

GREAT WESTERN PETROLEUM CORPORATION  
GEOCHEMICAL REPORT ON  
THE NEX CLAIMS (NEX GROUP)  
WATSON LAKE MINING DISTRICT

Long. 132<sup>0</sup>/39'W

Lat. 61<sup>0</sup>/38'N

NTS: 105F/10

AUTHOR: L.K. ECCLES

DATE: Dec. 8, 1981

*L. Eccles*

090978

This report has been examined by  
the Geology Division, Yukon Unit  
under Section 10 of the Yukon Quartz  
Mining Act and is returned as  
represented with it the amount  
of \$ 3,600.

*Robinson*

*for* Registrar, Exploration and  
Geology Services for Commissioner  
of Yukon Territory.

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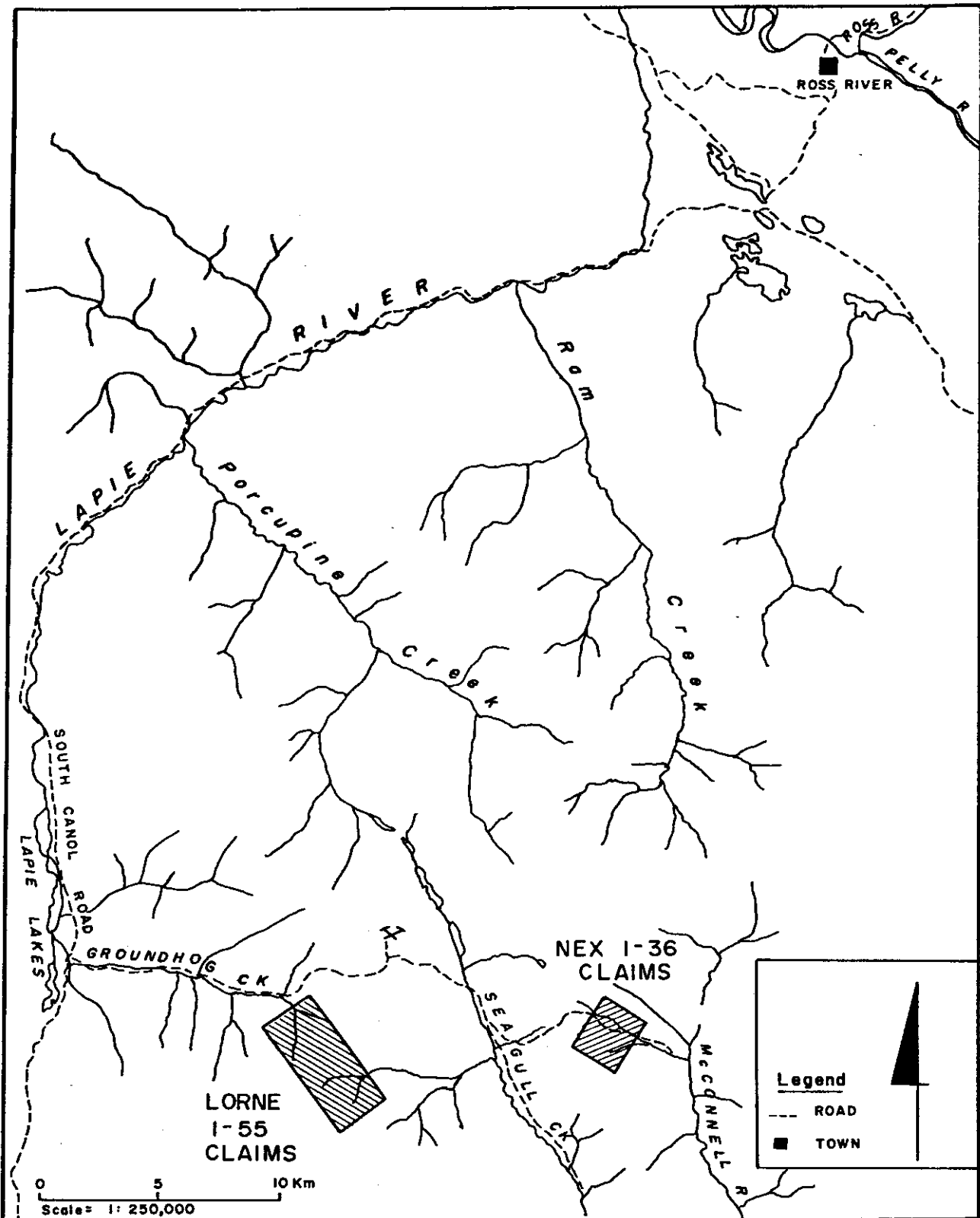
## INTRODUCTION

A government geochemical survey conducted over the NTS Map Sheet 105F in 1978 (G.S.C. open file 564) showed anomalous barium, lead, zinc and silver values coming from near the headwaters of a tributary flowing easterly into the McConnell River. A group of 36 mineral claims were staked in April 1981 on behalf of the Seagull Joint Venture to cover the surrounding hills and the upper reaches of this tributary.

Assessment work in the form of sidehill soil geochemistry, silt sampling and prospecting was done on the Nex Claims in July 1981.

## LOCATION AND ACCESS

The claims covering the Nex project area are located 45 kilometers due south of the town of Ross River, Yukon (see Figures SJV-81-12 and 14) and are accessible by road or helicopter. Access by road from Ross River is south along the Canal Road about 75 kilometers, to where a mining road takes off to the east and follows Groundhog Creek to its headwaters, heads over a pass and into the Seagull Creek Valley. Another smaller exploration road forks off the main Seagull Creek road and heads up and over a ridge parallelling Seagull Valley and through the centre of the Nex Claims.



