IOE TRIAD EBBUTT D-50

Drilling Authority No. 131
Date Issued

WELL NAME IOE Triad Ebbutt D-50
FIELD
LOCATION: Unit D Area:
Section 50 Grid 62° 20; 122° 15
Latitude 62° 19' 01" Longitude 122° 24' 05"
From Established Reference Marker

Rig Release Date:
Status
Information Release Date

CHANGE OF NAME:

| DATE RECEIVED | INDEX |
|---|---|
| | Application for a Drilling Authority. |
| | Well Completion Data. |
| | Well History Report. |
| | Application to Amend a Drilling Authority. |
| | Application to change a Well Name. |
| | Application to Abandon a Well or Suspend Drilling. |
| | Application to Alter Condition of a Well. |
| | Well History Supplement. |
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| | Application to Commingle Production before Measurement. |
| | Approval to Commingle Production before Measurement. |
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| | Application for M.P.R.—Oil. |
| | New Oil Well Report. |
| | New Gas Well Report. |
| | Well Inspection Report. |
| | Rig Inspection Report. |
| | Battery Inspection Report. |
| | Field Abandonment Programme and Approval. |
| | Well Card. |
| | Well Visit. |
| | Daily Drilling Reports. |

Drilling Authority No. 131

Date Issued Jan. 13, 1964

CANADA

DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES
RESOURCES 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 I.O.E. TRIAD EBBUTT D-50

Permit No. P.E.M.I. Permit 3105 Lease No. N.A.

I.O.E., Triad Oil Co. Horn R. Explor. (Permittee, Licensee, Lessee) Exploratory Licence No. 63?

Imperil Oil Enterprises Ltd. (Operator) Exploratory Licence No. 63?

Location: Unit D Section 50 Grid 62°20' - 122°15'

Latitude 62°19'01" N. Longitude 122°24'05" W.

From Established Reference Marker Govt. of Canada monument on McKenzie River - Air photo interpretations.

| | DATE | DEPTH |
|---|---|---|
| Spudded | Jan.16/64 | |
| Suspended | | |
| Resumed | | |
| Finished Drilling | Mar.14/64 | 4094' |
| Deepened | | |
| Complete (gas/oil) | | |
| Abandoned | Mar.18/64 | 4094 |
| Rig released | Mar.18/64 | 4094 |

Pool (S) N.A.

Interval(s) open to production None

Elevation: Gr. 1033'

K.B. 1039'

Drilling Contractor & Rig No. Tri-City Drilling Rig #4

Contractor's Licence No. A-11379

## CASING RECORD

| Casing Size (Inches) | Weight | Amount | Set at— | Sacks of Cement | Method |
|---|---|---|---|---|---|
| 1. Surface casing 8 5/8" | 24# | 367' | 377.13 KB | 200 | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| 6. | | | | | |

| GEOLOGICAL TOPS | ELEVATION | |
|---|---|---|
| | Depths | Sub-Sea |
| Imperial fm. | 95' | + 944' |
| Canol/Hare Indian | 1478' | - 439 |
| Hume formation | 1535' | - 488 |
| Bear Rock fm. | 1903' | - 864 |
| Bruning fm. | 3400' | -2361 |
| Final Total Depth | 4094' | -3055' |

## CORE RECORD

| From | To | Rec. | From | To | Rec. |
|---|---|---|---|---|---|
| 1150 | 1165 | 15 | 1911 | 1961 | 43 |
| 1425b | 1448 | 13 | 1961 | 1995 | 31 |
| 1448 | 1489 | 37 | 1995 | 2011 | 15 |
| 1489 | 1534 | 43 | 2011 | 2036 | 21 |
| 1534 | 1580 | 43 | 2036 | 2057 | 20 |
| 1580 | 1606 | 23 | 2057 | 2083 | 21 |
| 1606 | 1607 | 1 | 2083 | 2110 | 26 |
| 1607 | 1653 | 44 | 2110 | 2134 | 23 |
| 1653 | 1675 | 17 | 2134 | 2141 | 6 |
| 1675 | 1695 | 18 | 2141 | 2147 | 5 |
| 1696 | 1746 | 49 | 2147 | 2149 | 2 |
| 1746 | 1767 | 20 | 2149 | 2153 | 3 |
| 1767 | 1817 | 49 | 2153 | 2157 | 3 |
| 1817 | 1865 | 47 | 2157 | 2169 | 9 |
| 1865 | 1911 | 43 | 2169 | 2177 | 4 |
| | | | LOG RECORD 3160 | 3185 | 25 |

| Run No. | Type of Log | From | To |
|---|---|---|---|
| 1 | Induction/Electric | 2142' | 377' |
| 2 | Induction E | 4097 | 1900 |
| 1 | Gamma Ray Sonic Caliper | 2110 | surface |
| 2 | Gamma Ray Sonic C. | 4098 | 1900 |
| 1 | Laterolog | 4098 | 1900 |
| | Continuous Dipmeter | 377' | 4093 |
| | Seismic Ref. Survey | | |

NANR 52-90(2) (1-61)

## CEMENTING RECORD (Plug, Squeeze, etc.) PLUGS

| Date | From | To | Remarks |
|---|---|---|---|
| Mar.17/64 | 3764 | 4094 | cement with 80 s. + 2% $CaCl_2$ Felt after 8 hrs. |
| Mar.17/64 | 2495 | 2600 | cement with 40 s. + 2% $CaCl_2$ Felt after 8 hrs. |
| Mar.18/64 | 1952 | 2050 | c. w/40 sacks + 2% $CaCl_2$. Felt after 8 hrs. |
| Mar.18/64 | 330 | 430 | c. w/50 sacks + 2% $CaCl_2$. Felt after 8 hrs. |
| Mar.18/64 | 3 | 8 | c. w/5 sacks and welded steel plate. |

## PERFORATING RECORD (Bullet, Jet)

| Date | From | To | Remarks |
|---|---|---|---|
| | | | |

## SERVICING RECORD (Acidizing, Fracing, etc.)

| Date | From | To | Remarks |
|---|---|---|---|
| | | | |

## DRILL STEM TESTS

| No. | Date | Formation | From | To | V.O. Mins. | I.S.I. Mins. | F.S.I. Mins. | I.S.I.B.H.P. | F.S.I.B.H.P. | I.F.B.H.P. | F.F.B.H.P. | I.H.P. | F.H.P. | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 29/1/64 | Hume | 1534 | 1606 | 60 | 1584 | 90 | 490 | 490 | 215 | 215 | 825 | 825 | Rec. 360' mud. Mud from resetting tool. |
| 2 | 10/2/64 | Bear Rock | 1985 | 2036 | 60 | 1991 | 90 | 680 | 675 | 90 | 400 | 1120 | 1100 | Rec. 30' watery mud & 890' salt water. |
| 3 | 13/3/64 | Ronning | 3967 | 4066 | 60 | 99 | 60 | 1700 | 1700 | 1150 | 1700 | 2160 | 2160 | Rec. 3300' watery mud and salt water. |
| 4 | 15/3/64 | Bear Rock | 3059 | 3110 | 60 | 1590 | 60 | 1180 | 1200 | 800 | 1200 | 1600 | 1590 | Rec. 2200' watery mud and salt water. Straddle test. |

| Lab. No. | Sample | From | To | Source | Remarks |
|---|---|---|---|---|---|
| F1846-1, 2 | 5 samples | 1534 | 1606 | D.S.T. #1 | |
| F1846-3,4,5,6 | 5 " | 1985 | 2036 | D.S.T. #2 | |
| F1902-1,2,3,4 | 5 " | 3967 | 4055 | D.S.T. #3 | |
| | 4 " | 3059 | 3110 | D.S.T. #4 | |
| CNP-1-6718 | Core | 2011 | 2110 | Core #19 & 20 + 22 | |
| CNP-1-6757 | Core | 3160 | 3185 | Core #31 | |

## PRESENT STATUS OF WELL

| | | |
|---|---|---|
| Oil | | (Interval) |
| Gas | X | Dry & Abandoned (Interval) |
| Dry | | |
| Susp. | | |

Company Imperial Oil Enterprises Ltd.

Signed by G. R. Alexander Wellsite Supervisor

Total

Date April 15, 1964

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

File No.
Drilling Authority No. 131

DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES
RESOURCES DIVISION

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

In compliance with the "Canada Oil and Gas Land Regulations", application is made hereby for approval to abandon, ~~XX XXXXXXXXXXXXXX~~ Ik Triad Ekbatt D-50
Name and number of well
Location: Unit D Section 30 Grid 62°20'; 122°15'
Latitude 62°19'01" Longitude 122°24'05"
From Established Reference Marker

Permit No. 3103 Lease No. Imperial Oil Limited, Triad Oil Ltd. Hess River Explorations Ltd.
(Permittee, Licensee, Lessee)

Date of commencement of proposed programme March 16, 1964

## OIL, GAS, AND WATER ENCOUNTERED
(Depths)

Oil at
Gas at
Water at
Total Depth Date of last operations
Present condition of well Abandoned

## CASING RECORD

| | Casing Size O.D. Inches | Weight | Amount | Set At | Sack of Cement | Method | Amount Pulled |
|---|---|---|---|---|---|---|---|
| 1. | 8-5/8 | 24 lb./ft. | 8 jts. | 377.13'KB | 200 | | |
| 2. | | | | | | | |
| 3. | | | | | | | |
| 4. | | | | | | | |
| 5. | | | | | | | |

## PROPOSED ABANDONMENT PROGRAMME

| Plug No. | Plug Position | Geological Formation | Number of Sacks of Cement | Remarks |
|---|---|---|---|---|
| 1 | 4094-3900 | Mt. Clarke Fm. | 80 + 2%$CaCl_2$ | W.O.C. 8 hrs. |
| 2 | 2500-2600 | Chinchaga | 40 + 2%$CaCl_2$ | W.O.C. 8 hrs. |
| 3 | 1950-2050 | Keg River | 40 | W.O.C. 8 hrs. |
| 4 | 337-427 | Imperial Fm. | 50 | W.O.C. 8 hrs. |

Cut off casing 3 ft. below ground level and run a 5 sack cement plug. Install a riser with well name permanently mounted.

Verbal approval obtained from Mr. Code, Dept. of Northern Affairs, Calgary, Alberta.

The following logs have been run IE Log-2 runs; GRSC-2 runs; Velocity Survey; Cont. Dipmeter Conductivity-Laterolog
Other operations proposed

Operations to be carried out by Tri-City Drilling Co. Contractor Licence No. A-11379
Address 11903 Kingsway Ave., Edmonton, Alberta. Address
Responsible Agent in field A.J. McCaskill, c/o Imperial Oil Enterprises Ltd., Dawson Creek, B.C.
Dated at Dawson Creek, B. C., this 18 Day of March 19 64
Signed by [signature] Company Imperial Oil Enterprises Ltd.
Title Division Engineer Exploratory Licence No. 638

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

*(For RESOURCES DIVISION use only)*

## APPROVAL

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

Confirming oral approval given 15th March 1964 by Mr. A. R. Cood

Dated 25th March, 19 64 [signature]

*Forms to be submitted in triplicate to Oil Conservation Engineer, Calgary, Alberta*

NANR 52-90 (5) (1-61)

DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES

RESOURCES DIVISION

# Application to Change a Well Name

Application is made hereby to change the name of the well, recorded in the Well-names Register as—

IOE Triad Ebbutt C-50

(Old name)

to IOE Triad Ebbutt D-50

(Proposed new name)

*Well Location*

Location: Unit D Section 50 Grid 62° 20' -122° 15'

Latitude 62° 19' 01" Longitude 122° 24' 05"

From Established Reference Marker

*Reason for Changing Well Name*

Air photographs of the rig in place show this to be the proper location when interpreted onto advance Dominion Government mapping.

The longitude of the location has been changed from 122° 23' 30" W to 122° 24' 05" W.

Dated at Calgary this 17 day of March 1964

Signed by [signature]

Title Regional Engineer

Company Imperial Oil Enterprises Ltd.

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*(For Resources Division use only)*

APPROVED

This application has been examined and approved:

Date 18 March, 1964 [signature]

*Forms to be submitted in triplicate to the Oil Conservation Engineer, Calgary, Alberta.*

NANR 52-90(4) (1-61)

File No.

Drilling Authority No. 131

DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES
RESOURCES 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 made hereby for approval to drill:—

Name and number of well IOE Triad Ebbutt C-50

Location: Unit C Section 50 Grid 60° 20' 122° 15'

Latitude 62° 19' 04" Longitude 122° 23' 30"

From Established Reference Marker

Elevation: Ground K.B. feet above sea-level.

Well is expected to produce from Devonian formation at a depth of about 2,000 feet. F.I.D. 3,400

Area assigned to well

(for Oil Conservation Engineer's use only)

Permit No. 3103 Lease No. Acreage 59,640

Permittee, licensee, or lessee Imperial Oil Limited, Triad Oil Co. Ltd., Horn River Explorations Ltd.

Exploratory Licence No. 637

Surface owned by Crown or Crown

(If alienated submit name and address of owner and occupant.)

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 | Brand | New or Used | Estimated Depth | Sacks of Cement |
|---|---|---|---|---|---|---|---|
| 1. | 8 5/8 | 24.0 | J55 | Seamless | New | 350 | To surface |
| 2. | | | | | | | |
| 3. | | | | | | | |
| 4. | | | | | | | |
| 5. | | | | | | | |

Expected water, gas, and oil horizons and type of control equipment Surface casing will be set to sufficient depth to control surface water; intermediate casing will be set if needed.

Well will be drilled with (Rotary) Rig No. 4 by Tri City Drilling Co. Ltd.
(Cable ) (Drilling Contractor or company)

Responsible agent of applicant:— Contractor's Licence No. A-11379

At well A. J. McCaskill At registered office J. S. Poyen

Address Imperial Oil Enterprises Ltd. Dawson Creek, B.C. Address 300 - 9th Avenue S.W. Calgary, Alta.

It is understood that if changes become necessary, notice of the change of plan will be submitted.

Dated at Calgary, this 9th day of January 19 64

Signed by H. J. Ebbutt Company Imperial Oil Enterprises Ltd.

Title Regional Engineer Licence No. 638

*(For Resources Division use only)*

APPROVED

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

The Company will submit to this office on Tuesday of each week the latest reports received by radio on the progress of the well.

Dated 13th January 19 64

*Forms to be submitted to Oil Conservation Engineer, Calgary, Alberta.*

NANR 52-90(1) (1-61)

Grid: D-50 62°20'N 122°15'W

ICE TRIAD EBBUTT D-50

BRITISH COLUMBIA

DEPARTMENT OF MINES AND PETROLEUM RESOURCES

STANDARD SAMPLE INFORMATION SHEET

INFORMATION TO BE FORWARDED WITH EACH SAMPLE OR ANALYSIS OF WATER, OIL OR GAS
(Please supply as much of the following information as possible. Please print).

Operator: Imperial Oil Enterprises Ltd.

Mailing address for results: Trail Building, Dunsmuir Creek Attn.: GRA Milne

Well name: [redacted] Field or Area: W.C

Located in: ¼ Unit Unit Block NTS D-30 62°20' - 122°15'

LSD. Sec. Twp. Rge. W Mer. Elev. 1033' K.B. 1039.5'
Grd. 1033'

Kind of sample (water, oil or gas): Mud Lab Analysis No:

Sampled by: E. Zederayko Representing: I.O.E. Date: Jan. 29/64

Identification marks on sample container: Labels marked

Interval tested: 1534' to 1606' Formation: [redacted] Hume

Perforations or open hole: Open hole

Sampled from (DST; WLT: wellhead; separator; tank; line): D.S.T. #1

DST number: DST #1 Recovery: 360' mud

Part of recovery sampled: 360; 240; 120; 0 feet above tool.

Production sample (flowing, pump, swabbing): —

Production rate: oil — bpd; Gas — Mcf/d; Water — bpd.

Pressure: Point of sampling psig; Gas bomb psig.

Temperature: Point of sampling °F; Separator °F.

Pressure: Reservoir psig; tubing psig; casing psig; Sep. psig.

If water sample, had interval previously been treated with:

(a) Acid: (b) Aqueous fluid: Drilling mud

REMARKS:

Ed Zederayko
(Signed)

I.O.E.
~~Imperial Oil Ltd.~~
(Company)

CGL-6

# CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton — Fort St. John — Calgary

## WATER ANALYSIS REPORT

Field — Well No. I.O.E. Ebbutt #d-50-62°20'-122°15'

Operator Imperial Oil Limited — Date Received February 28, 1964

Formation — Depths

Other pertinent data Mud Cycle before D.S.T. #1.

Date Sampled: Not Known Lab. No. F1846-1

PARTS PER MILLION (MILLIGRAMS PER LITER)

| | Na + K | Ca | Mg | Fe | $SO_4$ | Cl | $CO_3$ | $HCO_3$ | OH | $H_2S$ |
|---|---|---|---|---|---|---|---|---|---|---|
| % | 36.45 | 1.99 | 0.31 | | 10.35 | 19.46 | 4.72 | 18.72 | | |
| PPM | 1,390 | 76 | 12 | | 700 | 742 | 180 | 1,450 | | |

MILLIGRAM EQUIVALENTS

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 60.47 | 3.79 | 0.99 | | 14.56 | 20.92 | 5.99 | 23.78 | | |

MILLIGRAM EQUIVALENTS IN PERCENT

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 46.34 | 2.90 | 0.76 | | 11.16 | 16.03 | 4.59 | 18.22 | | |

### Total Solids in Parts per Million

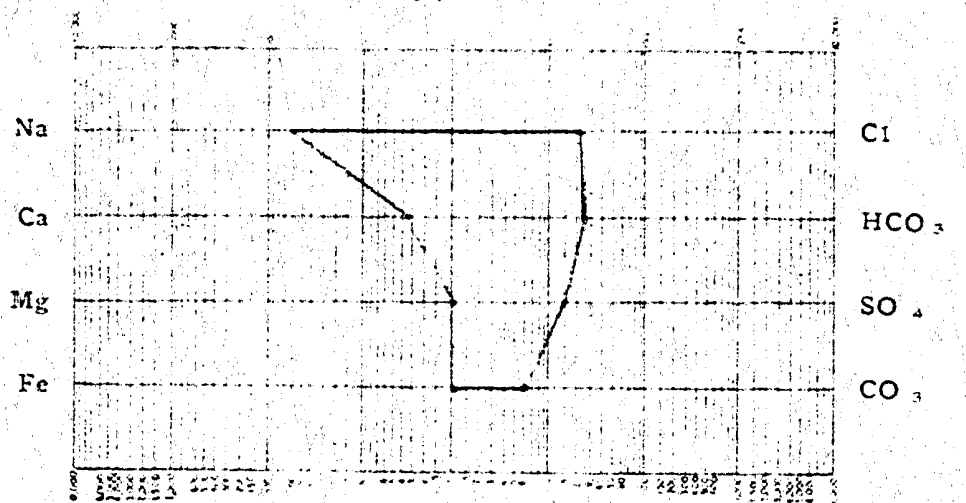
| | |
|---|---|
| By evaporation | 5,630 |
| After ignition | 3,070 |
| Calculated | 3,814 |
| Specific Gravity | 1.002 |
| Observed pH | 8.7 |
| Resistivity 2.59 | ohm meters @ 68° F. |

### Properties of Reaction in Percent

| | |
|---|---|
| Primary salinity | 54.38 |
| Secondary salinity | --- |
| Primary alkalinity | 38.30 |
| Secondary alkalinity | 7.32 |
| Chloride salinity | 58.96 |
| Sulfate salinity | 41.04 |

Remarks and conclusions Heavy deposit of organic matter present in total solids. This sample is a mud filtrate.

LOGARITHMIC PATTERN
MEQ per unit



CCL-4

# CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton — Fort St. John — Calgary

## WATER ANALYSIS REPORT

Field ..... Well No. I.O.E. Ebbutt #d-50-62°20'-122°15'

Operator Imperial Oil Limited Date Received February 28, 1964

Formation [redacted] Rumc Depths 1534' - 1606'

Other pertinent data D.S.T. #1. Top of tool. Recovered 350 feet mud.

Date Sampled: Not Known Lab. No. F1846-2

PARTS PER MILLION (MILLIGRAMS PER LITER)

| | Na + K | Ca | Mg | Fe | $SO_4$ | Cl | $CO_3$ | $HCO_3$ | OH | $H_2S$ |
|---|---|---|---|---|---|---|---|---|---|---|
| % | 37.25 | 1.00 | 0.28 | | 14.43 | 20.83 | 6.74 | 18.67 | | |
| PPM | 1,327 | 64 | 10 | | 514 | 742 | 240 | 1,350 | | |

MILLIGRAM EQUIVALENTS

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 57.73 | 3.19 | 0.82 | | 10.69 | 20.92 | 7.99 | 22.14 | | |

MILLIGRAM EQUIVALENTS IN PERCENT

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 45.75 | 2.58 | 0.67 | | 8.66 | 16.94 | 6.47 | 17.93 | | |

Total Solids in Parts per Million

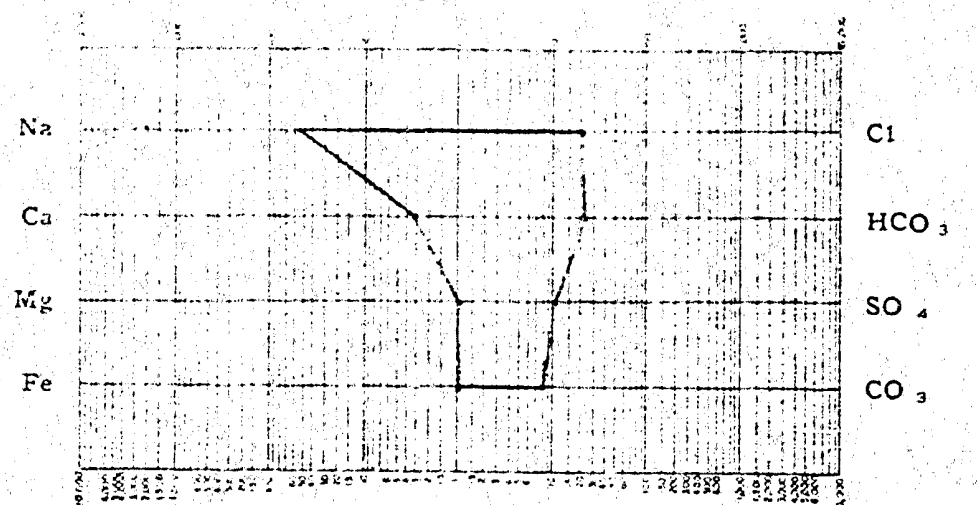
| | |
|---|---|
| By evaporation | 4,710 |
| After ignition | 2,780 |
| Calculated | 3,562 |
| Specific Gravity | 1.002 |
| Observed pH | 8.8 |
| Resistivity 2.46 | ohm meters @ 68° F. |

Properties of Reaction in Percent

| | |
|---|---|
| Primary salinity | 51.20 |
| Secondary salinity | --- |
| Primary alkalinity | 42.30 |
| Secondary alkalinity | 6.50 |
| Chloride salinity | 66.17 |
| Sulfate salinity | 33.83 |

Remarks and conclusions Heavy deposit of organic matter present in total solids. This sample is a mud filtrate.

LOGARITHMIC PATTERN
MEQ per unit



BRITISH COLUMBIA

DEPARTMENT OF MINES AND PETROLEUM RESOURCES

DRILL STEM OR FLUID INFORMATION SHEET

INFORMATION TO BE SUPPLIED WITH EACH SAMPLE OR ANALYSIS OF WATER, OIL OR GAS
(Please supply as much of the following information as possible. Please print).

Operator: **Imperial Oil Enterprises Ltd.**

Mailing address for result of test: **Trail Building, Dawson Creek Attn. Mr. G. R. A. Milne**

Well name: **I.O.E. TRIAD / BUTT D-50** Field or Area: **W.C.**

Located in: A Unit ... Block ... **NWT. D-50 (62°20' - 121°15')**

LSD. Sec. Twp. Rge. W Mer. Elev. **1035** K.B. Grd.

Kind of sample (water, oil or gas): **Mud & salt water** Lab Analysis No:

Sampled by: **Ed Zederayko** Representing: **I.O.E.** Date: **Feb. 10/64**

Identification marks on sample container: **As labelled**

Interval tested: **1985' to 2036'** Formation: [redacted] Name

Perforations or open hole: **Open hole**

Sampled from (DST; well; wellhead; separator; tank; line): **DST #2**

DST number: **DST #2** Recovery: **923' fluid 30' mud - watery 893' salt water**

Part of recovery sampled:

Production sample (flowing, pump, swabbing):

Production rate: oil ... bpd; Gas ... Mcf/d; Water ... bpd.

Pressure: Point of sampling ... psig; Gas bomb ... psig.

Temperature: Point of sampling ... °F; Separator ... °F.

Pressure: Reservoir ... psig; tubing ... psig; casing ... psig; Sep. ... psig.

If water sample, had interval previously been treated with:

(a) Acid: (b) Aqueous fluid: **Drilling Mud**

REMARKS:

**Ed Zederayko**
(Signed)

**Imperial Oil Ltd.**
(Company)

OGL-4

# CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton — Port St. John — Calgary

## WATER ANALYSIS REPORT

Field — Well No. I.O.E. Ebbutt ±d-50-62°20'-122°15'

Operator Imperial Oil Limited — Date Received February 28, 1964

Formation — Depths

Other pertinent data Mud out of Cycle before D.S.T. #2.

Date Sampled: Not Known Lab. No. F1846-3

PARTS PER MILLION (MILLIGRAMS PER LITER)

| | Na + K | Ca | Mg | Fe | SO4 | Cl | CO3 | HCO3 | OH | H2S |
|---|---|---|---|---|---|---|---|---|---|---|
| % | 37.34 | 1.47 | 0.31 | | 16.49 | 19.42 | 6.28 | 18.69 | | |
| PPM | 1,426 | 56 | 12 | | 630 | 742 | 240 | 1,450 | | |

MILLIGRAM EQUIVALENTS

| Na + K | Ca | Mg | Fe | SO4 | Cl | CO3 | HCO3 | OH | H2S |
|---|---|---|---|---|---|---|---|---|---|
| 62.01 | 2.79 | 0.99 | | 13.10 | 20.92 | 7.99 | 23.78 | | |

MILLIGRAM EQUIVALENTS IN PERCENT

| Na + K | Ca | Mg | Fe | SO4 | Cl | CO3 | HCO3 | OH | H2S |
|---|---|---|---|---|---|---|---|---|---|
| 47.13 | 2.12 | 0.75 | | 9.96 | 15.90 | 6.07 | 18.07 | | |

### Total Solids in Parts per Million

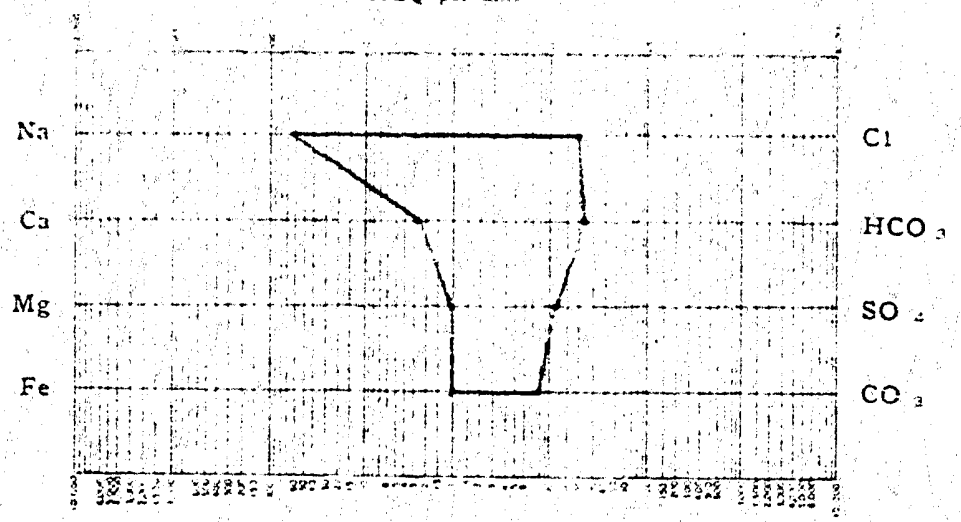
| | |
|---|---|
| By evaporation | 3,920 |
| After ignition | 2,310 |
| Calculated | 3,820 |
| Specific Gravity | 1.002 |
| Observed pH | 8.9 |
| Resistivity 2.67 | ohm meters @ 68° F. |

### Properties of Reaction in Percent

| | |
|---|---|
| Primary salinity | 51.72 |
| Secondary salinity | --- |
| Primary alkalinity | 42.54 |
| Secondary alkalinity | 5.74 |
| Chloride salinity | 61.48 |
| Sulfate salinity | 38.52 |

Remarks and conclusions Heavy deposit of organic matter present in total solids. This sample is a mud filtrate.

LOGARITHMIC PATTERN
MEQ per unit



CGL-6

# CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton — Fort St. John — Calgary

## WATER ANALYSIS REPORT

Field — Well No. I.O.E. Ebbutt #d-50-62°20'-122°15'

Operator Imperial Oil Limited — Date Received February 28, 1964

Formation [redacted] — Depths 1986' - 2036'

Other pertinent data D.S.T. #2. Sample #3. 1/3 down in fluid.

Date Sampled: Not Known — Lab. No. F1846-4

PARTS PER MILLION (MILLIGRAMS PER LITER)

| | Na + K | Ca | Mg | Fe | $SO_4$ | Cl | $CO_3$ | $HCO_3$ | OH | $H_2S$ |
|---|---|---|---|---|---|---|---|---|---|---|
| % | 35.88 | 1.95 | 0.53 | | 5.28 | 55.92 | | 0.44 | | |
| | 26,524 | 1,442 | 389 | | 3,901 | 41,340 | | 660 | | |

MILLIGRAM EQUIVALENTS

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1153.81 | 71.96 | 31.98 | | 81.14 | 1165.79 | | 10.82 | | |

MILLIGRAM EQUIVALENTS IN PERCENT

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 45.87 | 2.86 | 1.27 | | 3.23 | 46.34 | | 0.43 | | |

### Total Solids in Parts per Million

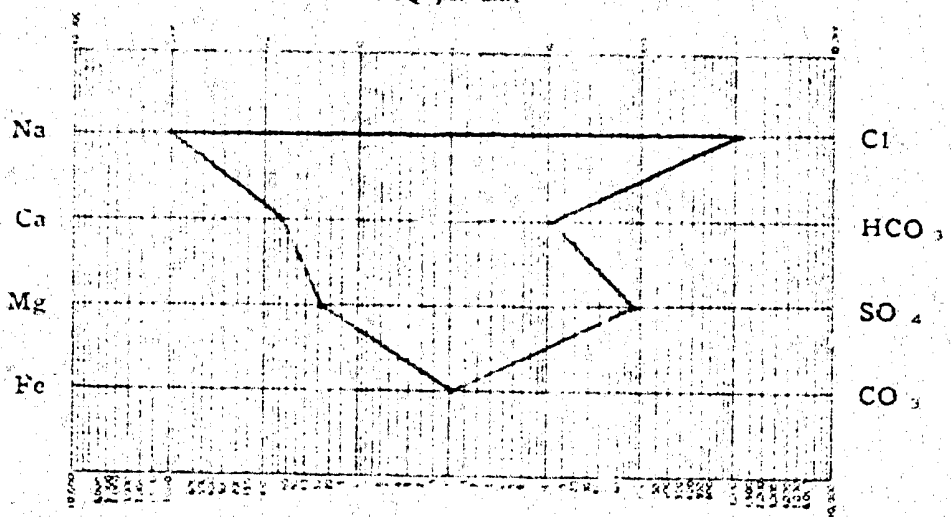
| | |
|---|---|
| By evaporation | 81,750 |
| After ignition | 68,260 |
| Calculated | 73,921 |
| Specific Gravity | 1.051 |
| Observed pH | 7.7 |
| Resistivity 0.130 | ohm meters @ 68° F. |

### Properties of Reaction in Percent

| | |
|---|---|
| Primary salinity | 91.74 |
| Secondary salinity | 7.40 |
| Primary alkalinity | --- |
| Secondary alkalinity | 0.86 |
| Chloride salinity | 93.48 |
| Sulfate salinity | 6.52 |

Remarks and conclusions **This sample has the characteristics of a formation water.**

LOGARITHMIC PATTERN
MEQ per unit



CCL-4

# CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton — Port St. John — Calgary

## WATER ANALYSIS REPORT

Field ..... Well No. I.G.E. Ebbutt #6-50-62°20'-122°15'

Operator Imperial Oil Limited ..... Date Received February 28, 1964

Formation [redacted] Depths 1986' - 2036'

Other pertinent data D.S.T. #2. Sample #4. 2/3 down in fluid.

Date Sampled: Not Known Lab. No. F1846-5

PARTS PER MILLION (MILLIGRAMS PER LITER)

| | Na + K | Ca | Mg | Fe | $SO_4$ | Cl | $CO_3$ | $HCO_3$ | OH | $H_2S$ |
|---|---|---|---|---|---|---|---|---|---|---|
| % | 36.05 | 1.86 | 0.50 | | 4.98 | 56.18 | | 0.43 | | |
| PPM | 27,881 | 1,442 | 389 | | 3,849 | 43,460 | | 680 | | |

MILLIGRAM EQUIVALENTS

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1212.84 | 71.96 | 31.98 | | 80.06 | 1225.57 | | 11.15 | | |

MILLIGRAM EQUIVALENTS IN PERCENT

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 46.05 | 2.73 | 1.22 | | 3.04 | 46.54 | | 0.42 | | |

### Total Solids in Parts per Million

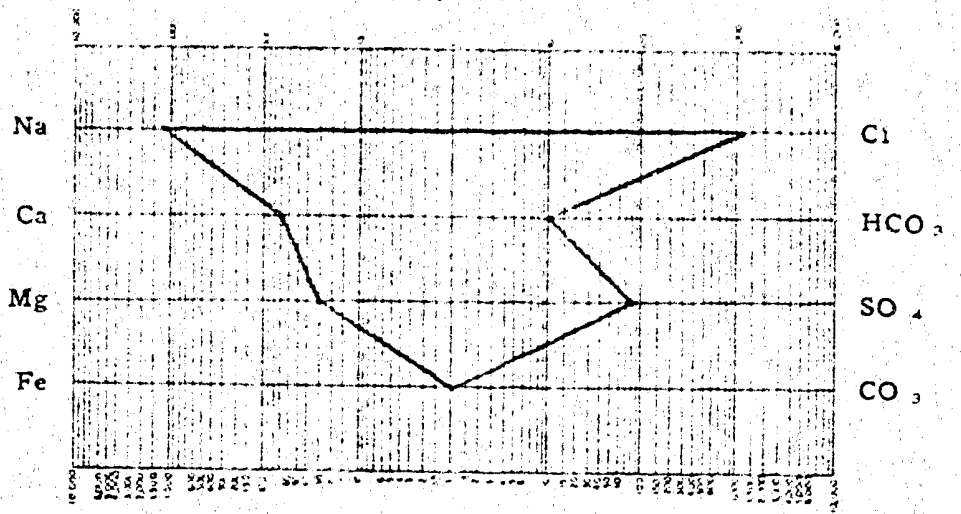
| | |
|---|---|
| By evaporation | 81,830 |
| After ignition | 69,280 |
| Calculated | 77,356 |
| Specific Gravity | 1.051 |
| Observed pH | 7.7 |
| Resistivity | 0.124 ohm meters @ 68° F. |

### Properties of Reaction in Percent

| | |
|---|---|
| Primary salinity | 92.10 |
| Secondary salinity | 7.06 |
| Primary alkalinity | --- |
| Secondary alkalinity | 0.04 |
| Chloride salinity | 93.87 |
| Sulfate salinity | 6.13 |

Remarks and conclusions This sample has the characteristics of a formation water.

LOGARITHMIC PATTERN
MEQ per unit



CCL-6

# CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton — Fort St. John — Calgary

## WATER ANALYSIS REPORT

Field ..... Well No. I.O.E. Ebbutt #d-30-62°20'-122°15'

Operator Imperial Oil Limited Date Received February 28, 1964

Formation [redacted] Depths 1986' - 2036'

Other pertinent data D.S.T. #2. Sample #4 Top of tool.

Date Sampled: Not Known Lab. No. F1846-6

PARTS PER MILLION (MILLIGRAMS PER LITER)

| | Na + K | Ca | Mg | Fe | $SO_4$ | Cl | $CO_3$ | $HCO_3$ | OH | $H_2S$ |
|---|---|---|---|---|---|---|---|---|---|---|
| % | 36.08 | 1.78 | 0.54 | | 4.96 | 56.28 | | 0.36 | | |
| PPM | 29,217 | 1,442 | 437 | | 4,020 | 45,580 | | 600 | | |

MILLIGRAM EQUIVALENTS

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1270.94 | 71.96 | 35.92 | | 83.62 | 1285.36 | | 9.84 | | |

MILLIGRAM EQUIVALENTS IN PERCENT

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 46.09 | 2.61 | 1.30 | | 3.03 | 46.61 | | 0.36 | | |

### Total Solids in Parts per Million

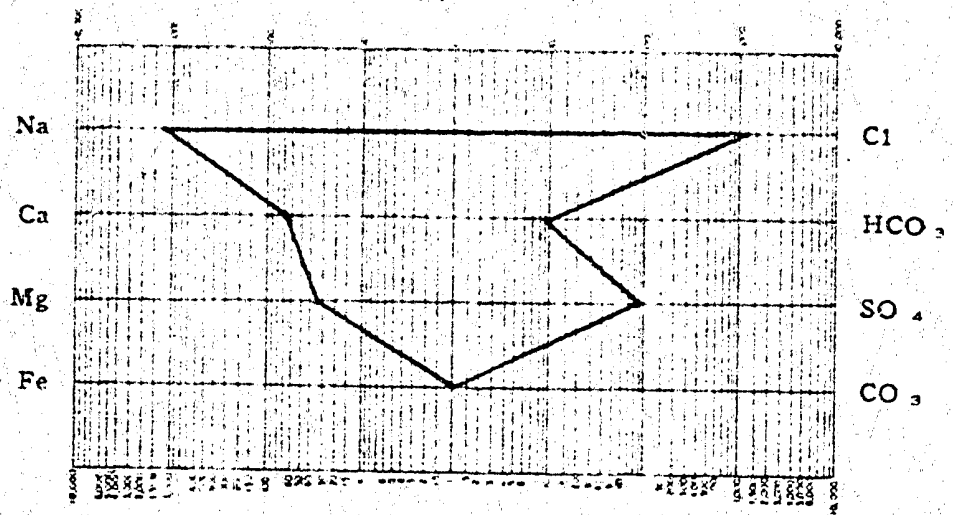
| | |
|---|---|
| By evaporation | 86,390 |
| After ignition | 72,580 |
| Calculated | 80,991 |
| Specific Gravity | 1.053 |
| Observed pH | 3.2 |
| Resistivity 0.117 | ohm meters @ 68° F. |

### Properties of Reaction in Percent

| | |
|---|---|
| Primary salinity | 92.18 |
| Secondary salinity | 7.10 |
| Primary alkalinity | --- |
| Secondary alkalinity | 0.72 |
| Chloride salinity | 93.90 |
| Sulfate salinity | 6.10 |

Remarks and conclusions This sample has the characteristics of a formation water.

LOGARITHMIC PATTERN
MEQ per unit



N.W.T.

DEPARTMENT OF MINES AND PETROLEUM RESOURCES

INFORMATION TO BE FURNISHED WITH EACH SAMPLE OR ANALYSIS OF WATER, OIL OR GAS
(Please supply as much of the following information as possible. Please print).

Operator: Imperial Oil Enterprises Ltd.

Mailing address for results: Trail Building, Dawson Creek, Attn.: G.R.A. Milne

Well name: ICE TRIAD ERBUTT D-50 Field or Area: Wildcat N.W.T.

Located in: A Unit Unit Block ICE D-50 (62°20' - 122°15')

LSD. Sec. Twp. Rge. W Mer. Elev. K.B.
Grd.

Kind of sample (water, oil or gas): Water Lab Analysis No:

Sampled by: E. Zederayko Representing: I.O.E. Date: March 13/64

Identification marks on sample container: ICE TRIAD ERBUTT D-50 DST #3 Sample #

Interval tested: 4067 to 4066' Formation: Mt. Clarke (Cambrian)

Perforations or open hole: Open hole

Sampled from (DST; wireline; wellhead; separator; flow line): D.S.T.

DST number: 3 Recovery. 1000' water cut mud; 2500' salt water

Part of recovery sampled: Sample #1 mud before test #3 2700' above tool
2 3300' above tool 4 1100' above tool
5 0' " "

Production sample (flowing, pump, natural):

Production rate: oil bpd; Gas Mcf/d; Water bpd.

Pressure: Point of sampling psig; Gas bomb psig.

Temperature: Point of sampling °F; Separator °F.

Pressure: Reservoir 1700 psig; tubing psig; casing psig; Sep. psig.

If water sample, had interval previously been treated with:

(a) Acid: (b) Aqueous fluid: Drilling mud

REMARKS:

Lost mud to formation while drilling
- 80 bbls. plus

Ed Zederayko
(Signed)

Imperial Oil Enterprises
(Company)

CCL-6

# CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton — Fort St. John — Calgary

## WATER ANALYSIS REPORT

Field ..... Well No. I.O.E. Triad Ebbutt #d-50

Operator Imperial Oil Limited ..... Date Received April 8, 1964

Formation ..... Depths 3967' - 4066'

Other pertinent data Location: d-50-62°20'-122°15'. D.S.T. #3. Sampled #3. 1/3 down in fluid. Recovered 1000 feet salt water cut mud, 2500 feet salt water.

Date Sampled: Not Known Lab. No. F1902-1

### PARTS PER MILLION (MILLIGRAMS PER LITER)

| | Na + K | Ca | Mg | Fe | $SO_4$ | Cl | $CO_3$ | $HCO_3$ | OH | $H_2S$ |
|---|---|---|---|---|---|---|---|---|---|---|
| % | 37.59 | 1.17 | 0.19 | | 1.74 | 59.26 | | 0.05 | | |
| PPM | 87,405 | 2,723 | 437 | | 4,039 | 137,800 | | 240 | | |

### MILLIGRAM EQUIVALENTS

| Na + K | Ca | Mg | Fe | $SO_4$ | Cl | $CO_3$ | $HCO_3$ | OH | $H_2S$ |
|---|---|---|---|---|---|---|---|---|---|
| 3802.11 | 135.88 | 35.92 | | 84.01 | 3885.96 | | 3.94 | | |

### MILLIGRAM EQUIVALENTS IN PERCENT

| Na + K | Ca | Mg | Fe | $SO_4$ | Cl | $CO_3$ | $HCO_3$ | OH | $H_2S$ |
|---|---|---|---|---|---|---|---|---|---|
| 47.84 | 1.71 | 0.45 | | 1.06 | 48.89 | | 0.05 | | |

### Total Solids in Parts per Million

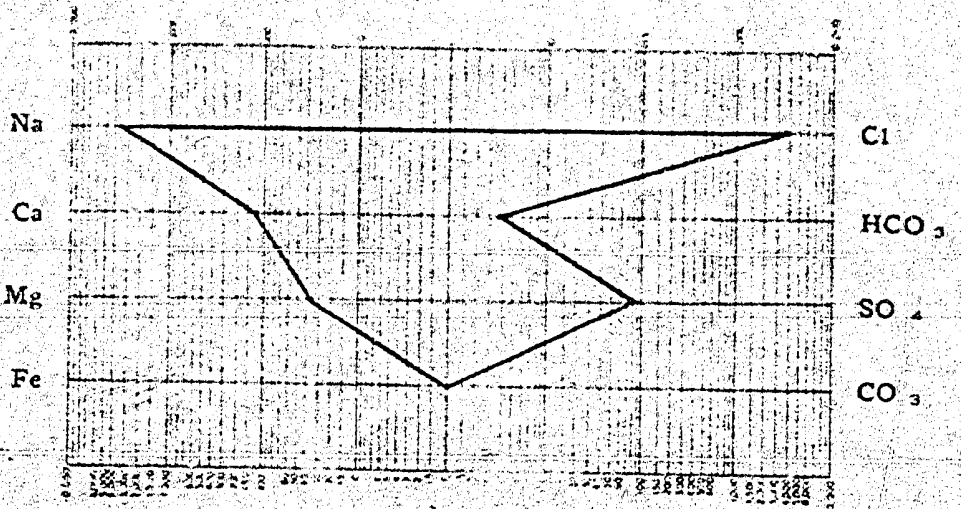
| | |
|---|---|
| By evaporation | 236,660 |
| After ignition | 215,020 |
| Calculated | 232,522 |
| Specific Gravity | 1.146 |
| Observed pH | 7.9 |
| Resistivity (Calculated) | 0.045 ohm meters @ 68° F. |

### Properties of Reaction in Percent

| | |
|---|---|
| Primary salinity | 95.68 |
| Secondary salinity | 4.22 |
| Primary alkalinity | --- |
| Secondary alkalinity | 0.10 |
| Chloride salinity | 97.88 |
| Sulfate salinity | 2.12 |

Remarks and conclusions

LOGARITHMIC PATTERN
MEQ per unit



CGL-6

# CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton – Fort St. John – Calgary

## WATER ANALYSIS REPORT

Field ..... Well No. I.O.E. Triad Ebbutt #d-50

Operator Imperial Oil Limited ..... Date Received April 8, 1964

Formation ..... Depths 3967' - 4066'

Other pertinent data Location: d-50-62°20' - 122°15'. D.S.T. #3. Sample #4. 2/3 down in fluid. Recovered 1000 feet salt water cut mud and 2300 feet salt water.

