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PROPERTY FILE

1983 PHYSICAL WORK AND RECLAMATION  
ACTIVITIES AT THE TCHAIKAZAN RIVER PROJECT  
TASEKO LAKE AREA, B.C.

MAY - OCTOBER 1983

BY: Paul A. Hawkins

SUNCOR REPORT #9472

1983 PHYSICAL WORK AND RECLAMATION  
ACTIVITIES AT THE TCHAIKAZAN RIVER PROJECT  
TASEKO LAKE AREA, B.C.

May - October 1983

This report covers the following Minerals Claims held by Suncor Inc:

918	Cougar-1	1143	Sun-16
921	Cougar-4	1145	Sun-18
922	Cougar-5	1252	Sun-23
923	Cougar-6	1253	Sun-24
924	Cougar-7	1255	Sun-27
9657	Cougar-10	1257	Sun-29
1071	Sun-13	1258	Sun-30
1142	Sun-15		

on N.T.S. Sheets 920/4 and 5

Centered on 51° 11'N 123° 39'W

in the Clinton Mining Division

BY: Paul A. Hawkins, P.Eng.  
Calgary, Alberta

SUNCOR REPORT #9472

PREFACE

This report covers all physical work and reclamation activities carried out on Suncor's Tchaikazan River Project. Certain physical work carried out in conjunction with proprietary work such as drill site preparation is covered here but no assessment credit for such work has been applied for. The purpose of this report is to detail physical work and the reclamation activities being carried out by Suncor in conformance to the Guidelines for Mineral Exploration in British Columbia.

Paul A. Hawkins, P.Eng.  
Project Geologist  
Suncor Inc.  
Calgary, Alberta

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## 1.0 INTRODUCTION

Suncor's Tchaikazan River property hosts a mineralized porphyry system. A total of 21,338.22 hectares make up the central claim block. Suncor has carried out exploration since May 1981, when it became operator of the project. During the 1983 field season the property reached an initial drill stage with eight diamond drill holes being completed.

Geological mapping and other technical survey's carried out in 1983 on the property are detailed in Suncor Report #9465 (Hawkins, P.A., 1983). The early work on the property is not well documented and number of old and recent reports are held as proprietary.

The physical work carried out on the Tchaikazan River Project consisted of road maintenance, trail improvement and construction, footbridge construction, linecutting, drill site preparation and reclamation, slashing, helicopter seeding and application of fertilizer, and reclamation of previously disturbed areas of other operators. A comprehensive program of environmental monitoring, assessment and the collection of base line data was initiated.

## 1.1 LOCATION, ACCESS AND PHYSIOGRAPHY

The Tchaikazan River project is located just west of the Taseko Lakes in south central British Columbia some 210 km (130 miles) north of Vancouver. The property is also 156 km from Williams Lake by air but can also be reached by road along the Bella Colla highway to Lee's Corners then south to the Lord River Mine Development road, a distance of some 270 km. The property can also be reached by small aircraft using the Fishem Lake Airfield (800 m in length).

Weekly servicing was obtained out of Williams Lake using Suncor trucks or a Britten Norman Islander. Limited helicopter support was also utilized on an occasional short term basis. During this utilization a Bell Jet Ranger III was based out of the Fishem Lake Airfield. The base camp was located on the south end of Fishem Lake adjacent to the Fishem Lake Airfield.

The property is located within the Tyraughton Trough just adjacent to the Coast Plutonic Complex. Several promising prospects are located nearby; Fish Lake (Cu, Au) 35 km to the north, Poison Mountain (Cu), 75 km to the west, Lord River (Au) 8 km to the south east and Banner (Cu), 13 km east. Several other claim blocks exist in the area held by individuals and companies but are not at an advanced stage of exploration.

The claims covered by this report stretch from the north side of Yohetta Valley down through the Gunn Valley and up both the Tchaikazan and Falls river valleys from the west side of Taseko Lake. The claims in the area are partially accessible by road, primarily the Lord River Mine Development road. The greater portion of the claim however are accessible only by helicopter with ease. An extensive network of pack horse trails was developed by early prospecting crews in the 1940's. These trails provided some access on foot to several areas during the 1983 field season. The trails are not wide enough for vehicle access.