NTS 105 F/10

Figure SJV-81-12 SEAGULL JOINT VENTURE  
 LOCATION OF LORNE AND NEX CLAIMS

In 1981 this road was only driveable to an elevation of 1830 meters on the west side of the ridge. Minor work could upgrade this road to make it driveable through the claims.

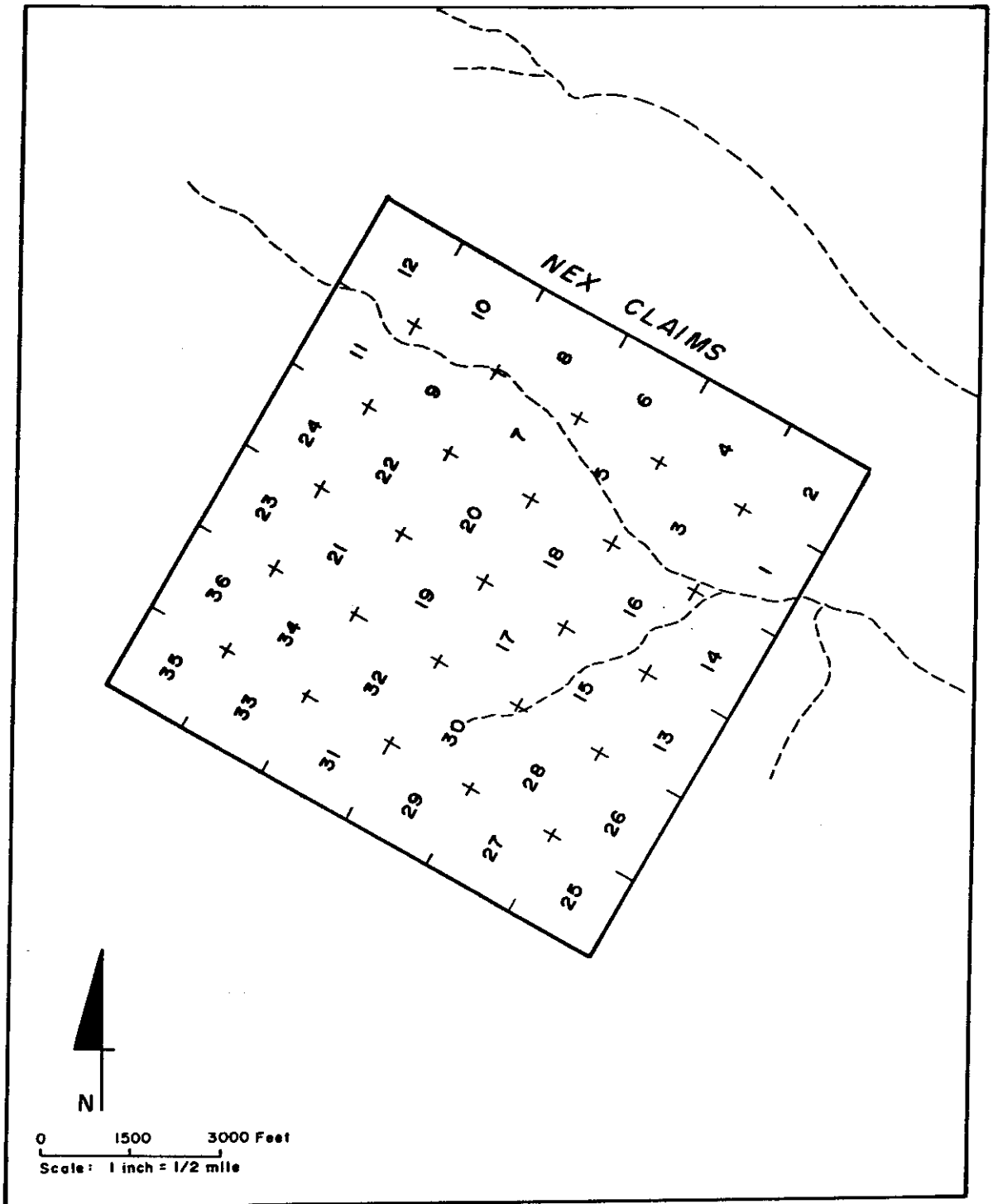
Total distance from the South Canal Road turnoff to the Nex claims is 27 kilometers.

### PHYSIOGRAPHY AND VEGETATION

Elevations on the claims vary between 1400 and 2000 meters above sea level. Alpine vegetation consisting of grasses and low shrubs is found at elevations above 1650 meters, while black spruce and thick buckbrush occupy the sidehills and valley bottoms.

The area is subject to abundant snowfall in winter and can remain snowbound till mid-June in bad years.

Sidehills are very steep often forming cliffs with blocky talus below. Thick overburden in valley bottoms and on sidehills obscures bedrock.



