

WELL NAME: Horn River Placid ICE Mink Lake I-38

FIELD: Area: 38

LOCATION: Unit: 1 Section: 38 Grid: 61-40-117-30

Latitude: 61-37-31 Longitude: 117-35-51

U.W.L.R.: 61.62528 — 117.59749

U.W.I.: 300138611.0117300

Rig Release Date:

Status:

Information Release Date:

CHANGE OF NAME:

DATE RECEIVED	INDEX
11-12-70	Application for a Drilling Authority.
	Well Completion Data.
	Well History Report.
	Application to Amend a Drilling Authority.
	Application to change a Well Name.
17/2/71	Application to Abandon a Well or Suspend Drilling.
	Application to Alter Condition of a Well.
	Well History Supplement.
	Well Completion Data.
	Work-over Report No.
	Application to Commingle Production before Measurement.
	Data for Back Pressure Test on Natural Gas Wells — Monograph 7 Method.
	Data for Back Pressure Test on Natural Gas Wells — Vitter's Method.
	M.P.R. — Oil — Calculations.
	New Oil Well Report.
	New Gas Well Report.
	Well Inspection Report.
	Rig Inspection Report.
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	Equipment Report.
	Well Card.
	New Service Well Report.
	Monthly Water Flood Operations Report
	Monthly Water Receipts and Disposal of Fluids Report
	Logs. Large scale..... Small scale.....



File No. _____
Drilling Authority No. 472

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
OIL AND MINERAL DIVISION

Application to Abandon a Well or ~~Suspend~~ Drilling

In compliance with the "Canada Oil and Gas Land Regulations", application is hereby made for approval to abandon, to suspend drilling:—

Name and number of well Horn River Placid IOE Mink Lake 1-38
Location: Unit I Section 38 Grid 61°40' 117°30'
Latitude 61°37'31" Longitude 117°35'51"
From Established Reference Marker
Universal Well Location Reference Lat. 61.62528° N. Long. 117.59749° W.
Permit No. 4157 Lease No. _____

Imperial Oil Enterprises
(Permitter, Licensee, Lessee)

Date of commencement of proposed program Jan. 25, 1971 4:00 AM

OIL, GAS, AND WATER ENCOUNTERED
(Depths)

Oil at Nil
Gas at 852 - 868 DST #1 Missrun DST #2
Water at 1055 - 1088 DST #3 Missrun
Total Depth 1362 Date of last operations Rig Released Feb. 8, 1971 4 AM
Present condition of well Dry and abandoned

CASING RECORD

Casing Size O.D. Inches	Weight	Amount	Set At—	Sacks of Cement and Additives	Amount Pulled
1. <u>7"</u>	<u>20</u>	<u>214</u>	<u>217</u>	<u>135 plus 3% CaCl₂</u>	<u>Nil</u>
2. _____	_____	_____	_____	_____	_____
3. _____	_____	_____	_____	_____	_____
4. _____	_____	_____	_____	_____	_____
5. _____	_____	_____	_____	_____	_____

PROPOSED ABANDONMENT PROGRAM

Plug		Geological Formation	Number of Sacks of Cement	Remarks
No.	Position			
<u>1</u>	<u>1362 - 800</u>	<u>Middle Devonian, Middle Devonian Carbonate, Lonely Bay, Chinchaga, Red Beds, Granite Wash Sand, Pre-Cambrian</u>	<u>105 plus 4% Gel</u>	<u>wait 8 hrs. and feel</u>
<u>2</u>	<u>265 up to surface</u>		<u>50 plus 4% Gel</u>	
<u>Cut casing off 3 ft. below ground, weld on plate and rod with well marker.</u>				

The following logs have been run SNP, FDC, BHC, IES
Other operations proposed Nil

Operations to be carried out by Big Indian Drilling Contractor Licence No. 791
Address Gen. Del., Ft. Providence, N.W.T. Address _____
Responsible Agent in field Al Whitteron
Dated at Calgary this 10th Day of February 19 71
Signed by [Signature] Company Horn River Resources Ltd.
Title President Operator's Exploratory Licence No. 1785

Note:—The Oil Conservation Engineer's office must be notified before work is commenced.

(For OIL AND MINERAL DIVISION use only)

APPROVAL

This application has been examined and proposed programme approved, subject to the following conditions:
confirming oral approval given by Mr. B. H. J. Thoms
on the 7th February 1971.

17th February 71
Dated _____, 19 _____ [Signature]
Oil Conservation Engineer

POOR COPY

Drilling Authority No. 472

Project No.

File No.



DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
OIL AND MINERAL DIVISION

Application for a Drilling Authority

This notice of intention to begin drilling operations, in triplicate, and where required a plan of survey approved by the Surveyor General showing the target area or the site of the well must be submitted and approved before commencing operations.

In compliance with the "Canada Oil and Gas Land Regulations", application is hereby made for approval to drill:—

Name and number of well **Horn River Placid 102 Mink Lake I-38**
Location: Unit **I** Section **33** **61°40' 117°30'**
Latitude **61°37'31"** Longitude **117°35'51"**
Unique Well Identifier **3013-6130117300**
Universal Well Location Reference **Lat. 61.62528° N., Long. 117.59749° W.**
Elevation: Ground **505** **K.B. est. 605** feet above sea-level.
Well is expected to produce from **Middle Devonian** formation at a depth
of about **900** feet. Expected total final depth **1625**
Area assigned to well

(For Oil Conservation Engineer's use only)

Permit No. **4157** Lease No. **60948**
Permittee, licensee, or lessee **Imperial Oil Enterprises**
Exploratory Licence No. **1674**
Surface owned by Crown or **Crown**
Petroleum and natural-gas rights owned by **Crown**
(If applicant submit name and address of owner and occupant.)

We propose to use the following strings of casing, either cementing or landing them as indicated below:—

Casing Size O.D. (Inches)	Weight (Lb./Ft.)	Grade	New or Used	Estimated Depth	Scale of Cement
1. 7"	206	J-55	Used	180	75
2.					
3.					
4.					
5.					

Expected water, gas, and oil horizons and type of control equipment **Middle Devonian carbonates and Granite Wash formation - control with**
8" - 900 series Ray type B.C.P.
8" - 900 Series Rayon Torus bag type B.C.P.

Well will be drilled with Rotary Rig No. **57** by **Rig Indian Drilling Co. Ltd.**
(Drilling Contractor or company)

Responsible agent of applicant:— Contractor's Business Licence No. **791**
At well **Al Whitterton** At registered office **P. L. Woolley**
Address **Gen. Del., Fort Providence** Address **1020 Aquitaine Tower, 540 Fifth Ave. S.W. Calgary 1, Alta.**
It is understood that if changes become necessary, notice of the change of plan will be submitted.
Dated at **Calgary** this **10th** day of **December** 19 **70**
Signed by **P. L. Woolley** Company **Horn River Resources Ltd.**
Title **President** Operator's Licence No. **1785**
(For Oil and Mineral Division use only)

APPROVED

- This application has been examined and approved subject to the following conditions:—
1. Copies of this Drilling Authority shall be exhibited at the Drilling Rig in both the Doghouse and the Drilling Foreman's Office between spot and rig release dates.
- The Company will submit to this office, on Tuesday of each week, the latest reports

Dated **11th December** 19 **70** **Placed on over map**
Oil Conservation Engineer

Forms to be submitted to Oil Conservation Engineer,
Department of Indian Affairs and Northern Development, Calgary, Alberta.

POOR COPY

received by radio on the progress of the well.

3. During well drilling and testing operations, every effort shall be made to ensure that drilling fluids, chemicals and wastes shall be disposed of or contained in a manner that will prevent the contamination of adjacent vegetation and surface or sub-surface waters.
4. We draw your attention to Sections 95 and 96 of the Canada Oil and Gas Land Regulations.
5. Production and intermediate strings of casing are to be approved by the Oil Conservation Engineer prior to running.

B. H. Thomas

B. H. Thomas, Oil Conservation Engineer

GEOLOGICAL PROGNOSIS

WELL NAME: Placid Imperial Mink Lake I-38
LOCATION: (Grid I-38 61-40 117-30)
GROUND ELEVATION: 595'
K. B. ELEVATION: 610' (est.)

<u>GEOLOGICAL TOPS</u>	<u>Depth</u>	<u>Subsea</u>
Hay River	110	+500
Spence River	390	+220
Otter Park	540	+70
Middle Devonian Reef Carbonate	885	-275
Lonely Bay	1060	-450
Chinchaga	1235	-625
Red Beds	1360	-750
Granite Wash	1590	-980
Pre Cambrian	1610	-1000
T. D.	1635	-1025

Samples: Surface to top of Middle Devonian at 10' intervals.
Top of Carbonate to T. D. 5 foot intervals.
1 set of Bags forwarded to the Geological Survey of Canada.
From the second bag take bottled cuts; one for Placid Oil Company and the other for Imperial Oil Company
Canned samples at thirty foot intervals will be taken from the base of the surface casing to T. D.

Cores: Core the top 50 feet of Middle Devonian Reef Carbonate.
If hydrocarbons are encountered on drill stem test an additional 50 feet of core will be required for reservoir evaluation.

Tests: Test the first effective porosity in the Middle Devonian Carbonate.
Test the Granite Wash on the basis of samples and logs.
Other tests at the discretion of the wellsite supervisor.

Logs: Dual Induction Laterolog 2" scale T.D. to surface casing
5" scale T.D. to surface casing

Borehole Compensated Sonic Log (Integrated)

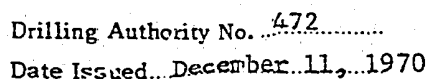
2" scale T.D. to surface casing
5" scale T.D. to surface casing

L●:

If a carbonate reef development is encountered the following additional logs will be required:

Formation Density Log 2" scale T.D. to surface casing
5" scale T.D. to surface casing

Sidewall Neutron Porosity Log 2" scale T.D. to surface casing
5" scale T.D. to surface casing



LAND 52-90 (2) (3-70)

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
OIL AND MINERAL DIVISION

DEPT. OF INDIAN AFFAIRS & NORTHERN DEVELOPMENT
OIL & MINERAL DIVISION
JUN 29 1971
CALGARY 21, ALBERTA
REGISTRATION ENGINEER
Territories & Yukon Territory

To be submitted in duplicate within thirty days after the completion, rework, abandonment, recompletion or suspension of every well.

Well name and number Horn River Placid IOE Mink Lake I-38
 Permit No. 4157 Lease No.
 Imperial Oil Enterprises Ltd. Exploratory Licence No. 1674
 (Permittee, Licensee, Lessee)
 Horn River Resources Ltd. Exploratory Licence No. 1785
 (Operator)

Location: Unit I Section 38 Grid 61°40'N.Lat., 117°30' W.Long.
Latitude 61°37'31" Longitude 117°35'51"
Unique well identifier 300 I 386140117300
Universal Well Location Reference Lat. 61.62528°N., Long. 117.59749°W.

CASING RECORD

GEOLOGICAL TOPS

CORE RECORD

From	To	Rec.	From	To	Rec.
875	925	50'			

LOG RECORD

			Run No.	Type of Log	From	To
Chinle Formation	1088	- 484				
Red Beds	1226	- 622	1	BHCSGRC	1021	216
Granite Wash	1318	- 714	2	"	1361	1021
PreCambrian	1331	- 728	1	Dual Induction LL	1019	214
			1	IES	1363	1019
			1	FDL	1362	214
			1	SNP	1362	214

CEMENTING RECORD (Plug, Squeeze, etc.)				PERFORATING RECORD (Bullet, Jet)				SERVICING RECORD (Acidizing, Fracing, etc.)			
Date	From	To	Remarks	Date	From	To	Remarks	Date	From	To	Remarks
Feb. 7/71	1362	800	105 sx / 4% Gel				Nil				Nil
Feb. 7/71	270	Surface	50 sx / 4% Gel								

DRILL STEM TESTS

No.	Date	Formation	From	To	V.O. Mins.	LS.L Mins.	F.S.L Mins.	LS.L.B.H.P.	F.S.L.B.H.P.	L.F.B.H.P.	F.F.B.H.P.	L.H.P.	F.H.P.	REMARKS
1	Feb.1/71	Mid-Devonian	845	925	15	30	90	398				497	497	Weak initial puff-tool plugged, misrun, no recovery
2	Feb.2/71	"	845	925	120	30	120	397	395	162	354	502	489	(Good initial puff, gas to surface in 1 min. flowed 560 mcf/d decreasing to 458 mcf/d, then remaining steady throughout remainder, recovered 90' mud. Test aborted because well lost fluid after tool reached bottom.
3	Feb.3/71	Lonely Bay	1000	1061										

ANALYSIS

Lab. No.	Sample	From	To	Source	Remarks
901-170 Core Lab.	Gas	845	925	Mid-Devonian	

PRESENT STATUS OF WELL

Oil		(Interval)
Gas		(Interval)
Dry	X	
Susp.		

Company Horn River Resources Ltd.
Signed by *J. Mullooly*
Title President
Date June 23, 1971

Forms to be prepared in duplicate and forwarded to the Oil
Conservation Engineer, Calgary, Alberta.

OPERATION REEF
NORTHWEST TERRITORIES
CANADA

Geological and Engineering
REPORT

Horn River Placid IOE MINK LAKE I-38

PREPARED FOR
HORN RIVER RESOURCES LTD.

PREPARED BY
JAMES A. LEWIS ENGINEERING CO. LTD.
Petroleum Reservoir Analysts
CALGARY - ALBERTA

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Section I

SUMMARY OF WELL DATA

WELL: Horn River Placid IOE Mink Lake I-38

NAME OF OPERATOR: Horn River Resources Ltd.
1020 Aquitaine Tower, 540 Fifth Avenue S.W., Calgary

LEGAL DESCRIPTION: Unit I, Section 38, Grid 61° 40' N., 117° 30' W.

LOCATION: LATITUDE: 61° 37' 31" LONGITUDE: 117° 35' 51"

UNIVERSAL WELL LOCATION REFERENCE: Lat 61. 62528° N., Long. 117. 59749° W.

UNIQUE WELL IDENTIFIER: 3001386140117300

CO-ORDINATES: _____

PERMIT OR LEASE: 4157

PERMITTEE, LICENCEE, LESSEE: Imperial Oil Enterprises Ltd.

DRILLING AUTHORITY: 472 DATE: December 11, 1970

CLASSIFICATION: Exploratory Wildcat

ELEVATION: GROUND: 595' K.B. 604'

DRILLING CONTRACTOR: Big Indian Drilling Co. Ltd. Riq No. 57 Rotary

WELLSITE GEOLOGIST: H. I. Davies, P. Geol.

