

9229-A4-1E

PEEL PLATEAU N.W.T.

1990

3F

1 REPORT

PROJECT ACTION SHEET

RESOURCE EVALUATION BRANCH

PROJECT NUMBER 9229-A4-1E

COMPANY AMOCO CANADA LTD

REPORT TITLE GEOPHYSICAL REPORT PEEL PLATEAU

THE FOLLOWING ACTION HAS BEEN TAKEN

RECEIPT ACKNOWLEDGED NOV 13/90

REPORTS AND MAPS DATE STAMPED NOV 13/90

REPORTS FOR REVIEW LIST EDITED YES

INVENTORY SHEET MADE YES

MYLAR NO

REVIEW AND APPROVAL MADE BY

COMMENTS THREE COPIES OF REPORTS

*****RETURN APPROVED REPORTS TO MIKE MCLINTON*****

PROGRAM NUMBER 9229-A4-1E

AREA PEEL PLATEAU N.W.T.

YEAR 90

FILED UNDER

E.A.

REPORTS

OPERATIONS REPORTS:

NUMBER 1

- PEEL PLATEAU N.W.T. REPORT

INTERPRETATION REPORTS:

NUMBER 0

MAPS

SHOTPOINT MAPS

NUMBER 0

INTERPRETATION MAPS:

NUMBER 0

OTHER:

NUMBER 0

SEISMIC SECTIONS:

NUMBER 0

Canada Oil and Gas Lands
Administration
Administration du pétrole et du gaz
des terres du Canada

NOV 13 1990

Resource Evaluation Branch
Direction de l'évaluation des
ressources

Project #

Geophysical Exploration Survey

PEEL PLATEAU
Northwest Territories

Land Use Permit No. N87-B825

Co-ordinates

Latitude 65 Degrees 45' - 66 Degrees 15'
Longitude 130 Degrees 00' - 131 Degrees 15'

Permittee

WESTERN GEOPHYSICAL,
A DIVISION OF WESTERN ATLAS CANADA LTD.

Calgary, Alberta

9229-A4-1E

Licencee

AMOCO CANADA PETROLEUM COMPANY LTD.

Calgary, Alberta

Report By

Charlie Range - Party Manager

Survey Type - Reflection Seismograph (Dynamite)

