

SEISMOGRAPH REPORT

on

NORTHWEST TERRITORIES PERMITS

No. 3063 Thru 3073 and No. 2905

CONDUCTED BY

NATIONAL GEOPHYSICAL CO. OF CANADA

for

HUDSON'S BAY OIL AND GAS COMPANY LIMITED

AMEERADA PETROLEUM CORPORATION

MARATHON OIL COMPANY



C O N T E N T S

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### INTRODUCTION

Hudson's Bay Oil and Gas Company Limited acting as operator for Northwest Territories Permit No's 3063 thru 3073 and Permit No. 2905, which are jointly owned by Amerada Petroleum Corporation, Marathon Oil Company and Hudson's Bay Oil and Gas Company Limited, conducted a geophysical seismograph survey on the above grouped permits during the period from December 1, 1962 to April 17, 1963. The seismograph operations were contracted by National Geophysical Co. of Canada Ltd. The dozing was contracted by Bain Brothers Construction Limited and the catering of camp services was awarded to Fortier Northey & Associates Holdings Ltd.

All equipment, materials and supplies were assembled at Hay River, Northwest Territories and transported by barge along the MacKenzie River to our off-loading site at 62° 9' N. Latitude and 123° 3' W. Longitude. The preparations for the seismograph work were commenced in May of 1962 when an on-site inspection was made to determine the optimum location for unloading of the equipment which was to take place during the months of July and August. Bulldozing was commenced in November with the seismograph crew commencing operations on December 1, 1962. Operations were conducted continuously throughout the winter with the exception of a few days break at Christmas. The dozing of trails was accomplished by three D7 caterpillar bulldozers. The drilling was done using two air-water combination National drills with one drill being operated on a double shift. National Geophysical's recording seismograph instruments were used in conjunction with a Techno Magnetic tape recorder. A BH HH (18-140 C.P.S.) filter was used to record on tape and for the Monitor Record. A CH EH (26-74 C.P.S.) filter was normally used for playback of the Magnetic Tape.

The field operation employed an average of 26 men with an additional four men headquartered in Ft. Nelson, British Columbia which was the interpretive office. The operation was also supported by Hudson's Bay Oil and Gas Company's Beaver Aircraft employing a pilot and engineer.

STATISTICS

1.	Working Days	112
2.	Setups	1,058
3.	Basement Traverse	241 miles
4.	Shots	2,290
5.	Dynamite Used	10,705 lbs.
6.	Dynamite per Shot	11.1 lbs.
7.	Holes Drilled	1,079
8.	Footage Drilled	66,205 feet
9.	Average Hole Depth	61 feet

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MAP DISCUSSION

EXHIBIT I

This is a small scale map which has outlined thereon the permits covered by this report. Due to accessibility the work was confined to that area south of the river and more specifically Permits No. 3063 thru 3068.

EXHIBIT II

This is a shotpoint location map which has shown thereon the location of our base camp along the MacKenzie River as well as the air landing strips which were constructed by us during the operation.

EXHIBIT III

This is a shotpoint location map on which the surface elevations have been tabulated. All surveying was done using a transit and has been tied both vertically and horizontally to the existing Government control in the area. All elevations are referred to sea level.

× EXHIBIT IV

This is a contour structure map on a horizon which has been tentatively identified as the Leiorhynchus Zone. All identifications are subjected to error due to lack of subsurface control to which the data can be tied.

× EXHIBIT V

This is a structure contour map which has been tentatively identified as Pre Devonian and is believed to be near the basement.

× EXHIBIT VI

This is an Isochron of the interval between Leiorhynchus and Pre Devonian horizons.

