

IOE TRAIL RIVER
P-13

Drilling Authority No. 360
Date Issued 20 February 1969

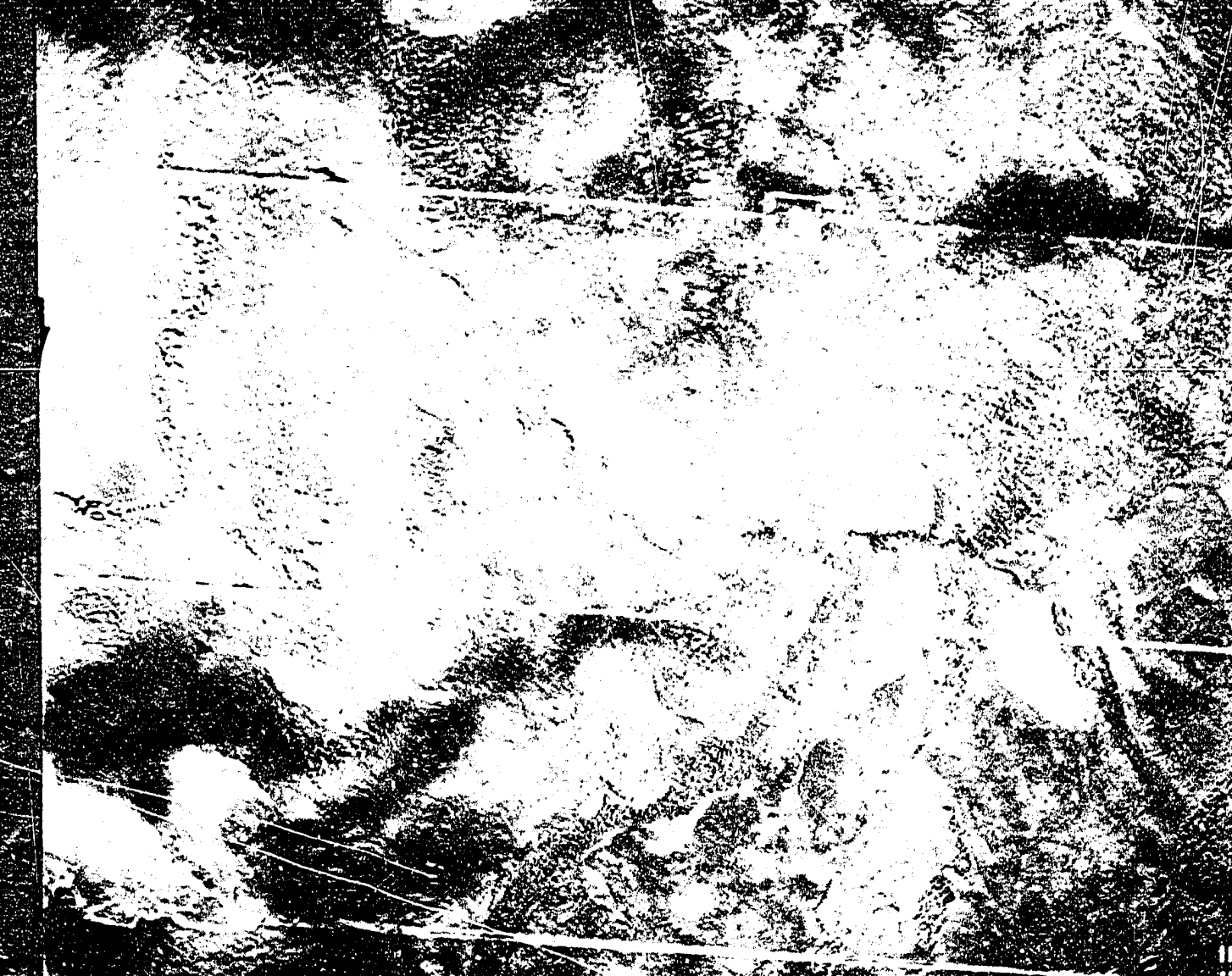
WELL NAME: TON TROLL River P-10-
FIELD: Wildcat Area: 13
LOCATION: Unit 2 Section 13 Grid 62-10-121-30
Latitude 62-02-59 Longitude 121-32-13
From Established Reference Marker Seismic control

U.M.L.R. 62,04972 --- 121.53694
U.M.I. 300P134210121300

Rig Release Date:
Status
Information Release Date

CHANGE OF NAME:

DATE RECEIVED	INDEX
20/2/69	Application for a Drilling Authority. Well Completion Data. Well History Report.
	Application to Amend a Drilling Authority.
	Application to change a Well Name.
21/3/69	Application to Abandon a Well or Suspend Drilling.
	Application to Alter Condition of a Well. Well History Supplement.
26/3/69	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.
	Battery Inspection Report.
	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





Drilling Authority No. 360
Date issued Feb. 20th, 1969

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
RESOURCE MANAGEMENT DIVISION

WELL COMPLETION DATA

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

Well name and number 108 Trail River 7-13 62 10 121 30
Permit No. 4360 Lease No.
Imperial Oil Enterprises Ltd. Exploratory Licence No. 1104
(Permittee, Licensee, Lessee)
Imperial Oil Enterprises Ltd. Exploratory Licence No. 1104
(Operator)
Location: Unit P Section 13 Grid 62 10 121 30
Latitude 62° 02' 59" Longitude 121° 32' 13"
From Established Reference Marker Seismic Control
Universal Well Location Reference 62.04972° N. Lat. 121.53694° W. Long.

	DATE	DEPTH	Pool(s)
			Interval(s) open to production
Spudded	Feb. 24/69		
Suspended			
Resumed Operations			
Finished Drilling	Mar. 13/69	2700	
Deepened			Elevation: Gr. 672.5 K.B. 682.4
Complete (gas/oil)	Mar 15/69	2700	Rig No. 35
Abandoned	Mar 15/69	2700	Drilling Contractor Big Indian
Rig released	Mar. 15/69	2700'	Contractor's Business Licence No. A11222

CASING RECORD

Casing Size (Inches)	Grade	Weight	Amount	Set at -	Sacks of Cement and Additives
1. 7	J55	20	456.51	469.26	200 + 2 1/2 CaCl ₂
2.					
3.					
4.					
5.					
6.					

GEOLOGICAL TOPS	ELEVATION		CORE RECORD					
	Depth	Sub-Sea	From	To	Rec.	From	To	Rec.
Canol/Hare Indian	1040	-358	1545	1603	58	Core not Analysed		
L. Keg River	1166	-484	1603	1662	59			
Chinchaga	1610	-928	2002	2033	31			
Bonning	2387	-1705	2184	2243	56.5			
Proterozoic	2428	-1746	2243	2285	4			

LOG RECORD

	Run No.	Type of Log	From		To	
	1	SNP	1100		2666	
	1	IE	469		2671	
	1	BHCS	469		2670	
	1	Formation Density	1100		2668	
	1	Velocity Survey	469		2670	
		Synergetic Lithology	1100		2670'	

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
Mar 15	2375'	2200'	with 85 sax + 2% CaCl ₂ Felt @ 2135								
Mar 15	520	420	with 60 sax Felt @ 405								
			5 sax in surface, cut off casing 3' below ground level and welded on steel name plate.								

DRILL STEM TESTS

No.	Date	Formation	From	To	V.O. Mins.	I.S.I. Mins.	F.S.I. Mins.	I.S.L.B.H.P.	F.S.I.B.H.P.	L.F.B.H.P.	F.F.B.H.P.	I.H.P.	F.H.P.	REMARKS
1	Mar 3	L. Keg River	1470	1603	60	67	60	532	409	33	40	721	721	Rec 7° mud.

ANALYSIS				PRESENT STATUS OF WELL			
Lab. No.	Sample	From	To	Source	Remarks	Oil	(Interval)
						Gas	(Interval)
						Dry	X
						Susp.	

Company Imperial Oil Enterprises Ltd.

Signed by *[Signature]*

Title *[Signature]* Recorder Supervisor

Date March 26/69

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



File No. _____
Drilling Authority No. **360**

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
RESOURCE MANAGEMENT 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 **IDE TRAIL RIVER 2-13-62-10-121-20**
Location: Unit **2** Section **13** Grid **62° 19' 121° 30'**
Latitude **62° 02' 59"** Longitude **121° 32' 13"**
From Established Reference Marker **Seismic Control**
Universal Well Location Reference **62.04672° N. Lat., 121.53694° W. Long**
Permit No. **4360** Lease No. _____

Imperial Oil Enterprises Limited
(Permitter, Licensee, Lessee)

Date of commencement of proposed program _____

OIL, GAS, AND WATER ENCOUNTERED (Depths)

Oil at **None Encountered**
Gas at **None Encountered**
Water at **None Encountered**
Total Depth **2700'** Date of last operations **March 15, 1969**
Present condition of well **Standing - Ready to Abandon**

CASING RECORD

Casing Size O.D. Inches	Weight	Amount	Set At—	Sacks of Cement and Additives	Amount Palled
1. 7"	204 lbs.	12 jts.	449.25	200 + 2 1/2 Gal. CaCl₂	None
2.					
3.					
4.					
5.					

PROPOSED ABANDONMENT PROGRAM

Plug		Geological Formation	Number of Sacks of Cement	Remarks
No.	Position			
1	2375 - 2300	Ernestine Carbonate	83 Sacks	Seal in eight hours.
2	520 - 420	Imperial	60 Sacks	Seal in eight hours.
3	Surface	-	5 Sacks	Weld on plate. Install 4 foot riser with well head on top.

The following logs have been run **IES, EBC Sonic, SFF, Formation Density, Dipmeter.**

Other operations proposed **Clean-up wellbore in accordance with regulations.**

Operations to be carried out by **Imperial Oil Limited** Contractor Licence No. **Drilling**

Address **11160 - Jasper Avenue, Edmonton** Address _____

Responsible Agent in field **John McEwen**

Dated at **Edmonton** this **12** Day of **March** 19 **69**

Signed by **R. Horsfield** Company **Imperial Oil Enterprises Limited**

Title **DEVELOPMENT MANAGER** Operator's Exploratory Licence No. **1104**

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

(For RESOURCE MANAGEMENT DIVISION use only)

APPROVAL

This application has been examined and proposed programme approved, subject to the following conditions:

Confirming oral approval by **Mr. B.E.J. Thoms** on **the 14th March 1969**

Dated **21st March** 19 **69** **B.E.J. Thoms**
Oil Conservation Engineer

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



DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
OIL & MINERAL ~~RESOURCE MANAGEMENT~~ 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 108 Trail River P-13-62-10-121-30
Location: Unit P Section 13 Grid 62°10' 121°30'
Latitude 62 02 53 Longitude 121 32 13
From Established Reference Marker Seismic control
Universal Well Location Reference 62.04972° N. Lat. 121.53694° W. Long.
Elevation: Ground K.B. feet above sea-level.
Well is expected to produce from middle Devonian Carbonate formation at a depth of about 2,000 feet. Expected total final depth 3,500
Area assigned to well (For Oil Conservation Engineer's use only)

Permit No. 4,360 Lease No. 59,968 Acreage 59,968
Permittee, licensee, or lessee Imperial Oil Enterprises Ltd.
Exploratory Licence No. 1104
Surface owned by Crown or Crown (If applicant submit name and address of owner and consent.)
Petroleum and natural-gas rights owned by Crown
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	Depth of Cement
1. <u>7</u>	<u>20</u>	<u>J-55</u>	<u>New</u>	<u>450</u>	<u>to surface</u>
2.					
3.					
4.					
5.					

Expected water, gas, and oil horizons and type of control equipment.
Double gate plus hydril type blowout preventer

Oil in middle Devonian, Oil or gas in Bonning
Well will be drilled with Rotary Rig No. 35 by Kenting Oilwell Drilling Division of Kenting Exploration Services Ltd. (Drilling Contractor or company)

Room 104, 600-6th Ave. S.W., Calgary 1, Alta.

Responsible agent of applicant:— Contractor's Business Licence No.
At well John Moffatt At registered office R. Hornefield
Address at rig Address 11160 Jasper Avenue, Edmonton
It is understood that if changes become necessary, notice of the change of plan will be submitted.
Dated at Edmonton, this 18 day of February, 19 69
Signed by R. Hornefield Company Imperial Oil Enterprises Ltd.
Title Development Manager Operator's Licence No. 1104

(For Resource Management Division use only)

APPROVED

This application has been examined and approved subject to the following conditions:—

1. The Company will submit to this office, on Tuesday of each week, the latest reports received by radio on the progress of the well.
2. During well drilling and testing operations every effort shall be made to ensure

Dated 20th February, 19 69

Oil Conservation Engineer

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

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.

3. We draw your attention to Sections 95 and 96 of the Canada Oil and Gas Land Regulations.



B.H.J. Thoms
Oil Conservation Engineer

IMPERIAL OIL ENTERPRISES LTD.