During the 1983 field season in order to improve access to the Hub area grid a number of limited access four wheel drive trails were built. Access was improved up river from the Hub trenches on the north side and on the south side by upgrading the L7+50N trail. Two new footbridges were also built as shown on Drawing 83-412.

The Taseko Lake area lies within the Coast Range Mountains. The area is cut by several U shaped valleys. The largest of which is the Taseko Lake Valley. It runs north-south and is one of the great U shaped valleys of the Cordilleran Interior System. This forms the eastern boundary of the property. Several other valleys run approximately north-north-easterly and are of glacial origin. The melt water from the many glaciers in the area is very cloudy and carries a lot of sediment; causing the Tchaikazan River and the Taseko Lake to be very cloudy and almost a turquoise color. The other streams and lakes with run off or ground water sources run clear.

The wide valleys and alpine terrain in the area show a transition from a well forested valley bottom to upper open alpine slopes to glacial ice fields. Elevations range from about 4350' to RCAF Peak at 9400'. The tree line lies between 6500' and 7000'.

Discontinuous permafrost is present in many of the alpine slopes. Frost boils and mud flows are present on some slopes. During the spring run off period some areas of high angle slopes are mobile and fluid transport of soil is evident.



## 1.2 PROPERTY HISTORY AND PREVIOUS EXPLORATION

Prospecting in the Taseko Lake area in 1945 led to the discovery of gold and silver mineralization in the vicinity of the Tchaikazan River. This work was carried out under the supervision of Dr. Harvey Warren of the University of British Columbia. The mineralization discovered occurs in two sulfide rich quartz veins which vary in width from about 10 cm to about 2 meters in width. Native gold, silver and hissite, a gold telluride were identified. Recent sampling of the Charlie and Big veins returned a number of assays in excess of 1 ounce per ton Au. More typical normal values are under 0.2 ounces per ton Au.

The prospecting syndicate which carried out the original work continued work in 1946-47. Later the property was optioned to Conwest for further development. At this time access to the area was only by means of pack train. During this time extensive trails were cut to enable access. No specific details regarding the Conwest work is known, however the option was allowed to lapse.

In 1954 copper and molybdenum mineralization was located along the banks of the Tchaikazan River. Further trenching and sampling of the mineralization was done. It is not clear who the property operator was at this time.

Between 1966 and 1967 Falconbridge carried out limited soil sampling, a magnetometer survey, shallow trenching and eight diamond drill holes totalling 1250'. This was apparently when the first heavy equipment was used on the property. The few maps available from this time period indicate most cat trenching was carried out at this time. In 1968 Copper Ridge Exploration Co. built a road from Fishem Lake to the Cu-Mo showings and carried out further trenching.

In 1969 Rio Tinto Exploration optioned the property and carried out additional detailed work on the property until 1973 when it dropped its option. Further trenching was undertaken and most old trenches were deepened. Rio Tinto carried out some 1501' of diamond drilling in seven holes. The drill was dragged between drill sites with a small caterpillar tractor.

In 1979 Zelon Chemicals Limited optioned the property and carried out further field work. A number of old trenches were reopened and mapped. Later a new grid was cut and a trail was cleared along L7+50N from the Lord River Mine Development Road to the Tchaikazan River, then along the south side of the river to the Hub area trenches late in 1980. This work was apparently carried out using a D-8 Caterpillar Tractor. Suncor took over as operator of the project in May of 1981.

In the summer of 1981, a limited program of geological mapping, geochemical sampling and prospecting was carried out with a 5 man crew. In 1982 a 10-16 man crew was on site to carry out further geological mapping, geochemical sampling, prospecting and geophysics. During both 1981 and 1982, a D-6 Caterpillar Tractor was used from limited road maintenance and garbage dump operations. Improvements were also made to the Fishem Lake Airstrip.

## 2.0 PHYSICAL WORK

Physical work carried out during the 1983 field season consisted of road maintenance, trail improvement and construction, footbridge construction, linecutting, drill site preparations and reclamation, slashing, helicopter seeding and application of fertilizer and reclamation of previously disturbed sites. Where ever possible local contractors and suppliers were used for the above work. All work was carried out in compliance with the Guidelines for Mineral Exploration and the Forest Act and other regulations.