SURFACE CASING: 7" - 20 lb. - J-55 set @ 217' K.B. w/c 135 sax + 3% CaCl₂

HOLE SIZE: Surface to 219' - 9-7/8", 219' to 1362' - 6-1/4"

MUD SYSTEM: Gel Chemical to 1100', Gyp mud 1100' to 1362'

CORES: No. 1: 875' to 925', 50' Recovered Mid Devonian Carbonate

FORMATION TESTS: DST No. 1: 845 - 925' Misrun
DST No. 2: 845 - 925' Gas @ .5 MMcf/d 90' Water
DST No. 3: 1030 - 1061' Partial Misrun, salt water to surface.

ABANDONMENT PLUGS: No. 1: 1362' to 800', 105 sax + 4% Gel
No. 2: 265' to Surface, 50 sax + 4% Gel

LOST CIRCULATION: 875', Blowout, 1056' - 1088'. Lost circulation.

LOGS: DILL and BHC-SGRC 1023' to 214'
IES and BHC-SGRC 1362' to 1019'
FDL and SNP 1363' to 214'

WELL SPUDED: 4:00 a.m. January 25, 1971

FINISHED DRILLING: 6:00 a.m. February 6, 1971

RIG RELEASED: 6:00 a.m. February 8, 1971

TOTAL DEPTH: 1362'

STATUS: Drilled and Abandoned

Section II
GEOLOGICAL

FORMATION TOPS

K.B. 604'

Name	Depth	Sub Sea
Overburden to	219'	
Otter Park	560'	+ 44
Mills Lake	674'	- 70
Middle Devonian Carbonate	878'	- 274
Lonely Bay	946'	- 342
Lonely Bay Dolomite	1056'	- 452
Chinchaga	1088'	- 484
Red Beds	1226'	- 622
Granite Wash	1318'	- 714
Pre Cambrian	1331'	- 728
Total Depth, Schlumberger	1363'	

SAMPLE DATA

10' samples were caught and washed from surface to 900 feet - 5' samples were caught from 900' to total depth. Sample quality was good.

Depth	Lithology	Remarks
0 - 219'	Surface gravel and shales.	
219 - 310'	Shale, light greenish grey to brown, bituminous, calcareous, fissile minor pyrite.	
310 - 450'	Shale, green fissile, very calcareous slightly silty in part red-brown below 430'.	
450 - 560'	Shale as above with interbeds of Limestone, green to rusty brown cryptocrystalline, shaly.	
560 - 674'	Shale dark grey, black, calcareous, minor limestone buff, cryptocrystalline, argillaceous, trace fossil.	560 Top Otter Park
674 - 800'	Shale light greenish grey, very calcareous, with spores, interbedded with limestone green, very argillaceous.	674 Top Mills Lake
800 - 878'	Shale dark brown calcareous - bituminous strong petroliferous odor at base of intervals.	875 Gas blow out
878 - 946'	Limestone brown, argillaceous, petroliferous, microcrystalline to aphanitic trace vugs, grading to calcareous shale at base of interval.	878 Top Mid Devonian See Core No. 1
946 - 1030'	Limestone buff - grey, detritus, chalky to microcrystalline, fossil brachiopods, trace secondary calcite crystals at base.	946 Top Lonely Bay
1030 - 1056'	Limestone - generally lithographic, dense, interbedded with dolomite brown, fine crystalline, sucrose, light oil stained.	
1056 - 1088'	Dolomite brown, fine crystalline, sucrose, good vuggy porosities, good line oil stain.	
1088 - 1160'	Anhydrite white - cryptocrystalline to fine sucrose, in part massive, with interbeds of dolomite brown to buff, Chinchaga dense, spotty oil staining.	1088 Top
1160 - 1226'	Anhydrite very light grey, cryptocrystalline translucent in part, white, fine, sucrose, in part dolomitic.	

SAMPLE DATA

Depth	Lithology	Remarks
1226-1242'	Dolomite grey, cryptocrystalline, anhydritic in part brown sucrose and oil stained, trace red silty dolomite.	1226 Top Red Beds
1242-1298'	Anhydrite light grey-white, cryptocrystalline, translucent - with light green anhydritic shale.	
1298-1318'	Dolomite - red, cryptocrystalline, dense, slightly silty in part.	
1318-1332'	Quartz conglomerate; red silty matrix, quartz fragments.	1318 Top Granite Wash
1332-1362'	Granite, white quartz - in part weathered with green chlorite mineral.	1332 Top Pre Cambrian

Core Data

Core No. 1

875 - 925' Mid Devonian Carbonate. Cut
50' - recovered 50'.

Core Description

Interval

875 - 925 50'

Lithology

Limestone brown - dark brown - argillaceous, detritus, microcrystalline to aphanitic. Petro-
iferous. Scattered crinoid stems, trace scat-
tered vugs - bleeding oil. Some banding due
to varying argillaceous content especially in
lower interval of Core - minor horizontal frac-
turing - scattered pyrite. Tight throughout
except for vugs mentioned above. Petroli-
ferous odor.

Average coring time 9.3 min./ft.

Section III

DRILLING AND ENGINEERING

SUMMARY OF DAILY DRILLING REPORTS

Date	Depth	Operation and Remarks
1-24-71	0	Moving on and rigging up.
1-25-71	50'	Drilling 9-7/8" surface hole. Spudded well @ 4:00 a.m. January 25, 1971.
1-26-71	219'	Pulling to run casing.
1-27-71	219'	Waiting on cement. Ran 7 joints 7" - 20 lb. used casing with Guide Shoe, Float Collar and one centralizer. Overall length 208.30' + Landing Joint. Landed at 217' K.B. Cemented with 135 sacks of construction cement plus 3% Calcium Chloride. 3 barrels of returns circulated. Plug down 8:30 p.m. January 26, 1971.
1-28-71	219'	Repairs to rig.
1-29-71	400'	Drilling 6-1/4" hole. Headed up, tested blind rams to 800 psi held 15 minutes. Tested pipe rams 800 psi, 15 minutes. Tested hydrill to 800 psi held for 15 min., drilled out.
1-30-71	875'	Pulling out to core. At 875' mud blew out of well. Mud weight approximately 8.5 lbs./gal. Gas flow estimated at 5 to 6 MMcf/d. Not measured. Well blew for 8 hours. Controlled with 10.5 to 12 lbs./gal. mud.
1-31-71	925'	Handling core. Cored interval 875' - 925'. Recovered 50'. Middle Devonian Carbonate. Mud wt. 11.5. Vis. 60
2-1-71	1023'	Pulling DST No. 1. Ran DST No. 1: 845' - 925'. Misrun, tool plugged.
2-2-71	1023'	Pulling DST No. 2. Ran DST No. 2: 845' - 925'. Flow 560 Mcf/d, decreasing to 458 Mcf/d. Recovered 90' Sulphurous mud.
2-3-71	1061'	Mixing mud to control well. Pulled DST No. 2. Ran DILL and BHCSGRC logs, 1023' to 217'. Drilled 1023' to 1061'. Pulled to run DST No. 3, and ran tools for DST No. 3. Hole began to take mud. Pumped 80 barrels mud to well, ran out of volume. Mud wt. 10.6 lbs./gal. Vis. 42

SUMMARY OF DAILY DRILLING REPORTS (Continued)

Date	Depth	Operation and Remarks
2-4-71	1113'	Drilling. When DST No. 3 tools in hole before packer seated well flowed salt water to surface. Controlled with mud. Pulled tools ran bit and resumed drilling.
2-5-71	1231'	Drilling 6-1/4" hole. Mud wt. 10.0 Vis. 40
2-6-71	1362'	TD. Tripping to log. Mud wt. 10.1 Vis. 65
2-7-71	1362'	TD. Waiting on orders. Ran IES Log 1362' - 1019' SNP Log 1362' - 214' FD Log 1362' - 214' BHCSGRC Log 1362' - 1021'
2-8-71	1362'	Moving Out. Ran Abandonment Plug No. 1: 1362' - 800', 105 sax + 4% Gel. Felt Plug No. 1 at 770' Ran Plug No. 2: 265' to surface, 50 sax + 4% Gel. Cut casing, welded plate and rod with marker tag. Rig released 8:00 a.m., February 8, 1971.

BIT RECORD

Bit No.	Type	Size	Depth Out	Footage	Hours
1A		9-7/8	159	159	9
2A		9-7/8	219	60	2-1/4
1	DT-J	6-1/4	875	656	25-1/4
2	Diamond	6-3/16	925	50	7-3/4
3	DG-J	6-1/4	1023	98	4-1/4
3RR	DG-J	6-1/4	1061	130	9-1/4
4	DG-J	6-1/4	1135	74	15-1/4
5	V2J	6-1/4	1258	123	16-1/2
6	V2J	6-1/4	1337	79	8-3/4
7	L4VJ	6-1/8	1362	25	4-1/2

DRILL STEM TEST REPORT

WELL: Horn River Placid IOE Mink Lake 1-38

DATE: February 1, 1971 TEST NO. 1
 INTERVAL TESTED: 845' - 925' FORMATION: Mid Devonian
 TOTAL DEPTH DRILLER: 1,023' LOGS: None
 HOLE SIZE: 6-1/4" RAT HOLE SIZE: 6-1/4"
 TESTING COMPANY: Lynes United OPERATOR: E. Harris

"Straddle"

MUD	DRILL PIPE	TEST TOOL
Type <u>Gel Chemical</u>	Type <u>I.E.</u>	Size Rubber <u>5-1/2"</u>
Wt. <u>10.9</u>	Size <u>3-1/2"</u>	Type _____
Visc. <u>44</u>	Size T.J. <u>4-3/4"</u>	Tool Type _____
W.L. <u>22</u>	Collars <u>3-1/2" I.E.</u>	Size Choke <u>1/2"</u>
pH _____	Jars _____	Wt. to Set <u>N.R.</u>
F.C. <u>2/32</u>	Safety Joint _____	Pull Loose <u>N.R.</u>
Conditions _____	Pumpout Sub. _____	Fluid Cushion <u>Nil</u>

Bit off Bottom <u>9:30 p.m. Jan 31/71</u>	Preflow <u>5</u> min.	B.H. Temp. <u>68</u> °F.
Start Tester in <u>3:00 a.m. Feb 1/71</u>	I.S.I. <u>30</u> min.	Gauge Depths <u>869</u> K.B.
Tester on Bottom <u>4:45 a.m.</u>	Tool Open <u>15</u> min.	<u>874</u> K.B.
Tool Open <u>5:50 a.m.</u>	F.S.I. <u>90</u> min.	<u>949</u>
Tool Closed <u>5:55 a.m.</u>	Upper Gauge	Lower Gauge
Tool Open <u>6:25 a.m.</u>	I.H.S. <u>502</u> psig	I.H.S. <u>497</u> psig
Tool Closed <u>6:40 a.m.</u>	Preflow <u>245</u> psig	Preflow <u>245</u> psig
Tool Loose <u>8:30 a.m.</u>	I.S.I. <u>403</u> psig	I.S.I. <u>398</u> psig
Tool Out <u>9:30 a.m.</u>	Initial Flow _____ psig	Initial Flow _____ psig
Rubber Condition _____	Final Flow _____ psig	Final Flow _____ psig
Test O.K. <u>Misrun</u>	Final S.I. _____ psig	Final S.I. _____ psig
	F.H.S. <u>502</u> psig	F.H.S. <u>497</u> psig

BLOW: Weak Initial Puff. Test Misrun. Tool plugged, no flow period.

RECOVERY: Nil

James A. Lewis Engineering Co. Ltd.

DRILL STEM TEST REPORT

WELL: Horn River Placid IOE Mink Lake I-38

DATE: February 2, 1971 TEST NO. 2
 INTERVAL TESTED: 845' - 925' FORMATION: Mid Devonian
 TOTAL DEPTH DRILLER: 1,023' LOGS: None
 HOLE SIZE: 6-1/4" RAT HOLE SIZE: 6-1/4"
 TESTING COMPANY: Lynes United OPERATOR: E. Harris

"Straddle"

MUD	DRILL PIPE	TEST TOOL
Type <u>Gel Chemical</u>	Type <u>IF</u>	Size Rubber <u>5-1/2"</u>
Wt. <u>10.7</u>	Size <u>3-1/2"</u>	Type <u>-</u>
Visc. <u>60</u>	Size T.J. <u>4-3/4"</u>	Tool Type <u>-</u>
W.L. <u>22</u>	Collars <u>3-1/2" I.F.</u>	Size Choke <u>1/2"</u>
pH <u>-</u>	Jars <u>-</u>	Wt. to Set <u>-</u>
F.C. <u>2/32</u>	Safety Joint <u>-</u>	Pull Loose <u>-</u>
Conditions <u>-</u>	Pumpout Sub. <u>-</u>	Fluid Cushion <u>-</u>

Bit off Bottom <u>9:45 p.m. Feb. 1/71</u>	Preflow <u>5</u> min.	B.H. Temp. <u>68</u> °F.
Start Tester in <u>12:45 a.m. Feb. 2/71</u>	I.S.I. <u>30</u> min.	Gauge Depths <u>869</u> K.B.
Tester on Bottom <u>2:30 a.m.</u>	Tool Open <u>120</u> min.	<u>874</u> K.B.
Tool Open <u>2:40 a.m.</u>	F.S.I. <u>120</u> min.	<u>949</u>
Tool Closed <u>2:45 a.m.</u>	Upper Gauge	Lower Gauge
Tool Open <u>3:15 a.m.</u>	I.H.S. <u>498</u> psig	I.H.S. <u>502</u> psig
Tool Closed <u>5:15 a.m.</u>	Preflow <u>144</u> psig	Preflow <u>142</u> psig
Tool Loose <u>7:15 a.m.</u>	I.S.I. <u>402</u> psig	I.S.I. <u>397</u> psig
Tool Out <u>10:00 a.m.</u>	Initial Flow <u>162</u> psig	Initial Flow <u>162</u> psig
Rubber Condition <u>-</u>	Final Flow <u>358</u> psig	Final Flow <u>354</u> psig
Test O.K. <u>Yes</u>	Final S.I. <u>401</u> psig	Final S.I. <u>395</u> psig
	F.H.S. <u>498</u> psig	F.H.S. <u>489</u> psig

BLOW: Good initial puff. GTS in 1 min. Flow 560 Mcf/day decreasing to 458 Mcf/day.
Steady.

