

246 06 04 078

OPERATIONS REPORT

OF

REFLECTION SEISMOGRAPH SURVEY

OF

BOVIE AREA, N.W.T.

FOR

PETRO-CANADA EXPLORATION INC.

BY

CENTURY GEOPHYSICAL CORPORATION OF CANADA

Party S-26

JANUARY & FEBRUARY 1977

GENERAL INFORMATION

The Bovie Area is situated approximately 20 miles South-East of the Ft. Liard Indian Reservation.

47.71 miles  
\* The assigned program consisted of ~~42.80~~ miles of 600% C.D.P. coverage.

Record quality was generally good throughout the area.

Five drills were used in the area, two Sewell Augers, two Garner-Denver Top Drives and one Mayhew 1000.

All recording units were 1-ton 4 X 4's. The Party Manager and Survey Units were 3/4-ton 4 X 4's.

The area was generally hilly, but did not create any serious problems.

Mr. R. Hambling was the Party Manager and Mr. F. Greilach was the Field Supervisor.

Respectfully submitted,

CENTURY GEOPHYSICAL CORPORATION OF CANADA,



F. Greilach,  
Geophysical Supervisor.



PROJECT PARAMETERS

CLIENT: PETRO-CANADA EXPLORATION INC.,

CLIENT REPRESENTATIVE: M. Buthfer

PROJECT NAME: BOVIE

LOCATION: Latitude 60° 00' to 60° 15'  
Longitude 122° 45' to 123° 15'

LICENCE NO: 159

LAND USE PERMIT: N76B426

FIELD HEADQUARTERS: Fort Nelson, B.C. (Camp)

ACCESS ROAD: Kotcho & Cabin Lake Road

TERRAIN: Hilly with muskeg areas

DOZING: Kledo Construction

CLEAN-UP: W. Fell

COVERAGE: 600%

MILES SHOT: 42.80 + 1.6 = 44.4

SURVEY: Well location and Bench mark.  
Texaco Well - J-72 run South to Border  
Bench mark.

SPREAD LENGTH: 5280 - 0 - 5280

STATION INTERVAL: 220'

SHOT POINT INTERVAL: 880'

LINE NUMBERING: 712 to 719

DRILLING CONDITIONS: Clay rocks, Shale and Sandstone

### DRILLS USED

Garritty & Baker: Two Sewell Augers mounted on 1966 GMC's

Ford Drilling: Two Garner Top Drives mounted on 1974 GMC Single Axle and one mounted on 1976 GMC Tandem.

Stan Miller Drilling: 1000 Mayhew mounted on 1968 Dodge 500

Ford Drilling: Spare Water Truck, 1973 GMC with 1800 gallon tank.

### CATS

Kledo Construction: One D-6-C Wide Pad with winch & dozer  
One D-7-F with winch & dozer  
One D-7-F with rear ripper & dozer

### RECORDING UNITS

Party Manager Truck: 1977 Ford 250

Recorder: 1976 Dodge W300-4 X 4

Shooting Truck: 1976 Dodge W300-4 X 4

Line Trucks: Two, 1976 Dodge W300-4 X 4

### SURVEY UNITS

Two, 1977 Chev 3/4-ton 4 X 4's

### RECORDING

INSTRUMENTS:	D.F.S.-V, 48 Trace, 9 Track
SAMPLE RATE:	2 m.s.
RECORD LENGTH:	4 sec.
GAIN MODE:	Binary
FILTER:	12 - 128
GEOPHONES:	Mark L-10, 14 cycle, 15' spacing, 18 per trace
RECORD QUALITY:	Good
OPERATOR:	M. Murray

### EFFICIENCY STATISTICS

RECORDING HOURS:	122.0
PROFILES:	263
SUBSURFACE COVERAGE:	42.80 miles
NUMBER OF SHOTS:	283
DYNAMITE USED:	3,595
CAPS USED:	477

### DRILLING STATISTICS

TOTAL FOOTAGE:	27,537
TOTAL DRILL HOURS:	579.5
TOTAL FEET PER HOUR:	47.51
TOTAL DRILLING COST:	\$20,386.75
DRILLING COST PER FOOT:	74¢

**CATS**

### Kledo Construction:

1 - D-6-C 312.0 hrs @ \$38.00 = \$ 11,856.00

2 - D-7-F 534.0 hrs @ \$45.00 = \$ 24,030.00

**D-7-F with Ripper:**

37.0 hrs @ \$52.00 = \$ 1,924.00

**Cartage:**

**= \$ 700.00**

TOTAL .