During the detailed mapping of the Hub grid area it became apparent that there had been a great amount of ground disturbances by previous operators before 1981. An extensive network of cat trails existed both on the north and south sides of the Tchaikazan River largely due to the previous two drill programs in 1967 and 1971. Most cat trenches in the Hub area have been opened a number of times for remapping. A number of trenches are now almost completely overgrown. In most cases trails and old drill sites were completely revegetated.

## 2.1 ROAD MAINTENANCE AND TRAIL CONSTRUCTION

The main means of access to the Tchaikazan River Project has been via the Lord River Mine Development Road. It was built by Lord River Gold Mines Ltd. to facilitate underground development. Lord River Gold Mines Ltd is owned 41.4% by Silver Standard Mines. E + B Exploration holds a 50% interest in the property. Activity on the Lord River property ceased in late 1981. No further road maintenance was carried out by Lord River Gold Mines. From that date Suncor had to maintain its own access.

Maintenance on the road was usually carried out using a D-6 Caterpillar Tractor belonging to John Murdock Construction. Heavy use during the wet fall especially during hunting season rutts it in many poorly drained areas. A number of sections near unstable slopes occasionally require clearing. During 1983 approximately 220 hours of D-6 time was required to maintain access on the property.

In order to reduce the amount of helicopter time used during work on the Hub area grid two additional footbridges were constructed to supplement the first one built at the Hub trenches. This was necessary since it is not possible to ford the Tchaikazan River due to strong current. During high water it is dangerous to even ford with a medium size caterpillar tractor. Access trails were built to the two footbridge bridges from the existing road system on the north side of the Tchaikazan River. Approximately 60 hours of D-6 time was required to construct the trails and footbridges.

The routing of the trail to the upper footbridge was selected in consultation with Inspection and Engineering Branch staff of the M.E.M.P.R. Where ever possible existing trails and trenches were used. A number of creek crossings required the installation of culverts. Trees that were cut down were disposed of to the satisfaction of the Ministry of Forests.

In order to facilitate drilling, a number of old cat trails were upgraded and/or extended. A summary of this upgrading and extention is provided in Drawing 83-412.

During detailed mapping on the Hub grid area base maps were prepared. Six maps are provided for the main area of drilling and ground disturbances. They are indexed on Drawing 83-071B. The sheets are:

Sheet Number	Drawing Number
4a	83-387A
4b	83-397B
6	83-389
7	83-390
8	83-391
12	83-395

All drill sites at the completion of drilling were recontoured and reseeded. All trees cut down were disposed of according to the Ministry of Forests regulations. Two of the major access trails were closed at the end of the program by dropping large trees across them.

## 2.2 LINECUTTING

Approximately 64.5 km of linecutting was carried out in 1983. In a number of areas lines were recut. Linecutting was carried out both under staff supervision and under contract by Roga Contracting of Willimas Lake, B.C. The new linecutting is shown on Drawing 83-253. Linecutting costs are detailed in the Appendix.

Portions of the linecutting was applied under technical survey costs for Regional Induced Polarization (Hawkins, P.A., Cartwright, P.A., 1983) is not included here.

### 2.3 RECLAMATION ACTIVITIES

A number of sites were reclaimed during the 1983 season. In addition to newly disturbed areas a number of sites from previous operators were reclaimed. These areas are shown on Drawing 83-412. The reclamation program was as outlined in the Notice of Work and Reclamation Program on a Mineral Property prepared October 18, 1983.

Seed and fertilizer was applied using a helicopter seeder. Approximately 160 kg of seed was applied at a rate of 60 kg per hectare. Recommended seed mixture VI was used. Approximately 900 kg of fertilizer was also applied from the air.

### 3.0 ENVIRONMENT MONITORING AND BASE LEVEL DATA COLLECTION

A comprehensive program of baseline water quality and hydrology investigations was initiated in the 1983 field by AIM Ecological Consultants Ltd. for Suncor. Five permanent staff gauges were installed as shown in the Figure 1. Staff gauge readings were collected weekly and water quality samples were collected from the five stations each month during the summer. Samples were analysed for a number of physical and chemical constituents which are outlined in Table 3.0.