RECOVERY: 90' brackish mud.

DRILL STEM TEST REPORT

WELL: Horn River Placid IOE Mink Lake I-38

DATE: February 3, 1971 TEST NO. 3 "Aborted"
 INTERVAL TESTED: 1,000' - 1,061' FORMATION: Lonely Bay Dolomite
 TOTAL DEPTH DRILLER: 1,061' LOGS: IES and BHCSGRC
 HOLE SIZE: 6-1/4" RAT HOLE SIZE: 6-1/4"
 TESTING COMPANY: Lynes United OPERATOR: E. Harris

MUD	DRILL PIPE	TEST TOOL
Type <u>Gel Chemical</u>	Type <u>I.F.</u>	Size Rubber <u>5-1/2"</u>
Wt. <u>10.6</u>	Size <u>3-1/2"</u>	Type <u>-</u>
Visc. <u>42</u>	Size T.J. <u>4-3/4"</u>	Tool Type <u>-</u>
W.L. <u>20</u>	Collars <u>3-1/2" I.F.</u>	Size Choke <u>1/2"</u>
pH <u>-</u>	Jars <u>-</u>	Wt. to Set <u>-</u>
F.C. <u>2/32</u>	Safety Joint <u>-</u>	Pull Loose <u>-</u>
Conditions <u>-</u>	Pumpout Sub. <u>-</u>	Fluid Cushion <u>-</u>

Bit off Bottom <u>4:00 a.m. Feb. 3/71</u>	Preflow <u>-</u> min.	B.H. Temp. <u>-</u> °F.
Start Tester in <u>5:30 a.m.</u>	I.S.I. <u>-</u> min.	Gauge Depths <u>-</u> K.B.
Tester on Bottom <u>7:30 a.m.</u>	Tool Open <u>-</u> min.	<u>-</u> K.B.
Tool Open <u>Not Opened</u>	F.S.I. <u>-</u> min.	
Tool Closed <u>-</u>	<u>Upper Gauge</u>	<u>Lower Gauge</u>
Tool Open <u>-</u>	I.H.S. <u>-</u> psig	I.H.S. <u>-</u> psig
Tool Closed <u>-</u>	Preflow <u>-</u> psig	Preflow <u>-</u> psig
Tool Loose <u>-</u>	I.S.I. <u>-</u> psig	I.S.I. <u>-</u> psig
Tool Out <u>-</u>	Initial Flow <u>-</u> psig	Initial Flow <u>-</u> psig
Rubber Condition <u>-</u>	Final Flow <u>-</u> psig	Final Flow <u>-</u> psig
Test O.K. <u>No</u>	Final S.I. <u>-</u> psig	Final S.I. <u>-</u> psig
	F.H.S. <u>-</u> psig	F.H.S. <u>-</u> psig

BLOW: Well lost fluid with tester on bottom. Test aborted. Tools pulled.

RECOVERY: -

James A. Lewis Engineering Co. Ltd.

SURFACE CASING DETAILS

Size: 7" O.D.
Weight: 20 lbs./ft.
Grade: J-55 Used
Guide Shoe, Float Collar
208.30' Overall
Landed At: 208.30' K.B.
Cemented With: 135 sax of Neat Construction Cement plus 3% Calcium Chloride

Circulated: 3 barrels of returns
Plug Down: 8:30 p.m., January 26, 1971
Cemented By: Big Indian Drilling Co. Ltd.

Deviation Record

219'	$\frac{3}{4}^{\circ}$
875'	$1\frac{1}{4}^{\circ}$
1023'	$\frac{1}{2}^{\circ}$
1258'	$3\frac{1}{2}^{\circ}$

ABANDONMENT REPORT

WELL: Horn River Placid IOE Mink Lake I-38

DATE: February 7, 1971

APPROVAL TO ABANDON BY: Placid Oil, Imperial Oil and D.IA and ND

REPORTED TO AOGCB/DMR/MB: _____

CONTRACTOR: Big Indian Drilling Co. Ltd.

HOLE SIZES: 6-1/4"

MUD WEIGHT AND VISCOSITY: Wt: 10.1 lbs./gal. Vis: 38 sec/qt

AMBIENT TEMPERATURE: -40°F

DRILL PIPE: 3-1/2" I.F.

RAT HOLE PLUGGED WITH: -

MOUSE HOLE PLUGGED WITH: -

PLUG NO.1

INTERVAL: 1,362' - 800' SACKS USED: 105 + 4% Gel

ZONES COVERED: Pre Cambrian, Granite Wash, Red Beds, Chinchaga, Lonely Bay

CALIPER SIZE: 6-1/4" TD to 800'

SLURRY VOLUME: 119 cu. ft. CUBIC FEET _____

SACKS REQUIRED: 92

EXCESS: 115 % _____ SACKS 13

TOTAL: _____

START MIX: _____

END MIX _____

DISPLACEMENT: _____

PLUG DOWN: 3:15 p.m., February 7, 1971

W.O.C. 8 HOURS _____

FELT AT 770' K.B. WITH 10,000 POUNDS _____

ABANDONMENT REPORT (Continued)

WELL: Horn River Placid IOE Mink Lake I-38

PLUG NO. 2

INTERVAL 270' to surface SACKS USED: 50

ZONES COVERED: End of Surface Casing to Surface

CALIPER SIZE: Casing 7"

SLURRY VOLUME: 61 CUBIC FEET

SACKS REQUIRED: 39 sacks

EXCESS: 28 % SACKS 11

TOTAL 50 sacks + 4% Gel

START MIX: _____

END MIX: _____

DISPLACEMENT: _____

PLUG DOWN: 12:00 midnight February 7, 1971

W.O.C. _____ HOURS _____

FELT AT: Not Felt K.B. WITH _____ POUNDS _____

PLUG NO. 3

INTERVAL: _____ SACKS USED: _____

ZONES COVERED: _____

CALIPER SIZE: _____

SLURRY VOLUME: _____ CUBIC FEET _____

SACKS REQUIRED: _____

EXCESS: _____ % SACKS _____

TOTAL _____

START MIX: _____

END MIX: _____

DISPLACEMENT: _____

PLUG DOWN: _____

W.O.C. _____ HOURS _____

FELT AT: _____ K.B. WITH _____ POUNDS _____

LOST CIRCULATION

Horn River Placid IOE Mink Lake I-38

February 3, 1971, Depth 1,061 feet

While pulling out of well to run Drill Stem Test No. 3, well could not be kept full. Circulated through a stabbing valve and well filled. Picked up and ran test tools to bottom, fluid level dropped in well. BOP's were closed while mud was mixed and pumped to the well.

Drill Stem Test tools were not set but well flowed salt water to surface. The well was brought under control with 10.0 lbs/gal. mud and sawdust.

BLOW OUT

January 30, 1971, Depth 875 feet

Drilling ahead well blew mud from the well. Mud weight approximately 8.5 lbs./gal. Gas volume estimated at 5 to 6 MMcf/d. Well blew for 8 hours controlled with 10.5 lbs./gal. mud.

Section 4

Well Log Data

Log	Scale	Interval
February 2, 1971		
Dual Induction Laterolog	2" and 5"/100'	1019' to 214'
Borehole Compensated Sonic	2" and 5"/100'	1021' to 216'
February 6, 1971		
Induction Electrical Log	2" and 5"/100'	1363' to 1019'
Borehole Compensated Sonic	2" and 5"/100'	1361' to 1021'
Formation Density Log	2" and 5"/100'	1362' to 214'
Sidewall Neutron Porosity	2" and 5"/100'	1362' to 214'

Section V



CORE LABORATORIES - CANADA LTD.
PETROLEUM RESERVOIR ENGINEERING

GAS ANALYSIS

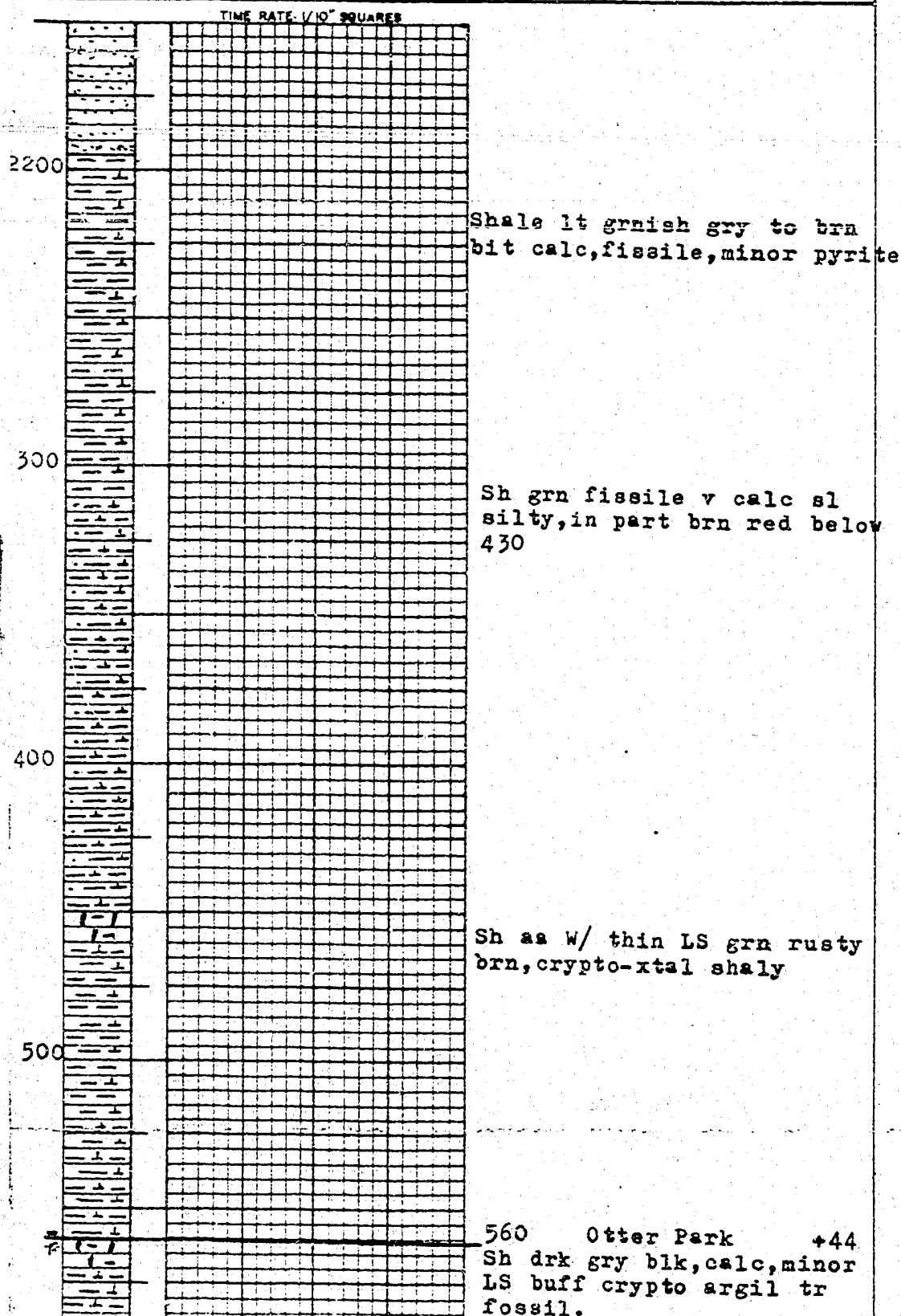
Company Placid Oil Company Page 1 of 1
 Well Horn River Placid IOE Mink Lake I-38 File 901-170
 Field Wildcat, N.W.T. Analyst DS
 Location 61 37'31.00
117 35'51.00 Elevation: K.B. 604' Grd. 595'
 Formation Middle Devonian Depth 845' - 925'
 Sampled from DST #2 (Flareline) by E.Harris/Lynes United
 Sampling pressure - psig Sampling temp. - °F Ambient temp. - °F
 Date sampled Feb. 2/71 Date received Feb. 8/71 Date analysed Feb. 8/71
 Container pressure 115 psig Mud - Water cushion -
 Recovery or flowrate: -

<u>COMPONENT</u>	<u>MOLE %</u>	<u>IMP. GPM @ 14.65 psia and 60°F</u>	<u>SPECIFIC GRAVITY</u>
Hydrogen			Calculated <u>.619</u> Measured <u>-</u>
Helium	<u>Trace</u>		
Nitrogen	<u>1.49</u>		<u>GROSS B.T.U. per SCF 992.4</u>
Carbon Dioxide	<u>6.00</u>		Calculated @ 14.65 psia, 60°F, moisture and acid - gas free.
Hydrogen Sulphide	<u>.00</u>		
Methane	<u>92.37</u>		<u>VAPOR PRESSURE of PENTANES PLUS</u>
Ethane	<u>.11</u>		(calculated) <u>.0</u>
Propane	<u>.03</u>	<u>.007</u>	
Iso Butane	<u>Trace</u>	<u>.000</u>	Pseudo Critical Pressure <u>694.3</u> psia
Normal Butane	<u>Trace</u>	<u>.000</u>	Pseudo Critical Temperature <u>355.0</u> °R
Iso Pentane	<u>Trace</u>	<u>.000</u>	
Normal Pentane	<u>.00</u>	<u>.000</u>	Remarks <u>Cylinder No. LS - 51</u>
Hexanes	<u>.00</u>	<u>.000</u>	
Heptanes Plus	<u>.00</u>	<u>.000</u>	
Total	<u>100.00</u>	<u>.007</u>	
Pentanes Plus		<u>.000</u>	