**\$ 38,510.00**

**CAMP**

The camp was owned by Nodwell Bros., Calgary, Alberta.

**TOTAL CAMP COST:**

**\$ 1,804.15**

## CATERING

The catering was done by Foothills Caterers.

TOTAL MAN DAYS - 285 @ \$17.50

**\$ 4,987.50**

TRUCKING CHARGES:

**\$ 10,825.00**

\* NOTE: IMPORTANT MEMO

Please note there has been 4.91 miles of program deleted from the BOVIE area Operations Report.

The lines are: #713 = 2.41 miles

North end  
of #705 = 2.50 miles

**4.91 Miles**

**BITS USED:**

Inserts:	66	-	\$2,635.20
Auger Stem:			\$3,579.15
Total Cost:			\$6,214.35
Cost per Foot:	22¢		

Garritty & Baker #15:	Footage:	5,890
	Total Hours:	114.5
	Feet Per Hour:	51.44

Garritty & Baker #18:	Footage:	5,016
	Total Hours:	100.5
	Feet Per Hour:	49.71

Ford DRilling #1:	Footage:	6,535
	Total Hours:	122.0
	Feet Per Hour:	53.56

Ford Drilling #2:	Footage:	6,907
	Total Hours:	121.5
	Feet Per Hour:	56.84

Miller Drilling:	Footage:	3,189
	Total Hours:	121.0
	Feet Per Hour:	26.35

Ford Drilling - Spare Water Truck:	Total Hours:	115.5
---------------------------------------	--------------	-------