A number of other areas of environmental monitoring was also initiated with preliminary surveys. Weather data was also collected.



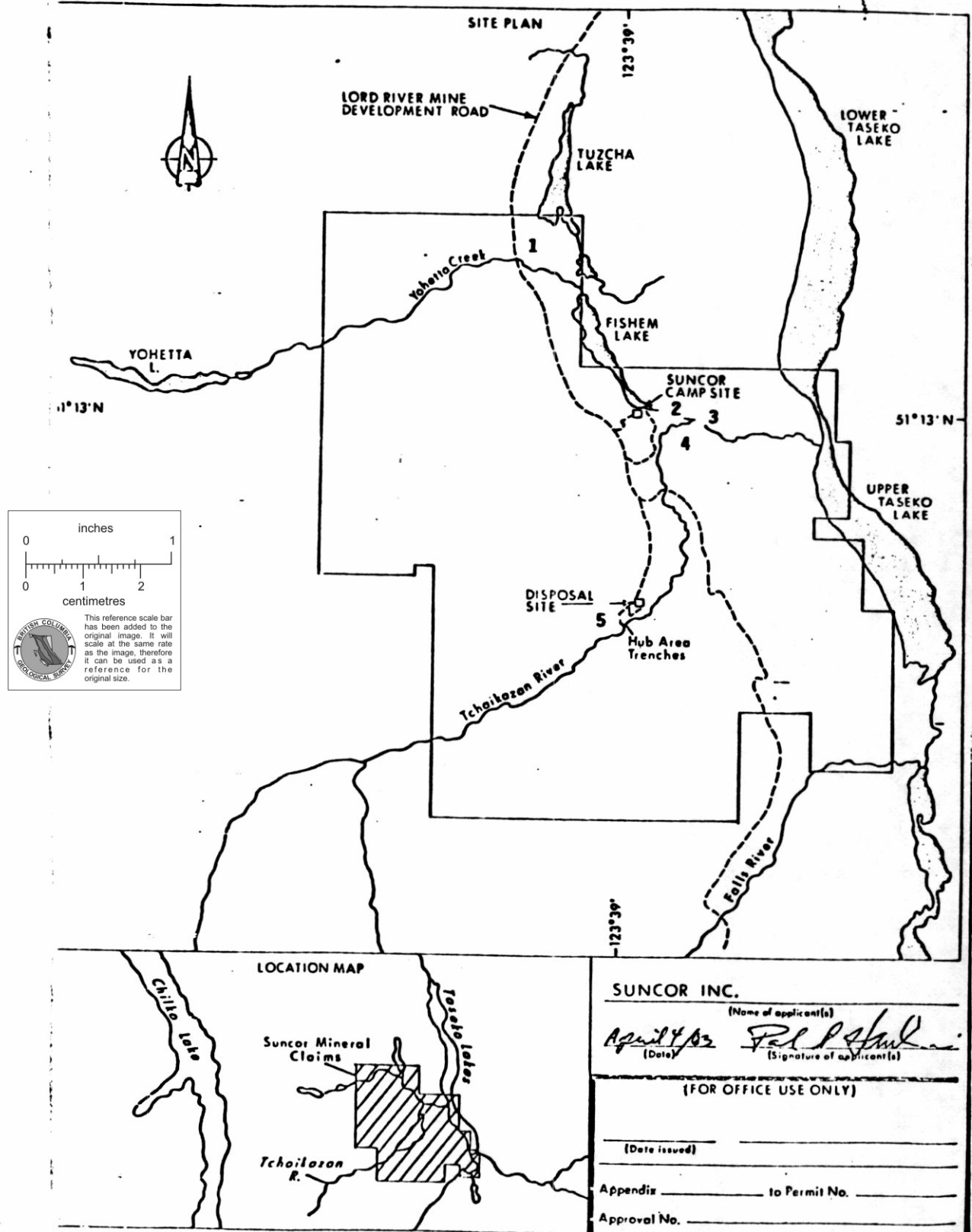


FIGURE 1 : LOCATION OF WATER QUALITY AND HYDROLOGY SAMPLING STATIONS

SUNCOR DRAWING NO. 83-073

TABLE 3.0

WATER ANALYSIS

The following parameters were determined from water samples taken from within the Tchaikazan River Project Area:

pH	Dissolved Antimony
Suspended Solids	Dissolved Arsenic
Dissolved Solids	Dissolved Cadmium
Conductivity	Dissolved Calcium
Hardness	Dissolved Chromium
Total Mercury	Dissolved Copper
Total Alkalinity	Dissolved Iron
Flouride	Dissolved Lead
Nitrate and Nitrite Nitrogen	Dissolved Magnesium
Total Phosphate Phosphorus	Dissolved Molybdenum
Dissolved Sulphate	Dissolved Nickel
Dissolved Zinc	Dissolved Silver

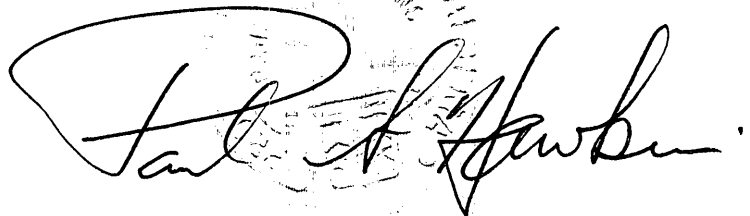
#### 4.0 ASSESSMENT WORK APPLICATION

All physical work was applied against a specific claim. Support and operating costs for line cutting was prorated on a per manday basis then prorated on a per kilometer basis and applied to individual claims. Only \$57,286.15 of the \$155,898.51 has been applied under section 13 of the regulations. Details of all cost calculations are provided in the Appendix.

#### 4.1 SUMMARY

The Tchaikazan River Project area is a porphyry type exploration property from which work has been undertaken since 1945. Exploration to date has shown the presence of copper, molybdenum, gold and silver mineralization on the property. Suncor has carried out its exploration program in compliance with existing guidelines in an area where significant ground disturbance has occurred before.

It is our policy to continue the level of cooperation between Suncor and the numerous regulating department of the Government of British Columbia.

A handwritten signature in black ink, reading "Paul A. Hawkins". The signature is written in a cursive style and is positioned over a faint, circular stamp that is partially obscured by the ink.

Paul A. Hawkins, P.Eng.  
Project Geolgoist

REFERENCES

Hawkins, P.A., 1983

1983 Exploration Activities at the  
Tchaikazan River Project  
Taseko Lake Area, B.C.  
Suncor Report #9465

Hawkins, P.A., Cartwright, P.A., 1983

Regional Induced Polarization Surveys  
at The Tchaikazan River Project  
Taseko Lake Area, B.C.  
Suncor Report #9466

APPENDIX

Actual Physical Work Summary

Detailed Physical Work Summary

Field Staff List

Property Expenditures

Prorated Field Operating and Support Cost Calculation

Mean Salary Calculation

Prorated Per Manday Summary

Contract Linecutting Costs

Staff Supervised Linecutting Costs

Notice of Work and Reclamation Program on Mineral Property

Report Maps

ACTUAL PHYSICAL WORK SUMMARY

CLAIM	ROAD MAINTENANCE \$	CONTRACT KM	LINECUTTING \$ COST	STAFF KM	LINECUTTING \$ COST
Cougar-4	1,000.00			1.2	3,208.35
Cougar-5	1,000.00			1.8	4,812.50
Cougar-6	3,000.00	0.8	907.42	3.5	9,357.64
Sun-15		2.7	3,062.53	0.8	2,138.89
Sun-16		2.4	2,722.25		
Sun-18	2,000	2.3	2,608.82		
Sun-23		7.8	8,847.31		
Sun-24		3.0	1,134.27		
Sun-27	2,000.00	2.1	2,381.97		
Sun-29	2,000.00	2.7	3,062.53		
Sun-30		1.8	2,041.69		
Total	11,000.00	25.6	26,768.79	7.3	19,517.36