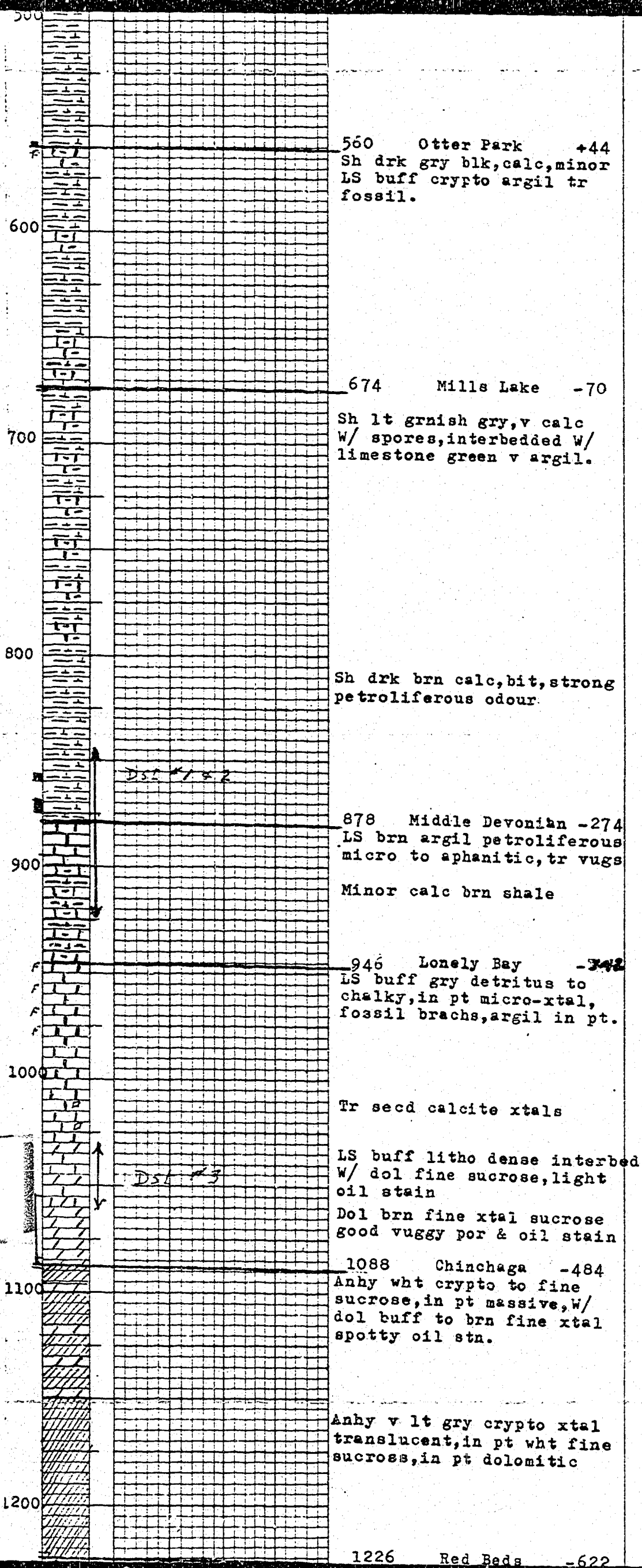
PROVINCE N.W.T.	COMPANY Placid Oil Co.
AREA	WELL NAME Mink Lake I-38
LSO	SURVEY Long: 117-35'51"
SEC.	Lat 61 37' 31"
T.	R.
TOTAL DEPTH 1362	
CONTRACTOR Big Indian Drilling	
COMMENCED 25 Jan 1971	
COMPLETED 8 Feb 1971	
REMARKS D & A	
ELEV 604.3 KB	
595 GR.	GEOLOGIST H Davies
CASING RECORD	
Surface:	7" 20# J55 set
	@ 214 W/ 135
	sax plus 3% ca.
TIME RATE SCALE 1/10" = MINUTES	

LEGEND

-  LIMESTONE
-  SANDSTONE
-  SHALE
-  DOLOMITE
-  GYPSUM OR ANHY
-  SALT
-  COAL
-  IGNEOUS
-  CHERT
-  OOLITES
-  IRONSTONE
-  DOLOMITIC
-  CALCAREOUS



1 of



800

Sh drk brn calc, bit, strong
petroliferous odour.

DS2 #1 & 2

900

878 Middle Devonian -274
LS brn argil petroliferous
micro to aphanitic, tr vugs

Minor calc brn shale

1000

946 Lonely Bay -342
LS buff gry detritus to
chalky, in pt micro-xtal,
fossil brachs, argil in pt.

Tr seed calcite xtals

DS1 #3

LS buff litho dense interbed
w/ dol fine sucrose, light
oil stain

Dol brn fine xtal sucrose
good vuggy por & oil stain

1100

1088 Chinchaga -484
Anhy wht crypto to fine
sucrose, in pt massive, w/
dol buff to brn fine xtal
spotty oil stn.

Anhy v lt gry crypto xtal
translucent, in pt wht fine
sucrose, in pt dolomitic

1200

1226 Red Beds -622
Dol gry crypto xtal, anhy'd
tr oil stn. tr red silty dol.
Anhy lt gry wht, crypto xtal
translucent w/ lt grn shale
anhydritic.

1300

Dol red crypto xtal dense
sl silty in pt.

1318 Granite Wash -714

Quartz congl, red matrix
1332 Pre Cambrian -728

Granite white quartz
w/ green chlorite mineral

1362 Total Depth

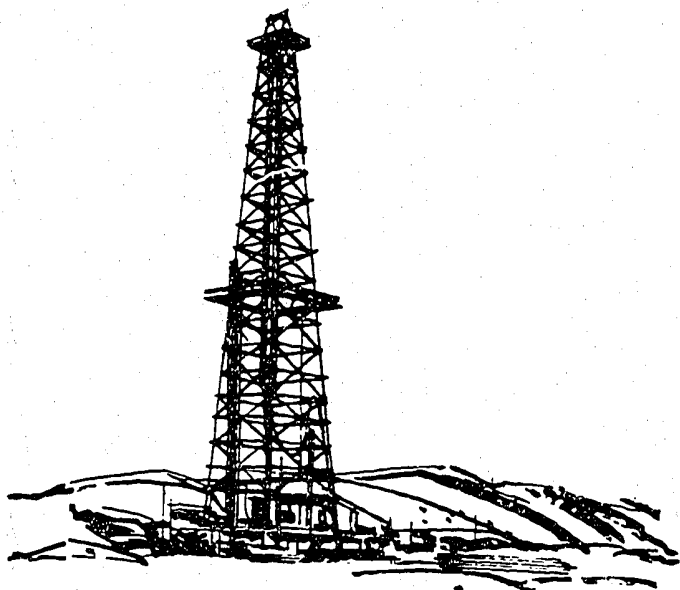
93



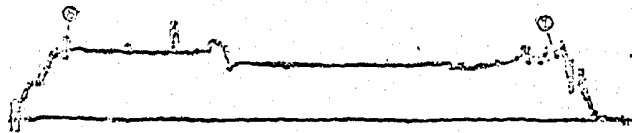
LYNIES

BRIGHT NAME IN THE OIL PATCH

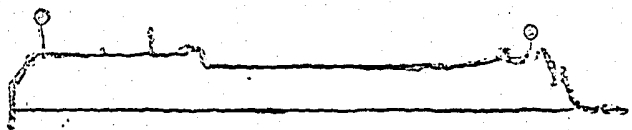
Inflatable and Conventional Packer Tools



1014 1150 1150 1014 1150 1150
 1150 1150 1150 1150 1150 1150
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1014 1150 1150 1014 1150 1150
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LYNES UNITED SERVICES LTD.

TEST DATA		Test No. 3		Lynes Test 3		GENERAL INFORMATION	
Formation		T.D. 1061		Ft.		Company Placid Oil Company	
Interval Tested 1000		Ft. to 1061		Ft.		Address	
Feet of Net Pay Tested 61				Ft.			
Type of Test Bottom Hole Conventional							
Cushion		Amount		Ft.		Well Name Horn River Placid 10E Mink Lake	
Started in Hole at 6:30		Hrs.		Tool Open at		Hrs.	
Pre-Flow		Mins.		Initial Shut-in		Mins.	
2nd Flow		Mins.		Second Shut-in		Mins.	
Final Flow		Mins.		Final Shut-in		Mins.	
Remarks:						Well Number 1-38 610 37' 1170 35'	
						K.B. Elevation 604 Sub-Sea Elevation	
						Area Mink Lake Province N.W.T.	
						Company Rep. H. Davies	
						Tester E. Harris	
						Contractor Big Indian Ria No. 57	
						Ticket No. 2958= Date February 3/71	
						Service Reports To:	
						5 + 40 xeroxed copies to	
						Lewis J. Engineering Ltd.	
						736 - Eighth Avenue S.W.	

GAS BLOW MEASUREMENTS

Measured with

MUD AND HOLE DATA

Mud Type Gel Chem & sawdust

Weight 10.6 Viscosity 42 Water Loss 20.0

Filter Cake 232" Bottom Hole Temperature

Drill Pipe Size 3 1/2" AI Weight

Drill Collars 3 1/2" IF I.D. 2 1/4" Feet Run 506.78

Main Hole or Casing Size 6 1/2"

Rathole or Liner Size No. of Feet

Bottom Hole Choke Size 1/2"

Surface Choke Size

Packer Rubber Size 5 1/2"

REMARKS: Miscrun.

RECOVERY

TOTAL FLUID RECOVERED nil Ft. Consisting of:

Ft. of

Ft. of

Ft. of

Ft. of

Test was/was not Reverse Circulated

Oil Recovery A.P.I. Water Specific Gravity

Salinity

PRESSURE READINGS

Inside X Outside

Recorder No. 1097

Capacity 4100

Depth 995

Inside Outside X

Recorder No. 966

Capacity 5040

Depth 1010

Inside Outside

Recorder No.

Capacity

Depth

Inside Outside

Recorder No.

Capacity

Depth

NUMBER KEY:

- 1 - INITIAL HYDROSTATIC
- 2 - PRE-FLOW
- 3 - INITIAL SHUT-IN
- 4a - 2nd INITIAL FLOW
- 4b - 2nd FINAL FLOW
- 4c - 2nd SHUT-IN
- 5 - 3rd INITIAL FLOW
- 6 - FINAL FLOW
- 7 - FINAL SHUT-IN
- 8 - FINAL HYDROSTATIC

556

547

556

547

Placid Oil Company

Horn River Placid 10E Mink Lake 1-38

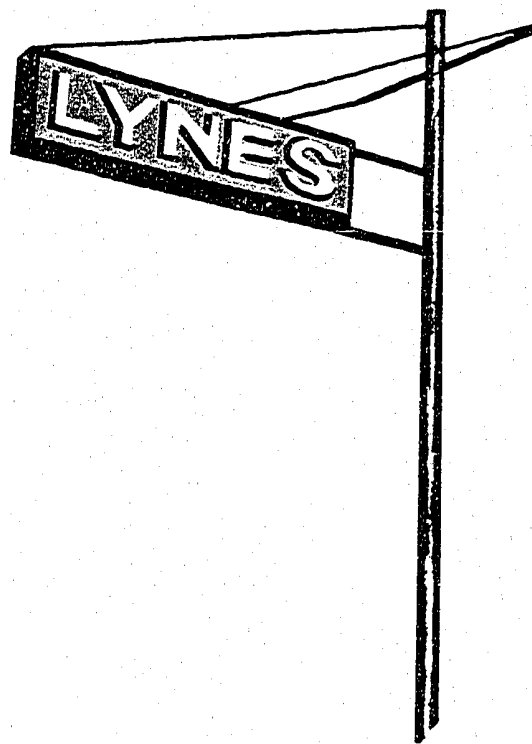
Test No. #3

February 3/71

Date of Test

610 37' 1170 35'

Well Name and Description



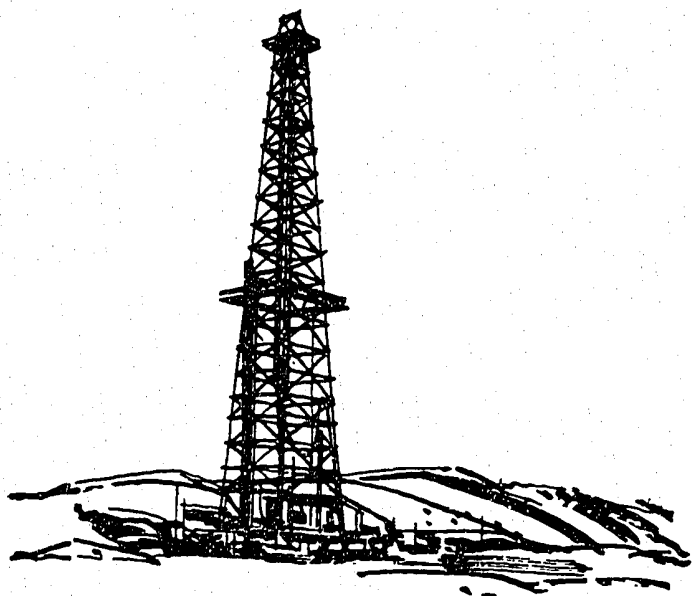
LYNES UNITED SERVICES LTD. 262-4501 CALGARY, ALBERTA



LYNES

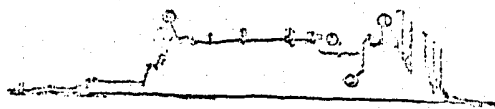
BRIGHT NAME IN THE OIL PATCH

Inflatable and Conventional Packer Tools

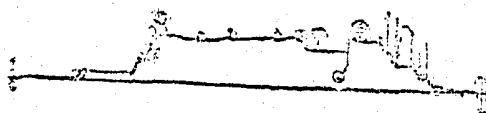


**DRILL STEM TEST
TECHNICAL SERVICE REPORT**

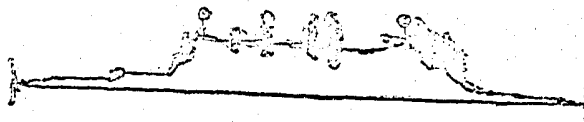
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CHEMICAL & GEOLOGICAL LABORATORIES LTD.

WATER ANALYSIS

Lab No. E71-4120

Received: Feb. 27, 1971 Reported: Mar. 8, 1971

Well: Location: Placid Mink Lake I-38 Long. 117°35'51"; Lat. 61°37'31"

Operator: PLACID OIL COMPANY

Field or Area: (Wildcat)

Elev.: K.B. 604' Grd.

Zone/Formation: Middle Devonian

Sample Interval:

Method of Production: D.S.T.; Flowing.