NTS: 105 F/10

Figure. SJV-81-14 SEAGULL JOINT VENTURE  
 LOCATION OF NEX 1-36 CLAIMS

HISTORY

The road through the centre of the property with sideroads and trenches branching off it and the remains of an old camp suggest considerable time and money have been spent on part of this property. Remains of drill cores are still stacked in one of the sheds. Two small claims called the Coot 1 and 2 cover the area where the old camp is located and include some of the more impressive trenches in the lower part of the valley. These claims are owned by the estate of Pete Verslucce and are valid until August 21, 1983. The Watson Lake Mining Recorder managed to find that the ground covered by the claims was at one time or another covered by the Cone, Alice, Dempy, Coot, PV, CC, AP, Jack, Jeff, JD and Della claims. The only work recorded on any of these claims was trenching.

In July 1981 work consisting of sidehill sampling, stream sampling and prospecting was performed on the Nex Claims.

LIST OF CLAIMS

<u>Claims</u>	<u>Group</u>	<u>Grant Nos.</u>	<u>Recording Date</u>
Nex 1-36	Nex	YA58189-58224	April 23, 1981

OWNER AND OPERATOR

The claims are currently owned and operated on behalf of Seagull Joint Venture by Great Western Petroleum Corporation under an agreement with Lornex Mining Corporation.

ECONOMIC ASSESSMENT OF THE PROPERTY

Boulders of massive sulfide running high in lead, silver, zinc and copper were recovered from old trenches and scree slopes on the Nex Claims. No massive sulfide mineralization was seen in outcrop but the angularity of the boulders indicates they have not travelled very far. From evidence of past work, considerable effort has been directed to exploring for the source of the massive sulfide float. It is not known whether any bedrock mineralization was discovered by this work. The writer feels that this area has some potential for a volcanogenic massive sulfide or skarn type deposit.

## GEOCHEMICAL PROGRAM

Sidehill and stream sediment sampling was undertaken in order to get some useful information on the Nex claims in an efficient manner. Sidehill samples were collected every 200 meters, 30-60 meters above the valley floor at the "break in slope" where the steep sidehill merges with the valley topography. Soil samples were collected with stonemason hammers and put into gusseted, high strength kraft paper bags.

Stream sediments were collected every 100 meters using small scoops and similar sample bags. All tributaries of the main creeks and dry gullies were also sampled.

Altimeters, hip chains and 1:10,000 scale blow-ups of the government topographic maps were used for control and Sample stations were flagged and labelled.

Some rock samples were also collected and analyzed geochemically. If galena mineralization was present the rocks were also assayed.

A total of 42 silts, 42 soils and 11 rocks were collected from the Nex claims.

Samples were analyzed at Vangeochem Labs in North Vancouver for copper, lead, zinc, silver, gold and tungsten. Rock assays were done at Acme Analytical Laboratories.

Procedures for geochemical analysis and assaying are listed in Appendix 'A' at the back of this report.

### Interpretation

Background, weakly anomalous, moderate and highly anomalous values for each element analyzed were calculated for both silt and soil samples and are tabulated below:

<u>Element</u>	<u>Background</u>	<u>Weak</u>	<u>Moderate</u>	<u>High</u>
Au soil) ppb	< 10	10-20	21-80	> 80
silt) ppb	< 10	10-20	21-80	> 80
Ag soil) ppm	< .3	.6-1.2	1.3-2.4	> 2.4
silt) ppm	< .4	.8-1.6	1.7-3.2	> 3.2
Zn soil) ppm	< 148	296-592	593-1184	> 1184
silt) ppm	< 241	482-964	965-1928	> 1928
Pb soil) ppm	< 82	164-328	329-656	> 656
silt) ppm	< 96	192-384	385-768	> 768
Cu soil) ppm	< 16	32-64	65-128	> 128
silt) ppm	< 16	32-64	65-128	> 128
W soil) ppm	< 5	10-20	21-40	> 40
silt) ppm	< 5	10-20	21-40	> 40

Usually where any galena was observed on the property, both rock and soil samples were anomalous in silver and lead.

Silver values ranged between 'not detected' to as high as 6.4 ppm. As a rule the higher silver values occurred in areas underlain by volcanic or volcanosedimentary rocks.

Lead values ranged between 4 ppm and 3370 ppm, the higher values often being coincident with high silver values within the volcanosedimentary suite.

Gold and copper values over the entire property were low, ranging between 'not detected' and 30 ppb for gold and between 1 ppm and 209 ppm for copper. Highest values of copper showed up where massive pyrrhotite occurred in a fault zone.

High zinc values tend to be coincident with high lead values and range between 6 ppm and 2480 ppm.

Values for tungsten ranged between 'not detected' and 20 ppm. These low order values are probably related to the intrusive rocks.

Refer to maps SJV-81-5 to 7 for sample locations and results.

## GEOLOGY AND MINERALIZATION

Four major rock units were noted on the Nex claims. Oldest rocks observed were grey to buff weathering, thick-bedded dolomites. This rock (Unit 1), on Map SJV-81-8, formed the highest peak located in the southwest corner of the claim block (on Nex 35 and 36).

Unit 2, consisting of brown weathering, siliceous slate and shale, thin bedded varicoloured cherts, and greywackes occupied the area around Unit 1. According to the government geology map, Unit 1 is thrust faulted on top of Unit 2 in the location of Nex claims 33-36.

Green and maroon breccias, tuffs and volcanic flows make up Unit 3 on Map SJV-81-8. These rocks are found in the southeast of the claim block on claims 25 through 31 and 13 through 21 and have mineralization associated with them.

Unit 4 was an intrusive rock of syenitic composition. One small, coarse-grained plug outcrops on Nex 19 and 20. The rock was composed dominantly of grey potassium feldspar and hornblende. The northernmost claims (Nex 1-12) are underlain by a bleached dioritic intrusive, which may be part of Unit 4.