Work Period - January 25, 1990 thru March 16, 1990

Party 367

March, 1990

Rec
May 1990
LML

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CAGB-001

CAGB-002

CAGB-003

CAGB-004

CAGB-005

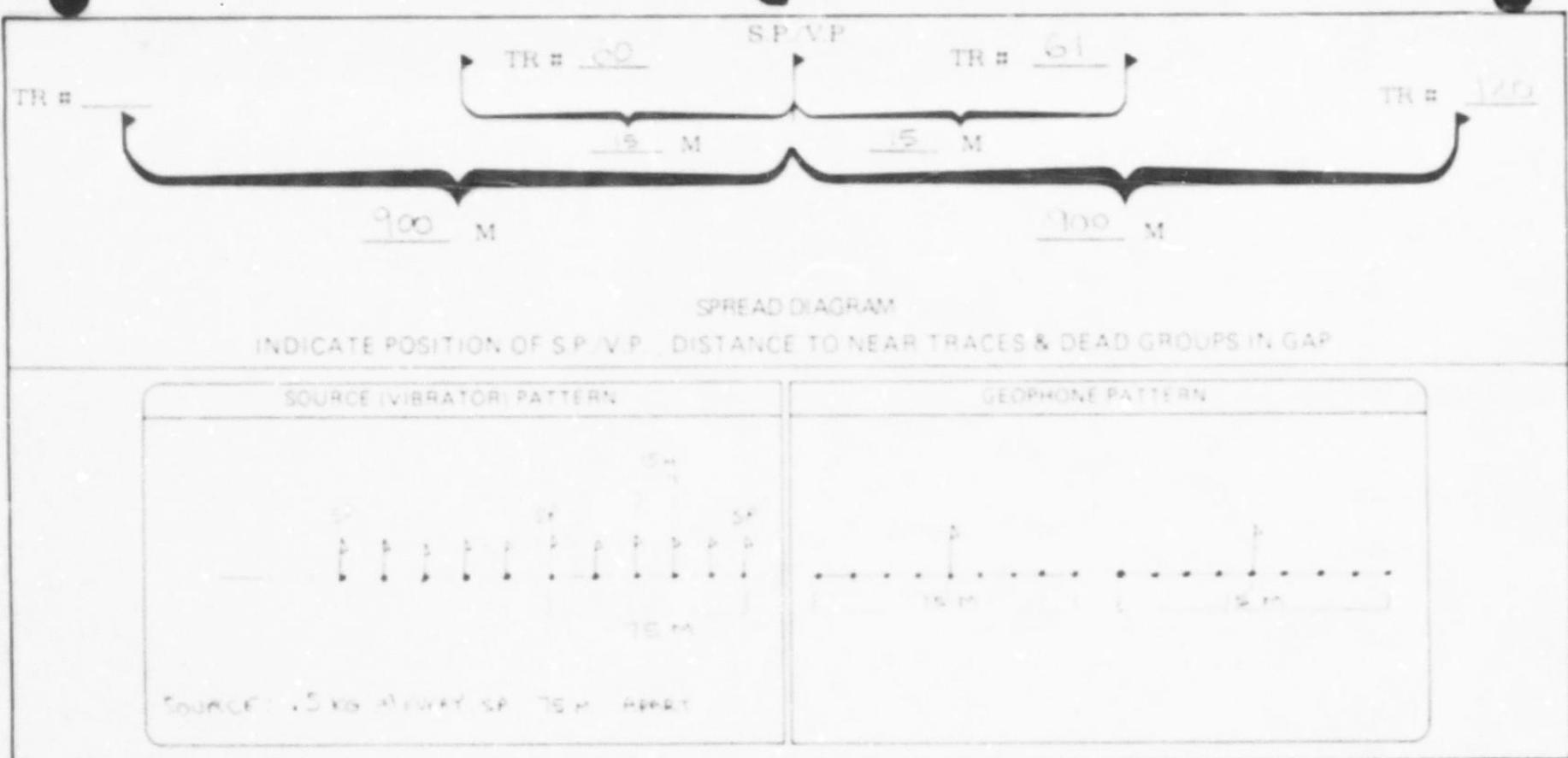
CAGB-006

CAGB-007

CAGB-008

Amoco Access

THE VENOM HOME



INSTRUMENTS

Make TEXAS INSTRUMENTS
 Model DES 2
 Tape Format 56G B
 Sample Rate 2 m.s.
 No. Channels 120
 B.P.I. 1600
 Tape Type 8 in. MEMOREX
 HI-CUT 120
 LO-CUT OUT
 REJECT OUT
 PRE-AMP GAIN 36 dB
 Summed Sweep Tr/UH 61 Aux 1
 Unsummed Sweep Tr/TB 62 Aux 3
 Camera 50 Hz Tr. 64 Aux 4

SPREAD

S.P./V.P. Spacing 75 m
 Group Int 15 m
 Geo. Make/Model LRS 100
 Geo. Frequency 14 Hz
 Geo. Damping 70
 Geo. Array CENTERED 9 over 15 m
 Geo. Base CENTER
 Geo. Wired 3 x 3
 Gap 1 5th 15 m
 CDP Coverage 1200 %

INTRODUCTION

The Peel Plateau project is located in the Northwest Territories, west of Ft. Good Hope approximately 90 kilometers. The prospect was split in two by the Ramparts River. For the most part it was fairly level and large burn areas. Ravines and creeks were encountered as we approached the edges of the Rampart River.

Ft. Good Hope is located some 1800 miles north of Calgary with the equipment coming from Western Geophysical's Norman Wells compound.

Survey was conducted by Star Tech Land Surveys of Ft. Good Hope.

Supervision was handled by Mr. Charles McCaughy and Mr. John Zimiski of Amoco Canada. Western Geophysical's supervisor was Mr. Darrel Elliott. Field operations were coordinated by Party Manager Charlie Range and dozing coordinated by Willie Campbell of Borek Construction.

Most key personnel were obtained from Western Geophysical's Calgary office with remaining crew members being native residents from Ft. Good Hope, Coleville Lake, Ft. Franklin and Ft. Norman. The native residents comprised of 53% of field personnel.

Expediting was conducted out of Norman Wells by two people. One van, one truck, telephone, radios and trailer office fully contained with an attached sleeper for travelling crew member. Fuel, food, aircraft, explosives and other essentials as well as some mechanical work were coordinated by expeditors.