P.A. Hawkins  
December 19, 1983

DETAILED PHYSICAL WORK SUMMARY

TYPE	TOTAL	ASSESSMENT WORK THIS REPORT
<u>Road Maintenance</u>		
220 hours D-6 Cat @ 51.95	11,429.00	11,000
92 hours Backhoe @ 30.00	2,760.00	
5 giyrs grader @ 40.00	200.00	
55 hours helper @825.00	825.00	
<u>Footbridge and Trail Construction</u>		
60 hours D-6 Cat @ 51.95	3,117.00	
126 hours slashing @ 20.00	2,520.00	
<u>Trail and Drill site Preparation</u>		
260 hours D-6 Cat @ 51.95	13,507.00	
127.5 hours D-7 Cat @ 75.00	9,562.50	
16 hours backhoe @ 30.00	480.00	
722 hours slashing @ 24.00	14,440.00	
13 days supervision @175.00	2,275.00	
Mob-demob D-7 Cat	2,400.00	
<u>Reclamation</u>		
40 hours D-6 Cat @ 51.95	2,078.00	
Seed and fertilizer	518.42	
3 hours helicopter @500.00	1,500.00	
5 days supervision @175.00	2,275.00	
<u>Airstrip Maintenance</u>		
16 hours grader @ 40.00	640.00	
<u>Environmental</u>		
Equipment and supplies	1,128.54	
<u>Linecutting</u>		
Contract 57.3 km @ 1,134.27	64,993.05	26,768.79
Staff 7.2 km @ 2,676.61	19,250.00	19,157.36
<hr/>		
TOTAL	155,898.51	57,286.15



FIELD STAFF LIST

1. Paul A. Hawkins, P.Eng.  
Project Geologist  
Suncor, Calgary  
B.Sc. (Eng.) (Geological Engineering) Queen's 1977
2. H. David Gardner  
Senior Assistant  
M.Sc. (Geology) University of Calgary 1983  
B.Sc. (Geology) University of Calgary 1981
3. Jacqui Rublee  
Junior Assistant  
Third Year Geology Student  
University of British Columbia
4. John Alguire  
Geological Technician  
Sir Sanford Fleming College 1982
5. Richard Brett  
Fieldman  
Brett Brothers Contracting
6. Dave Brett  
Geological Technician  
Sir Sanford Fleming College 1976  
Brett Brothers Contracting
7. John Murdock  
Foreman  
John Murdock Construction
8. Larry Trehearne  
Cat Operator  
L. Trehearne Construction

1983 TCHAIKAZAN RIVER PROJECT  
PROPERTY EXPENDITURES

ITEM	TOTAL	PRORATEABLE OPERATING AND SUPPORT COST	APPLICABLE TO FOOTAGE RATE FOR DRILLING
Salaries	92,464.05	48,006.00	
Travel, Accommo- dation and Freight	15,923.57	15,923.57	
Food	21,977.58	21,977.58	
Camp Costs and Equipment	16,429.99	16,429.99	
Communication Expense	7,049.69	7,049.69	
Office Supplies	1,535.79	1,535.79	
Warehouse Rental	7,334.20	7,334.20	
Fuel and Oil	28,895.40	18,895.40	8,000.00
Operational Costs	2,849.16	2,849.16	
Helicopter Support	92,562.31	46,281.16	
Fixed Wing Support	31,800.65	31,800.65	
Truck Rental and Maintenance	19,158.23	12,772.23	6,386.00
Equipment Rental	1,476.75	1,475.75	
Technical Equip Rental	7,075.84	--	
Technical Equip Purchase	3,720.72	3,720.72	
Heavy Equipment	56,111.49	--	
Linecutting	24,983.05		
Location Survey	8,244.47		
Geophysical Survey (IP)	42,698.45		
Analyses	25,723.59		
Contract Labour	25,159.41	25,159.41	
Diamond Drilling	121,166.39		121,166.39
Environmental Studies	1,128.54	1,128.54	
Reclamation Activities	518.42		518.42
Subtotal	655,987.74	262,340.84	136,070.81
Off Property Operating Cost	65,598.77	26,234.08	13,607.08
TOTAL PROPERTY EXPENDITURES	721,586.51	288,574.92	149,677.89