The main mineralization observed on the Nex claims was found peripheral to the coarse grained hornblende syenite plug. In some cases, massive sulfide float was banded and appeared stratiform while in other cases it appeared to have been remobilized and deposited in vein form. Galena, sphalerite, chalcopyrite and arsenopyrite are associated with interbedded volcanics and limey sediments and perhaps are more related to skarns.

Massive pyrrhotite was seen in outcrop associated with volcanic breccias in what looked like a dark, rusty fault zone 5 meters wide. In the same location quartz vein float with massive arsenopyrite was found in boulders up to .4 meters across.

#### CONCLUSIONS AND RECOMMENDATIONS

Unknown to us before staking, this area was subjected to considerable trenching and drilling. Obviously the results of the work were disappointing and all but 2 of the claims were dropped.

From the point of view of looking at the surface rocks and geochemical results and ignoring the fact that a major program had been undertaken previously, this property warrants further examination by doing more detailed surface work in the areas of showings and high geochemical values. If possible old property reports, if available, should be acquired prior to any further work.

Reanalysis of some of the soil samples (say every third one) for barium may be warranted, to show the area to be on trend with typical barium rich sediments that often contain or bound stratiform sulfide deposits. If this is the the case, a detailed regional geochemical program within this belt of rocks is warranted to determine other sources of massive sulfide mineralization.

GREAT WESTERN PETROLEUM CORPORATION

PERSONNEL EMPLOYED FOR THE SURVEYS

L. Connolly, Box 53, Atlin, B.C. V0N 1A0  
(Sampler)

L. Eccles, 3rd Floor, 744 W. Hastings Street, Vancouver, B.C. V6C 1A5  
(Geologist)

R. Green, 466 Hermosa Avenue, North Vancouver, B.C. V7N 3C1  
(Sampler)

C. Muir, 4307 Britannia Drive, Calgary, Alberta  
(Sampler)

R. Riedel, 529 Yorston Street, Williams Lake, B.C. V2G 1H3  
(Sampler)

Seagull Joint Venture - Cost Statement (contd.)

6. Geochemical Assay Costs

<u>Company</u>	<u>Date</u>	<u>Invoice #</u>	<u># Samples</u>	<u>Total</u>
Vangeochem	Aug. 7/81	6363	1	\$ 24.50
"	"	6365	9	49.50
"	Aug. 17/81	6396	10	105.50
"	"	6395	9	153.00
"	Aug. 20/81	6410	142	1270.00
"	Aug. 21/81	6412	175	1560.80
"	Aug. 24/81	6414	159	850.65
"	Aug. 21/81	6415	86	1089.55
				<hr/>
				\$5103.50

7. Report Writing & Drafting

\$250.00

Summary of Costs

Personnel	\$5345.50
Transportation - Truck	1522.36
- Helicopter	1226.95
Expediting	776.60
Travel Expenses	1236.95
Sample Shipment	176.50
Geochem/Assay Costs	5103.50
Report Writing	250.00
<hr/>	
Total -	<u>\$15,640.36</u>

Distribution

Lorne Claim Group	55 claims
Nex Claim Group	36 claims
Ncc Claim Group	<u>64 claims</u>
Total	= 155 claims
Average	\$ 100.90/claim

Seagull Joint Venture Cost Statement (contd.)

Distribution of Work to Claims:

N.B. Costs prorated on basis of total numbers of claims worked while in the area.

	<u>CLAIM GROUP</u>		
	<u>Lorne</u>	<u>Nex</u>	<u>Ncc</u>
1. Wages	\$1896.79	\$1241.64	\$2207.36
2. Transportation: A.	540.19	353.52	628.48
B.	436.15	285.48	507.52
3. Expediting	275.57	180.36	320.64
4. Travel	438.92	287.28	510.72
5. Shipment Costs	62.45	40.68	72.32
6. Geochemical Cost	1810.93	1185.48	2107.52
7. Report Writing and Drafting	88.71	57.96	103.04
TOTAL =	\$5549.71	\$3632.40	\$64 57.60

Louise K. Eccles  
September 11, 1981

APPENDIX 'A'

Analytical Procedures for Gold, Silver, Copper, Lead  
and Zinc.

Analytical Procedure Used To Determine Hot Acid Soluble  
Pb, Zn, Cu, Ag in geochemical silt, soil and rock samples

1. Sample Preparation

- (a) Geochemical soil, silt or rock samples were received in the laboratory in wet-strength 3½ x 6½ Kraft paper bags and rock samples in 4" x 6" Kraft paper bags.
- (b) The wet samples were dried in a ventilated oven.
- (c) The dried soil and silt samples were sifted by hand using a 8" diameter 80-mesh stainless steel sieve. The plus 80-mesh fraction was rejected and the minus 80-mesh fraction was transferred into a new bag for analysis later.
- (d) The dried rock samples were crushed by using a jaw crusher and pulverized to 100-mesh or finer by using a disc mill. The pulverized samples were then put in a new bag for later analysis.

2. Methods of Digestion

- (a) 0.50 gram of the minus 80-mesh samples was used. Samples were weighed out by using a top-loading balance.
- (b) Samples were heated in a sand bath with nitric and perchloric acids (15% to 85% by volume of the concentrated acids respectively).
- (c) The digested samples were diluted with demineralized water to a fixed volume and shaken.