Hydro-Canada Corporation Ltd.  
Geological Survey

Geological Survey

Scale: 1:50,000

North Arrow

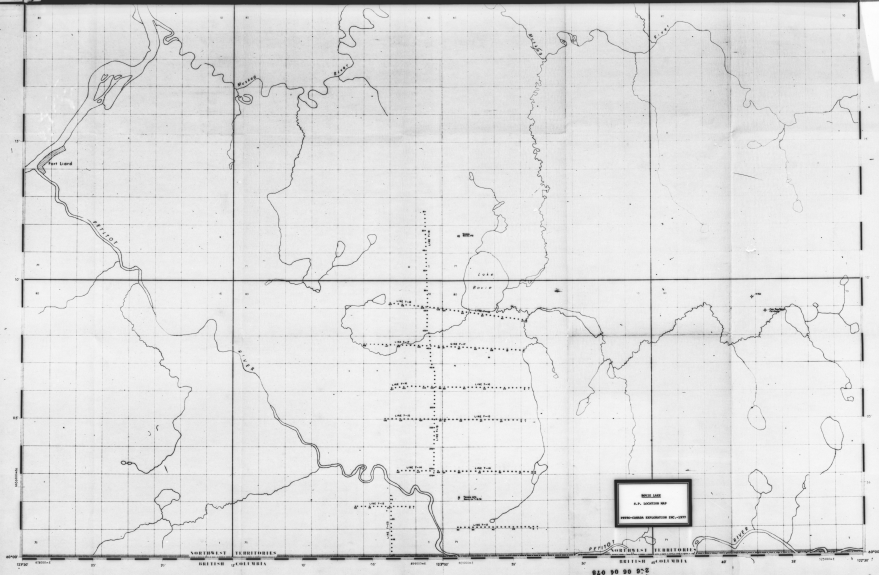
Geological Survey

1:50,000

Geological Survey

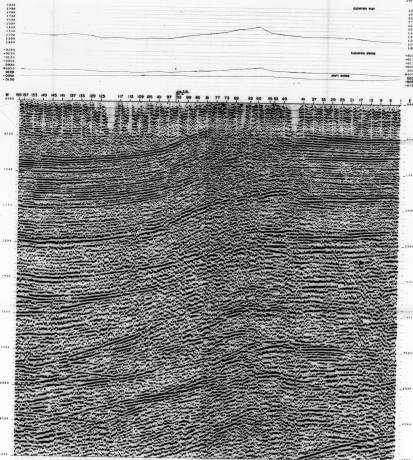
Scale: 1:50,000

Geological Survey



820 90 90 90 90

LAKE ROVE



1999

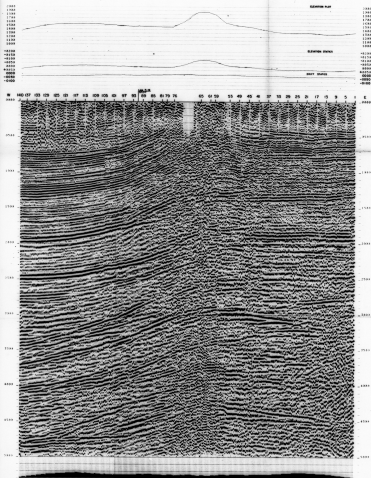
[illegible]

DATE	TIME	NAME	ROOM	STATUS
10/10/20	10:00	JOHN DOE	101	PRESENT
10/10/20	10:00	JANE SMITH	101	PRESENT
10/10/20	10:00	BOB JONES	101	PRESENT
10/10/20	10:00	ALICE BROWN	101	PRESENT
10/10/20	10:00	CHARLIE WHITE	101	PRESENT
10/10/20	10:00	DAVID GREEN	101	PRESENT
10/10/20	10:00	EVE BLACK	101	PRESENT
10/10/20	10:00	FRANK GRAY	101	PRESENT
10/10/20	10:00	GRACE HARRIS	101	PRESENT
10/10/20	10:00	HELEN KING	101	PRESENT
10/10/20	10:00	IRVING LYNN	101	PRESENT
10/10/20	10:00	JACK MANN	101	PRESENT
10/10/20	10:00	JILL OLSON	101	PRESENT
10/10/20	10:00	JOHN PETERSON	101	PRESENT
10/10/20	10:00	JANE QUINN	101	PRESENT
10/10/20	10:00	BOB ROSS	101	PRESENT
10/10/20	10:00	ALICE STEVENSON	101	PRESENT
10/10/20	10:00	CHARLIE TAYLOR	101	PRESENT
10/10/20	10:00	DAVID WATSON	101	PRESENT
10/10/20	10:00	EVE YOUNG	101	PRESENT
10/10/20	10:00	FRANK ZIMMERMAN	101	PRESENT

[illegible]







200 06 01 07E

[illegible]

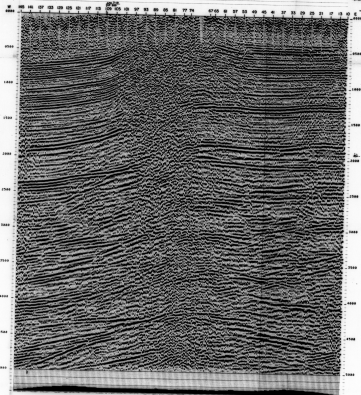
2000  
1500  
1000  
500  
0  
-500  
-1000  
-1500  
-2000  
-2500  
-3000  
-3500  
-4000  
-4500  
-5000  
-5500  
-6000  
-6500  
-7000  
-7500  
-8000  
-8500  
-9000  
-9500  
-10000

RECEIVED DATA

2000  
1500  
1000  
500  
0  
-500  
-1000  
-1500  
-2000  
-2500  
-3000  
-3500  
-4000  
-4500  
-5000  
-5500  
-6000  
-6500  
-7000  
-7500  
-8000  
-8500  
-9000  
-9500  
-10000