LOCATION SKETCH

IOE Troil River P-13

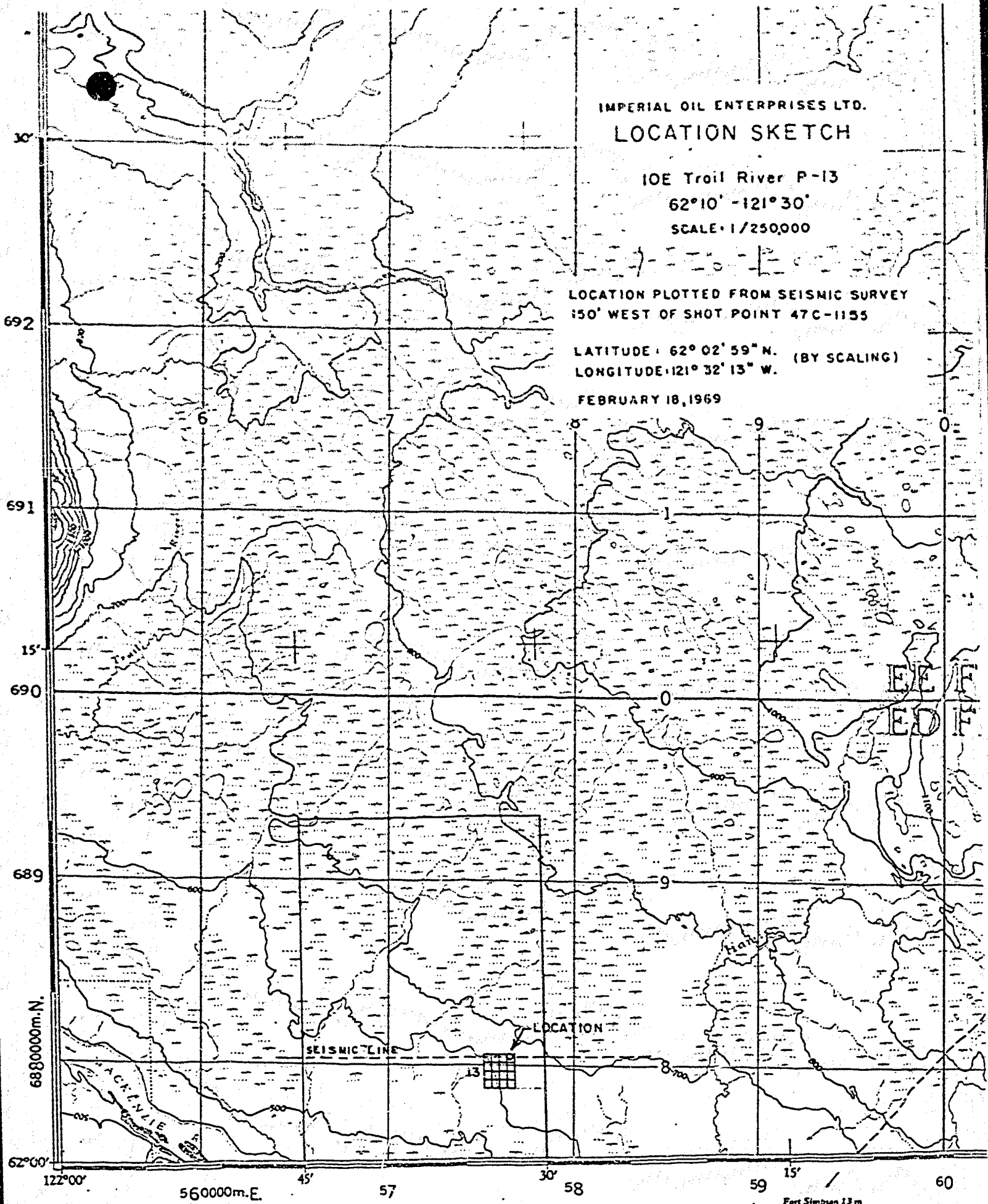
62°10' -121°30'

SCALE 1/250,000

LOCATION PLOTTED FROM SEISMIC SURVEY
150' WEST OF SHOT POINT 47C-1155

LATITUDE: 62° 02' 59" N. (BY SCALING)
LONGITUDE: 121° 32' 13" W.

FEBRUARY 18, 1969



Fort Simpson 13 m

IOE Trail River P-13

62° 10' 121° 30'

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Company	<u>Imperial Oil Enterprises Ltd.</u>
Signed By	<u><i>[Signature]</i></u>
Title	<u>Well Records Supervisor</u>
Date	<u>April 9th, 1969</u>



Section I SUMMARY OF WELL DATA

- (a) Well Name and Number - IOE Trail Elev: P-13 62 10 121 30
- (b) Permittee - Imperial Oil Enterprises Ltd.
- (c) Operator - Imperial Oil Enterprises Ltd.
11160 - Jasper Avenue
Edmonton, Alberta
- (d) Location - P-13-62-10-121-30
Lat. 62° 02' 59" N. Long. 121° 32' 13" W.
Universal Well Location Reference - Lat. 62.04972° N., Long. 121.53694° W.
Unique Well Identifier - 300P136210121300
- (e) Co-ordinates - Not available
- (f) Permit Number - 4360
- (g) Drilling Contractor - Big Indian #35 Rotary (A Division of Kenting)
- (h) Drilling Authority - #360 issued February 20th, 1969
- (i) Classification - New Field Wildcat
- (j) Elevations - Gr. 672.5' K.B. 682.4'
- (k) Spud - February 24th, 1969
- (l) Completed Drilling - March 13th, 1969
- (m) Total Depth - 2,700 feet.
- (n) Status - Dry and abandoned
- (o) Rig Released - March 15th, 1969
- (p) Hole Size - 0 - 475 9-7/8"
475 - 2700 6-1/4"
- (q) Casing - 7" x 469' C-200 + 2% CaCl₂.

Section II GEOLOGICAL SUMMARY

(a) Formation Tops

<u>Formation</u>	<u>Sample</u>	<u>Log</u>
Imperial	100	
Canol/Hare Indian	1045	1040
Lower Keg River	1167	1166
Chinchaga	1610	1610
Dolomite	2120	
Salt	2240	2239
Anhydrite	2282	2282
Remaining	2380	2387
Proterozoic	2430	2428
Quartzite		2446
Siltstone		2497

(b) Cored Intervals

<u>Core #</u>	<u>Interval</u>	<u>Recovery</u>	<u>Formation</u>
1	1545-1603	58'	Lower Keg River
2	1603-1662	59'	Chinchaga
3	2002-2033	31'	Chinchaga
4	2184-2243	56.5'	Dolomite
5	2243-2285	4'	Salt

(c) Core Description

Core #1 - 1545-1603 Rec 58/58

1545-1552.5 dolomite, light grey, argillaceous, microcrystalline to crystalline, subhedral to anhedral, tight.

1552.5-1556 dolomite very light brown grey, crystalline, chalky, micritic, poor pinpoint porosity, poor pyrobitumen staining.

1556-1574 limestone, light medium green grey, argillaceous, pyritic, slightly dolomitic, dense.

1574-1603 dolomite, very light grey, micro to very fine crystalline, thoroughly brecciated, argillaceous in part, pyritic, poor pinpoint intercrystalline porosity patchy pyrobit staining.
14, 10, 9, 7, 9, 8, 9, 9, 9, 6, 7, 11, 7, 8, 10, 10, 10, 11,
9, 10, 10, 9, 10, 9, 9, 8, 11, 8, 9, 6, 8, 6, 6, 6, 5, 5, 6,
6, 7, 5, 5, 5, 6, 5, 6, 5, 5, 7, 5, 6, 5, 6, 7, 6, 6, 6, 8, 7
mins. per foot.

Core #2 1603-1662 Rec 59/59

1603-1604.5 dolomite, brecciated as above

1604.5-1610.5 dolomite, light medium brown, micro-crystalline, subhedral, poor pinpoint intercrystalline porosity with patchy pyrobitumen staining.

1610.5-1662 anhydrite, varying streak and streaked laminated, massive and

Core #2 - Cont'd

1610.5-1662 monaie, with few interbeds of laminated dolomite at top and base.

8, 9, 6, 5, 7, 5, 7, 11, 12, 12, 12, 9, 11, 11, 14, 12, 13, 11, 14, 13, 12, 10, 12, 11, 12, 12, 13, 13, 12, 11, 14, 15, 12, 10, 11, 10, 10, 12, 10, 11, 11, 10, 12, 10, 12, 12, 12, 13, 11, 11, 12, 13, 10, 11, 12, 11, 10, 11, 9 mins. per foot.

Core #3 2002-2033 Rec 31/31

Anhydrite, felted dense, near horizontal streaky laminated - massive, trace vague lithoclasts at 2002. Variably dolomitic, very light brown microcrystalline, anhydritic tight with crystalotropic anhydrite and nodules.

15, 18, 10, 10, 18, 19, 18, 17, 10, 15, 20, 19, 16, 15, 20, 17, 18, 20, 20, 19, 19, 20, 20, 17, 18, 13, 19, 18, 20, 18, 22 mins. per foot.

Core #4 2184-2243 Rec 56.5/59

2184-2191 Dolomite microcrystalline cemented gypsum in part, trace patchy small vuggy and intercrystalline porosity pyrobitumen stained.

2191-2211 Anhydrite, pelleted dense streaky, laminated, thin dolomite interbeds.

2211-2214 Dolomite, medium brown, microcrystalline tight.

2214-2240 Anhydrite, dolomitic, laminated basal, 5 feet has large vugs lined with gypsum and salt plugged.

10, 6, 8, 7, 6, 6, 7, 11, 12, 16, 16, 15, 18, 13, 15, 15, 12, 12, 14, 14, 7, 12, 18, 15, 13, 12, 10, 6, 6, 19, 14, 15, 13, 16, 14, 15, 12, 7, 8, 20, 18, 13, 15, 12, 16, 17, 19, 16, 18, 12, 16, 15, 13, 14, 12, 16, 9, 7, 8 mins. per foot.

Core #5 2243-2285 Rec 4/42

Anhydrite, very vuggy salt leached porosity. Last are believed to be salt.

6, 8, 6, 6, 20, 9, 10, 10, 5, 4, 6, 5, 5, 5, 6, 6, 6, 6, 11, 6, 18, 5, 4, 5, 4, 4, 4, 4, 5, 5, 5, 7, 5, 6, 9, 6 mins. per foot. Last 5 feet not recorded.

(d) Sample Description

0 - 100 Glacial drift

100 - 1045 Shale, greenish grey, soft, fissile, calcareous. Silty in in parts. Trace pyritic.

1045 - 1167 Shale, dark brown-grey, bituminous subfissile to blocky. Slightly pyritic.

- 1167 - 1260 Limestone, micritic - skeletal with brachiopods and crinoids, trace amphipora and corals at base. Tight.
- 1260-1360 Limestone, buff-brown, micritic-skeletal-pellet, cemented in part, slightly dolomitic. Minor shows and amphipora. No visible porosity, trace patchy dead oil staining and bituminous partings.
- 1360-1470 Limestone, buff-brown to cream, micritic to micritic skeletal with trace intraclasts. Streaky dolomitic. Poor intercrystalline porosity.
- 1470-1545 Dolomite, very light grey, micro-crystalline. Subhedral. Minor argillaceous limestone interbeds. Finely disseminated pyrite. Essentially tight.
- 1545-1662 Cores #1 and #2
- 1662-2002 Predominantly anhydrite, very light grey brown translucent to turbid microcrystalline. Sporadic dolomite throughout. Microcrystalline to cryptocrystalline anhydrite. Tight.
- 2002-2033 Core #3
- 2033-2184 Anhydrite as above
- 2184-2285 Cores #4 and #5
- 2285-2387 Anhydrite as above
- 2387-2432 Dolomite, very light brown, very fine crystalline subhedral. Nodular chert. Finely disseminated pyrite. Tight.
- 2432-2447 Siltstone, clear-colorless, quartzose silica cemented, medium to coarse grained. Trace poor intergranular porosity.
- 2502-2700(FTD) Siltstone, dark grey, indurated, variably argillaceous grading to silty shale in parts. Intercalated quartzite.

Section III ENGINEERING SUMMARY

(a) Drill Stem Tests

DST #1 1470-1603 VO 60 SI 67/60
Recovered 7' mud.
HP 716-724 FP 41-47 SIP 537-413

(b) Casing Record

Ran 12 joints 456.51' of 7" J55 20# ST&C. Rang 2 & 3 Mannesmann casing.
Landed at 469.26 and cemented with 200 sacks cement plus 2 1/2% CaCl₂.

(c) Bit Record

#	Size	Type	Depth		Footage Drilled	Hours on Bottom	Remarks
			In	Out			
1A	9-7/8	OSC-3	Surf	45	45	5	
2A	9-7/8	RR	45	356	311	18-1/2	
3A	9-7/8	S-3	356	475	119	7-3/4	
1	6-1/4	DT	475	858	383	13	
2	6-1/4	OSC-1G	858	1174	316	10-1/4	
3	6-1/4	Diamond	1174	1202	28	5-1/2	
4	6-1/4	SS5	1202	1347	145*	12-1/4*	Reamed 28
5RR	6-1/4	SS5	1347	1476	129	15-3/4	
4RR	6-1/4	SS5	1476	1545	214* (69)	23-1/4* (11)	*Total
Core 1	6-3/16	Diamond	1545	1603	58	7-3/4	Coring
Core 1	6-3/16	Diamond	1603	1662	59	11	Coring
6	6-1/4	OWV	1662	1798	136	11-3/4	Reamed 117
7	6-1/4	OWV	1798	1903	105	15-3/4	
8	6-1/4	OWV	1903	2002	99	14-3/4	
Core 1	6-3/16	Diamond	2002	2033	31	9-1/4	Coring
9	6-1/4	V2	2033	2097	64	11	
10	6-1/4	OWV	2097	2184	87	11	Reamed 31
Core 12	6-3/16	Diamond	2184	2243	59	13	Coring
Core 12	6-3/16	Diamond	2243	2285	42	5-1/4	Coring
11	6-1/4	OWC	2285	2373	88	19	
12	6-1/4	W7	2373	2433	60	14-3/4	
13	6-1/4	W7	2433	2449	16	3-1/4	Reamed 18
14	6-1/4	SS5	2449	2598	149	22-1/2	
15	6-1/4	W7	2598	2700	102	21-1/4	FTD