Date Sampled: Not Known Lab. No. F1902-2

PARTS PER MILLION (MILLIGRAMS PER LITER)

| | Na + K | Ca | Mg | Fe | $SO_4$ | Cl | $CO_3$ | $HCO_3$ | OH | $H_2S$ |
|---|---|---|---|---|---|---|---|---|---|---|
| % | 37.86 | 1.02 | 0.22 | | 1.04 | 59.84 | | 0.02 | | |
| PPM | 101,269 | 2,723 | 583 | | 2,769 | 160,060 | | 150 | | |

MILLIGRAM EQUIVALENTS

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 4405.18 | 135.88 | 47.92 | | 57.60 | 4528.92 | | 2.46 | | |

MILLIGRAM EQUIVALENTS IN PERCENT

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 48.00 | 1.48 | 0.52 | | 0.63 | 49.35 | | 0.02 | | |

### Total Solids in Parts per Million

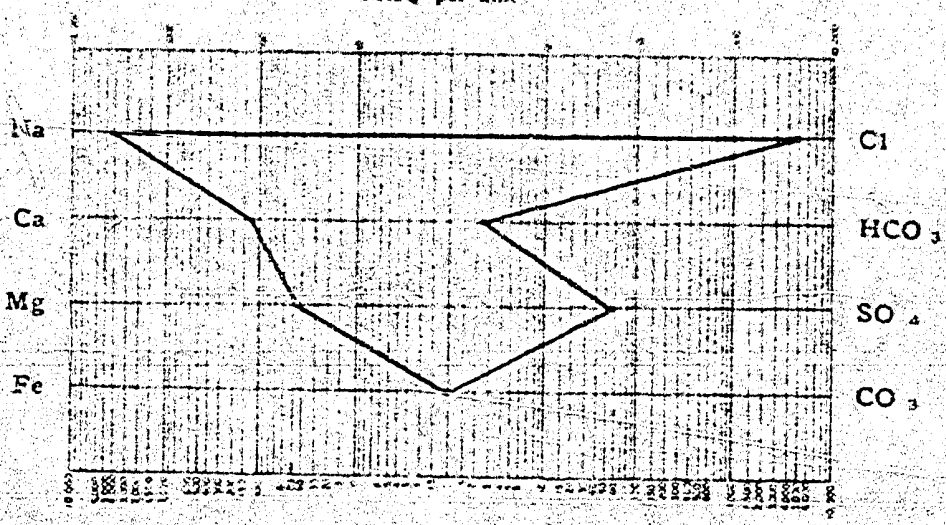
| | |
|---|---|
| By evaporation | 282,960 |
| After ignition | 244,600 |
| Calculated | 267,470 |
| Specific Gravity | 1.164 |
| Observed pH | 7.5 |
| Resistivity (Calculated) | 0.040 ohm meters @ 68° F. |

### Properties of Reaction in Percent

| | |
|---|---|
| Primary salinity | 96.00 |
| Secondary salinity | 3.96 |
| Primary alkalinity | --- |
| Secondary alkalinity | 0.04 |
| Chloride salinity | 98.74 |
| Sulfate salinity | 1.26 |

Remarks and conclusions

LOGARITHMIC PATTERN
MEQ per unit



N.W.T.

DEPARTMENT OF MINES AND PETROLEUM RESOURCES

STANDARD SAMPLE INFORMATION SHEET

INFORMATION TO BE FORWARDED WITH EACH SAMPLE OR ANALYSIS OF WATER, OIL OR GAS
(Please supply as much of the following information as possible. Please print).

Operator: Imperial Oil Enterprises Ltd.

Mailing address for results: Trail Building, Dawson Creek, B.C. Attn. G.R.A. Milne

Well name: IOE TRIAD EBBUTT D-50 Field or Area: NWT Wildcat

Located in: ¼ Unit Unit Block NTS D-50 (62°20' - 122°15')

LSD. Sec. Twp. Rge. W Mer. Elev. K.B.
Grd.

Kind of sample (water, oil or gas): water Lab Analysis No:

Sampled by: E. Zederayko Representing: I.O.E. Date: March 15, 1964

Identification marks on sample container: IOE TRIAD EBBUTT D-50 DST #4

Interval tested: 3059' to 3110' Formation: [redacted] Sample #

Perforations or open hole: Open Hole Chinchaga

Sampled from (DST; WLT; wellhead; separator; tank; line): D.S.T.

DST number: 4 Recovery: 2220' - 300' water cut mud Sample #1 2220' above tool
Part of recovery sampled: 1920' salt water 2 1500' " "
3 800' " "
Production sample (flowing, pump, swabbing): 4 0' " "

Production rate: oil bpd; Gas Mcf/d: Water bpd.

Pressure: Point of sampling psig; Gas bomb psig.

Temperature: Point of sampling 122°F; Separator °F.

Pressure: Reservoir 1180 (BHT.) psig; tubing psig; casing psig; Sep. psig.

If water sample, had interval previously been treated with:

(a) Acid: (b) Aqueous fluid: Drilling mud

REMARKS:

E. Zederayko
(Signed)

I.O.E.
(Company)

OCL-8

# CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton – Port St. John – Calgary

## WATER ANALYSIS REPORT

Field ..... Well No. I.O.E. Triad Ebbutt #d-50

Operator Imperial Oil Limited Date Received April 8, 1964

Formation ..... Depths 3061' - 3116'

Other pertinent data Location: d-50-62°20' - 122°15'. D.S.T. #4. Sample #2. 1/3 down is fluid. Recovered 320 feet water mud, 920 feet salt water.

Date Sampled: Not Known Lab. No. F1902-3

PARTS PER MILLION (MILLIGRAMS PER LITER)

| | Na + K | Ca | Mg | Fe | $SO_4$ | Cl | $CO_3$ | $HCO_3$ | OH | $H_2S$ |
|---|---|---|---|---|---|---|---|---|---|---|
| % | 37.85 | 1.02 | 0.22 | | 1.14 | 59.74 | | 0.03 | | |
| PPM | 101,417 | 2,723 | 583 | | 3,063 | 160,060 | | 170 | | |

MILLIGRAM EQUIVALENTS

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 4411.62 | 135.86 | 47.92 | | 63.71 | 4528.92 | | 2.79 | | |

MILLIGRAM EQUIVALENTS IN PERCENT

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 48.00 | 1.48 | 0.52 | | 0.69 | 49.28 | | 0.03 | | |

### Total Solids in Parts per Million

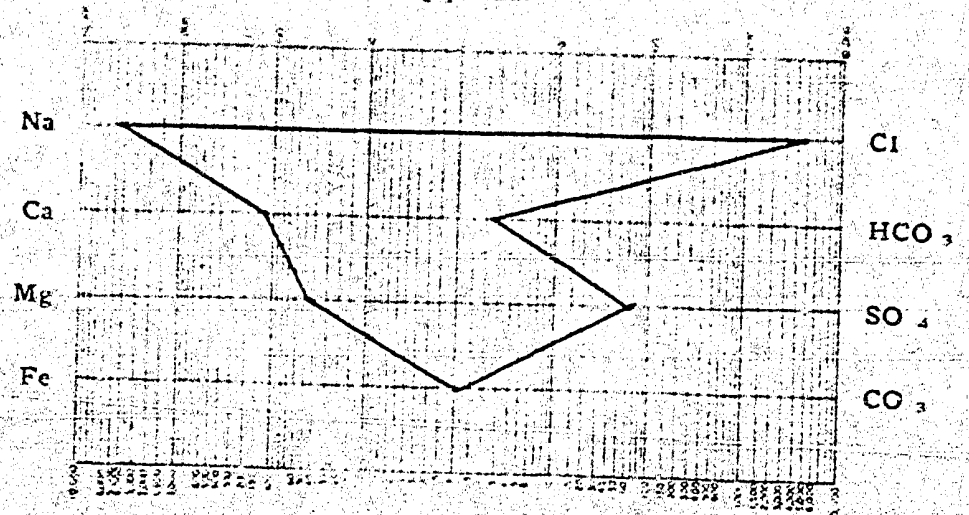
| | |
|---|---|
| By evaporation | 290,740 |
| After ignition | 244,920 |
| Calculated | 267,930 |
| Specific Gravity | 1.164 |
| Observed pH | 7.7 |
| Resistivity 0.040 (Calculated) | ohm meters @ 68° F. |

### Properties of Reaction in Percent

| | |
|---|---|
| Primary salinity | 96.00 |
| Secondary salinity | 3.94 |
| Primary alkalinity | --- |
| Secondary alkalinity | 0.06 |
| Chloride salinity | 98.62 |
| Sulfate salinity | 1.38 |

Remarks and conclusions

LOGARITHMIC PATTERN
MEQ per unit



CCL-8

# CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton — Port St. John — Calgary

## WATER ANALYSIS REPORT

Field ..... Well No. I.O.E. Triad Zodiac #d-50

Operator Imperial Oil Limited Date Received April 8, 1964

Formation ..... Depths 3061' - 3116'

Other pertinent data Location: d-50-62°20' - 122°15'. D.S.T. #4. Top of tool. Recovered 320 feet water mud, 920 feet salt water.

Date Sampled: Not Known Lab. No. F1902-4

PARTS PER MILLION (MILLIGRAMS PER LITER)

| | Na + K | Ca | Mg | Fe | $SO_4$ | Cl | $CO_3$ | $HCO_3$ | OH | $H_2S$ |
|---|---|---|---|---|---|---|---|---|---|---|
| % | 37.92 | 0.91 | 0.22 | | 0.78 | 60.14 | | 0.03 | | |
| PPM | 106,927 | 2,563 | 632 | | 2,211 | 169,600 | | 150 | | |

MILLIGRAM EQUIVALENTS

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 4651.33 | 127.89 | 51.95 | | 45.99 | 4782.72 | | 2.46 | | |

MILLIGRAM EQUIVALENTS IN PERCENT

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 48.14 | 1.32 | 0.54 | | 0.48 | 49.50 | | 0.02 | | |

### Total Solids in Parts per Million

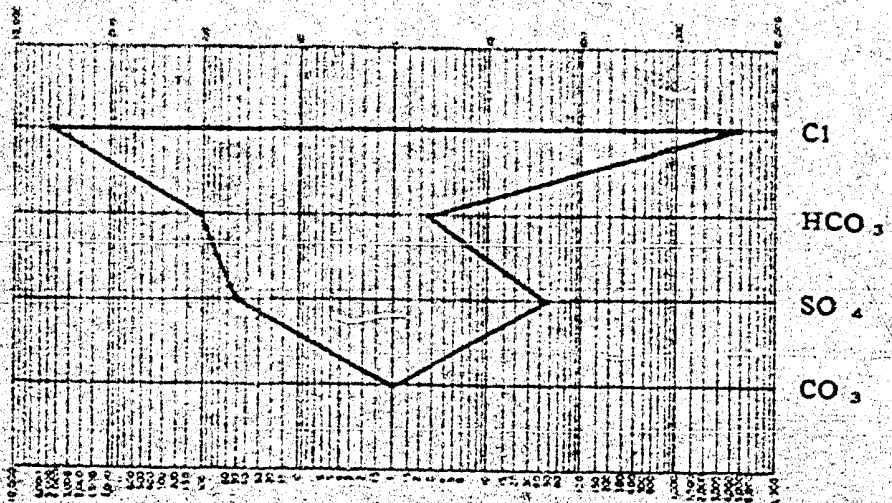
| | |
|---|---|
| By evaporation | 288,960 |
| After ignition | 262,560 |
| Calculated | 282,007 |
| Specific Gravity | 1.172 |
| Observed pH | 8.9 |
| Resistivity | 0.038 ohm meters @ 68° F. (Calculated) |

### Properties of Reaction in Percent

| | |
|---|---|
| Primary salinity | 96.28 |
| Secondary salinity | 3.68 |
| Primary alkalinity | — |
| Secondary alkalinity | 0.04 |
| Chloride salinity | 99.04 |
| Sulfate salinity | 0.96 |

Remarks and conclusions

LOGARITHMIC PATTERN
MEQ per unit



# CORE ANALYSIS CODE KEY

I Permeability (md) Columns F, G, H

Code

(m) when K max, and $K_H$ are measured
(r) when K radial is measured
(h) when a single horizontal K is measured

II Plug Quality (Column N)

Code Condition (Subcolumn 1)

1 - Fractured
2 - Missing (includes cement plugs)
3 - Broken or unconsolidated
4 - Uncored
5 - Portion of core not analyzed

Texture (Subcolumn 2)

1 - Dense

Interpretation (Subcolumn 3)

1 - Same as
2 - Interpreted Value (editing stage)
3 - Assigned footage
4 - Interpreted Values for footage, permeability, porosity and lithology

III Plug Type (Column O)

Code

1 - Full diameter (includes 4 3/8", 3 1/2", 2 5/8", 2 3/4" diameter)
2 - Slim hole (less than 2 1/2" diameter)
3 - Cubes - any size
4 - Horizontal test plugs - any size
5 - Vertical test plugs - any size
6 - Test plugs - all sizes - undifferentiated position
7 - Unconsolidated technique
8 - Combined plugs - full diameter, plus cubes test plugs, etc...
9 - All measurements except vertical permeability on horizontal test plugs, Vertical permeability taken on vertical test plugs
10 - Horizontal permeabilities run on small diameter plugs (other meas. full diameter)
11 - Full diameter (glazed surface removed)

CORE LABORATORIES-CANADA LTD.
CALGARY ALBERTA

## KEY TO DESCRIPTION OF CARBONATE SAMPLE

### ROCK POROSITY

(A) Large Vugs
(B) Vugs
(C) Cracks
(D) Fine Pores
(E) Impermeable
(6) Shales
(7) Iron Stains
(8) Pyrites
(9) Sand Grains
(10) Hard

### CHARACTER OF ROCK

(1) Dark Grey
(2) Grey
(3) Light Grey
(4) White
(5) Anhydrite
(11) Medium
(12) Soft
(13) Oil Stains
(14) Pyrobitumin
(15) Stylolites

G. Glazed surface removed

CORE LABORATORIES-CANADA LTD.
CALGARY ALBERTA

Company - IMPERIAL OIL ENTERPRISES LTD.
Well - IOE TRIAD EBBUTT D-50 (62°20' - 122°15')
Field - WILDCAT
Province - NORTHWEST TERRITORIES

Date Report - MARCH 2,1964
Location - D-50 (62°-20' - 122°15')
Formation - -
D. Fluid - WATER BASE MUD

Page - 1 of 2
File - CNP-1-6718
Analysts - TL:JT:NC:DA
Remarks - 3 1/2" CORE

| Plug No. (Card Field) | Interval Represented Top B | Base C | Thick D | Permeability (md) Maximum F | 90° G | Vertical H | Porosity % I | Density Bulk J | Grain K | Plug Quality N Condition (1) | Texture (2) | Interpretation (3) | Plug Type O | Description |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CORED INTERVAL 2011' - 2110' | | | | | | | | | | | | | | |
| CORE No. 19 2011' - 2036' (Rec. 21/25) (2 Boxes) | | | | | | | | | | | | | | |
| - | 2011.0 | 2025.8 | 14.8 | - | - | - | - | - | - | 5 | - | | - | Not received |
| 1 | 2025.8 | 2026.6 | 0.8 | 0.16 | 0.08 | 0.15 | 3.1 | 2.64 | 2.72 | - | - | | 1 | C,D,2,11, |
| 2 | 2026.6 | 2027.1 | 0.5 | 0.05 | 0.05 | 0.02 | 1.5 | 2.80 | 2.84 | - | - | | 1 | B,D,2,11, |
| 3 | 2027.1 | 2027.9 | 0.8 | * | 0.15 | * | 8.2 | 2.61 | 2.84 | - | - | | 1 | A,B,C,2,11 |
| - | 2027.9 | 2028.8 | 0.9 | * | 0.15 | * | 8.2 | - | - | - | - | 1 | - | appears similar to #3 |
| 4 | 2028.8 | 2029.8 | 1.0 | 0.19 | 0.13 | 0.11 | 3.4 | 2.76 | 2.85 | - | - | | 1 | B,D,2,11 |
| 5 | 2029.8 | 2031.0 | 1.2 | 0.10 | 0.07 | 0.03 | 3.4 | 2.74 | 2.84 | - | - | | 1 | B,D,2,11 |
| 6 | 2031.0 | 2031.5 | 0.5 | 0.33 | 0.25 | 0.07 | 5.4 | 2.72 | 2.88 | - | - | | 1 | B,C,D,2,11,15 |
| 7 | 2031.5 | 2032.0 | 0.5 | * | 0.08 | * | 1.6 | 2.67 | 2.72 | - | - | | 1 | C,D,2,11 |
| - | 2032.0 | 2036.0 | 4.0 | - | - | - | - | - | - | 5 | - | | - | Not recieved |
| CORE NO. 20 2036' - 2057' (Rec. 20/21) (1 Box) | | | | | | | | | | | | | | |
| 8 | 2036.0 | 2037.0 | 1.0 | 0.11 | 0.03 | 0.05 | 1.4 | 2.83 | 2.87 | - | - | | 1 | B,C,D,2,11,15 |
| 9 | 2037.0 | 2037.8 | 0.8 | 0.08 | 0.06 | 0.06 | 1.7 | 2.81 | 2.86 | - | - | | 1 | C,D,2,11,15 |
| 10 | 2037.8 | 2038.7 | 0.9 | 0.31 | 0.20 | 0.12 | 2.2 | 2.80 | 2.86 | - | - | | 1 | C,D,2,11 |
| 11 | 2038.7 | 2039.3 | 0.6 | 0.11 | 0.07 | 0.05 | 2.1 | 2.78 | 2.84 | - | - | | 1 | B,C,D,2,11 |
| 12 | 2039.3 | 2040.2 | 0.9 | 0.24 | 0.16 | 0.03 | 1.5 | 2.82 | 2.86 | - | - | | 1 | C,D,2,11,15 |
| - | 2040.2 | 2056.0 | 15.8 | - | - | - | - | - | - | 5 | - | | - | Not received |
| - | 2056.0 | 2057.0 | 1.0 | - | - | - | - | - | - | 2 | - | | - | Lost core |
| - | 2057.0 | 2083.0 | 26.0 | - | - | - | - | - | - | 5 | - | | - | Not received |

| Plug No. (Card Field) | Interval Represented Top B | Base C | Thick D | Permeability (md) Maximum F | 90° G | Vertical H | Porosity % I | Density Bulk J | Grain K | Plug Quality N Condition (1) | Texture (2) | Interpretation (3) | Plug Type O | Description |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CORE NO. 21 | 2083' - 2110' | | | (Rec. 26/27) | | | | (2 Boxes) | | | | | | |
| - | 2083.0 | 2087.5 | 4.5 | - | - | - | - | - | - | 5 | - | | - | Not received |
| - | 2087.5 | 2088.5 | 1.0 | 0.17 | 0.17 | 0.40 | 2.1 | - | - | - | - | 1 | - | Broken, AST No. 13 |
| 13 | 2088.5 | 2089.4 | 0.9 | 0.17 | 0.17 | 0.40 | 2.1 | 2.78 | 2.84 | - | - | | - | C,D,2,11,15 |
| 14 | 2089.4 | 2089.9 | 0.5 | 0.13 | 0.08 | 0.03 | 6.4 | 2.65 | 2.83 | - | - | | - | C,D,2,11,15 |
| 15 | 2089.9 | 2091.0 | 1.1 | 0.59 | 0.25 | 1.6 | 1.2 | 2.79 | 2.83 | - | - | | - | B,C,2,11 |
| 16 | 2091.0 | 2092.1 | 1.1 | 0.33 | 0.28 | 0.17 | 2.4 | 2.77 | 2.84 | - | - | | - | B,C,2,11 |
| 17 | 2092.1 | 2093.0 | 0.9 | 0.69 | 0.45 | 0.04 | 2.8 | 2.76 | 2.84 | - | - | | - | B,C,2,11,15 |
| 18 | 2093.0 | 2094.1 | 1.1 | 0.61 | 0.19 | 0.41 | 1.8 | 2.80 | 2.85 | - | - | | - | B,C,2,11 |
| 19 | 2094.1 | 2094.5 | 0.4 | 0.76 | 0.76 | 0.45 | 5.1 | 2.74 | 2.88 | - | - | | - | B,D,2,11 |
| 20 | 2094.5 | 2095.3 | 0.8 | 0.29 | 0.14 | 0.06 | 4.4 | 2.72 | 2.84 | - | - | | - | B,D,2,11 |
| 21 | 2095.3 | 2096.8 | 1.5 | 0.59 | 0.14 | 0.44 | 1.0 | 2.79 | 2.82 | - | - | | - | B,C,2,11 |
| - | 2096.8 | 2109.0 | 12.2 | - | - | - | - | - | - | 5 | - | | - | Not received |
| - | 2109.0 | 2110.0 | 1.0 | - | - | - | - | - | - | 2 | - | | - | Lost core |

* - Broken or fractured core.

AST - Appears similar to

# CORE ANALYSIS CODE KEY

I Permeability (md) Columns F, G, H

Code

(m) when K max, and $K_H$ are measured
(r) when K radial is measured
(h) when a single horizontal K is measured

II Plug Quality (Column N)

Code Condition (Subcolumn 1)

1 - Fractured
2 - Missing (includes cement plugs)
3 - Broken or unconsolidated
4 - Uncored
5 - Portion of core not analyzed

Texture (Subcolumn 2)

1 - Dense

Interpretation (Subcolumn 3)

1 - Same as
2 - Interpreted Value (editing stage)
3 - Assigned footage
4 - Interpreted Values for footage, permeability, porosity and lithology

III Plug Type (Column O)

Code

1 - Full diameter (includes 4 3/8", 3 1/2", 2 5/8", 2 3/4" diameter)
2 - Slim hole (less than 2 1/2" diameter)
3 - Cubes - any size
4 - Horizontal test plugs - any size
5 - Vertical test plugs - any size
6 - Test plugs - all sizes - undifferentiated position
7 - Unconsolidated technique
8 - Combined plugs - full diameter, plus cubes test plugs, etc...
9 - All measurements except vertical permeability on horizontal test plugs, Vertical permeability taken on vertical test plugs
10 - Horizontal permeabilities run on small diameter plugs (other meas. full diameter)
11 - Full diameter (glazed surface removed)

CORE LABORATORIES-CANADA LTD.
CALGARY ALBERTA

## KEY TO DESCRIPTION OF CARBONATE SAMPLE

### ROCK POROSITY

(A) Large Vugs
(B) Vugs
(C) Cracks
(D) Fine Pores
(E) Impermeable
(6) Shales
(7) Iron Stains
(8) Pyrites
(9) Sand Grains
(10) Hard

### CHARACTER OF ROCK

(1) Dark Grey
(2) Grey
(3) Light Grey
(4) White
(5) Anhydrite
(11) Medium
(12) Soft
(13) Oil Stains
(14) Pyrobitumin
(15) Stylolites

G. Glazed surface removed

CORE LABORATORIES-CANADA LTD.
CALGARY ALBERTA

Company - IMPERIAL OIL ENTERPRISES LTD.
Well - ICE TRIAD EBBUTT D-50
Field - FORT SIMPSON AREA
Province - NORTHWEST TERRITORIES

Date Report - MARCH 19, 1964
Location - 12123' 30"NL 6401' 20"NL
Formation - -
D. Fluid - WATER BASE MUD

Page - 1 of 1
File - CNP-1-6757
Analysts - NC SM BD TL
Remarks - 3-1/2" CORE

| Plug No. (Card Field) | Interval Represented Top B | Base C | Thick D | Permeability (md) Maximum F | 90° G | Vertical H | Porosity % I | Density Bulk J | Grain K | Plug Quality N Condition (1) | Texture (2) | Interpretation (3) | Plug Type O | Description |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CORED INTERVAL 3160' - 3185' | | | | | | | | | | | | | | |
| CORE NO. 31 3160' - 3185' (Rec. 25.0') | | | | | | | | | | | | | | |
| - | 3160.0 | 3169.0 | 9.0 | - | - | - | - | - | - | 5 | - | - | - | Not received |
| 1 | 3169.0 | 3170.2 | 1.2 | 0.34 | 0.21 | 0.17 | 1.7 | 2.81 | 2.86 | - | - | - | 1 | B,C,D,2,11 |
| 2 | 3170.2 | 3171.6 | 1.4 | 2.1 | 1.5 | 0.07 | 1.6 | 2.81 | 2.85 | - | - | - | 1 | B,C,D,2,11,15 |
| 3 | 3171.6 | 3172.3 | 0.7 | * | 1.4 | * | 5.3 | 2.72 | 2.87 | - | - | - | 1 | B,C,D,2,11,15 |
| 4 | 3172.3 | 3173.0 | 0.7 | 0.45 | 0.25 | 0.14 | 2.0 | 2.80 | 2.86 | - | - | - | 1 | C,D,2,11,15 |
| 5 | 3173.0 | 3173.6 | 0.6 | 14. | 3.3 | 0.8 | 2.9 | 2.78 | 2.86 | - | - | - | 1 | B,C,D,2,11,15 |
| 6 | 3173.6 | 3174.4 | 0.8 | 13. | 12. | 1.1 | 5.4 | 2.71 | 2.86 | - | - | - | 1 | B,C,D,2,11,15 |
| 7 | 3174.4 | 3175.4 | 1.0 | 4.8 | 2.8 | 0.42 | 4.7 | 2.71 | 2.85 | - | - | - | 1 | B,C,D,2,11,15 |
| 8 | 3175.4 | 3176.0 | 0.6 | 13. | 3.5 | 4.6 | 1.7 | 2.81 | 2.86 | - | - | - | 1 | B,C,D,2,11 |
| 9 | 3176.0 | 3177.0 | 1.0 | 5.6 | 5.4 | 0.60 | 5.2 | 2.69 | 2.84 | - | - | - | 1 | B,C,D,2,11 |
| 10 | 3177.0 | 3177.9 | 0.9 | 4.7 | 4.6 | 0.40 | 4.4 | 2.72 | 2.85 | - | - | - | 1 | B,C,D,2,11,15 |
| 11 | 3177.9 | 3178.4 | 0.5 | 17. | 9.8 | 8.9 | 5.5 | 2.70 | 2.86 | - | - | - | 1 | B,C,D,2,11 |
| 12 | 3178.4 | 3179.3 | 0.9 | 0.93 | 0.56 | 0.88 | 3.7 | 2.78 | 2.88 | - | - | - | 1 | B,C,D,2,11,15 |
| 13 | 3179.3 | 3180.5 | 1.2 | 8.4 | 5.7 | 0.59 | 2.3 | 2.78 | 2.84 | - | - | - | 1 | B,C,D,2,11,15 |
| 14 | 3180.5 | 3181.0 | 0.5 | 14. | 8.3 | 3.4 | 4.6 | 2.72 | 2.85 | - | - | - | 1 | B,C,D,2,11,15 |
| 15 | 3181.0 | 3182.3 | 1.3 | 1.4 | 0.10 | <0.01 | 4.3 | 2.73 | 2.85 | - | - | - | 1 | B,C,D,2,11 |
| 16 | 3182.3 | 3183.3 | 1.0 | 43. | 1.4 | 0.38 | 5.1 | 2.71 | 2.86 | - | - | - | 1 | B,C,D,2,11 |
| 17 | 3183.3 | 3185.0 | 1.7 | 28. | 5.8 | 7.3 | 4.2 | 2.73 | 2.85 | - | - | - | 1 | B,C,D,2,11 |

* - Broken or fractured core

I.O.E. TRIAD EBBUTT d-50

62°20' - 122°15'

CORE DESCRIPTION

CORE #1 1150' - 1165' Recovered 15'/15'

1150' - 1165': 100% Shale, medium light gray, dolomitic, slightly calcareous, scattered blebs of pyrite.

CORE #2 1425' - 1448' Recovered 13'/22'

1425' - 1448': 80% Shale, grayish brown, dolomitic, pyrite, with:
20% Shale, dark grayish black, dolomitic, pyritic.

CORE #3 1448' - 1489' Recovered 37'/41'

1448' - 1464': 60% Shale, grayish buff, hard, dense, interbedded with:
40% Shale, dark grayish black, bituminous, numerous blebs of pyrite, scattered calcite cemented fractures.

1464' - 1489': 100% Shale, dark grayish black, bituminous, dolomitic, abundant pyrite bands, blocky, scattered calcite fractures.

CORE #4 1489' - 1534' Recovered 43'/45'

1489' - 1531': Shale, dark greyish black, bituminous, dolomitic, numerous pyrite bands, blocky. White calcite fractures, pyrite.

1531' - 1534': Limestone, light greyish brown, micritic, hard, tight.

-- E. E. Zederayko --

Geologist

January, 1964
Dawson Creek, B.C.

I.O.E. TRIAD EBBUTT d-50

62°20' - 122°15'

CORE DESCRIPTION

CORE #5 1534' - 1580' Recovered 43'/46'

1534' - 1574': Limestone, medium greyish buff, micritic, pyrobitumen and pyrite inclusions. Calcite infilled vertical fractures, tight.

1574' - 1580': Limestone, dark grayish brown, finely microcrystalline, calcite blebs, several open fractures, poor porosity, sulphurous odor on freshly broken surfaces.

CORE #6 1580' - 1606' Recovered 23'/26'

1580' - 1606': Limestone, greyish brown, micritic, scattered fossils, tight.

CORE #7 1606' - 1607' Recovered 1'/1'

1606' - 1607': Limestone, greyish brown, micritic, bituminous, pyritic. Tight.

CORE #8 1607' - 1653' Recovered 44'/46'

1607' - 1613': Limestone, grayish brown, micritic. Scattered stylolitic partings, argillaceous bands, calcite infilling micro fractures. Tight.

1613' - 1624': Limestone, buff to pale brown, micritic to calcite infilled micro fractures, tight.

1624' - 1627': Limestone, brown, finely microcrystalline, argillaceous. Tight.

1627' - 1628.5': Limestone, dark to pale brown, micritic. Tight.

1628.5' - 1634.5': Limestone, pale brown to brown, micritic, to fine microcrystalline. Tight.

Cont'd.....2

CORE #8 (Cont'd.)

1634.5' - 1653' : Limestone, brown, micritic, argillaceous in part. Tight.

CORE #9 1653' - 1675' Recovered 17'/22'

1653' - 1662' : Limestone, brown, micritic, minor pyrite. Tight.

1662' - 1668' : Limestone, dark grayish brown, micritic, argillaceous. Tight.

1668' - 1675' : Limestone, brownish buff, micritic, argillaceous, Tight.

CORE #10 1675' - 1695' Recovered 18'/20'

1675' - 1682' : Limestone, greyish buff, micritic, argillaceous in parts, Tight.

1682' - 1695' : Limestone, brown finely microcrystalline, stylolitic partings, argillaceous in part. Tight.

-- E. E. Zederayko --

Geologist

January, 1964
Dawson Creek, B.C.

I.O.E. TRIAD BRIGHT D-50

62°20' - 122°15'

CORE DESCRIPTION

CORE #11 1696' - 1746' Recovered 49'/50'

1696' - 1699': 3' Limestone, medium greyish brown, dolomitic (microcrystalline) to finely microcrystalline, skeletal. White calcite blebs, scattered shaly partings, scattered microfractures infilled with white calcite, tight.

1699' - 1701': 2' Limestone, brown to buff, micritic, blebs of white calcite. Tight.

1701' - 1726': 25' Limestone, medium greyish brown, dolomitic, finely microcrystalline to micritic, crinoid, tight, slightly argillaceous, scattered pyrite.

1726' - 1746': 20' Limestone, dark to medium greyish brown, finely microcrystalline to micritic, dolomitic in part. Scattered calcite microfractures, stylolitic partings, tight, brachs.

CORE #12 1746' - 1767' Recovered 20'/21'

1746' - 1748': 2' Limestone, dark to medium greyish brown dolomitic in part. Finely microcrystalline, calcite blebs. Shaly and stylolitic partings. Tight.

1748' - 1752': 4' Limestone, micritic, light brown to brownish buff, fragments of brachiopods and gastropods. Tight.

1752' - 1765': 13' 70% Limestone, dark to medium greyish brown, dolomitic, microcrystalline, tight.
30% Limestone, brown, micritic, tight.

1765' - 1767': 2' Limestone, brown, micritic, microcrystalline, stylolitic partings, tight.

CORE #13 1767' - 1817' Recovered 49'/50'

1767' - 1796': 29' Limestone, 70%, brown to light greyish buff, micritic, dolomitic in part, calcite inclusions, tight interbedded with:
Dolomite, 30%, greyish brown to light grey, microcrystalline, disseminated pyrite, tight.

1796' - 1817': 21' Limestone, 75%, brown to dark brown, micritic, brach fragments, numerous shaly partings, tight.
25% Dolomite, greyish brown to light grey, cryptocrystalline, limy, pyrite disseminated, tight.

-- E. E. Zederayko --
Geologist

I.O.E. TRIAD ISBUTT D-50

63°00' - 122°15'

CORE DESCRIPTION

CORE #14 1817' - 1869' Recovered 47'/48'

1817' - 1825': 8' Limestone, brown, micritic. Tight.

1825' - 1864': 39' Limestone, medium brown to creamy buff brown, micritic, calcite infilling, disseminated pyrite. Tight.

1864' - 1865': 1' Dolomite, dark greyish brown, microcrystalline, tight.

CORE #15 1865' - 1921' Recovered 43'/43'

1865' - 1874': 9' Dolomite, greyish brown to medium grey, finely microcrystalline, scattered white calcite, blebs of pyrite, tight.

1874' - 1878': 4' Limestone, greyish brown to light greyish buff, micritic bands of dolomite, light grey, finely microcrystalline, tight.

1878' - 1881': 3' Limestone, greyish white to buff, blebs pyrite. Tight.

1881' - 1904': 23' Limestone, 85%, brown to buff, micritic, abundant shaly partings, scattered disseminated pyrite, argillaceous toward base. Dolomite, 15%, grey to greyish brown, finely microcrystalline, limy, tight.

1904' - 1911': 7' Dolomite, greyish brown to grey, finely microcrystalline, minor clear calcite bands filling fractures, tight.

CORE #16 1911' to 1961' Recovered 43'/50'

1911' - 1919': 8' Dolomite, medium grey to light greyish brown, cryptocrystalline, tight.

1919' - 1920': 1' Dolomite, dark greyish brown, pepper and salt appearance. Scattered pyrite. Tight.

1920' - 1921': 1' Dolomite, greyish white, coarsely microcrystalline. Tight.

1921' - 1923': 2' Limestone, brown to buff, micritic. Tight.

1923' - 1940': 17' Dolomite, medium grey to greyish brown, microcrystalline, scattered pyrite blebs, tight.

Cont'd....2

CORE #16 (Cont'd.)

1941' - 1946': 5' Limestone, brown to medium greyish brown, micritic, dolomitic, microcrystalline, pyritic blebs, tight.

1946' - 1961': 15' Dolomite, light greyish brown to light grey, micro to cryptocrystalline, pyrite, disseminated throughout, limy in part. Tight.

CORE 17 1961' to 1995' Recovered 31'/34'

1961' - 1968': 7' Limestone, greyish brown to light grey, cryptocrystalline, abundant pyrite. Tight.

1968' - 1971': 3' Limestone, light brown to light greyish brown, micrite. Tight.

1971' - 1978.5': 7.5' Limestone, dark brown to brown, micritic, dolomitic, large white calcite infilled fracture. Tight.

1978.5' - 1995' Limestone, brown to buff, micritic. White calcite infilling fractures, scattered pyrite. Tight.

CORE #18 1995' to 2011' Recovered 15'/16'

1995' - 2011': 16' Limestone, buff to brown, micritic, calcite veins and blebs. Thin shaly interbeds. Tight.

CORE #19 2011' to 2036' Recovered 21'/25'

2011' - 2021': 10' Limestone, brown to buff, micritic, scattered calcite, shaly pyrobitumen partings. Tight.

2021' - 2028': Limestone, brown, buff to light brown, micrite, scattered shaly partings. Tight.

2028' - 2036': Dolomite, gray and white, calcite crystals in vugs, fair vuggy porosity. Traces poor intercrystalline porosity.

CORE #20 2036' - 2057' Recovered 20'/21'

2036' - 2057': Dolomite, light greyish brown to brownish black, fine microcrystalline to coarsely crystalline. Anhydritic veins. Traces poor vuggy and intercrystalline porosity, strong sulphurous odor at fresh breaks in core.

-- E. E. Zederayko --

Geologist

I.C.E. TRIAD EBBUTT D-50

D-50 52°20' - 122°15'

CORE DESCRIPTION

CORE #21 2057' to 2083' Rec. 21'/26'

2057' to 2083': 26' Dolomite, buff, greyish brown to dark brown, finely microcrystalline to coarsely microcrystalline, scattered calcite infilled fractures, white dolomite infilled fractures, tight except poor vuggy porosity 2072' to 2074'. Shaly partings, pyrobitumen.

CORE #22 2083' to 2110' Rec. 26'/27'

2083' - 2096': Dolomite, brown to buff, finely microcrystalline, skeletal, scattered veins white dolomite, poor vuggy porosity in basal 5.0'.

2096' - 2110': Dolomite, buff to light brown, medium to coarsely microcrystalline, scattered veins dolomite and calcite, traces poor intercrystalline porosity.

CORE #23 2110' to 2134' Rec. 23/24'

24.0' : Dolomite, greyish brown to greyish buff brown, fine to medium microcrystalline, scattered white dolomite veins scattered vugs scattered traces of intercrystalline porosity, numerous fractures.

-- E. E. Zederayko --

Geologist

EEZ:sg

February, 1964
Dawson Creek, B.C.

[illegible] D-7

[illegible] - [illegible]

[illegible]

[illegible] 2134' - 2141' Recovered 6'/7'

2134' - 2141': 7' Dolomite, greyish brown to greyish buff brown, fine to medium microcrystalline, clear calcite, scattered small vugs, trace intercrystalline porosity.

[illegible] 2141' - 2147' Recovered 5'/6'

2141' - 2147': 6' Dolomite, greyish brown, fine to medium microcrystalline, scattered fractures, fine to medium microcrystalline, scattered fractures, clear calcite, scattered vugs.

[illegible] 2147' - 2149' Recovered 2'/3'

2147' - 2149': 2' Dolomite, greyish brown to brown, medium microcrystalline, scattered white dolomite infilled fractures scattered vugs. Scattered quartz crystals.

[illegible] 2149' - 2153' Recovered 3'/4'

2149' - 2153': 4' Dolomite, greyish brown, fine to medium microcrystalline.

[illegible] 2153' - 2157' Recovered 3'/4'

2153' - 2157': 4' Dolomite, greyish brown, medium microcrystalline, scattered white dolomite infilled fractures, scattered vugs. Scattered quartz needles.

[illegible] 2157' - 2169' Recovered 9'/12'

2157' - 2169': 12' Dolomite, greyish brown, medium microcrystalline, to coarse microcrystalline, abundant fractures infilled with white dolomite, clear calcite, quartz crystals, galena and Sphalerite? Poor porosity along fractures.

CORE #30 2169' - 2177' Recovered 4'/8'

2169' - 2177': 8' Dolomite, medium grey to greyish brown, fine microcrystalline to cryptocrystalline, scattered stylolitic partings, large scattered vugs, poorly interconnected.

-- P. E. Zederayko --

Geologist

I.O.E. TRIAD ESSO/TT D-50

62°20' - 122°15'

CORE DESCRIPTION

CORE #31 3160' - 3185' Recovered 25'

3160' - 3185': Dolomite, buff to light grey brown, cryptocrystalline 30%, fine microcrystalline 70%, clear drusy dolomite in vugs at lower 15', disseminated pyrite throughout, pyrite cubes in vugs, blebs secondary white dolomite, scattered stylolites, vertical fractures, limy and anhydritic bands with 5% interbeds greenish grey to dark grey dolomitic shale. Traces vuggy porosity scattered over lower 15'.

-- E. B. Zederayko --

Geologist

EBZ:sg

March, 1964
Dawson Creek, B.C.

I.O.E. TRIAD HEBUTT D-50

62°20' - 122°15'

LITHOLOGICAL DESCRIPTION

0' - 100' : Sand and gravel, shaly.

100' - 1478' : Shale, medium to light grey and greyish brown, dolomitic, pyritic.

1478' - 1531': Shale, dark greyish black, carbonaceous, abundant pyrite and calcite infilling fractures.

1531' - 2019': Limestone, greyish buff and greyish brown, micritic, argillaceous in part. In part fossiliferous. Numerous calcite infilled fractures, scattered vugs. Essentially tight.

2019' - 2310': Dolomite, grey and white, coarsely microcrystalline to cryptocrystalline in part, with limestone in upper thirty feet, argillaceous in part, traces pyrobitumen, pyrite. Poor to traces fair vuggy porosity.

2310' - 3389': Dolomite, micro to cryptocrystalline with anhydrite, light grey, up to 50% shaly beds, minor chert. Scattered bands vuggy porosity.

3389' - 4094': Microcrystalline dolomite, slightly silty, basal 230' siltstone and scattered shales.

— E. E. Zederayko —

Geologist

EEZ:sg

April, 1964
Dawson Creek, B.C.

Form 2447 10-63M

IMPERIAL OIL LIMITED

# WEEKLY CHRONOLOGICAL WELL REPORT

Well I.O.E. TRIAD EBBUTT B-50 Location (62°20' - 122°15' Elev 1033' K.B.