3. Method of Analysis

Pb, Zn, Cu and Ag analyses were determined by using a Techtron Atomic Absorption Spectrophotometer Model AA4 or Model AA5 with their respective hollow cathode lamps. The digested samples were aspirated directly into an air and acetylene flame. The results, in parts per million, were calculated by comparing a set of standards in a strip chart recorder.

- 4. The analyses were supervised or determined by Mr. Conway Chun or Mr. Eddie Tang and the laboratory staff.

## Analytical Procedure Used To Determine Aqua Regia Soluble Gold in Geochemical Samples

### 1. Method of Sample Preparation

- (a) Geochemical soil, silt or rock samples were received in the laboratory in wet-strength 4" x 6" Kraft paper bags or rock samples sometimes in 8" x 12" plastic bags.
- (b) The dried soil and silt samples were sifted by hand using a 8" diameter 80-mesh stainless steel seive. The plus 80-mesh fraction was rejected and the minus 80-mesh fraction was transferred into a new bag for analysis later.
- (c) The dried rock samples were crushed by using a jaw crusher and pulverized to 100-mesh or finer by using a disc mill. The pulverized samples were then put in a new bag for later analysis.

### 2. Method of Digestion

- (a) 5.00 - 10.00 grams of the minus 80-mesh samples were used. Samples were weighed out by using a top-loading balance into beakers.
- (b) 20 ml of Aqua Regia (3:1 HCl:HNO<sub>3</sub>) were used to digest the samples over a hot plate vigorously.
- (c) The digested samples were filtered and the washed pulps were discarded and the filtrate was reduced to about 5 ml.
- (d) The Au complex ions were extracted into diisobutyl ketone and thiourea medium. (Anion exchange liquids "Aliquot 336").
- (e) Separate Funnels were used to separate the organic layer.

### 3. Method of Detection

The gold analyses were detected by using a Techtron model AA5 Atomic Absorption Spectrophotometer with a gold hollow cathode lamp. The results were read out on a strip chart recorder. A hydrogen lamp was used to correct any background interferences. The gold values in parts per billion were calculated by comparing them with a set of gold standards.

4. The analyses were supervised or determined by Mr. Conway Chun or Mr. Eddie Tang and his laboratory staff.

QUALIFICATIONS

I, LOUISE K. ECCLES, do hereby certify that:

1. I am a geologist residing at 782 West 22nd Avenue, Vancouver, British Columbia and am employed by Great Western Petroleum Corporation.
2. I am a graduate of the University of British Columbia with a B.Sc. (Honours) degree in geology.
3. I have practised my profession in geology continuously for the past five years in British Columbia, Ontario, Yukon and Northwest Territories.
4. Between July 12 and 14, I directed a field program on the Nex claims on behalf of Great Western Petroleum Corporation.



L.K. Eccles  
December 1981

ATTESTATION

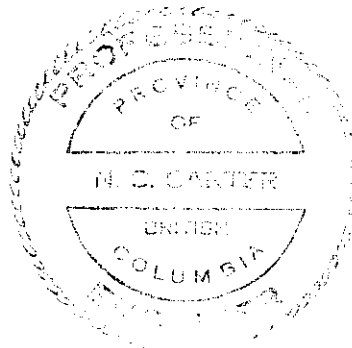
I, Nicholas C. Carter of Victoria, British Columbia, do hereby certify that:

1. I am a practising geologist, registered with the Association of Professional Engineers of British Columbia since 1966;
2. I am a graduate of the University of New Brunswick with B.Sc. (1960); Michigan Technological University with M.S. (1962) and the University of British Columbia with Ph.D. (1974).
3. I have practised my profession in British Columbia and Eastern Canada and the Western United States for the past 21 years.
4. I personally oversaw the geological and geochemical program carried out by Ms. Eccles on the Nex claims and will attest to the authenticity of data contained in this report.



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N.C. Carter  
Ph.D., P.Eng.



FIELD COSTS - SEAGULL JOINT VENTURE  
Lorne, Nex, Ncc Claims - July 1981

1. Personnel

<u>Name</u>	<u>Specific Dates</u>	<u>Per Diem Rate</u>	<u># Days</u>	<u>Total</u>
L. Connolly	July 4-6, 8-17, 21-23	\$73.37	16	\$1173.92
L. Eccles	July 4-6, 8-17, 21-23	116.62	16	1865.92
R. Green	July 4-6, 8-17, 21-23	52.95	16	847.20
C. Muir	July 6, 8-16	52.95	10	529.50
R. Riedel	July 4-6, 8-17, 21-23	58.06	16	928.96
				\$5345.50

2. Transportation

A. Truck

GWP Company truck: Rates: \$30/day, 17¢/km + gas	
16 days @ \$30.00 (includes insurance)	\$480.00
3378 km @ \$0.17	574.26
Gas	468.10
	\$1522.36

B. Helicopter Charter

<u>Company</u>	<u>Invoice #</u>	<u>Date</u>	<u>Amount</u>
Trans North	54836	July 15, 1981	\$983.16
" "	56275	July 16, 1981	245.79
			1228.95

3. Expediting

MacPheat Expediting - Ross River	\$100.00
Ross River Store - Groceries	648.60
Radio Rental - 8 days @ 3.50/day	28.00
	\$776.60