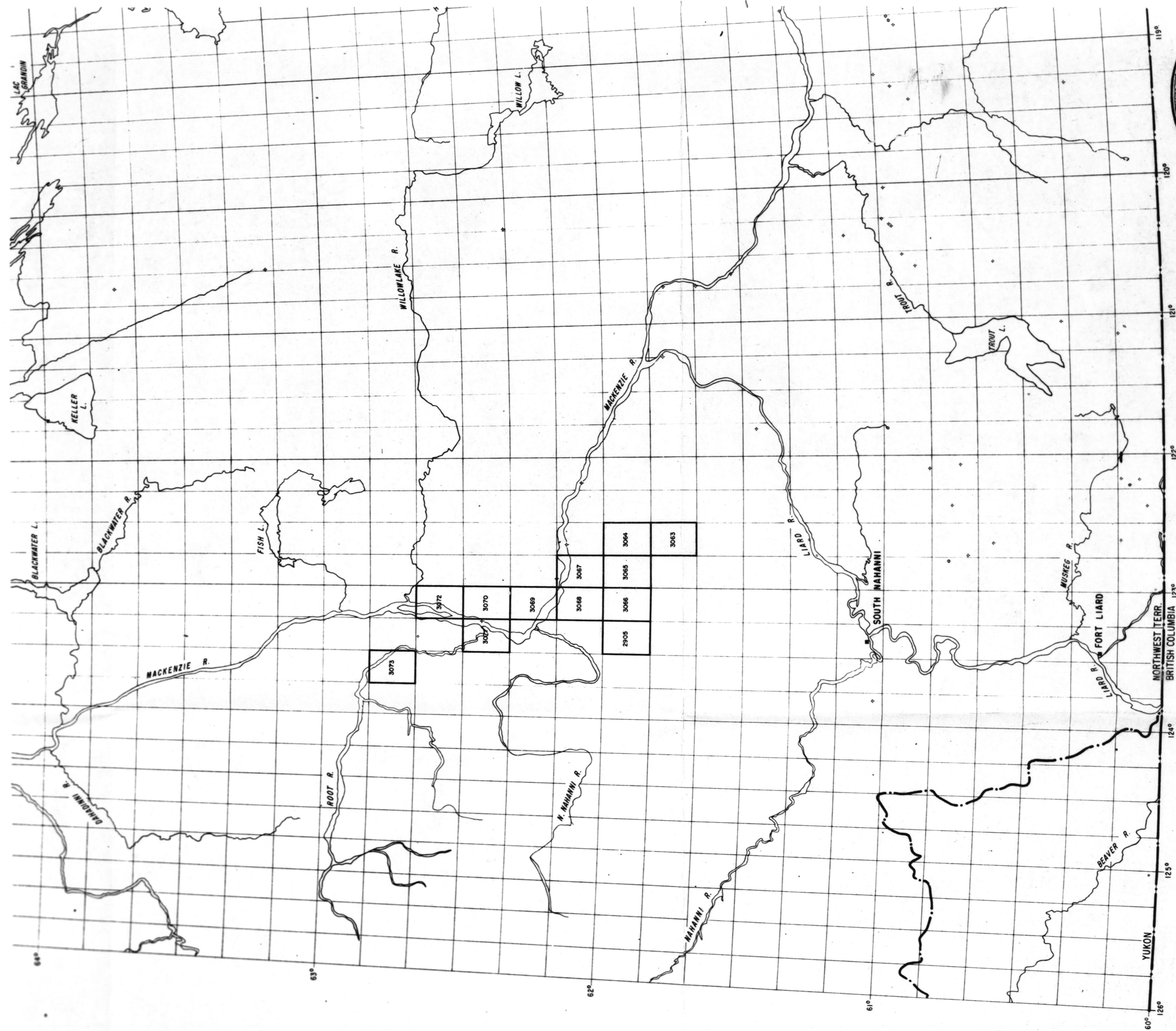
HUDSON'S BAY OIL AND GAS COMPANY LIMITED

*Not received with report.*



D. E. Fickinger,  
Assistant Chief Geophysicist.

May 14, 1963.