Sampled from:

Sampled by: Harry Davies

Date: Feb. 1, 1971

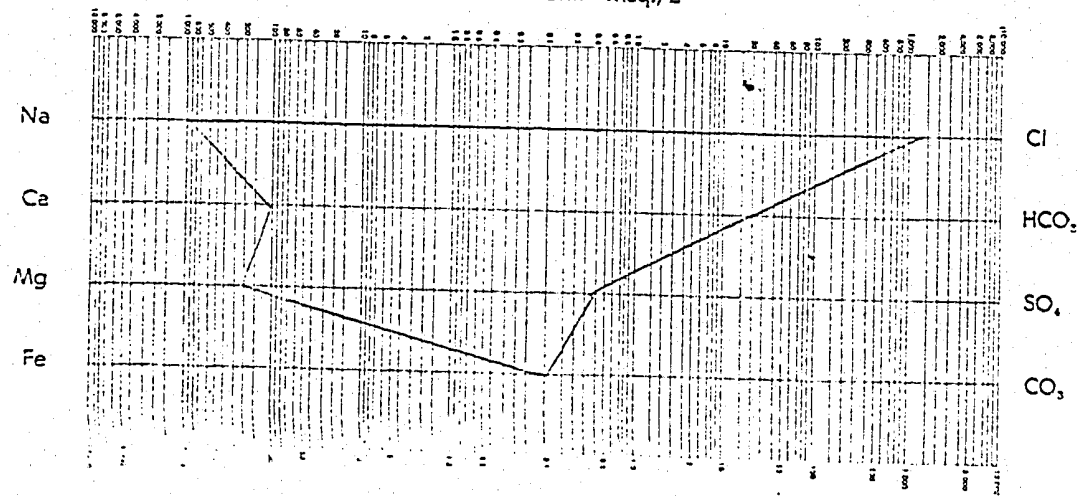
OTHER PERTINENT DATA Flowing water to surface. Open Hole. Mud Type: fresh water.

(Signed) Frank Rosichuk
Placid Oil Co.

	Na+K	K	Ca	Mg				SO ₄	Cl			CO ₃	HCO ₃		
Mg./L	22524		2298	2474				18	45300				1220		
Meq./L	979.81		114.67	203.36				0.37	1277.46				20.01		
Meq. %	37.75		4.42	7.83				0.01	49.21				0.77		

Total Solids Mg/L: By Evaporation 85,530 Fe Present Specific Gravity 1.056 @60°F Observed pH 6.7 @ 75 °F
Calculated 73,834 After Ignition 68,950 H₂S Present Refractive Index 1.3467 @25°C Resistivity 0.121 ohm meters @ 68 °F

Pattern Unit Meq./L



Remarks and Conclusions

Sample consisted of colourless water with a thin layer of sediment. Organic matter present in dissolved solids.

LYNES UNITED SERVICES LTD.

TEST DATA				GENERAL INFORMATION			
Formation	Middle Devonian	T.D.	1023	Company	Horn River Resources Ltd.		
Interval Tested	845	Ft. to	925	Address			
Feet of Net Pay Tested	50						
Type of Test	Conventional Straddle						
Cushion	nil	Amount		Well Name	Horn River Placid 10E Mink Lake		
Started in Hole at	3:00	Hrs.	Tool Open at	5:50	Hrs.	Well Number	1-38 61° 37' 1170 35'
Pre-Flow	5	Mins.	Initial Shut-in	30	Mins.	K.B. Elevation	604
2nd Flow		Mins.	Second Shut-in		Mins.	Sub-Sea Elevation	
Final Flow		Mins.	Final Shut-in		Mins.	Area	Mink Lake
Remarks:	Test tool plugged.			Company Rep.	H. Davies		
				Tester	E. Harris		
				Contractor	Big Indian		
				Ticket No.	2956	Date	February 1/71
				Service Reports To:			
					5 + 40 xeroxed copies to		
					Lewis J. Engineering Ltd.		
					736 - Eighth Avenue S.W.		
GAS BLOW MEASUREMENTS				MUD AND HOLE DATA			
Measured with				Mud Type			
				Gle Chem & sawdust			
				Weight			
				11.0 Viscosity 49 Water Loss 22.0			
				Filter Cake			
				2/32" Bottom Hole Temperature 68°			
Time	Surface Choke	Reading Inches	Cubic Feet/Day	Drill Pipe Size	3 1/2" AI	Weight	
				Drill Collars	3 1/2" IF I.D.	2 1/2" Feet Run	394.00
				Main Hole or Casing Size	6 1/4"		
				Rathole or Liner Size		No. of Feet	
				Bottom Hole Choke Size	1/2"		
				Surface Choke Size			
				Packer Rubber Size	5 1/2"		
				REMARKS	Tool plugged off immediately during the preflow.		
RECOVERY							
TOTAL FLUID RECOVERED				nil			
Ft. of							
Ft. of							
Ft. of							
Ft. of							
Test was/was not Reverse Circulated							
Oil Recovery A.P.I.				Water Specific Gravity			
Salinity							
PRESSURE READINGS							
Inside _____ Outside _____ X		Inside _____ Outside _____ X		Inside _____ Outside _____ X		Inside _____ Outside _____	
Recorder No. 1097		Recorder No. 966		Recorder No. 2816		Recorder No. _____	
Capacity 4100		Capacity 5000		Capacity 4600		Capacity _____	
Depth 869		Depth 874		Depth 949		Depth _____	
NUMBER KEY:							
1 - INITIAL HYDROSTATIC		502		497		558	
2 - PRE-FLOW		245		245			
3 - INITIAL SHUT-IN		403		398			
4a - 2nd INITIAL FLOW							
4b - 2nd FINAL FLOW							
4c - 2nd SHUT-IN							
5 - 3rd INITIAL FLOW							
6 - FINAL FLOW							
7 - FINAL SHUT-IN							
8 - FINAL HYDROSTATIC		502		497		558	

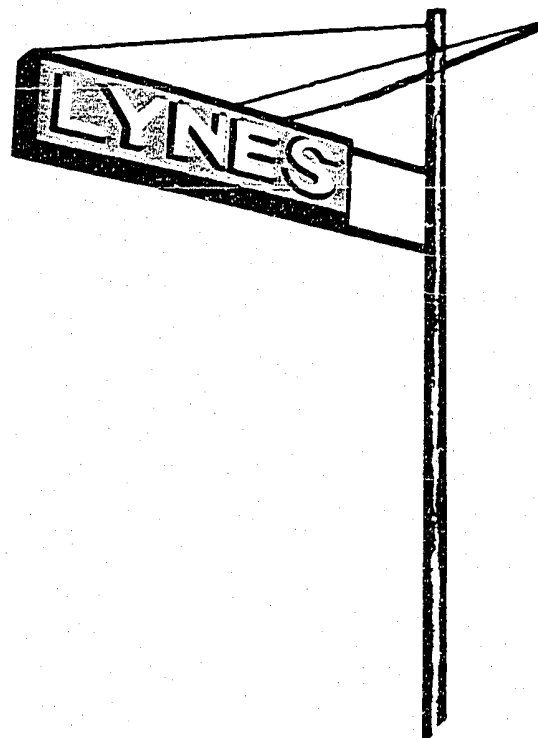
Placid Oil Company

1-38 61° 37' 1170 35'
Horn River Placid 10E Mink Lake

Test No.

February 1/71

Date of Test



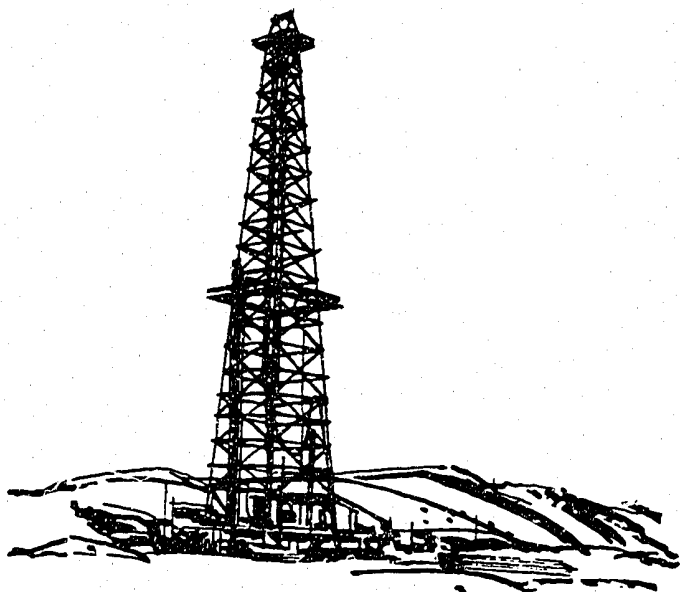
LYNES UNITED SERVICES LTD. 262-4501 CALGARY, ALBERTA



LYNES

BRIGHT NAME IN THE OIL PATCH

Inflatable and Conventional Packer Tools



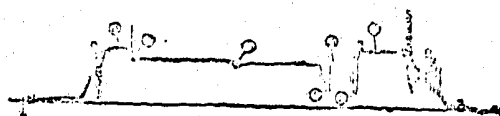
DRILL STEM TEST

TECHNICAL SERVICE REPORT

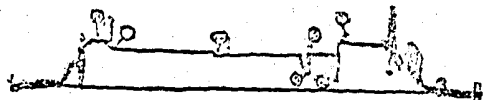
670 371 1170 351

0 71

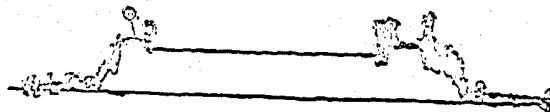
NO. 100 RIVER PLOT 100 MILES LONG
 2 1/2" 20' 21" 00 21' 25" 00
 20' 21" 00

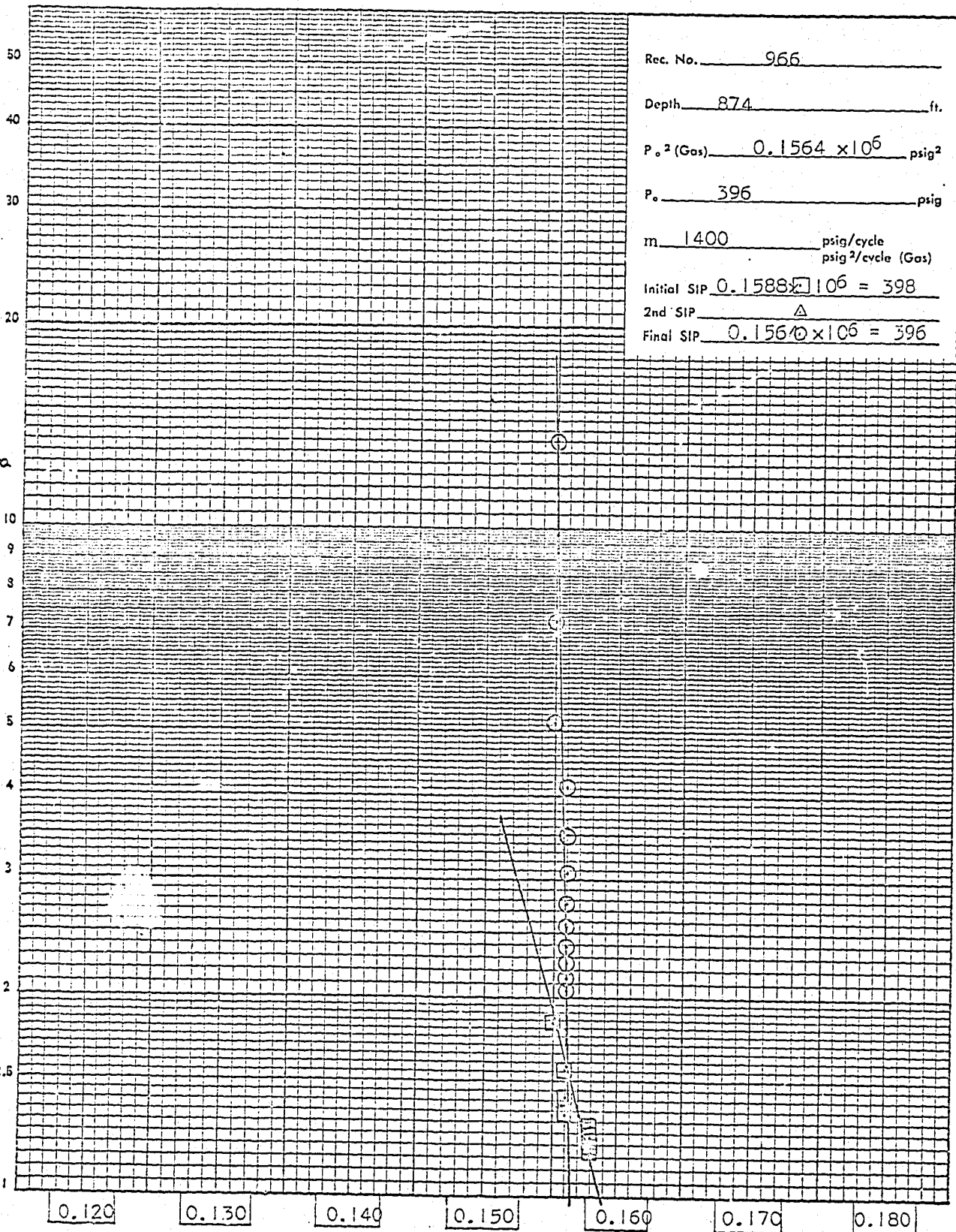


NO. 100 RIVER PLOT 100 MILES LONG
 2 1/2" 20' 21" 00 21' 25" 00
 20' 21" 00



NO. 100 RIVER PLOT 100 MILES LONG
 2 1/2" 20' 21" 00 21' 25" 00
 20' 21" 00





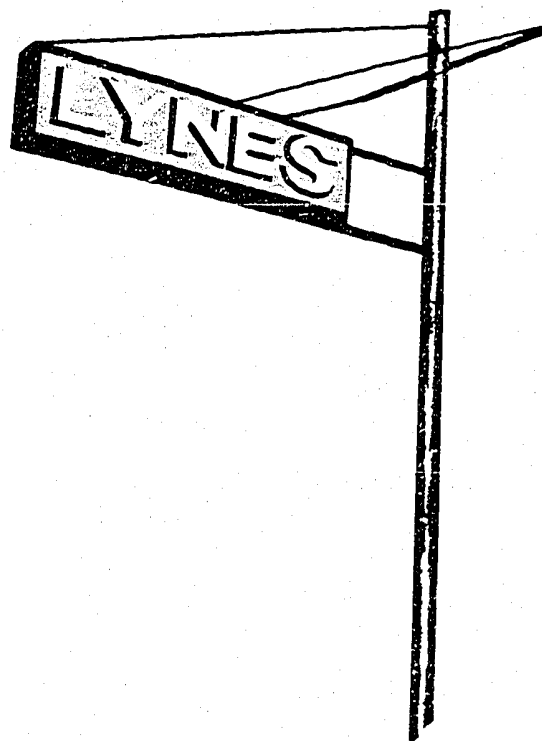
PRESSURE EXTRAPOLATION PLOT

DST # 2

LYNES UNITED SERVICES LTD.