District Peace River Week Ending Jan. 21/64 Report No 1

| Date | Total Depth | Progress | Days | REMARKS |
|---|---|---|---|---|
| Jan. 16 | | | | Drilling rat hole 12:00 A.M. to 8:00 A.M. |
| Jan. 17 | 342' | 342' | 1 | Drilling at 8:00 A.M.<br>SPUDDED 11:30 A.M. JANUARY 16, 1964<br>Drill 0 to 118' with 12¼" YT-3, bit #1A serial #? Retip.<br>Drill 118' to 342' with 12¼", YT-3, bit #2 serial #203158. Retip.<br>Surveys: 60' - ½°; 117' - ¾°; 214' - ¾°; 305' - ¾°<br>Mud additives: gel 1200 lbs.; caustic 100 lbs. |
| Jan. 18 | 395' | 53' | 2 | W.O.C. at 8:00 A.M.<br>Drill 342' to 395' with YT-3 bit #2, serial #203158. Work tight hole.<br>Ran 9 jts. 367' x 8 5/8", J-55, 24#, Rge. 3, 8 Thd., STH, Mannesmann casing. Cemented with 200 sacks + 2% $CaCl_2$.<br>Casing landed at 377.13' K.B.<br>Plug down 9:30 P.M. January 17, 1964.<br>Good returns.<br>Waiting on cement.<br>Survey: 395' - ¾°<br>Mud additives: caustic 25 lbs. |
| Jan. 19 | 645' | 250' | 3 | Work on swivel 8:00 A.M.<br>Drill out plug.<br>Drill 395' to 645' with bit #1, OSC-3, 6¾", serial #64455.<br>Mud additives: Bicarb. 300 lbs.<br>Mud: Visc. 30; wt. 8.5; pH 9.5 |
| Jan. 20 | 1047' | 402' | 4 | Drilling at 8:00 A.M.<br>Drill 6¾" hole 645' to 1000' with bit #1, OSC-3, serial #64455.<br>Drill 6¾" hole 1000' to 1046' with bit #2, OSC-3, serial #64450.<br>Drill 6¾" hole 1046' to 1047' with bit #3, OSC, serial #25893.<br>Survey: 800' - 1½°; 924' - 2°; 954' - 2°; 1047' - 2°<br>Mud: Visc. 35; Wt. 9.9 .<br>Additives: gel 1200 lbs.; caustic 75 lbs.; Q-broxin 150 lbs.<br>Cont'd....2 |

Form 21417 (1-59)

IMPERIAL OIL LIMITED

## WEEKLY CHRONOLOGICAL WELL REPORT

Well I.O.E. TRIAD EBBUTT B-50 Location 62°20' - 122°15' Elev. 1033' K.B.

District Peace River Week Ending Jan. 21/64 Report No. 1



| Date | Total Depth | Progress | Days | REMARKS |
|---|---|---|---|---|
| Jan. 21 | 1153' | 106' | 5 | Cutting Diamond Core #1 at 8:00 A.M.<br>Drilled 1047' to 1065' with 6¾" OSC bit #3 serial #25893.<br>Drill 6¾" hole 1065' to 1150' with bit #4, #7, serial #7010.<br>Core 1150' to 1153' with bit #5, 6 5/8", serial #4040C.<br>Surveys: 1108' - 1 7/8°<br>Mud: Visc. 40; wt. 10.7<br>Mud additives: gel 1000 lbs.; caustic 25 lbs.; Q-Broxin 50 lbs. |

-- E. E. Zederayko --

Geologist

Form 21117 (rev 5-58) IMPERIAL OIL LIMITED

## WEEKLY CHRONOLOGICAL WELL REPORT

Well I.O.E. TRIAD EBIRUTT d-50 Location d-50 (62°20'-122°56' 1053' KB.

District Peace River Week Ending Jan. 28/64 Report No. 2

| Date | Total Depth | Progress | Days | REMARKS |
|---|---|---|---|---|
| Jan. 22 | 1352' | 199' | 6 | Tripping at 8:00 A.M.<br>Cut Diamond Core #1 (1150' - 1165') 1153' to 1165' with 6 5/8" diamond bit #5, serial #4040C. Recovered 15'<br>Drill 1165' to 1352' with OWV 6¾" bit #6, serial #91682.<br>Surveys: 1199' - 1 7/8°; 1352' - 2¼°<br>Mud: Visc. 36; Wt. 10.7; WL 6.4; pH 8.7<br>Additives: gel 800 lbs.; water<br>Drilling dolomitic shale |
| Jan. 23 | 1425' | 73' | 7 | Waiting on core barrle at 8:00 A.M.<br>Drilled 6¾" hole 1352' to 1425" with W7 bit #7, serial #4551.<br>Dropped and smashed core barrel.<br>Measure out - Diff. .28 feet<br>Surveys: 1380' - 2°; 1411' - 2 3/8°<br>Mud: Visc. 35; Wt. 10.7; WL 6.2<br>Additives: gel 400 lbs.; caustic 25 lbs.; Q-broxin 50 lbs. |
| Jan. 24 | 1425' | 0' | 8 | Waiting on core barrel.<br>Ran in with bit #8, 6¾" OWV, serial #27915 to circulate hole and condition mud.<br>Mud: Visc. 37; Wt. 10.5<br>Additives: gel 600 lbs.; caustic 25 lbs.; Q-broxin 25 lbs. |
| Jan. 25 | 1425' | 0' | 9 | Waiting on core barrel<br>Circulate hole<br>Mud: Visc. 37; Wt. 9.7<br>Additives: gel 500 lbs.; caustic 25 lbs. |
| Jan. 26 | 1448' | 23' | 10 | Hoisting Core #2 at 8:00 A.M.<br>Drilled 1425' to 1426' with 6¾" bit #8, OWV, serial #27915.<br>Core barrel picked up at noon. Requires repair.<br>Cut diamond Core #2 with 6 5/8" bit #5, serial #4040C from 1426' to 1448'. Rec. 13/22'. Shale.<br>Mud: Visc. 36; Wt. 10<br>Additives: caustic 15 lbs.; Q-Broxin 15 lbs. |

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Form 21417 (1963-06)

IMPERIAL OIL LIMITED

## WEEKLY CHRONOLOGICAL WELL REPORT

Well I.O.S. TRIAD EBRUTT d-50 Location 62°20' - 122°15' Elev 1033' K.B.

District Peace River Week Ending Jan. 28/64 Report No. 2



| Date | Total Depth | Progress | Days | REMARKS |
|---|---|---|---|---|
| Jan. 27 | 1512' | 64' | 11 | Cut core #4 at 8:00 A.M.<br>Cored 1448' to 1489' with 6 5/8" diamond bit #5, serial #4040C<br>CORE #3 1448' to 1489' Rec. 37'/41'.<br>Shale.<br>Cut Core #4, 1489' to 1512' with diamond bit #9, 6 5/8", serial #5509-C.<br>Mud: Visc. 35; Wt. 10<br>Additives: caustic 15; Q-Broxin 25 lbs. |
| Jan. 28 | 1576' | 64' | 12 | Cutting Core #5 at 8:00 A.M.<br>Finished core #4 1512' to 1534' with diamond bit #9, 6 5/8", serial #5509-C. Recovered Core #4 1489' to 1534' Rec. 43'/45'<br>Micritic limestone.<br>Cored 1534' to 1576' with 6 5/8" diamond bit #9, serial #5509-C, core number 5.<br>Mud: Visc. 37; Wt. 10.1<br>Additives: gel 600 lbs. |

-- E. E. Zederayko --

Geologist

IMPERIAL OIL LIMITED

## WEEKLY CHRONOLOGICAL WELL REPORT

Well IOE TRIAD EBBUTT D-50 Location 62°20' - 122°15' Elev 1033' K.B.

District Peace River Week Ending Feb. 4/64 Report No. 3

| Date | Total Depth | Progress | Days | REMARKS |
|---|---|---|---|---|
| Jan. 29 | 1606' | 30' | 13 | Running in D.S.T. #1 at 8:00 a.m.<br>Finished Core #5 1576' to 1580' with diamond bit #9, 6 5/8", serial #5509-C.<br>Core #5, 1534' to 1580' Rec. 43'/46'<br>Lithology: Micritic limestone with minor bands microcrystalline limestone, open calcite lined fractures calcite vuggy in bottom 6 feet.<br>Cut Core #6 1580' to 1606' with 6 5/8" diamond bit #9, serial #5509-C.<br>Rec. Core #6 Rec. 25'/26'<br>Tight.<br>Make up packer and run in for D.S.T. #1 to test 1534' to 1606'<br>Mud: Visc. 36; Wt. 10.1<br>Additives: gel 300 lbs.; caustic 25 lbs.; Q-Broxin 25 lbs. |
| Jan. 30 | 1625' | 19' | 14 | Cutting Core #8.<br>Ran D.S.T. #1 1534' to 1606' Rec. 360' mud.<br>Cut diamond Core #7 1606' to 1607' with 6 5/8" diamond bit #9, serial #5509-C.<br>Rec. 1'/1' (Jammed)<br>Cut diamond Core #8 1607' to 1625' with 6 5/8" diamond bit #9, serial #5509-C<br>Mud: Visc. 38; Wt. 10.1<br>Additives: gel 600 lbs. |
| Jan. 31 | 1659' | 34' | 15 | Cut diamond Core #9 8:00 A.M.<br>Finish core #8 1625' to 1653' with 6 5/8" diamond bit #9, serial #5509-C.<br>Recover Core #8 1607' to 1653' Rec. 44'/46'<br>Lithology: Limestone, micritic, tight.<br>Core barrel (inner) backed off at 2 joints.<br>Cut diamond Core #9 1653' to 1659' with 6 5/8" diamond bit #9, serial #5509-C<br>Mud: Visc. 38; Wt. 10.2; pH 8.5<br>Additives: caustic 25 lbs. |
| Feb. 1 | 1693' | 34' | 16 | Cut Core #10 at 8:00 A.M.<br>Core #9 1653' to 1675' with bit #9, 6 5/8" diamond bit serial #5509-C. Rec. 17/22'.<br>Limestone. Core barrel backed off make up 30' barrel.<br>Cut Core #10 1675' to 1693' with diamond bit #9, serial #5509-C.<br>Mud: Visc. 38; Wt. 10.2; WL 5.0; pH 8<br>Additives: gel 600 ± |

Cont'd...2

Form 2187 (10-A-58)

IMPERIAL OIL LIMITED

## WEEKLY CHRONOLOGICAL WELL REPORT

Well I.O.E. Triad Ebbutt D-50 Location 62°20' - 122°15' Elev 1033' K.B.

District Peace River Week Ending Feb. 4/64 Report No. 3



| Date | Total Depth | Progress | Days | REMARKS |
|---|---|---|---|---|
| Feb. 2 | 1696' | 3' | 17 | Wait on core barrel 8:00 A.M.<br>Finish Core #10 1693' to 1695' with diamond bit #9, 6 5/8", serial #5509-C. Recover Core #10 1675' to 1695'. Rec. 18/20' Limestone.<br>Lay down core barrel - unserviceable.<br>Ream 1426' to 1695' with 6¾" OWC rock bit #10, serial #27915.<br>Drill 1695' to 1696' with 6¾" OWC rock bit #10, serial #27915.<br>Mud: Visc. 41; Wt. 10.3; WL 5.2; pH 8.5<br>Additives: None<br>Survey: 1696' - 2¼° |
| Feb. 3 | 1696' | 0' | 18 | Wait on core barrel 8:00 A.M.<br>Mud: Visc. 42; Wt. 10.2<br>Additives: gel 300 lbs. |
| Feb. 4 | 1724' | 28' | 19 | Cut diamond Core #11 at 8:00 A.M.<br>Cut Diamond Core #11 1696' to 1724' with 6 5/8" diamond bit #9, serial #5509-C.<br>Mud: Visc. 38; Wt. 10.3<br>Mud additives: gel 300 lbs. |

-- E. E. Zederayko --

Geologist

Form 3317 (10-63)

IMPERIAL OIL LIMITED

## WEEKLY CHRONOLOGICAL WELL REPORT

Well IOE TRIAD EBBITT D-50 Location 62°20'-122°15' Elev 1033' KB.

District Peace River Week Ending Feb. 11/64 Report No 4

| Date | Total Depth | Progress | Days | REMARKS |
|---|---|---|---|---|
| Feb. 5 | 1770' | 46' | 20 | 8:00 A.M. at 1770' Cutting Diamond Core #13<br>Finish core #11 1724' to 1746' with diamond core bit #9, serial #5509-C, 6 5/8".<br>Recovered Core #11 1696' to 1746'. Rec. 49/50'<br>Limestone, tight.<br>Cut Core #12 with 6 5/8" diamond bit #9, serial #5509-C from 1746' to 1767' Rec. 20'/21<br>Cut diamond Core #13 with diamond bit #9, 6 5/8", serial #5509-C from 1767' to 1770'<br>Mud: Visc. 40, Wt. 10.4<br>Additives: None |
| Feb. 6 | 1817' | 47' | 21 | 8:00 A.M. Recovering Core #13 - checked BOP's.<br>CORE #13 with 6 5/8" diamond bit #9, ser. #5509-C from 1767' to 1817' Rec. 49'/50'.<br>Mud: Visc. 40; Wt. 10.6<br>Additives: None |
| Feb. 7 | 1877' | 60' | 22 | Cutting Core #15.<br>Cut Core #14, 1817' to 1865' with 6 5/8" diamond bit #9, serial #5509-C. Recovered core #14, 1817' to 1865' rec. 47/48'.<br>Cut diamond Core #15, 1865' to 1877' with bit #9, serial #5509-C, diamond bit 6 5/8"<br>Mud: Visc. 42; Wt. 10.5 |
| Feb. 8 | 1942' | 65' | 23 | 8:00 A.M. Cutting Core #16.<br>Cut diamond core #15 with 6 5/8" bit #9, serial #5509-C, 1865' to 1911'. Rec. 43'/46'<br>Cut Diamond Core #16, with 6 5/8" diamond bit #9, serial #5509-C 1911' to 1942'.<br>Mud: Visc. 36; Wt. 10.2<br>Mud additives: gel 800 lbs.; caustic 50 lbs. Q-Broxin 30 lbs. |
| Feb. 9 | 1996' | 54' | 24 | 8:00 A.M. Cut diamond Core #18.<br>Finish diamond Core #16 with 6 5/8" diamond bit #9, serial #5509-C, 1942' to 1961'.<br>Recovered 49'/50'<br>Cut diamond Core #17 with 6 5/8" diamond bit #9, serial #5509-C, 1961' to 1995'<br>Recovered 31'/34'.<br>Cut diamond Core #18 with 6 5/8" diamond bit #9, serial #5509-C, 1995' to 1996'<br>Mud: Visc. 38; Wt. 10.3<br>Additives: gel 400 lbs.<br>Cont'd....2 |

Form 21417 (10-58)

IMPERIAL OIL LIMITED

## WEEKLY CHRONOLOGICAL WELL REPORT

Well IOE TRIAD EBBUTT D-50 Location 62°20' - 122°15' Elev 1033' KB.

District Peace River Week Ending Feb. 11/64 Report No 4



| Date | Total Depth | Progress | Days | REMARKS |
|---|---|---|---|---|
| Feb. 10 | 2036' | 40' | 25 | 8:00 A.M. Run DST #2.<br>Finish diamond core #18 with 6 5/8" bit #9, serial #5509-C, 1996' to 2011'.<br>Recovered Core #18, 1995' to 2011' Rec. 15'/16'<br>Limestone, tight.<br>Cut diamond Core #19 with 6 5/8" diamond bit #9, serial #5509-C, 2011' to 2036'.<br>Recovered 21'/25'<br>Limestone, dolomite below 2030'. Vuggy porosity in basal 6'. Run D.S.T. #2 1985' to 2056'.<br>Mud: Visc. 40; wt. 10.4; WL 5.2; pH 8.5<br>Additives: gel 400 lbs.; caustic 25 lbs. |
| Feb. 11 | 280' | 44' | 26 | 8:00 A.M. Cut diamond core #20.<br>Ran DST #2, 1985' to 2036'<br>Recovered 923' - 30' watery mud<br>893' salt water<br>Cut diamond Core #20 with diamond bit #9, serial #5509-C 2036' to 2057' Rec. 20/21'<br>Dolomite, trace poor vuggy and intercrystalline porosity, slightly anhydritic.<br>Cut diamond core #20 with 6 5/8" bit #9, serial #5509-C, 2057' to 2080'.<br>Mud: Visc. 54; Wt. 10.4; WL 5 - 8; pH 8.5<br>Additives: Q-Broxin 30 lbs. |

-- E. E. Zederayko --

Geologist

Form 2141 (Rev. 5-61)

IMPERIAL OIL LIMITED

## WEEKLY CHRONOLOGICAL WELL REPORT

Well I.O.E. TRIAD SBUTT D-50 Location 62°20' - 122°15' Elev. 1033' K.B.

District Peace River Week Ending Feb. 18/64 Report No. 5

| Date | Total Depth | Progress | Days | REMARKS |
|---|---|---|---|---|
| Feb. 12 | 2110' | 30' | 27 | 8:00 A.M. Running in with GRS-C log Schlumberger.<br>Finish Core #21 with 6 5/8" diamond bit #9, serial #5509-C from 2070' - 2083'.<br>Recovered Core #21 2057' - 2083' Rec. 21/26'<br>Dolomite, greyish brown, fine to medium microcrystalline, scattered poor vug porosity.<br>Cut Core #22 with 6 5/8" diamond bit #9, serial #5509-C 2083' to 2110' Rec. 26'/27'<br>Dolomite, buff to brown, medium to coarse microcrystalline, scattered poor vug porosity.<br>Rig up and run in Schlumberger IES - not working. Run in GRS-C.<br>Mud: Visc. 54; Wt. 10.3; WL 6.3; pH 8<br>Additives: caustic 20 lbs.; Q-Broxin 10 lbs. |
| Feb. 13 | 2134' | 24' | 28 | 8:00 A.M. Recover Core #23.<br>Run Schlumberger GRS-C log.<br>Cut diamond Core #23 with 6 5/8" diamond bit #9, serial #5509-C, 2110' to 2134' Rec. 23'/24.<br>Dolomite, grey-buff and grey-brown, fine to medium microcrystalline, scattered vugs, scattered intercrystalline traces only.<br>Mud: Visc. 46; Wt. 10.3<br>Additives: caustic 5# lbs.; Q-Broxin 25 lbs. |
| Feb. 14 | 2147' | 13' | 29 | 8:00 A.M. Wait on swivel repairs.<br>Cut Diamond Core #24 with 6 5/8" diamond bit #9, serial #5509-C 2134' to 2141'<br>Recovered 6'/7'<br>Dolomite, dark grey brown to grey buff, fine to medium microcrystalline, scattered vug, scattered intercrystalline, trace porosity.<br>Run Schlumberger IES log.<br>2141' to surface casing. Ream rat hole and circulate.<br>Cut diamond Core #25 with 6 5/8" diamond bit #9, serial #5509-C 2141' to 2147' Rec. 5'/6'.<br>Dolomite, grey-brown, fine to medium and scattered coarse microcrystalline, scattered vugs, scattered subhedral quartz crystals.<br>Kelly swivel gone unserviceable wait on adaptor for new swivel.<br>Mud: Visc. 47; Wt. 10.3; WL 5.8; pH 8.5<br>Additives: gel 500 lbs. Cont'd. |

Form 21417 3M-7-65

IMPERIAL OIL LIMITED

# WEEKLY CHRONOLOGICAL WELL REPORT

Well [illegible] D-50 Location [illegible] Elev 1038' G.L.

District [illegible] Week Ending Feb. 17/64 Report No 5

| DATE | TOTAL DEPTH | PROGRESS | DAYS | REMARKS |
|---|---|---|---|---|
| Feb. 16 | 2136' | 0' | 30 | Cutting Core #28.<br>Bit on swivel adapter to 2130 hours.<br>Cut Core #28 with 6 5/8" bit #9, serial 9509-3 2130' - 2136' Rec. 2'/2'<br>Dolomite, grey-brown, medium microcrystalline, fractured, trace scattered vug porosity.<br>Cut Core #27 with 6 5/8" diamond bit #3, serial 5503-3, 2136' to 2156' Rec. 3'/4'<br>Dolomite, grey-brown, fine to medium microcrystalline, scattered thin bands grey microcrystalline.<br>Cut Core #28 with 6 5/8" diamond bit #9, serial 9509-3, 2156' to 2156'.<br>Mud: Visc. 44; wt. 10.3 |
| Feb. 16 | 2177' | 21' | 31 | 8:00 A.M. Ream undergauge rat hole.<br>Finish core #28 with 6 5/8" diamond bit #9, serial 9509-3, 2136' to 2157'.<br>Cut Core #29 2156' to 2157' Rec. 3'/4'<br>Dolomite, grey brown, medium microcrystalline with breccia fragments dakr grey cryptocrystalline, trace scattered vug porosity.<br>Cut Core #29 with 6 5/8" diamond bit #3, serial 9509-3, 2157' to 2169' Rec. 3'/12'<br>Dolomite, grey brown, medium to coarse microcrystalline, abundant fracs, quartz crystals, calcite, dolomite. Poor trace porosity along fracs.<br>Cut Core #30 with 6 5/8" diamond bit #3, serial 9509-3 2169' to 2177' Rec. 4'/8'<br>Dolomite, medium grey to grey brown, fine micro to cryptocrystalline, scattered stylolites, dolomite quartz, pyrite as drusy lining on fracs. Poor scattered vug porosity.<br>Cut Core #30 with 6 5/8" diamond bit #9, serial 9509-3 2169' to 2177' Rec. 4'/8'<br>Dolomite, medium grey to grey brown, fine micro to cryptocrystalline, scattered stylolites, dolomite, quartz, pyrite as drusy lining on fracs. Poor scattered vug porosity.<br>Ream rathole with bit #11, type OSC, serial #27913 - 2 hours.<br>Mud: Visc. 47; wt. 10.5 |

Cont'd.

Form 21417 (M-7-62)

IMPERIAL OIL LIMITED

# WEEKLY CHRONOLOGICAL WELL REPORT

Well [illegible] D-92 Location [illegible] Elev [illegible]

District Pointe Claver Week End'g Feb. 19/64 Report No. 5

| DATE | TOTAL DEPTH | PROGRESS | DAYS | REMARKS |
|---|---|---|---|---|
| Feb. 12 | 2235' | 50' | 32 | 8:00 A.M. Drilling ahead.<br>Ream undermine run hole with 6¾" type G-3 bit 11, serial 27913. 7¾ hrs.<br>Drill 6" hole with bit 11, serial 27913 from 2122' - 2192'.<br>Drill 6" hole with bit 7, serial 11179, type G-7 from 2192' to 2235'.<br>Mud: Visc. 41; Wt. 10.6<br>Additives: Q-Broxin 15 lbs.; caustic 5# lbs.<br>Total: 110' - 1½ |
| Feb. 13 | 2340' | 105' | 33 | 8:00 A.M.<br>Drill 6" hole 2235' to 2240' with bit #7.<br>Drill 2240' to 2306' with bit 11, serial 27956, type G-3 6".<br>Drill 6" hole 2306' to 2340' with bit 14, G-7, serial 11317.<br>Survey: 2232' - 7/8°<br>Mud: Visc. 110; Wt. 10.4; F.L. 6.2; pH 7.5<br>Additives: Q-Broxin 100 lbs.; caustic 50 lbs.<br>water |

-- M. E. Jeleraycka --

Geologist

IMPERIAL OIL LIMITED

## WEEKLY CHRONOLOGICAL WELL REPORT

Well [illegible] D-50 Location 60°20' - 122°15' Elev. 1039' K.B. 1033' GRD.

District Peace River Week Ending Feb. 25/64 Report No. 6

| Date | Total Depth | Progress | Days | REMARKS |
|---|---|---|---|---|
| Feb. 19 | 2445' | 109' | 34 | 9:00 A.M. Drilling<br>Drill 6¾" hole 2336' to 2379' with bit #14, serial #13169, type OWV.<br>Drill 6¾" hole 2379' to 2445' with bit #15 serial #13152, type OWV.<br>Survey: 2415' - 1°<br>Mud: Visc. 53; Wt. 9.9; WL 25; pH 8.5<br>Additives: Q-Broxin 400 lbs.; caustic 127 lbs.; water |
| Feb. 20 | 2567' | 122' | 35 | 8:00 A.M. Drilling.<br>Drill 6¾" hole 2445' to 2483' with bit #15, serial #13152, type OWV.<br>Drill 2483' to 2567' with 6¾" bit #16, serial #95571 type OSC.<br>Mud: Visc. 70; Wt. 10; WL 24; pH 11.5<br>Additives: caustic 150 lbs.; Q-Broxin 75 lbs.; starch 300 lbs.; preservative 200 lbs.<br>Survey: 2537' - ½° |
| Feb. 21 | 2667' | 100' | 36 | Drilling at 8:00 A.M.<br>Drilled 2567' - 2597' with bit #16.<br>Drilled 2597' - 2667' with a 6¾", bit #17, OSC, serial 97358.<br>Mud: Visc. 40 - 68; Wt. 10 - 10.7, WL 22 - 10.5; pH 11.5 - 12<br>Mud additives: 150 lbs. caustic; 150 lbs. Q-Broxin; 500 lbs. Impermex<br>Survey: Nil |
| Feb. 22 | 2736' | 69' | 37 | Drilling at 8:00 A.M. (Tripping in 7-8:00 A.M.)<br>Drilled 2667' - 2687' with bit #17.<br>Drilled 2687' - 2736' with a 6¾", Bit #18 OWV, serial #33353.<br>Mud: Visc. 40 - 45; Wt. 10.6 - 10.8; WL 10.5 - 13.4; pH 12<br>Mud additives: 200 lbs. gel, 50 lbs. caustic<br>Surveys: Nil<br>Drilling becoming quite hard especially after midnight. 15+ mins./ft. |
| Feb. 23 | 2812' | 76' | 38 | Drilling at 8:00 A.M.<br>Drilled 2736' - 2761' with a 6¾", Bit #19, OWC, serial 47726.<br>Drilled 2761' - 2812' with a 6¾", Bit #20, "7, serial #50028. Cont'd. |

IMPERIAL OIL LIMITED

# WEEKLY CHRONOLOGICAL WELL REPORT

Well TOAD RIVER D-50 Location 62°30' - 122°15' Elev 1033'G.L. 1039'K.B.

District Peace River Week Ending Feb. 25/64 Report No 6

| Date | Total Depth | Progress | Days | REMARKS |
|---|---|---|---|---|
| Feb. 23 (Cont'd.) | | | | Mud: Visc. 42 - 47; Wt. 10.6 - 11; WL 15.1 - 11.4; pH 11.5 - 12<br>Mud additives: 75 lbs. caustic, 200 lbs. Impermex.<br>Survey: 2808' - 1° |
| Feb. 24 | 2890' | 78' | 39 | Drilling at 8:00 A.M.<br>Drilled 2812' - 2832' with bit #20.<br>Drilled 2832' - 2890' with a 6¾", bit #21, OWV, serial 90380.<br>Mud: Visc. 42 - 58; Wt. 10.9 - 11.1; WL 11.8 - 13.0; pH 11 - 11.5<br>Mud additives: 50 lbs. caustic; 25 lbs. Q-Broxin<br>Survey: Nil |
| Feb. 25 | 2964' | 74' | 40 | Drilling at 8:00 A.M.<br>Drilled 2890' - 2911' with bit #21.<br>Drilled 2911' - 2964' with a 6¾", bit #22 OWV, serial #90840.<br>Mud: Visc. 41 - 47; Wt. 11.1 - 11.3; WL 11.2 - 13.6; pH 11 - 11.5<br>Additives: 50 lbs. caustic; Q-Broxin 25 lbs. 200 lbs. Impermex<br>Surveys: Nil |
| REPORT NO. 7 | FOR WEEK ENDING MARCH 3, 1964 | | | |
| Feb. 26 | 3035' | 71' | 41 | Drilling at 8:00 A.M.<br>Drilled 2964' - 2982' with bit #22.<br>Drilled 2982' - 3035' with a 6¾", bit #23, YS-1, serial EN3231.<br>Mud: Visc. 46 - 47; Wt. 11.1 - 11.4; WL 12.2 - 13.2; pH 11 - 11.5<br>Additives: 700 lbs. gel; 150 lbs. Impermex 50 lbs. Q-Broxin; 50 lbs. caustic<br>Surveys: Nil |
| Feb. 27 | 3102' | 67' | 42 | Tripping at 8:00 A.M.<br>Drilled 3035' - 3044' with bit #23.<br>Drilled 3050' - 3102' with a 6¾", Bit #24, OWV-J, serial 1606'.<br>Mud: Visc. 41 - 46; Wt. 10.8 - 11.4; WL 11.2 - 13.6; pH 10.5 - 11.5<br>Additives: 50 lbs. caustic; 20 lbs. Q-Broxin |

Form 21417 (24-7-62)

IMPERIAL OIL LIMITED

# WEEKLY CHRONOLOGICAL WELL REPORT

Well [illegible] TRIAD BUBUTT D-50 Location 62°8' - 122°15' Elev 1039' K.B.

District Peace River Week Ending March 3, 1964 Report No. 7

| DATE | TOTAL DEPTH | PROGRESS | DAYS | REMARKS |
|---|---|---|---|---|
| Feb. 27 (Cont'd.) | | | | Survey: Nil<br>3' (91, 88, 93) 8 min/ft. - trace fair intercrystalline porosity in very light grey clear very fine to medium crystalline dolomite with pyrite crystals. |
| Feb. 28 | 3159' | 52' | 44 | Tripping at 8:00 A.M.<br>Drilled 3107' - 3159' with a 6¾", bit #25, OWC, serial #42720.<br>Mud: Visc. 40 - 44; wt. 10.8 - 11.0; WL 12.2 - 12.4<br>Additives: 600 lbs. gel; 200 lbs. Impermex; 50 lbs. caustic; 25 lbs. Q-Broxin<br>Survey: Nil |
| Feb. 29 | 3191' | 32' | 44 | Drilling at 8:00 A.M.<br>Drilled 3159' - 3160' with a 6¾", bit #26, W7, serial #25106.<br>Cored 3160' - 3185' with a 6 5/8", diamond bit Boyle, 5509C.<br>Drilled 3185' - 3191' with bit #26.<br>Mud: Visc. 40 - 46; wt. 10.8 - 11.2; WL 11.0 - 13; pH 10.5 - 11.5<br>Additives: 50 lbs. caustic; 25 lbs. Q-Broxin<br>Surveys: Nil<br>Reamed 58' undergauge hole prior to cutting Core #31. |
| March 1 | 3282' | 91' | 45 | Drilling at 8:00 A.M.<br>Drilled 3191' - 3256' with bit #26.<br>Drilled 3256' - 3282' with a 6¾", bit #27, OWC, serial #47374.<br>Mud: Visc. 40 - 47; wt. 10.8 - 11.1 WL 12.2 - 14; pH 11 - 11.5<br>Additives: 100 lbs. caustic; 30 lbs. Q-Broxin<br>Survey: Nil |
| March 2 | 3355' | 73' | 46 | Drilling at 8:00 A.M.<br>Drill 6¾" hole 3282' to 3332' with bit #27, OWC serial #47374.<br>Drill 6¾" hole 3332' to 3355' with bit #28, OWC, serial #83155.<br>Mud: Visc. 41; wt. 11.3; WL 12.2; pH 11.5<br>Additives: Impermex 250 lbs.; caustic 50 lbs.; Q-Broxin 15 lbs.<br>Survey: 3296' - ¼° |

Form 21417 (26-7-62)

IMPERIAL OIL LIMITED

# WEEKLY CHRONOLOGICAL WELL REPORT

Well [illegible] D-50 Location 62°20' - 12[illegible]15' Elev. 1039' KB.

District ... Peace River Week Ending March 3, 1964 Report No. 7

| DATE | TOTAL DEPTH | PROGRESS | DAYS | REMARKS |
|---|---|---|---|---|
| March 3 | 3404' | 49' | 47 | Drilling at 8:00 A.M.<br>Drill 6¾" hole 3355' to 3360' with OWC bit #29, serial #83155.<br>Twist-off two Drill Collars.<br>Fish for collars 4 hours.<br>Recover fish.<br>Drill 6¾" hole 3360' to 3404' with bit #29, type W-7, serial #60216.<br>Mud: Visc. 41; wt. 11.5; WL 11.7; pH 11.5<br>Additives: Q-Broxin 25 lbs.; caustic 50 lbs.<br>Lithology: Medium grey, crypto to fine microcrystalline dolomite to 3334'.<br>3334' to 3384': Dark grey black, pyrobitumen in dolomite, up to 50% of dolomite very dark, trace chert, pyrite abundant.<br>3384' to 3404': Medium grey, crypto to fine micro dolomite as before.<br>Indications of porosity - [illegible]. |

REPORT NO. 8 FOR WEEK ENDING MARCH 10, 1964

| | | | | |
|---|---|---|---|---|
| March 4 | 3527' | 66' | 48 | Drilling at 8:00 A.M.<br>Drill 6¾" hole 3404' to 3421' with bit #29, type W-7, serial #60216.<br>Drill 6¾" hole 3421' to 3461' with bit #30, type OWV, serial #33365.<br>Mud: Visc. 42; wt. 11.5; WL 11.6; pH 11.5<br>Additives: caustic 50 lbs.; Q-Broxin 15 lbs.<br>Lithology: Medium grey fine - micro to cryptocrystalline dolomite. Indications porosity, to 3434'.<br>3434' to 3461': Dolomite, very slightly argillaceous, with pyrobitumen, pyrite, dark greyish black, decreasing after 3450'. |
| March 5 | 3527' | 66' | 49 | Drilling<br>Drill 6¾" hole 3461' to 3478' with bit #30 type OWV, serial #33365.<br>Drill 6¾" hole 3478' to 3527' with bit #31 type OWC, serial #47724.<br>Mud: Visc. 38; wt. 11; WL 12.8; pH 12 |

Form 21417 (2M-7-62)

IMPERIAL OIL LIMITED

# WEEKLY CHRONOLOGICAL WELL REPORT

Well ICE TRIAD EBBUTT D-53 Location 62°20' - 122°15' Elev 1039' KB.

District Peace River Week Ending Mar.10/64 Report No 8

| DATE | TOTAL DEPTH | PROGRESS | DAYS | REMARKS |
|---|---|---|---|---|
| March 5 (Cont'd.) | | | | Additives: gel 600 lbs.; Impermex 150 lbs.; caustic 100 lbs.; Q-Broxin 65 lbs. water<br>Dolomite as above, scattered floating poorly sorted rounded to subangular quartz grains, up to sand size. |
| March 6 | 3586' | 59' | 50 | 8:00 A.M. Drilling<br>Drill 6¾" hole 3527' to 3543' with bit #31, type OWC, serial #47724.<br>Left 1 drill collar in hole. Run in with overshot and recover fish - 3½ hrs.<br>Drill 6¾" hole 3543' to 3586' with bit #32, type YM, serial #EN3238.<br>Mud: Visc. 43; Wt. 10.6; WL 12.6; pH 11<br>Additives: gel 400 lbs.; Impermex 250 lbs.; caustic 50 lbs.; Q-Broxin 25 lbs.<br>Lithology: Dolomite as before with floating quartz grains to 3561'. Below 3561' dolomite, slightly more cryptocrystalline, fewer floating sand grains, slightly darker hued, greyer. |
| March 7 | 3631' | 45' | 51 | Tripping at 8:00 A.M.<br>Drill 6¾" hole 3586' to 3597' with bit #32 type YM, serial #EN3238.<br>Drill 6¾" hole 3597' to 3631' with bit #33, type OWC, serial #47722.<br>Mud: Visc. 44; Wt. 10.5; WL 13.4; pH 11<br>Additives: gel 600 lbs.; Impermex 150 lbs.; caustic 50 lbs.; Q-Broxin 50 lbs.<br>Lithology: Dolomite, micro to crypto, light grey to grey-brown, silty, trace sandy, anhydritic in part, red stained traces. |
| March 8 | 3686' | [illegible] | 52 | Drilling at 8:00 A.M.<br>Drill 6¾" hole 3631' to 3683' with bit #34, type YM, serial #EN3239.<br>Drill 3683' - 3686' 6¾" hole with bit #35, type YS-1, serial #3230.<br>Mud: Visc. 44; Wt. 10.7; WL 13.2; pH 11<br>Additives: gel 100 lbs.; Impermex 250 lbs. caustic 50 lbs.; Q-Broxin 15 lbs.<br>Lithology: Dolomite as above and dolomitic, red stained siltstone. |

Cont'd.

FORM 21417 (2M-7-62)

IMPERIAL OIL LIMITED

# WEEKLY CHRONOLOGICAL WELL REPORT

Well IOE TRIAD HEBERT D-50 Location 62°20' - 122°15' Elev. 1039' K.B.

District Peace River Week Ending March 10/64 Report No. 8

| DATE | TOTAL DEPTH | PROGRESS | DAYS | REMARKS |
|---|---|---|---|---|
| March 9 | 3772' | 86' | 53 | Drilling at 8:00 A.M.<br>Drill 6¾" hole 3686' to 3739' with bit #35, type YG-1, serial #EN3230.<br>Drill 6¾" hole 3739' to 3772' with bit #36, type OWC, serial #76505.<br>Mud: Visc. 52; wt. 10.8; WL 14.6; pH 11<br>Additives: caustic 50 lbs.; Q-Broxin 50 lbs.<br>Lithology: Dolomite, dolomitic siltstone, some red (hematite stain)? trace anhydritic. |
| March 10 | 3831' | 59' | 54 | Drilling at 8:00 A.M.<br>Drill 6¾" hole 3772' to 3799' with bit #36, type OWC, serial #76505.<br>Drill 6¾" hole 3799' to 3831' with bit #37, type W7R, serial #41493.<br>Mud: Visc. 42; wt. 11.1; WL 12.2; pH 12<br>Additives: Impermex 250 lbs.; caustic 50 lbs.; Q-Broxin 15 lbs.<br>Survey: 3788' - 1¼° off<br>Lithology: Dolomitic siltstone, red stained, scattered pink quartz (rose quartz) dolomite, dolomitic shale. |
| REPORT NO. 9 | | FOR WEEK ENDING | | MARCH 17, 1964 |
| March 11 | 3924' | 93' | 55 | Drilling at 8:00 A.M.<br>Drill 3831' to 3845' with 6¾" bit #37, type W7R, serial #41493.<br>Drill 6¾" hole 3845' to 3886' with bit #38, type W7R, serial #36289.<br>Drill 6¾" hole 3886' to 3924' with bit #39, type YH-R, serial #N23993.<br>Mud: Visc. 43; wt. 10.7; WL 11 - 4; pH 11.5<br>Additives: gel 600 lbs.; Impermex 250 lbs. caustic 100 lbs.; Q-Broxin 50 lbs.<br>Lithology: Siltstone as before. |
| March 12 | 3999' | 75' | 56 | Drilling at 8:00 A.M.<br>Drill 6¾" hole 3924' to 3961' with bit #39, type YH-R, serial #N23993.<br>Drill 6¾" hole 3961' to 3999' with bit #40, type OWC, serial #47711.<br>Lost circulation at 3981'. Ran velocity survey. |

Cont'd.

Form 21617 (3M-7-62)

IMPERIAL OIL LIMITED

# WEEKLY CHRONOLOGICAL WELL REPORT

Well I.O.E. DRIAD ASHCROFT D-52 Location 62°22' - 122°15' Elev. 1039' K.B.

District Peace River Week Ending March 17/64 Report No. 9

| DATE | TOTAL DEPTH | PROGRESS | DAYS | REMARKS |
|---|---|---|---|---|
| March 12 (Cont'd.) | | | | Lost 2 pits mud.<br>Mud: Visc. 39; Wt. 10.2; WL 9.2; pH 11<br>Additives: Gel 1500 lbs.; Impermex 450 lbs.; caustic 100 lbs.; Q-Broxin 75 lbs. sawdust 45 sacks<br>Lithology: Siltstone as before. |
| March 13 | 4066' | 66' | 57 | Tripping at 8:00 A.M.<br>Drill 3999' to 4066' with 6¾" bit #41, type OWV, serial #47712. Circulate to remove sawdust from mud.<br>Ran DST #3 3967' to 4066'. Rec. 3300'; 1000' water cut mud, 2300' salt water.<br>Mud: Visc. 35; Wt. 10.1; WL 12.2; pH 12<br>Additives: Gel 1100 lbs.; Impermex 150 lbs. caustic 100 lbs.; Q-Broxin 25 lbs.; sawdust 14 sacks<br>Lithology: Siltstone as before. |
| March 14 | 4087' | 21' | 58 | 8:00 A.M. Drilling<br>Finish DST #3<br>Drill 6¾" hole 4066' to 4087' with bit #42, type YH, serial #N23991.<br>Mud: Visc. 40; Wt. 9.9; WL 12.4; pH 12<br>Additives: cellex 50 lbs.<br>Lithology: Siltstone becoming slightly harder. |
| March 15 | 4094' | 7' | 59 | 8:00 A.M. waiting on orders.<br>Drill 6¾" hole 4087' to 4094' with bit #42, type YH, serial #N23991.<br>Rig up and run IES, GRS-C, LL-Cond., Dipmeter by Schlumberger.<br>Wait on orders - geologist interpreting E-Logs.<br>Mud: Visc. 40; Wt. 9.9; WL 12.4; pH 12<br>Additives: caustic 50 lbs. |
| March 16 | 4094' | 0' | 60 | 8:00 A.M. Wait on plug details.<br>Ran DST #4, recovered 2220' salt water and water cut mud.<br>DST #4 over 3059' to 3110'<br>Wait on plug details. |

Form 21417-2M-7-63

IMPERIAL OIL LIMITED

# WEEKLY CHRONOLOGICAL WELL REPORT

Well I.O.E. BRIAD ABBOTT D-90 Location [illegible] Elev. 3249' K.B.

District [illegible] Week Ending March 17/64 Report No. 9

| DATE | TOTAL DEPTH | PROGRESS | DAYS | REMARKS |
|---|---|---|---|---|
| [illegible] | 4074' | 0' | 61 | [illegible] cutting on water while cementing plug. [illegible] cemented with 50 sacks + 2% [illegible]. [illegible] hours. Plug felt 3764'. [illegible] 3764' to 4074'. [illegible] cemented with 40 sacks + 2% [illegible]. [illegible] plug felt at 2495'. [illegible] 2495' to 2701'. |
| [illegible] 16 | [illegible] | [illegible] | [illegible] | [illegible] MAR 16, 1964 |
| March 16 | 4074' | 0' | 62 | 8:00 [illegible] P.M. plug #4. [illegible] cemented with 40 sacks + 2% [illegible]. [illegible] plug felt at 1057' [illegible] 1057' to 705'. |
| March 17 | 4074' | 0' | 63 | [illegible] out and moving at 8:00 A.M. [illegible] cemented with 5 sacks + 2% [illegible]. Plug felt at 330'. Plug #4 430' to 430'. [illegible] cemented with 5 sacks and welded steel plate 3' below surface. [illegible] 3' to 0' |
| | | | | RIG RELEASED 8:00 A.M. MARCH 18, 1964. |

-- E. E. Kolesnyko --

Geologist

IOE TRIAD ESSO D-50

(D-50 62°20'-122°16')

N.W.T. Wildcat - Camsell Bend Area

SUMMARY OF WELL DATA

Location: D-50 (62°20'-122°16')
Lat. 62°20'01"N. Long. 122°24'05"W.

Elevation: Ground 1033' K.B. 1039'

Lease: N.W.T. P. & N.G. Permit 3103

Drilling Contractor: Tri-City Drilling Co. (Rig 4)

Operator: Imperial Oil Enterprises Ltd.

Classification: Wildcat

Spudded: 11:30 A.M. January 16, 1964.

Completed Drilling: 11:15 A.M. March 14, A.D. 1964.

Rig Released: 2:00 P.M. March 18, A.D. 1964.

Total Depth: 4094' Driller
4098' Schlumberger

Well Status: Dry and Abandoned.

Hole Size: 12 1/4" 0 - 395'
6 3/4" 395 - 4094'

Casing: 367' x 8 5/8" cemented with 200 sacks plus 2% $CaCl_2$.
Landed at 377.13 K.B.

Plugs: No. 1 4094 - 3900' with 80 sacks plus 2% $CaCl_2$. Wait 8 hours.
Feel for plug @ 3764'.

No. 2 2500 - 2600' with 40 sacks plus 2% $CaCl_2$. Wait 8 hours.
Plug felt at 2495'.