P.A. Hawkins  
November 10, 1983

1983 TCHAIKAZAN RIVER PROJECT

PRORATED FIELD OPERATING AND SUPPORT  
COST CALCULATION

Total Field Operating and Support Costs (as per 1983 Property Expenditures)	\$288,574.92
Total Field Mandays (as per Prorated per Manday Summary)	947.0
Calculated Prorated per Manday Field and Operating support Cost (Operating and Support Costs ÷ Field Mandays)	\$ 304.73

P.A. Hawkins  
November 10, 1983

1983 TCHAIKAZAN RIVER PROJECT  
MEAN SALARY CALCULATION

<u>NAME</u>	<u>TITLE</u>	<u>DAILY RATE</u>
P. Hawkins	Projects Geologist	\$ 240.70
D. Gardner	Senior Assistant	120.59
J. Alguire	Geological Technician	88.47
J. Rublee	Junior Assistant	85.31
C. Bonthoux	Cook	<u>150.71</u>
		<u>\$ 685.68</u>
	AVERAGE	<u>\$ 137.16</u>

P.A. Hawkins  
November 10, 1983

1983 TCHAIKAZAN RIVER PROJECT  
PRORATED PER MANDAY SUMMARY

Manday Breakdown

	MANDAYS	
Geological Mapping	133.5	
Suncor Geophysics	11.0	
Contract Geophysics	216.0	
Suncor Linecutting	29.0	
Contract Linecutting	141.0	
Diamond Drilling	341.5	
Environmental Studies	16.0	
Reclamation Activities	27.0	
Location Surveys	<u>14.0</u>	
Total Field Time on Property	929.0	929.0
Exploration on Open Ground	16.0	
Staking	<u>2.0</u>	
	18.0	<u>18.0</u>
Total Field Time		947.0
Camp Support Activities	334.0	<u>334.0</u>
TOTAL PROJECT MANDAYS		<u><u>1281.0</u></u>

P.A. Hawkins  
November 10, 1983

1983 TCHAIKAZAN RIVER PROJECT  
CONTRACT LINECUTTING COSTS

	<u>TOTAL</u>	<u>PER KM.</u>
Linecutting Invoice Cost	\$20,383.05	\$ 355.73
Operating and Support Costs (128 X \$300)	38,400.00	670.16
Fuel and Oil	1,210.00	21.12
Helicopter Support	<u>5,000.00</u>	<u>87.26</u>
	<u>\$64,993.05</u>	<u>\$1,134.27</u>

P.A. Hawkins  
September 5, 1983

1983 TCHAIKAZAN RIVER PROJECT  
STAFF SUPERVISED LINECUTTING COSTS

Salaries

Cutters	280 hrs. @ \$ 20.00	\$ 5,600.00
Supervision	17 days @ \$175.00	2,975.00
Staff Helper	12 days @ \$100.00	1,200.00

Camp Operating and Support Costs

	27 mandays X \$300.00	8,700.00
Fuel and Oil		265.00
Chain Saw Rental	17 X \$30.00	<u>510.00</u>
		<u>\$19,250.00</u>
Rate per Kilometer (based on 7.2 km. total)		<u><u>\$ 2,673.61</u></u>



