Sulphides occur in open spaces in the breccia as well. Note: Some evidence of ground core. (6.95m)									
			8.31m - hand sample of py-sph mineralization			8.31m						
			10.8m - 10.95m - possible fault zone, healed with carbonate, po, and sph. - hand sample			10.8m-10.95m		45°				
			11.6m - mottled bedding									
11.98m-12.98m			As above - increase in po, and py - sampled to check for Au & Ag.			11.98m-12.98m			.002	.05	.01	.02
12.98m-34m			As above - 12.98m - 17.22m - increase in po and py.	1%								
			Note: Pyrrhotite + sphalerite in carbonate fractures occur on the average of one every meter. Thickness is up to 2cm. Angle core to fractures about 70-80°, 15°.									
	95%		23.9m - 24.2m - gritty tuffaceous sandstone.									
			26.65m - 27.15m - bleached grey siltstone with a 2cm quartz vein at 80° to core axis.									
			31.65m - 31.7m - greenish grey laminated siltstone.					45°				

Thomas J. Lewis
 PROFESSIONAL ENGINEER
 BRITISH COLUMBIA
 REGISTERED

NORANDA EXPLORATION COMPANY, LIMITED

Collared		Completed		Core Size		Property Cedarflat Creek			Project No 48		NTS No.				
FIELD COORDINATES						SURVEYED COORDINATES						Sheet 2 of 4			
Lat.		Elev.		Dip		Lat.		Elev.		Dip		Hole No. DDH NC-1			
Dep.		Depth		Bearing		Dep.		Depth		Bearing					
Footage	Rec'y	Graphic Log	Description				% Sulp.	Est. Grade	Sample No.	Lt.	angle to core	AU	Ag	Cu	Zn
			33.8m - 34.0m - 1cm calcite-po-sph veinlet at 20° to core axis.												
34.0m-41.75m			Grey, fine grained tuffaceous sandstone, with interbedded grey siltstone. Similar to siltstone with tiny white fragments. Fragments appear subangular in shape. Very little sulphides - except for occasional gash filling.												
			35.8m - 35.82m - interbedded grey siltstone. - hand sample				1/2-1%		35.80m-35.82m		60°				
			36.0m - 36.17m - increase in po, minor pyrite 38.7m - 6cm of pyrrhotite in a 1cm quartz vein								25°				
			Angle to core about 25° 39.5m - 2-4cm of pyrrhotite + minor sphalerite in a quartz vein								20°				
			40.15m - distorted bedding, rock is somewhat bleached, weak bedding								50°				
41.75m-42.75m	90%		Grey, gritty sandstone - slight increase in grain size, with a marked increase in pyrite. Rock is more fractured.				1-2%		41.75m-42.75m			.004	.11	.03	.23
42.75m-43.6m			As above:												

DATE November 24/80

LOGGED BY T. Lewis

NORANDA EXPLORATION COMPANY, LIMITED

Collared	Completed	Core Size	Property Cedarflat Creek	Project No 48	NTS No.
FIELD COORDINATES			SURVEYED COORDINATES		
Lat.	Elev.	Dip	Lat.	Elev.	Dip
Dep.	Depth	Bearing	Dep.	Depth	Bearing


Sheet **3** of **4**
Hole No. **DDH NC-1**

Footage	Rec'y	Graphic Log	Description	% Sulp.	Est. Grade	Sample No.	Lt.	angle to core axis	Au	Ag	Cu	Zn
43.6m-44.5m			Gradational contact into a <u>mixed, pebble conglomerate</u> , with interbedded grey gritty sandstone. Fragments consist of subrounded, black siltstone, buff to white chert, green chert, in a greenish grey gritty matrix. Both matrix and fragments contain finely disseminated pyrite.	<1%				50°				
44.5m-50.9m			Weakly bedded, salt and pepper coloured and textured, <u>sandstone</u> , with interbedded mixed conglomerate.									
			45.26m - 45.46m - conglomerate. - hand sample			45.36m-45.46m						
			47.55m - 47.6m - minor brecciation (fault) healed by quartz.									
			47.85m - 2cm of pyrrhotite.									
			48.66m - 48.75m - quartz-pyrrhotite quartz vein, with disseminated pyrite envelope (hand sample taken)			48.66m-48.75m						
50.9m-51.9m			As above - increase in po + sph, plus some brecciation - minor argillic alteration.			50.9m-51.9m			.002	.09	.02	1.42
51.9m-54.0m			Brecciated <u>mixed conglomerate</u> - It appears the conglomerate was brecciated after deposition, and this brecciation appears related to the introduction of pyrrhotite - as pyrrhotite occurs in the open spaces of the breccia.									