No. 3 1960 - 2050' with [illegible] sacks plus 2% $CaCl_2$. Wait 8 hours.
Felt plug at 1951'.

. . . Cont'd

**Plugs** : No. 4 327' to 427' cemented with 50 sacks + 2% $CaCl_2$.
Felt at 330'.
No. 5 Five sacks and welded plate three feet below surface.

**Geological Supervision** : Ed Zederayko

**Drilling Supervisor** : J. McNutt

**Formation Tops** :

| | Sample | E-Log | Elev. E-Log |
|---|---|---|---|
| DEVONIAN | | | |
| Imperial formation | 100' | 95' | + 944' |
| Hume formation | 1531' | 1531' | - 492' |
| Chinchaga formation | 2260' | 2260' | -1221' |
| ORDOVICIAN-SILURIAN | | | |
| RONNING GROUP | 3390' | 3390' | -2351' |
| CAMBRIAN | | | |
| Mount Clarke | 3605' | 3605' | -2556' |
| Final Total Depth | 4094' | 4094' | -3059' |

**Cores** :

| No. | Interval | Recovery % | Formation |
|---|---|---|---|
| 1 | 1150' - 1165' | 100 | Imperial |
| 2 | 1426' - 1448' | 60 | Imperial |
| 3 | 1448' - 1489' | 80 | Imperial |
| 4 | 1489' - 1534' | 95 | Hume |
| 5 | 1534' - 1580' | 95 | Hume |
| 6 | 1580' - 1606' | 96 | Hume |
| 7 | 1606' - 1607' | 100 | Hume |
| 8 | 1607' - 1653' | 95 | Hume |
| 9 | 1653' - 1675' | 80 | Hume |
| 10 | 1675' - 1695' | 90 | Hume |
| 11 | 1696' - 1746' | 100 | Hume |
| 12 | 1746' - 1767' | 100 | Hume |
| 13 | 1767' - 1817' | 100 | Hume |
| 14 | 1817' - 1865' | 100 | Hume |
| 15 | 1865' - 1911' | 95 | Hume |
| 16 | 1911' - 1961' | 85 | Hume |
| 17 | 1961' - 1995' | 95 | Hume |
| 18 | 1995' - 2011' | 95 | Hume |
| 19 | 2011' - 2036' | 85 | Hume |
| 20 | 2036' - 2057' | 100 | Hume |
| 21 | 2057' - 2083' | 85 | Hume |
| 22 | 2083' - 2110' | 100 | Hume |
| 23 | 2110' - 2134' | 100 | Hume |
| 24 | 2134' - 2141' | 85 | Hume |
| 25 | 2141' - 2147' | 80 | Hume |

...../3

| Cores | No. | Interval | Recovery % | Formation |
|---|---|---|---|---|
| | 26 | 2147' - 2147' | 100 | Hume |
| | 27 | 2149' - 2153' | 75 | Hume |
| | 28 | 2153' - 2157' | 75 | Hume |
| | 29 | 2157' - 2169' | 75 | Hume |
| | 30 | 2169' - 2177' | 50 | Hume |
| | 31 | 3160' - 3185' | 100 | Chinchaga |

| Tests | No. | Interval | Formation | Results |
|---|---|---|---|---|
| | 1 | 1534' - 1606' | Hume | VO. 60 mins. Rec. 360' mud, mud lost when tool reset. |
| | | SI 44 x 9. | | HP 850-850 FP 15-21. SIP 50-490 |
| | 2 | 1985' - 2036' | Hume | VO. 60 mins. Rec. 923' fluid. 30' water cut mud. 893' salt water |
| | | SI 41 x 90 | | HP 1130-1160 FP 100-46. SIP 700-700 |
| | 3 | 3967' - 4066' | Mt. Clarke | VO. 60 mins. Rec. 3300' fluid. 1,000' water cut mud, 2300' salt water. |
| | | SI 97 x 45 | | HP 2110-2111. FP 1104-1660 SIP 1660-1660 |
| | 4 | 3059' - 3110' | Chinchaga | VO. 60 mins. Rec. 2220' fluid. 300' water cut mud, 1920' salt water. |
| | | SI 90 x 40 | | HP 1605-1645. FP 86-1200. SIP 1225-1200 |

| Logs | Type | Run | Date | From | To |
|---|---|---|---|---|---|
| | Induction/Electric | 1 | Feb. 13/64 | 2142' | 377' |
| | | 2 | Mar. 14/64 | 4097' | 1900' |
| | Gamma Ray Sonic Caliper | 1 | Feb. 12/64 | 2110' | 0' |
| | | 2 | Mar. 14/64 | 4098' | 1900' |
| | Laterolog | 1 | Mar. 15/64 | 4098' | 1900' |
| | Continucus Dipmeter | 1 | Mar. 15/64 | 4098' | 477' |
| | Seismic Reference Log | | | | |

E. Zederayko
Geologist

EEZ:sg

April, 196[illegible]
Dawson Creek, B.C.

Above pressures are field figures (See Testing Reports for corrected pressures

IMPERIAL OIL LIMITED

PEACE RIVER DISTRICT

# D R I L L  S T E M  T E S T  R E P O R T  #1

Well Name..IOE TRIAD EBBUTT d-50..Formation..[redacted]..Date..Jan. 29/64...

Location...d-50 62°20' - 122°15'.....Interval tested from..1534'..to..1606'..

Basis for test..Open fractures in core at 1574' to 1580'.....

.....

Results..Recovered 360' mud, slightly salt water cut. Flow suggests very limited permeability and communication.

TESTING DATA

Well Depth...1606.....Full Hole Size...6¾"....Drill Pipe: OD 3½..Weight 15.50

Grade..D.....Joint Type..I.F..Capacity.....

Rat Hole Top...1426'.....Rat Hole Size...6 5/8"....Drill Collars: OD 4½ Feet 173.38

I.D. 2" Joint Type 3½ IF Capacity.....

Size Top Choke...None.....Size Bottom Choke..1/2"....

Packer Type...Bobtail.....No. of Packers...Dual.....Packer Size...5¾"....

Bomb Type...."T".....No. of Bombs..2...Bomb Ranges..3000 psi. & 7000 psi.....

Position of Bombs...1561', 1566' (outside).....Hours on Clock 32 hr. clock 1 rev/4 hours...

Cushion: Type...none.....Air Chamber: Vol..None.....

Amount.....Length..None....

Drilling Mud: Type..Gel...Weight..10.1..Visc...36...W.L...5.4...NaCl 5000 ppm Ph..8.5

Recovery Mud: Type..Gel...Weight..10.2..Visc...46...W.L...6.0...NaCl 1600 ppm Ph..8.0

| | Time | Duration |
|---|---|---|
| Tester Started in hole | 0700 | ..... |
| Tester on Bottom | 0818 | ..... |
| Packer Set | 0901 | ..... |
| Tool Open | 0901 | 5mins. |
| Tool Closed | 0906 | 84 mins. |
| Tool Open | 1030 | 24 mins then 36 mins |
| Tool reset | 1054 | ..... |
| Tool Closed | 1130 | 90 mins. |
| Pulled Packer loose | 1300 | ..... |
| Started out of hole | 1310 | ..... |
| Tester out of hole | 1430 | ..... |

Weight set on packer..30,000..lbs.

Mud level drop..Nil initially..feet

22' on reset

Pulled packer loose with..4000..lbs.

FLOW AND RECOVERY DATA:

| | Time | Pressure | Riser | Mcf/day | | Time | Pressure | Riser | Mcf/day |
|---|---|---|---|---|---|---|---|---|---|
| 1 | ..... | ..... | ..... | ..... | 7 | ..... | ..... | ..... | ..... |
| 2 | ..... | ..... | ..... | ..... | 8 | ..... | ..... | ..... | ..... |
| 3 | ..... | ..... | ..... | ..... | 9 | ..... | ..... | ..... | ..... |
| 4 | ..... | ..... | ..... | ..... | 10 | ..... | ..... | ..... | ..... |
| 5 | ..... | ..... | ..... | ..... | 11 | ..... | ..... | ..... | ..... |
| 6 | ..... | ..... | ..... | ..... | 12 | ..... | ..... | ..... | ..... |

Liquid to Surface Mud....mins, Oil....mins, Water....mins, Est.rate.....

TOTAL FLUID IN DRILL PIPE

| (including water cushion) | Type | Stands | Feet | ppm NaCl |
|---|---|---|---|---|
| 1 | mud | 5 | 90 | lowest 8000, highest 16,000 |
| 2 | ..... | ..... | ..... | ..... |
| 3 | ..... | ..... | ..... | ..... |
| 4 | ..... | ..... | ..... | ..... |
| 5 | ..... | ..... | ..... | ..... |
| 6 | ..... | ..... | ..... | ..... |

Sampling Position (Feet above packer)

| Sample No. | Position |
|---|---|
| 1 | mud out of cycle before test |
| 2 | 360 |
| 3 | 240 |
| 4 | 120 |
| 5 | 0 |

Filtrate
Salinity of water..5000/16000ppm NaCl

Gravity of oil.....°API

Gas (Sweet.....Sour.....).

Samples sent for analysis to..Dawson Creek, B.C.....

FIELD PRESSURE DATA: (Check if blanked off)

| Top Bomb (X) | | | | After 1st reset |
|---|---|---|---|---|
| I.H.P. | 825 | 2nd I.F.P. | 20 | 190 |
| 1st I.F.P. | 15 | 2nd F.F.P. | 25 | 190 |
| 1st F.F.P. | 15 | 2nd S.I.P. | 450 | |
| 1st S.I.P. | 490 | F.H.P. | 825 | |
| B.H.T. | 92 | °F. | | |

| Bottom Bomb ( ) | | | | After 1st reset |
|---|---|---|---|---|
| I.H.P. | 850 | 2nd I.F.P. | 15 | 215 |
| 1st I.F.P. | 10 | 2nd F.F.P. | 20 | 215 |
| 1st F.F.P. | 10 | 2nd S.I.P. | 490 | |
| 1st S.I.P. | 500 | F.H.P. | 850 | |
| B.H.T. | 92 | °F. | | |

Do charts show normal operation...Yes..... Was test satisfactory.....Yes.....

Remarks (Explain misruns etc.) ..On first IFP. blow died after 3 mins. On 2nd FP. ..... blow weak died after 9 mins. tool reset at 24 mins. VO. total VO. 60 mins. ..... Lost mud when reset tool. Charts photographed and enclosed. Seem to show normal operation.

Test No.....1.....

Signature.....Ed Zederayko.....

Testing Co.....Johnston Testers Ltd.....

Title. .....Wellsite Geologist.....

Operator.....Joe Withers.....

Well Name.....I.O.E. TRIAD EBBUTT d-50.....

# JOHNSTON TESTERS

## TEST DATA

| | | | | | |
|---|---|---|---|---|---|
| Formation | | Zone Thickness | | Ft. | Elevation: Not Reported 1033.2' KB. |
| Interval | 1534 To | 1606 T.D. | 1606 | | Bottom Hole Choke Size: 1/2" |
| Type of Test | Open Hole, Bottom Hole. | | | | Fluid Cushion Type: |
| Time Started in Hole | 0700 Hrs. | Tool Open | 0901 Hrs. | | Amount: |
| First Flow | 5 Min. | Shut In | 65 Min. | | |
| Second Flow | 60 Min. | Final Shut In | 90 Min. | | |
| Pulled Loose @ | 1300 Hrs. | Out of Hole | 1430 Hrs. | | |
| Wt. Set on Packer | 30,000 | # Pulled Loose @ | 40,000 | # | |

Remarks: Mud dropped 22' during test period.

Description of Blow During Test: Weak blow, dead in 9 minutes. Reset after 20 minutes. Weak blow, dead in 3 minutes.

## TOOL SEQUENCE

| Tool | Length | O.D. |
|---|---|---|
| D.P. Sub. | .68 | |
| S.I.T. | 6.05 | |
| Hyd. Tool | 8.43 | |
| Safety Jt. | 1.75 | |
| T.C. & Pkr. | 5.63 | |
| T.C. & Pkr. | 4.55 | |
| Total | 27.09 | |
| Stub | 1.05 | |
| Perf. | 26.17 | |
| Recorder | 5.55 | |
| Recorder | 5.50 | |
| Sub. | .64 | |
| Drill Collar | 31.03 | |
| Sub. | .68 | |
| Perf. & B. Nose | 1.55 | |
| Total Intv. | 72.17 | |
| Total Length | 99.26 | |

## GAS BLOW MEASUREMENTS

Measured with: Orifice Meter or Estimated

Type of Instrument:

| Time | Stab. Choke | Reading Inches | Cubic Feet Day |
|---|---|---|---|
| | | | |

## FLUID RECOVERY

Was Test Reverse Circulated Yes: No: x

Fluid Recovered Total: 360 Ft.

Description of Fluid Recovered: 360' of drilling fluid.

## MUD AND HOLE DATA

Mud Type: Gel A.V.L. 5.4

Filter Cake: 2/32 Visc. 36 Wt. 10.1

Time Taken: 1500 hrs.

Contractor: Tri-City Drilling Rig No. 4

Drill Pipe Size: 3 1/2 IF

Drill Collar Size: 2" ID Length: 173.38'

Main Hole Size: 6 5/8"

Rat Hole Size: 6 5/8"

Remarks: Test Satisfactory.

Co. Rep.: J. McNutt

Tester: J. Withers

District: Ft. St. John

Company: Imperial Oil Limited

Well Name: I.O.E. Triad Ebbutt #D-50

Number: #62°-19'-01"N. -122°-23'-30"W.

Formation and Interval: -1534-1606

Ticket No.: C 501 Date: Jan. 29/64

Address: Trail Building, Dawson Creek, British Columbia.

Test No.: 1 J.T.L. Test No.: 1

Field: Wildcat Province: N.W.T.

Consultant:

Distribution of Reports: 3-Dawson Creek, 1 &charts-Calgary, 1-Data, ( ENCLOSED IN DAWSON CREEK).

# JOHNSTON TESTERS

## Pressure Data

Test Ticket No. C 501

| | | | | | |
|---|---|---|---|---|---|
| Recorder No. | T-131 | T-194 | | | |
| Capacity P.S.I.G. | 7000 | 3000 | | | |
| Recorder Depth | 1562 | 1567 | | | |
| Pressure Gradient P.S.I. Ft. | | | | | |
| Well Temperature °F | 92° | 92° | | | |
| A Initial Hydrostatic | 826# | 830# | | | |
| B First Initial Flow | 40# | 42# | | | |
| C Initial Shut-in Pres | 486# | 486# | | | |
| D Flowing Pres | 42# | 43# | | | |
| E Final Flow | 226# | 228# | | | |
| F Final Shut In | 482# | 482# | | | |
| G Final Hydrostatic | 828# | 829# | | | |

Remarks T-131-Inside Recorder
T-194-Outside Recorder

# JOHNSTON TESTERS

## Pressure Breakdown Data

Date January 29, 1964 Test Ticket C 501

Recorder No. T-194 Capacity 3000 Recorder Depth 1567

Elevation Kelly Bushing Hrs. Before Test 92

| Point | Pressure |
|---|---|
| Initial Hydrostatic | 830# |
| Initial Flow | 42# |
| Initial Shut-In | 486# |
| Final Flowing Pres. | 43# |
| Final Flow | 228# |
| Final Shut-In | 482# |
| Final Hydrostatic | 829# |

| | Time Given | Time Computed |
|---|---|---|
| Tool | 0901 | |
| | 5 | |
| | 85 | |
| | 60 | |
| | 90 | |

Remarks

PRESSURE INCREMENTS

**INITIAL SHUT-IN**

Flow Period 17 Minutes

Shut-In Period 5 Minutes

Recorded at _____ Depth

| Point Minutes | Pressure | $\frac{T+\Delta t}{\Delta t}$ |
|---|---|---|
| 0 | 42 | |
| 5 | 394 | 2.00 |
| 10 | 477 | 1.50 |
| 15 | 481 | 1.33 |
| 20 | 482 | 1.25 |
| 25 | 483 | 1.20 |
| 30 | 484 | 1.17 |
| 35 | 484 | 1.14 |
| 40 | 484 | 1.13 |
| 45 | 485 | 1.11 |
| 50 | 485 | 1.10 |
| 55 | 485 | 1.09 |
| 60 | 486 | 1.08 |
| 65 | 486 | 1.08 |
| 70 | 486 | 1.07 |
| 75 | 486 | 1.07 |
| 80 | 486 | 1.06 |
| 85 | 486 | 1.06 |

**FINAL SHUT-IN**

Flow Period 18 Minutes

Shut-In Period 5 Minutes

Recorded at _____ Depth

| Point Minutes | Pressure | $\frac{T+\Delta t}{\Delta t}$ |
|---|---|---|
| 0 | 228 | |
| 5 | 475 | 14.00 |
| 10 | 479 | 7.50 |
| 15 | 480 | 5.33 |
| 20 | 481 | 4.25 |
| 25 | 481 | 3.60 |
| 30 | 481 | 3.17 |
| 35 | 481 | 2.86 |
| 40 | 481 | 2.63 |
| 45 | 481 | 2.44 |
| 50 | 481 | 2.30 |
| 55 | 481 | 2.18 |
| 60 | 481 | 2.08 |
| 65 | 481 | 2.00 |
| 70 | 481 | 1.93 |
| 75 | 481 | 1.87 |
| 80 | 481 | 1.81 |
| 85 | 481 | 1.76 |
| 90 | 481 | 1.72 |

Flow Period _____ Minutes

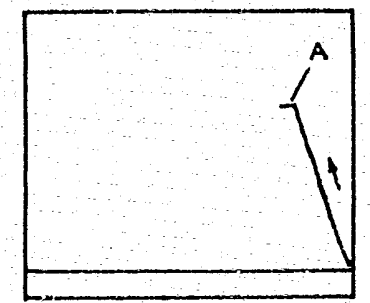
Shut-In Period _____ Minutes

Recorded at _____ Depth

| Point Minutes | Pressure | $\frac{T+\Delta t}{\Delta t}$ |
|---|---|---|

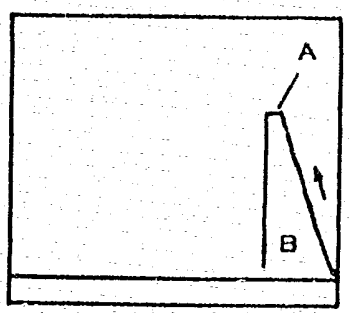
# GUIDE TO INTERPRETATION AND IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

1



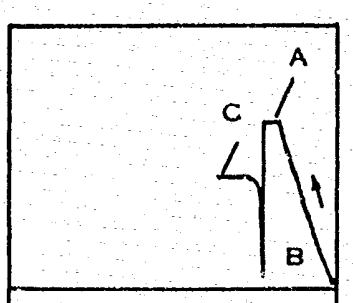

The pressure chart records the build-up in hydrostatic pressure as the testing assembly is lowered into the hole. Upon reaching the testing depth the hydrostatic head or pressure of mud column is recorded.

2



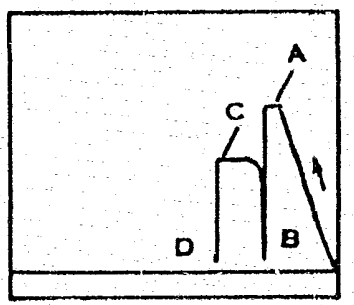

The packer is expanded and set to isolate the test zone. When the test valve is opened, a pressure drop is indicated on the pressure chart. This pressure drop is caused by removal of the hydrostatic mud pressure from the formation, allowing the formation to produce.

3



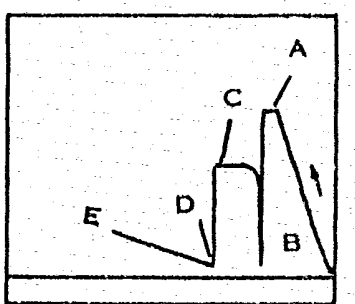

This chart shows the initial shut-in pressure. There is one mechanical method commonly used to obtain this pressure. A 4 stage shut-in tool, that is run-in in the open position and rotated closed when the desired amount of initial flow time is obtained. This initial shut-in pressure is the best method yet devised for recording the original undisturbed reservoir pressure of a formation.

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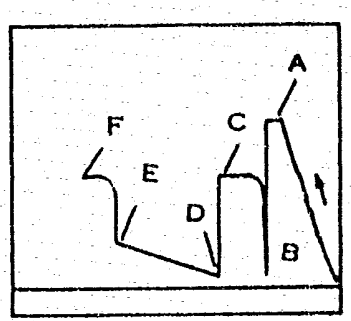

The chart indicates a pressure drop. The test tool has been opened to the surface by rotating the 4 stage shut-in tool into the open position. Permitting the open formation to produce.

5



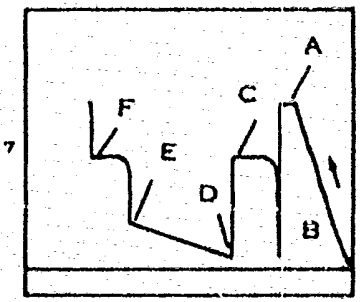

The pressure of fluid flowing from the formation into the well bore, through the perforated anchor, and into the drill pipe, is recorded on the chart.

6



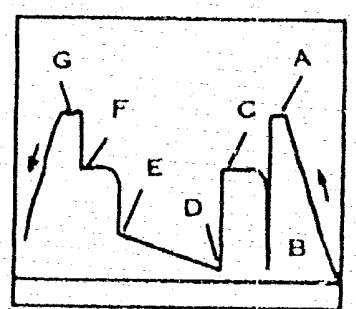

The final shut-in pressure is taken by stopping the flow of formation fluid into the drill pipe. Note the characteristic build-up curve. The well bore pressure is approaching equilibrium with the static reservoir pressure. When the shut-in curve levels-off the static reservoir pressure has been reached.

7




The chart shows the equalizing, the by-pass ports have been opened permitting the drilling fluid to flow through the packer to the test zone. Thus, pressure is equalized above and below the packer. The equalization of the pressure facilitates easier removal of the packer from the packer seat.

8




The packer has been unseated. The testing assembly is being removed from the hole.

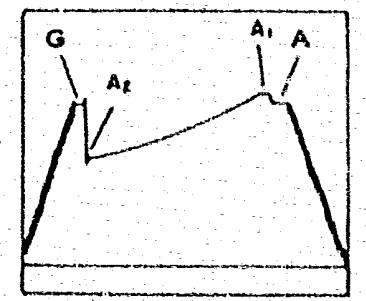
## INDEX OF LABELED POINTS:

A—Initial Hyd. Mud
B—First Initial Flow
C—Initial Shut-in
D—Initial Flow
E—Final Flow
F—Final Shut-in
G—Final Hyd. Mud

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

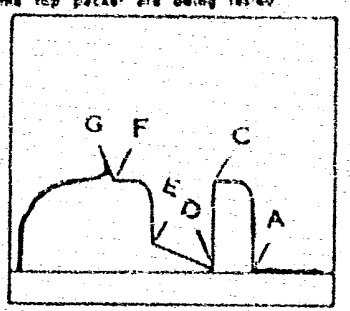
A-1, A-2, A-3, etc. Initial Hyd. Pressures.
B, B-1, B-2, B-3, First Initial Flow.
C-1, C-2, C-3, etc. The Initial Shut-in Pressures.
D-1, D-2, D-3, etc. Flowing Pressures.
E1, E-2, E-3, etc. The Final Flow Pressures or Final Shut-in Pressures.
F-1, F-2, F-3, etc. The Final Shut-in Pressures.
G-1, G-2, G-3, etc. Final Hyd. Mud Pressures.
Z — Special pressure points such as pumping pressure recorded for formation breakdown.

A



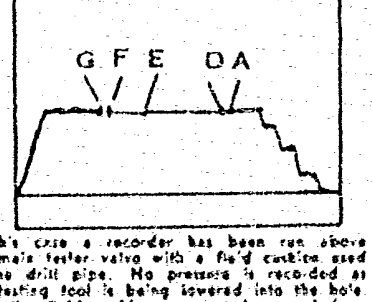

The above is a typical illustration of a chart from a recorder that is run below the bottom packer on a conventional straddle test. Only the hydrostatic mud pressures are recorded. When the tool is opened, there is a pressure differential across the bottom packer. This differential is lessened by the rubber flow of the packer element, which in turn causes a drawdown in pressure. If the below straddle chart reads the same as a chart that is run to record pressures of the test zone, then the bottom packer has failed. If this occurs, all zones below the top packer are being tested.

B




In this case a recorder has been run in an air chamber. The hydrostatic mud pressures are not influencing the recorder while going in or coming out of the hole due to the main tester valve being closed. The flow pressures and shut-in pressures are recorded while the main tester valve is opened.

C




In this case a recorder has been run above the main tester valve with a field cushion used in the drill pipe. No pressure is recorded as the testing tool is being lowered into the hole. Then the field cushion pressure is recorded as the drill pipe is filled with fluid. As more stands are run into the hole, the recorder registers the hydrostatic pressures of the cushion. When the main testing valve is opened the pressure of the cushion column or the flowing pressure of the formation, (which ever is greater), is recorded.

IMPERIAL OIL LIMITED

PEACE RIVER DISTRICT

# D R I L L  S T E M  T E S T  R E P O R T  #2

Well Name. IOE TRIAD EBRUTT D-50 ....Formation. [redacted] Horn ..Date. Feb. 10/64....

Location..D-50 (62°20' - 122°15')..... Interval tested from..1985'..to..2036'..

Basis for test..Tugs in core at 2028' to 2036' Core #2.....

.....

Results....Fair blow throughout test, recovered 923' fluid, 30' water cut mud,....

....893' salt water.....

TESTING DATA

Well Depth....2036'.....Full Hole Size....6¾"....Drill Pipe: OD 3½".Weight 15.50

Grade...E....Joint Type..I-F...Capacity.....

Rat Hole Top....1696'.....Rat Hole Size..6 5/8"....Drill Collars: OD 4½".Feet 173.38

Joint Type..3½ IF.Capacity.....

Size Top Choke.....None.....Size Bottom Choke..1/2".....

Packer Type....Bobtail.....No. of Packers....2 (Dual)...Packer Size..5¾"....

Bomb Type.....T".....No. of Bombs..?....Bomb Ranges..Top 7000 psi bottom 3000 psi.....

Position of Bombs...Top 7000 psi blanked off Base 3000 psi.....Hours on Clock...32 hours 4 hrs./rev...

Cushion: Type.....None.....Air Chamber: Vol....None.....

Amount...None.....Length..None.....

Drilling Mud: Type..Gel...Weight..10.4..Visc...42...W.L..6.2....NaCl.....Ph.8.5.

Recovery Mud: Type..Gel?..Weight...9.1..Visc...32...W.L..21.0....NaCl.....Ph.7...

| | Time | Duration |
|---|---|---|
| Tester Started in hole | 0400 | ..... |
| Tester on Bottom | 0545 | ..... |
| Packer Set | 0607 | ..... |
| Tool Open | 0607 | 05 mins. |
| Tool Closed | 0612 | 91 mins. |
| Tool Open | 0743 | 60 mins. |
| Tool Closed | 0843 | 90 mins. |
| Pulled Packer loose | 1013 | ..... |
| Started out of hole | 1023 | ..... |
| Tester out of hole | 1200 | ..... |

Weight set on packer.....30M.....lbs.

Mud level drop...None.....feet

Pulled packer loose with 52M. lbs.

FLOW AND RECOVERY DATA: Blow fair throughout test (NO GAS)

| | Time | Pressure | Riser | Mcf/day | | Time | Pressure | Riser | Mcf/day |
|---|---|---|---|---|---|---|---|---|---|
| 1 | ..... | ..... | ..... | ..... | 7 | ..... | ..... | ..... | ..... |
| 2 | ..... | ..... | ..... | ..... | 8 | ..... | ..... | ..... | ..... |
| 3 | ..... | ..... | ..... | ..... | 9 | ..... | ..... | ..... | ..... |
| 4 | ..... | ..... | ..... | ..... | 10 | ..... | ..... | ..... | ..... |
| 5 | ..... | ..... | ..... | ..... | 11 | ..... | ..... | ..... | ..... |
| 6 | ..... | ..... | ..... | ..... | 12 | ..... | ..... | ..... | ..... |

Liquid to Surface Mud....mins, Oil....mins, Water....mins, Est.rate.....

TOTAL FLUID IN DRILL PIPE

| (including water cushion) Type | Stands | Feet | ppm NaCl |
|---|---|---|---|
| 1. water cut mud | ..... | 30 | ..... |
| 2. salt water | 15 | 893' | 68,000 ppm NaCl |
| 3. | ..... | ..... | ..... |
| 4. | ..... | ..... | ..... |
| 5. | ..... | ..... | ..... |
| 6. | ..... | ..... | ..... |

Sampling Position (Feet above packer)

| Sample No. | Position |
|---|---|
| 1 Mud sample | taken before test |
| 2 | 923' |
| 3 | 600' |
| 4 | 300' |
| 5 | 0' |

Salinity of water...68,000...ppm NaCl

Gravity of oil.....°API

Gas (Sweet.....Sour.....).

Samples sent for analysis to...Dawson Creek, B.C.....

FIELD PRESSURE DATA: (Check if blanked off)

Top Bomb (X) 7000 psi @ 2024'

I.H.P....1120.....2nd I.F.P...90.....
1st I.F.P.....60.....2nd F.F.P..400.....
1st F.F.P.....65.....2nd S.I.P..675.....
1st S.I.P....680.....F.H.P.1100.....
B.H.T....114....°F.

Bottom Bomb ( ) 3000 psi @ 2030'

I.H.P....1130.....2nd I.F.P...100...
1st I.F.P.....80.....2nd F.F.P...460...
1st F.F.P.....90.....2nd S.I.P...700...
1st S.I.P....700.....F.H.P..1160...
B.H.T....114....°F.

Do charts show normal operation..Yes..... Was test satisfactory....Yes.....

Remarks (Explain misruns etc.) ...Test well conducted, tool was ready when called.....

....for, all operations done quickly and efficient.....

.....

Test No...DST #2..... Signature....Ed Zederayko.....

Testing Co....Johnston Testers..... Title.....Wellsite Geologist.....

Operator.....Joe Withers..... Well Name....IOE.TRIAD.EBBUTT.D-50.....

# JOHNSTON TESTERS

## TEST DATA

| | | | | | |
|---|---|---|---|---|---|
| Formation | [redacted] | Zone Thickness | | Ft | |
| Interval | 1985 To | 2036 TD | 2036 | | |
| Type of Test | Open Hole, Bottom Hole. | | | | |
| Time Started Off Bottom | 0400 Hrs | Tool Closed | 0808 | Hrs | |
| First Flow | 5 Min | Shut In | 90 | Min | |
| Second Flow | 60 Min | Final Shut In | 90 | Min | |
| Pulled Loose @ | 1013 Hrs | Circ at Noon | 1200 | Hrs | |
| Wt. Set on Packer | 33,000 # | Pulled Loose Wt | 52,000 | # | |

Remarks

Description of Blow During Test: Weak blow, decreasing throughout test.

## GAS BLOW MEASUREMENTS

Measured with: I.D. Prover or Est.

Type of Instrument

| Time | Size Choke | Reading Inches | Cubic Feet Day |
|---|---|---|---|
| | | | |

## FLUID RECOVERY

Was Test Reverse Circulated Yes No X

Fluid Recovered Total: 923' Ft

Description of Fluid Recovered: 30' of drilling fluid. 893' of salt water.

Remarks: Test Satisfactory.

Co. Rep. E. Zederayko

Tester J. Withers

Elevation: 1033.2' KB

Bottom Hole Choke Size: 1/2"

Flow Prover Type

Manifold

## TOOL SEQUENCE

| Tool | Length | OD |
|---|---|---|
| D.P. Sub. | .60 | |
| S.I.T. | 6.05 | 3/4" |
| Hyd. Tool | 8.43 | 3/4" |
| Safety Jt. | 1.75 | 1/2" |
| T.C. & Pkr. | 4.55 | 3/4" |
| T.C. & Pkr. | 3.50 | 3/4" |
| Total | 24.88 | |
| Stub | 1.20 | 3/4" |
| Sub. | .60 | 3/4" |
| Drill Collar | 30.98 | |
| Sub. | .60 | 3/4" |
| Perf. | 4.98 | 3/4" |
| Recorder | 5.55 | 13/16" |
| Recorder | 5.60 | 3/4" |
| Perf. & B. Nose | 1.60 | 3/4" |
| Total Intv. | 51.01 | |
| Total Length | 75.89 | |

## MUD AND HOLE DATA

Mud Type: Gel W.L. 6.2

Filter Cake: 2/32 Visc. 42 Wt. 10.4

Time Taken

Contractor: Tri-City Drilling Rig No. 4

Drill Pipe Size: 3 1/2 IF

Drill Collar Size: 2" ID Length: 173'

Main Hole Size: 6 3/8"

Rat Hole Size: 6 5/8"

District: Ft. St. John

Company: Imperial Oil Limited

Well Name: I.O.E. Triad Ebbutt #D-50

Number: 62°-19'-01"N-122°-23'-30"W.

Formation: Lower Keg River

and Interval: -1985-2036

Ticket No. C 502 Date Feb. 10/64

Address: Trail Building, Dawson Creek, British Columbia.

Test No. 2 J.T.L. Test No. 2

Field: Wildcat Province: N.W.T.

Consultant

Distribution of Reports: 8-Dawson Creek, 1 & charts-Calgary, 1-Data. ( ALL ENCLOSED IN DAWSON CREEK).

# JOHNSTON TESTERS

## Pressure Data

Test Ticket No C 502

| | | | | | | |
|---|---|---|---|---|---|---|
| Recorder No | T-131 | T-194 | | | | |
| Capacity P S I G | 7000 | 3000 | | | | |
| Recorder Depth | 2024 | 2030 | | | | |
| Pressure Gradient P S I Ft. | | | | | | |
| Well Temperature °F | 114° | 114° | | | | |
| A Initial Hydrostatic | 1107# | 1119# | | | | |
| B First Initial Flow | 107# | 101# | | | | |
| C Initial Shut-In Pres | 677# | 683# | | | | |
| D Flowing Pres | 123# | 115# | | | | |
| E Final Flow | 450# | 457# | | | | |
| F Final Shut-In | 677# | 682# | | | | |
| G Final Hydrostatic | 1097# | 1111# | | | | |

Remarks T-131-Inside Recorder
T-194-Outside Recorder

# JOHNSTON TESTERS

## Pressure Breakdown Data

Date February 10, 1964 Test Ticket No C 502

Recorder No T-194 Capacity 3000 Recorder Depth 2030

Clock No _____ Clock Hour _____ inches per min Well Temperature 114 °F

| Point | Pressure |
|---|---|
| A Initial Hydrostatic | 1119# |
| B First Initial Flow | 101# |
| C Initial Shut-In Pres | 683# |
| D Flowing Pres | 115# |
| E Final Flow | 452# |
| F Final Shut-In | 382# |
| G Final Hydrostatic | 1111# |

| | Time Given | Time Computed |
|---|---|---|
| Opened Tool | 2508 M | |
| First Flow | 5 Mins | Mins |
| Initial Shut-In | 90 Mins | Mins |
| Second Flow | 60 Mins | Mins |
| Final Shut-In | 90 Mins | Mins |

Remarks: _____

### PRESSURE INCREMENTS

**INITIAL SHUT-IN**

Breakdown 18 increments of 5 mins and a final increment of _____ mins

| Point Minutes | Pressure | $\frac{T + \Delta t}{\Delta t}$ |
|---|---|---|
| 0 | 101 | |
| 5 | 673 | 2.00 |
| 10 | 677 | 1.50 |
| 15 | 680 | 1.33 |
| 20 | 681 | 1.25 |
| 25 | 683 | 1.20 |
| 30 | 683 | 1.17 |
| 35 | 683 | 1.14 |
| 40 | 683 | 1.13 |
| 45 | 683 | 1.11 |
| 50 | 683 | 1.10 |
| 55 | 683 | 1.09 |
| 60 | 683 | 1.08 |
| 65 | 683 | 1.08 |
| 70 | 683 | 1.07 |
| 75 | 683 | 1.07 |
| 80 | 683 | 1.06 |
| 85 | 683 | 1.06 |
| 90 | 683 | 1.06 |

**FINAL SHUT-IN**

Breakdown 18 increments of 5 mins and a final increment of _____ mins

| Point Minutes | Pressure | $\frac{T + \Delta t}{\Delta t}$ |
|---|---|---|
| 0 | 446 | |
| 5 | 650 | 14.00 |
| 10 | 656 | 7.50 |
| 15 | 661 | 5.33 |
| 20 | 665 | 4.25 |
| 25 | 668 | 3.60 |
| 30 | 670 | 3.17 |
| 35 | 672 | 2.86 |
| 40 | 673 | 2.63 |
| 45 | 674 | 2.44 |
| 50 | 675 | 2.30 |
| 55 | 676 | 2.18 |
| 60 | 677 | 2.08 |
| 65 | 678 | 2.00 |
| 70 | 679 | 1.93 |
| 75 | 680 | 1.87 |
| 80 | 681 | 1.81 |
| 85 | 681 | 1.76 |
| 90 | 682 | 1.72 |

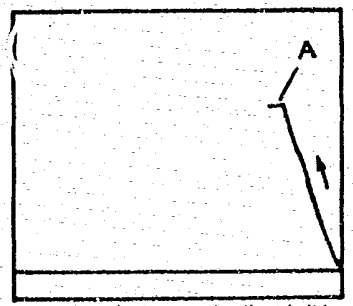
**_____**

Breakdown _____ increments of _____ mins and a final increment of _____ mins

| Point Minutes | Pressure | $\frac{T + \Delta t}{\Delta t}$ |
|---|---|---|

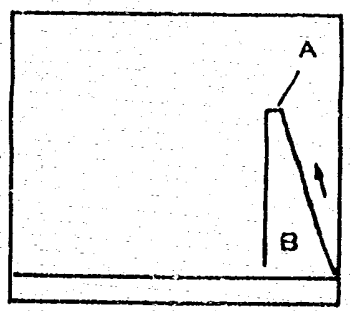
# GUIDE TO INTERPRETATION AND IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

1



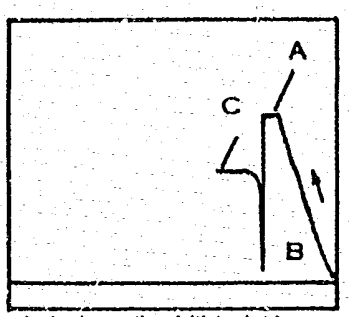

The pressure chart records the build-up in hydrostatic pressure as the testing assembly is lowered into the hole. Upon reaching the testing depth the hydrostatic head or pressure of mud column is recorded.

2



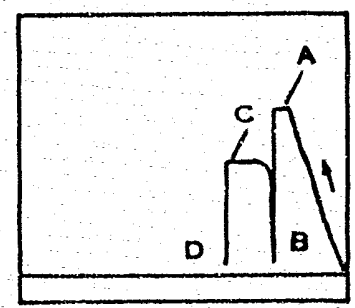

The packer is expanded and set to isolate the test zone. When the test valve is opened, a pressure drop is indicated on the pressure chart. This pressure drop is caused by removal of the hydrostatic mud pressure from the formation, allowing the formation to produce.

3



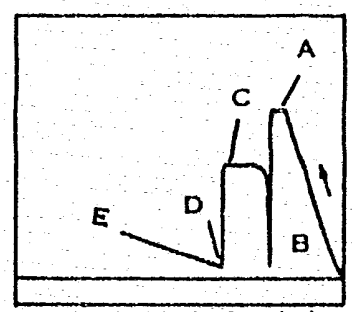

This chart shows the initial shut-in pressure. There is one mechanical method commonly used to obtain this pressure. A 4 stage shut-in tool, that is run-in in the open position and rotated closed when the desired amount of initial flow time is obtained. This initial shut-in pressure is the best method yet devised for recording the original undisturbed reservoir pressure of a formation.

4



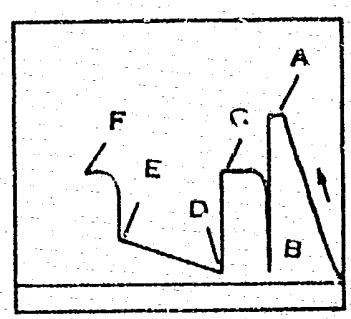

The chart indicates a pressure drop. The test tool has been opened to the surface by rotating the 4 stage shut-in tool into the open position. Permitting the open formation to produce.

5



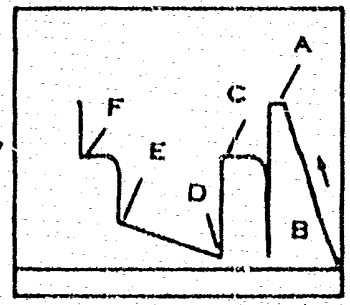

The pressure of fluid flowing from the formation into the well bore, through the perforated anchor, and into the drill pipe, is recorded on the chart.

6



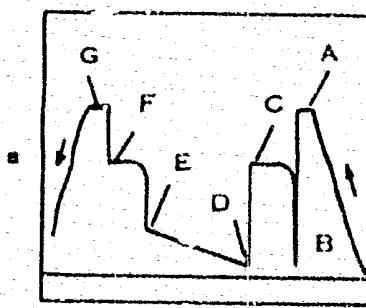

The final shut-in pressure is taken by stopping the flow of formation fluid into the drill pipe. Note the characteristic build-up curve. The well bore pressure is approaching equilibrium with the static reservoir pressure. When the shut-in curve levels-off the static reservoir pressure has been reached.

7




The chart shows the equalizing, the by-pass ports have been opened permitting the drilling fluid to flow through the packer to the test zone. Thus, pressure is equalized above and below the packer. The equalization of the pressure facilitates easier removal of the packer from the packer seat.

8




The packer has been retrieved. The testing assembly is being removed from the hole.

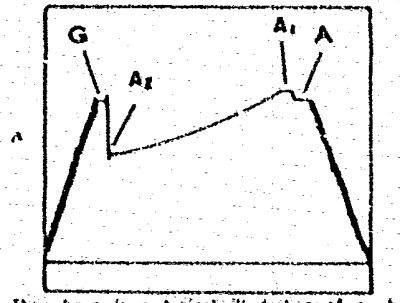
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A—Initial Hyd. Mud
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C—Initial Shut-in
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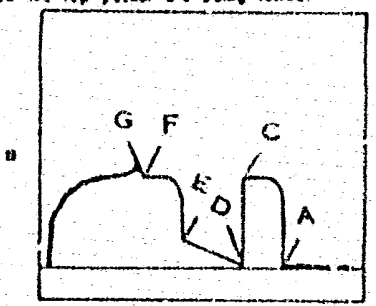
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D-1, D-2, D-3, etc. Flowing Pressures.
E1, E-2, E-3, etc. The Final Flow Pressures or Final Shut-in Pressures.
F-1, F-2, F-3, etc. The Final Shut-in Pressures.
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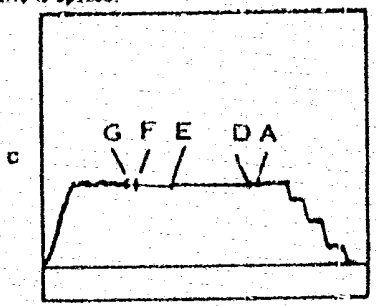

The above is a typical illustration of a chart from a recorder that is run below the bottom packer on a conventional straddle test. Only the hydrostatic mud pressures are recorded. When the tool is opened, there is a pressure differential across the bottom packer. This differential is lessened by the rubber flow of the packer element, which in turn causes a drawdown in pressure. If the below straddle chart reads the same as a chart that is run to record pressures of the test zone, then the bottom packer has failed. If this occurs, all zones below the top packer are being tested.

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In this case a recorder has been run in an air chamber. The hydrostatic mud pressures are not influencing the recorder while going in or coming out of the hole due to the main tester valve being closed. The flow pressures and shut-in pressures are recorded while the main tester valve is opened.