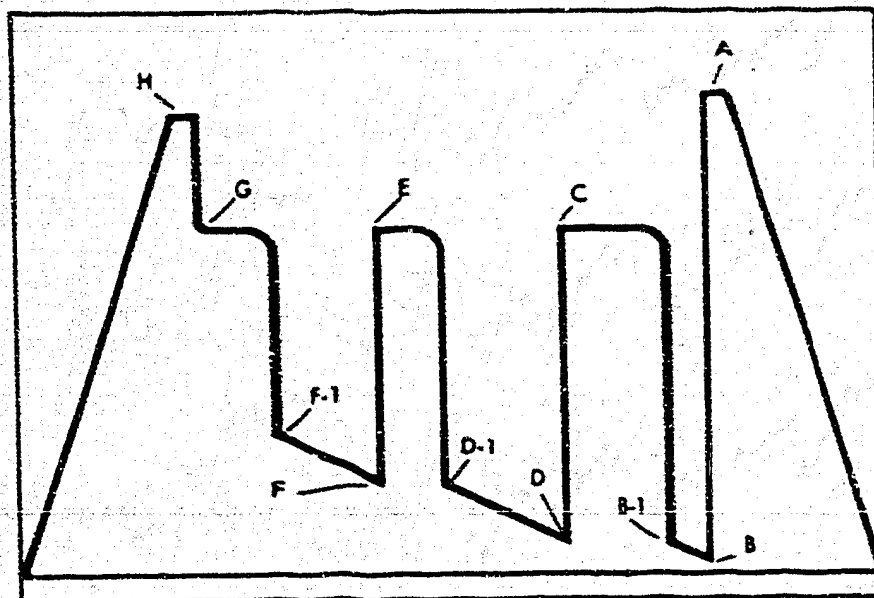
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D 02552		PRESSURE DATA			FLUID SAMPLE REPORT	
INSTRUMENT No.		AK1-2116	AK1-778	AK1-2594	Sample No.	536
CAPACITY (cu. in.)		4400	6500	4450	Type	
INSTRUMENT DEPTH FT.		1450	1475	1482	Depth	ft.
INSTRUMENT OPENING		INSIDE	OUTSIDE	OUTSIDE	Volume	
PRESSURE GRADIENT psi/FT.						
WELL TEMP. °F.		82°	82°	82°	Sample Pressure:	
INITIAL HYDROSTATIC	A	683#	699#	716#		psi. at Surface
FIRST FLOW	B	8#	91#	41#	Gravity	API @ °F
B-1		8#	91#	41#	Gas/Oil Ratio	Cu.Ft./bbl.
INITIAL SHUT-IN	C	503#	507#	537#		
SECOND FLOW	D	16#	76#	47#	Recovery:	
D-1		18#	75#	50#	Cu. Ft. Gas	
SECOND SHUT-IN	E				cc. Oil	
THIRD FLOW	F				cc. Water	
					cc. Mud	
FINAL SHUT-IN	G	383#	386#	413#	Total Liquid cc.	
FINAL HYDROSTATIC	H	692#	713#	724#		

PRESSURE INCREMENTS

[illegible]

GUIDE TO IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS



- A. Initial Hyd. Mud
- B. First Flow
- C. Initial Shut-In
- D. Second Flow
- E. Second Shut-In
- F. Third Flow
- G. Final Shut-In
- H. Final Hyd. Mud

The following points are either fluctuating pressures or points indicating other packer settings (testing different zones).

- A-1, A-2, A-3, etc. Initial Hyd. Pressures
- B, B-1, Initial Flow Pressures
- C, Initial Shut-In
- D-1, D-2, D-3, etc. Second Flow Pressures
- E, Second Shut-In
- F, F-1, F-2, Third Flow Pressures
- G, Final Shut-In
- H, Final Hyd. Pressures
- Z - Special pressure points such as pumping pressures recorded for formation breakdown.

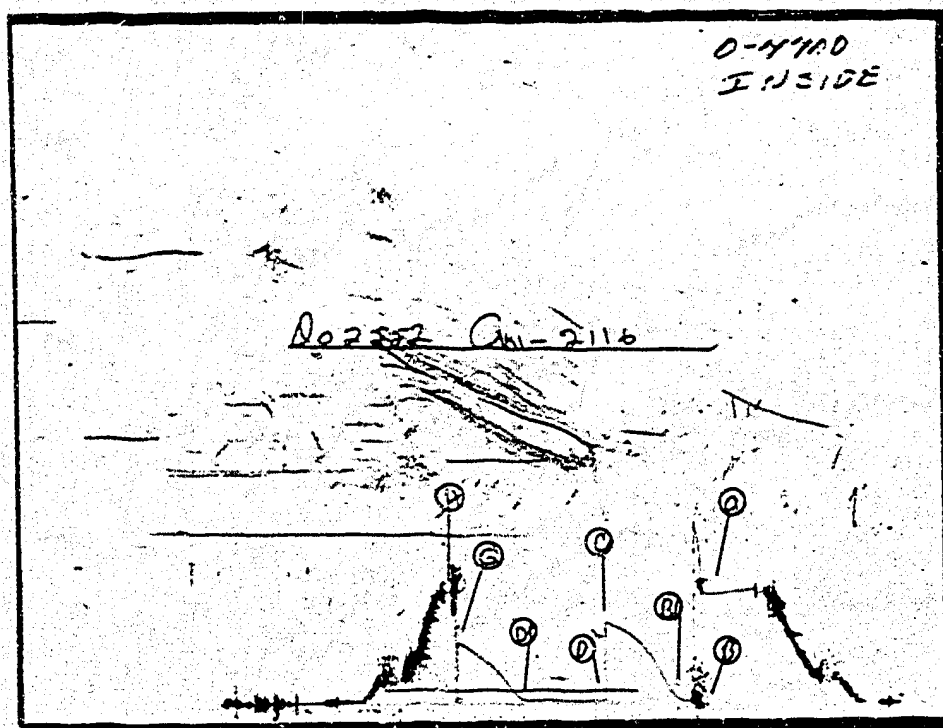


FIELD
REPORT NO.
D 02552

RECORDER NO.
AK1-2116

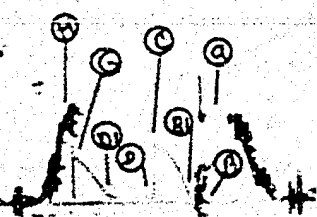
CAPACITY
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REPORTS
REQUESTED
12



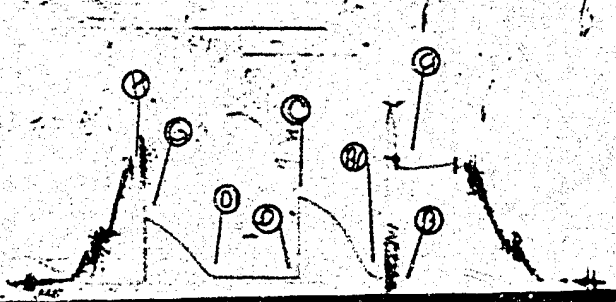
0-0000
OUTSIDE REC

No 2552 On-778



0-0000
OUTSIDE
REC.

No 2552 On-2894



(d) Mud Report

Feb 24/69	Gel 5800#	Sawdust 4 sacks	Plaster 100#	
Feb 28/69	Water			
Mar 1/69	Gel 1700#			
Mar 5/69	Gel 1800#	Water	Preservative 75#	Impermix 150# QBroxin 75#
Mar 6/69			Preservative 25#	Caustic 50#
Mar 7/69			Preservative 25#	Caustic 50#
Mar 8/69	Gel 1000#	Water		Impermix 250#
Mar 9/69	CL 29000 PPM		Preservative 50#	Caustic 50# QBroxin 100#
Mar 10/69	CL 46000 PPM		Preservative 25#	Caustic 50# Impermix 150# Cronox 2 gal.
Mar 11/69	CL 59000 PPM			Cronox 4 gal.
Mar 12/69			Preservative 25#	Caustic 50# Cronox 3 gal.
Mar 13/69	CL 85000 PPM		Preservative 25#	Cronox 1 gal.
<u>Gel 10,300</u>			<u>Preservative 250#</u>	<u>Caustic 250# Impermix 550# QBroxin 175#</u>
<u>Plaster 100#</u>			<u>Cronox 10 gals.</u>	

(e) Deviation Record

<u>Depth</u>	<u>Deviation</u>
157	1°
244	1°
328	1°
441	1-1/2
590	1
681	1
802	1-3/4
902	1-7/8
1024	1-1/4
1146	1-3/4
1476	1/2
1692	1
2181	1-7/8
2546	1-7/8

(f) Abandonment Plugs

Mar 15/69 Plug #1 2375 to 2200' with 85 sacks plus 2% CaCl₂
Felt at 2135.

Mar 15/69 Plug #2 520 to 420 with 60 sacks
Felt at 405.

5 sacks in surface hole, cut off casing 3' below ground level
and welded on steel plate.

(g) Lost Circulation Zones - nil

(h) Blowouts - Nil.

Section IV LOGS

March 14/69	SNP	1100-2666
March 14/69	IES	469-2671
March 14/69	BHCS	469-2670
March 14/69	FDC	1100-2668
March 14/69	Velocity Survey	469-2670
March 14/69	Synergetic Lithology	- 1100-2670

Section V ANALYSIS

- (a) Core - not analysed
- (b) Water - nil
- (c) Gas - nil
- (d) Oil - nil

Section VI COMPLETION SUMMARY

- (a) Tubing - none run.
- (b) Perforation Record - not perforated
- (c) Cementation Record

March 15/69 - Plug #1 2375-2200 with 85 sacks plus 2% CaCl_2
Chinchaga Felt at 2135.

March 15/69 - Plug #2 520-420 with 60 sacks
Imperial Felt at 405.

5 sacks in surface.

- (d) Acidization and Fracturing Record - none
- (e) Back Pressure and Production Tests - none.

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 20WELL NAME JOE TRAIL RIVER P-13 Lsd. Sec. Twn. Rge. W. Contractor KENTING Month MARCH Day 15 19-69

	1st Tour From: 12:00 Midnight To: 8:00 a.m.						2nd Tour From: 8:00 a.m. To: 4:00 p.m.						3rd Tour From: 4:00 p.m. To: 12:00 p.m.						
DEPTH	From	To	Hole Made	Bit Size	Formation		From	To	Hole Made	Bit Size	Formation		From	To	Hole Made	Bit Size	Formation		
	2700						2700						2700						
DRILLING STRING	Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.	Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.	Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.	
	DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL	DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL	DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL	
	COLLAR					DRILLING STRING	DRILL COLLARS	COLLAR					DRILLING STRING	DRILL COLLARS	COLLAR				DRILLING STRING
BIT RECORD	DATA						DATA						DATA						
	No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Reamed	No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Reamed	
	Bit Serial No.	Jet ☐ Conventional ☐					Bit Serial No.	Jet ☐ Conventional ☐					Bit Serial No.	Jet ☐ Conventional ☐					
SPEYS	Nozzle Size	Bit Wear: T _____ B _____ G _____					Nozzle Size	Bit Wear: T _____ B _____ G _____					Nozzle Size	Bit Wear: T _____ B _____ G _____					
	Depth	Deviation					Depth	Deviation					Depth	Deviation					
	SLUSH PUMP RECORD No. 1 No. 2	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size
MUD RECORD	On Line	Circulating					On Line	Circulating					On Line	Circulating					
	TOP OF PLUG #1 2135						TOP OF PLUG #2 2135						TOP PLUG #3 @ 405'						
	Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS	Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS	Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS	
CORING	RAN PLUG #1 2375-2200 CEMENTED WITH 85 SKS PLUS 2% CaCl ₂ PLUG DOWN @ 4:30 AM						RAN PLUG #2 520-520 CEMENTED WITH 60 SKS. PLUG DOWN @ 2:00 PM.						PLUG #3 5 SKS CEMENT PLUS WELDED PLATE 3' BELOW SURFACE						
	Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery	Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery	Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery	
	RIG RELEASED @ 11:59 PM MARCH 15/69																		
DETAIL OF OPERATIONS AND REMARKS			From	To	Hrs.				From	To	Hrs.				From	To	Hrs.		
	Logging.		12:00	2:00	2		W.O.C.		8:00	11:15	3 1/4		W.O.C.		4	8-4			
	TEAR OUT LOGGERS		2:00	2:30	1/2		RUN IN FEEL FOR PLUG #1		11:15				RUN IN FEEL FOR PLUG #2						
	RUN IN.		2:30	3:30	1		#1 TOP AT 2135		12:00	3/4			#2 TOP AT 4105 FT		8:30	1/2			
	Rig To Cement.		3:30	4:00	1/2		PULL OUT.		12:00	11:15	1 1/4		BREAK KELLY PULL RATHORE 230						
	RUN PLUG #1		4:00	4:30	1/2		RUN PLUG #2		11:15	2:00	1 3/4		CLEAN CELLAR WELD						
	PULL PIPE		4:30	5:30	1		W.O.C.		2-4-2				PLATE		12:00	3 1/2			
	W.O.C.		5:30	8:00	2 1/2		LAY DOWN PIPE												
	CLEAN MUD TANKS & DRAIN PUMP.																		
Driller <u>Paul Henderson</u>						Driller						Driller							

HEADING UP & DRLG. OUT:
DRILLING:
REAMING:

CLASSES OF TIME BREAKDOWN

TOTCO:
FISHING:
CIRCULATING:
CONDITIONING MUD:
TRIPPING:
CORING:CASING:
W.O.C.
D.S. TESTING:LOGGING:
W.O. ORDERS:
RIG REPAIRS:RIG MAINTENANCE:
MISCELLANEOUS:
CONDITION HOLE:REAMING CLEANING:
WORKING PIPE:
LOST CIRC.:DID YOU CHECK BLOWOUT
PREVENTER EQUIPMENT TODAY

YES _____ NO _____

Total Contract Timehrs.

Total Company Timehrs.

Toolpusher

Approved by

John L. Meyer, Jr.