The fuel consumption per day was 1250 gallons of diesel fuel and 40 gallons of gasoline. Fuels and lubricants were purchased from a bulk station in Norman Wells.

Canadian Airlines International was utilized from southern Canada to ship both men and parts to Norman Wells. The reverse was the rule upon completion of the seismic operation. Various sizes of fixed-wing aircraft and helicopter were used on a charter basis. These aircraft transported personnel, food and parts.

Weather conditions during the course of the program were below normal with temperatures in the -50 degree range in January and February. No recording production was lost due to weather conditions, and weather returned to more normal temperatures the last half of February.

Recording started on February 6th, 1990 on the Peel Plateau program. We continued work until program was completed on March 9th, 1990. All equipment was then 'walked' back to the Norman Wells compound via Chevron winter road, crossing the MacKenzie River on the Ogaluy ice crossing 20 miles north of Norman Wells.

FIELD PROCEDURES

Recording

a) Instruments	DFS-V
b) Format	S.E.G. PE 1600 BPI
c) Number of Traces	120
d) C.D.P. Coverage	1200%
e) Detectors Type & Hz	LRS-1011 14 Hz
f) Number of Cables Used	25
g) Length of Each Cable	395 m
h) Number of Detector Strings	350
i) Number of Detectors Per Station	9
j) Detector Spacing	1.8 m
k) Distance Geophones Spread Over	9/15 m
l) Distance Between Stations	15 m
m) Distance Between S.P.'s	75 m
n) Sample Rate	2 ms
o) Record Length	3 sec
p) Filters - Alias	128 Hz
- Low Cut	Out
- Reject	Out

The cable layout was 900-15-15-900 balanced spread. Group 1 was always to the north or east of each line shot.

Record quality ranged from fair to good throughout the course of the survey.

Flagging for survey control, shotpoint, and geophone locations were removed by the recording personnel after each line was shot. Aluminum tags were nailed to a tree near a shotpoint location by the surveyors. All tags indicated the land use number, line number and shotpoint number of the location.

TESTING

Western Geophysical instrument tests were run at the beginning and middle of every month and sent to Calgary for processing.

Specific Amoco instrument tests were requested and run before starting the crew. Western Geophysical's FACE* was also utilized.

SURVEYING

One Wild T-1 theodolite survey instrument used for horizontal and vertical control. Two Sokkisha Red II E.D.M. were also used for control throughout the prospect.

Mr. Jerry Symonds, Head Surveyor; and Mr. Barry Alford and Victor Cook, second surveyors, along with three native rodmen comprised three complete survey crews.

Shotpoint and geophone group location distances were derived using a surveyor's steel road chain. Pin flags marked the geophone and shotpoint locations.

Chainage notes were kept for each line and forwarded to Amoco with the record shipments.

New cut line locations were derived from topographic features and sun shots. When a helicopter was available the machine was used for a 'Line of Sight' to set off the dozers. Station elevation were computed by E.D.M. and horizontal locations by latitudes and departures. The lines were plotted on base maps obtained from Amoco and all original survey notes, location sheets, closure sheets, base maps and final report maps were forwarded to Amoco.

The final horizontal presentation was in the U.T.M. grid and all survey work was performed in the metric system.

DOZING

The Peel Plateau project was all entirely new cut line. The lines were cut to a 30 foot width with the slash windowed to one side of the trail and compacted by the dozers. Creek crossings were snow fills which were removed after completion of the shooting.

Eight dozers were assigned to the operation. One D-7 and one D-6 cut and cleared line; five D-7's moved camps and did line clean-up, hauled fuel and removed creek crossings. One 977-L was used on move and fuel haul.

LAND USE

Land Use supervision was handled by the Northwest Territories. The permit was issued by the Inuvik office. Prior to the land use permit being issued, meetings occurred in Ft. Norman and Ft. Good Hope with the representatives of Amoco, Western Geophysical, Land Use and the native interest groups of the area. This meeting resulted in the conditions being drafted into Land Use Permit.

Dozers used 'shoes' on the dozer blades to elevate the 'cutting edge'. This procedure resulted in a minimum of six inches of snow cover on the tundra. All flagging, lathe and survey markers were removed from the surface behind the recording crew. Garbage, waste lubricants and other disposables were incinerated in barrels. All other garbage was compacted. The ashes and residue were flown to Norman Wells for disposal.