4. Travel Expenses - Hotel, Meals, Airfare: July 4-23/81  
 Total - \$1236.95

5. Sample Shipment Costs - Greyound  
 Total - \$176.50

**GREAT WESTERN PETROLEUM CORPORATION**  
 SEAGULL JOINT VENTURE  
 SAMPLE LOCATION

**NEX 1-36 Claims**

Date: November 1981      NTS: 105F/10  
 Figure: SJV-81-5

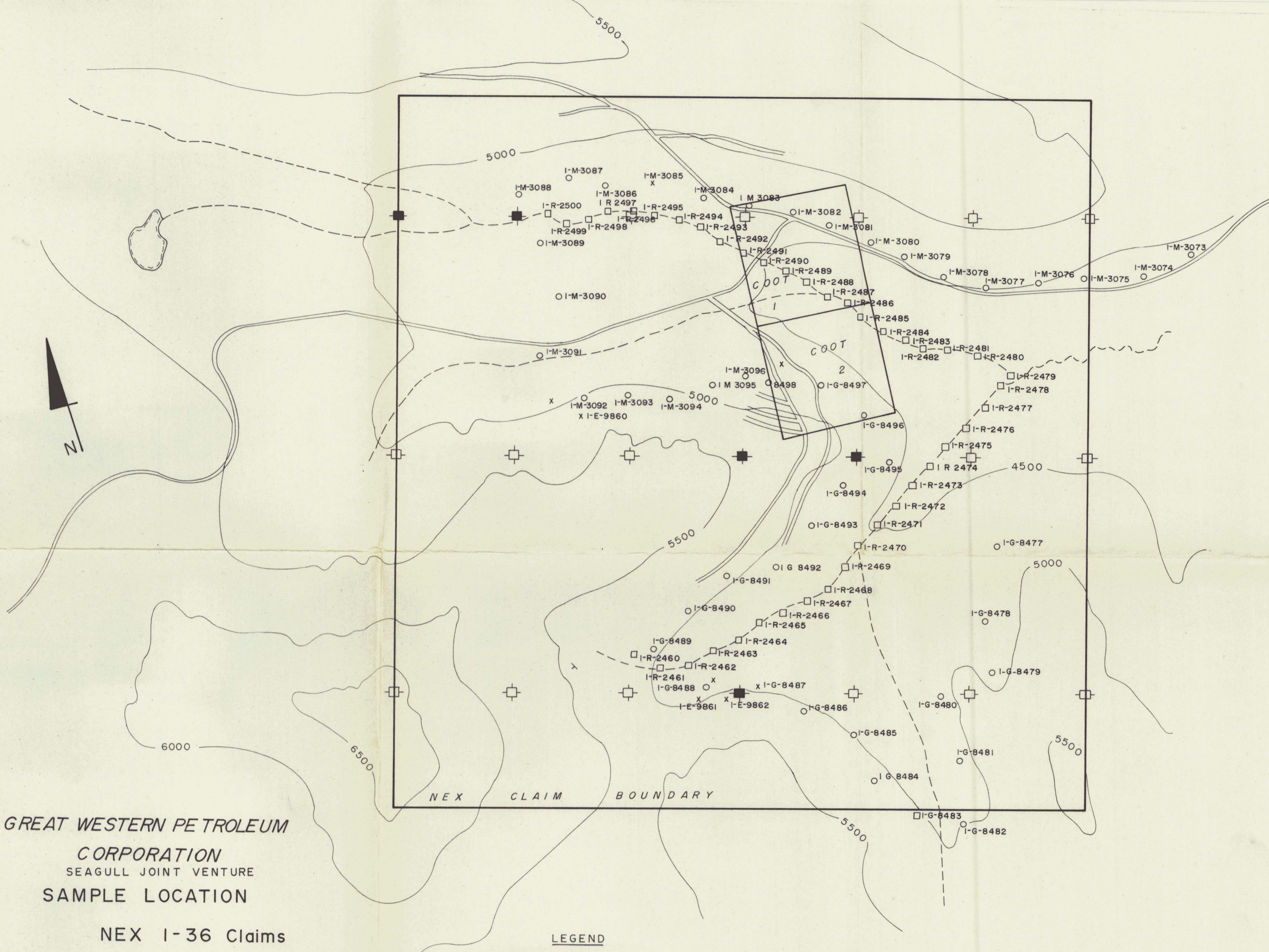
0 100 200 300 400 500 600 700 800 900 1000 meters  
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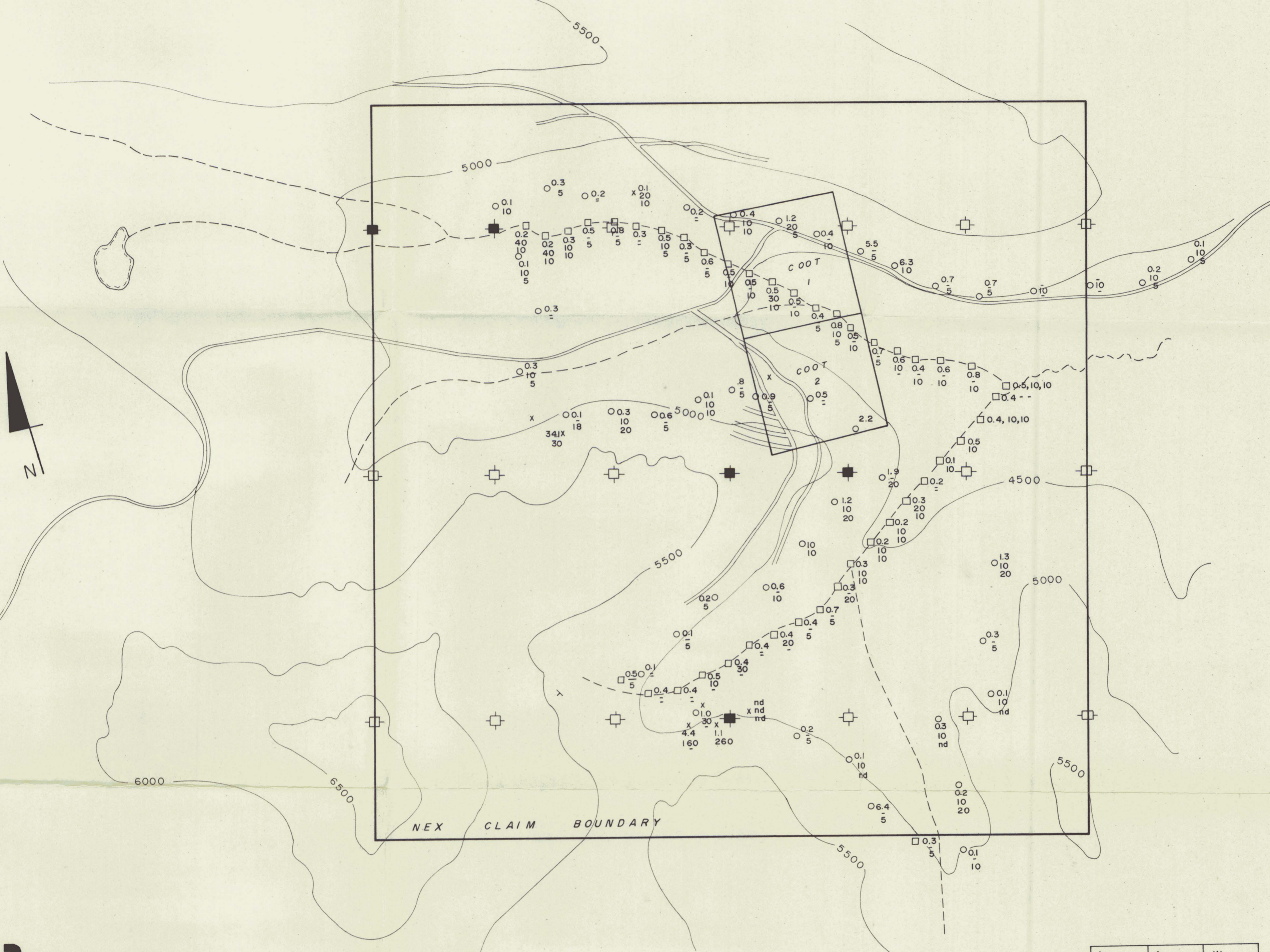
090978