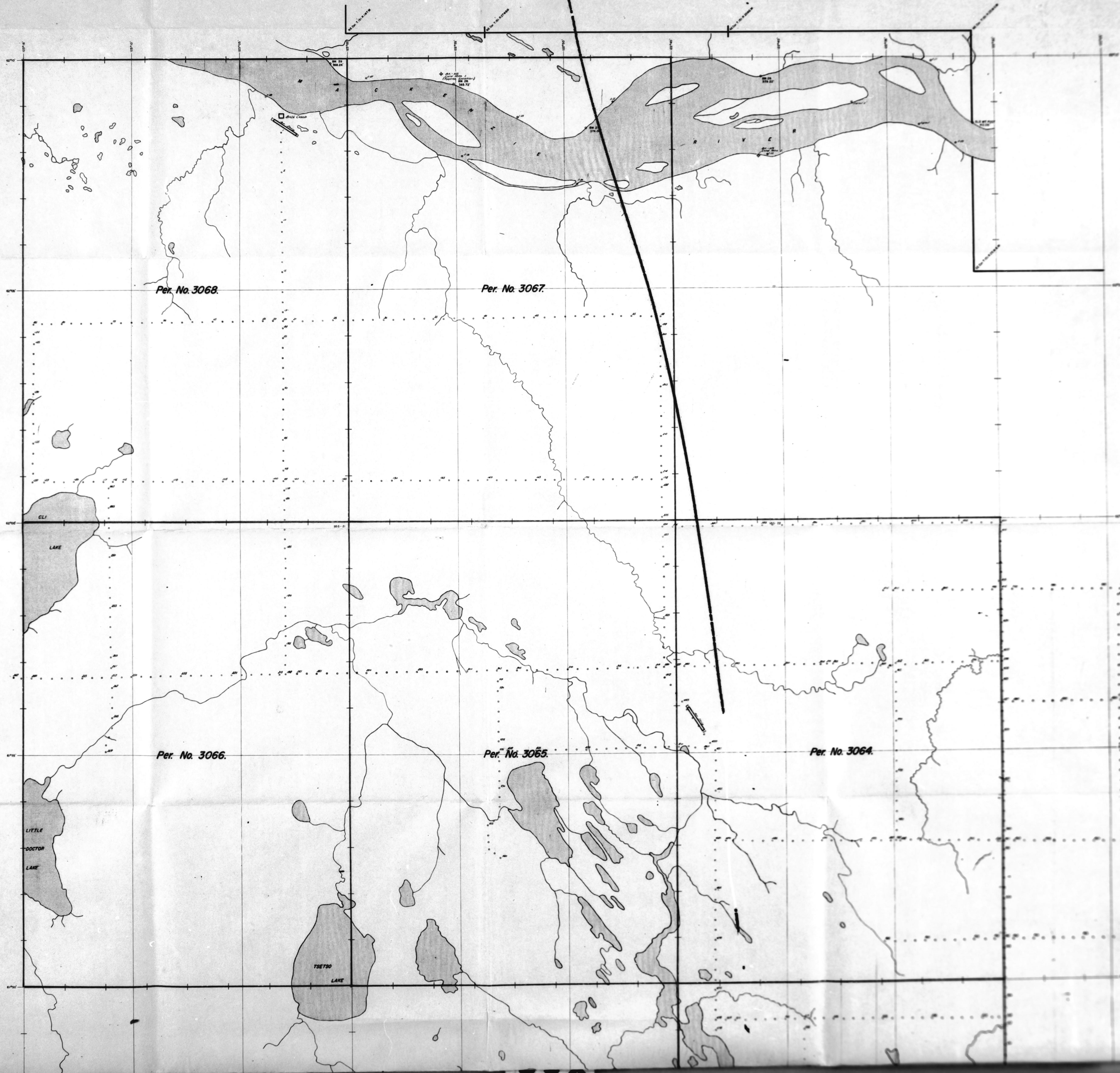
30-6-4-3  
EXHIBIT 1  
INDEX MAP  
Scale: 1 in. = 16 mi.  
283

SPR





CAMSELL BEND





CAMSELL BEND