RECEIVED DATA

RECEIVED DATA



OF 100 TO 100

TIME  
100  
200  
300  
400  
500  
600  
700  
800  
900  
1000

OF 100 TO 100

TIME  
100  
200  
300  
400  
500  
600  
700  
800  
900  
1000

OF 100 TO 100

TIME  
100  
200  
300  
400  
500  
600  
700  
800  
900  
1000



PETRO-CANADA LTD

MONTREAL

DATE

W 100 100 100 100

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

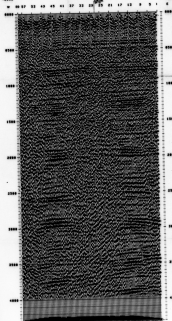
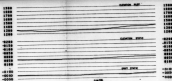
RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA

RECEIVED DATA



TIME & MAGNETIC FIELD

TIME	MAGNETIC FIELD
0000	1700
0005	1705
0010	1710
0015	1715
0020	1720
0025	1725
0030	1730
0035	1735
0040	1740
0045	1745
0050	1750
0055	1755
0100	1760
0105	1765
0110	1770
0115	1775
0120	1780
0125	1785
0130	1790
0135	1795
0140	1800
0145	1805
0150	1810
0155	1815
0200	1820
0205	1825
0210	1830
0215	1835
0220	1840
0225	1845
0230	1850
0235	1855
0240	1860
0245	1865
0250	1870
0255	1875
0300	1880
0305	1885
0310	1890
0315	1895
0320	1900
0325	1905
0330	1910
0335	1915
0340	1920
0345	1925
0350	1930
0355	1935
0400	1940
0405	1945
0410	1950
0415	1955
0420	1960
0425	1965
0430	1970
0435	1975
0440	1980
0445	1985
0450	1990
0455	1995
0500	2000
0505	2005
0510	2010
0515	2015
0520	2020
0525	2025
0530	2030
0535	2035
0540	2040
0545	2045
0550	2050
0555	2055
0600	2060
0605	2065
0610	2070
0615	2075
0620	2080
0625	2085
0630	2090
0635	2095
0640	2100
0645	2105
0650	2110
0655	2115
0700	2120
0705	2125
0710	2130
0715	2135
0720	2140
0725	2145
0730	2150
0735	2155
0740	2160
0745	2165
0750	2170
0755	2175
0800	2180
0805	2185
0810	2190
0815	2195
0820	2200
0825	2205
0830	2210
0835	2215
0840	2220
0845	2225
0850	2230
0855	2235
0900	2240
0905	2245
0910	2250
0915	2255
0920	2260
0925	2265
0930	2270
0935	2275
0940	2280
0945	2285
0950	2290
0955	2295
1000	2300
1005	2305
1010	2310
1015	2315
1020	2320
1025	2325
1030	2330
1035	2335
1040	2340
1045	2345
1050	2350
1055	2355
1100	2360
1105	2365
1110	2370
1115	2375
1120	2380
1125	2385
1130	2390
1135	2395
1140	2400
1145	2405
1150	2410
1155	2415
1200	2420
1205	2425
1210	2430
1215	2435
1220	2440
1225	2445
1230	2450
1235	2455
1240	2460
1245	2465
1250	2470
1255	2475
1300	2480
1305	2485
1310	2490
1315	2495
1320	2500
1325	2505
1330	2510
1335	2515
1340	2520
1345	2525
1350	2530
1355	2535
1400	2540
1405	2545
1410	2550
1415	2555
1420	2560
1425	2565
1430	2570
1435	2575
1440	2580
1445	2585
1450	2590
1455	2595
1500	2600
1505	2605
1510	2610
1515	2615
1520	2620
1525	2625
1530	2630
1535	2635
1540	2640
1545	2645
1550	2650
1555	2655
1600	2660
1605	2665
1610	2670
1615	2675
1620	2680
1625	2685
1630	2690
1635	2695
1640	2700
1645	2705
1650	2710
1655	2715
1700	2720
1705	2725
1710	2730
1715	2735
1720	2740
1725	2745
1730	2750
1735	2755
1740	2760
1745	2765
1750	2770
1755	2775
1800	2780
1805	2785
1810	2790
1815	2795
1820	2800
1825	2805
1830	2810
1835	2815
1840	2820
1845	2825
1850	2830
1855	2835
1900	2840
1905	2845
1910	2850
1915	2855
1920	2860
1925	2865
1930	2870
1935	2875
1940	2880
1945	2885
1950	2890
1955	2895
2000	2900
2005	2905
2010	2910
2015	2915