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In this case a recorder has been run above the main tester valve with a fluid cushion used in the drill pipe. No pressure is recorded as the testing tool is being lowered into the hole. Then the fluid cushion pressure is recorded as the drill pipe is filled with fluid. As more stands are run into the hole, the recorder registers the hydrostatic pressures of the cushion. When the main testing valve is opened the pressure of the cushion column or the flowing pressure of the formation, (which ever is greater), is recorded

IMPERIAL OIL LIMITED

PEACE RIVER DISTRICT

# D R I L L  S T E M  T E S T  R E P O R T  #3

Well Name. IOE TRIAD EBBUTT D-50 ....Formation. [redacted] ..Date. Mar. 23/64....

Location....D-50 (62°20' - 122°15')....Interval tested from. 3967'...to..4066'..

Basis for test. Lost circulation while drilling 3981' to 3995'.....

.....

Results....Recovered 3300' fluid; 1000' salt water cut mud, 2300' salt water.....

.....

TESTING DATA

Well Depth.....Full Hole Size....6¼.....Drill Pipe: OD.3½..Weight.15#..

Grade...?...Joint Type.IF....Capacity.....

Rat Hole Top.....Rat Hole Size.....Drill Collars: OD.4¾..Feet..240.

Joint Type..IF...Capacity.2½ ID

Size Top Choke.....Size Bottom Choke...¾"....

Packer Type..Bobtail.....No. of Packers.2 (Dual)....Packer Size...5¾"....

Bomb Type.....Tee.....No. of Bombs..2...Bomb Ranges..0-3000 psi.; 0-7000 psi...

Position of Bombs...3997', 4003'.....Hours on Clock...48.....

Cushion: Type.....Air Chamber: Vol.....

Amount.....Length.....

Drilling Mud: Type.Gypsum..Weight.10.1...Visc..35....W.L..12.2...NaCl.11,800..Ph.12..

Recovery Mud: Type.....Weight.....Visc.....W.L.....NaCl.....Ph.....

| | Time | Duration |
|---|---|---|
| Tester Started in hole | 1630. | 1 hr. 50 mins. |
| Tester on Bottom | 1820 | 25 mins. |
| Packer Set | 1845. | ..... |
| Tool Open | 1845 | 6 " |
| Tool Closed | 1851. | 99 " |
| Tool Open | 2030. | ..... |
| Tool Closed | 2130. | 60 mins. |
| Pulled Packer loose | 2230. | ..... |
| Started out of hole | 2235. | ..... |
| Tester out of hole | 0230. | ..... |

Weight set on packer..35M...lbs.

Mud level drop.....Nil on test.....feet

Pulled packer loose with...40M...lbs.

Mud dropped after packer pulled loose.

FLOW AND RECOVERY DATA:

| | Time | Pressure | Riser | Mcf/day | | Time | Pressure | Riser | Mcf/day |
|---|---|---|---|---|---|---|---|---|---|
| 1 | ..... | ..... | ..... | ..... | 7 | ..... | ..... | ..... | ..... |
| 2 | ..... | ..... | ..... | ..... | 8 | ..... | ..... | ..... | ..... |
| 3 | ..... | ..... | ..... | ..... | 9 | ..... | ..... | ..... | ..... |
| 4 | ..... | ..... | ..... | ..... | 10 | ..... | ..... | ..... | ..... |
| 5 | ..... | ..... | ..... | ..... | 11 | ..... | ..... | ..... | ..... |
| 6 | ..... | ..... | ..... | ..... | 12 | ..... | ..... | ..... | ..... |

Liquid to Surface Mud....mins, Oil....mins, Water....mins, Est.rate.....

TOTAL FLUID IN DRILL PIPE

| (including water cushion) Type | Stands | Feet | ppm NaCl |
|---|---|---|---|
| 1..... | ..... | ..... | ..... |
| 2. salt water cut mud..... | 55 | 3300 | 37,000 ppm NaCl. |
| 3. salt water..... | 37 | 2200 | 225,000..... |
| 4. salt water..... | 18 | 1100 | 225,000+..... |
| 5. salt water..... | top of tool | 0 | 225,000+..... |
| 6..... | ..... | ..... | ..... |

Sampling Position (Feet above packer)

| Sample No. | Position |
|---|---|
| 2 | 3300 |
| 3 | 2200 |
| 4 | 1100 |
| 5 | 0 |

Salinity of water 225,000++...ppm NaCl

Gravity of oil.....°API

Gas (Sweet.....Sour.....).

Sample 1 - mud out of cycle before test.
Samples sent for analysis to.....

FIELD PRESSURE DATA: (Check if blanked off)

Top Bomb ( )

I.H.P...2160.....2nd I.F.P...1150....
1st I.F.P....600.....2nd F.F.P...1700....
1st F.F.P...1050.....2nd S.I.P...1700....
1st S.I.P...1700..... F.H.P...2160....
B.H.T....138.....°F.

Bottom Bomb ( X)

I.H.P...2110.....2nd I.F.P.1100...
1st I.F.P....590.....2nd F.F.P.1660...
1st F.F.P...1010.....2nd S.I.P.1660...
1st S.I.P...1660..... F.H.P.2110...
B.H.T...138.....°F.

Do charts show normal operation...Yes..... Was test satisfactory...Yes.....

Remarks (Explain misruns etc.) ...High potential reservoir.....

.....

.....

Test No.....3.....

Testing Co...Johnston.....

Operator.....J. Withers.....

Signature...E. Zederayko.....

Title.....Geologist.....

Well Name...IOE TRIAD EBBUTT D-50.....

# JOHNSTON TESTERS

## TEST DATA

| | | | | | |
|---|---|---|---|---|---|
| Formation | [redacted] | Zone Thickness | | Ft | |
| Interval | 3967 | To 4066 | T.D. 4066 | | |
| Type of Test | Open Hole, Bottom Hole, | | | | |
| Time Started in Hole | 1630 | Hrs | Tool Open 1845 | Hrs | |
| First Flow | 6 | Min | Shut In | 99 | Min |
| Second Flow | 60 | Min | Final Shut In | 60 | Min |
| Pulled Loose @ | 2230 | Hrs | Out of Hole | 0230 | Hrs |
| Wt. Set on Packer | 35,000 | # | Pulled Loose Wt. | 80,000 | # |

Remarks

Description of Blow During Test: Very strong blow, decreasing throughout test to dead.

## GAS BLOW MEASUREMENTS

Measured with: I.D. Riser or Est.

Type of Instrument

| Time | Size Choke | Reading Inches | Cubic Feet Day |
|---|---|---|---|
| | | | |

## FLUID RECOVERY

Was Test Reverse Circulated Yes ☐ No ☒

| | | |
|---|---|---|
| Fluid Recovered Total | 3300 | Ft |
| Description of Fluid Recovered | 1000' of salt water cut drilling fluid. | |
| | 2300' of salt water. | |

Remarks: Test Satisfactory.

| | |
|---|---|
| Co. Rep. | J. McNutt & E. Tederagko |
| Tester | J. Withers |

| | | | |
|---|---|---|---|
| District | Ft. St. John | Ticket No. | C 504 |
| Company | Imperial Oil Limited | Address | Trail Building, Dawson Creek, British Columbia |
| Well Name | I.O.E. Triad Ebbutt | Test No. | 3 |
| Number | #D-50-62°-19'-01"N-122°-23'-30"W. | Field | Wildcat |
| Formation and Interval | Renning -3967-4066 | Consultant | |

Date March 13/64

J.T.L. Test No. 3

Province N.W.T.

Distribution of Reports: 8-Dawson Creek, 1 & charts-Calgary, 1-Data, ( ALL ENCLOSED IN DAWSON CREEK)

| | |
|---|---|
| Elevation | 1033.2' KB |
| Bottom Hole Choke Size | 1/2" |
| Fluid Cushion Type | |
| Amount | |

## TOOL SEQUENCE

| Tool | Length | O.D |
|---|---|---|
| Sub. | .80 | 4 3/4 |
| P.O. Sub. | .65 | 4 3/4 |
| Sub. | .85 | 4 3/4 |
| Sub. | .85 | 4 3/4 |
| S.I.T. | 6.05 | 4 3/4 |
| Hyd. Tool | 8.43 | 4 3/4 |
| Jars | 6.52 | 4 3/4 |
| Safety Jt. | 1.75 | 4 1/2 |
| T.C. & Pkr. | 4.50 | 4 3/4 |
| T.C. & Pkr. | 3.50 | 4 3/4 |
| Total | 33.90 | |
| Stub | 1.20 | 4 3/4 |
| Perf. | 23.00 | 4 3/4 |
| Recorder | 5.50 | 4 3/4 |
| Recorder | 5.50 | 4 11/16 |
| Perf. | .85 | 4 3/4 |
| Drill Collar | 60.30 | |
| Sub. | .85 | 4 3/4 |
| Perf. & B. Nose | 1.40 | 4 3/4 |
| Total Intv. | 98.60 | |
| Total Length | 132.50 | |

## MUD AND HOLE DATA

| | | | |
|---|---|---|---|
| Mud Type | High PH Starch | W.L. | 12.2 |
| Filter Cake | 2/32 | Visc. 35 | Wt. 10.1 |
| Time Taken | 1200 hrs. | | |
| Contractor | Tri-City Drilling | Rig No. | 4 |
| Drill Pipe Size | 3 1/2 IF | | |
| Drill Collar Size | 2 1/4 ID | Length | 240.22' |
| Main Hole Size | 6 3/4" | | |
| Rat Hole Size | | | |

# JOHNSTON TESTERS

## Pressure Data

Test Ticket No. C 504

| | | | | | |
|---|---|---|---|---|---|
| Recorder No | T-194 | T-131 | | | |
| Capacity P.S.I.G | 3000 | 7000 | | | |
| Recorder Depth | 3991 | 3995 | | | |
| Pressure Gradient P.S.I. Ft. | | | | | |
| Well Temperature °F | 138° | 138° | | | |
| A Initial Hydrostatic | 2103# | 2106# | | | |
| B First Initial Flow | 1030# | 1032# | | | |
| C Initial Shut-In Pres. | 1659# | 1669# | | | |
| D Flowing Pres. | 1112# | 1142# | | | |
| E Final Flow | 1659# | 1669# | | | |
| F Final Shut-In | 1659# | 1669# | | | |
| G Final Hydrostatic | 2092# | 2101# | | | |

Remarks: T-194- Outside Recorder
T-131- Inside Recorder

# JOHNSTON TESTERS

## Pressure Breakdown Data

Date March 13, 1964 Test Ticket No C 504

Recorder No T-131 Capacity 7000 Interval Depth 3936

Clock No Clock Hour Blow Description Bottom Temperature 138 F

| Point | Pressure |
|---|---|
| A Initial Hydrostatic | 2106# |
| B First Initial Flow | 1032# |
| C Initial Shut-In Pres | 1669# |
| D Final Flow Pres | 1142# |
| E Final Flow | 1669# |
| F Final Shut-In | 1669# |
| G Final Hydrostatic | 2101# |

| | Time Given | Time Computed |
|---|---|---|
| Tool Open | 1845 | |
| Initial Flow | 6 Min. | Min. |
| Initial Shut-In | 99 Min. | Min. |
| Final Flow | 60 Min. | Min. |
| Final Shut-In | 60 | Min. |

Remarks

PRESSURE INCREMENTS

**INITIAL SHUT-IN**

Breakdown 19 increments of 5 minutes each for first 4 minutes

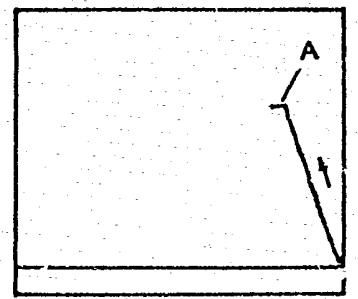
**FINAL SHUT-IN**

Breakdown 12 increments of 5 minutes each

| Point Minutes | Pressure | $\frac{T+\Delta t}{\Delta t}$ | Point Minutes | Pressure | $\frac{T+\Delta t}{\Delta t}$ | Point Minutes | Pressure | $\frac{T+\Delta t}{\Delta t}$ |
|---|---|---|---|---|---|---|---|---|
| 0 | 1032 | | 0 | 1669 | | | | |
| 5 | 1665 | 2.20 | 5 | 1669 | 14.20 | | | |
| 10 | 1667 | 1.60 | 10 | 1669 | 7.60 | | | |
| 15 | 1668 | 1.40 | 15 | 1669 | 5.40 | | | |
| 20 | 1669 | 1.30 | 20 | 1669 | 4.30 | | | |
| 25 | 1669 | 1.24 | 25 | 1669 | 3.64 | | | |
| 30 | 1669 | 1.20 | 30 | 1669 | 3.20 | | | |
| 35 | 1669 | 1.17 | 35 | 1669 | 2.89 | | | |
| 40 | 1669 | 1.15 | 40 | 1669 | 2.65 | | | |
| 45 | 1669 | 1.13 | 45 | 1669 | 2.47 | | | |
| 50 | 1669 | 1.12 | 50 | 1669 | 2.32 | | | |
| 55 | 1669 | 1.11 | 55 | 1669 | 2.20 | | | |
| 60 | 1669 | 1.10 | 60 | 1669 | 2.10 | | | |
| 65 | 1669 | 1.09 | | | | | | |
| 70 | 1669 | 1.09 | | | | | | |
| 75 | 1669 | 1.08 | | | | | | |
| 80 | 1669 | 1.08 | | | | | | |
| 85 | 1669 | 1.07 | | | | | | |
| 90 | 1669 | 1.07 | | | | | | |
| 95 | 1669 | 1.06 | | | | | | |
| 99 | 1669 | 1.06 | | | | | | |

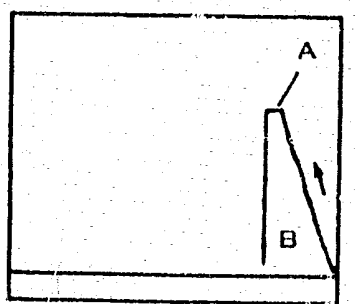
# GUIDE TO INTERPRETATION AND IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

1



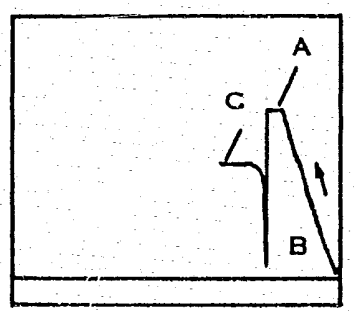

The pressure chart records the build-up in hydrostatic pressure as the testing assembly is lowered into the hole. Upon reaching the testing depth the hydrostatic head or pressure of mud column is recorded.

2



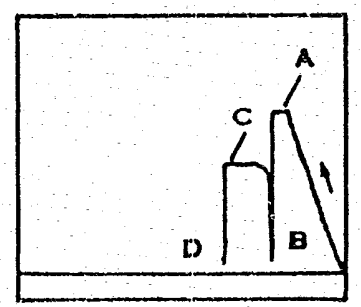

The packer is expanded and set to isolate the test zone. When the test valve is opened, a pressure drop is indicated on the pressure chart. This pressure drop is caused by removal of the hydrostatic mud pressure from the formation, allowing the formation to produce.

3



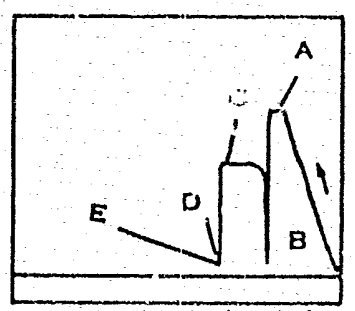

This chart shows the initial shut-in pressure. There is one mechanical method commonly used to obtain this pressure. A 4 stage shut-in tool, that is run-in in the open position and rotated closed when the desired amount of initial flow time is obtained. This initial shut-in pressure is the best method yet devised for recording the original undisturbed reservoir pressure of a formation.

4



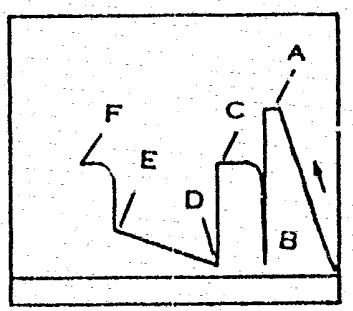

The chart indicates a pressure drop. The test tool has been opened to the surface by rotating the 4 stage shut-in tool into the open position. Permitting the open formation to produce.

5



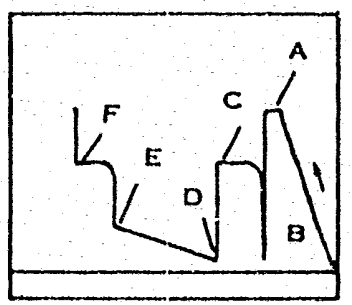

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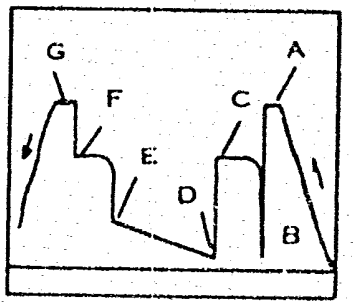

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7




The chart shows the equalizing, the by-pass ports have been opened permitting the drilling fluid to flow through the packer to the test zone. Thus, pressure is equalized above and below the packer. The equalization of the pressure facilitates easier removal of the packer from the packer seat.

8




The packer has been unseated. The testing assembly is being removed from the hole.

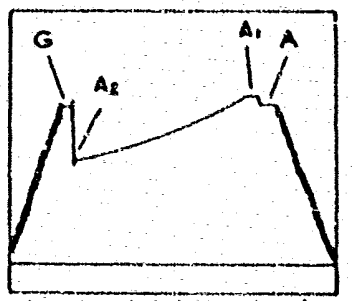
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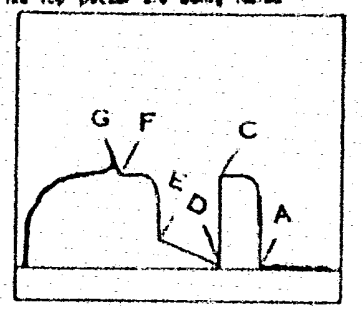
A-1, A-2, A-3, etc. Initial Hyd. Pressures.
B, B-1, B-2, B-3, First Initial Flow.
C-1, C-2, C-3, etc. The Initial Shut-in Pressures.
D-1, D-2, D-3, etc. Flowing Pressures.
E1, E-2, E-3, etc. The Final Flow Pressures or Final Shut-in Pressures.
F-1, F-2, F-3, etc. The Final Shut-in Pressures.
G-1, G-2, G-3, etc. Final Hyd. Mud Pressures.
Z — Special pressure points such as pumping pressure recorded for formation breakdown.

A



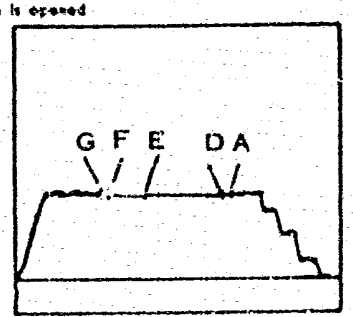

The above is a typical illustration of a chart from a recorder that is run below the bottom packer on a conventional straddle test. Only the hydrostatic mud pressures are recorded. When the tool is opened, there is a pressure differential across the bottom packer. This differential is lessened by the rubber flow of the packer element, which in turn causes a drawdown in pressure. If the below straddle chart reads the same as a chart that is run to record pressures of the test zone, then the bottom packer has failed. If this occurs, all zones below the top packer are being tested.

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In this case a recorder has been run in an air chamber. The hydrostatic mud pressures are not influencing the recorder while going in or coming out of the hole due to the main tester valve being closed. The flow pressures and shut-in pressures are recorded while the main tester valve is opened.

C




In this case a recorder has been run above the main tester valve with a fluid cushion used in the drill pipe. No pressure is recorded as the testing tool is being lowered into the hole. Then the fluid cushion pressure is recorded as the drill pipe is filled with fluid. As more stands are run into the hole, the recorder registers the hydrostatic pressures of the cushion. When the main testing valve is opened the pressure of the cushion column or the flowing pressure of the formation, (which ever is greater), is recorded.

IMPERIAL OIL LIMITED

PEACE RIVER DISTRICT

# D R I L L  S T E M  T E S T  R E P O R T  #4

Well Name. IOE TRIAD EBBUTT D-50...Formation...Charlie Lake.....Date.March 15, 1964

Location...D-50 (62°00' - 120°15').....Interval tested from..3059'...to..3110'.

Basis for test..E-log interpretation, approx. 5' with 8% porosity and 60% salt water saturation. Post untested porosity.

Results..Recovered 2220' fluid: 300' salt water cut mud, 1920' salt water. Strong initial puff, dying rapidly after 10 mins., dead in 12 mins.

TESTING DATA

Well Depth....4094' STRADDLE.....Full Hole Size..6¼".....Drill Pipe: OD3½"..Weight.13#.

Grade...?....Joint Type...?...Capacity.....

Rat Hole Top.....Rat Hole Size.....Drill Collars: OD...Feet.....

Drill collars used for tail pipe

Joint Type.....Capacity.....

Size Top Choke.....Size Bottom Choke..½"....

Packer Type...Bobtail.....No. of Packers...4.....Packer Size....5½".....

Bomb Type....Yes.....No. of Bombs..3...Bomb Ranges.0-3000 psi. 0-3000 psi. 0-3000 psi.

Position of Bombs..T-151 at 3040'. T-194 at 3072'. 826 at 3118'.....Hours on Clock.....48

Cushion: Type.....Air Chamber: Vol.....

Amount.....Length.....

Drilling Mud: Type.Gyp....Weight..10.4...Visc..38....W.L..11.4...NaCl.14,000 ppm.Ph.12..

Recovery Mud: Type.....Weight.....Visc.....W.L.....NaCl.....Ph.....

| | Time | Duration | |
|---|---|---|---|
| Tester Started in hole | 1000. | 3½ hrs. | Weight set on packer..20M...lbs. |
| Tester on Bottom | 1350. | 18 mins. | |
| Packer Set | 1408. | ..... | Mud level drop..None.....feet |
| Tool Open | 1408. | 05 mins. | |
| Tool Closed | 1413. | 90 " | Pulled packer loose with..80M lbs. |
| Tool Open | 1543. | 60 " | Jarred 2 times |
| Tool Closed | 1643. | 60 mins. | |
| Pulled Packer loose | 1743. | 05 mins. | |
| Started out of hole | 1748. | 2 hrs. 12 mins. | |
| Tester out of hole | 2000. | ..... | |

FLOW AND RECOVERY DATA:

| | Time | Pressure | Riser | Mcf/day | | Time | Pressure | Riser | Mcf/day |
|---|---|---|---|---|---|---|---|---|---|
| 1 | ..... | ..... | ..... | ..... | 7 | ..... | ..... | ..... | ..... |
| 2 | ..... | ..... | ..... | ..... | 8 | ..... | ..... | ..... | ..... |
| 3 | ..... | ..... | ..... | ..... | 9 | ..... | ..... | ..... | ..... |
| 4 | ..... | ..... | ..... | ..... | 10 | ..... | ..... | ..... | ..... |
| 5 | ..... | ..... | ..... | ..... | 11 | ..... | ..... | ..... | ..... |
| 6 | ..... | ..... | ..... | ..... | 12 | ..... | ..... | ..... | ..... |

Liquid to Surface Mud....mins, Oil....mins, Water....mins, Sat.rate.....

TOTAL FLUID IN DRILL PIPE

| (including water cushion) Type | Stands | Feet | ppm NaCl |
|---|---|---|---|
| 1. salt water cut mud | 2 | 300 | approx. 42,000 |
| 2. salt water | 34 | 1920 | 264,000 |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |

| Sampling Position | Sample No. | Position | Salinity of water 264,000 ppm NaCl |
|---|---|---|---|
| | 1 | 4220 | |
| (Feet above packer) | 2 | 1980 | Gravity of oil.....°API |
| | 3 | 780 | |
| | 4 | | Gas (Sweet.....Sour.....). |
| | | 0 | |

Note: No mud sample prior to test - not circulating since before logging.
Samples sent for analysis to.....

FIELD PRESSURE DATA: (Check if blanked off)

| Top Bomb (X) 0-7000 psi. (#T-121) | | Bottom Bomb ( ) 0-3000 psi (#T-194) | |
|---|---|---|---|
| I.H.P. 1600 | 2nd I.F.P. 600 | I.H.P. 1650 | 2nd I.F.P. 660 |
| 1st I.F.P. 775 | 2nd F.F.P. 1200 | 1st I.F.P. 400 | 2nd F.F.P. 1200 |
| 1st F.P.P. 750 | 2nd S.I.P. 1200 | 1st F.P.P. 750 | 2nd S.I.P. 1200 |
| 1st S.I.P. 1180 | F.H.P. 1590 | 1st S.I.P. 1225 | F.H.P. 1645 |
| B.H.T. 122 °F. | | B.H.T. .....°F. | |

Do charts show normal operation.....Yes... Was test satisfactory...Yes.....

Remarks (Explain misruns etc.) .....

.....

.....

Test No.....4..... Signature....E. Zederayko.....

Testing Co...Johnston..... Title.....Geologist.....

Operator....Withers..... Well Name...JOE TRIAD ERBUTT D-50.....

# JOHNSTON TESTERS

## TEST DATA

Formation _____ Zone Thickness _____ Ft.
Interval 3059 To 3110 T.D. 4094
Type of Test Open Hole, Straddle, Conventional
Time Started in Hole 1000 Hrs. Tool Open 1408 Hrs.
First Flow 5 Min. Shut In 95 Min.
Second Flow 60 Min. Final Shut In 60 Min.
Pulled Loose @ 1743 Hrs. Out of Hole 2000 Hrs.
Wt. Set on Packer 20,000 # Pulled Loose Wt. 80,000 #
Remarks

Description of Blow During Test: Strong blow, dead in 12 minutes.

## GAS BLOW MEASUREMENTS

Measured with _____ I.D. Riser or Est. ☐
Type of Instrument _____

| Time | Sfce. Choke | Reading Inches | Cubic Feet Day |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
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| | | | |
| | | | |

## FLUID RECOVERY

Was Test Reverse Circulated Yes ☐ No ☒
Fluid Recovered Total: 2220 ft.
Description of Fluid Recovered: 300' of salt water cut drilling fluid, 1920' of salt water.

Remarks: Test Satisfactory.

Co. Rep. E. Zadorsyko & J. McNutt
Tester J. Withers

Elevation 1033.2' KB
Bottom Hole Choke Size 1/2"
Fluid Cushion Type
Amount

## TOOL SEQUENCE

| Tool | Length | O.D. |
|---|---|---|
| D.P. Sub. | .85 | |
| S. I. T. | 6.05 | |
| Hyd. Tool | 8.43 | |
| Recorder | 5.50 | |
| Jars | 6.50 | |
| Safety Jt. | 1.75 | |
| T.C. & Pkr. | 5.70 | |
| T.C. & Pkr. | 4.50 | |
| Total | 39.28 | |
| Stub | 1.20 | |
| Perf. | 10.25 | |
| Recorder | 5.50 | |
| Sub. | .85 | |
| Drill Collar | 29.88 | |
| Sub. | .85 | |
| T.C. & Stub | 3.00 | |
| Total Intv. | 51.53 | |
| Pkr. | 2.65 | |
| T.C. & Pkr. | 7.65 | |
| Recorder | 3.20 | |
| Perf. | 16.25 | |
| Sub. | .85 | |
| Drill Collar | 951.32 | |
| Sub. | .85 | |
| Perf. | 1.00 | |
| B. Nose | .53 | |
| Total Below Intv. | 986.38 | |
| Total Length | 1075.11 | |

## MUD AND HOLE DATA

Mud Type High PH Starch W.L. 11.4
Filter Cake 2/32 Visc. 38 Wt. 10.4
Time Taken
Contractor Tri-City Drilling Rig No. 4
Drill Pipe Size 3 1/2 IF
Drill Collar Size Length
Main Hole Size 6 3/4"
Rat Hole Size

District Ft. St. John Ticket No. C 505 Date March 15/64
Company Imperial Oil Limited Address Trail Building, Dawson Creek, British Columbia
Well Name I.O.E. Triad Ebbutt Test No. 4 J.T.L. Test No. 4
Number #D-50-62°-19'-01"N-122°-23'-30"W Field Wildcat Province N.W.T.
Formation and Interval -3059-3110 Consultant

Distribution of Reports: 8-Dawson Creek, 1 & charts-Calgary, 1-Data. ( ALL ENCLOSED IN DAWSON CREEK)

# JOHNSTON TESTERS

## Pressure Data

Test Ticket No C 505

| | | | | | |
|---|---|---|---|---|---|
| Recorder No. | T-194 | T-131 | 826 | | |
| Capacity P.S.I.G. | 3000 | 7000 | 3000 | | |
| Recorder Depth | 3036 | 3072 | 3121 | | |
| Pressure Gradient P.S.I./Ft. | | | | | |
| Well Temperature °F | 122° | 122° | 122° | | |
| A Initial Hydrostatic | 1614# | 1615# | 1660# | | |
| B First Initial Flow | 764# | 780# | | | |
| C Initial Shut-In Pres. | 1207# | 1208# | A-1 1744# | | |
| D Flowing Pres. | 851# | 830# | Ran Below | | |
| E Final Flow | 1191# | 1201# | Straddle. | | |
| F Final Shut-In | 1191# | 1208# | A-2 1300# | | |
| G Final Hydrostatic | 1624# | 1629# | 1664# | | |

Remarks: T-194-Outside Recorder
T-131-Inside Recorder
826-Outside Recorder

# JOHNSTON TESTERS

## Pressure Breakdown Data

Date March 15, 1964 Test Ticket No. C 505

Recorder No. T-131 Capacity 7000 Recorder Depth 3072

Clock No. _____ Clock Hour _____ Blows per min. _____ Max. Temperature 122

| Point | Pressure |
|---|---|
| A Initial Hydrostatic | 1615# |
| B First Initial Flow | 780# |
| C Initial Shut-In Pres. | 1208# |
| D Flowing Pres. | 830# |
| E Final Flow | 1201# |
| F Final Shut-In | 1208# |
| G Final Hydrostatic | 1629# |

| | Time Given | Time Computed |
|---|---|---|
| Initial Flow | 1408 M | |
| Initial Shut-In | 5 Mins | Mins |
| Final Flow | 95 Mins | Mins |
| Final Shut-In | 60 Mins | Mins |
| Final Hydrostatic | 60 Mins | Mins |

Remarks _____

### PRESSURE INCREMENTS

**INITIAL SHUT-IN**

Breakdown 19 increments of 5 mins and a final increment of _____ mins

| Point Minutes | Pressure | $\frac{T+\Delta t}{\Delta t}$ |
|---|---|---|
| C | 780 | |
| 5 | 1208 | 2.00 |
| 10 | 1208 | 1.50 |
| 15 | 1208 | 1.33 |
| 20 | 1208 | 1.25 |
| 25 | 1208 | 1.20 |
| 30 | 1208 | 1.17 |
| 35 | 1208 | 1.14 |
| 40 | 1208 | 1.13 |
| 45 | 1208 | 1.11 |
| 50 | 1208 | 1.10 |
| 55 | 1208 | 1.09 |
| 60 | 1208 | 1.08 |
| 65 | 1208 | 1.08 |
| 70 | 1208 | 1.07 |
| 75 | 1208 | 1.07 |
| 80 | 1208 | 1.06 |
| 85 | 1208 | 1.06 |
| 90 | 1208 | 1.06 |
| 95 | 1208 | 1.05 |

**FINAL SHUT-IN**

Breakdown 12 increments of 5 mins and a final increment of _____ mins

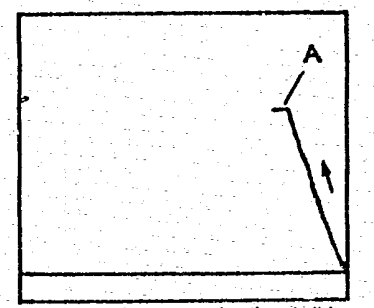
| Point Minutes | Pressure | $\frac{T+\Delta t}{\Delta t}$ |
|---|---|---|
| 0 | 1201 | |
| 5 | 1208 | 14.00 |
| 10 | 1208 | 7.50 |
| 15 | 1208 | 5.33 |
| 20 | 1208 | 4.25 |
| 25 | 1208 | 3.60 |
| 30 | 1208 | 3.17 |
| 35 | 1208 | 2.86 |
| 40 | 1208 | 2.63 |
| 45 | 1208 | 2.44 |
| 50 | 1208 | 2.30 |
| 55 | 1208 | 2.18 |
| 60 | 1208 | 2.08 |

Breakdown _____ increments of _____ mins and a final increment of _____ mins

| Point Minutes | Pressure | $\frac{T+\Delta t}{\Delta t}$ |
|---|---|---|

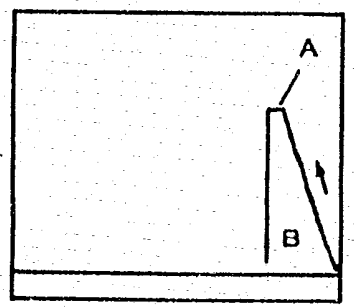
# GUIDE TO INTERPRETATION AND IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

1



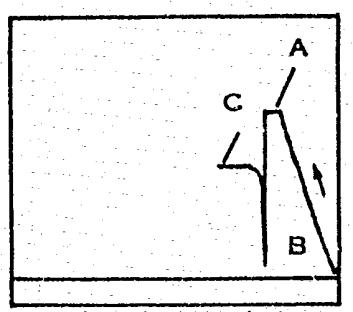

The pressure chart records the build-up in hydrostatic pressure as the testing assembly is lowered into the hole. Upon reaching the testing depth the hydrostatic head or pressure of mud column is recorded.

2



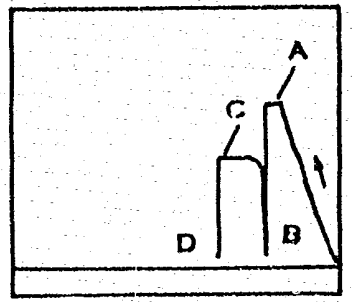

The packer is expanded and set to isolate the test zone. When the test valve is opened, a pressure drop is indicated on the pressure chart. This pressure drop is caused by removal of the hydrostatic mud pressure from the formation, allowing the formation to produce.

3



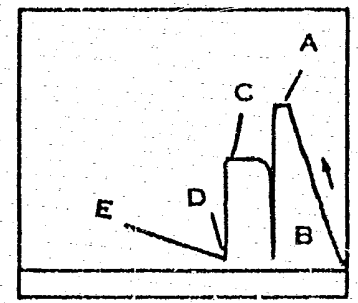

This chart shows the initial shut-in pressure. There is one mechanical method commonly used to obtain this pressure. A 4 stage shut-in tool, that is run-in in the open position and rotated closed when the desired amount of initial flow time is obtained. This initial shut-in pressure is the best method yet devised for recording the original undisturbed reservoir pressure of a formation.

4



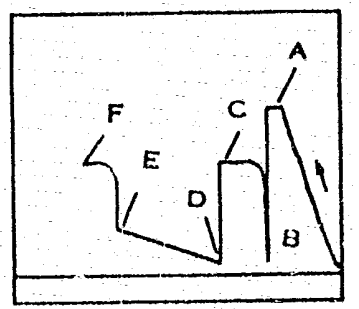

The chart indicates a pressure drop. The test tool has been opened to the surface by rotating the 4 stage shut-in tool into the open position. Permitting the open formation to produce.

5



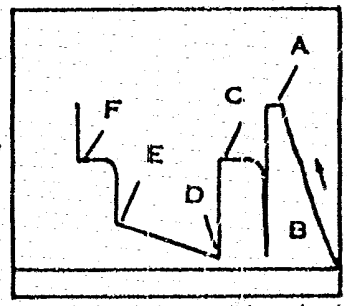

The pressure of fluid flowing from the formation into the well bore, through the perforated anchor, and into the drill pipe, is recorded on the chart.

6



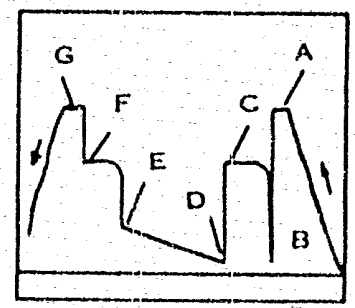

The final shut-in pressure is taken by stopping the flow of formation fluid into the drill pipe. Note the characteristic build-up curve. The well bore pressure is approaching equilibrium with the static reservoir pressure. When the shut-in curve levels-off the static reservoir pressure has been reached.

7




The chart shows the equalizing, the by-pass ports have been opened permitting the drilling fluid to flow through the packer to the test zone. Thus, pressure is equalized above and below the packer. The equalization of the pressure facilitates easier removal of the packer from the packer seat.

8




The packer has been unseated. The testing assembly is being removed from the hole.

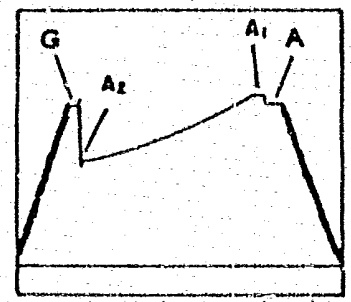
## INDEX OF LABELED POINTS:

A—Initial Hyd. Mud
B—First Initial Flow
C—Initial Shut-in
D—Initial Flow
E—Final Flow
F—Final Shut-in
G—Final Hyd. Mud

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

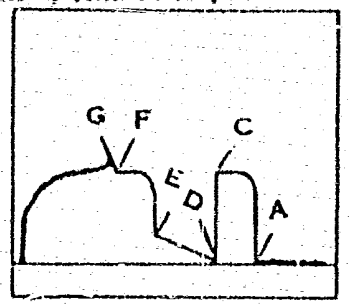
A-1, A-2, A-3, etc. Initial Hyd. Pressures.
B, B-1, B-2, B-3, First Initial Flow.
C-1, C-2, C-3, etc. The Initial Shut-in Pressures.
D-1, D-2, D-3, etc. Flowing Pressures.
E1, E-2, E-3, etc. The Final Flow Pressures or Final Shut-in Pressures.
F-1, F-2, F-3, etc. The Final Shut-in Pressures.
G-1, G-2, G-3, etc. Final Hyd. Mud Pressures.
Z — Special pressure points such as pumping pressure recorded for formation breakdown.

A



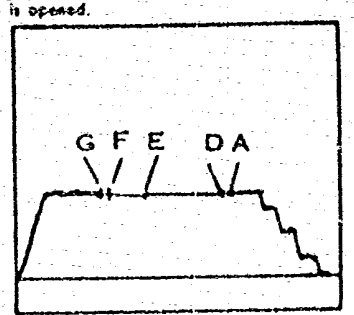

The above is a typical illustration of a chart from a recorder that is run below the bottom packer on a conventional straddle test. Only the hydrostatic mud pressures are recorded. When the tool is opened, there is a pressure differential across the bottom packer. This differential is lessened by the rubber flow of the packer element, which in turn causes a drawdown in pressure. If the below straddle chart reads the same as a chart that is run to record pressures of the test zone, then the bottom packer has failed. If this occurs, all zones below the top packer are being tested.

B




In this case a recorder has been run in an air chamber. The hydrostatic mud pressures are not influencing the recorder while going in or coming out of the hole due to the main tester valve being closed. The flow pressures and shut-in pressures are recorded while the main tester valve is opened.

C




In this case a recorder has been run above the main tester valve with a fluid cushion used in the drill pipe. No pressure is recorded as the testing tool is being lowered into the hole. Then the fluid cushion pressure is recorded as the drill pipe is filled with fluid. As more stands are run into the hole, the recorder registers the hydrostatic pressures of the cushion. When the main testing valve is opened the pressure of the cushion column or the flowing pressure of the formation, (which ever is greater), is recorded.

# IMPERIAL OIL LIMITED

FORM NO. 558

DATE JAN 17 1964 — PEACE RIVER DISTRICT

PAGE NO. ____

## CEMENTING REPORT

REFERENCE TALLY NO. ____

NAME OF WELL JOE TRIANGLE UNIT D-50

CONTRACT NO. TRI CITY — PREPARED BY J. MCNEIL

| CASING | SIZE O.D. IN. | WEIGHT LBS/FT. | GRADE | MANUFACTURER | COLLARS WELD / LONG | NO. OF JOINTS | AMOUNT FT. | DEPTH FT. K.B. (1) |
|---|---|---|---|---|---|---|---|---|
| | 9 5/8 | 24 | J55 | MANN | SHORT | 8 | 322.81 | |
| STAGING COLLAR | | | | | | | | |
| LANDING JT | | | | | | | 12.50 | |
| BACK-OFF COLLAR OR PACKER | | | | | | | | |
| FLOAT COLLAR | | | | | | | 1.40 | |
| CASING | | | | | | | 1.60 | |
| SHOE | | | | | | | 1.32 | |
| | | | | | | TOTAL | 339.63 | 339.63 |
| | | | | | | CALC AMT UP ON LAST JT. | 2.50 | |
| | | | | | | ACTUAL AMT UP ON LAST JT. | 2.50 | |
| | | | | | | MAKE UP ALLOWANCE | | |
| | | | | | | CASING SET | 337.13 K.B. | |
| | | | | | | TOTAL DEPTH OF HOLE | 345' | |

HOLE SIZE 12¼ IN FROM 0 TO 345 FT

HOLE SIZE ____ IN FROM ____ TO ____ FT

HOLE SIZE ____ IN FROM ____ TO ____ FT

K.B. TO TOP OF SURFACE CASING FLANGE ____ FT

CASING CUTOFF ____ IN. ABOVE TOP OF CASING FLANGE

TYPE OF CASING A.P.I. ✓ EXTREME LINE ____

POWER TONGS USED — YES ____ NO ✓

POWER TONGS SUPPLIED BY ____

TYPE OF FLOAT EQUIPMENT BAKIS MANUFACTURER ____

| ITEM | TYPE | MANUFACTURER | NO. | SPACING FT. | INTERVAL COVERED | FT. K.B. (1) |
|---|---|---|---|---|---|---|
| ~~SCRATCHERS~~ | WEATHERFORD | | 1 | | | 265' |
| CENTRALISERS | 1 | | | | | |

TYPE OF MUD

INITIAL MUD WT ____ LB/GAL VISCOSITY 47 SEC

FINAL MUD WT ____ LB/GAL VISCOSITY ____ SEC

CEMENTED BY PORTABLE UNIT

CEMENT USED 200 SKS GEL ____ % ____ SKS.

ADDITIVES CACL2 AMT 4 SKS

____ AMT ____ SKS

TIME CASING STARTED IN HOLE 7 ~~AM~~ P.M.

DROPPING RATE AT 2000' WAS ____ SEC FOR ____ FT. JT.

4000' WAS ____ SEC FOR ____ FT. JT.

6000' WAS ____ SEC FOR ____ FT. JT.

8000' WAS ____ SEC. FOR ____ FT. JT.

WAS THERE LOSS OF FLUID WHILE RUNNING PIPE? NO

IF SO AT WHAT DEPTH? ____ FT.

TIME CASING ON BOTTOM ____ A.M. 800 P.M.

CIRCULATION BROKEN AT 800 ~~AM~~ ____ P.M.

PRESSURE REQUIRED TO BREAK CIRCULATION 100 P.S.I.

CIRCULATING PRESSURE AFTER CLEANUP 120 P.S.I.

STROKE LENGTH WHILE RECIPROCATING 40 FT. INITIALLY

5 FT. FINALLY

TIME STARTED MIX CEMENT ~~AM~~ ____ A.M. 855 P.M.

WAS BOTTOM PLUG USED NO

PRESSURE JUST BEFORE PLUG HITS 200 P.S.I.

MAXIMUM PRESSURE 400 P.S.I.

PLUG CHASED WITH ____ AND BUMPED AT 930 A.M. ____ P.M.