NORANDA EXPLORATION COMPANY, LIMITED

Collared 23 Oct 80	Completed 27 Oct 80	Core Size E	Property Cedarflat Creek	Project No 48	NTS No. 92H/6E
FIELD COORDINATES			SURVEYED COORDINATES		
Lat. 100N	Elev.	Dip -60°	Lat.	Elev.	Dip
Dep. 102E	Depth 56.9m	Bearing 060°	Dep.	Depth	Bearing
			Hole No. DDH NC-2		


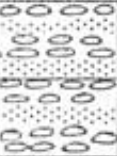

Footage	Rec'y	Graphic Log	Description	% Sulp.	Est. Grade	Sample No.	Lt.			
0-3m		o/b	overburden							
3m-10.72m	80%		Interbedded, greenish grey <u>siltstone</u> , with lesser sandstone. Occasional partings of pyrrhotite and sphalerite. Bedding is very vague.							
10.72m-11m			Monolithic, <u>felsic tuff</u> - Fragments are buff grey coloured, with vague borders, subrounded to subangular in shape, and most fragments are less than 2mm across. Matrix is a grey grit.							
11m-15.06m			<u>Siltstone</u> with interbedded sandstone - as above							
15.06m-21.9m			Monolithic <u>felsic tuff</u> - occasional fracture containing minor pyrrhotite.							
			16.5m - tuff becomes very mottled, so as the fragments are difficult to see. In previous hole this "salt and pepper" texture was referred as a gritty sandstone. Occasional parting of minor pyrrhotite + sphalerite.							
			Occasional calcite veinlet at 50-70° to core axis.							
			21.8m - hand sample of tuff.							

Thomas Lewis


NORANDA EXPLORATION COMPANY, LIMITED

Cullared		Completed		Core Size		Property Cedarflat Creek			Project No 48		NTS No.		
FIELD COORDINATES						SURVEYED COORDINATES						Sheet 2 of 3	
Lat.		Elev.		Dip		Lat.		Elev.		Dip		Hole No.	
Dep.		Depth		Bearing		Dep.		Depth		Bearing		DDH NC-2	
Footage	Rec'y	Graphic Log	Description					% Sulp.	Est. Grade	Sample No.	Lt.	angle to core axis	
21.9m-43.8m	95%		Gritty grey tuffaceous sandstone, with minor interbedded siltstone. Occasional fracture - filled pyrrhotite veinlet at 45° to core. Also, small (1-2mm) white fragments occur throughout.										
			31m - 31.5m - bleached core, with occasional (one every .5m) pyrrhotite - pyrite ± sphalerite carbonate veinlet.										
	95%		32.0m - 32.5 - bleached core with occasional epidote bleb and minor pyrrhotite-pyrite					1/2%					
			34 - 34.3m - bleached core, minor epidote, and occasional veinlet of pyrrhotite-pyrite										
			38.7m - 2cm pyrrhotite - calcite veinlet with a bleached envelope around veinlet.									40°	
			39.7m - 2cm calcite - pyrrhotite veinlet.									20°	
			42.3m - 42.5m - monolithic felsic tuff.										
43.8m-46.1m			Dominantly salt and pepper textured, sandstone with interbedded quartz pebble conglomerate. Long axis of pebbles at 90° to core. Occasional veinlet of quartz-carbonate pyrrhotite ± sphalerite.									90°	
46.1m-49.9m			Mixed pebble conglomerate, with minor interbedded "salt and pepper" sandstone. Occasional calcite-pyrrhotite veinlets.									45°	

NORANDA EXPLORATION COMPANY, LIMITED

Collared		Completed	Core Size	Property Cedarflat Creek		Project No 48	NTS No.							
FIELD COORDINATES				SURVEYED COORDINATES				Sheet 3 of 3						
Lat.		Elev.	Dip	Lat.		Elev.	Dip		Hole No. DDH NC-2					
Dep.		Depth	Bearing	Dep.		Depth	Bearing							
Footage	Rec'y	Graphic Log	Description				% Sulp.	Est. Grade	Sample No.	Lt.				
49.9m- 52.3m			"Salt and pepper" textured <u>sandstone</u> with interbedded conglomerate.											
52.3m- 55.1m	100%		<u>Conglomerate</u> with interbedded sandstone.											
55.1m- 56.9m			"Salt and pepper" <u>sandstone</u> 56.5m - 2cm quartz - pyrrhotite - pyrite veinlet at 75° to core axis.											
			End of Hole											

APPENDIX III

Statement of Cost

NORANDA EXPLORATION COMPANY, LIMITED

STATEMENT OF COST

PROJECT LARSEN OPTION - CEDARFLAT (3)