Final plans of the new cut line, campsite locations and access used were submitted to Amoco upon termination of the 1990 Peel Plateau survey.

DYNAMITE CREW COMPOSITION

Recording

1 - Observer	
1 - Assistant Observer	
4 - Cable Truck Drivers	
9 - Recording Helpers	
1 - Shooter	
1 - Shooter's Helper	17 Men

Drills

6 - Drillers	
6 - Drill Helpers	
1 - Drill Push	
1 - Water Hauler	14 Men

Surveying

3 - Surveyors	
3 - Rodmen	6 Men

Catering

3 - Cooks	
2 - Assistant Cooks	
3 - Camp Attendants	8 Men

Additional

1 - Party Manager	
1 - Clerk	
2 - Mechanics	
2 - Mechanic's Helpers	
2 - Expeditors	8 Men

Line Cutting and Clearing

8 - Machine Operators	
1 - Foreman	
	<u>9 Men</u>
	Total Personnel
	<u>62 Men</u>

EQUIPMENT

Full description of all vehicles, dozers, camp, etc.

Camp

1 - Recreation Trailer	
3 - Kitchens	Sleigh Mounted 10X40
3 - Utility Storage	Sleigh Mounted 10X40
5 - Generators (125kw)	Sleigh Mounted 10X36
Shop Storage	
2 - Office Sleepers	Sleigh Mounted 10X40
8 - Sleepers	Sleigh Mounted 10X40
8 - Fuel Sloops	3000 Gallon Capacity Each
1 - Incinerator Unit and Fuel	
1 - Miscellaneous Sleigh	
1 - Powder Magazine	Sleigh Mounted 10X40
1 - Sleeper Medic Combo	

Recording & Survey

1 - Track Recording Unit	FN-110
5 - Track Cable Units	FN-110 & FN-160
2 - Track Mechanic Units	FN-110 with Portable Shop & Tools, etc.
1 - Party Manager Unit	AT-80
3 - Water Trucks	FN-110
3 - Track Survey Units	FN-60
4 - Air Conventional Drill Units	FN-110
3 - Top Drive Drill Units	FN-110
1 - Track Shooting Unit	FN-75
1 - Bombardier	Narrow Guage

Cats

6 - D7 Cat Cutting Line	
1 - D6 Cat Cutting Line	
1 - Survival Trailer	Sleigh Mounted 10X40
1 - 977-L Cat (Loader)	

GEOPHYSICAL STATISTICAL DATA

Project Name: Peel Plateau, N.W.T.

Crew: 367

Project No.: 89-084

Road Allowance Permit Numbers: N/A

Contractor's Geophysical Licence or Permit Number: N87-B825

A.F.E. Number: N/A

Geophysical Licence Number: 338

Dates of Operations

Surveyors commenced on	February 2, 1990
Drills commenced on	February 2, 1990
Recorders left base on	January 26, 1990
Recording commenced on	February 2, 1990
Recording suspended on	N/A
Recording recommenced on	N/A
Recording completed on	March 10, 1990
Vehicles released on	March 16, 1990

Production

Number of kilometers shot	182
Number of shots taken	2454
Number of stations	12,133
Number of recording days	30
Average Daily Production:	
a) Kilometers shot	6.07
b) S.P.'s Recorded	80.93
Days lost due to weather condition	1
Days lost due to equipment failure	N/A

CONTRACTORS

Principal Contractor

Western Geophysical,
A Division of Western Atlas Canada Ltd.
2612 - 37th Avenue N.E.
Calgary, Alberta T1Y 5L2

Sub-Contractors

1. Star-Tech Land Surveys Ltd.
Ft. Good Hope, N.W.T.
2. Duhoga Services
Ft. Good Hope, N.W.T.
3. Polar Night Services
Ft. Good Hope, N.W.T.
4. Little Dipper Cartage
Ft. Good Hope, N.W.T.
5. Tue-Ni-Li
Ft. Good Hope, N.W.T.
6. Borek Construction Ltd.
Dawson Creek, B.C.
7. Esso Petroleum (Island Valley Petroleum)
Norman Wells, N.W.T.

The foregoing report is respectfully submitted by

**WESTERN GEOPHYSICAL,
A DIVISION OF WESTERN ATLAS CANADA LTD.**

Darrel Elliott, Supervisor