2020	2920
2025	2925
2030	2930
2035	2935
2040	2940
2045	2945
2050	2950
2055	2955
2100	2960
2105	2965
2110	2970
2115	2975
2120	2980
2125	2985
2130	2990
2135	2995
2140	3000
2145	3005
2150	3010
2155	3015
2200	3020
2205	3025
2210	3030
2215	3035
2220	3040
2225	3045
2230	3050
2235	3055
2240	3060
2245	3065
2250	3070
2255	3075
2300	3080
2305	3085
2310	3090
2315	3095
2320	3100
2325	3105
2330	3110
2335	3115
2340	3120
2345	3125
2350	3130
2355	3135
2400	3140
2405	3145
2410	3150
2415	3155
2420	3160
2425	3165
2430	3170
2435	3175
2440	3180
2445	3185
2450	3190
2455	3195
2500	3200
2505	3205
2510	3210
2515	3215
2520	3220
2525	3225
2530	3230
2535	3235
2540	3240
2545	3245
2550	3250
2555	3255
2600	3260
2605	3265
2610	3270
2615	3275
2620	3280
2625	3285
2630	3290
2635	3295
2640	3300
2645	3305
2650	3310
2655	3315
2700	3320
2705	3325
2710	3330
2715	3335
2720	3340
2725	3345
2730	3350
2735	3355
2740	3360
2745	3365
2750	3370
2755	3375
2800	3380
2805	3385
2810	3390
2815	3395
2820	3400
2825	3405
2830	3410
2835	3415
2840	3420
2845	3425
2850	3430
2855	3435
2900	3440
2905	3445
2910	3450
2915	3455
2920	3460
2925	3465
2930	3470
2935	3475
2940	3480
2945	3485
2950	3490
2955	3495
3000	3500
3005	3505
3010	3510
3015	3515
3020	3520
3025	3525
3030	3530
3035	3535
3040	3540
3045	3545
3050	3550
3055	3555
3100	3560
3105	3565
3110	3570
3115	3575
3120	3580
3125	3585
3130	3590
3135	3595
3140	3600
3145	3605
3150	3610
3155	3615
3200	3620
3205	3625
3210	3630
3215	3635
3220	3640
3225	3645
3230	3650
3235	3655
3240	3660
3245	3665
3250	3670
3255	3675
3300	3680
3305	3685
3310	3690
3315	3695
3320	3700
3325	3705
3330	3710
3335	3715
3340	3720
3345	3725
3350	3730
3355	3735
3400	3740
3405	3745
3410	3750
3415	3755
3420	3760
3425	3765
3430	3770
3435	3775
3440	3780
3445	3785
3450	3790
3455	3795
3500	3800
3505	3805
3510	3810
3515	3815
3520	3820
3525	3825
3530	3830
3535	3835
3540	3840
3545	3845
3550	3850
3555	3855
3600	3860
3605	3865
3610	3870
3615	3875
3620	3880
3625	3885
3630	3890
3635	3895
3640	3900
3645	3905
3650	3910
3655	3915
3700	3920
3705	3925
3710	3930
3715	3935
3720	3940
3725	3945
3730	3950
3735	3955
3740	3960
3745	3965
3750	3970
3755	3975
3800	3980
3805	3985
3810	3990
3815	3995
3820	4000
3825	4005
3830	4010
3835	4015
3840	4020
3845	4025
3850	4030
3855	4035
3900	4040
3905	4045
3910	4050
3915	4055
3920	4060
3925	4065
3930	4070
3935	4075
3940	4080
3945	4085
3950	4090
3955	4095
4000	4100
4005	4105
4010	4110
4015	4115
4020	4120
4025	4125
4030	4130
4035	4135
4040	4140
4045	4145
4050	4150
4055	4155
4100	4160
4105	4165
4110	4170
4115	4175
4120	4180
4125	4185
4130	4190
4135	4195
4140	4200
4145	4205
4150	4210
4155	4215
4200	4220
4205	4225
4210	4230
4215	4235
4220	4240
4225	4245
4230	4250
4235	4255
4240	4260
4245	4265
4250	4270
4255	4275
4300	4280
4305	4285
4310	4290
4315	4295
4320	4300
4325	4305
4330	4310
4335	4315
4340	4320
4345	43

251217

ELEVATION METER

ELEVATION METER

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

WIND DIRECTION

SP 7 10 SP 27

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

210 00 04 00



PETRO-CANADA LTD.