DATE November 1980

TYPE OF REPORT DIAMOND DRILLING

a) Wages:

No. of Days	25		
Rate per Day \$	88.2836		
Dates From:	Oct. 1 to Nov. 28, 1980		
Total Wages	25	x \$ 88.2836	<u>2,207.09</u>

b) Food and Accomodation:

No of days	25		
Rate per day \$	12.4936		
Dates From:			
Total Cost	25	x \$ 12.4936	<u>312.34</u>

c) Transportation:

No of days	25		
Rate per day \$	106.076		
Dates From:			
Total Cost	25	X \$ 106.076	<u>2,651.90</u>

d) Instrument Rental:

Type of Instrument			
No of days			
Rate per day \$			
Dates From:			
Total Cost		X \$	

Type of Instrument			
No of days			
Rate per day \$			
Dates From:			
Total Cost		X \$	

f) Analysis
(See attached schedule)

g) Cost of preparation of Report

Author	1 Day @ 88.2836	88.28	
Drafting	1 Day @ 120.00	120.00	
Typing	1 Day @ 100.00	<u>100.00</u>	<u>228.28</u>

h) Other:

Drilcore Diamond Drill Contract		9,698.76	
Supervision: D.E. Cross P. Eng.			
G.E. Dirom P. Eng.			
2 Days @ 240.00		<u>480.00</u>	<u>10,178.76</u>

Total Cost \$15,578.37

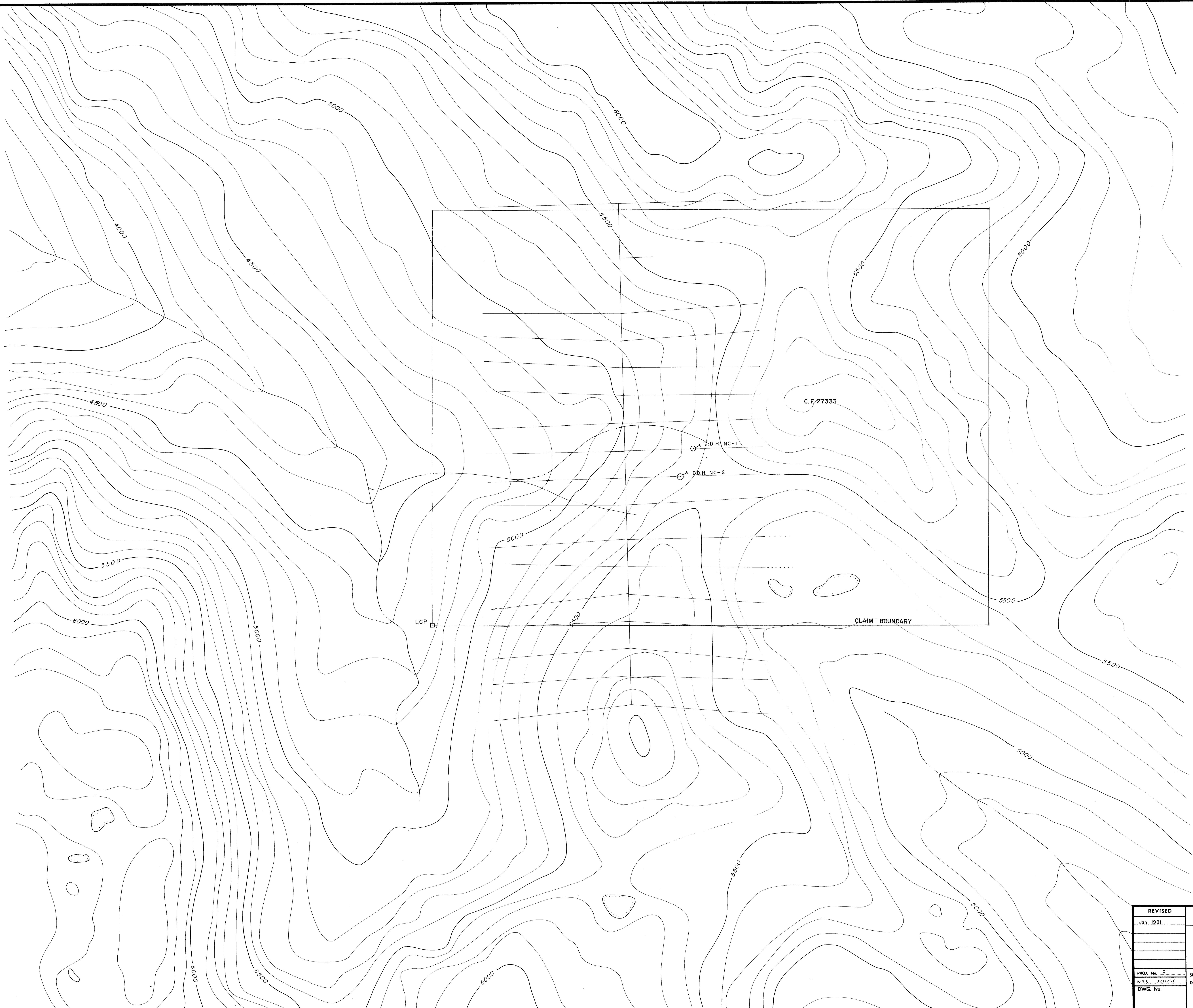
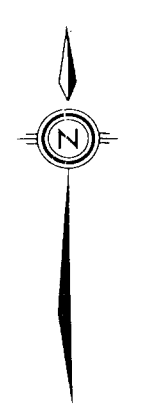
e) Unit costs for Diamond Drilling