TEST DATA				GENERAL INFORMATION			
Test No.	2			Lynes Test	2		
Formation	Middle Devonian			T.D.	1023		
Interval Tested	845	Ft. to	925	Company	Placid Oil Company		
Feet of Net Pay Tested	80			Address	840 - Guinness House		
Type of Test	Conventional Straddle				Calgary, Alberta		
Cushion	nil	Amount		Well Name	Horn River Placid 10E Mink Lake		
Started in Hole at	12:00	Hrs.	Tool Open at	2:40	Hrs.	Well Number	1-38, 610 37' 1170 35'
Pre-Flow	5	Mins.	Initial Shut-in	30	Mins.	K.B. Elevation	604
2nd Flow		Mins.	Second Shut-in		Mins.	Sub-Sea Elevation	
Final Flow	120	Mins.	Final Shut-in	120	Mins.	Area	Mink Lake
Remarks:				Company Rep.	H. Davies		
				Tester	E. Harris		
				Contractor	Big Indian		
				Ticket No.	2957	Date	February 2/71
				Service Reports To:	5 + 40 xeroxed copies sent to Lewis J. Engineering Ltd. 736 - Eighth Avenue S.W.		
Blow:	Good initial puff. Gas to surface in 1 minute. Fair gas blow, decreasing to a steady flow.						
GAS BLOW MEASUREMENTS				MUD AND HOLE DATA			
Measured with 2" riser pitot tube inches of mercury.				Mud Type Gel Chem			
				Weight 11.4 Viscosity 46 Water Loss 22.0			
				Filter Cake 2/32" Bottom Hole Temperature 68°			
Time	Surface Choke	Reading Inches	Cubic Feet/Day	Drill Pipe Size	3 1/2" AI Weight		
3:30		1.2	560.0 Mcf/d	Drill Collars	3 1/2" IF I.D. 2 1/2" Feet Run 394.		
3:45		1.2	560.0 Mcf/d	Main Hole or Casing Size	6 1/4"		
4:00		0.8	458.0 Mcf/d	Rathole or Liner Size	No. of Feet		
4:15		0.8	458.0 Mcf/d	Bottom Hole Choke Size	1/2"		
4:30		0.8	458.0 Mcf/d	Surface Choke Size	nil		
4:45		0.8	458.0 Mcf/d	Packer Rubber Size	5 1/2"		
5:00		0.8	458.0 Mcf/d	REMARKS	Shut-in pressures suggest very high permeability within the interval tested.		
5:15		0.8	458.0 Mcf/d				
RECOVERY							
TOTAL FLUID RECOVERED 90 Ft. Consisting of:							
90 Ft. of blackish mud							
Ft. of							
Ft. of							
Ft. of							
Ft. of							
Test was/was not Reverse Circulated							
Oil Recovery A.P.I. Water Specific Gravity							
Salinity							
PRESSURE READINGS							
Inside _____ Outside _____		Inside _____ Outside _____ X		Inside _____ Outside _____ X		Inside _____ Outside _____	
Recorder No. 1097		Recorder No. 966		Recorder No. 2816		Recorder No. _____	
Capacity 4100		Capacity 5000		Capacity 4600		Capacity _____	
Depth 869		Depth 874		Depth 949		Depth _____	
NUMBER KEY:							
1 - INITIAL HYDROSTATIC		498		502		545	
2 - PRE-FLOW		144		142			
3 - INITIAL SHUT-IN		402		397			
4a - 2nd INITIAL FLOW							
4b - 2nd FINAL FLOW							
4c - 2nd SHUT-IN							
5 - 3rd INITIAL FLOW		162		162			
6 - FINAL FLOW		358		354			
7 - FINAL SHUT-IN		401		395			
8 - FINAL HYDROSTATIC		498		489		545	

Placid Oil Company
 Horn River Placid 10E Mink Lake 1-38
 670 37' 1170 35'
 Well Name and Description
 #2
 February 2/71
 Date of Test



LYNES UNITED SERVICES LTD. 262-4501 CALGARY, ALBERTA



Indian and
Northern Affairs

Affaires indiennes
et du Nord

MKE

[Handwritten signature]

H. J. Berry,
Chief Petroleum Engineer

P.O. Box 1500,
Yellowknife, N.W.T. XOE 1H0
March 18, 1974.

Your file Votre référence

Our file Notre référence

Re: Horn River Placid IOE Mink Lake I-38
 I-38-61-40-117-30 D.A. 472

Attached is the Mud Program which was omitted from the Well History Report for the above-named well.

/bm

B Mackenzie

(Miss) B. E. Mackenzie,
(for) G. E. Blue,
District Conservation Engineer,
District 2.

cc: I.S.P.G.,
 Calgary.

MAR 22 1974
C.L.

Horn River Placid IOE Mink Lake I-38
I-38-61-40-117-30 D.A. 472

SUMMARY OF MUD ADDITIVES

Gel	124 sax
Weight Material (Barite)	182 sax
Spersene	6 sax
Sawdust	13 sax
Fibre-seal	10 sax

[illegible]

RIG. NO. 51 LOCATION Ham River Placid Lake 1-38 DATE 2-6-71 LOCATION Ham River Placid Lake 1-38 DATE 2-6-71

LT:	LF:	HOLE NO.	FROM	TO	T.D. IF FIN.	SIZE CASING	SET TO DEPTH	AMOUNT	SAC CEMENT	AVERAGE TIME PER LOAD OF W.	LOST DRILL TIME WAIT ON WATER			
AF:	AT:		1361	1362										
% LEFT	COND	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REAMED	HRS.	FORM	% LEFT	COND.	
		6	6 1/8	4 1/2	1415	29,000	65	25		4 1/2				
MUD		12 M.N.	2 A.M.	4 A.M.	6 A.M.	PUMP		PUMP		SURVEY				
WT.		10.1	10.1	10.1	PRESS		RPM	DEPTH	PRESS	RPM	DEPTH	AT	DEG.	LOG TO DEPTH
VISC.		42	38	38	300		40	1340						
GEL.		F.C.		P.H.	DRILL		MOTOR HOURS	FUEL GALS.	NEXT OIL CHANGE AT	WEATHER		MIDN.	4 A.M.	
W.L.		F.C.		P.H.	W. TRUCK		288	250		TEMPERATURE:		40	-40	
ADDITIVES: WATER		GALS.		MOB. PUMP		344		RAIN, SNOW, FOG, ETC.						
1. 9 SKS		B.E.L.		GENERAL		84								
2.														
3.														
CREW TIME SUMMARY														
DRILLER <u>Bob LaBoucane</u>														
HELPER <u>W. FREEMAN</u>														
HELPER <u>T. THERIAULT</u>														
TOTAL <u>G. HOFMAN</u>														
INJURIES AND REMARKS:														

LT:	LF:	HOLE NO.	FROM	TO	T.D. IF FIN.	SIZE CASING	SET TO DEPTH	AMOUNT	SAC CEMENT	AVERAGE TIME PER LOAD OF W.	LOST DRILL TIME WAIT ON WATER			
AF:	AT:		1362											
% LEFT	COND	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REAMED	HRS.	FORM	% LEFT	COND.	
		6	6 1/8	4 1/2	1415	29,000			out					
MUD		8 A.M.	10 A.M.	12 N.H.	2 P.M.	PUMP		PUMP		SURVEY				
WT.		19.1	10.1	10.1	PRESS		RPM	DEPTH	PRESS	RPM	DEPTH	AT	DEG.	LOG TO DEPTH
VISC.		65	65	65	CVR		HOLE							
GEL.		F.C.		P.H.	DRILL		MOTOR HOURS	FUEL GALS.	NEXT OIL CHANGE AT	WEATHER		8 A.M.	NOON	
W.L.		F.C.		P.H.	W. TRUCK		296	250		TEMPERATURE:		-30	-10	
ADDITIVES: WATER		GALS.		MOB. PUMP		352		RAIN, SNOW, FOG, ETC.						
1.				GENERAL		102								
2.														
3.														
CREW TIME SUMMARY														
DRILLER														
HELPER														
HELPER														
TOTAL														
INJURIES AND REMARKS:														

LT:	LF:	HOLE NO.	FROM	TO	T.D. IF FIN.	SIZE CASING	SET TO DEPTH	AMOUNT	SAC CEMENT	AVERAGE TIME PER LOAD OF W.	LOST DRILL TIME WAIT ON WATER		
AF:	AT:												
% LEFT	COND	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REAMED	HRS.	FORM	% LEFT	COND.
MUD		4 P.M.	6 P.M.	8 P.M.	10 P.M.	PUMP		PUMP		SURVEY			
WT.		PRESS		RPM	DEPTH	PRESS	RPM	DEPTH	AT	DEG.	LOG TO DEPTH		
VISC.													
GEL.		MOTOR HOURS		FUEL GALS.	NEXT OIL CHANGE AT	WEATHER:		4 P.M.		8 A.M.			
W.L.		F.C.		P.H.	DRILL		76	TEMPERATURE:		-15	-90		
ADDITIVES: WATER		GALS.		W. TRUCK		8		WIND VELOCITY:					
1.				MOB. PUMP		8		RAIN, SNOW, FOG, ETC.		CLEAR			
2.				GENERAL		110							
3.													
CREW TIME SUMMARY													
DRILLER <u>AL WHEELDORE</u>													
HELPER <u>J. OTEY BELL</u>													
HELPER <u>H. HIGGINS</u>													
TOTAL <u>H. HIGGINS</u>													
INJURIES AND REMARKS:													

Slip & Cut 120' HOIST LINE

STRATIGRAPHIC LOG	PUMP TEST	CLASS	REMARKS	TIME			
FROM	TO	RATE IN 16 PM	DESCRIPTION	DEPTH TO WATER IN FT.	START	STOP	INTERVAL
			Water Cost		1200	100	1
			75.00		100	130	1/2
					130	600	4 1/2
					600	1800	
DRILLER <u>Bob LaBoucane</u>							
COMPANY TIME _____ CONTR TIME _____							

CLASS	REMARKS	TIME		
		START	STOP	INTERVAL
	CHANGED OIL & FILTERS IN PUMP MOTOR.	800	930	1 1/2
	DRIP OUT TO LOG	930	1000	1/2
	Log up LOGS	1000	1200	2
	LOG	1200	1400	4
Run 1 ES-1362-1023				
"SHR-1362-1023				
"Desal. in hole 1362-6				
Surface casing				
Run Forming Density 1362-6 to Surface casing				
By Schlumberger				
DRILLER <u>Bob LaBoucane</u>				
COMPANY TIME _____ CONTR TIME _____				

CLASS	REMARKS	TIME		
		START	STOP	INTERVAL
	Log	1400	700	
	WAIT on ORDERS	700	1000	
DRILLER <u>Al Wheeler</u>				
COMPANY TIME _____ CONTR TIME _____				

TOTAL CONTRACT TIME _____ HRS.

TOOLPUSHER OR DRILLER Al Wheeler

TOTAL COMPANY TIME _____ HRS.

APPROVED BY _____

TOTAL CONTRACT TIME _____ HRS. TOOLPUSHER OR DRILLER A. W. Whitten
TOTAL COMPANY TIME _____ HRS. APPROVED BY _____

TOTAL CONTRACT TIME _____ HRS. TOOLPUSHER OR DRILLER i/c [Signature]
TOTAL COMPANY TIME _____ HRS. APPROVED BY _____

TOUR 1	LT:	LF:	HOLE NO.	FROM	TO	T.D. IF FIN.	SIZE CASING	SET TO DEPTH	AMOUNT	SAC CEMENT	AVERAGE TIME PER LOAD OF W.	LOST DRILL TIME WAIT ON WATER	CLASS	REMARKS	TIME		
	AF:	AT:													START STOP INTERVAL		
MIDN.													FROM	TO	RATE IN 16 PM	DEPTH TO WATER IN FT.	
													FT. / TIME	FT. /			
TOUR 2													PUMP TEST				
8 A.M.													PUMP				
TOUR 3													PUMP				
MIDN.													PUMP				
TOUR 4													PUMP				
8 A.M.													PUMP				
TOUR 5													PUMP				
MIDN.													PUMP				
TOUR 6													PUMP				
8 A.M.													PUMP				
TOUR 7													PUMP				
MIDN.													PUMP				
TOUR 8													PUMP				
8 A.M.													PUMP				
TOUR 9													PUMP				
MIDN.													PUMP				
TOUR 10													PUMP				
8 A.M.													PUMP				
TOUR 11													PUMP				
MIDN.													PUMP				
TOUR 12													PUMP				
8 A.M.													PUMP				
TOUR 13													PUMP				
MIDN.													PUMP				
TOUR 14													PUMP				
8 A.M.													PUMP				
TOUR 15													PUMP				
MIDN.													PUMP				
TOUR 16													PUMP				
8 A.M.													PUMP				
TOUR 17													PUMP				
MIDN.													PUMP				
TOUR 18													PUMP				
8 A.M.													PUMP				
TOUR 19													PUMP				
MIDN.													PUMP				
TOUR 20													PUMP				
8 A.M.													PUMP				
TOUR 21													PUMP				
MIDN.													PUMP				
TOUR 22													PUMP				
8 A.M.													PUMP				
TOUR 23													PUMP				
MIDN.													PUMP				
TOUR 24													PUMP				
8 A.M.													PUMP				
TOUR 25													PUMP				
MIDN.													PUMP				
TOUR 26													PUMP				
8 A.M.													PUMP				
TOUR 27													PUMP				
MIDN.													PUMP				
TOUR 28													PUMP				
8 A.M.													PUMP				
TOUR 29													PUMP				
MIDN.													PUMP				
TOUR 30													PUMP				
8 A.M.													PUMP				
TOUR 31													PUMP				
MIDN.													PUMP				
TOUR 32													PUMP				
8 A.M.													PUMP				
TOUR 3																	

TOUR

1

8 A.M.

LT:

AF:

LF:

AT:

HOLE NO.

FROM

TO

T.D.I.F.FIN.

SIZE CASING

SET TO DEPTH

AMOUNT

SAC CEMENT

AVERAGE TIME PER LOAD OF W.

LOST DRILL TIME WAIT ON WATER

% LEFT

COND.

NO.

SIZE

TYPE

SER. NO.

WEIGHT

RPM

FT. DRILLED

REAMED

HRS.

FORM

% LEFT

COND.

MUD

12MN.

2A.M.

4A.M.

6A.M.

PUMP

PUMP

SURVEY

WT.

VISC.

GEL.

W.L.

F.C.

P.H.