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

SOME LINE

FINAL STOCK AUTO STATIC

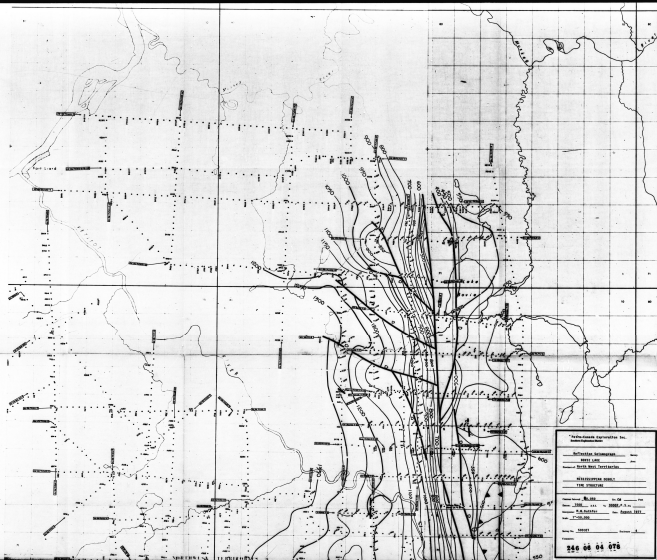












"Information supplied by the  
National Ocean Service"

Reference to the map

Reference to the map

Reference to the map

Reference to the map

Reference to the map

Reference to the map

Reference to the map

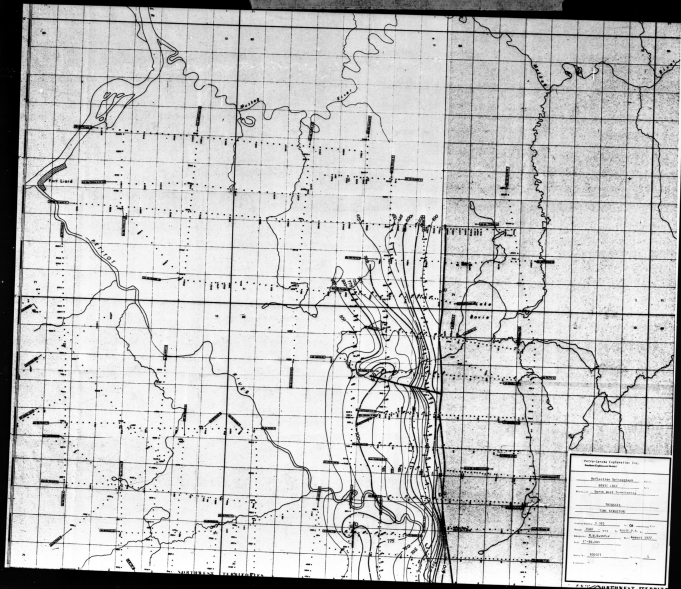
Reference to the map

Reference to the map

Reference to the map

Reference to the map





Hydrographic Information for  
 Navigation

Hydrographic Information

Hydrographic Information

Hydrographic Information

Hydrographic Information

Hydrographic Information

Hydrographic Information

Hydrographic Information

Hydrographic Information

Hydrographic Information

Hydrographic Information

Hydrographic Information

Hydrographic Information

Hydrographic Information

Hydrographic Information

Hydrographic Information

Hydrographic Information

Hydrographic Information

Hydrographic Information

Hydrographic Information

Hydrographic Information

Hydrographic Information

Hydrographic Information

Hydrographic Information