No of days

No of units 113.38 M

Unit costs \$137.3996 / M

Total Cost 113.38 × \$137.3996 \$15,578.37



MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
8884
NO.

Thomas D. Lewis
PROFESSIONAL ENGINEER
No. 12345



REVISED	CEDAR FLAT PROPERTY	
Jan. 1981	DIAMOND DRILL HOLE PLAN	
PROJ. No. 011	SURVEY BY: J.K.V.	DATE: APRIL, 1980
N.T.S. 92 H/6 E	DRAWN BY: J.K.V.	SCALE: 1:5000
DWG. No.	NORANDA EXPLORATION	
	OFFICE: VANCOUVER	

1680 m.
 1670 m.
 1660 m.
 1650 m.
 1640 m.
 1630 m.
 1620 m.
 1610 m.
 1600 m.
 1590 m.
 1580 m.

D.D.H. NC-1

o/b

Siltstone

o/b

50°

45°

Sandstone with
interbedded siltstone

Mixed pebble
conglomerate
Sandstone
Conglomerate
Sandstone

34.0 m.

45°

60°

43.6 m.

44.5 m.

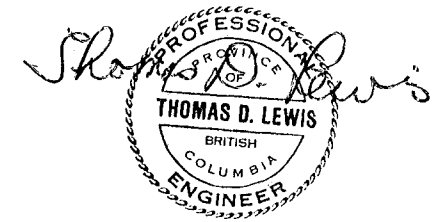
50°

51.9 m.

54.0 m.

55.38 meters

MINERAL RESOURCES BRANCH
 ASSESSMENT REPORT
8884
 NO. _____

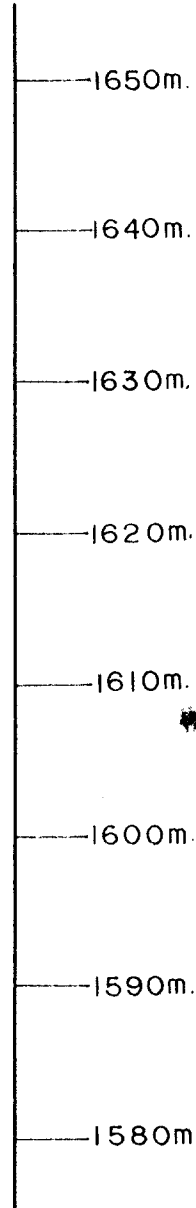


CEDARFLAT CREEK PROPERTY

SECTION OF D.D.H. NC-1
 (looking northwest)

DWG. BY: T. L.	DATE: DEC. 1980.
N.T.S. 92H/6E	SCALE: 1:500

NORANDA EXPLORATION CO., LTD.



D.D.H. NC-2

o/b

o/b

Interbedded siltstone
with sandstone
Felsic tuff
Siltstone
Felsic tuff

Tuffaceous sandstone

Sandstone
Conglomerate
Sandstone
Conglomerate
Sandstone

10.72m.
11. m.
15.06m.

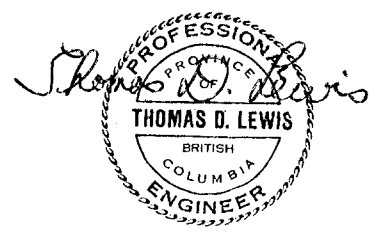
21.9m.

43.8m.
46.1m.
49.9m.
52.3m.
55.1m.

90°

56.9meters

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
8884
NO. _____



CEDARFLAT CREEK PROPERTY	
SECTION OF D.D.H. NC-2 (looking northwest)	
DWG. BY : T.L.	DATE : DEC. 1980.
N.T.S. 92H/6E	SCALE : 1:500
.NORANDA EXPLORATION CO., LTD.	