Total Contract Timehrs. Total Company Timehrs. Toolpusher Approved by

WELL NAME JOE TRAIL RIVER P-13 Lsd. Sec. Twn. Rge. W. Contractor KENTON Month MARCH Day 12 1969

	1st Tour From: 12:00 Midnight To: 8:00 a.m.					2nd Tour From: 8:00 a.m. To: 4:00 p.m.					3rd Tour From: 4:00 p.m. To: 12:00 p.m.																
DEPTH	From	To	Hole Made	Bit Size	Formation	From	To	Hole Made	Bit Size	Formation	From	To	Hole Made	Bit Size	Formation												
	2578	2630	132	6 1/4		2630	2665	35	6 1/4		2665	2700	35	6 1/4													
DRILLING STRING	Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.	Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.	Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.									
	3 1/2	2155	3035	41	372 24		3 1/2	2256		41	372 24		3 1/2	2315	-	41	372										
	DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL	DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL	DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL									
	COLLAR	13	4 3/4	2	372 24	DRILLING STRING	DRILL COLLARS	COLLAR	13	4 3/4	2	372 24	DRILLING STRING	DRILL COLLARS	COLLAR	13	4 3/4	2	372	DRILLING STRING	DRILL COLLARS						
	DATA				28000	12000	DATA					28000	12000	DATA					28000	12000							
BIT RECORD	No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage	No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage	No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage			
	15	W7	1 1/2	32	10	40			15	W7	1 1/2	67	10	40			15	W7	2 1/4	102	16m	40	2700	102			
	Bit Serial No.	C R 184	Jet	Conventional	Nozzle Size	2 1/4	Bit Wear: T	B	G	Bit Serial No.	C R 184	Jet	Conventional	Nozzle Size	2-10 1-9	Bit Wear: T	B	G	Bit Serial No.	C R 184	Jet	Conventional	Nozzle Size	2-10 1-9	Bit Wear: T	B	G
	Depth	Deviation	Depth	Deviation	Depth	Deviation	Depth	Deviation	Depth	Deviation	Depth	Deviation	Depth	Deviation	Depth	Deviation	Depth	Deviation	Depth	Deviation	Depth	Deviation	Depth	Deviation			
SLUSH PUMP RECORD	HOURS	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size							
	On Line	Circulating	1000	16	48	5	On Line	Circulating	1000	16	50	5	On Line	Circulating	1000	16	50	5									
	Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS	Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS	Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS									
	1200	31	9.8	13.4	8.	CRUMOR-1 GAL.	8:00	32	9.9		8	25# PRESERVATIVE	4:00	33	10.00			N/L									
MUD RECORD	0200	31	9.8				10:00	32	9.9		8		6:00	31	10												
	0400	31	9.8				12:00	33	10.0	136			8:00	31	10												
	0600	32	9.9				2:00	33	10.0				10:00	31	10												
CORING	Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery	Core No.	Depth In	Foot																		

HEADING UP & DRILLING:	DRLG. OUT:	TOTCO:	CONDITIONING MUD:	CASING:	LOGGING:	RIG MAINTENANCE:	REAMING CLEANING:
REAMING:		FISHING:	TRIPPING:	W.O.C.	W. O. ORDERS:	MISCELLANEOUS:	WORKING PIPE:
		CIRCULATING:	CORING:	D.S. TESTING:	RIG REPAIRS:	CONDITION HOLE:	LOST CIRC.:

DID YOU CHECK BLOWOUT
PREVENTER EQUIPMENT TODAY

YES _____ NO _____

Total Contract Timehrs. Total Company Timehrs. Toolpusher Approved by *[Signature]*

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 17WELL NAME IOE TRAIL RIVER P-13 Lsd. Sec. Tw. Rge. W Contractor KENTING Month MARCH Day 12 19 691st Tour From: **12:00** Midnight To: **8:00** a.m.2nd Tour From: **8:00** a.m. To: **4:00** p.m.3rd Tour From: **4:00** p.m. To: **12:00** p.m.

DEPTH	1st Tour From: 12:00 Midnight To: 8:00 a.m.					2nd Tour From: 8:00 a.m. To: 4:00 p.m.					3rd Tour From: 4:00 p.m. To: 12:00 p.m.																																														
	From	To	Hole Made	Bit Size	Formation	From	To	Hole Made	Bit Size	Formation	From	To	Hole Made	Bit Size	Formation																																										
	2470	2530	60	6 1/4		2530	2573	43	6 1/4		2573	2598	25	6 1/4																																											
DRILLING STRING	Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.	Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.	Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.																																							
	3 1/2	2133		41	372.24		3 1/2	2133	30.36	41	372.24		3 1/2	2195		41	372																																								
	DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL	DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL	DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL																																							
	COLLAR	13	4 3/4	2	372.24	DRILLING STRING	DRILL COLLARS	COLLAR	13	4 3/4	2	372.24	DRILLING STRING	DRILL COLLARS	COLLAR	13	4 3/4	2	372	DRILLING STRING	DRILL COLLARS																																				
DATA					27,000	12,000	DATA					27,000	12,000	DATA					27,000	12,000																																					
BIT RECORD	No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Reamed	No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Reamed	No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Reamed																														
	14	SSS	10 1/2	81	12	40				14	SSS	18	124	12	40					14	SS-5	22 1/2	149	10"	40	2598																															
	Bit Serial No. <u>AH228</u> Jet ☒ Conventional ☐																			Bit Serial No. <u>AH228</u> Jet ☒ Conventional ☐																			Bit Serial No. <u>AH229</u> — <u>CR124</u> Jet ☒ Conventional ☐																		
	Nozzle Size <u>7/8</u> 1/4 Bit Wear: T <u>3</u> B <u>8</u> G <u>1</u>																			Nozzle Size <u>7/8</u> 1/4 Bit Wear: T <u>3</u> B <u>8</u> G <u>1</u>																			Nozzle Size <u>7/8</u> 1/4 Bit Wear: T <u>3</u> B <u>8</u> G <u>1</u>																		
SLUSH PUMP RECORD No. 1 No. 2	HOURS					Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS					Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS					Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size																														
	On Line	Circulating				1000	16	50	5	On Line	Circulating				1000	16	50	5	On Line	Circulating				1250	16	48	5																														
	Depth <u>2546</u> Deviation <u>124</u>																			Depth <u>2546</u> Deviation <u>124</u>																			Depth <u>2546</u> Deviation <u>124</u>																		
	Time Visc. Wt. W L pH ADDITIVES — POUNDS																			Time Visc. Wt. W L pH ADDITIVES — POUNDS																			Time Visc. Wt. W L pH ADDITIVES — POUNDS																		
MUD RECORD	12:00	31	9.7	13.4	8	CRONOX-2 GALS.				8:00	32	9.8			25# PRESERVATIVE				4:00	30	9.8			NIL																																	
	02:00	31	9.8							10:00	32	9.8	128	8	50# CALUSTIC				6:00	30	9.8	13.0	8																																		
	04:00	32	9.8							12:00	31	9.8			CRONOX-1 GAL.				8:00	30	9.8																																				
	06:00	32	9.9							2:00	30	9.7																																													
CORING	Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery	Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery	Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery																																							
DETAIL OF OPERATIONS AND REMARKS	From To Hrs.					From To Hrs.					From To Hrs.																																														
	DRLg. 12:00 1:15 1 1/4					DRLg. 8:00 10:45 2 3/4					DRLg. 4:00 4:45 1/2																																														
	Rig SERV. 1:15 1:30 1/4					Rig SERVICE CHECK-ROPS 10:45 11:15 1/2					Rig SERVICE + CHANGE PLANN 4:30 5:15 3/4																																														
	DRLg. 1:30 8:00 6 1/2					Survey @ 2546					DRLg. 11:15 4:00 4 3/4																																														
DRILL 6 1/4 HOLE RIG SERVICE + CHANGE PLANN PACKING DRILL 6 1/4 HOLE HOIST FOR BIT LAY DOWN CORE BBL RUN IN W/ BIT NO 15																																																									
Driller <u>Paul Henderson</u>																			Driller <u>A. Noonan</u>																																						

HEADING UP & DRLG. OUT:
DRILLING:
REAMING:

CLASSES OF TIME BREAKDOWN

TOTCO:
FISHING:
CIRCULATING:CONDITIONING MUD:
TRIPPING:
CORING:CASING:
W.O.C.
D.S. TESTING:LOGGING:
W.O. ORDERS:
RIG REPAIRS:RIG MAINTENANCE:
MISCELLANEOUS:
CONDITION HOLE:REAMING CLEANING:
WORKING PIPE:
LOST CIRC.:DID YOU CHECK BLOWOUT
PREVENTER EQUIPMENT TODAY

YES _____ NO _____

Total Contract Time _____ hrs.

Total Company Time _____ hrs.

Toolpusher _____

Approved by _____

Total Contract Timehrs. Total Company Timehrs. Toolpusher Approved by John P. McCall

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 15

WELL NAME IOE. TRAIL RIVER P-13 Lsd. Sec. Twn. Rge. W. Contractor KENTING Month MARCH Day 10 1968

1st Tour From: 12:00 Midnight To: 8:00 a.m.												2nd Tour From: 8:00 a.m. To: 4:00 p.m.												3rd Tour From: 4:00 p.m. To: 12:00 p.m.																											
DEPTH		From	To	Hole Made	Bit Size	Formation						DEPTH		From	To	Hole Made	Bit Size	Formation						DEPTH		From	To	Hole Made	Bit Size	Formation																					
		2291	2326	35	6 1/4									2326	2363	37	6 1/4									2363	2399	26	6 1/4																						
		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.							Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.							Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.																				
		3 1/2	1920		41	372.24								3 1/2	1920		41	372.24								3 1/2	1920	3052	41	372																					
DRILLING STRING	DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL								DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL								DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL																			
	COLLAR	13	4 3/4	2	372.24	DRILLING STRING								COLLAR	13	4 3/4	2	372.24	DRILLING STRING								COLLAR	13	4 3/4	2	372	DRILLING STRING																			
	DATA						26,000					12,000							DATA						26,000					12,000							DATA						26,000					372			
BIT RECORD	No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage							No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage							No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage															
	11	OWC	9	41	10	70		41							11	OWC	16 3/4	78	10	70									11	OWC	19	88	10	70	2373																
																													12	WT	3	16	10	70																	
												Bit Serial No. <u>AT030</u> Jet ☒ Conventional ☐												Bit Serial No. <u>AT030</u> Jet ☒ Conventional ☐												Bit Serial No. <u>AT030 - 9788</u> Jet ☒ Conventional ☐															
												Nozzle Size <u>3/8</u> Bit Wear: T <u> </u> B <u> </u> G <u> </u>												Nozzle Size <u>3/8</u> Bit Wear: T <u> </u> B <u> </u> G <u> </u>												Nozzle Size <u>2 1/8</u> Bit Wear: T <u> </u> B <u> </u> G <u> </u>															
SLUSH PUMP RECORD	Depth		Deviation		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size			Depth		Deviation		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size			Depth		Deviation		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size																	
	On Line	Circulating											On Line	Circulating												On Line	Circulating																								
MUD RECORD	Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS								Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS								Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS																			
	1:00	31	9.7	15.8	8	CRONOX - 1 gal								8:00	33	9.8			CRONOX - 1 gal								4:00	30	9.5			150# IMPERIMIX																			
	2:00	31	9.7											10:00	33	9.8		8	50# CAUSTIC								6:00	30	9.5																						
	3:00	31	9.7											12:00	30	9.4			25# PRESERVATIVE																																
	4:00	31	9.8											2:00	30	9.5	16.4										10:00	30	9.6																						
CORING	Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery								Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery								Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery																			
DETAIL OF OPERATIONS AND REMARKS			From	To	Hrs.			From	To	Hrs.					From	To	Hrs.					From	To	Hrs.					From	To	Hrs.																				
	DRLG.		12:00	2:45	2 1/4	DRLG.		8:00	9:15	1 1/4	Rig SERV.		4:00	4:15	1/4	Rig SERV.		9:15	9:30	1/4	DRLG 6 1/4 HOLE		4:45	7:00	2 1/4	TRIP FOR BIT NO 11		7:00	9:00	2	DRLG 6 1/4 HOLE		9:00	12:00	3																
	Rig SERV.		2:45	3:00	1/4	Rig SERV. - CHECK BOP'S		9:30	4:00	6 1/2	DRLG.					DRLG 6 1/4 HOLE																																			
	DRLG.		3:00	8:00	5																																														
Driller <u>Paul Henderson</u>												Driller <u> </u>												Driller <u>A. Noonan</u>																											

HEADING UP & DRLG. OUT:
DRILLING:
REAMING:CLASSES OF TIME BREAKDOWN
TOTCO:
FISHING:
CIRCULATING:CASING:
W.O.C.
D.S. TESTING:LOGGING:
W.O. ORDERS:
RIG REPAIRS:RIG MAINTENANCE:
MISCELLANEOUS:
CONDITION HOLE:REAMING CLEANING:
WORKING PIPE:
LOST CIRC.:DID YOU CHECK BLOWOUT
PREVENTER EQUIPMENT TODAY

YES NO

Total Contract Time _____hrs.

Total Company Time _____hrs.

Toolpusher _____

Approved by

John A. McFadden

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 14WELL NAME IOE TRAIL RIVER P-13

Lsd. Sec. Twn. Rge. W.

Contractor KENTING Month MARCH Day 9 19691st Tour From: **12:00** Midnight To: **8:00** a.m.2nd Tour From: **8:00** a.m. To: **4:00** p.m.3rd Tour From: **4:00** p.m. To: **12:00** p.m.

