



B-66-130

PHOTOGRAVITY SURVEYS LTD.

ONTARATUE PROSPECT
N.W.T. XC71-1558

BOUGUER GRAVITY MAP

SCALE - 1" = 4000ft. C.I. - 0.2 Mg/g

ELEVATION CORRECTION FACTOR - 0.06471

CLASS I

AMOCO CANADA PETROLEUM CO. LTD.

60-8-6-112

REPORT OF GEOPHYSICAL & GRAVITY SURVEY

Conducted by Photogravity Surveys Ltd.
for Amoco Canada Petroleum Company Ltd.

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During Period of March 4 to March 31, 1971
On Ontaratue, N.W.T. Permit Numbers 5546-5552

Prepared by
C.W. Allison, District Geophysicist

Abstracted for
Geo-Science Data Index
Date _____

REPORT OF GEOPHYSICAL SURVEY

REPORT OF GRAVITY SURVEY

Conducted By
Photogravity Surveys Ltd.
for
Amoco Canada Petroleum Company Ltd.

During Period of March 4, 1971 to March 31, 1971

On Ontaratue N.W.T.
Permit Numbers 5546 - 5552

Prepared by
C.W. Allison
District Geophysicist



Submitted in support of application for credit, see affidavit
made by _____ of _____ and in
accordance with work obligations under Section 54(F) of the
Territorial Lands Act.

TABLE OF CONTENTS

	<u>Page</u>
Table of Contents	1
Locality Map	2
Introduction	3
Statistical Data	
Dates	4
Production	4
Equipment	4
Personnel	5
Surveying	5
Conditions	5
Field Procedures	6
Data Processing	6
Results and Interpretation	6
 Bouguer Gravity Map	 In Pocket
Surface Topography	In Pocket



ONTARIO

I N T R O D U C T I O N

A gravity survey was conducted during March 1971 on Ontaratue, Northwest Territories Permit Numbers 5546 to 5552. The survey was conducted by Photogravity Surveys Ltd. for Amoco Canada Petroleum Company Ltd.

STATISTICAL DATA

DATES

Photogravity Party 601 left Calgary March 2, 1971 and commenced field operations on March 4, 1971. The survey was completed on March 31, 1971. The helicopter was mobilized March 2 and released on March 31.

PRODUCTION

A total of 485 stations (approximately 115 miles) were surveyed in 28 days in the field, yielding an average daily production of 17 stations. Of the 28 days, two were down-days, one due to weather and one for repairs to the helicopter.

EQUIPMENT

Gravity measurements were made with a Worden Master gravity meter.

Transportation to and from Fort Good Hope each day was by helicopter. Two snowmobiles (one Ski-doo, one Moto-ski) were used for transportation in the field.

PERSONNEL

1 Surveyor/Party Chief

1 Observer

1 Pilot

1 Engineer

2 Helpers

TOTAL 6 MEN

SURVEYING

Station locations were spotted on aerial photographs and checked by distances chained on the ground from readily recognizable points such as seismic line intersections and then scaled onto photos.

Elevations were obtained by three field altimeters and a base barograph. Seismic elevations at line intersections provided checks on the altimeter readings.

CONDITIONS

The deep, soft snow (4-5 feet) could not support the snowmobiles, and as a result, much of the survey was done on snowshoes.

FIELD PROCEDURES

Two men, working in tandem, chained the stations, taking gravity and altimeter readings at each station.

DATA PROCESSING

The measured gravity at each station was corrected to sea level using a Bouguer factor of 0.06471 mgal/ft.

RESULTS AND INTERPRETATION

Bouguer anomalies are interpreted to be the result of structure on the Nahanni carbonate, which is overlain by lower density Cretaceous shales.

The Bouguer Gravity map shows a positive anomaly, indicating a structural high on the Nahanni, over a feature previously mapped by reflection seismic. The feature had been previously tested by the Atlantic Outaratus K-4 well. No new positives of interest have been discovered.

Respectfully submitted by

AMOCO CANADA PETROLEUM COMPANY LTD.



C.W. Allison
District Geophysicist