STROKE LENGTH WHILE CEMENTING 20 FT.

WAS THERE ANY DIFFERENCE IN PUMP PRESSURE ON UPSTROKE AND DOWNSTROKE? NONE ____ P.S.I.

MUD RETURNS WHILE CEMENTING ✓ FULL ☐ PARTIAL

☐ NONE. EXPLAIN IN REMARKS.

RECIPROCATION STOPPED AT ____ A.M. 9.20 P.M.

REMARKS: GOOD RETURNS

IOE TRIAD EBBUTT D-50 (62°20'-122°15')

6000' A.S.L. 1/200, F.8, 5" lens

Feb. 4/64

IOE TRIAD EBBUTT D-50 (62°20'-122°15')

6000' A.S.L. 1/200, F.8, 5" lens

Feb. 4/64

IOE TRIAD EBBUTT D-50 (62°20'—122°15')

6000' A.S.L 1/200, F.8. 5" lens

Feb. 4/64

IMPERIAL OIL ENTERPRISES LTD.

March 17, 1964.

Mr. B. H. J. Thoms,
Oil & Gas Conservation Engineer,
Department of Northern Affairs & National Resources,
725 - 11 Avenue S. W.,
CALGARY, Alberta.

Dear Sir:

Re: IOE Triad Ebbutt C-50 Drilling Authority No. 131

Enclosed please find three prints of a location plan for the above well and two sets of aerial photographs showing the rig in place.

Also enclosed are three copies of an application to change the well name to read as follows:

IOE Triad Ebbutt D-50

The name change is necessitated by the change in longitude which now reads as follows:

122° 24' 05"

On the photographs it will be seen that there are two cut lines shown which cross at the lease, the wider one being a telephone pole line, currently going northward.

COPY

IMPERIAL OIL ENTERPRISES LTD.



Could you please forward us a supply of "Application to Change a Well Name" and "Application to Amend a Drilling Authority".

Yours very truly,

JOHN S. POYEN

By: _____
W. B. Dingle

DHmar
Attach.

COPY

Form 34402 (300 bks.-11-62)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 2

20E Sand Elbow LSD. 2 SEC. 52 TWN. ..... RGE. ..... W. ..... Contractor TRI-CITY DRLG Type Rig FLYING STRAT Month MARCH Day 18 19 64

| | 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 / Hole Size / Formation | From / To / Hole Made / Hole Size / Formation | From / To / Hole Made / Hole Size / Formation |
| | | | |
| **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 COLLAR DATA: Number / OD / ID / Length; INDICATOR WEIGHT OF TOTAL: DRILLING STRING / DRILL COLLARS | DRILL COLLAR DATA: Number / OD / ID / Length; INDICATOR WEIGHT OF TOTAL: DRILLING STRING / DRILL COLLARS | DRILL COLLAR DATA: Number / OD / ID / Length; INDICATOR WEIGHT OF TOTAL: DRILLING STRING / DRILL COLLARS |
| **BIT RECORD** | No. / Type / Time On Bottom At / Time Pulled At / Total Hours Run / Depth Pulled / Weight On Bit M Pounds / FOOTAGE: Drilled / Reamed | No. / Type / Time On Bottom At / Time Pulled At / Total Hours Run / Depth Pulled / Weight On Bit M Pounds / FOOTAGE: Drilled / Reamed | No. / Type / Time On Bottom At / Time Pulled At / Total Hours Run / Depth Pulled / Weight On Bit M Pounds / FOOTAGE: Drilled / Reamed |
| | | | |
| | Bit Serial No. ..... Table R.P.M. | Bit Serial No. ..... Table R.P.M. | Bit Serial No. ..... Table R.P.M. |
| | Jet or Conventional - ..... Nozzle Size | Jet or Conventional - ..... Nozzle Size | Jet or Conventional - ..... Nozzle Size |
| **SURVEYS** | Kind ..... at ..... Ft. ..... Deg. off | Kind ..... at ..... Ft. ..... Deg. off | Kind ..... at ..... Ft. ..... Deg. off |
| **PUMP RECORD No. 1 No. 2** | 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 |
| | | | |
| **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 |
| | TOP OF PLUG # 3 @ 1952' FELT @ 345 AM WITH 12 M. | RAN PLUG # 4 327-427 CEMENTED WITH 50 SKS CEMENT PLUS 2% CACL2 PLUG DOWN @ 5:00 AM MARCH 18 1964 | TOP OF PLUG # 4 @ 330 PLUG # 5 5 SKS CEMENT AND WELDED PLATE 3' BELOW SURFACE |
| **CORING** | From / To / Ft. Cored / Ft. Rec'd. / Core No. / Type Bbl. | From / To / Ft. Cored / Ft. Rec'd. / Core No. / Type Bbl. | From / To / Ft. Cored / Ft. Rec'd. / Core No. / Type Bbl. |
| | | | RIG RELEASED @ 2:00 PM MARCH 18 1964 |
| **TAIL OF OPERATIONS AND REMARKS** | From / To / Hrs. | From / To / Hrs. | From / To / Hrs. |
| | W.O.C. 12:00 345 3 3/4 | W.O.C. 2 1.00 | Tear out + running csg. |
| | RUN PLUG # 4 345 500 1 1/4 | Run in - Set Plug # 4 1.00 | |
| | W.O.C. 5 - 8 - 3 | Run cement plug 2 sx and weld plate on casing 2.00 | |
| | | Tear out 250 450 2.00 | |
| | Driller Jerry Boyd | Driller E. L. Ford | Driller H. Goodall |

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....
MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY? YES ..... NO .....

Total Contract Time ..... hrs. Total Company Time ..... hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-11-62)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 62

NE Swd Edson LSD C SEC. 32 TWN. ..... RGE. ..... W. ..... Contractor TRI-CITY DRLG Type Rig FAILING STRAT Month MARCH Day 17 19 64

## 1st Tour From: 12:00 Midnight To: 8:00 a.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| | | | | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| | | | | | |

| DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING | DRILL COLLARS |
|---|---|---|---|---|---|---|
| | | | | | | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

Bit Serial No. ..... Table R.P.M. .....

Jet or Conventional - ..... Nozzle Size .....

**SURVEYS**

Kind ..... at ..... Ft. ..... Deg. off .....

**MUD PUMP RECORD**

| | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| No. 1 | | | | | | |
| No. 2 | | | | | | |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| RAN PLUG # 2 2500 - 2600 | | | | | |
| 40 SKS CEMENT PLUS 2% | | | | | |
| CACL2 PLUG DOWN @ 10.00 AM | | | | | |
| MARCH 17 1964. | | | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| PULL OUT LAYING DOWN PIPE | 12:00 | 1:00 | 1 |
| WAIT ON WATER | 1:00 | 8:00 | 7 |

Driller Jim Bryt

## 2nd Tour From: 8:00 a.m. To: 4:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| | | | | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| | | | | | |

| DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING | DRILL COLLARS |
|---|---|---|---|---|---|---|
| | | | | | | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

Bit Serial No. ..... Table R.P.M. .....

Jet or Conventional - ..... Nozzle Size .....

Kind ..... at ..... Ft. ..... Deg. off .....

**PUMP RECORD**

| | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| | | | | | | |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| FELT TOP OF PLUG # 2 WITH 6M | | | | | |
| @ 2495 6 PM MARCH 17 1964 | | | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| RIG CEMENTER TO RUN PLUG | 8:00 | | |
| & RUN PLUG | | 10:00 | 2 |
| W.O.C | 10:00 | 4:00 | 6 |

Driller Ed Lamb

## 3rd Tour From: 4:00 p.m. To: 12:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| | | | | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| | | | | | |

| DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING | DRILL COLLARS |
|---|---|---|---|---|---|---|
| | | | | | | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

Bit Serial No. ..... Table R.P.M. .....

Jet or Conventional - ..... Nozzle Size .....

Kind ..... at ..... Ft. ..... Deg. off .....

**PUMP RECORD**

| | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| | | | | | | |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| RAN PLUG # 3 1950 - 2050 | | | | | |
| CEMENTED WITH 40 SKS | | | | | |
| CEMENT PLUS 2% CACL2 | | | | | |
| PLUG DOWN @ 730 PM | | | | | |
| MARCH 17 1964 | | | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| W.O.C | 4:00 | 6:00 | 2 |
| RUN IN FEEL PLUG # 2 | 6:00 | 6:30 | 1/2 |
| @ 2495 | | | |
| RUN PLUG # 3 | 6:30 | 7:30 | 1 |
| W.O.C | 7:30 | 12:00 | 4 1/2 |

Driller H. Jandl

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....

MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ..... NO .....

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-11-62)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 61

NE Swan Chute LSD. 2 SEC. 50 TWN. ..... RGE. ..... W. ..... Contractor TRI-CITY DRLG Type Rig FALKING STAR T Month MARCH Day 16 19 64

| | 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 / Hole Size / Formation | From / To / Hole Made / Hole Size / Formation | From / To / Hole Made / Hole Size / Formation |
| | | | |
| **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 COLLAR DATA: Number / OD / ID / Length; INDICATOR WEIGHT OF TOTAL: DRILLING STRING / DRILL COLLARS | DRILL COLLAR DATA: Number / OD / ID / Length; INDICATOR WEIGHT OF TOTAL: DRILLING STRING / DRILL COLLARS | DRILL COLLAR DATA: Number / OD / ID / Length; INDICATOR WEIGHT OF TOTAL: DRILLING STRING / DRILL COLLARS |
| **BIT RECORD** | No. / Type / Time On Bottom At / Time Pulled At / Total Hours Run / Depth Pulled / Weight On Bit M Pounds / FOOTAGE: Drilled / Reamed | No. / Type / Time On Bottom At / Time Pulled At / Total Hours Run / Depth Pulled / Weight On Bit M Pounds / FOOTAGE: Drilled / Reamed | No. / Type / Time On Bottom At / Time Pulled At / Total Hours Run / Depth Pulled / Weight On Bit M Pounds / FOOTAGE: Drilled / Reamed |
| | | | |
| | Bit Serial No. ..... Table R.P.M. ..... | Bit Serial No. ..... Table R.P.M. ..... | Bit Serial No. ..... Table R.P.M. ..... |
| | Jet or Conventional - ..... Nozzle Size ..... | Jet or Conventional - ..... Nozzle Size ..... | Jet or Conventional - ..... Nozzle Size ..... |
| **SURVEYS** | Kind ..... at ..... Ft. ..... Deg. off ..... | Kind ..... at ..... Ft. ..... Deg. off ..... | Kind ..... at ..... Ft. ..... Deg. off ..... |
| **PUMP RECORD No. 1 No. 2** | 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 |
| | | | |
| **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 |
| | | PLUG #1 3900 - 4094 RAN 80 SKS CEMENT PLUS 290 CACL2 PLUG DOWN @ 230 PM MARCH 16 1964 | TOP OF PLUG #1 @ 3764 FELT @ 11 PM WITH 10 M. |
| **CORING** | From / To / Ft. Cored / Ft. Rec'd. / Core No. / Type Bbl. | From / To / Ft. Cored / Ft. Rec'd. / Core No. / Type Bbl. | From / To / Ft. Cored / Ft. Rec'd. / Core No. / Type Bbl. |
| | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| 1st Tour | From | To | Hrs. |
|---|---|---|---|
| WAIT ON ORDERS | 12 00 | 8 00 | 8 |

| 2nd Tour | From | To | Hrs. |
|---|---|---|---|
| FINISH RUN IN OPEN END | 8 00 | 9 00 | 1 |
| THAW OUT PUMP & MUD LINES | 9 00 | | |
| STAND PIPE - KELLY HOSE | | | |
| & KELLY | | 1 00 | 1/4 |
| CIRC PRIOR TO RUN #1 PLUG | 1 00 | 2 00 | 1 |
| RUN PLUG #1 | 2 00 | 2 30 | 1/2 |
| PULL 12 STDS & CIRC HOLE | 2 30 | 4 00 | 1 1/2 |
| W O C. | | | |

| 3rd Tour | From | To | Hrs. |
|---|---|---|---|
| W.O.C. | 4 00 | 11 00 | 7 |
| RUN IN & FEEL FOR PLUG. | 11 00 | 11 15 | 1/4 |
| PULL OUT LAY DOWN P. PE. | 11 15 | 12 00 | 3/4 |

Driller Jim Bryt | Driller Ed Lamb | Driller H. Jandl.

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....
MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ..... NO .....

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-11-62)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 60

Well Name & No. Lloydminster LSD. 2 SEC. 20 TWN. RGE. W. Contractor TRI-CITY DRLG Type Rig Fearless Straight Month March Day 15 19 64

| | 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 | Hole Size | Formation | From | To | Hole Made | Hole Size | Formation | From | To | Hole Made | Hole Size | Formation |
| | | | | | | | 4094 | | 6 3/4 | | 4094 | 4094 | | 6 3/4 | |
| **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 | 40 | | | | | | | | | | |
| | DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING / DRILL COLLARS | DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING / DRILL COLLARS | DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING, STRING / DRILL COLLARS |
| | | | | | | | | 12 | 4 1/2 | 2 1/4 | | | | | | | | |
| **BIT RECORD** | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
| | Bit Serial No. | | | Table R.P.M. | | | | | | Bit Serial No. | | | Table R.P.M. | | | | | | Bit Serial No. | | | Table R.P.M. | | | | |
| | Jet or Conventional - | | | Nozzle Size | | | | | | Jet or Conventional - | | | Nozzle Size | | | | | | Jet or Conventional - | | | Nozzle Size | | | | |
| **SURVEYS** | Kind | at | Ft. | Deg. off | | | | | | Kind | at | Ft. | Deg. off | | | | | | Kind | at | Ft. | Deg. off | | | | |
| **PUMP RECORD No. 1** | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | | | | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | | | | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | | |
| **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 | | |
| **CORING** | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | | | | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | | | | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | | |
| **DETAIL OF OPERATIONS AND REMARKS** | | | | | | From | To | Hrs. | | | | | | | From | To | Hrs. | | | | | | | From | To | Hrs. |
| | LOGGING W/ SCHLUMBERGER | | | | | 12:00 | 4:00 | 4 | | WAIT ON ORDERS | | | | | 8:00 | 8:30 | 1/2 | | Testing. | | | | | 4:00 | 5:45 | 1 3/4 |
| | WAIT ON ORDERS | | | | | 4:00 | | | | PICK UP TOOL FOR TEST #4 | | | | | 8:30 | | | | Pull out with test tool | | | | | 5:45 | 8:00 | 2 1/4 |
| | | | | | | | | | | RUN 12 DRILL COLLARS + FLEX | | | | | | | | | Break down test tool | | | | | 8:00 | | |
| | | | | | | | | | | WT MAKE UP REST OF TOOL | | | | | | | | | lay down same. | | | | | | 8:45 | 3/4 |
| | | | | | | | | | | + INTERVAL | | | | | | 12:30 | 4 | | RUN IN 4 stds. Flex weight. | | | | | 8:45 | 9:00 | 1/4 |
| | | | | | | | | | | RUN IN DRILL PIPE | | | | | 12:30 | 1:30 | 1 | | Circ hole. WAIT TO | | | | | 9:00 | 12:00 | 3 |
| | | | | | | | | | | R.U TO + TESTING | | | | | 1:30 | 4:00 | 2 1/2 | | Run Plugs. | | | | | | | |
| | Driller | | | | | | | | | Driller Ed Lesnik | | | | | | | | | Driller H. Jandl | | | | | | | |

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....
MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ..... NO .....

Total Contract Time .....hrs. Total Company Time .....hrs. Tooipusher ..... Approved by .....

Form 34402 (300 bks.-11-62)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 55

2 DE SW 2 Wind LSD C SEC. 50 TWN. RGE. W. Contractor TRI-CITY DRLG Type Rig FALING START Month MARCH Day 14 19 64

## 1st Tour From: 12:00 Midnight To: 8:00 a.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 4066 | 4087 | 21 | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 61 | 1 | | 300.22 | |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 6 | 4 1/2 | 2 1/4 | 300.22 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 80M | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 42 | 4H | | | 3 1/4 | | 25M | 21 | |

Bit Serial No. N23991 Table R.P.M. 90

Jet or Conventional - Conv. Nozzle Size

**SURVEYS**

Kind at Ft. Deg. off

**SLUSH PUMP RECORD No. 1 No. 2**

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 3/4 | | 900 | 12 | | 5 1/2 |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 5:00 | 45 | 9.8 | 12.4 | 12 | |
| 7:00 | 40 | 9.9 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| PULL OUT WITH PACKER | 12:00 | 2:00 | 2 |
| TEAR DOWN + LAY DOWN PACKER | 2:00 | 2:45 | 3/4 |
| RIG SERVICE | 2:45 | 3:00 | 1/4 |
| CLEAN UP FLOOR | 3:00 | 3:15 | 1/4 |
| RUN IN W/ BIT | 3:15 | 4:30 | 1 1/4 |
| CLEAN SUCTION + BREAK CIRC | 4:30 | 4:45 | 1/4 |
| DRLG | 4:45 | 8:00 | 3 1/4 |

Driller Jimmy Bigot

## 2nd Tour From: 8:00 a.m. To: 4:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 4087 | 4094 | 7' | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 62 | | 27.44 | 300.22 | |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 10 | 4 1/2 | 2 1/4 | 300.22 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 80M | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 42 | 4H | | | 6 1/4 | 4094 | 2M | 28' | |

Bit Serial No. N23991 Table R.P.M. 90-60

Jet or Conventional - Nozzle Size

**SURVEYS**

Kind at Ft. Deg. off

**SLUSH PUMP RECORD**

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| | | 900 | 12" | 62 | 5 1/2 |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 8:00 AM | 38 | 10. | 11.4 | 12. | CAUSTIC - 50# |
| 10:00 | 38 | 10. | | | |
| 12:00 | 38 | 10. | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| RIG SERVICE + CHECK BOP | 8:00 | 8:15 | 1/4 |
| DRLG | 8:15 | 11:15 | 3 |
| CIRC TO CONDITION HOLE TO logg | 11:15 | 12:00 | 3/4 |
| HOIST | 12:00 | 1:30 | 1 1/2 |
| RIG TO + LOGG | 1:30 | 4:00 | 2 1/2 |
| | | | 8 |

Driller Al Landa

## 3rd Tour From: 4:00 p.m. To: 12:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 4094 | 4094 | — | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 62 | | 27.44 | 300.22 | |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 10 | 4 3/4 | 2 | 300.22 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | | 10,500 |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|

Bit Serial No. Table R.P.M.

Jet or Conventional - Nozzle Size

**SURVEYS**

Kind at Ft. Deg. off

**SLUSH PUMP RECORD**

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| | | | 12" | | 5 1/2 |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| Logging. | 4:00 | 12:00 | 8 |

Driller H. Jandl

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....

MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ✓ NO .....

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-11-62)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 58

FEE Swad Obuit LSD. C SEC. 20 TWN. RGE. W. Contractor TRI-CITY DRLG Type Rig FLOATING STEPT Month MARCH Day 13 19 64

| | 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 | Hole Size | Formation | From | To | Hole Made | Hole Size | Formation | From | To | Hole Made | Hole Size | Formation |
| | 4041 | 4066 | 25' | 6 3/4 | | 4066 | — | — | | | 4066 | 4066 | — | 6 3/4 | |
| **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. |
| | 3 1/2 | 64 | 1 | 24' | 300.22 | 4 1/2 | 61 | 1 | 24' | 300.22 | 3 1/2 | 61 | 1 | 24 sqr. | 300.22 |
| | DRILL COLLAR | Number | OD | ID | Length | DRILL COLLAR | Number | OD | ID | Length | DRILL COLLAR | Number | OD | ID | Length |
| | | 10 | 4 1/2 | 2 1/4 | 300.22 | | 10 | 4 1/2 | 2 1/4 | | | 10 | 4 1/2 | 2 1/4 | 300.22 |
| | DATA | INDICATOR WEIGHT OF TOTAL DRILLING STRING | | DRILL COLLARS | | DATA | INDICATOR WEIGHT OF TOTAL DRILLING STRING | | DRILL COLLARS | | DATA | INDICATOR WEIGHT OF TOTAL DRILLING STRING | | DRILL COLLARS | |
| | | 80 M | | | | | 80M | | | | | | | 10,500 | |
| **BIT RECORD** | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
| | 42 | DWC | | 600 | 10 3/4 | 4066 | 25 | 50 | | 43 | VH | | | 0 | 4066 | | | |
| | Bit Serial No. 47712 | | | Table R.P.M. 100 | | Bit Serial No. N23991 | | | Table R.P.M. | | Bit Serial No. | | | Table R.P.M. | |
| | Jet or Conventional - CONV. | | | Nozzle Size | | Jet or Conventional - | | | Nozzle Size | | Jet or Conventional - | | | Nozzle Size | |
| **SURVEYS** | Kind | at | Ft. | Deg. off | | Kind | at | Ft. | Deg. off | | Kind | at | Ft. | Deg. off | |
| **STROKE PUMP RECORD** | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
| No. 1 | 5 3/4 | | 900 | 63 | [illegible] | 5 1/2 | 8 | 3 | 900 | 12" | 63 | 5 1/2 | — | | | 12" | | 5 1/2 |
| 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 | 35 | 10.2 | 12.2 | 12. | | 12:00 | 35 | 10.1 | | | CELLEX - 50# | | | | | | |
| | 2:00 | 35 | 10.2 | | | | | | | | | | | | | | | |
| | 4:00 | 35 | 10 | | | | | | | | | | | | | | | |
| **CORING** | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
| | | | | | | | | | | | | | | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| DRLG | 12:00 | 4:00 | 4 |
| RIG SERVICE | 4:00 | 4:15 | 1/4 |
| DRLG | 4:15 | 6:00 | 1 3/4 |
| TRIP FOR BIT | 6:00 | 8:00 | 2 |

Driller Jim Bryt

| | From | To | Hrs. |
|---|---|---|---|
| RIG SERV & CHECK BOP | 8:00 | 8:15 | 1/4 |
| RUN IN W/BIT | 8:15 | 9:30 | 1 1/4 |
| REAM 3m TO BOTTOM & CIRC | 9:30 | | |
| SAWDUST FROM HOLE TO TEST | | 12:30 | 3 |
| STRAP OUT TO TEST | 12:30 | 2:30 | 2 |
| PICK UP TOOL | 2:30 | 3:30 | 1 |
| WORK ON STEAM LINES | 3:30 | 4:00 | 1/2 |

Driller Ed Lamb

| | From | To | Hrs. |
|---|---|---|---|
| WORK ON STEAM LINES. | 4:00 | 4:30 | 1/2 |
| SERVICE RIG. | 4:30 | 4:45 | 1/4 |
| MAKE UP TEST TOOL. | 4:45 | 5:00 | 1/4 |
| RUN IN WITH TEST TOOL | 5:00 | 6:30 | 1 1/2 |
| RIG TO & TESTING. | 6:30 | 10:30 | 4 |
| PULL OUT OF HOLE WITH TEST TOOL. | 10:30 | 12:00 | 1 1/2 |

Driller H. Jandl

DST #3

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....
MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ✓ NO .....

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-11-62)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 57

Well Ed Lsd LSD. D SEC. 20 TWN. ____ RGE. ____ W. ____ Contractor TRI-CITY DRLG Type Rig FALLING STAR Month MARCH Day 12 1964

## 1st Tour From: 12:00 Midnight To: 8:00 a.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 3980 | 3999 | 19' | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 60 | 1 | 30' up | 300.22 | |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| | | | | | DRILLING STRING | DRILL COLLARS |
| COLLAR | 10 | 4 1/2 | 2 1/4 | 300.22 | | |
| DATA | | | | | 82M | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 40 | OWC | | | 4 | | 24M | 38 | |

Bit Serial No. 47711 Table R.P.M. 90

Jet or Conventional - Conv. Nozzle Size

**SURVEYS**

Kind at Ft. Deg. off

**MUD PUMP RECORD No. 1 No. 2**

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 2 1/2 | | 900 | 12 | 60 | 5 1/2 |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 3:00 | 41 | 9.7 | | | SAWDUST 10 SACKS |
| 4:00 | 35 | 9.7 | 9.2 | 11 | GEL 600# |
| 6:00 | 42 | 10.2 | | | IMPERMIX 150# |
| 7:00 | 39 | 10.5 | | | CAUSTIC 100# |
| | | | | | Q BROXIN 50 |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| LOST CIRC. TRY TO RECOVER | 12:00 | 5:15 | 5 1/4 |
| DRLG | 5:15 | 7:45 | 2 1/2 |
| CLEAN SUCTION | 7:45 | 8:00 | 1/4 |

Driller Jim Byrd

## 2nd Tour From: 8:00 a.m. To: 4:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 3999 | 4016 | 17 | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 60 | 1 | 13.67 up | 300.22 | |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| | | | | | DRILLING STRING | DRILL COLLARS |
| COLLAR | 10 | 4 1/2 | 2 1/4 | | | |
| DATA | | | | | 82M | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 40 | OWC | | 715 | 9 | | 24M | 55 | |
| 41 | OWC | | | | | | | |

Bit Serial No. 47711 - #9 47712 Table R.P.M. 90

Jet or Conventional - Nozzle Size

**SURVEYS**

Kind at Ft. Deg. off

**MUD PUMP RECORD**

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| | | 800 | 12" | 60 | 5 1/2 |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 8:00 AM | 33 | 10.1 | 6.6 | 12 | SAWDUST = 4 SACKS |
| 10 | 33 | 10.1 | | | |
| 12 | 33 | 10.1 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| RIG SERV & CHECK BOP | 8:00 | 8:15 | 1/4 |
| DRLG | 8:15 | 1:15 | 5 |
| HOIST 5 STDS PICK UP KELLY & BREAK CIRC TRIP OUT & MAKE UP BIT & RUN IN COLLARS | 1:15 | 3:45 | 2 1/2 |
| MIX MUD | 3:45 | 4:00 | 1/4 |

Driller Ed. Land

## 3rd Tour From: 4:00 p.m. To: 12:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 4016 | 4041 | 25 | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 61 | | 19.15 up. | 300.22 | |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| | | | | | DRILLING STRING | DRILL COLLARS |
| COLLAR | 10 | 4 1/2 | 2 1/4 | 300.22 | 80 000 | 10,500 |
| DATA | | | | | | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 41 | OWC | 6:45 | | 5 | | 24 | 25 | |

Bit Serial No. 47712 Table R.P.M. 100

~~Jet~~ or Conventional - Nozzle Size 3-5/8"

**SURVEYS**

Kind at Ft. Deg. off

**MUD PUMP RECORD**

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 5 | | 800 | 12" | 70 | 5 1/2 |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 5:00 | 42 | | | | Gel - 1100 |
| 7:00 | 38 | 10.2 | 11. | 12 | IMPERMEX - 150 |
| 9:00 | 36 | 10.2 | | | Sawdust - 10 SKS. |
| 11:00 | 37 | 10.2 | 11.2 | 12 | CAUSTIC - 100 |
| | | | | | QBROXIN - 25 |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| SERVICE RIG. | 4:00 | 4:15 | 1/4 |
| SLIP + CUT DRILL line (MIX MUD) | 4:15 | 5:30 | 1 3/4 1/4 |
| RUN IN Hole. | 5:30 | 6:30 | 1 |
| WORK ON PUMP. | 6:30 | 6:45 | 1/4 |
| DRILL 6 3/4 Hole. | 6:45 | 9:00 | 2 1/4 |
| WORK ON PUMP. | 9:00 | 9:15 | 1/4 |
| DRILL 6 3/4 Hole. | 9:15 | 12:00 | 2 3/4 |

Driller H. Jandt

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ____ REEL SERIAL No. ____

MNFR. OF KELLY HOSE IN USE ____ HOSE SERIAL No. ____

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ✓ NO ____

Total Contract Time ____ hrs. Total Company Time ____ hrs. Toolpusher ____ Approved by ____

Form 34402 (300 bks.-11-62)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 56

LSD. 2 SEC. 32 TWN. ..... RGE. ..... W. ..... Contractor TRI-CITY DRLG. Type Rig TRAILER STRAT Month MARCH Day 11 19 62

## 1st Tour From: 12:00 Midnight To: 8:00 a.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 3886 | 3924 | 38 | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3½ | 54 | | 14' up | 300.22 | |

| | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| DRILL COLLAR | 10 | 4½ | 2¼ | 300.22 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 80 M | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 39 | YH | 3:15 | | 4 3/4 | | 24M | 38 | |

Bit Serial No. N23993 Table R.P.M. 90

Jet or Conventional - Conv. Nozzle Size

**SURVEYS**

Kind at Ft. Deg. off

**PUMP RECORD**

| | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| No. 1 | 4 3/4 | 1/4 | 900 | 12 | 63 | 5½ |
| No. 2 | | | | | | |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 12 00 | 40 | 10.8 | 13.2 | 11.5 | |
| 4 00 | 42 | 10.8 | | | |
| 6 00 | 41 | 10.8 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| ~~DRLG~~ | ~~12 00~~ | | |
| RIG SERVICE | 12 00 | 12 15 | 1/4 |
| TRIP FOR BIT | 12 15 | 2 45 | 2½ |
| SLIP LINE | 2 45 | 3 00 | 1/4 |
| BREAK CIRC & REAM TO BOTTOM | 3 00 | 3 15 | 1/4 |
| DRLG. | 3 15 | 8 00 | 4 3/4 |

Driller.. Jim Boyd

## 2nd Tour From: 8:00 a.m. To: 4:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 2924 | 3961 | 37' | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3½ | 59 | 1 | 7.67 up | 300.22 | |

| | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| DRILL COLLAR | 10 | 4½ | 2¼ | 300.22 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 80M | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 39 | YH | | 3:15 | 10½ | 3961 | 24M | 37' | |

Bit Serial No. N23993 Table R.P.M. 90

Jet or Conventional - Nozzle Size

**SURVEYS**

Kind at Ft. Deg. off

**PUMP RECORD**

| | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| No. 1 | 7 3/4 | | 900 | 12" | 63 | 5½ |
| No. 2 | | | | | | |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 8 | 40 | 10.8 | | | |
| 10 | 47 | 10.8 | 12.8 | 11 | |
| 12 | 47 | 10.9 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| RIG SERV. & CHECK BOP | 8 00 | 8 15 | 1/4 |
| DRLG | 8 15 | 2 00 | 5 3/4 |
| HOIST | 2 00 | 3 30 | 1½ |
| RIG TO LOG | 3 30 | 4 00 | ½ |

Driller. Ed Fash

## 3rd Tour From: 4:00 p.m. To: 12:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 3961 | 3980 | 19 | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3½ | 60 | | 19.38 up | 300.22 | |

| | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| DRILL COLLAR | 10 | 4½ | 2¼ | 300.22 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 82,000 | 10,500 |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 40 | OWC | 8:30 | | 19½ | | 24 | 19 | |

Bit Serial No. 47711 Table R.P.M. 100

~~Jet~~ or Conventional - Nozzle Size

**SURVEYS**

Kind at Ft. Deg. off

**PUMP RECORD**

| | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| No. 1 | 1½ | | 1000 | 12" | 63 | 5½" |
| No. 2 | | | | | | |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 9 00 | 45 | 10.9 | 14.2 | 11 | Gel - 1200 |
| | | | | | Sawdust - 35 SKS. |
| | | | | | Impermex - 300 lbs |
| | | | | | Caustic - 200 # |
| | | | | | Chrome - 25 # |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | 150 # Linde |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| LOGGING. | 4 00 | 5 30 | 1½ |
| HOOK UP STEAM + WATER LINES | 5 30 | | |
| START MOTORS + GET READY TO RUN IN. | | 7 00 | 1½ |
| RUN BIT # 40 | 7 00 | 8 15 | 1¼ |
| WORK ON PUMP. | 8 15 | 8 30 | 1/4 |
| DRILL 6 3/4 HOLE. | 8 30 | 10 00 | 1½ |
| LOST CIRC MIX MUD & SAWDUST | | | |
| PUMP DOWN SAND | | 12 00 | 2 |

Driller. H. Jandl

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....

MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ✓ NO .....

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-11-62)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 55

JOE Sand Oberst LSD. D SEC. 30 TWN. ..... RGE. ..... W. ..... Contractor T.D.I. - CITY DRLG. Type Rig FALING STRAT Month MARCH Day 10 19.64

## DEPTH

| 1st Tour From: 12:00 Midnight To: 8:00 a.m. | | | | |
|---|---|---|---|---|
| From | To | Hole Made | Hole Size | Formation |
| 3802 | 3831 | 29 | 6 3/4 | |

| 2nd Tour From: 8:00 a.m. To: 4:00 p.m. | | | | |
|---|---|---|---|---|
| From | To | Hole Made | Hole Size | Formation |
| 3831 | 3845 | 14' | 6 3/4 | |

| 3rd Tour From: 4:00 p.m. To: 12:00 p.m. | | | | |
|---|---|---|---|---|
| From | To | Hole Made | Hole Size | Formation |
| 3845 | 3886 | 41 | 6 3/4 | |

## DRILLING STRING

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 59 | 1 | 17' MP | 176.97 | SUB 3.00 |

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 57 | 1 | 5.78 SD | 176.97 | SUB 3.00 |

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 58 | 1 | 23.254 | 300.22 | |

| DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING | DRILL COLLARS |
|---|---|---|---|---|---|---|
| | 6 | 4 1/2 | 2 1/4 | 176.97 | 75 M | |

| DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING | DRILL COLLARS |
|---|---|---|---|---|---|---|
| | 6 | 4 1/2 | 2 1/4 | 176.97 | | |

| DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING | DRILL COLLARS |
|---|---|---|---|---|---|---|
| | 10 | 4 1/2 | 2 1/4 | 300.22 | 80 000 | 10,500 |

## BIT RECORD

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 37 | WTR | | | 11 1/2 | | 24 M | 33 | 13 |

Bit Serial No. 41493 Table R.P.M. 90
Jet or Conventional - Conv. Nozzle Size

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 37 | WTR | 10 00 PM | 11 50 | 13 | 3845 | 24 M | 47 | |
| 38 | WTR | | | | | | | |

Bit Serial No. 41493 - #38 - 36289 Table R.P.M. 90
Jet or Conventional - Nozzle Size

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 38 | WTR | 5 45 | | 7 1/4 | | 24M | 41 | 12 |

Bit Serial No. 36289 Table R.P.M. 90
Jet or Conventional - Nozzle Size

## SURVEYS

Kind ..... at ..... Ft. ..... Deg. off

Kind ..... at ..... Ft. ..... Deg. off

Kind ..... at ..... Ft. ..... Deg. off

## MUDFISH PUMP RECORD

| No. | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| 1 | 7 3/4 | | 1000 | 12 | | 5 1/2 |
| 2 | | | | | | |

| No. | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| 1 | - | | 1000 | 12 | 66 | 5 1/2 |
| 2 | | | | | | |

| No. | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| 1 | 6 1/4 | | 1100 | 12" | 70 | 5 1/2 |
| 2 | | | | | | |

## MUD RECORD

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 12 00 | 40 | 11 | 12.2 | 12 | |
| 2 00 | 40 | 11 | | | |
| 9 00 | 41 | 11.1 | | | |
| 6 00 | 42 | 11.1 | | | |

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 8 00 | 40 | 11.1 | 12.2 | 11 | |
| 10 00 | 40 | 11.2 | | | Mil 600 # |
| | | | | | IMPERMEX = 250 # |
| | | | | | CAUSTIC = 100 # |
| | | | | | QBROXIN = 50 # |

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 6.00 | 45 | 11. | 12.4 | 11.5 | |
| 8.00 | 42 | 10.8 | | | |
| 10.00 | 43 | 10.7 | 11.4 | 11.5 | |

## CORING

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| Bit #37 | | T B G | | | |
| | | 4 3 0 1/4 | | | |

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

## DETAIL OF OPERATIONS AND REMARKS

| | From | To | Hrs. |
|---|---|---|---|
| DRLG | 12 00 | 5 00 | 5 |
| RIG SERVICE | 5 00 | 5 45 | 3/4 |
| DRLG | 5 45 | 8 00 | 2 1/4 |

| | From | To | Hrs. |
|---|---|---|---|
| RIG SER & CHECK BOP | 8 00 | 8 15 | 1/4 |
| DRLG | 8 15 | 11 30 | 3 1/4 |
| HOIST | 11 30 | 12 45 | 1 1/4 |
| LAY DOWN 6 DRILL COLLARS | 12 45 | | |
| CALIPER & PICK UP 10 NEW | | | |
| DRILL COLLARS & MIX MUD | | 3 30 | 2 3/4 |
| RUN IN WITH BIT | 3 30 | 4 00 | 1/2 |

| | From | To | Hrs. |
|---|---|---|---|
| SERVICE RIG. | 4 00 | 4 15 | 1/4 |
| RUN BIT # 38 | 4 15 | 4 45 | 1/2 |
| REAM UNDERGUAGE HOLE. | 4 45 | 5 45 | 1 |
| DRILL 6 3/4 HOLE. | 5 45 | 12 00 | 6 1/4 |

Driller Jim Byatt

Driller Ed Lamb

Driller H. Jarrell

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....
MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ..... NO .....

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-11-62)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 54

2 1/2 mile Creek LSD. D SEC. 50 TWN. ..... RGE. ..... W. ..... Contractor TRI-CITY DRLG. Type Rig FAIRINA STRAT Month MAR Day 9 19 64

| | 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 | Hole Size | Formation | From | To | Hole Made | Hole Size | Formation | From | To | Hole Made | Hole Size | Formation |
| | 3739 | 3772 | 33 | 6 3/4 | | 3772 | 3793 | 21 | 6 3/4 | | 3793 | 3802 | 9 | 6 3/4 | |
| **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 | 58 | 1 | 15' up | 176.79 | SUB 3.00 | 3 1/2 | 59 | | 25.37 | 176.79 | SUB 3.00 | 3 1/2 | 59 | | Kelly 4.16 | 176.97 | Sub. 3.00 |
| | DRILL COLLAR | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING | DRILL COLLARS | DRILL COLLAR | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING | DRILL COLLARS | DRILL COLLAR | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING | DRILL COLLARS |
| | | 6 | 4 1/2 | 2 1/4 | 176.79 | | | | 6 | 4 1/2 | 2 1/4 | 176.79 | | | | 6 | 4 1/2 | 2 1/4 | 176.97 | 72000 | 6300 |
| | DATA | | | | | 75 M | | DATA | | | | | 75M | | DATA | | | | | | |
| **BIT RECORD** | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
| | 36 | DWV | 1:45 | | 6 1/4 | | 24M | 33 | | 36 | DWV | 1:45 | | 13 | | 24M | 54 | | 36 | DWV | 1:45 | 6:00 | 14 3/4 | 3799 | 24 | 59 | |
| | | | | | | | | | | | | | | | | | | | 37 | WTR | 10:00 | | 3 3/4 | | 24M | 4 | 13 |
| | Bit Serial No. 76506 | | | | Table R.P.M. 90 | | | | | Bit Serial No. 76505 | | | | Table R.P.M. 90 | | | | | Bit Serial No. 76505 (37) 41493 | | | | Table R.P.M. 90 | | | | |
| | Jet or Conventional - CONV | | | | Nozzle Size | | | | | ~~Jet or~~ Conventional ✓ | | | | Nozzle Size | | | | | ~~Jet~~ or Conventional - | | | | Nozzle Size | | | | |
| **SURVEYS** | Kind | | at | | Ft. | Deg. off | | Kind S. SHOT | | at 3789 | | Ft. | 1/4° Deg. off | | Kind | | at | | Ft. | Deg. off | | |
| **MUD PUMP RECORD** | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | | |
| No. 1 | 6 1/4 | | 1000 | 12 | 68 | 5 1/2 | | | | 1000 | 12" | | 5 1/2 | | 3 3/4 | | 1000 | 12" | | 5 1/2 | | |
| 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 | | |
| | 2:00 | 46 | 10.9 | 14.4 | 11 | CAUSTIC 25# | | 8:00 | 47 | 10.9 | 14.4 | 11.0 | IMPERMEX — 250# | | 4:00 | 43 | 10.8 | 11.2 | 12 | | | |
| | 4:00 | 46 | 10.9 | | | Q BROXIN 25# | | 10:00 | 43 | 11 | | | CAUSTIC — 50# | | 10:00 | 43 | 10.8 | | | | | |
| | 6:00 | 52 | 10.8 | 14.6 | 11 | | | 12:00 | 43 | 11 | 13.2 | 12.0 | QBROXIN — 15# | | 11:00 | 41 | 10.9 | 11.6 | | | | |
| | | | | | | | | 2:00 | 43 | 11.1 | | | | | | | | | | | | |
| **CORING** | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| **DETAIL OF OPERATIONS AND REMARKS** | | | From | To | Hrs. | | | | | From | To | Hrs. | | | | | From | To | Hrs. | | | |
| | FINISH TRIP OUT | | 12:00 | 12:15 | 1/4 | | | RIG SERV & CHECK BOP | | 8:00 | 8:15 | 1/4 | | | SERVICE RIG. | | 4:00 | 4:15 | 1/4 | | | |
| | RIG SERVICE | | 12:15 | 12:30 | 1/4 | | | DRLG | | 8:15 | 1:15 | 5 | | | DRILL 6 3/4 Hole. | | 4:15 | 6:00 | 1 3/4 | | | |
| | SLIP DRILL LINE | | 12:30 | 12:45 | 1/4 | | | SURVEY | | 1:15 | 1:45 | 1/2 | | | HOIST FOR BIT. | | 6:00 | 7:00 | 1 | | | |
| | RUN IN HOLE | | 12:45 | 1:45 | 1 | | | DRLG | | 1:45 | 2:00 | 1/4 | | | SLIP DRILL LINE. | | 7:00 | 7:15 | 1/4 | | | |
| | DRLG. | | 1:45 | 8:00 | 6 1/4 | | | WORK ON PUMP | | 2:00 | 2:15 | 1/4 | | | RUN BIT #37 | | 7:15 | 8:15 | 1 | | | |
| | | | | | | | | DRLG | | 2:15 | 3:00 | 3/4 | | | REAM UNDERGUAGE HOLE. | | 8:15 | 10:00 | 1 3/4 | | | |
| | | | | | | | | WORK ON PUMP | | 3:00 | 3:15 | 1/4 | | | DRILL 6 3/4 Hole. | | 10:00 | 12:00 | 2 | | | |
| | | | | | | | | DRLG | | 3:15 | 4:00 | 3/4 | | | | | | | | | | |
| | Driller JIM BYRT. | | | | | | | Driller Ed Lamb | | | | | | | Driller H. Jandl | | | | | | | |

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....
MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ✓ NO .....