DEPTH	1st Tour From: 12:00 Midnight To: 8:00 a.m.					2nd Tour From: 8:00 a.m. To: 4:00 p.m.					3rd Tour From: 4:00 p.m. To: 12:00 p.m.																			
	From	To	Hole Made	Bit Size	Formation	From	To	Hole Made	Bit Size	Formation	From	To	Hole Made	Bit Size	Formation															
	2200	2236	36	6 3/16		2236	2266	30	6 3/16	DOLOMITE & SALT STR.	2266	2291	25	6 3/16																
DRILLING STRING	Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.	Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.	Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.												
	3 1/2	1766		41	372.24	64.32	3 1/2	1798		41	372	64.32	3 1/2	7890		41	372.24	64.32												
	DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL	DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL	DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL												
	COLLAR	13	4 3/4	2	372.24	DRILLING STRING	DRILL COLLARS	COLLAR	13	4 3/4	2	372.24	DRILLING STRING	DRILL COLLARS	COLLAR	13	4 3/4	2	372.24	DRILLING STRING	DRILL COLLARS									
DATA					25,000	12,000	DATA					25,000	12,000	DATA					26,000	12,000										
BIT RECORD	No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Reamed	No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Reamed	No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Reamed			
	21	D	11 1/2	52	12	78				20	D	8 1/4	30	1878	80					20	D	6 3/16	49	8m	80	2285				
	Bit Serial No. 310503 Jet ☐ Conventional ☐										Bit Serial No. 310503 Jet ☐ Conventional ☐										Bit Serial No. 6 10m 70 Jet ☐ Conventional ☐									
	Nozzle Size Bit Wear: T B G										Nozzle Size Bit Wear: T B G										Nozzle Size Bit Wear: T B G									
SLUSH PUMP RECORD No. 1 No. 2	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size												
	On Line	Circulating					On Line	Circulating					On Line	Circulating																
			530	16	50	5			525	16	50	5			525	16	51	5												
MUD RECORD	Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS	Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS	Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS												
	12:00	29	9.4			Q-BROXIN 100	8:00	29	9.4				4:00	30	9.5															
	0100	29	9.4			PRES 50	2:00	29	9.4				6:00	30	9.5	9.2	2/92													
	0400	29	9.4			CAUSTIC 50																								
CORING	Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery	Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery	Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery												
	4	2184	52	11 1/2			4	2184																						
	CUT CORE # 4						CUT CORE # 4						CUT CORE No 5																	
	HOIST						HOIST						HOIST TO RECOVER CORE																	
DETAIL OF OPERATIONS AND REMARKS	RECOVER CORE & BOX SAME						RECOVER CORE & BOX SAME						RECOVER CORE No 5 SET																	
	W.O. ORDERS.						W.O. ORDERS.						BACK BARREL																	
	RUN IN W/CORE BBL.						RUN IN W/CORE BBL.						RUN IN W/CORE BBL No 11																	
	BREAK PIPE & CLEAN TO BOTTOM						BREAK PIPE & CLEAN TO BOTTOM						BREAK PIPE & CLEAN TO BOTTOM																	
	CUT CORE No 5						CUT CORE No 5						BOTTOM																	
													DALL 1 1/4 HOLE																	
Driller <u>Paul Henderson</u>						Driller						Driller <u>R. Norman</u>																		

HEADING UP & DRLG. OUT:
DRILLING:
REAMING:CLASSES OF TIME BREAKDOWN
TOTCO:
FISHING:
CIRCULATING:
CONDITIONING MUD:
TRIPPING:
CORING:CASING:
W.O.C.
D.S. TESTING:LOGGING:
W.O. ORDERS:
RIG REPAIRS:RIG MAINTENANCE:
MISCELLANEOUS:
CONDITION HOLE:REAMING CLEANING:
WORKING PIPE:
LOST CIRC.:DID YOU CHECK BLOWOUT
PREVENTER EQUIPMENT TODAY

YES NO

Total Contract Timehrs.

Total Company Timehrs.

Toolpusher

Approved by

John A. McHester

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 13WELL NAME IOE TRAIL RIVER P-13 Lsd. Sec. Twn. Rge. W. Contractor KENTING Month MARCH Day 8 19 69

1st Tour From: 12:00 Midnight To: 8:00 a.m.												2nd Tour From: 8:00 a.m. To: 4:00 p.m.												3rd Tour From: 4:00 p.m. To: 12:00 p.m.											
DEPTH		From	To	Hole Made	Bit Size	Formation		From		To	Hole Made	Bit Size	Formation		From		To	Hole Made	Bit Size	Formation															
DEPTH		2095	2114	19.	6 3/4			2114		2174	60	6 3/4			2174		2200	26	6 3/4	ADHURITE															
DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.	Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.	Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.																
DRILLING STRING		3 1/2	1706		41.	372.24		3 1/2	1768		41.	372.24		3 1/2	1708	29.77	41	372	64	32															
DRILLING STRING		DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL	DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL	DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL																
DRILLING STRING		COLLAR	13	4 3/4	2	372.29	DRILLING STRING	COLLAR	13	4 3/4	2	372.24	DRILLING STRING	COLLAR	13	4 3/4	2	372	DRILLING STRING	COLLAR															
DRILLING STRING		DATA				25,000	12,000	DATA				25,000	12,000	DATA				25,000	12,000																
BIT RECORD		No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Reamed	No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Reamed																
BIT RECORD		9	W2	11	64	14	70	2097	64		10	OWV.10	77	14	80																				
BIT RECORD		10	OWV.	24	17	14	70																												
BIT RECORD		Bit Serial No. <u>44171</u> ; <u>7150</u> Jet ☒ Conventional ☐										Bit Serial No. <u>7150</u> Jet ☒ Conventional ☐										Bit Serial No. <u>7150</u> Jet ☒ Conventional ☐													
BIT RECORD		Nozzle Size <u>3/8</u> Bit Wear: T <u>3</u> B <u>8</u> G <u>1</u>										Nozzle Size <u>3/8</u> Bit Wear: T <u>3</u> B <u>8</u> G <u>1</u>										Nozzle Size <u>3/8</u> Bit Wear: T <u>3</u> B <u>8</u> G <u>1</u>													
SURVEYS		Depth: <u>2114</u> Deviation <u>1 3/4</u>										Depth: <u>2174</u> Deviation <u>1 3/4</u>										Depth: <u>2181</u> Deviation <u>1 3/4</u>													
SLUSH PUMP RECORD		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size																
SLUSH PUMP RECORD		On Line	Circulating					On Line	Circulating					On Line	Circulating																				
SLUSH PUMP RECORD				1000	16	48	5			1000	16	48	5			1000	16	48	5																
MUD RECORD		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS	Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS	Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS																
MUD RECORD		12:00	32	9.5				8:00	32	9.5				4:00	32	9.6																			
MUD RECORD		4:00	31	9.5				10:00	32	9.7		8																							
MUD RECORD		6:00	32	9.5	9.9	8		12:00	31	9.6	10			10:00	30	9.2																			
MUD RECORD								2:00	31	9.6				12:00	30	9.2	12.4	8																	
CORING		Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery	Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery	Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery																
CORING																																			
DETAIL OF OPERATIONS AND REMARKS		From To Hrs.										From To Hrs.										From To Hrs.													
DETAIL OF OPERATIONS AND REMARKS		DRLG. 12:00 12:15 1/4										DRLG. 8:30 8:30 1/2										DRLG 6 3/4 HOLE 4:00 4:45 3/4													
DETAIL OF OPERATIONS AND REMARKS		Rig SERV. 12:15 12:30 1/4										Rig SERV. CHECK BOP'S 8:30 8:45 1/4										SURVEY @ 2181-1 3/4 4:45 5:00 1/4													
DETAIL OF OPERATIONS AND REMARKS		TRIP FOR BIT. 12:30 3:15 2 3/4										DRLG. 8:45 4:00 7 3/4										Rig SERV. + V BOP'S 5:00 5:15 1/4													
DETAIL OF OPERATIONS AND REMARKS		BREAK CIRC & WORK STUCK 3:15																				DRLG 6 3/4 HOLE 5:15 5:30 1/4													
DETAIL OF OPERATIONS AND REMARKS		PIPE. 4:30 4:30 1/4																				CIRC SAMPLE 5:30 6:15 3/4													
DETAIL OF OPERATIONS AND REMARKS		REAM. (2002-2033) 4:30 5:45 1 1/4																				HOIST TO CORE AND RUN 6:15													
DETAIL OF OPERATIONS AND REMARKS		DRLG. 5:45 8:00 2 1/4																				IN W/ PNE. BOP 8:15 8:30 1/4													
DETAIL OF OPERATIONS AND REMARKS																						BREAK CIRC & CLEAN TO BOTTOM 8:30 8:30 1/4													
DETAIL OF OPERATIONS AND REMARKS																						PNE. CORE NO. 4 8:30 12:00													
DETAIL OF OPERATIONS AND REMARKS																						Driller <u>Paul Henderson</u>													

HEADING UP & DRLG. OUT:
DRILLING:
REAMING:CLASSES OF TIME BREAKDOWN
TOTCO:
FISHING:
CIRCULATING:
CONDITIONING MUD:
TRIPPING:
CORING:CASING:
W.O.C.
D.S. TESTING:LOGGING:
W.O. ORDERS:
RIG REPAIRS:RIG MAINTENANCE:
MISCELLANEOUS:
CONDITION HOLE:REAMING CLEANING:
WORKING PIPE:
LOST CIRC:DID YOU CHECK BLOWOUT
PREVENTER EQUIPMENT TODAY

YES NO

Total Contract Time _____ hrs.

Total Company Time _____ hrs.

Toolpusher _____

Approved by John D. McGehee

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 12WELL NAME IOE TRAIL RIVER P-13 Lsd..... Sec..... Twn..... Rge..... W..... Contractor KEATING Month MARCH Day 7TH 19 69

1st Tour From: 12:00 Midnight To: 8:00 a.m.												2nd Tour From: 8:00 a.m. To: 4:00 p.m.												3rd Tour From: 4:00 p.m. To: 12:00 p.m.																					
DEPTH		From	To	Hole Made	Bit Size	Formation						DEPTH		From	To	Hole Made	Bit Size	Formation						DEPTH		From	To	Hole Made	Bit Size	Formation															
		2005	2032	27	6 7/8									2032	2053	21	6 7/8	ANHYDRITE								2053	2095	42	6 7/8	ANHYDRITE															
DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.					Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.					Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.																		
		3 1/2	1584		41	372.24	64.32					3 1/2	1645		41	372.24	64.32					3 1/2	1706		41	372																			
DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL						DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL						DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL																	
COLLAR		13	4 3/4	2	372.24	DRILLING STRING						COLLAR	13	4 3/4	2	372.24	DRILLING STRING						COLLAR	13	4 3/4	2	372	DRILLING STRING																	
DATA		24,000					12,000					DATA	25,000					12,000					DATA																						
BIT RECORD		No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage			No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage			No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage																
		10	D	8 1/4	30	174	78		30			10	D	8 1/4	31	14	78		2032			9	6 1/4	10 3/4	63	14	80																		
		Bit Serial No. 310602. Jet ☐ Conventional ☐											Bit Serial No. 310602 Jet ☐ Conventional ☒											Bit Serial No. 44171 Jet ☐ Conventional ☒																					
		Nozzle Size Bit Wear: T B G											Nozzle Size Bit Wear: T B G											Nozzle Size Conventional Bit Wear: T B G																					
SLOSH PUMP RECORD		HOURS					Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS					Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS					Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size																	
No. 1		On Line	Circulating			450	16	51	5	On Line					Circulating			350	16	50	5	On Line					Circulating			350	16	50	5												
No. 2																																													
MUD RECORD		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS					Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS					Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS																		
		12 PM 31	9.3									8:00	31	9.5			25# PRESERVATIVE					4:00	31	9.5			NIL																		
		2 PM 31	9.4									1:00	31	9.5			50# CAUSTIC					6:00	31	9.5	9.4	8																			
		4:00 30	9.5									2:00	31	9.5								8:00	31	9.5																					
		6:00 30	9.5	9.4	8																	10:00	32	9.5																					
CORING		Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery					Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery					Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery																		
		3	2002	30	8 1/4							3	2002	31	9 1/4	2033																													
DETAIL OF OPERATIONS AND REMARKS							From	To	Hrs.						From	To	Hrs.						From	To	Hrs.																				
		CUT CORE #3					12:00	7:30	7 1/2	CUT CORE #3					8:00	9:00	1	DRILG 6 1/4 HOLE.					4:10	4:45	3 1/4																				
		WORK ON PUMP & RIG SERV.					7:30	8:00	1/2	HOIST CORE					9:00	10:15	1 1/4	RIG SERVICE WORK ON 11 TON					4:45	5:15	1/2																				
										RECOVER CORE & BOX SAME					10:15			DRILG 6 1/4 HOLE					5:15	12:00	6 3/4																				
										STAND CORE BBL IN DERRICK					11:00		3/4																												
										RUN IN W/BIT.					11:00	12:30	1 1/2																												
										BREAK CIRC & REAM TO BOTTOM.					12:30	12:15	1/4																												
										DRILG 6 1/4 HOLE.					12:45	4:00	3 1/4																												
Driller		Paul Henderson											Driller											Driller											Noonan										

HEADING UP & DRLG. OUT:
DRILLING:
REAMING:CLASSES OF TIME BREAKDOWN
TOTCO:
FISHING:
CIRCULATING:
CONDITIONING MUD:
TRIPPING:
CORING:CASING:
W.O.C.
D.S. TESTING:LOGGING:
W.O. ORDERS:
RIG REPAIRS:RIG MAINTENANCE:
MISCELLANEOUS:
CONDITION HOLE:REAMING CLEANING:
WORKING PIPE:
LOST CIRC:DID YOU CHECK BLOWOUT
PREVENTER EQUIPMENT TODAY

YES NO

Total Contract Timehrs.

Total Company Timehrs.