W. TRUCK

MOB. PUMP

DRILL

MOTOR HOURS

FUEL GALS.

NEXT OIL CHANGE AT

WEATHER

TEMPERATURE

WIND VELOCITY

RAIN, SNOW, FOG, ETC.

GENERAL

CREW TIME SUMMARY

DRILLING AND OTHER RIG OPER.

PUMPTST

REPAIRS & MAINTENANCE

RIG UP OR TEAR DOWN

LOST TIME TRAVEL TIME

TOTAL HOURS

DRILLER

HELPER

HELPER

TOTAL

INJURIES AND REMARKS:

TOUR

2

8 A.M.

LT:

AF:

LF:

AT:

HOLE NO.

FROM

TO

T.D.I.F.FIN.

SIZE CASING

SET TO DEPTH

AMOUNT

SAC CEMENT

AVERAGE TIME PER LOAD OF W.

LOST DRILL TIME WAIT ON WATER

% LEFT

COND.

NO.

SIZE

TYPE

SER. NO.

WEIGHT

RPM

FT. DRILLED

REAMED

HRS.

FORM

% LEFT

COND.

MUD

8 A.M.

10A.M.

12 N.H.

2 P.M.

PUMP

PUMP

SURVEY

WT.

VISC.

GEL.

W.L.

F.C.

P.H.

W. TRUCK

MOB. PUMP

DRILL

MOTOR HOURS

FUEL GALS.

NEXT OIL CHANGE AT

WEATHER

TEMPERATURE

WIND VELOCITY

RAIN, SNOW, FOG, ETC.

GENERAL

CREW TIME SUMMARY

DRILLING AND OTHER RIG OPER.

PUMPTST

REPAIRS & MAINTENANCE

RIG UP OR TEAR DOWN

LOST TIME TRAVEL TIME

TOTAL HOURS

DRILLER

HELPER

HELPER

TOTAL

INJURIES AND REMARKS:

TOUR

3

4 P.M.

LT:

AF:

LF:

AT:

HOLE NO.

FROM

TO

T.D.I.F.FIN.

SIZE CASING

SET TO DEPTH

AMOUNT

SAC CEMENT

AVERAGE TIME PER LOAD OF W.

LOST DRILL TIME WAIT ON WATER

% LEFT

COND.

NO.

SIZE

TYPE

SER. NO.

WEIGHT

RPM

FT. DRILLED

REAMED

HRS.

FORM

% LEFT

COND.

MUD

4 P.M.

6 P.M.

8 P.M.

10 P.M.

PUMP

PUMP

SURVEY

WT.

VISC.

GEL.

W.L.

F.C.

P.H.

W. TRUCK

MOB. PUMP

DRILL

MOTOR HOURS

FUEL GALS.

NEXT OIL CHANGE AT

WEATHER

TEMPERATURE

WIND VELOCITY

RAIN, SNOW, FOG, ETC.

GENERAL

CREW TIME SUMMARY

DRILLING AND OTHER RIG OPER.

PUMPTST

REPAIRS & MAINTENANCE

RIG UP OR TEAR DOWN

LOST TIME TRAVEL TIME

TOTAL HOURS

DRILLER

HELPER

HELPER

TOTAL

INJURIES AND REMARKS:

STRATIGRAPHIC LOG

PUMP TEST

CLASS

REMARKS

TIME

FROM

TO

RATE

IN

16PM

DESCRIPTION

DEPTH TO WATER IN FT.

Water Cost

75.00

DST-2

Interval - 845' - 925'

INITIAL HYDROSTATIC - 497'

PREFLOW - 5 MIN

I.S.I. - 395'

I.F. - 152'

FLOW - 120 MIN - 355'

F.S.I. - 120 MIN - 395'

FINAL-HYDROSTATIC - 497'

B.H. - TEMP. - 68°

INITIAL FLOW - 560,000

Remained to 458,000 in

30 min. and remained

STEADY.

RECOVERED 90' of

SULPHUROUS MUD.

GOOD TEST

C.W. Whittier

Rem. logs

I.F.S. - 1023 to surface

G.S. Caliper - 1023 to surface

By S. Whittier

DRILLER

COMPANY TIME

CONTR TIME

TOOLPUSHER OR DRILLER I/C

APPROVED BY

TOTAL CONTRACT TIME

HRS.

TOTAL COMPANY TIME

HRS.

RIG. NO. 57 LOCATION Hot m. River Placid Lake E-38 DATE Feb. 1/71 LOCATION Wink Lake E-38 DATE Feb. 1/71

LT:	LF:	HOLE NO.	FROM	TO	T.D. IF FIN.	SIZE CASING	SET TO DEPTH	AMOUNT	SAC CEMENT	AVERAGE TIME PER LOAD OF W.	LOST DRILL TIME WAIT ON WATER
AF:	AT:										
BIT RECORD % LEFT COND NO. SIZE TYPE SER. NO. WEIGHT RPM FT. DRILLED REAMED HRS. FORM % LEFT COND.											
MUD 12MN. 2A.M. 4 A.M. 6 A.M. PUMP PUMP SURVEY WT. PRESS RPM DEPTH PRESS RPM DEPTH AT DEG. LOG TO DEPTH VISC. GEL. MOTOR HOURS FUEL GALS. NEXT OIL CHANGE AT WEATHER MIDN. 4 A.M. W.L. F.C. P.H. DRILL 76 250 TEMPERATURE: -50 -58 ADDITIVES: WATER W. TRUCK 184 WIND VELOCITY: - 1. MOB. PUMP 238 RAIN, SNOW, FOG, ETC. - 2. GENERAL: 276 3.											
CREW TIME SUMMARY DRILLER G. Jacobson HELPER L. Bourassa HELPER L. Karamtean HELPER C. Campbell TOTAL INJURIES AND REMARKS:											

STRATIGRAPHIC LOG / PUMP TEST
 FROM FT. / TIME TO FT. / RATE IN 16 PM DESCRIPTION / DEPTH TO WATER IN FT.
 Water Coast
 106.50 / 13 1/2 mo
 From Noon to 6:30 AM
 Motor took 12 gals.
 about 2 gals. recovered.
 DST #1
 INTERVAL - 845 - 925
 HYDROSTATIC 497"
 PRESS LOW 5 min
 15 min 30 min 385"
 OPEN 15 min

CLASS	REMARKS	TIME		
		START	STOP	INTERVAL
	Threw out & pick up testing tools.	12:00		
	Run in hole	4:15	4:25	
	Testing	4:15	7:15	2:50
	Threw stand pipe & Kelly hose	7:15	8:00	.75
DRILLER	G. Jacobson			
COMPANY TIME				
CONTR. TIME				

LT:	LF:	HOLE NO.	FROM	TO	T.D. IF FIN.	SIZE CASING	SET TO DEPTH	AMOUNT	SAC CEMENT	AVERAGE TIME PER LOAD OF W.	LOST DRILL TIME WAIT ON WATER
AF:	AT:										
BIT RECORD % LEFT COND NO. SIZE TYPE SER. NO. WEIGHT RPM FT. DRILLED REAMED HRS. FORM % LEFT COND.											
MUD 8 A.M. 10 A.M. 12 N.M. 2 P.M. PUMP PUMP SURVEY WT. PRESS RPM DEPTH PRESS RPM DEPTH AT DEG. LOG TO DEPTH VISC. GEL. MOTOR HOURS FUEL GALS. NEXT OIL CHANGE AT WEATHER 8 A.M. NOON W.L. F.C. P.H. DRILL 113 116 TEMPERATURE: -40 ADDITIVES: WATER W. TRUCK 45 46 WIND VELOCITY: - 1. MOB. PUMP 1030 RAIN, SNOW, FOG, ETC. - 2. GENERAL: 3.											
CREW TIME SUMMARY DRILLER HELPER C. Hoffmann HELPER TOTAL INJURIES AND REMARKS:											

Miss Run Shut in
 Tool PLUGGED

CLASS	REMARKS	TIME		
		START	STOP	INTERVAL
	First throw stand pipe	8:00	8:30	1:50
	Pull out	8:30	9:30	1:00
	Test Much	9:30	10:30	1:00
	Pull out & log down	10:30	12:00	1:30
	Testing Tools	12:00	1:00	1:00
	Load out Tool	1:00	1:30	30
	Run in	1:30	4:00	2:30
	Wait on Orders	4:00	4:30	30
DRILLER				
COMPANY TIME				
CONTR. TIME				

LT:	LF:	HOLE NO.	FROM	TO	T.D. IF FIN.	SIZE CASING	SET TO DEPTH	AMOUNT	SAC CEMENT	AVERAGE TIME PER LOAD OF W.	LOST DRILL TIME WAIT ON WATER
AF:	AT:										
BIT RECORD % LEFT COND NO. SIZE TYPE SER. NO. WEIGHT RPM FT. DRILLED REAMED HRS. FORM % LEFT COND.											
MUD 4 P.M. 6 P.M. 8 P.M. 10 P.M. PUMP PUMP SURVEY WT. PRESS RPM DEPTH PRESS RPM DEPTH AT DEG. LOG TO DEPTH VISC. GEL. MOTOR HOURS FUEL GALS. NEXT OIL CHANGE AT WEATHER 4 P.M. 8 A.M. W.L. F.C. P.H. DRILL 112 111 107 TEMPERATURE: -20 -30 ADDITIVES: WATER W. TRUCK 196 WIND VELOCITY: 2 mph 1. GEL MOB. PUMP 250 RAIN, SNOW, FOG, ETC. CLEAR 2. GENERAL: 258 3.											
CREW TIME SUMMARY DRILLER H. Wheelton HELPER J. Owen HELPER H. Higgins HELPER V. Higgins TOTAL INJURIES AND REMARKS:											

CLASS	REMARKS	TIME		
		START	STOP	INTERVAL
	Wait on Orders	4:00	8:00	4
	Condition Mud	8:00	9:00	1
	Pull out To Test	9:00	9:45	45
	Make up Tool	9:45	12:00	2:15
DRILLER	H. Wheelton			
COMPANY TIME				
CONTR. TIME				

TOTAL CONTRACT TIME _____ HRS.

TOTAL COMPANY TIME _____ HRS.

TOOLPUSHER OR DRILLER

APPROVED BY

RIG. NO. 67

LOCATION Horn River Placid IOE Mink Lake I-38 DATE Jan 31/71

LOCATION Mink Lake I-38 DATE Jan 31/71

TOUR		LT:	LF:	HOLE NO.	FROM	TO	T.D. IF FIN.	SIZE CASING	SET TO DEPTH	AMOUNT	SAC CEMENT	AVERAGE TIME PER LOAD OF W.	LOST DRILL TIME WAIT ON WATER	PUMP TEST		CLASS	REMARKS	TIME		
		AF:	AT:											FROM	TO			START	STOP	INTERVAL
TOUR 1	MIDN.	CORING Pull out - Recover Core. Trouble with Core Barrel Freezing													12:00	2:15	2:25			
		At 6:00 o'clock. Water took 8 gals. of About 2 gals. recovered from leaks at this time.																		
		MUD 12MN 2A.M. 4A.M. 6A.M. WT. 11.4 11.5 VISC. 150+ 60 GEL.																		
		PUMP PRESS RPM DEPTH PRESS RPM DEPTH AT DEG. LOG TO DEPTH 1200 40 910																		
		SURVEY DRILL 3.2 280 W. TRUCK 160 MOB. PUMP 214 GENERAL 252																		
		WEATHER MIDN. 4A.M. TEMPERATURE: -80 -58 WIND VELOCITY: - - RAIN, SNOW, FOG, ETC. - -																		
		CREW TIME SUMMARY DRILLER G. Jacobson HELPER A. Bourassa HELPER L. Brouseau C. Campbell																		
		TOTAL 13 13 12 12																		
		INJURIES AND REMARKS:																		
		DRILLER G. Jacobson COMPANY TIME CONTR. TIME 8																		
TOUR 2	8 A.M.	Fill boiler - fuel + water get ready to run in lay down core barrel Run in hole Beam to Bottom Drilling Work on shackles Trans mission													8:00	9:30	1:50			
		MUD 8A.M. 10A.M. 12N.M. 2P.M. WT. 11.4 108 VISC. 100 50 100 GEL.																		
		PUMP PRESS RPM DEPTH PRESS RPM DEPTH AT DEG. LOG TO DEPTH 400 50 100																		
		SURVEY DRILL 4.5 W. TRUCK MOB. PUMP GENERAL																		
		WEATHER 8A.M. NOON TEMPERATURE: -85 -35 WIND VELOCITY: - RAIN, SNOW, FOG, ETC. - CLEAR																		
		CREW TIME SUMMARY DRILLER S. HELPER HELPER																		
		TOTAL INJURIES AND REMARKS:																		
		DRILLER COMPANY TIME CONTR. TIME																		
		DRILL L RIG SERVICE DRILL COMBITION (Loss)													4:00	5:00	1:00			
		TRIP FOR TEST Put Riser on Flare Line Pick up Tool													9:30	10:00	30			
TOUR 3	4 P.M.	DRILL L RIG SERVICE DRILL COMBITION (Loss)													4:00	5:00	1:00			
		MUD 4P.M. 6P.M. 8P.M. 10P.M. WT. 10.9 10.7 VISC. 80 60 GEL.																		
		PUMP PRESS RPM DEPTH PRESS RPM DEPTH AT DEG. LOG TO DEPTH 400 60 100																		
		SURVEY DRILL 6.4 W. TRUCK 177 MOB. PUMP 226 GENERAL 266																		
		WEATHER 4P.M. 8A.M. TEMPERATURE: -35 -40 WIND VELOCITY: - RAIN, SNOW, FOG, ETC. - CLEAR																		
		CREW TIME SUMMARY DRILLER H. W. HEDDON HELPER J. GIBBIE HELPER H. HIGGINS H. HIGGINS																		
		TOTAL 12 12 12 12																		
		INJURIES AND REMARKS:																		
		DRILLER H. W. HEDDON COMPANY TIME CONTR. TIME																		
		TOTAL CONTRACT TIME HRS. TOOLPUSHER OR DRILLER TOTAL COMPANY TIME HRS. APPROVED BY																		