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-11-62)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 53

609 Sinclair Exhibit LSD. D SEC. 20 TWN. RGE. W. Contractor TRI-CITY DRLG. Type Rig FALLING STRUT Month MAR Day 8 1964

| | 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 | Hole Size | Formation | From | To | Hole Made | Hole Size | Formation | From | To | Hole Made | Hole Size | Formation |
| | 3676 | 3686 | 10 | 6 3/4 | | 3686 | 3720 | 34 | 6 3/4 | | 3720 | 3739 | 19 | 6 3/4 | |
| **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. |
| | 2½ | 57 | | 10' up | 176.96 | SUB 3.00 | 3½ | 57 | 1 | 6.66 up | 176.96 | SUB 3.00 | 3½ | 58 | | 18.52 up | 176.97 | Sub 3.00 |
| | DRILL COLLAR | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL: DRILLING STRING | DRILL COLLARS | DRILL COLLAR | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL: DRILLING STRING | DRILL COLLARS | DRILL COLLAR | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL: DRILLING STRING | DRILL COLLARS |
| | | 6 | 4½ | 2¼ | 176.97 | | | 6 | 4½ | 2¼ | 176.97 | | | 6 | 4½ | 2¼ | 176.97 | | |
| | DATA | | | | | 72M | | DATA | | | | | | DATA | | | | | 74.000 | 6.300 |
| **BIT RECORD** | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
| | 34 | YM | 10:00 am | 3:30 am | 15½ | 3683 | 24M | 52 | | 35 | YS1 | 7:15 | | 8¼ | | 22M | 37 | | 35 | YS-1 | 7:15 | 11:00 | 15 | 3739 | 24 | 56 | |
| | 35 | YS1 | 7:15 | | ~~24~~ | | 22M | 3 | | | | | | | | | | | | | | | | | | | |
| | Bit Serial No. EN3239 EN 3230 Table R.P.M. 90 | | | | | Bit Serial No. EN3230 Table R.P.M. 90 | | | | | Bit Serial No. EN3230 Table R.P.M. 90 | | | | |
| | ~~Jet~~ or Conventional - Conv. Nozzle Size | | | | | ~~Jet~~ Conventional - ✓ Nozzle Size | | | | | ~~Jet~~ or Conventional - Nozzle Size | | | | |
| **SURVEYS** | Kind at Ft. Deg. off | | | | | Kind at Ft. Deg. off | | | | | Kind at Ft. Deg. off | | | | |
| **MUSH PUMP RECORD** | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
| **No. 1** | 3/4 | | 1000 | 12 | 68 | 5½ | 7½ | | 1000 | 12" | 68 | 5½ | 6¾ | | 900 | 12" | 64 | 5½ |
| **No. 2** | | | | | | | | | 900 | 12" | 60 | 5½ | | | | | | |
| **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 noon | 42 | 10.6 | | | 100 GEL | 8:00 | 45 | 10.7 | 11.8 | 10.5 | CAUSTIC = 25# | 4:00 | 47 | 10.7 | 12.2 | 12 | |
| | 2:00 | | | | | 150 IMBERMEX | 10:00 | 47 | 10.8 | | | | 6:00 | 44 | 10.8 | | | |
| | 6:00 | | | | | | 12:00 | 43 | 10.8 | | 11.5 | | 8:00 | 44 | 10.8 | | | |
| | 8:00 | | | | | | 2:00 | 47 | 10.8 | | | | 10:00 | 44 | 10.8 | | | |
| **CORING** | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
| | | | | | | | | | | | | | | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| DRLG | 12:00 | 2:30 | 2½ |
| WORK ON HOIST CLUTCH | 2:30 | 3:00 | ½ |
| RIG SERVICE | 3:00 | 3:15 | ¼ |
| HOIST BIT NO 24 | 3:15 | 4:45 | 1½ |
| SLIP LINE | 4:45 | 5:00 | ¼ |
| RUN BIT NO 25 | 5:00 | 6:15 | 1¼ |
| CLEAN SUCTION & BREAK CIRC | 6:15 | 6:30 | ¼ |
| WORK ON PUMP | 6:30 | 7:15 | ¾ |
| DRLG | 7:15 | 8:00 | ¾ |

Driller Jim Bryt

| | From | To | Hrs. |
|---|---|---|---|
| RIG SERV & CHECK BOP | 8:00 | 8:15 | ¼ |
| DRLG | 8:15 | 10:00 | 1¾ |
| THAW AIR LINES | 10:00 | 10:15 | ¼ |
| DRLG | 10:15 | 4:00 | 5¾ |

Driller E.H. Lamb

| | From | To | Hrs. |
|---|---|---|---|
| SERVICE RIG. | 4:00 | 4:15 | ¼ |
| DRILL 6¾ Hole. | 4:15 | 11:00 | 6¾ |
| HOIST FOR BIT. | 11:00 | 12:00 | 1 |

Driller H. Jandl

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....
MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ✓ NO .....

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-11-62)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 52

9E Swalwell LSD. 6 SEC. 30 TWN. RGE. W. Contractor Int. City Type Rig Emsco Steel Month March Day 2 19 64

| | 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 | Hole Size | Formation | From | To | Hole Made | Hole Size | Formation | From | To | Hole Made | Hole Size | Formation |
| | 3614 | 3631 | 17' | 6 3/4 | | 3631 | 3651 | 20' | 6 3/4 | | 3651 | 3676 | 25 | 6 3/4 | |
| **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 | 56 | | 3 1/2 up | 176.97 | Sub. 3.00 | 3 1/2 | 56 | 1 | 14.15 up | 176.97 | Sub. 3.00 | 3 1/2 | 57 | | 20.10 up | 176.97 | Sub. 3.00 |
| | DRILL COLLAR | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING / DRILL COLLARS | DRILL COLLAR | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING / DRILL COLLARS | DRILL COLLAR | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING / DRILL COLLARS |
| | | 6 | 4 1/2 | 2 1/4 | 176.97 | | | 6 | 4 1/2 | 2 1/4 | 176.97 | | | 6 | 4 1/2 | 2 1/4 | 176.97 | |
| | DATA | | | | | 72 M | DATA | | | | | 74 M. | DATA | | | | | 72 000 / 6 300 |
| **BIT RECORD** | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
| | 33 | OWC | | 6 45 | 13 1/2 | 3621 | 22 | 34 | | 34 | YM | 10 AM | | 5 3/4 | | 22 M | 20' | |
| | Bit Serial No. 47722 | | | | Table R.P.M. 90 | | Bit Serial No. EN3239 | | | | Table R.P.M. 90 | | Bit Serial No. EN3239 | | | | Table R.P.M. 90 | |
| | Jet or Conventional - Conv. | | | | Nozzle Size | | ~~Jet~~ Conventional ✓ | | | | Nozzle Size | | ~~Jet~~ or Conventional - | | | | Nozzle Size | |
| **SURVEYS** | Kind | at | Ft. | | Deg. off | | Kind | at | Ft. | | Deg. off | | Kind | at | Ft. | | Deg. off | |
| **MUDSH PUMP RECORD** | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
| No. 1 | 6 3/4 | | 900 | 12" | 70 | 5 1/2 | 5 3/4 | | 900 | 12" | 70 | 5 1/2 | 7 1/2 | | 950 | 12" | 72 | 5 1/2" |
| 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 | 40 | 10.6 | 13.4 | 11 | | 10 00 | 44 | 10.6 | 13.8 | 10.5 | IMPERMEX = 100# | 4.00 | 46 | 10.7 | 13.4 | 11.5 | |
| | 2 00 | 41 | 10.4 | | | | 12 00 | 44 | 10.6 | 13.6 | 11.0 | CAUSTIC = 50# | 6.00 | 42 | 10.7 | | | |
| | 4 00 | 40 | 10.6 | | | | 2 00 | 44 | 10.6 | | | QBRACHIN = 15# | 8.00 | 43 | 10.7 | | | |
| | 6 00 | 44 | 10.5 | | | | | | | | | | 10.00 | 44 | 10.7 | 13.2 | 11 | |
| **CORING** | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
| | | | | | | | | | | | | | | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| DRLG | 12 00 | 6 45 | 6 3/4 |
| HOIST FOR BIT | 6 45 | 8 00 | 1 1/4 |

Driller Jim Boyd

| | From | To | Hrs. |
|---|---|---|---|
| R.G SERV & CHECK BOP | 8 00 | 8 15 | 1/4 |
| SLIP DRLG LINE | 8 15 | 8 30 | 1/4 |
| RUN IN BIT #34 | 8 30 | 9 45 | 1 1/4 |
| BREAK CIRC & REAM TO BOTTOM | 9 45 | 10 00 | 1/4 |
| DRLG | 10 00 | 11 30 | 1 1/2 |
| WORK ON PUMP | 11 30 | 11 45 | 1/4 |
| DRLG | 11 45 | 4 00 | 4 1/4 |

Driller Ed Landt

| | From | To | Hrs. |
|---|---|---|---|
| SERVICE RIG. | 4.00 | 4.15 | 1/4 |
| DRILL 6 3/4 Hole. | 4.15 | 8 30 | 4 1/4 |
| WORK ON AIR LINE. | 8 30 | 8 45 | 1/4 |
| DRILL 6 3/4 Hole. | 8.45 | 12 00 | 3 1/4 |

Driller H. Jandl

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....

MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ✓ NO .....

Total Contract Time ..... hrs. Total Company Time ..... hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-11-62)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 51

Pouce Coupe Gas Unit LSD. D SEC. 50 TWN. ..... RGE. ..... W. ..... Contractor TRI-CITY DRLG. Type Rig FARM SCRAP Month NOV/62 Day 6 19 64

## 1st Tour From: 12:00 Midnight To: 8:00 a.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 3562 | 3586 | 24 | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3½ | 55 | 1 | 15 up | 176.97 | Sub 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| | | | | | DRILLING STRING | DRILL COLLARS |
| COLLAR | 6 | 4½ | 2¼ | 176.57 | | |
| DATA | | | | | 72 M. | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 32 | YM | | | 12 | | 30m | 43 | |

Bit Serial No. EN3238 Table R.P.M. 80

Jet or Conventional - CONV. Nozzle Size

**SURVEYS**

Kind at Ft. Deg. off

**SLUSH PUMP RECORD**

| No. | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| 1 | 7½ | | 950 | 12 | 70 | 5½ |
| 2 | | | | | | |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 12:00 | 41 | 10.6 | 12.6 | 11.0 | |
| 2:00 | 42 | 10.9 | | | |
| 4:00 | 41 | 10.7 | | | |
| 6:00 | 43 | 10.6 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| DRLG | 12:00 | 3:30 | 3½ |
| RIG SERVICE | 3:30 | 3:45 | ¼ |
| DRLG | 3:45 | 4:00 | ¼ |
| WORK ON PUMP | 4:00 | 4:15 | ¼ |
| DRLG | 4:15 | 8:00 | 3¾ |

Driller Jim Bright

## 2nd Tour From: 8:00 a.m. To: 4:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 3586 | 3597 | 11 | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3½ | 55 | 1 | T.35 | 176.97 | Sub 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| | | | | | DRILLING STRING | DRILL COLLARS |
| COLLAR | 6 | 4½ | 2¼ | 176.57 | | |
| DATA | | | | | | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 32 | YM | | | 16½ | 3597 | 22m | 54 | |

Bit Serial No. EN3238 Table R.P.M. 90

~~Jet or Conventional~~ - CONV Nozzle Size

**SURVEYS**

Kind at Ft. Deg. off

**SLUSH PUMP RECORD**

| No. | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| 1 | 4¼ | | 950 | 12" | 70 | 5½ |
| 2 | | | | | | |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 8:00 | 41 | 10.5 | | | CAUST. C = 50 # |
| 10. | 42 | 10.5 | 14.2 | 11 | |
| 12 | 41 | 10.6 | | | |
| 2 | | | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| R.S SERV & CHECK BOP | 8:00 | 8:15 | ¼ |
| DRLG | 8:15 | 9:15 | 1 |
| REMOVE ROCK FROM PUMP VALVE & TIGHTEN INTERMEDIATE ROD | 9:15 | 10:15 | 1 |
| DRLG | 10:15 | 1:45 | 3½ |
| TRIP | 1:45 | 4:00 | 2¼ |

Driller Ed Lamb

## 3rd Tour From: 4:00 p.m. To: 12:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 3597 | 3614 | 17 | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3½ | 56 | | 20.78 up | 176.97 | Sub 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| | | | | | DRILLING STRING | DRILL COLLARS |
| COLLAR | 6 | 4½ | 2¼ | 176.97 | | |
| DATA | | | | | 72 000 | 6.300 |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 33 | OWS | 5:45 | | 6¼ | | 22 | 17 | |

Bit Serial No. 47722 Table R.P.M. 90

Jet or Conventional - Nozzle Size

**SURVEYS**

Kind at Ft. Deg. off

**SLUSH PUMP RECORD**

| No. | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| 1 | 6¼ | | 900 | 12" | 70 | 5½" |
| 2 | | | | | | |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 6:00 | 45 | 10.6 | 13.6 | 11.5 | Gel - 6.00 |
| 8:00 | 40 | 10.6 | | | Impermex - 150 |
| 10:00 | 40 | 10.5 | 12.6 | 11 | Q-broxin - 50 |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| SERVICE RIG. | 4:00 | 4:15 | ¼ |
| RUN BIT # 33. | 4:15 | 4:45 | ½ |
| MIX MUD. | 4:45 | 5:30 | ¾ |
| WORK ON PUMP. | 5:30 | 5:45 | ¼ |
| DRILL 6 3/4 Hole. | 5:45 | 12:00 | 6¼ |

Driller H. Jandl

NOV 05 RAM

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ..... NO .....

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....

MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

Total Contract Time ..... hrs. Total Company Time ..... hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-11-62)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 50

GE Swd Chert LSD. D SEC. 50 TWN. ____ RGE. ____ W. ____ Contractor TRI-CITY Type Rig FRANK STRAT Month MARCH Day 5 19 64

| | 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 | Hole Size | Formation | From | To | Hole Made | Hole Size | Formation | From | To | Hole Made | Hole Size | Formation |
| | 3500 | 3527 | 27 | 6 3/4 | | 3527 | ~~3543~~ 3546 | ~~16~~ | 6 3/4 | | 3543 | 3562 | 19 | 6 3/4 | |
| **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 | 54 | 1 | 16' HEX | 176.97 | SUB 3.00 | 3 1/2 | | | | 176.97 | SUB 3.00 | 3 1/2 | 55 | | 11.50 HEX. | 176.97 | SUB 3.00 |
| | DRILL COLLAR | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING | DRILL COLLARS | DRILL COLLAR | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING | DRILL COLLARS | DRILL COLLAR | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING | DRILL COLLARS |
| | COLLAR | 6 | 4 1/2 | 2 1/4 | 176.97 | | | COLLAR | 6 | 4 1/2 | 2 1/4 | 176.97 | | | COLLAR | 6 | 4 1/2 | 2 1/4 | 176.97 | | |
| | DATA | | | | | 72 M | | DATA | | | | | | | DATA | | | | | 72.000 | 6,300 |
| **BIT RECORD** | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
| | 31 | OWC | | | 13 1/2 | | 22M | ~~49~~ | | 30 | OWC | | | 18 1/4 | | 22M | 65 | | 32 | YM | 7.30 | | 4 1/2 | | 22 | 19 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | 30 | | |
| | Bit Serial No. 47724 | | | | Table R.P.M. 120 | | | | | Bit Serial No. 47724 | | | | Table R.P.M. 120 | | | | | Bit Serial No. EN3238 | | | | Table R.P.M. 120-80 | | | |
| | Jet or Conventional - CONVENTIONAL | | | | Nozzle Size | | | | | ~~Jet or~~ Conventional - ✓ | | | | Nozzle Size | | | | | ~~Jet~~ or Conventional - | | | | Nozzle Size | | | |
| **SURVEYS** | Kind | at | Ft. | Deg. off | | Kind | at | Ft. | Deg. off | | Kind | at | Ft. | Deg. off | |
| **MUDDISH PUMP RECORD** No. 1 No. 2 | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
| | 7 3/4 | | 1000 | ~~9~~ 12 | 62 | 5 1/2 | | | 1000 | 12" | 60 | 5 1/2 | 4 1/2 | | 1000 | 12" | 70 | 5 1/2 |
| **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 | 39 | 10.9 | 12.8 | 12 | | ~~8~~ 00 | 39 | 11 | | | 400 GEL | 8.00 | 48 | 11 | | | CAUSTIC - 50 |
| | 2 00 | 40 | 10.8 | | | | 10 00 | 39 | 11 | 14.0 | 11.5 | 250 IMPERMEX. | 9.00 | 40 | 11. | 13 | 10.5 | Q BROXIN - 25 |
| | 4 00 | 41 | 11.1 | | | | 12 00 | 39 | 11.1 | | | WATER. | 11 00 | 41 | 11. | | | WATER - |
| | 6 00 | 38 | 11 | | | | | | | | | | | | | | | |
| **CORING** | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
| | | | | | | | | | | | | | | | | | | |
| **DETAIL OF OPERATIONS AND REMARKS** | | | From | To | Hrs. | | | From | To | Hrs. | | | From | To | Hrs. |
| | DRLG | | 12 00 | 3 15 | 3 1/4 | | R.S. SERV & CHECK BOP | 8 00 | 8 15 | 1/4 | | SERVICE RIG. | 4 00 | 4 15 | 1/4 |
| | RIG SERVICE | | 3 15 | 3 30 | 1/4 | | DRLG | 8 15 | 1 00 | 4 3/4 | | HOIST FISH. | 4 15 | 5 30 | 1 1/4 |
| | DRLG. | | 3 30 | 8 00 | 4 1/2 | | TRIP OUT - TWISTED OFF | 1 00 | 2 15 | 1 1/4 | | BREAKDOWN OVERSHOT TAKE | 5 30 | 6 15 | 3/4 |
| | | | | | | | MAKE UP OVERSHOT & RUN IN | 2 15 | 3 30 | 1 1/4 | | BROKEN PIN OUT OF DC. | | | |
| | | | | | | | SET OVER SHOT OVER FISH | 3 30 | 4 00 | 1/2 | | SLIP LINE. | 6 15 | 6 30 | 1/4 |
| | | | | | | | | | | | | RUN BIT # 32 | 6 30 | 7 30 | 1 |
| | | | | | | | | | | | | DRILL 6 3/4 HOLE. | 7 30 | 12 00 | 4 1/2 |
| | Driller Jim Byrt | | | | | | Driller E. W. Lentz | | | | | Driller H. Jandl | | | |

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ____ REEL SERIAL No. ____

MNFR. OF KELLY HOSE IN USE ____ HOSE SERIAL No. ____

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ✓ NO ____

Total Contract Time ____ hrs. Total Company Time ____ hrs. Toolpusher ____ Approved by ____

Form 34402 (300 bks.-11-62)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 49

902 Second Street LSD. 2 SEC. 52 TWN. ____ RGE. ____ W. ____ Contractor TRI-CITY Type Rig FALLING START Month MARCH Day 4 1964

## 1st Tour From: 12:00 Midnight To: 8:00 a.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 3441 | 3461 | 6 3/4 | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 52 | 1 | 20' up | 176.97 | Sub 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 6 | 4 1/2 | 2 1/4 | 176.97 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 44m | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 30 | OWV | | | 14 1/2 | | 22m | 40 | |

Bit Serial No. 33365 Table R.P.M. 120

Jet or Conventional - Conv. Nozzle Size

**SURVEYS**

Kind at Ft. Deg. off

**MUD PUMP RECORD No. 1 No. 2**

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 7 3/4 | | 1000 | 12 | 62 | 5 1/2 |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 12 noon | 42 | 11.4 | | | |
| 2 pm | 42 | 11.4 | | | |
| 4 pm | 43 | 11.5 | | | |
| 6 pm | 44 | 11.5 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| DRLG | 12:00 | 3:30 | 3 1/2 |
| RIG SERVICE | 3:30 | 3:45 | 1/4 |
| DRLG | 3:45 | 8:00 | 4 1/4 |

Driller Jim Byatt

## 2nd Tour From: 8:00 a.m. To: 4:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 3461/2 | 3478 | 17' | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 53 | 1 | 3.81 up | 176.97 | Sub 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 6 | 4 1/2 | 2 1/4 | 176.97 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 74m. | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 30 | OWV | | | 20 | | 22m | | |

Bit Serial No. ~~#30~~ 33365 - Table R.P.M. 120

~~Jet or~~ Conventional - ✓ Nozzle Size

**SURVEYS**

Kind at Ft. Deg. off

**MUD PUMP RECORD No. 1 No. 2**

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 5 1/2 | | 1000 | 12" | 68 | 5 1/2 |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 8:00 | 43 | 11.5 | | | CAUSTIC = 50# |
| 10:00 | 43 | 11.5 | 13 | 11.5 | QBROXIN = 15# |
| | | | | | WATER. |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| RIG SERV & CHECK BOP. | 8:00 | 8:15 | 1/4 |
| DRLG | 8:15 | 9:00 | 3/4 |
| WORK ON PUMP | 9:00 | 9:15 | 1/4 |
| DRLG | 9:15 | 11:45 | 2 1/2 |
| WORK ON PUMP | 11:45 | 12:00 | 1/4 |
| DRLG | 12:00 | 1:30 | 1 1/2 |
| WORK ON PUMP | 1:30 | 1:45 | 1/4 |
| DRLG | 1:45 | 2:30 | 3/4 |
| ~~TEST~~ HOIST & STEAM HYDRAMATIC MAKE UP BIT | 2:30 | 4:00 | 1 1/2 |

Driller E. D. Lasa

## 3rd Tour From: 4:00 p.m. To: 12:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 3478 | 3500 | 22 | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 54 | | 12.15 up. | 176.97 | Sub. 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 6 | 4 1/2 | 2 1/4 | 176.97 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 72 000 | 6,300 |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 31 | OWC | 5:15 | | 5 3/4 | | 22m | 22 | |

Bit Serial No. 47724 Table R.P.M. 120

Jet or Conventional - Nozzle Size

**SURVEYS**

Kind at Ft. Deg. off

**MUD PUMP RECORD No. 1 No. 2**

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 5 3/4 | | 850 | 12" | | 5 1/2 |
| | | 1100 | 12" | | 5 1/2 |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 5:00 | 43 | 11.3 | | | Gel. - 600 |
| 6:00 | 40 | 11.2 | 12.8 | 12. | Impermex - 150 |
| 8:00 | 39 | 10.9 | | | caustic 50 |
| 10:00 | 44 | 10.9 | 11.8 | 12 | WATER. |
| | | | | | Que. 50 |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| SERVICE RIG. | 4:00 | 4:15 | 1/4 |
| RUN BIT # 31 | 4:15 | 5:00 | 3/4 |
| MIX MUD. | 5:00 | 5:15 | 1/4 |
| DRILL 6 3/4 Hole. | 5:15 | 10:00 | 4 3/4 |
| WORK ON PUMP. | 10:00 | 10:15 | 1/4 |
| DRILL 6 3/4 Hole. | 10:15 | 10:45 | 1/2 |
| CHANGE HEAD & LINER ON PUMP | 10:45 | 11:30 | 3/4 |
| DRILL 6 3/4 Hole. | 11:30 | 12:00 | 1/2 |

Driller H. Jandl

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE _____ REEL SERIAL No. _____

MNFR. OF KELLY HOSE IN USE _____ HOSE SERIAL No. _____

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ✓ NO _____

Total Contract Time _____ hrs. Total Company Time _____ hrs. Toolpusher _____ Approved by _____

Form 34402 (300 bks.-11-62)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 48

10E Swan Chute LSD. D SEC. 5C TWN. ..... RGE. ..... W. ..... Contractor TRI-CITY Type Rig Fairbanks Stratt Month Mar. Day 3 19 64

## 1st Tour From: 12:00 Midnight To: 8:00 a.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 3380 | 3404 | 6 3/4 | 6 3/4 | 24' |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 51 | 1 | 16' up | 196.97 | Sub 3.00 |

| | DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|---|
| | COLLAR | 6 | 4 1/2 | 2 1/4 | 276.97 | DRILLING STRING | DRILL COLLARS |
| | DATA | | | | | 71M | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 29 | W-7 | | | 14 1/2 | | 22M | | |

Bit Serial No. 6916 Table R.P.M. 120

Jet or Conventional - Conv Nozzle Size

**SURVEYS**

Kind at Ft. Deg. off

**MUSH PUMP RECORD**

| | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| No. 1 | 7 3/4 | | 1000 | 12 | 62 | 5 1/2 |
| No. 2 | | | | | | |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 12:00 | 40 | 11.3 | 11.2 | 11.5 | |
| 2:00 | 41 | 11.4 | | | |
| 4:00 | 41 | 11.3 | | | |
| 6:00 | 41 | 11.3 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| DRLG | 12:00 | 3:30 | 3 1/2 |
| RIG SERVICE | 3:30 | 3:45 | 1/4 |
| DRLG | 3:45 | 8:00 | 4 1/4 |

Driller Jim Boyt

## 2nd Tour From: 8:00 a.m. To: 4:00 p.m.

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 3404 | 3421 | 17' | 6 3/4 | |

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 51 | 1 | Down | 176.97 | Sub 3.00 |

| | DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|---|
| | COLLAR | 6 | 4 1/2 | 2 1/4 | 176.97 | DRILLING STRING | DRILL COLLARS |
| | DATA | | | | | | |

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 29 | W7 | | 2:15 | 20 1/2 | 3421 | 22m | 61 | |

Bit Serial No. 6916 #29 33365 #30 Table R.P.M. 120

~~Jet or~~ Conventional Nozzle Size

Kind at Ft. Deg. off

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| | | 1000 | 12" | ' | 5 1/2 |

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 8:00 | 42 | 11.4 | 12.0 | 11.0 | CAUSTIC - 50# |
| 10:00 | 42 | 11.4 | | | QUEBRACHO - 15# |
| 12:00 | 42 | 11.4 | | | |
| 2:00 | 42 | 11.4 | | | |

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

| | From | To | Hrs. |
|---|---|---|---|
| RIG SERV + CHECK BOP | 8:00 | 8:15 | 1/4 |
| DRLG | 8:15 | 2:15 | 6 |
| HOIST FOR BIT | 2:15 | 3:30 | 1 1/4 |
| SLIP LINE | 3:30 | 3:45 | 1/4 |
| MAKE UP BIT & STEAM HYDRAMATIC | 3:45 | 4:00 | 1/4 |

Driller Ed Lamb

## 3rd Tour From: 4:00 p.m. To: 12:00 p.m.

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 3421 | 3441 | 20 | 6 3/4 | |

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 52 | | 11.35 up. | 176.92 | Sub. 3.00 |

| | DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|---|
| | COLLAR | 6 | 4 1/2 | 2 1/4 | 176.92 | DRILLING STRING | DRILL COLLARS |
| | DATA | | | | | 84.000 | 6.300 |

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 30 | OWV | 5.00 | | 6 3/4 | | 22m | 20 | |

Bit Serial No. 33365 Table R.P.M. 120

~~Jet~~ or Conventional - Nozzle Size

Kind at Ft. Deg. off

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 6 3/4 | | 1000 | 12" | 64 | 5 1/2 |

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 6.00 | 41 | 11.4 | 11.6 | 11.5 | |
| 8.00 | 41 | 11.4 | | | |
| 10.00 | 42 | 11.5 | | | |

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

| | From | To | Hrs. |
|---|---|---|---|
| SERVICE RIG. | 4:00 | 4:5 | 1/4 |
| RUN Bit # 30 | 4:5 | 5:00 | 3/4 |
| DRILL 6 3/4 Hole. | 5:00 | 8:00 | 3 |
| WORK ON PUMP. | 8:00 | 8:15 | 1/4 |
| DRILL 6 3/4 Hole. | 8:15 | 12:00 | 3 3/4 |

Driller H. Jandl

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....

MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ✓ NO .....

Total Contract Time ..... hrs. Total Company Time ..... hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-11-62)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 47

D.O.E. Swan Lake LSD. D SEC. 50 TWN. ..... RGE. ..... W. ..... Contractor TRI-CITY DRLG. Type Rig TRAILER STRIP Month MAR. Day 2 19 64

## 1st Tour From: 12:00 Midnight To: 8:00 a.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 3334 | 3355 | 21 | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 50 | 1 | 1 up | 234.76 | Sub 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 8 | 4 1/2 | 2 1/4 | 234.76 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 76M | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 28 | OWC | 11 30 | | 8 1/2 | | 23M | 23 | |

Bit Serial No. 83155 Table R.P.M. 120

Jet or Conventional - CONV. Nozzle Size

Kind at Ft. Deg. off

**PUMP RECORD No. 1 No. 2**

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 8 | | 1000 | 12 | 66 | 5 1/2 |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 12 00 | 42 | 10.9 | 12.2 | 11.5 | |
| 2 00 | 42 | 11.2 | | | |
| 4 00 | 42 | 11.3 | | | |
| 6 00 | 41 | 11.3 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| DRLG. | 12 00 | 8 00 | 8 |

Driller Jim Bute

## 2nd Tour From: 8:00 a.m. To: 4:00 p.m.

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 3355 | 5' | 3360 | 6 3/4 | |

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 51 | | 27.42 up | 234.76 | Sub 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 8 | 4 1/2 | 2 1/4 | 234.76 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | | |

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 28 | OWC | 11 30 | | 10 1/2 | 3360 | 23m | 28 | |

Bit Serial No. 83155 Table R.P.M. 120

~~Jetor~~ Conventional - ✓ Nozzle Size

Kind at Ft. Deg. off

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| | | 1000 | 12" | 70 | 5 1/2 |

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 8 00 | 42 | 11.3 | 11.2 | 11 | |
| 10 00 | 42 | 11.3 | | | |

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

| | From | To | Hrs. |
|---|---|---|---|
| RIG SERV + CHECK BOP | 8 00 | 8 15 | 1/4 |
| DRLG | 8 15 | 10 15 | 2 |
| HOIST | 10 15 | 11 30 | 1 1/4 |
| TWIST OFF - MAKE UP OVERSHOT | 11 30 | 12 00 | 1/2 |
| RUN IN HOLE | 12 00 | 1 15 | 1 1/4 |
| SET OVERSHOT | 1 15 | 1 45 | 1/2 |
| PULL FISH | 1 45 | 3 30 | 1 3/4 |
| MAKE UP BIT + SERVICE COLLARS | 3 30 | 4 00 | 1/2 |

Driller E. D. Lamb

## 3rd Tour From: 4:00 p.m. To: 12:00 p.m.

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 3360 | 3380 | 20 | 6 3/4 | |

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 52 | | 10.12 up | 176.97 | Sub. 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 6 | 4 1/2 | 2 1/4 | 176.97 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 72 000 | 6,300 |

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 29 | WT | 5 15 | | 6 3/4 | | 22m | 20 | |

Bit Serial No. 6986 Table R.P.M. 120

~~Jet~~ or Conventional - Nozzle Size

Kind at Ft. Deg. off

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 6 3/4 | | 1050 | 12" | | 5 1/2 |

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 6 00 | 44 | 11.1 | 11.6 | 11 | Que - 25 |
| 8 00 | 40 | 11.2 | | | Caustic 50 |
| 10 00 | 55 | 11.3 | | | |
| 10 30 | 42 | | | | |

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

| | From | To | Hrs. |
|---|---|---|---|
| SERVICE RIG. | 4 00 | 4 15 | 1/4 |
| RUN IN hole. | 4 15 | 5 00 | 3/4 |
| PICK up 3 singles. | 5 00 | 5 15 | 1/4 |
| DRILL 6 3/4 Hole. | 5 15 | 12 00 | 6 3/4 |

Driller H. Jandl

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....

MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ✓ NO .....

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-11-62)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 46

C LSD. 50 SEC. ..... TWN. ..... RGE. ..... W. ..... Contractor Jim Day Drlg. Type Rig Failing Start 90 Month Mar. 1 Day 1 1964

| | 1st Tour From: 12:00 Midnight To: 3:00 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 | Hole Size | Formation | From | To | Hole Made | Hole Size | Formation | From | To | Hole Made | Hole Size | Formation |
| | 3256 | 3282 | 26 | 6 3/4 | | 3282 | 3312 | 30' | 6 3/4 | | 3312 | 3334 | 22 | 6 3/4 | |
| **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 | 49 | 1 | 14 up | 234.76 | ~~Core Bbl. Ft.~~ SUB 3.00 | 3 1/2 | 50 | | 14 25 up | 234.76 | 3.00 | 3 1/2 | 50 | 1 | 22.52 up. | 234.76 | 3.00 |
| | 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 | 8 | 4 1/2 | 2 1/4 | 234.76 | DRILLING STRING / DRILL COLLARS | COLLAR | 8 | 4 1/2 | 2 1/4 | 234.76 | DRILLING STRING / DRILL COLLARS | COLLAR | 8 | 4 1/2 | 2 1/4 | 234.76 | DRILLING STRING / DRILL COLLARS |
| | DATA | | | | | | DATA | | | | | | DATA | | | | | 76 000 / 8,400 |
| **BIT RECORD** | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
| | 27 | OWC | ~~2.00~~ 2.00 | | 6 | | 23M | 26 | | 27 | OWC | 2.00 | | 13 1/4 | | 23m | 56 | |
| | | | | | | | | | | | | | | | | | | |
| | Bit Serial No. 47374 | | | | Table R.P.M. 120 | | Bit Serial No. 47374 | | | | Table R.P.M. 120 | | Bit Serial No. 47374 | | | | 28 83155 | Table R.P.M. 120 |
| | ~~Jet or~~ Conventional - | | | | Nozzle Size | | Jet or Conventional - | | | | Nozzle Size | | ~~Jet~~ or Conventional - | | | | | Nozzle Size C/O |
| **SURVEYS** | Kind | at | Ft. | | Deg. off | | Kind SS SHOT | at 3296 | Ft. | | 1/4° Deg. off | | Kind | at | Ft. | | | Deg. off |
| **MUD PUMP RECORD** | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
| No. 1 | 6 | | 950 | 12" | 70 | 5 1/2 | 7 1/4 | | 950 | 12" | 70 | 5 1/2 | 5 3/4 | | 950 | 12" | 70 | 5 1/2 |
| 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 |
| | 3 Am | 46 | 11 | | | | 8 | 43 | 11.2 | | | IMPERMEX - 250# | 4.00 | 39 | 11.2 | 11.4 | 12. | |
| | 6 Am | 47 | 11.1 | | | | 10 | 40 | 11.2 | 12.6 | 11. | CAUSTIC - 50# | 6.00 | 39 | 11.2 | | | |
| | | | | | | | 12 | 40 | 11.2 | | | QBROXIN - 15# | 8.00 | 38 | 11.2 | | | |
| | | | | | | | 2 | 40 | 11.3 | | | | | | | | | |
| **CORING** | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
| | | | | | | | | | | | | | | | | | | |
| **DETAIL OF OPERATIONS AND REMARKS** | | From | To | Hrs. | | | From | To | Hrs. | | | | From | To | Hrs. | | | |
| | FINISH. HOIST | 12.00 | 12.15 | 1/4 | | | RIG SERV & CHECK BOP | 8.00 | 8.15 | 1/4 | | | SERVICE RIG. | 4.00 | 4.15 | 1/4 | | |
| | RIG SERV | 12.15 | 12.30 | 1/4 | | | DRLG | 8.15 | 11.00 | 2 3/4 | | | DRILL 6 3/4 Hole. | 4.15 | 9.30 | 5 1/4 | | |
| | SLIP LINE | 12.30 | 12.45 | 1/4 | | | SURVEY | 11.00 | 11.30 | 1/2 | | | TRIP FOR Bit. | 9.30 | 11.30 | 2 | | |
| | RUN IN W/BIT | 12.45 | 2.00 | 1 1/4 | | | DRLG | 11.30 | 4.00 | 4 1/2 | | | DRILL 6 3/4 Hole | 11.30 | 12.00 | 1/2 | | |
| | DRLG | 2.00 | 8.00 | 6 | | | | | | | | | | | | | | |
| | Driller Jim Bryt | | | | | | Driller Ed Saul | | | | | | Driller H. Jandl | | | | | |

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....
MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ✓ NO .....

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-11-62)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 45

C LSD. 50 SEC. ..... TWN. ..... RGE. ..... W. ..... Contractor TRI CITY DRLG. Type Rig FAILING STR.AT. Month Feb. Day 29 19 64

## 1st Tour From: 12:00 Midnight To: 8:00 a.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 3185 | 3191 | 6 | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 48 | | 13 up. | 234.76 | Sub. 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 8 | 4 1/2 | 2 1/4 | 234.76 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 70000 | 8,400 |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 26 | W-7 | 6 45 | | 8 3/4 | | 25 | 7 | 25 |

Bit Serial No. 25196 Table R.P.M. 120

Jet or Conventional - Nozzle Size

Kind at Ft. Deg. off

**SURFACE PUMP RECORD No. 1 No. 2**

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 1 1/4 | | | 12" | | 5 1/2 |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 4.00 | 42 | 10.3 | | | |
| 6.00 | 40 | 10.8 | 13 | 10.5 | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| Hoist to Recover Core. | 12.00 | 12.30 | 1/2 |
| Recover Core. | 12.30 | 1.00 | 1/2 |
| Service + Stand back C.B. | 1.00 | 1.30 | 1/2 |
| Service Rig + Slip line. | 1.30 | 1.45 | 1/4 |
| Run in With Bit. | 1.45 | 2.45 | 1 |
| Reaming Rat Hole. | 2.45 | 6.45 | 4 |
| Drlg. | 6.45 | 8.00 | 1 1/4 |

Driller Jim Byrt.

## 2nd Tour From: 8:00 a.m. To: 4:00 p.m.

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 3191 | 3221 | 30 | 6 3/4 | |

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 48 | 1 | 13.77 up | 234.76 | Sub. 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 8 | 4 1/2 | 2 1/4 | 234.76 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 72000 | 8,400 |

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 26 | W-7 | 6.45 | | 13 1/2 | | 22 | 37 | 25 |

Bit Serial No. 25196 Table R.P.M. 120

Jet or Conventional - Nozzle Size

Kind at Ft. Deg. off

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 7 3/4 | | 1000 | 12" | 70 | 5 1/2 |

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 8.00 | 42 | 10.8 | | | Caustic - 50 |
| 10.00 | 42 | 10.9 | 12.2 | 11.5 | Zee - 15 |
| 12.00 | 42 | 10.8 | | | |
| 2.00 | 42 | 10.8 | | | |

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

| | From | To | Hrs. |
|---|---|---|---|
| Rig Service + Check B.O.P. | 8.00 | 8.15 | 1/4 |
| Drlg. | 8.15 | 4.00 | 7 3/4 |

Driller Ed. Lamb.

## 3rd Tour From: 4:00 p.m. To: 12:00 p.m.

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 3221 | 3256 | 35 | 6 3/4 | |

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 48 | 1 | 9.25 up. | 234.76 | Sub. 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 8 | 4 1/2 | 2 1/4 | 234.76 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 68000 | 8,400 |

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 26 | W 7 | 6.45 | 11.15 | 20 1/2 | 3256 | 22m | 72 | 25 |

Bit Serial No. 25196 Table R.P.M. 120

~~Jet-er~~ Conventional - Nozzle Size

Kind at Ft. Deg. off

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 7 | | 900 | 12" | 70 | 5 1/2 |

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 4.00 | 40 | 10.8 | 13 | 11 | Caustic - 50 |
| 6.00 | 40 | 10.8 | | | Zee - 15 |
| 8.00 | 42 | 10.9 | 13 | 11 | |
| 10.00 | 42 | 10.9 | | | |

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

| | From | To | Hrs. |
|---|---|---|---|
| Service Rig. | 4.00 | 4.15 | 1/4 |
| Drill 6 3/4 Hole | 4.15 | 11.15 | 7 |
| Pull For Bit. | 11.15 | 12.00 | 3/4 |

Driller H. Jandl

HEADING UP & DRLG. OUT:
DRILLING:
REAMING:

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....
MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ..... NO .....

Total Contract Time ..... hrs. Total Company Time ..... hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-11-62)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 44

C LSD. 50 SEC. ____ TWN. ____ RGE. ____ W. ____ Contractor Int. City Drlg. Type Rig Loring St. #9 Month Feb. Day 28 1964

| | 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 | Hole Size | Formation | From | To | Hole Made | Hole Size | Formation | From | To | Hole Made | Hole Size | Formation |
| | 3141 | 3159 | 18 | 6 3/4 | | 3159 | 3162 | 3' | 6 3/4 | | 3162 | 3185 | 23' | 6 5/8 | |
| **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 | 46 | 1 | 11' UP | 292.74 | SUB 3.00 | 3 1/2 | 46 | 1 | 6.50 UP | 234.76 | SUB 3.00 | 3 1/2 | 47 | | | 234.76 | SUB 3.00 |
| | 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 | 10 | 4 1/2 | 2 1/4 | 292.74 | DRILLING STRING / DRILL COLLARS | COLLAR | 8 | 4 1/2 | 2 1/4 | 234.76 | DRILLING STRING / DRILL COLLARS | COLLAR | 8 | 4 1/2 | 2 1/4 | 234.76 | DRILLING STRING / DRILL COLLARS |
| | DATA | | | | | | DATA | | | | | | DATA | | | | | |
| **BIT RECORD** | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
| | 25 | OWC | | | 19 | | 25M | 57 | |
| | Bit Serial No. 47720 | | | | Table R.P.M. 120 | | | | |
| | ~~Jet or~~ Conventional - ✓ | | | | Nozzle Size | | | | |
| | 28 | W.7 | 9 30 | 11 00 | 1 1/2 | 3160 | 2M | 1 | 35' |
| | 9 | ◇ | 2 30 | | 1 1/2 | | | | |
| | Bit Serial No. 25196 | | ◇ 5509C | | Table R.P.M. 120 | | | | |
| | ~~Jet or~~ Conventional - ✓ | | | | Nozzle Size | | | | |
| | 9 | ◇ | 2 30 | | 296 | 3185 | 12M | 693-3/4 | |
| | Bit Serial No. 5509C | | | | Table R.P.M. 90 | | | | |
| | Jet or Conventional - ◇ | | | | Nozzle Size | | | | |
| **SURVEYS** | Kind | at | Ft. | Deg. off | | Kind | at | Ft. | Deg. off | | Kind | at | Ft. | Deg. off | |
| **~~MUSH~~ PUMP RECORD No. 1 No. 2** | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
| | 6 3/4 | | 900 | 12" | 65 | 5 1/2 | 4 1/4 | 1/4 | 900 | 12" | 52 | 5 1/2 | 7 1/4 | | 900 | 12" | 50 | 5 3/4 |
| **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 | 42 | 11 | | | | 10 | 46 | 11.2 | | | CAUSTIC - 50# | 4 | 44 | 10.8 | | | |
| | 2 | 49 | 11 | 12.4 | 10.5 | | 2 PM | 46 | 11.2 | 11.5 | 10.5 | QBROXIN - 25# | 6 | 44 | 10.7 | 12.2 | 11.5 | |
| | 4 | 44 | 11 | | | | | | | | | | 8 | 41 | 10.8 | | | |
| | 6 | 44 | 11 | | | | | | | | | | 10 | 40 | 10.7 | | | |
| **CORING** | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
| | | | | | | | 3160 | 3162 | 2 | | 31 | Johnson | 3160 | 3185 | 25' | 25' | 31 | Johnson |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| DRLG | 12 00 | 6 45 | 6 3/4 |
| HOIST BIT #25 | 6 45 | 8 00 | 1/4 |

Driller Jim Byrt

| | From | To | Hrs. |
|---|---|---|---|
| RIG SERVICE & CHECK BOP | 8 00 | 8 30 | 1/2 |
| RUN IN W/BIT & BREAK CIRC | 8 30 | 9 30 | 1 |
| REAM 35' UNDERGAGE HOLE | 9 30 | 10 30 | 1 |
| DRLG | 10 30 | 11 00 | 1/2 |
| CIRC & CONDITION HOLE TO CORE | 11 00 | 11 15 | 1/4 |
| TRIP FOR CORE BARREL & LAY DOWN 2 DRILL COLLARS | 11 15 | 2 00 | 2 3/4 |
| CIRC CORE BBL | 2 00 | 2 30 | 1/2 |
| CUT CORE #31 | | | |

Driller Ed Lamb

| | From | To | Hrs. |
|---|---|---|---|
| CUT CORE #31 | 4 00 | 5 00 | 1 |
| RIG SERV | 5 00 | 5 15 | 1/4 |
| CUT CORE #31 | 5 15 | 11 30 | 6 1/4 |
| PULL TO RECOVER CORE | 11 30 | 12 00 | 1/2 |

Driller H Jandl

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ____ REEL SERIAL No. ____

MNFR. OF KELLY HOSE IN USE ____ HOSE SERIAL No. ____

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ✓ NO ____

Total Contract Time ____ hrs. Total Company Time ____ hrs. Toolpusher ____ Approved by ____

Form 34402 (300 bks.-11-62)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 43

C LSD. 50 SEC. ..... TWN. ..... RGE. ..... W. ..... Contractor TRI CITY DRLG. Type Rig FALING STRAT. Month Feb. Day 27 19 64

## 1st Tour From: 12:00 Midnight To: 8:00 a.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 3079 | 3102 | 23 | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 45 | 1 | 7up. | 292.74 | Subs - 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 10 | 4 1/2 | 2 1/4 | 292.74 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 70 000 | 10,500 |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 24 | OWWS | 2 30 | | 16 3/4 | | 25m | 58 | |

Bit Serial No. 160 61 Table R.P.M. 120

Jet or Conventional - Nozzle Size

**SURVEYS** Kind at Ft. Deg. off

**MUDCH PUMP RECORD**

| | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| No. 1 | 7 1/2 | | 800 | 12" | 60 | 5 1/2 |
| No. 2 | | | | | | |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 12 00 | 42 | 11.3 | 13.6 | 11.5 | |
| 2 00 | 43 | 11.3 | | | |
| 4 00 | 44 | 11.4 | | | |
| 6 00 | 44 | 11.4 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| DRLG. | 12 00 | 12 15 | 1/4 |
| RIG. SERVICE | 12 15 | 12 30 | 1/4 |
| DRLG. | 12 30 | 1 15 | 3/4 |
| Circ. Sample. | 1 15 | 1 30 | 1/4 |
| DRLG. | 1 30 | 8 00 | 6 1/2 |

Driller Jim Byatt.