*L. Hooper*

LEGEND

- Silt Sample Location
- Soil Sample Location
- x Rock Sample Location
- Located Claim Post
- ◻ Unlocated Claim Boundary





GREAT WESTERN PETROLEUM

CORPORATION

SEAGULL JOINT VENTURE

Ag, Au, W GEOCHEMISTRY

NEX 1 - 36 Claims

Date: November 1981

NTS: 105F/10

Figure: SJV-81-6

LEGEND

- Silt Sample ( Ag ppm, Au ppb, W ppm )
- Soil Sample ( Ag ppm, Au ppb, W ppm )
- x Rock Sample ( Ag ppm, Au ppb, W ppm )
- Unlocated Claim Post
- Located Claim Post

0 100 200 300 400 500 600 700 800 900 1000 meters

SCALE = 1:10,000

SOILS

SILTS

Background

Weakly Anomalous

Moderately Anomalous

Highly Anomalous

Background

Weakly Anomalous

Moderately Anomalous

Highly Anomalous

Ag ppm	Au ppb	W ppm
.3	<10	5
.6 - 1.2	10 - 20	10 - 20
1.3 - 2.6	21 - 40	21 - 40
>26	>40	>40
.4	<10	5
.8 - 1.6	10 - 20	10 - 20
1.7 - 3.9	21 - 40	21 - 40
>3.4	>40	>40

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*L. Neles*



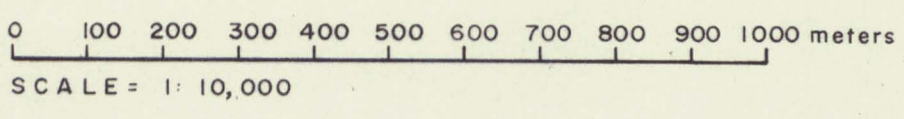
**GREAT WESTERN PETROLEUM CORPORATION**  
 SEAGULL JOINT VENTURE  
**Cu, Pb, Zn, GEOCHEMISTRY**  
 NEX 1-36 Claims

Date: November 1981  
 Figure: SJV-81-7

NTS: 105F/10

**LEGEND**

- Silt Sample (Cu ppm, Pb ppm, Zn ppm)
- Soil Sample (Cu ppm, Pb ppm, Zn ppm)
- x Rock Sample (Cu ppm, Pb ppm, Zn ppm)
- Unlocated Claim Post
- Located Claim Post