Toolpusher

Approved by

J. A. McPherson

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 11WELL NAME IOE TRAIL RIVER P-13 Lsd. Sec. Twn. Rge. W. Contractor KENTING Month MARCH Day 6 1969

1st Tour From: 12:00 Midnight To: 8:00 a.m.												2nd Tour From: 8:00 a.m. To: 4:00 p.m.												3rd Tour From: 4:00 p.m. To: 12:00 p.m.																	
DEPTH		From	To	Hole Made	Bit Size	Formation						DEPTH		From	To	Hole Made	Bit Size	Formation						DEPTH		From	To	Hole Made	Bit Size	Formation											
		1896	1932	36	6 1/4									1932	1980	48	6 1/4									1980	2005	25	6 1/4												
DRILLING STRING	Size-D.P.	3 1/2	1523			Kelly	41	Drill. Collar Ft.	372.24	Core Bbl. Ft.		Size-D.P.	3 1/2	1584			Kelly	41	Drill. Collar Ft.	372.24	Core Bbl. Ft.		Size-D.P.	3 1/2	1926			Kelly	41	Drill. Collar Ft.	372	Core Bbl. Ft.	64.30								
	DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL						DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL						DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL													
	COLLAR	13	4 1/4	2	372.24	DRILLING STRING DRILL COLLARS						COLLAR	13	4 1/4	2	372.24	DRILLING STRING DRILL COLLARS						COLLAR	13	4 1/4	2	372	DRILLING STRING DRILL COLLARS													
DATA		24,000						12,000						DATA		24,000						12,000						DATA		24,000						12,000					
BIT RECORD	No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage				No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage				No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage											
								Drilled	Reamed										Drilled	Reamed									Drilled	Reamed											
	7	OWV	15 1/4	105	14	70	1903	105				8	OWV	11 1/4	77	14	70						8	OWV	14 3/4	99	14	70	2002	99											
Bit Serial No. <u>5111, 7715</u> Jet ☒ Conventional ☐												Bit Serial No. <u>7715</u> Jet ☒ Conventional ☐												Bit Serial No. <u>7715 310602</u> Jet ☐ Conventional ☐																	
Nozzle Size <u>3-1/8</u> Bit Wear: T <u>3</u> B <u>8</u> G <u>1</u>												Nozzle Size <u>3-1/8</u> Bit Wear: T <u>3</u> B <u>8</u> G <u>1</u>												Nozzle Size <u>3-1/8</u> Bit Wear: T <u>3</u> B <u>8</u> G <u>1</u>																	
SLUSH PUMP RECORD	Depth		Deviation		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	Depth		Deviation		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	Depth		Deviation		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size											
	On Line	Circulating									On Line	Circulating									On Line	Circulating																			
							900	16	45	5																	950	16	50	5											
MUD RECORD	Time	Visc.	Wt.	W.L.	pH	ADDITIVES — POUNDS						Time	Visc.	Wt.	W.L.	pH	ADDITIVES — POUNDS						Time	Visc.	Wt.	W.L.	pH	ADDITIVES — POUNDS													
	12:00	32	9.4									8:00	32	9.5		8	25# PRESERVATIVE						4:00	92	9.3	8.8	8														
	04:00	32	9.4									10:00	30	9.3	9	50# CAUSTIC						6:00	31	9.3			N/A														
CORING	Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery						Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery						Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery													
DETAIL OF OPERATIONS AND REMARKS			From	To	Hrs.			From	To	Hrs.			From	To	Hrs.			From	To	Hrs.			From	To	Hrs.			From	To	Hrs.											
	DALG.		12:00	1:00	1			DRLG.		8:00	8:45	3/4			DALG. 6 1/4 HOLE.		4:00	7:15	3 1/4																						
	Rig SERV.		1:00	1:15	1/4			Rig SERV. CHECK BOPS		8:45	9:00	1/4			CIRC SAMPLE & Rig SER.		7:15	7:30	1/4																						
TRIP FOR BIT		1:15	4:00	2 3/4			DREG.		9:00	4:00	7			HOIST MEASURE OUT		7:30	9:00	1 1/2																							
BREAK CIRC		4:00	4:15	1/4										PICK UP CORE BBL'S AND		9:00																									
DRLG.		4:15	8:00	3 3/4										RUN IN W/ SAME		10:00		1																							
														WORK ON UNIVERSAL ON		10:00																									
														RE-TARDER DRIVE		10:30		1/2																							
														FINISH RUNNING IN		10:30	11:00	1/2																							
														CIRC & CLEAN TO BOTTOM		11:00	11:15	1/4																							
														CUT CORE NO 3		11:15	12:00	3/4																							
Driller <u>Paul Henderson</u>												Driller <u>Paul Henderson</u>												Driller <u>Paul Henderson</u>																	

HEADING UP & DRG. OUT:
DRILLING:
REAMING:CLASSES OF TIME BREAKDOWN
TOTCO:
FISHING:
CIRCULATING:CONDITIONING MUD:
TRIPPING:
CORING:CASING:
W.O.C.
D.S. TESTING:LOGGING:
W.O. ORDERS:
RIG REPAIRS:RIG MAINTENANCE:
MISCELLANEOUS:
CONDITION HOLE:REAMING CLEANING:
WORKING PIPE:
LOST CIRC:DID YOU CHECK BLOWOUT
PREVENTER EQUIPMENT TODAY

YES NO

Total Contract Timehrs.

Total Company Timehrs.

Toolpusher

Approved by

John R. McHardy

YES _____ NO _____
John A. McHardy

WELL NAME LOF. T. RIVER P-13

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 9

Lsd. Sec. Twn. Rge. W.

Contractor Big Ind. N. S. Month MARCH Day 4 19691st Tour From: 12:00 Midnight To: 8:00 a.m.2nd Tour From: 8:00 a.m. To: 4:00 p.m.3rd Tour From: 4:00 p.m. To: 12:00 p.m.

DEPTH	1st Tour From: 12:00 Midnight To: 8:00 a.m.					2nd Tour From: 8:00 a.m. To: 4:00 p.m.					3rd Tour From: 4:00 p.m. To: 12:00 p.m.																									
	From	To	Hole Made	Bit Size	Formation	From	To	Hole Made	Bit Size	Formation	From	To	Hole Made	Bit Size	Formation																					
1603	1639	36	6 3/8			1639	1662	23	6 3/8		1662	88	1750	6 1/2	WHITE																					
DRILLING STRING	Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.	Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.	Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.																		
	3 1/2	1188.56		41	372.24	64.32	3 1/2	1188.56		41	372.24		3 1/2	1381		41	372.24																			
DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL													
COLLAR	13	4 3/4	2	372.24	DRILLING STRING				COLLAR	13	4 3/4	2	372.24	DRILLING STRING				COLLAR	13	4 3/4	2	372.24	DRILLING STRING													
DATA						20,000					12,000										21,000					12,000										
BIT RECORD	No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage	No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage	No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage	No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage				
	10	0	7	36	12	78		94	10	0	11	59	12	78	1662		6	OWD	6 1/2	88	10	74		117												
Bit Serial No.	310602					Jet ☐ Conventional ☐					Bit Serial No.	310602					Jet ☐ Conventional ☐					Bit Serial No.	5115					Jet ☒ Conventional ☐								
Nozzle Size						Bit Wear: T ☐ B ☐ G ☐					Nozzle Size						Bit Wear: T ☐ B ☐ G ☐					Nozzle Size	3/10 1/9					Bit Wear: T ☐ B ☐ G ☐								
Depth						Deviation					Depth						Deviation					Depth	1692					Deviation 1°								
SLUSH PUMP RECORD	HOURS					Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS					Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS					Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS					Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size
No. 1	On Line	Circulating			400	16	52	5	On Line					Circulating			400	16	52	5	On Line					Circulating			950	16	48	5				
No. 2																																				
MUD RECORD	Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS					Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS					Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS										
	12 ⁰⁰	37	9.4			WATER																														
	2 ⁰⁰	80	9.4																																	
	4 ⁰⁰	50	9.4																																	
	6 ⁰⁰	38	9.4	12	8.5																															
CORING	Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery					Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery					Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery										
	2	1603	36	7								1663	59	11	1662	59																				
DETAIL OF OPERATIONS AND REMARKS	Rig SERV.					From	To	Hrs.	CUT CORE NO 2					From	To	Hrs.	REAM 60' RAT HOLE					From	To	Hrs.												
	WORK ON PUMP					12 ⁰⁰	12 ¹⁵	1/4	RECODER CORRE					8 ⁰⁰	12 ⁰⁰	4	DRUG 6 1/4 HOLE					5 ⁰⁰	7 ⁰⁰	2												
	CUT CORE #2					12 ¹⁵	12 ⁴⁵	1/2	HOIST CORE								SURVEY @ 1692-1°					7 ⁰⁰	9 ¹⁵	1/2												
	WORK ON PUMP					12 ⁴⁵	6 ⁴⁵	6	RECODER CORRE					12 ⁰⁰	1 ¹⁵	1 1/2	Rig SERV. V PIPE RAMS					7 ¹⁵	7 ³⁰	1/4												
	CUT CORE #2					6 ⁴⁵	7 ⁰⁰	1/4	RUN IN HOLE					1 ¹⁷	2 ⁰⁰	3/4	DRUG 6 1/4 HOLE					7 ³⁰	12 ⁰⁰	4 1/2												
						7 ⁰⁰	8 ⁰⁰	1	REAM					2 ⁰⁰	3 ⁰⁰	1																				
														3 ⁰⁰	4 ⁰⁰	1																				
Driller	Paul Henderson										Driller	Randy Livingston										Driller	D. Noonan													

HEADING UP & DRLG. OUT:
DRILLING:
REAMING:CLASSES OF TIME BREAKDOWN
TOTCO:
FISHING:
CIRCULATING:CONDITIONING MUD:
TRIPPING:
CORING:CASING:
W.O.C.
D.S. TESTING:LOGGING:
W.O. ORDERS:
RIG REPAIRS:RIG MAINTENANCE:
MISCELLANEOUS:
CONDITION HOLE:REAMING CLEANING:
WORKING PIPE:
LOST CIRC.:

Total Contract Timehrs.

Total Company Timehrs.

Toolpusher

Approved by

John A. Mc...
YES ☒ NO ☐DID YOU CHECK BLOWOUT
PREVENTER EQUIPMENT TODAY

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 8WELL NAME IOE TRAIL RIVER P-13 Lsd. _____ Sec. _____ Twn. _____ Rge. _____ W. _____ Contractor Rig Ind. Inc. Month MARCH Day 3 1968

1st Tour From: 12:00 Midnight To: 8:00 a.m.															2nd Tour From: 8:00 a.m. To: 4:00 p.m.															3rd Tour From: 4:00 p.m. To: 12:00 p.m.																					
DEPTH		From	To	Hole Made	Bit Size	Formation									DEPTH		From	To	Hole Made	Bit Size	Formation									DEPTH		From	To	Hole Made	Bit Size	Formation															
		1545	1573	28	6 3/16												1573	1603	30	4 3/16												1603																			
DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.				Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.				Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.																										
		3 1/2	1098.22		HL	372.24	64.32				3 1/2	1126		HL	372.24	64.32				3 1/2	1126		HL	372.24	64.32																										
DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL									DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL									DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL															
COLLAR		13	4 3/4	2	372.24	DRILLING STRING									COLLAR		13	4 3/4	2	372.24	DRILLING STRING									COLLAR		13	4 3/4	2	372.24	DRILLING STRING															
DATA						20,000				12,000				DATA						20,000				12,000				DATA						20,000				12,000													
BIT RECORD		No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage		No.		Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage		No.		Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage																						
		10	D	5	28	10	72				1		D	73	58	10	72	1603			1		D																												
		Bit Serial No. 310602 Jet ☐ Conventional ☐										Bit Serial No. 310602 Jet ☐ Conventional ☐										Bit Serial No. 310602 Jet ☐ Conventional ☐																													
		Nozzle Size _____ Bit Wear: T _____ B _____ G _____										Nozzle Size _____ Bit Wear: T _____ B _____ G _____										Nozzle Size _____ Bit Wear: T _____ B _____ G _____																													
SLOTTED		Depth _____ Deviation _____										Depth _____ Deviation _____										Depth _____ Deviation _____																													
SLUSH PUMP RECORD		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size																																
		On Line	Circulating	400	16	52	5	On Line		Circulating	500	16	52	5	On Line		Circulating																																		
MUD RECORD		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS																														
									800	37	9.2										DST #1																														
CORING		Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery		Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery		Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery																														
		1	1545	28	5																																														
DETAIL OF OPERATIONS AND REMARKS		From To Hrs.										From To Hrs.										From To Hrs.																													
		PICK UP CORE BBL. & SERVICE SAME 12.00 1.00 1										CUT CORE NO 1 8.00 10.00 2.34										Rig To Test AND Testing 4.00 8.00 4																													
		Run in (MEASURE IN) 1.00 2.15 1 1/4										Hoist CORE NO 1 10.45 12.00 1 1/2										Rig Down Test and Head 8.00 8.15 1/4																													
		WORK ON PUMP 2.15 2.45 1/2										RECOVER CORE 12.00 12.30 1/2										Hoist For Test Tool AND 8.15																													
		BREAK CIRC & DROP BALL 2.45 3.00 1/4										W. O. ORDERS 12.30 1.30 1										RECOVER CHARTS AND																													
		CUT CORE #1 3.00 8.00 5										MAKE UP TEST 1.30										LAY DOWN TEST TOOL 10.30 2 1/4																													
												AND RUN IN HOLE 4.00 2 3/4										PICK UP CORE BBL'S AND 10.30																													
																						RUN IN SLOW W/ SAME																													
																						BREAK CIRC 12.00 1 1/2																													
																						8																													
Driller		Paul Henderson										Driller										Hapt Lungu-Lore										Driller										A. J. Jansen									

HEADING UP & DRG. OUT:
DRILLING:
REAMING:CLASSES OF TIME BREAKDOWN
TOTCO:
FISHING:
CIRCULATING:
CONDITIONING MUD:
TRIPPING:
CORING:CASING:
W.O.C.
D.S. TESTING:LOGGING:
W.O. ORDERS:
RIG REPAIRS:RIG MAINTENANCE:
MISCELLANEOUS:
CONDITION HOLE:REAMING CLEANING:
WORKING PIPE:
LOST CIRC.:DID YOU CHECK BLOWOUT
PREVENTER EQUIPMENT TODAY

YES _____ NO _____

Total Contract Time _____ hrs.

Total Company Time _____ hrs.

Toolpusher _____

Approved by

John D. McH...