MINERAL RESOURCES DIVISION
INSPECTION AND ENGINEERING BRANCH

NOTICE OF WORK AND RECLAMATION PROGRAM
ON A MINERAL PROPERTY

- 1. NAME OF PROPERTY TCHAIKAZAN RIVER PROJECT
Number of claims 101 Principal Claim Group Warren Group
2. LOCATION: Mining Division Clinton NTS Map Sheet (e.g., 82E/9E) 92 0/4 and 5
Lat. 51° 11' Long. 123° 39' UTM: E. 454000 N. 5674500
Access via the Lord River Mine Development Road near mile 42 at the Tchaikazan River
3. OWNER: Name Suncor Inc. FMC No. 257708
Address P.O. Box 38, 500 - 4th Avenue S.W. City Calgary
Province Alberta Postal Code T2P 2V5 Telephone No. 269-8100
4. OPERATOR: Name Suncor Inc. FMC No. 257708
Address P.O. Box 38, 500 - 4th Avenue S.W. City Calgary
Province Alberta Postal Code T2P 2V5 Telephone No. 269-8100
5. EXPLORATION WORK: Indicate PROPOSED [ ] or COMPLETED [X].
Duration of Exploration Work: From May 1, 1983 to October 15, 1983
Name of Field Manager Paul A. Hawkins, P. Eng. No. of men employed 10 (Average)
Geophysical IP, Mag, VLF-EM Geochemical Soil and Rock sampling
Linecutting (distance, width, method) 50 km by axe and chain saw 1 meter wide 50,000 m²
6. SURFACE DISTURBANCE OFF MINERAL CLAIMS
Road Access Construction: Total length m Approximate width m Area m²
Campsites: No. of men Size m²
Other (specify) Road Maintenance carried out on Lord River Road m²
7. SURFACE DISTURBANCE ON MINERAL CLAIMS
Trail
(a) Road Construction: Total length 3500 m Approximate width 5 m Area 17,500 m²
(b) Drilling: No. of sites 8 Maximum dimensions: Width 20 m Length 20 m
Depth 1525 m Total disturbed area of drill sites 3200 m²
Water source Tchaikazan River Method of drill mud disposal sump
(c) Trenches: No. None Maximum dimensions: Width m Length m
Depth m Total disturbed area of trenches m²
(d) Test Pits: No. None Maximum dimensions: Width m Length m
Depth m Total disturbed area of test pits m²



7. SURFACE DISTURBANCE ON MINERAL CLAIMS (CONTINUED)

(e) Camp Area: No. of men 10 Width No significant disturbance Length ..... m Area ..... m<sup>2</sup>  
 (f) Underground Exploration: Area of surface facilities ..... m<sup>2</sup>  
 (g) Other (specify) ..... m<sup>2</sup>

TOTAL OF SURFACE DISTURBANCE ON MINERAL CLAIMS ..... m<sup>2</sup>  
 (1 ha = 10 000 m<sup>2</sup>) ..... ha

8. EQUIPMENT TO BE USED IN EXPLORATION PROGRAM (List size, capacity, and number.)

(a) One-Bell Jet Ranger III (d) One D-7 Catipillar Tractor  
 (b) Three 4x4 Trucks (e) One Longyear Super 38 Drill  
 (c) One D-6 Catipillar Tractor (f) One Smaller Grader

9. PRESENT STATE OF THE LAND ON WHICH EXPLORATION IS PROPOSED

Present land use (agriculture, forestry, ranching, recreation, etc.) Vacant Crown Land  
 Type of vegetation Forested, some alpine meadows  
 Access roads (present use and condition) Lord River Road in rough condition  
 Campsites, old workings (location, condition) Fishem Lake site cleaned up and put in storage condition, Fishem Lake airstrip graded and access improved.

10. RECLAMATION PROGRAM (Prescribed reclamation treatments are outlined in *Guidelines for Mineral Exploration*.)

Camp sites Old campsite up the Tchaikazan has been reclaimed.  
 Trenches, drill sites, and major excavations All drill sites have been reclaimed.  
 Roads All trails have been approved by Forestry.  
 Seeding: Mixture MIXTURE VI, Appendix G, Guidelines for Mineral Exploration  
 Rate of application 60 kg/ha Date July 15 and September 17 by Helicopter  
 Area seeded 3.0 ha Quantity of seed 180 kg  
 Fertilizer: Type Green Valley 13-16-10 Rate of application 300 kg/ha  
 Area fertilized 3.0 ha Quantity of fertilizer 900 kg

11. SUMMARY OF AREAS DISTURBED AND RECLAIMED

Area disturbed current year 3.8 Previous years 0.1 ha Total to date 3.9 ha  
 Area reclaimed current year 3.8 Previous years (final) 1.5 ha Total to date 5.3 ha

12. DATE FOREST SERVICE ADVISED BY OPERATOR September 20, 1983

Name and Title of Forest Official Alan Kneeland R/O Protection  
 Address Alexis Creek, B.C.

Paul A. Hawkins Signature of Applicant  
Project Geologist Title  
October 18, 1983 Date  
 Print Name Date