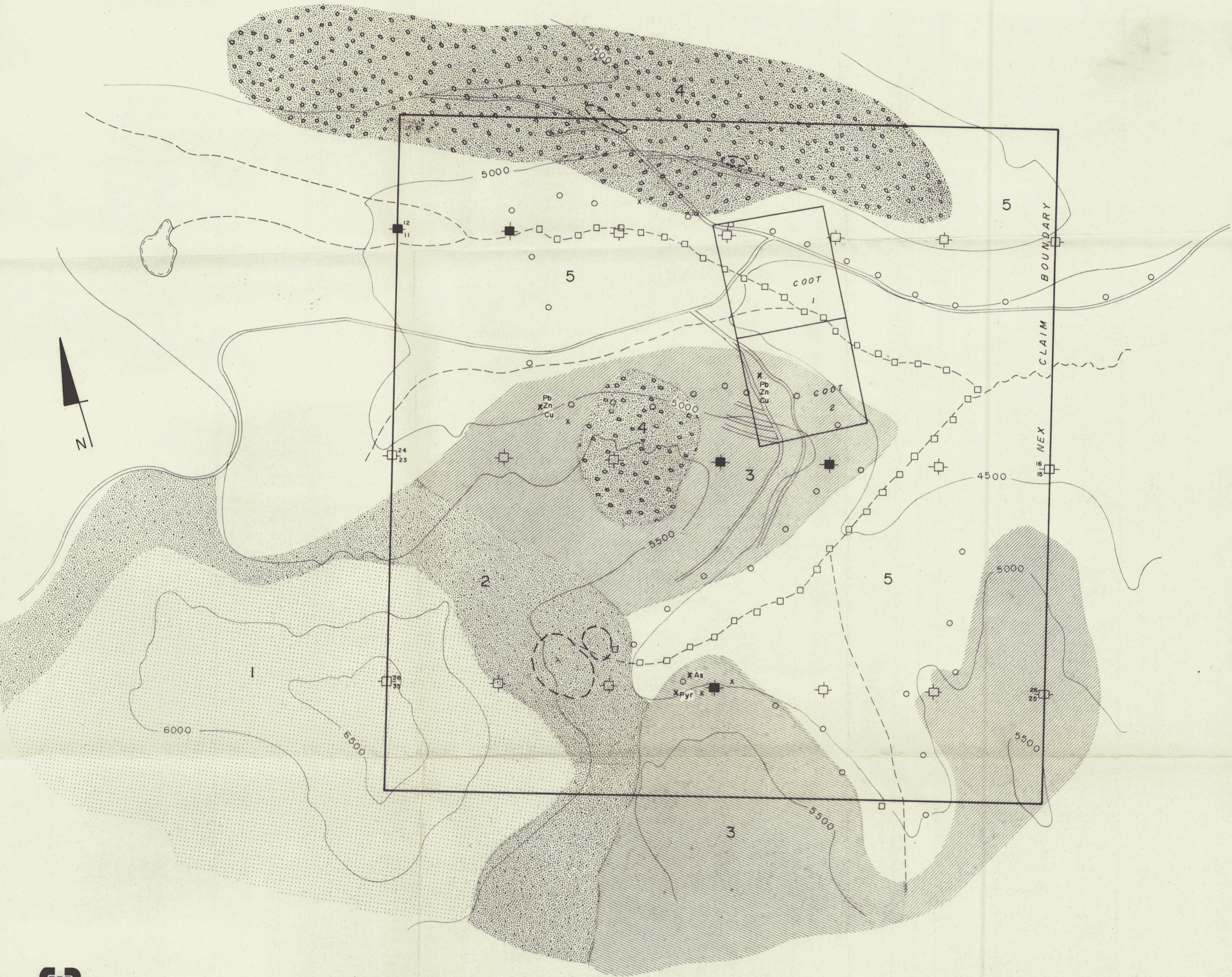
SOILS

SILTS

	Cu ppm	Pb ppm	Zn ppm
Background	16	82	148
Weakly Anomalous	32 - 64	164 - 328	296 - 542
Moderately Anomalous	65 - 128	329 - 656	593 - 1184
Highly Anomalous	>128	>656	>1180
Background	16	96	241
Weakly Anomalous	32 - 64	192 - 384	482 - 964
Moderately Anomalous	65 - 128	385 - 768	965 - 1928
Highly Anomalous	7128	7768	>1928

090978

*L. Seckles*



**GREAT WESTERN PETROLEUM CORPORATION**  
 SEAGULL JOINT VENTURE  
**GENERAL GEOLOGY**

**NEX 1-36 Claims**

Date: November 1981 NTS: 105F/10

Figure: SJV-81-8

0 100 200 300 400 500 600 700 800 900 1000 meters  
 Scale = 1:10,000

090978

*L. Rockes*

**LEGEND**

- |                   |                        |   |
|-------------------|------------------------|---|
| — Road            | ■ Located Claim Post   | 1 Grey & Buff Weathering, Thick Bedded Dolomite   |
| - - - Creek       | □ Unlocated Claim Post | 2 Siliceous Slate, Shale, Thin Bedded Cherts, Greywacke   |
| x As Arsenopyrite | ○ Soil Sample          | 3 Grey and Maroon Breccias, Tuffs, Volcanic Flows<br>Minor Interbeds Of Slate, Chert & Greywacke<br>Some Limey Layers |
| x Pyr Pyrrhotite  | □ Silt Sample          | 4 Hornblende Syenite Intrusive  |
| x Pb Galena       | x Rock Sample          | 5 Overburden  |
| Zn Sphalerite     | ○ Outcrop Area         |   |
| Cu Chalcopyrite   |                        |   |