Total Contract Timehrs. Total Company Timehrs. Toolpusher Approved by John A. McQuest

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 6WELL NAME JOE TRAIL RIVER P-13 Lsd. Sec. Twn. Rge. W. Contractor BIG INDIANA Month MARCH Day 1 19 69

1st Tour From: 12:00 Midnight To: 8:00 a.m.															2nd Tour From: 8:00 a.m. To: 4:00 p.m.															3rd Tour From: 4:00 p.m. To: 12:00 p.m.																																
DEPTH		From	To	Hole Made	Bit Size	Formation									DEPTH		From	To	Hole Made	Bit Size	Formation									DEPTH		From	To	Hole Made	Bit Size	Formation																										
		120.2	127.9	77	6 1/4												127.9	134.2	73	6 1/4												125.2	141.9	67	6 1/4																											
		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.				Core Bbl. Ft.							Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.				Core Bbl. Ft.							Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.				Core Bbl. Ft.																						
		3 1/2	885		41	372.24											3 1/2	939		41	372.24											3 1/2	939	30.50	41	372																										
DRILLING STRING		DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL											DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL											DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL																							
		COLLAR	13	4 3/4	2	372.24	DRILLING STRING									DRILL COLLARS							COLLAR	13	4 3/4	2	372	DRILLING STRING									DRILL COLLARS							COLLAR	13	4 3/4	2	372	DRILLING STRING									DRILL COLLARS				
		DATA						18,000					12,000							DATA						20,000					12							DATA						20,000					12,000													
BIT RECORD		No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage								No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage								No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage																							
				4	SSS	6 1/4	7.7	12	42	77						28				4	SSS	12 1/4	14.5	12	42	134.7	14.5								5 1/2	SSS	7 1/2	7.2	12,000	44	RR 93																					
				Bit Serial No. <u>N0765</u> Jet ☒ Conventional ☐																Bit Serial No. <u>N0765</u> Jet ☒ Conventional ☐																Bit Serial No. <u>RR0762</u> Jet ☒ Conventional ☐																										
		Nozzle Size <u>7-18</u> Bit Wear: T <u> </u> B <u> </u> G <u> </u>																Nozzle Size <u>7-18</u> Bit Wear: T <u> </u> B <u> </u> G <u> </u>																Nozzle Size <u>7-18</u> Bit Wear: T <u> </u> B <u> </u> G <u> </u>																												
KEYS		Depth <u> </u> Deviation <u> </u>																Depth <u> </u> Deviation <u> </u>																Depth <u> </u> Deviation <u> </u>																												
SLUSH PUMP RECORD		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size										HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size										HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size																									
		On Line	Circulating														On Line	Circulating														On Line	Circulating																													
				1000	16	36	5												1000	16	36	5												1100	16	36	5																									
MUD RECORD		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS											Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS											Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS																							
		<u>WATER</u>																<u>GEL #1700</u>																<u>WATER</u>																												
		<u>2 AM 8.6</u>																<u>10 AM 8.7</u>																<u>6 AM 8.8</u>																												
		<u>4 AM 8.7</u>																<u>12 AM 8.7</u>																<u>8 AM 8.8</u>																												
		<u>6 AM 8.7</u>																<u>12 AM 8.7</u>																<u>10 AM 8.8</u>																												
CORING		Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery										Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery										Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery																									
DETAIL OF OPERATIONS AND REMARKS																																																														
		Driller <u>Paul Henderson</u>																Driller <u>Paul Livingston</u>																Driller <u>P. T. Mason</u>																												

HEADING UP & DRUG. OUT:
DRILLING:
REAMING:

CLASSES OF TIME BREAKDOWN

TOTCO:
FISHING:
CIRCULATING:CONDITIONING MUD:
TRIPPING:
CORING:CASING:
W.O.C.
D.S. TESTING:LOGGING:
W.O. ORDERS:
RIG REPAIRS:RIG MAINTENANCE:
MISCELLANEOUS:
CONDITION HOLE:REAMING CLEANING:
WORKING PIPE:
LOST CIRC.:DID YOU CHECK BLOWOUT
PREVENTER EQUIPMENT TODAYYES NO

Total Contract Timehrs.

Total Company Timehrs.

Toolpusher

Approved by

John A. McHale

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 5WELL NAME JOE TRAIL RIVER P-13 Lsd. Sec. Twn. Rge. W. Contractor Big INGRAM Month Feb Day 28 1969

1st Tour From: 12:00 Midnight To: 8:00 a.m.										2nd Tour From: 8:00 a.m. To: 4:00 p.m.										3rd Tour From: 4:00 p.m. To: 12:00 p.m.																											
From		To		Hole Made		Bit Size		Formation		From		To		Hole Made		Bit Size		Formation		From		To		Hole Made		Bit Size		Formation																			
858		980		122		6 1/4				980		1174		194		6 1/4				1174		1202		28		6 1/4																					
Size-D.P.		Stands		Singles		Kelly		Drill. Collar Ft.		Core Bbl. Ft.		Size-D.P.		Stands		Singles		Kelly		Drill. Collar Ft.		Core Bbl. Ft.		Size-D.P.		Stands		Singles		Kelly		Drill. Collar Ft.		Core Bbl. Ft.													
3 1/2		581				41		372.24				3 1/2		76				41		372.24				3 1/2						41		372.24															
DRILL		Number		OD		ID		Length		INDICATOR WEIGHT OF TOTAL		DRILL		Number		OD		ID		Length		INDICATOR WEIGHT OF TOTAL		DRILL		Number		OD		ID		Length		INDICATOR WEIGHT OF TOTAL													
COLLAR		13		4 3/4		2		372		DRILLING STRING		COLLAR		13		4 3/4		2		372.24		DRILLING STRING		COLLAR		13		4 3/4		2		372.24		DRILLING STRING													
DATA								16.000		12.000		DATA								12.000				DATA																							
No.		Type		Time On Bit		Footage		WOB		RPM		Depth Pulled		Total Footage		No.		Type		Time On Bit		Footage		WOB		RPM		Depth Pulled		Total Footage		No.		Type		Time On Bit		Footage		WOB		RPM		Depth Pulled		Total Footage	
1		DT		13		303		6				858		383				2		OSC-16		1024		316		6		220		1174				3		LT		5 1/2		28		14		160		1202	
2		OSC-16		3 1/4		122		6		220																																					
Bit Serial No.		7710		Jet ☒ Conventional ☐		Nozzle Size		1-9 1-11		Bit Wear: T B G		Bit Serial No.		7710		Jet ☒ Conventional ☐		Nozzle Size		1-9 1-11		Bit Wear: T B G		Bit Serial No.		7710		Jet ☒ Conventional ☐		Nozzle Size		1-9 1-11		Bit Wear: T B G													
Depth		902		Deviation 1 3/4		Depth		1024		Deviation 1 1/2 1 3/4		Depth		1024		Deviation 1 1/2 1 3/4																															
HOURS		On Line		Circulating		Pump Press		Length of Pump Stroke		Strokes Per Min.		Liner Size		HOURS		On Line		Circulating		Pump Press		Length of Pump Stroke		Strokes Per Min.		Liner Size		HOURS		On Line		Circulating		Pump Press		Length of Pump Stroke		Strokes Per Min.		Liner Size							
On Line						1000		16		45		5		On Line						1000		16		45		5		On Line						5 1/2													
Time		Visc.		Wt.		W L		pH		ADDITIVES — POUNDS		Time		Visc.		Wt.		W L		pH		ADDITIVES — POUNDS		Time		Visc.		Wt.		W L		pH		ADDITIVES — POUNDS													
WATER												8 AM		W		9.2																															
												10 AM		T		9.2																															
												2:00		R		9.1																															
Core No.		Depth In		Footage		Hours Run		Depth Out		Recovery		Core No.		Depth In		Footage		Hours Run		Depth Out		Recovery		Core No.		Depth In		Footage		Hours Run		Depth Out		Recovery													
MAKE UP. OVERSHOT		12.00		12.30		1/2		DRLG.		8.00		9.00		1		HOIST BIT NO. 2		4.00		4.30		1/2																									
RUN. IN.		12.30		1.15		3/4		SURVEY @ 1024 & Rig SERV		9.00		9.30		1/2		Rig SERV		4.30		4.45		1/2																									
CIRC OVER FISH & WORK OVER SAME		1.15		1.30		1/4		DRLG.		9.30		12.30		3		Run in HOLE		4.45		5.30		3																									
HOIST. SLOW. (CHAIN OUT)		1.30		2.30		1		SURVEY 1146 1 3/4		12.30		12.45		1/2		BRAKE PIAP		5.30		5.45		1/4																									
RECOVER FISH.		2.30		3.00		1/2		DRLG 6 1/2 HOLE		12.45		3.45		3		DRILL 6 1/2 HOLE		5.45		10.15		5 1/2																									
FINISH HOIST.		3.00		3.30		1/2		HOIS BIT NO. 2		3.45		4.00		1/4		TRIP		10.15		12.15		1 3/4																									
CHG. BITS & RUN. IN.		3.30		4.30		1																																									
DRLG.		4.30		5.45		1 1/4																																									
SURVEY @ 902.		5.45		6.00		1/4																																									
DRLG.		6.00		8.00		2																																									
Driller: <u>Paul Henderson</u>												Driller: _____																																			

HEADING UP & DRLG. OUT:
DRILLING:
REAMING:CLASSES OF TIME BREAKDOWN
TOTCO:
FISHING:
CIRCULATING:CONDITIONING MUD:
TRIPPING:
CORING:CASING:
W.O.C.
D.S. TESTING:LOGGING:
W.O. ORDERS:
RIG REPAIRS:RIG MAINTENANCE:
MISCELLANEOUS:
CONDITION HOLE:REAMING CLEANING:
WORKING PIPE:
LOST CIRC:DID YOU CHECK BLOWOUT
PREVENTER EQUIPMENT TODAY

YES NO

Total Contract Time _____hrs.

Total Company Time _____hrs.

Toolpusher _____

Approved by _____

John A. McFadden

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 4

WELL NAME 10 E TRAIL RIVER P 13 Lsd. Sec. Twn. Rge. W. Contractor BIE INDIAN Month FEB Day 27 19 69

1st Tour From: 12:00 Midnight To: 8:00 a.m.												2nd Tour From: 8:00 a.m. To: 4:00 p.m.												3rd Tour From: 4:00 p.m. To: 12:00 p.m.																															
DEPTH		From	To	Hole Made	Bit Size	Formation						DEPTH		From	To	Hole Made	Bit Size	Formation						DEPTH		From	To	Hole Made	Bit Size	Formation																									
475												475		711	236	6 1/4							711		855	147	6 1/4																												
DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.						Size-D.P.		Stands	Singles	Kelly	Drill. Collar Ft.						Size-D.P.		Stands	Singles	Kelly	Drill. Collar Ft.																											
					41							3 1/2		282		41	429						3 1/2		388		41	429																											
DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL						DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL						DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL																									
COLLAR		15	4 3/4	2		DRILLING STRING						COLLAR		15	4 3/4	2		DRILLING STRING						COLLAR		15	4 3/4	2		DRILLING STRING																									
DATA												DATA												DATA																															
BIT RECORD		No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage			No.		Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage			No.		Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage																								
		1	DT									1		DT	42	236		220					1		DT	13	383	600	220																										
		Bit Serial No. 46540. Jet ☒ Conventional ☐										Bit Serial No. 46540. Jet ☒ Conventional ☐										Bit Serial No. 46540. Jet ☒ Conventional ☐																																	
		Nozzle Size Bit Wear: T B G										Nozzle Size Bit Wear: T B G										Nozzle Size Bit Wear: T B G																																	
SLEEVS		Depth Deviation										Depth 590 681 Deviation 1' 1'										Depth 802 Deviation 1 3/4																																	
SLUSH PUMP RECORD		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size																																				
No. 1		On Line	Circulating					On Line		Circulating					On Line		Circulating																																						
No. 2																																																							
MUD RECORD		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS						Time		Visc.	Wt.	W L	pH	ADDITIVES — POUNDS						Time		Visc.	Wt.	W L	pH	ADDITIVES — POUNDS																								
		PRESSURE BLIND RAMS																		PRESSURED FORMATION																		6:00 29 9.2																	
		PIPE RAMS & HYDRIL TO																		TO 300 PSI OR.																		10:00 29 9.2																	
		1000 PSI PRESSURE HELD																																																					
		CHECKED ENGINE SHUT OFFS.																																																					
CORING		Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery						Core No.		Depth In	Footage	Hours Run	Depth Out	Recovery						Core No.		Depth In	Footage	Hours Run	Depth Out	Recovery																								
DETAIL OF OPERATIONS AND REMARKS		WOC 12 415 4 1/4																		DRILL 6 1/4 HOLE 4:00 430 1/2																		DRILL 6 1/4 HOLE 4:00 430 1/2																	
		PRESSURE PIPE 415 515 1																		Rig. SERV. 8:30 8:45 1/4																		Rig. SERV. 4:30 4:45 1/4																	
		RAMS & HYDRIL TO 415 515 1																		PRESSURE FORMATION TO 300 PSI 8:45 9:00 1/4																		DRILL 6 1/4 HOLE 4:45 6:45 2																	
		1000 PSI 515 630 1 1/4																		DRILL 6 1/4 HOLE 9:00 11:45 2 3/4																		SURVEY 802. 1 3/4 6:45 7:00 1/4																	
		WORK ON PUMP 515 630 1 1/4																		SURVEY 590 1 11:45 12:00 1/2																		DRILL 6 1/4 HOLE 7:00 11:00 1/4																	
		DRILL FLOAT & SHOE 630 8- 1 1/2																		DRILL 6 1/4 HOLE 12:00 2:45 2 3/4																		HOIST STAND 15' 2:45 3:00 1/4																	
																				SURVEY 651 1 2:45 3:00 1/4																		4 COCKHOTS PICKUP 11:00																	
																				DRILL 6 1/4 HOLE 3:00 4:00 1																		FISHING TOOL 12:00 1																	
		Driller Paul Henderson																		Driller																		Driller Floyd Livingston																	

HEADING UP & DRLG. OUT:
DRILLING:
REAMING:CLASSES OF TIME BREAKDOWN
TOTCO:
FISHING:
CIRCULATING:BREAKDOWN
CONDITIONING MUD:
TRIPPING:
CORING:CASING:
W.O.C.
D.S. TESTING:LOGGING:
W.O. ORDERS:
RIG REPAIRS:RIG MAINTENANCE:
MISCELLANEOUS:
CONDITION HOLE:REAMING CLEANING:
WORKING PIPE:
LOST CIRC.:DID YOU CHECK BLOWOUT
PREVENTER EQUIPMENT TODAYYES ☒ NO ☐