TOTAL CONTRACT TIME _____ HRS. TOOLPUSHER OR DRILLER: *Chandler*
TOTAL COMPANY TIME _____ HRS. APPROVED BY: _____

TOUR 1	LT:	LF:	HOLE NO.	FROM	TO	T.D. IF FIN.	SIZE CASING	SET TO DEPTH	AMOUNT	SAC CEMENT	AVERAGE TIME PER LOAD OF W.	LOST DRILL TIME WAIT ON WATER		
	AF:	AT:												
	% LEFT	COND	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REAMED	HRS.	FORM	% LEFT	COND.
	MUD 12MN. 2A.M. 4A.M. 6A.M.													
	PUMP PUMP SURVEY													
	WT. VISC. GEL. W.L. F.C. P.H.													
	ADDITIVES: WATER 1. 2. 3.													
	CREW TIME SUMMARY													
	DRILLER G. Jacobson													
	HELPER L. Bourassa													
HELPER L. Paranteau														
TOTAL G. Campbell														
INJURIES AND REMARKS:														
TOUR 2	LT:	LF:	HOLE NO.	FROM	TO	T.D. IF FIN.	SIZE CASING	SET TO DEPTH	AMOUNT	SAC CEMENT	AVERAGE TIME PER LOAD OF W.	LOST DRILL TIME WAIT ON WATER		
	AF:	AT:												
	% LEFT	COND	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REAMED	HRS.	FORM	% LEFT	COND.
	MUD 8A.M. 10A.M. 12N. 2P.M.													
	PUMP PUMP SURVEY													
	WT. VISC. GEL. W.L. F.C. P.H.													
	ADDITIVES: WATER 1. 2. 3.													
	CREW TIME SUMMARY													
	DRILLER Bob L. Boudreau													
	HELPER W. FREDONK													
HELPER C. H. ESTER - PARANTEAU														
TOTAL T. HEDVAULT														
INJURIES AND REMARKS:														
TOUR 3	LT:	LF:	HOLE NO.	FROM	TO	T.D. IF FIN.	SIZE CASING	SET TO DEPTH	AMOUNT	SAC CEMENT	AVERAGE TIME PER LOAD OF W.	LOST DRILL TIME WAIT ON WATER		
	AF:	AT:												
	% LEFT	COND	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REAMED	HRS.	FORM	% LEFT	COND.
	MUD 4P.M. 6P.M. 8P.M. 10P.M.													
	PUMP PUMP SURVEY													
	WT. VISC. GEL. W.L. F.C. P.H.													
	ADDITIVES: WATER 1. 2. 3.													
	CREW TIME SUMMARY													
	DRILLER H. WHEELDON													
	HELPER J. O'DENREIL													
HELPER H. HARRIS														
TOTAL V. HARRIS														
INJURIES AND REMARKS:														

FIG. NO. 57 LOCATION Horn River Placid JOE Mink Lake I-38 DATE Jan 26/71 LOCATION Mink Lake I-38 DATE Jan 26/71

TOUR	T.O.	MIDN.	LT:	LF:	HOLE NO.	FROM	TO	T.D. IF FIN.	SIZE CASING	SET TO DEPTH	AMOUNT	SAC CEMENT	AVERAGE TIME PER LOAD OF W.	LOST DRILL TIME WAIT ON WATER	PUMP TEST		CLASS	REMARKS	TIME								
															FROM	TO			START	STOP	INTERVAL						
1			AF:	AT:	219																						
			% LEFT	COND	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REAMED	HRS.	FORM	% LEFT	COND.											
			MUD														12MN.	2A.M.	4A.M.	6A.M.							
			PUMP														PRESS	RPM	DEPTH	PRESS	RPM	DEPTH	AT	DEG.			
			SURVEY																								
			W.T.																								
			VISC.																								
			GEL																								
			W.L.																								
			F.C.																								
2			AF:	AT:	219																						
			% LEFT	COND	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REAMED	HRS.	FORM	% LEFT	COND.											
			MUD														8A.M.	10A.M.	12N.M.	2P.M.							
			PUMP														PRESS	RPM	DEPTH	PRESS	RPM	DEPTH	AT	DEG.			
			SURVEY																								
			W.T.																								
			VISC.																								
			GEL																								
			W.L.																								
			F.C.																								
3			AF:	AT:																							
			% LEFT	COND	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REAMED	HRS.	FORM	% LEFT	COND.											
			MUD														4P.M.	6P.M.	8P.M.	10P.M.							
			PUMP														PRESS	RPM	DEPTH	PRESS	RPM	DEPTH	AT	DEG.			
			SURVEY																								
			W.T.																								
			VISC.																								
			GEL																								
			W.L.																								
			F.C.																								
4			AF:	AT:																							
			% LEFT	COND	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REAMED	HRS.	FORM	% LEFT	COND.											
			MUD														4P.M.	6P.M.	8P.M.	10P.M.							
			PUMP														PRESS	RPM	DEPTH	PRESS	RPM	DEPTH	AT	DEG.			
			SURVEY																								
			W.T.																								
			VISC.																								
			GEL																								
			W.L.																								
			F.C.																								

LOCATION

4 - LOCATION

DATE - 25/1/74

CLASS	REMARKS	TIME		
		START	STOP	INTERVAL
	WORK ON LITE PLANT	12 ⁰⁰	1 ⁰⁰	1
	START PUMP MOTOR	1 ⁰⁰	4 ⁰⁰	5 ⁰⁰
	SPUD	4 ⁰⁰	4 ³⁰	30
	CHECK POWER END FREQ	4 ³⁰	5 ⁰⁰	30
	DRILL	5 ⁰⁰	8 ⁰⁰	3
				8

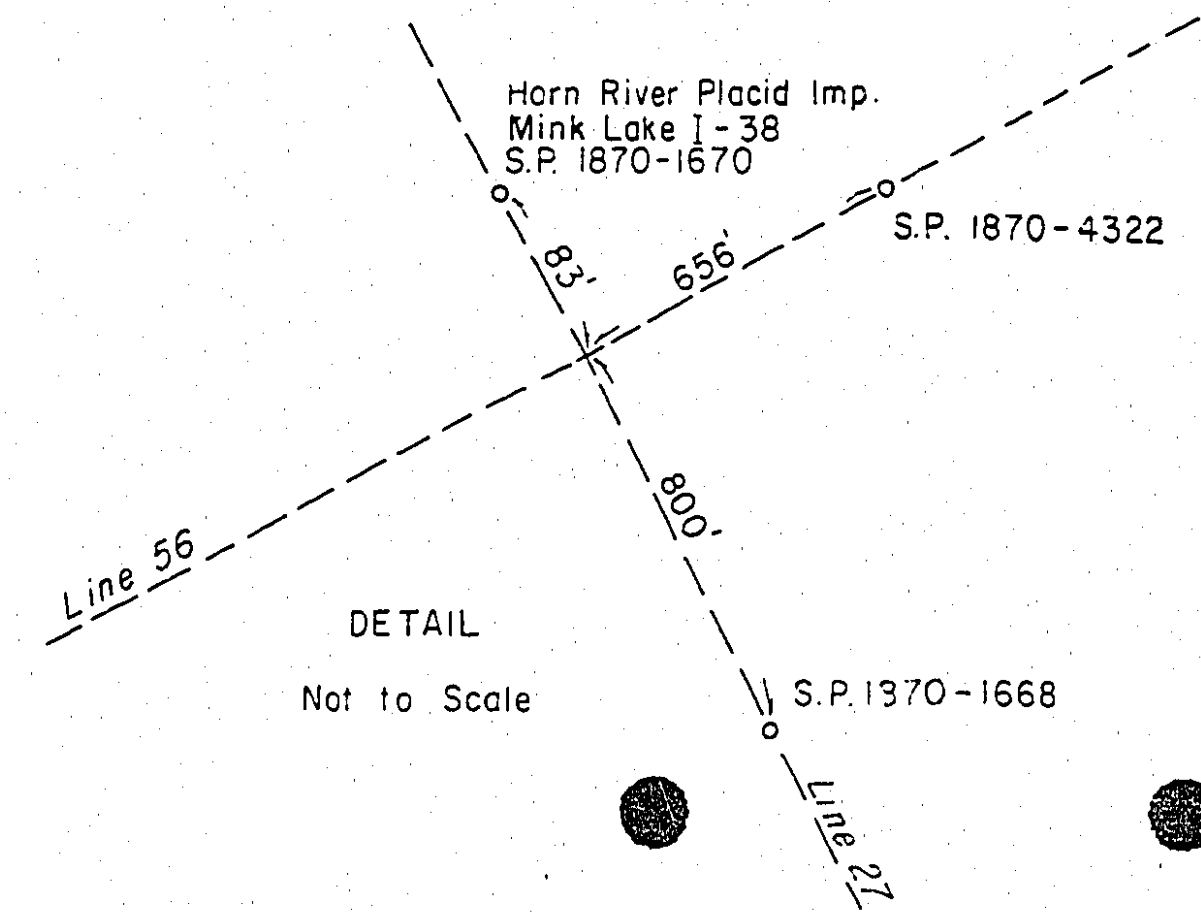
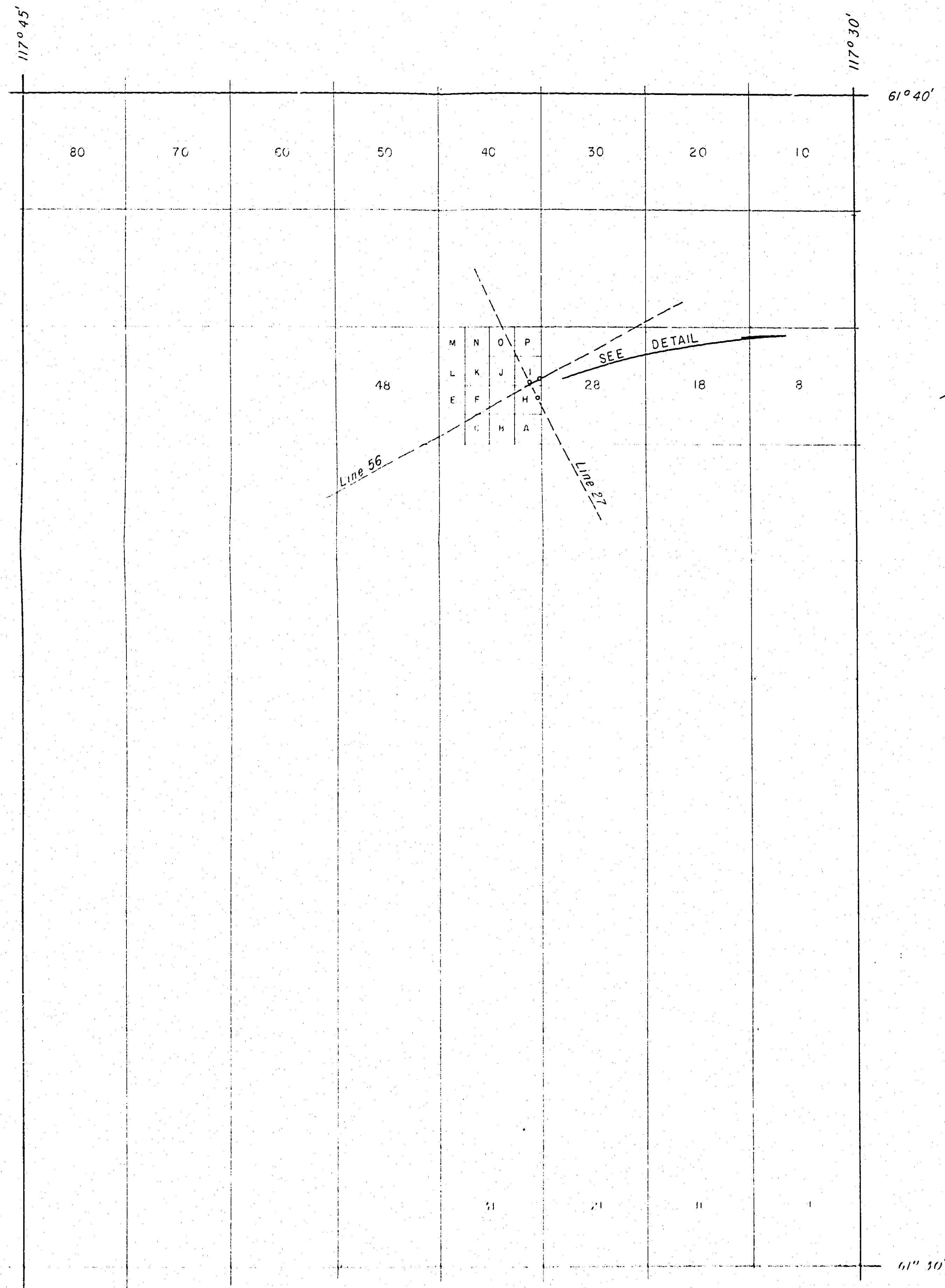
CLASS	REMARKS	TIME		
		START	STOP	INTERVAL
	Drilling	8:00	10:30	2.50
	Mix Mud	10:30	1:00	2.50
	Drilling	1:00	3:00	2.00
	Trip for bit	3:00	4:50	1.50

CLASS	REMARKS	TIME		
		START	STOP	INTERVAL
	Rig Set.	400	415	1/4
	Drill 9 7/8 Hole	415	510	3/4
	Cir. Con. Hole	500	515	1/4
	Wait on CSG	515	600	3/4
	Work on Pump	600	630	1/2
	Drill 9 7/8 Hole	630	800	1 1/2
	Cir. Hole	800	830	1/2
	Trip out for CSG	830	900	1/2
	Run CSG	900	300	3

100 PUBLISHED OR PERIODICAL

TOOLPUSHER OR DRILLER, 2 1/2 inch

APPROVED BY:



HORN RIVER RESOURCES LTD.

PLAN

SHOWING SHOT POINT LOCATION OF

HORN RIVER PLACID ~~IDE~~ MINK LAKE I-38

FALAISE LAKE AREA (N.T.S. 85-F-12)

NORTHWEST TERRITORIES

SCALE 1" = 1 Mile

GRID AREA 61° 40' , 117° 30'

Certified Correct
Dec. 30, 1979

EDMONTON LAND SURVEYORS

HORN RIVER RESOURCES LTD.

NOTE
Relative to information supplied by client



CANADIAN ENGINEERING SURVEYS CO. LTD.
EDMONTON ALBERTA

JOB NO	C-5460
DATE	Dec. 30/79
DRG NO	5460-M-1

117° 45'
61° 40'

117° 30'
61° 40'

61° 35'

61° 35'

PROJECT No.-	DATE-
PLACID OIL COMPANY	
MINK LAKE	
MILES 0 5 10 MILES	
DATUM ELEVATION -	DATUM VELOCITY - FT/S.
CONTOUR INTERVAL -	SCALE - 1: 25,000
MAP NO.	