Total Contract Time

Total Company Time

T lpusher

Approved by

	1st Tour From: 12:00 Midnight To: 8:00 a.m.						2nd Tour From: 8:00 a.m. To: 4:00 p.m.						3rd Tour From: 4:00 p.m. To: 12:00 p.m.																									
DEPTH	From		To		Hole Made		Bit Size		Formation		From		To		Hole Made		Bit Size		Formation		From		To		Hole Made		Bit Size		Formation									
	475																																					
DRILLING STRING	Size-D.P.		Stands		Singles		Kelly		Drill. Collar Ft.		Core Bbl. Ft.		Size-D.P.		Stands		Singles		Kelly		Drill. Collar Ft.		Core Bbl. Ft.		Size-D.P.		Stands		Singles		Kelly		Drill. Collar Ft.		Core Bbl. Ft.			
	DRILL		Number		OD		ID		Length		INDICATOR WEIGHT OF TOTAL		DRILL		Number		OD		ID		Length		INDICATOR WEIGHT OF TOTAL		DRILL		Number		OD		ID		Length		INDICATOR WEIGHT OF TOTAL			
	COLLAR										DRILLING STRING		COLLAR										DRILLING STRING		COLLAR		194		430		211				DRILLING STRING		DRILL COLLARS	
	DATA												DATA												DATA													
BIT RECORD	No.		Type		Time On Bit		Footage		WOB		RPM		Depth Pulled		Total Footage Drilled		Reamed		No.		Type		Time On Bit		Footage		WOB		RPM		Depth Pulled		Total Footage Drilled		Reamed			
	Bit Serial No.				Jet ☐ Conventional ☐						Bit Serial No.				Jet ☐ Conventional ☐						Bit Serial No.				Jet ☐ Conventional ☐													
	Nozzle Size				Bit Wear: T B G						Nozzle Size				Bit Wear: T B G						Nozzle Size				Bit Wear: T B G													
KEYS	Depth				Deviation						Depth				Deviation						Depth				Deviation													
SLUSH PUMP RECORD	HOURS				Pump Press		Length of Pump Stroke		Strokes Per Min.		Liner Size		HOURS				Pump Press		Length of Pump Stroke		Strokes Per Min.		Liner Size		HOURS				Pump Press		Length of Pump Stroke		Strokes Per Min.		Liner Size			
	On Line		Circulating										On Line		Circulating										On Line		Circulating											
MUD RECORD	Time		Visc.		Wt.		W L		pH		ADDITIVES — POUNDS		Time		Visc.		Wt.		W L		pH		ADDITIVES — POUNDS		Time		Visc.		Wt.		W L		pH		ADDITIVES — POUNDS			
	RAN		12 JTS		7"		J 55		20#																													
	STEC		R 243		MANN. CASING																																	
	CEMENTED		WITH		200SKS																																	
	CEMENT		PLUS		2 1/2% CACL2																																	
	CASING		LANDED @		469.26 KB																																	
RING	Core No.		Depth In		Footage		Hours Run		Depth Out		Recovery		Core No.		Depth In		Footage		Hours Run		Depth Out		Recovery		Core No.		Depth In		Footage		Hours Run		Depth Out		Recovery			
	PLUG		DOWN @		415		AM.																															
DETAIL OF OPERATIONS AND REMARKS																																						
	Run CASING																																					

DID YOU CHECK BLOWOUT
PREVENTER EQUIPMENT TODAY?

YES_____ NO_____

Total Contract Timehrs. Total Company Timehrs. Toolpusher Approved by John A. Metzger

WELL NAME IOE RIVER TRAIL LAT. 60° 02' 59" N LONG. 121° 32' 13" W Lsd. Sec. Twn. Rge. W. Contractor Big Indian #35 Month FEB Day 25 1969

1st Tour From: 12:00 Midnight To: 8:00 a.m.										2nd Tour From: 8:00 a.m. To: 4:00 p.m.										3rd Tour From: 4:00 p.m. To: 12:00 p.m.											
DEPTH		From	To	Hole Made	Bit Size	Formation				DEPTH		From	To	Hole Made	Bit Size	Formation				DEPTH		From	To	Hole Made	Bit Size	Formation					
		215	356	141	9 7/8	SHALE						356	430	74	9 3/8							430	475	44	9 3/8						
		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.						Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.						Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.					
															41	400									41	454					
DRILLING STRING		DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				
		COLLAR		4 3/4	2"		DRILLING STRING				COLLAR		14	4 3/4	2"	400	DRILLING STRING				COLLAR		16	4 3/4	2"	454	DRILLING STRING				
		DATA									DATA										DATA										
BIT RECORD		No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Reamed	No.		Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Reamed	No.		Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Reamed	
		2A	RR	18 1/2	315	8M	120	356	311		2A		RR	18 1/2	315	8M	120	356	311			3A		S-3	7 3/4	119	9000	120	475		
		Bit Serial No. <u>RR</u> Jet ☐ Conventional ☒										Bit Serial No. <u>RR</u> Jet ☐ Conventional ☒										Bit Serial No. <u>RR</u> Jet ☐ Conventional ☒									
		Nozzle Size _____ Bit Wear: T _____ B _____ G _____										Nozzle Size _____ Bit Wear: T _____ B _____ G _____										Nozzle Size _____ Bit Wear: T _____ B _____ G _____									
SLOSH PUMP RECORD		Depth <u>244 - 1°</u> Deviation <u>328 - 1°</u>										Depth _____ Deviation _____										Depth <u>444 1</u> Deviation <u>1 1/2</u>									
		HOURS										HOURS										HOURS									
		On Line	Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size				On Line		Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size				On Line		Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size				
				350	16	52	5							350	16	52	5								350	16	52	5			
MUD RECORD		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS				Time		Visc.	Wt.	W L	pH	ADDITIVES — POUNDS				Time		Visc.	Wt.	W L	pH	ADDITIVES — POUNDS				
		12 ⁰⁰	35	88			<u>OV 1 L</u>				12 ⁰⁰		40	9.5							12 ⁰⁰		47	9.5							
		2 ⁰⁰	37	89																											
		4 ⁰⁰	35	88																											
		6 ⁰⁰	35	89																											
		8 ⁰⁰	37	9.0																											
CORING		Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery				Core No.		Depth In	Footage	Hours Run	Depth Out	Recovery				Core No.		Depth In	Footage	Hours Run	Depth Out	Recovery				
DETAIL OF OPERATIONS AND REMARKS		From To Hrs.										From To Hrs.										From To Hrs.									
		Rig Ser. 12 ⁰⁰ 12 ¹⁵ 1/4										Hoist For Bit 8:00 9:00 1										Drill 9 3/8 Hole 11:00 11:45 3/4									
		DRILL 9 3/8 HOLE 12 ¹⁵ 1 ¹⁵ 1/4										Rig Ser. work on 9:00										Rig Ser. and survey 11:45 12:00 3/4									
		SURVEY @ 244 - 1° 1 ¹⁵ 1 ³⁰ 1/4										PUMP 9:30 1/4										DRILL 9 3/8 HOLE 12:00 12:45 1/2									
		DRILL 9 3/8 HOLE 1 ³⁰ 5:00 3 1/2										RUN IN W/ BIT 9:30										CIRC HOLE 12:45 1:15 1/2									
		CLEAN SUCTION SCREEN 5 ⁰⁰ 5 ¹⁵ 1/4										REAM TIGHT SPOT 11:15 1:30										DUMMY TRIP 1:15 1:45 1									
		SURVEY @ 328 - 1° 5 ¹⁵ 5 ³⁰ 1/4										DRILL 9 3/8 HOLE 11:15 12:00 4 3/4										CIRC HOLE 1:45 2:15 1/4									
		DRILL 9 3/8 HOLE 5 ³⁰ 7- 1 1/2																				Hoist To Run casing 12:00 12:30 3/4									
		PULL OUT 7- 8- 1																				Rig To and Run casing 12:30 12:00 1/2									
		Driller <u>Y. H. H. H.</u>										Driller <u>Y. H. H. H.</u>										Driller <u>Y. H. H. H.</u>									

HEADING UP & DRILL. OUT:
DRILLING:
REAMING:

CLASSES OF TIME BREAKDOWN

TOTCO:
FISHING:
CIRCULATING:

CONDITIONING MUD:
TRIPPING:
CORING:

CASING:
W.O.C.
D.S. TESTING:

LOGGING:
W.O. ORDERS:
RIG REPAIRS:

RIG MAINTENANCE:
MISCELLANEOUS:
CONDITION HOLE:

REAMING CLEANING:
WORKING PIPE:
LOST CIRC.:

DID YOU CHECK BLOWOUT
PREVENTER EQUIPMENT TODAY

YES _____ NO _____

Total Contract Time _____ hrs.

Total Company Time _____ hrs.

Toolpusher _____

Approved by _____

John A. McFadden

IMPERIAL OIL LIMITED
 LAT 60° 02' 59" LONG 121° 32' 13"
 Lsd. Sec. Twn. Rge. W.

DAILY DRILLING REPORT No. 1

WELL NAME 10E TRAIL RIVER P13Contractor BIG INDIAN #33 Month FEB Day 24 1969

1st Tour From: 12:00 Midnight To: 8:00 a.m.															2nd Tour From: 8:00 a.m. To: 4:00 p.m.															3rd Tour From: 4:00 p.m. To: 12:00 p.m.																		
DEPTH		From	To	Hole Made	Bit Size	Formation		Size-D.P.		Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.	DEPTH		From	To	Hole Made	Bit Size	Formation		Size-D.P.		Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.	DEPTH		From	To	Hole Made	Bit Size	Formation		Size-D.P.		Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.				
		0	45	45	97	SAND - GRAVEL - SHALE		45		80	33	9 3/8	SAND / GRAVEL				80	715	135	9 3/8																												
DRILLING STRING		DRILL Number OD ID Length INDICATOR WEIGHT OF TOTAL COLLAR 2 4 3/4 2" 54 DRILLING STRING DRILL COLLARS DATA 3 3													DRILL Number OD ID Length INDICATOR WEIGHT OF TOTAL COLLAR 6 4 3/4 2" 174 DRILLING STRING DRILL COLLARS DATA 12000																																	
BIT RECORD		No. Type Time On Bit Footage WOB RPM Depth Pulled Total Footage Drilled Reamed 1A OSC-3 5 45 ALL 80													No. Type Time On Bit Footage WOB RPM Depth Pulled Total Footage Drilled Reamed 2A 19R 5 35 ALL													No. Type Time On Bit Footage WOB RPM Depth Pulled Total Footage Drilled Reamed 2A 19R 11 1/2 174 ALL																				
KEYS		Bit Serial No. H2001 Jet ☒ Conventional ☐ Nozzle Size 31-3/4 Bit Wear: T 4 B 2 G 1													Bit Serial No. 19R Jet ☐ Conventional ☐ Nozzle Size Bit Wear: T B G													Bit Serial No. 19R Jet ☐ Conventional ☐ Nozzle Size Bit Wear: T B G																				
SLUSH PUMP RECORD		HOURS On Line Circulating Pump Press Length of Pump Stroke Strokes Per Min. Liner Size 350 16 52 5													HOURS On Line Circulating Pump Press Length of Pump Stroke Strokes Per Min. Liner Size 350 16 52 5													HOURS On Line Circulating Pump Press Length of Pump Stroke Strokes Per Min. Liner Size 350 16 52 5																				
MUD RECORD		Time Visc. Wt. W L pH ADDITIVES - POUNDS 12 29 8.5 1800# BEL 2EO 4 29 8.5 100# PLASTER 6 29 8.5 4 SXS SAWDUST 8 30 8.5													Time Visc. Wt. W L pH ADDITIVES - POUNDS 30 8.5 1500# ZENOGEN 30 8.5 600# AGABEL 30 8.5													Time Visc. Wt. W L pH ADDITIVES - POUNDS 400 32 8.7 GELH 39.00#																				
CORING		Core No. Depth In Footage Hours Run Depth Out Recovery DIR RAT HOLE: 1200 330 RIG TO SPUD 230 400 DRILL 9 3/8 HOLE 400 800 4													Core No. Depth In Footage Hours Run Depth Out Recovery DRILL 9 3/8 HOLE 800 830 RIG & CONDITION MUD 830 930 RE DRILL BOULDER FELL 930 IN HOLE CHANGE BIT 1100 1145 2 3/4 CONNECTION AND DRILL 9 3/8 HOLE 1100 1145 2 3/4 MIX MUD AND MAKE COVER 1145 345 2 DRILL 9 3/8 HOLE 345 400 1/4													Core No. Depth In Footage Hours Run Depth Out Recovery DRILL 9 3/8 HOLE 1100 1145 2 3/4 RIG SER. MIX MUD 1145 570 1 1/2 AND MAKE COVER 570 600 2 1/4 DRILL 9 3/8 HOLE 600 615 1 1/4 SURVEY 157 1 5.00 9.15 1 1/4 DRILL 9 3/8 HOLE 615 1200 3 3/4																				
DETAIL OF OPERATIONS AND REMARKS		CHECK MOTOR SHUT OFF'S BEFORE SPUDGING IN.													DRILL 9 3/8 HOLE 800 830 RIG & CONDITION MUD 830 930 RE DRILL BOULDER FELL 930 IN HOLE CHANGE BIT 1100 1145 2 3/4 CONNECTION AND DRILL 9 3/8 HOLE 1100 1145 2 3/4 MIX MUD AND MAKE COVER 1145 345 2 DRILL 9 3/8 HOLE 345 400 1/4													DRILL 9 3/8 HOLE 1100 1145 2 3/4 RIG SER. MIX MUD 1145 570 1 1/2 AND MAKE COVER 570 600 2 1/4 DRILL 9 3/8 HOLE 600 615 1 1/4 SURVEY 157 1 5.00 9.15 1 1/4 DRILL 9 3/8 HOLE 615 1200 3 3/4																				
Driller		B. Noonan													Driller													Driller																				

 HEADING UP & DRLG. OUT:
 DRILLING:
 REAMING:

 CLASSES OF TIME BREAKDOWN
 TOTCO:
 FISHING:
 CIRCULATING:
 CONDITIONING MUD:
 TRIPPING:
 CORING:

 CASING:
 W.O.C.
 D.S. TESTING:

 LOGGING:
 W.O. ORDERS:
 RIG REPAIRS:

 RIG MAINTENANCE:
 MISCELLANEOUS:
 CONDITION HOLE:

 REAMING CLEANING:
 WORKING PIPE:
 LOST CIRC.:

 DID YOU CHECK BLOWOUT
 PREVENTER EQUIPMENT TODAY

YES NO

Total Contract Timehrs.

Total Company Timehrs.

Toolpusher

Approved by

J. A. McY...