## 2nd Tour From: 8:00 a.m. To: 4:00 p.m.

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 3102 | 3117 | 15 | 6 3/4 | |

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 46 | | 22.82up | 292.74 | Sub. 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 10 | 4 1/2 | 2 1/4 | 292.74 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 70 000 | 10.500 |

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 24 | OWWS | 2 30 | 8.15 | 16 1/4 | 3102 | 25 | 58 | |
| 25 | OWC | 11 00 | | 4 1/2 | | 25 | 15 | |

Bit Serial No. 16061 (25) 47720 Table R.P.M. 120

Jet or Conventional - Nozzle Size

Kind at Ft. Deg. off

| | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| | 4 1/2 | | 800 | 12" | 60 | 5 1/2 |

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 12 00 | 41 | 10.8 | 12.2 | 11.5 | Gel - 600 |
| 2 00 | 42 | 10.8 | | | Imp - 200 |
| | | | | | Caustic - 50 |
| | | | | | Que. - 25 |

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

| | From | To | Hrs. |
|---|---|---|---|
| RIG SERVICE + Check B.O.P | 8 00 | 8 15 | 1/4 |
| TRIP + SERVICE COLLARS. | 8 15 | 10 45 | 2 1/2 |
| SLIP LINE. | 10 45 | 11 00 | 1/4 |
| DRLG. | 11 00 | 1 00 | 2 |
| THAW AIR LINES + CHANGE | 1 00 | | |
| GLAND PACKING IN PUMP. | | 1 30 | 1/2 |
| DRLG. | 1 30 | 4 00 | 2 1/2 |

Driller Ed. Lamb.

## 3rd Tour From: 4:00 p.m. To: 12:00 p.m.

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 3117 | 3141 | 24 | 6 3/4 | |

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 46 | 1 | 29.10up | 292.74 | Sub. 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 10 | 4 1/2 | 2 1/4 | 292.74 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 72 000 | 10.500 |

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 25 | OWC | 11 00 | | 12 1/4 | | 25 | 39 | |

Bit Serial No. 47720 Table R.P.M. 120

Jet or Conventional - Nozzle Size

Kind at Ft. Deg. off

| | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| | 7 3/4 | | 800 | 12" | 64 | 5 1/2 |

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 4 00 | 40 | 10.7 | 11.4 | 12. | |
| 6 00 | 40 | 10.8 | | | |
| 8 00 | 41 | 10.9 | | | |
| 10 00 | 40 | 11. | | | |

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

| | From | To | Hrs. |
|---|---|---|---|
| SERVICE RIG. | 4 00 | 4 15 | 1/4 |
| DRILL 6 3/4 Hole. | 4 15 | 12 00 | 7 3/4 |

Driller H. Jandl.

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....
MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ✓ NO .....

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-11-62)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 42

C LSD. 50 SEC. ..... TWN. ..... RGE. ..... W. ..... Contractor TRI CITY DRLG. Type Rig FAining Strat. Month Feb. Day 25 19 64

## 1st Tour From: 12:00 Midnight To: 8:00 a.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 3009 | 3035 | 26 | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 44 | 1 | 13 up. | 292.74 | Sub. 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 10 | 4 1/2 | 2 1/4 | 292.74 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 70 000 | 10.500 |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 23 | YS-1 | 5.30 | | 14 | | 25 | 53 | |

Bit Serial No. EN3231 Table R.P.M. 120

~~Jet~~ or Conventional - Nozzle Size

**SURVEYS**

Kind at Ft. Deg. off

**MUD PUMP RECORD No. 1 No. 2**

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 7 3/4 | | 900 | 12" | 62 | 5 1/2 |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 12 00 | 43 | 11.3 | 12.2 | 11.5 | |
| 2 00 | 45 | 11.3 | | | |
| 4 00 | 45 | 11.3 | | | |
| 6 00 | 45 | 11.4 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| DRLG. | 12 00 | 2 30 | 2 1/2 |
| RIG Service. | 2 30 | 2 45 | 1/4 |
| DRLG. | 2 45 | 8 00 | 5 1/4 |

Driller Jim Byatt.

## 2nd Tour From: 8:00 a.m. To: 4:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 3035 | 3050 | 15 | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 45 | | 29.48 up. | 292.74 | Sub. 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 10 | 4 1/2 | 2 1/4 | 292.74 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 70 000 | 10,500 |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 23 | YS-1 | 5.30 | 12 15 | 18 | 3044 | 25 | 62 | |
| 24 | DWU-3 | 7.30 | | 1 1/2 | " | " | 6 | |

Bit Serial No. EN3231 (24) 16061 Table R.P.M. 120

Jet or Conventional - Nozzle Size

Kind at Ft. Deg. off

**MUD PUMP RECORD No. 1 No. 2**

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 5 1/2 | | 975 | 12" | 70 | 5 1/2 |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 8 00 | 46 | 11.4 | 11.2 | 10.5 | Caustic — 25 |
| 10 00 | 45 | 11.4 | | | Due — 10 |
| 12 00 | 42 | 11.4 | | | |
| 2 00 | 44 | 11.4 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| RIG Service + Check B.O.P. | 8 00 | 8 15 | 1/4 |
| DRLG. | 8 15 | 12 15 | 4 |
| TRIP + DRESS DRILL COLLARS. | 12 15 | 2 30 | 2 1/4 |
| DRLG. | 2 30 | 4 00 | 1 1/2 |

Driller Ed. Lamb.

## 3rd Tour From: 4:00 p.m. To: 12:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 3050 | 3079 | 29 | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 45 | | .48 up | 292.74 | Sub. 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 10 | 4 1/2 | 2 1/4 | 292.74 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 70000 | 80,500 |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 24 | DWU-3 | 2 30 | | 9 1/4 | | 25 | 35 | |

Bit Serial No. 16061 Table R.P.M. 120

Jet or Conventional - Nozzle Size

Kind at Ft. Deg. off

**MUD PUMP RECORD No. 1 No. 2**

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 7 3/4 | | 950 | 12" | 70 | 5 1/2 |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 4 00 | 45 | 10.8 | 12 | 11.5 | Due — 10 |
| 6 00 | 43 | 11.2 | | | Caustic 25 |
| 8 00 | 42 | 11.2 | | | |
| 10 00 | 41 | 11.3 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| SERVICE RIG. | 4 00 | 4 15 | 1/4 |
| DRILL 6 3/4 Hole. | 4 15 | 12 00 | 7 3/4 |

Driller H. Jandl

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....

MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ✓ NO .....

Total Contract Time ..... hrs. Total Company Time ..... hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-11-62)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 41

C LSD. 30 SEC. ..... TWN. ..... RGE. ..... W. ..... Contractor TRI CITY DRLG. Type Rig Failing Strat Month Feb. Day 25 19 64

| | 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 | Hole Size | Formation | From | To | Hole Made | Hole Size | Formation | From | To | Hole Made | Hole Size | Formation |
| | 2935 | 2964 | 29 | 6 3/4 | | 2964 | 2982 | 18 | 6 3/4 | | 2982 | 3009 | 27 | 6 3/4 | |
| **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 | 43 | | 24 up. | 292.74 | 3.00 | 3 1/2 | 43 | 1 | 6.67 up | 292.74 | 3.00 | 3 1/2 | 43 | 1 | 9.19 up. | 292.74 | 3 bbls. 3.00 |
| | DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING / DRILL COLLARS | DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING / DRILL COLLARS | DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING / DRILL COLLARS |
| | COLLAR | 10 | 4 1/2 | 2 1/4 | 292.74 | 70 m. / 10,500 | COLLAR | 10 | 4 1/2 | 2 1/4 | 292.74 | 72 000 / 10.500 | COLLAR | 10 | 4 1/2 | 2 1/4 | 292.74 | 70 000 / 10,500 |
| **BIT RECORD** | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
| | 22 | OWV | | | 14 1/4 | | 25m | 53 | | 22 | OWV | | 2:00 | 20 | 2982 | 25m | 72 | | 23 | YS-1 | 5:30 | | 6 1/4 | | 25 | 27 | |
| | | | | | | | | | | 23 | YS-1 | | | | | | | | | | | | | | | | |
| | Bit Serial No. 90840 | | | | Table R.P.M. 120 | | | | | Bit Serial No. (22) 90840 23 EN3231 | | | | Table R.P.M. 120 | | | | | Bit Serial No. EN3231 | | | | Table R.P.M. 120 | | | | |
| | ~~Jet~~ or Conventional - | | | Nozzle Size | | | Jet or Conventional - | | | Nozzle Size | | | Jet or Conventional - | | | Nozzle Size | | |
| **SURVEYS** | Kind | at | Ft. | Deg. off | | | Kind | at | Ft. | Deg. off | | | Kind | at | Ft. | Deg. off | | |
| **MUD PUMP RECORD** | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
| No. 1 | 7 3/4 | | 950 | 12" | 62 | 5 1/2 | 5 3/4 | | 950 | 12" | 71 | 5 1/2 | 6 1/4 | | 900 | 12" | | 5 1/2 |
| 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 | 45 | 11.2 | 12.8 | 11.5 | | 8:00 | 47 | 11.3 | 13.2 | 11 | Gel - 600 | 6:00 | 40 | 11.3 | 12.2 | 12 | Gel - 100 |
| | 2:00 | 46 | 11.2 | | | | 10:00 | 44 | 11.2 | | | impermex - 100 | 8:00 | 40 | 11.3 | | | impermex - 50 |
| | 6:00 | 47 | 11.3 | | | | 12:00 | 42 | 11.3 | | | | 10:00 | 40 | 11.1 | | | Que - 50. |
| | | | | | | | | | | | | | | | | | | Caustic - 50 |
| **CORING** | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
| | | | | | | | | | | | | | | | | | | |
| **DETAIL OF OPER-ATIONS** | | | From | To | Hrs. | | | | From | To | Hrs. | | Run Bit # 23 | From | To | Hrs. |
| | DRLG. | | 12:00 | 6:30 | 6 1/2 | | RIG Service + Check B.O.P | | 8:00 | 8:15 | 1/4 | | ↓ | 4:00 | 4:30 | 1/2 |
| | RIG Service + Repair Air line. | | 6:30 | 6:45 | 1/4 | | DRLG. | | 8:15 | 2:00 | 5 3/4 | | Service RIG. | 4:30 | 4:45 | 1/4 |
| | DRLG. | | 6:45 | 8:00 | 1 1/4 | | Hoist. | | 2:00 | 3:15 | 1 1/4 | | Change Swivels. | 4:45 | 5:30 | 3/4 |
| | | | | | | | Thaw Air lines. | | 3:15 | 3:30 | 1/4 | | DRILL 6 3/4 Hole. | 5:30 | 9:15 | 3 3/4 |
| | | | | | | | Run in. | | 3:30 | 4:00 | 1/2 | | WORK ON Pump. | 9:15 | 9:30 | 1/4 |
| | | | | | | | | | | | | | DRILL 6 3/4 Hole. | 9:30 | 12:00 | 2 1/2 |
| | Driller Jim Bryt. | | | | | | Driller Ed. Lamb. | | | | | | Driller H. Jandl | | | | | |

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....
MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ..... NO .....

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-10-

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 40

Oil Sand Edmund LSD. D SEC. 32 TWN. ____ RGE. ____ W. ____ Contractor Tri-City Drlg. Type Rig Failing Steel Month Feb. Day 24 19 64

## 1st Tour From: 12:00 Midnight To: 8:00 a.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 2860 | 2890 | 30 | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 43 | | 9' up | 234.28 | Sub 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 8 | 4 1/2 | 2 1/4 | 234.28 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 68M | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 21 | OWV | | | 14 3/4 | | 22M | 58 | |

Bit Serial No. 33380 Table R.P.M. 120

Jet or Conventional - Conv. Nozzle Size

**SURVEYS**

Kind at Ft. Deg. off

**PUMP RECORD No. 1 No. 2**

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 7 3/4 | | 900 | 12 | 65 | 5 1/2 |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 12 00 | 44 | 11 | 13 | | Nil |
| 2 00 | 45 | 11 | | | |
| 4 00 | 46 | 11.1 | | | |
| 6 00 | 47 | 11.1 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| DRLG. | 12 00 | 2 15 | 2 1/4 |
| Rig Service | 2 15 | 2 30 | 1/4 |
| DRLG. | 2 30 | 8 00 | 5 1/2 |

Driller Jim Byrd

## 2nd Tour From: 8:00 a.m. To: 4:00 p.m.

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 2890 | 2911 | 21 | 6 3/4 | |

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 43 | 1 | 19.31 up | 234.28 | Sub - 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 8 | 4 1/2 | 2 1/4 | 234.28 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 70M | |

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 21 | OWV | | | 20 1/4 | 2911 | 20 | 77 | |

Bit Serial No. 33380 Table R.P.M. 120

~~Jet or~~ Conventional - ✓ Nozzle Size

Kind at Ft. Deg. off

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 6 1/4 | | 900 | 12" | 65 | 5 1/2 |

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 830 | 47 | 11.1 | 13.6 | 11.5 | Caustic - 25# |
| 10 | 45 | 11.2 | | | QBAROID - 25# |
| 12 | 42 | 11.2 | | | IMPERMEX - 200# |
| 2 | 42 | 11.2 | | | |

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

| | From | To | Hrs. |
|---|---|---|---|
| Rig Serv & check BOP | 8 00 | 8 15 | 1/4 |
| DRLg | 8 15 | 11 45 | 3 1/2 |
| Replace valve in Pump | 11 45 | 12 00 | 1/4 |
| DRLg | 12 00 | 2 45 | 2 3/4 |
| Hoist for Bit | 2 45 | 4 00 | 1 1/4 |

Driller Ed Lamb

## 3rd Tour From: 4:00 p.m. To: 12:00 p.m.

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 2911 | 2935 | 24 | 6 3/4 | |

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 43 | | 25.07 up | 292.74 | Sub. 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 10 | 4 1/2 | 2 1/4 | 292.74 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 70 000 | 10,500 |

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 22 | OWV | 5 15 | | 6 1/2 | | 25M | 24 | |

Bit Serial No. 90840 Table R.P.M. 120

Jet or ~~Conventional~~ - Nozzle Size OPEN

Kind at Ft. Deg. off

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 6 1/2 | | 900 | 12" | 66 | 5 1/2" |

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 6 00 | 41 | 11.1 | 11.2 | 11 | Caustic - 25 |
| 8 00 | 41 | 11.1 | | | |
| 10 00 | 44 | 11.2 | 12.2 | 11.5 | |

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

| | From | To | Hrs. |
|---|---|---|---|
| Service Rig. | 4 00 | 4 15 | 1/4 |
| Pick up 2 DCs. | 4 15 | 4 30 | 1/4 |
| Run Bit # 22. | 4 30 | 5 15 | 3/4 |
| Drill 6 3/4 Hole. | 5 15 | 10 15 | 5 |
| Work on Pump. | 10 15 | 10 30 | 1/4 |
| Drill 6 3/4 Hole. | 10 30 | 12 00 | 1 1/2 |

Driller H. Jarrell

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ____ REEL SERIAL No. ____

MNFR. OF KELLY HOSE IN USE ____ HOSE SERIAL No. ____

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES NO

Total Contract Time ____ hrs. Total Company Time ____ hrs. Toolpusher ____ Approved by ____

Form 34402 (300 bks.-10-

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 39

ld Elbert LSD. D SEC. 50 TWN. RGE. W. Contractor TRI-CITY DRLG CO LTD Type Rig FALKING START Month FEB Day 22 19 64

| | 1st Tour From: 12:00 Midnight To: 8:00 a.m. | | |

Form 34402 (300 bks.-10-6)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 38

Joe Snad Gilbert LSD. D SEC. 50 TWN. ..... RGE. ..... W. ..... Contractor TRI-CITY DRLG. CO Type Rig Sailing Star Month Feb. Day 22 1964

## 1st Tour From: 12:00 Midnight To: 8:00 a.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 2721 | 2736 | 15' | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 40 | 1 | 10' up | 234.28 | SUB 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL |
|---|---|---|---|---|---|
| COLLAR | 8 | 4 1/2 | 2 1/4 | 234.28 | DRILLING STRING / DRILL COLLARS |
| DATA | | | | | 65M |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 18 | OWV | | 6 00 | 13 3/4 | 2736 | 25M | 69 | |
| 19 | OWC | | | | | | | |

Bit Serial No. 33353 47726 Table R.P.M. 120

Jet or Conventional - Conv Nozzle Size

**SURVEYS**

Kind at Ft. Deg. off

**MUD PUMP RECORD No. 1 No. 2**

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 5 3/4 | | 900 | 12 | 70 | 5 1/2 |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 12 00 | 42 | 10.7 | 13.4 | 12. | |
| 2 00 | 42 | 10.8 | | | |
| 4 00 | 42 | 10.8 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| DRLG | 12 00 | 5 45 | 5 3/4 |
| RIG SERVICE | 5 45 | 6 00 | 1/4 |
| TRIP FOR BIT | 6 00 | 8 00 | 2. |

Driller: Jim Byrd

## 2nd Tour From: 8:00 a.m. To: 4:00 p.m.

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 2736 | 2761 | 25' | 6 3/4 | |

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | ~~Core Bbl. Ft.~~ |
|---|---|---|---|---|---|
| 3 1/2 | 41 | | 17.30 up | 234.28 | SUB 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL |
|---|---|---|---|---|---|
| COLLAR | 8 | 4 1/2 | 2 1/4 | 234.28 | DRILLING STRING / DRILL COLLARS |
| DATA | | | | | 65M |

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 19 | OWC | 9 00 pm | | 7 | 2761 | 20M | 25' | |

Bit Serial No. 47726 Table R.P.M. 120

~~Jet~~ Conventional ✓ Nozzle Size

Kind at Ft. Deg. off

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 7 | | 850 | 12" | 63 | 5 3/4 |

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 8 00 | 45 | 10.6 | 15.1 | 11.5 | CAUSTIC 25# |
| 10 00 | 42 | 10.9 | | | IMPERMEX 200# |
| 12 00 | 42 | 10.9 | | | |
| 2 00 | 42 | 10.9 | | | |
| 3 00 | 44 | 10.9 | | | |

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

| | From | To | Hrs. |
|---|---|---|---|
| RIG SERV & CHECK BOP | 8 00 | 8 15 | 1/4 |
| DRLG | 8 15 | 3 15 | 7 |
| HOIST FOR BIT | 3 15 | 4 00 | 3/4 |

Driller: Ed Landy

## 3rd Tour From: 4:00 p.m. To: 12:00 p.m.

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 2761 | 2786 | 25 | 6 3/4 | |

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 41 | 1 | 22.8' up | 234.28 | sub. 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL |
|---|---|---|---|---|---|
| COLLAR | 8 | 4 1/2 | 2 1/4 | 234.28 | DRILLING STRING / DRILL COLLARS |
| DATA | | | | | 67 000 / 11.400 |

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 20 | W7 | 5.30 | | 6 1/2 | | 23 | 25 | |

Bit Serial No. 50028 Table R.P.M. 120

~~Jet~~ or Conventional - Nozzle Size 3-7/8

Kind at Ft. Deg. off

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 6 1/2 | | 800 | 12" | 68 | 5 1/2" |

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 6 00 | 47 | 10.6 | 11.8 | 12. | |
| 8 00 | 44 | 10.7 | | | |
| 10 00 | 43 | 10.8 | | | |

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

| | From | To | Hrs. |
|---|---|---|---|
| FINISH PULL OUT. | 4 00 | 4 15 | 1/4 |
| SERVICE RIG. | 4 15 | 4 30 | 1/4 |
| SLIP DRILL LINE. | 4 30 | 4 45 | 1/4 |
| RUN BIT # 20 | 4 45 | 5 30 | 3/4 |
| DRILL 6 3/4 HOLE. | 5.30 | 12 00 | 6 1/2 |

Driller: H. Jandl

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....
MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ✓ NO

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-10-6)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 37

Ed Elbert LSD. 0 SEC. 5U TWN. RGE. W. Contractor Tri-City Drlg. Type Rig Failing Super Month FEBRUARY Day 21 1964

| | 1st Tour From: 12:00 Midnight To: 8:00 a.m. | | | | |
|---|---|---|---|---|---|
| DEPTH | From | To | Hole Made | Hole Size | Formation |
| | 2633 | 2667 | 34 | 6 3/4 | |

| DRILLING STRING | Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|---|
| | 3 1/2 | 39 | 1 | 19 mp | 234.28 | Sub 3.00 |

| | DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|---|
| | COLLAR | 8 | 4 1/2 | 2 1/4 | 234.28 | DRILLING STRING | DRILL COLLARS |
| | DATA | | | | | 65M. | |

| BIT RECORD | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|---|
| | 12 | OSC | | | 14 1/2 | | 22M | 70 | |

Bit Serial No. 99258 Table R.P.M. 120

Jet or Conventional - Conv. Nozzle Size

| SURVEYS | Kind | at | Ft. | Deg. off |
|---|---|---|---|---|
| | | | | |

| SLUSH PUMP RECORD No. 1 No. 2 | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| | 7 3/4 | | 900 | 12" | 70 | 5 1/2 |

| MUD RECORD | Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|---|
| | 12:00 | 42 | 10.7 | 10.5 | 12 | |
| | 2:00 | 42 | 10.7 | | | |
| | 4:00 | 42 | 10.7 | | | |
| | 6:00 | 43 | 10.7 | | | |

| CORING | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|---|
| | | | | | | |

| DETAIL OF OPERATIONS AND REMARKS | From | To | Hrs. |
|---|---|---|---|
| DRLG. | 2:00 | 5:45 | 5 3/4 |
| RIG SERVICE | 5:45 | 6:00 | 1/4 |
| DRLG. | 6:00 | 8:00 | 2 |

Driller Jim Boyd

| 2nd Tour From: 8:00 a.m. To: 4:00 p.m. | | | | | |
|---|---|---|---|---|---|
| From | To | Hole Made | Hole Size | Formation | |
| 2667 | 2687 | 20' | 6 3/4 | | |

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | ~~Core Bbl. Ft.~~ |
|---|---|---|---|---|---|
| 3 1/2 | 40 | | 35.80 | 234.28 | 3.00 |

| | DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|---|
| | COLLAR | 8 | 4 1/2 | 2 1/4 | 243.28 | DRILLING STRING | DRILL COLLARS |
| | DATA | | | | | 65M. | |

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 17 | OSC | ~~4:00~~ | | 20 | 2687 | 20m | 90 | |
| 18 | OWV | 4:00 | | — | — | — | — | |

Bit Serial No. 33353 Table R.P.M. 120

~~Jet~~ or Conventional - ✓ Nozzle Size

| Kind | at | Ft. | Deg. off |
|---|---|---|---|
| | | | |

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| | | 900 | 12" | 70 | 5 1/2 |

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 8:00 | 42 | 10.7 | | | Gel 200 # |
| 10 | 40 | 10.7 | 10.5 | 12 | |
| 12 | 42 | 10.7 | | | |
| 2 | | | | | |

| CORING | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|---|
| | | | | | | |

| DETAIL OF OPERATIONS AND REMARKS | From | To | Hrs. |
|---|---|---|---|
| RIG SERV + CHECK BOP | 8:00 | 8:15 | 1/4 |
| DRLG | 8:15 | 1:45 | 5 1/2 |
| TRIP FOR BIT + SERVICE DRILL COLLARS | 1:45 | 4:00 | 2 1/4 |

Driller Ed Lamb

| 3rd Tour From: 4:00 p.m. To: 12:00 p.m. | | | | | |
|---|---|---|---|---|---|
| From | To | Hole Made | Hole Size | Formation | |
| 2687 | 2721 | 34 | 6 3/4 | | |

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 40 | 1 | 26.44 | 234.28 | Sub. 3.00 |

| | DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|---|
| | COLLAR | 8 | 4 1/2 | 2 1/4 | 234.28 | DRILLING STRING | DRILL COLLARS |
| | DATA | | | | | 65 000 | 11.400 |

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 18 | OWV | 4:00 | | 8 | | 22 | 34 | |

Bit Serial No. 33353 Table R.P.M. 120

~~Jet~~ or Conventional - Nozzle Size 3-5/8"

| Kind | at | Ft. | Deg. off |
|---|---|---|---|
| | | | |

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 8 | | 800 | 12" | 70 | 5 1/2" |

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 4:00 | 45 | 10.6 | 11.3 | 11 | Caustic - 50 |
| 6:00 | 45 | 10.6 | | | |
| 8:00 | 43 | 10.6 | 13.2 | 12. | |
| 10:00 | 43 | 10.6 | | | |

| CORING | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|---|
| | | | | | | |

| DETAIL OF OPERATIONS AND REMARKS | From | To | Hrs. |
|---|---|---|---|
| DRILL 6 3/4 Hole. | 4:00 | 12:00 | 8 |

Driller H. Jandt

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....

MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ✓ NO

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-10-

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 36

N.E. Swan Gilbert LSD. 0 SEC. 32 TWN. ____ RGE. ____ W. ____ Contractor Tri-City Drlg Co. Type Rig Sailing Star Month Feb. Day 20 19 61

| | 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 2529 / To 2567 / Hole Made 38 / Hole Size 6¾ / Formation | From 2567 / To 2597 / Hole Made 30' / Hole Size 6¾ / Formation | From 2597 / To 2633 / Hole Made 36 / Hole Size 6¾ / Formation |
| **DRILLING STRING** | Size-D.P. 3½ / Stands 38 / Singles / Kelly 30'6" / Drill. Collar Ft. 234.28 / Core Bbl. Ft. Sub 3.00 | Size-D.P. 3½ / Stands 38 / Singles / Kelly 35.28 / Drill. Collar Ft. 234.28 / ~~Core Bbl. Ft.~~ Sub 3.00 | Size-D.P. 3½ / Stands 39 / Singles / Kelly 25.31 4". / Drill. Collar Ft. 234.28 / Core Bbl. Ft. Sub 3.00 |
| | DRILL COLLAR / Number 8 / OD 4½ / ID 2¼ / Length 234.28 / INDICATOR WEIGHT OF TOTAL: DRILLING STRING / DRILL COLLARS | DRILL COLLAR / Number 8 / OD 4½ / ID 2¼ / Length 234.28 / INDICATOR WEIGHT OF TOTAL: DRILLING STRING / DRILL COLLARS | DRILL COLLAR / Number 8 / OD 4½ / ID 2⅞ / Length 234.28 / INDICATOR WEIGHT OF TOTAL: DRILLING STRING 64000 / DRILL COLLARS 11,400 |
| | DATA / 64M | DATA / 64M | DATA |
| **BIT RECORD** | No. 16 / Type OSC / Time On Bottom At / Time Pulled At / Total Hours Run 13 / Depth Pulled / Weight On Bit M Pounds 20 / FOOTAGE Drilled 94 / Reamed | No. 16 / Type OSC / Time On Bottom At / Time Pulled At 3 PM / Total Hours Run 19¾ / Depth Pulled 2597 / Weight On Bit M Pounds 20 / FOOTAGE Drilled 103 / Reamed | No. 17 / Type OSC / Time On Bottom At 5:15 / Time Pulled At / Total Hours Run 6¾ / Depth Pulled / Weight On Bit M Pounds 20M / FOOTAGE Drilled 36 / Reamed |
| | Bit Serial No. 95571 / Table R.P.M. 120 / Jet or Conventional - Conv. / Nozzle Size | Bit Serial No. 95571 / Table R.P.M. 120 / ~~Jet or~~ Conventional ✓ / Nozzle Size | Bit Serial No. 97358 / Table R.P.M. 120 / Jet or Conventional - CONV. / Nozzle Size 3-5/8" |
| **SURVEYS** | Kind S.S. at 2537 Ft. ½° Deg. off | Kind at Ft. Deg. off | Kind at Ft. Deg. off |
| **MUSH PUMP RECORD No. 1 No. 2** | HOURS On Line 7¼ / Circulating / Pump Press 800 / Length of Pump Stroke 12 / Strokes Per Min. 72 / Liner Size 5½ | HOURS On Line 6¾ / Circulating / Pump Press 800 / Length of Pump Stroke 12" / Strokes Per Min. 72 / Liner Size 5½ | HOURS On Line 6¾ / Circulating / Pump Press 800 / Length of Pump Stroke 12" / Strokes Per Min. 68 / Liner Size 5½" |
| **MUD RECORD** | Time 12⁰⁰ / Visc. 60 / Wt. 9.9 / W L / pH / ADDITIVES — POUNDS: PRESERVATIVE 200<br>2⁰⁰ / 200 / 10 / / / STARCH 300<br>4⁰⁰ / 200 / 10 / 27 / 11.5 / CAUSTIC 100<br>6⁰⁰ / 70 / 10 / 24 / 11.5 / QBROXIN 25<br>8⁰⁰ / 68 | Time 8⁰⁰ / Visc. 68 / Wt. 10.0 / W L / pH / ADDITIVES — POUNDS: CAUSTIC - 125#<br>10 / 64 / 10.0 / 22 / 11.5 / QBROXIN = 100#<br>12 / 53 / 10.1<br>2 / 53 / 10.2 / / 12.0 | Time 5³⁰ / Visc. 42 / Wt. 10.4 / W L 18. / pH 12. / ADDITIVES — POUNDS: Caustic - 25<br>7³⁰ / 45 / / 18. / 12.5 / Qbroxin - 50<br>9⁰⁰ / 42. / 10.5 / / / Dispersez - 500<br>10³⁰ / 40 / 10.5 / 11.6 / 11.5 |
| **CORING** | From / To / Ft. Cored / Ft. Rec'd. / Core No. / Type Bbl. | From / To / Ft. Cored / Ft. Rec'd. / Core No. / Type Bbl. | From / To / Ft. Cored / Ft. Rec'd. / Core No. / Type Bbl. |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| DRLG. | 12⁰⁰ | 1¹⁵ | 1¼ |
| SURVEY @ 2537' | 1¹⁵ | 1³⁰ | ¼ |
| RIG SERVICE | 1³⁰ | 1⁴⁵ | ¼ |
| MIX STARCH | 1⁴⁵ | 2⁰⁰ | ¼ |
| DRLG | 2⁰⁰ | 8⁰⁰ | 6 |

| | From | To | Hrs. |
|---|---|---|---|
| RIG SERV + CHECK BOP | 8⁰⁰ | 8¹⁵ | ¼ |
| DRLG | 8¹⁵ | 3⁰⁰ | 6¾ |
| HOIST FOR BIT | 3⁰⁰ | 4⁰⁰ | 1 |

| | From | To | Hrs. |
|---|---|---|---|
| SERVICE RIG. | 4⁰⁰ | 4¹⁵ | ¼ |
| SLIP DRILL LINE. | 4¹⁵ | 4³⁰ | ¼ |
| RUN BIT # 17 | 4³⁰ | 5¹⁵ | ¾ |
| DRILL 6¾ Hole. | 5¹⁵ | 12⁰⁰ | 6¾ |

Driller Jim Burt

Driller Ed Lamb

Driller H. Jandl.

CLASSES OF TIME BREAKDOWN

HEADING UP & DRLG. OUT: TOTCO: CONDITIONING MUD: CASING: LOGGING: RIG MAINTENANCE: REAMING CLEANING: MNFR. DRILLING LINE IN USE ____ REEL SERIAL No. ____

DRILLING: FISHING: TRIPPING: W.O.C. W O ORDERS: MISCELLANEOUS: WORKING PIPE:

REAMING: CIRCULATING: CORING: D.S. TESTING: RIG REPAIRS: CONDITION HOLE: LOST CIRC.: MNFR. OF KELLY HOSE IN USE ____ HOSE SERIAL No. ____

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY? YES ✓ NO

Total Contract Time ____ hrs. Total Company Time ____ hrs. Toolpusher ____ Approved by ____

Form 34402 (300 bks.-10-61)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 35

Well Name & No. Ekbut a LSD. D SEC. 30 TWN ..... RGE ..... W ..... Contractor TRI-CITY DRLG CO Type Rig FAILING SCRAPER Month FEB Day 19 1964

## 1st Tour From: 12:00 Midnight To: 8:00 a.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 2398 | 2445 | 47 | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 36 | | 30.64 | 234.28 | SUB 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL |
|---|---|---|---|---|---|
| COLLAR | 8 | 4 1/2 | 2 1/4 | 234.28 | DRILLING STRING / DRILL COLLARS |
| DATA | | | | | 60M |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 15 | OWV | | | 10 1/2 | — | 20M | 66 | |

Bit Serial No. 13153 Table R.P.M. 120

Jet or Conventional - CONV. Nozzle Size

**SURVEYS**

Kind 5-S at 2415 Ft. 1° Deg. off

**MUD PUMP RECORD**

| No. | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| 1 | 7 1/2 | | 650 | 12" | 72 | 5 1/2 |
| 2 | | | | | | |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 12 50 | 71 | 9.6 | 25 | 8.5 | QBROXIN 50 |
| 2 00 | 55 | 9.7 | | | CAUSTIC 15 |
| 4 00 | 51 | 9.7 | | | WATER |
| 6 00 | 52 | 9.9 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| DRLG. | 12 00 | 2 30 | 2 1/2 |
| SURVEY @ 2415 | 2 30 | 2 45 | 1/4 |
| RIG SERVICE | 2 45 | 3 00 | 1/4 |
| DRLG | 3 00 | 8 00 | 5 |

Driller Jim Byrd

## 2nd Tour From: 8:00 a.m. To: 4:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 2445 | 2490 | 45 | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 36 | 1 | ~~30.64~~ 30.28 | 234.28 | SUB 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL |
|---|---|---|---|---|---|
| COLLAR | 8 | 4 1/2 | 2 1/4 | 234.28 | DRILLING STRING / DRILL COLLARS |
| DATA | | | | | 64M |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 15 | OWV | | | 18 1/4 | | 20M | 111 | |

Bit Serial No. 13152 Table R.P.M. 120

~~Jetting~~ Conventional ✓ Nozzle Size

**SURVEYS**

Kind at Ft. Deg. off

**MUD PUMP RECORD**

| No. | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| 1 | 7 3/4 | | 675 | 12" | 72 | 5 1/2 |
| 2 | | | | | | |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 8 | 56 | 9.9 | 24 | 8.5 | |
| 10 | 54 | 9.9 | | | |
| 12 | 54 | 9.9 | | | |
| 2 | 56 | 9.9 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| RIG SERV & CHECK BOP | 8 00 | 8 15 | 1/4 |
| DRLG | 8 15 | 4 00 | 7 3/4 |

Driller E. N. Sands

## 3rd Tour From: 4:00 p.m. To: 12:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 2490 | 2529 | 39 | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 37 | | 8.30 up. | 234.28 | SUB 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL |
|---|---|---|---|---|---|
| COLLAR | 8 | 4 1/2 | 2 7/8 | 234.28 | DRILLING - ING / DRILL COLLARS |
| DATA | | | | | 62000 / 11,400 |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 15 | OWV | 9.00 | 4 30 | 13 3/4 | 2493 | 20M | 114 | |
| 16 | OSC | 6 45 | | 5 1/4 | | 20M. | 36 | |

Bit Serial No. 13152 (16) 95571 Table R.P.M. 120

Jet or Conventional - CONV. Nozzle Size 3-7/8"

**SURVEYS**

Kind at Ft. Deg. off

**MUD PUMP RECORD**

| No. | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| 1 | 5 3/4 | | 750 | 12" | 72 | 5 1/2" |
| 2 | | | | | | |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 7 00 | 58 | 10 | 26.6 | 8.5 | Caustic — 50 |
| 9 00 | 57 | 9.9 | | 9. | Qbroxin — 50. |
| 10 00 | 70 | 9.9 | 29.4 | 9. | |
| 11 30 | 60 | | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| DRILL 6 3/4 Hole. | 4 00 | 4 30 | 1/2 |
| SERVICE RIG. | 4 30 | 4 45 | 1/4 |
| TRIP FOR Bit. | 4 45 | 6 45 | 2 |
| DRILL 6 3/4 Hole. | 6 45 | 12 00 | 5 1/4 |

Driller H. Jahelka

CLASSES OF TIME BREAKDOWN

HEADING UP & DRLG. OUT: DRILLING: REAMING: 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.:

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. ..... DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY

MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. ..... YES NO

Total Contract Time ..... hrs. Total Company Time ..... hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-10-61)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 34

9.E. Swd Edmonton LSD. C SEC. 50 TWN. ..... RGE. ..... W. ..... Contractor TRI-CITY DRLG. Type Rig TRAILING STRAT Month FEB 64 Day 18 19.64

## 1st Tour From: 12:00 Midnight To: 8:00 a.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 2306 | 2336 | 30 | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 34 | | 14' up | 234.28 | Sub-3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 8 | 4 1/2 | 2 1/4 | 234.28 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 60 M | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 14 | OWV | 1'15 | | 6 1/2 | | 20M | 30 | |

Bit Serial No. 13165 Table R.P.M. 120

Jet or Conventional - CONV. Nozzle Size

**SURVEYS**

Kind at Ft. Deg. off

**MUD PUMP RECORD No. 1 No. 2**

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 6 1/2 | | 600-800 | 12" | 72 | 5 1/2 |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 2:00 | 47 | 10.6 | 6.8 | 8.5 | Q BROXIN # 100 |
| 4:00 | 49 | 10.6 | | | CAUSTIC # 50 |
| 6- | 110 | 10.4 | | | WATER |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| FINISH HOISTING BIT | 12:00 | 12:15 | 1/4 |
| RIG SERVICE | 12:15 | 12:30 | 1/4 |
| RUN BIT No 14 | 12:30 | 1:15 | 3/4 |
| DRLG | 1:15 | 4:45 | 3 1/2 |
| CLEAN SUCTION | 4:45 | 5:00 | 1/4 |
| DRLG | 5:00 | 8:00 | 3 |

Driller Jim Boyd

## 2nd Tour From: 8:00 a.m. To: 4:00 p.m.

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 2336 | ~~2366~~ 2366 | 30' | 6 3/4 | |

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 34 | 1 | 19.24 up | 234.38 | 5 3/8.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 8 | 4 1/2 | 2 1/4 | 234.28 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 60M | |

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 14 | OWV | 1'15 | | 13 3/4 | | 20m | 60 | |

Bit Serial No. 13165 Table R.P.M. 120

~~Jet or~~ Conventional ✓ Nozzle Size

Kind at Ft. Deg. off

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| | | | 12" | 72 | 5 1/2 |

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 8:00 | 240 | 10.4 | | | Que 250 |
| 10:00 | 240 | 10.4 | | | CAUSTIC 100 |

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|

| | From | To | Hrs. |
|---|---|---|---|
| RIG SERV + CHECK BOP | 8:00 | 8:15 | 1/4 |
| DRLG | 8:15 | 12:30 | 4 1/4 |
| PUMP OUT SUCTION PIT | 12:30 | 1:30 | 1 |
| DRLG | 1:30 | 4:00 | 2 1/2 |

Driller Ed Lamb

## 3rd Tour From: 4:00 p.m. To: 12:00 p.m.

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 2366 | 2398 | 32 | 6 3/4 | |

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 35 | | 17.62 up | 234.38 | sub. 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 8 | 4 1/2 | 2 7/8 | 234.28 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 60000 | 11,800 |

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 14 | OWV | 1:15 | 6:30 | 15 3/4 | 2379 | 20m | 73 | |
| 15 | OWV | 9:00 | | 3 | | 20m | 19 | |

Bit Serial No. 13165 (15) 13152 Table R.P.M. 120

Jet or Conventional - CON. Nozzle Size 3-5/8"

Kind at Ft. Deg. off

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 5 1/2 | | 700 | 12" | 72 | 5 1/2 |

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 4:00 | 72 | 9.7 | 19.4 | 8. | Caustic - 12 |
| 5:00 | 56 | 9.7 | | | Obroxin - 50 |
| 6:00 | 65 | | | | |
| 10:00 | 83 | 9.7 | 20.2 | 8. | |

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|

| | From | To | Hrs. |
|---|---|---|---|
| DRILL 6 3/4 Hole. | 4:00 | 6:30 | 2 1/2 |
| SERVICE RIG. | 6:30 | 6:45 | 1/4 |
| Hoist Bit # 14. | 6:45 | 7:30 | 3/4 |
| REPACK Swivel. | 7:30 | 8:00 | 1/2 |
| Slip DRLG. line. | 8:00 | 8:15 | 1/4 |
| RUN Bit # 15. | 8:15 | 9:00 | 3/4 |
| DRILL 6 3/4 Hole. | 9:00 | 12:00 | 3 |

Driller H. Jamdl.

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. ..... DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY

MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. ..... YES ✓ NO

Total Contract Time ..... hrs. Total Company Time ..... hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-10-61)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 33

OE Imrie Ebbutt LSD. #C SEC. 5D TWN. ..... RGE. ..... W. ..... Contractor TRI-CITY DRLG Type Rig Farding Strat Month February Day 17 1964

| | 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 | Hole Size | Formation | From | To | Hole Made | Hole Size | Formation | From | To | Hole Made | Hole Size | Formation |
| | 2210 | 2235 | 25 | 6 3/4 | | 2235 | 2264 | 29' | 6 3/4 | | 2264 | 2306 | 42 | 6 3/4 | |
| **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 | 32 | 1 | 28' UP | 234.28 | SUB 3.00 | 3 1/2 | 32 | 1 | 35.80 IN | 234.28 | SUB 3.00 | 3 1/2 | 33 | 1 | 19.02 up. | 234.28 | Sub. 3.0 |
| | 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 | 8 | 4 1/2 | 2 1/4 | 234.28 | DRILLING STRING / DRILL COLLARS | COLLAR | 8 | 4 1/2 | 2 1/4 | 234.28 | DRILLING STRING / DRILL COLLARS | COLLAR | 8 | 4 1/2 | 2 7/8 | 234.28 | DRILLING STRING / DRILL COLLARS |
| | DATA | | | | | 60M | DATA | | | | | 60M | DATA | | | | | 60 000 / 12000 |
| **BIT RECORD** | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
| | 12 | OWV | - | - | 11 1/2 | - | 20M | 38 | | 12 | OWV | | | 12 1/2 | 2240 | 20M | 43 | | 13 | OWV | 11 30 | 11 15 | 11 | 2306 | 20M. | 66 | |
| | | | | | | | | | | 13 | OWC | 1130 | | 4 1/2 | | 20M | 24 | | | | | | | | | |
| | Bit Serial No. 13127 | | | | Table R.P.M. 120 | | Bit Serial No. 83156 | | | | Table R.P.M. 120 | | Bit Serial No. 83156 | | | | Table R.P.M. 120 | |
| | ~~Jet or~~ Conventional - CONV | | | | Nozzle Size | | ~~Jet or~~ Conventional - ✓ | | | | Nozzle Size | | Jet or Conventional - | | | | Nozzle Size | |
| **SURVEYS** | Kind | at | Ft. | | Deg. off | | Kind | at | Ft. | | Deg. off | | Kind S.S. | at 2293 | Ft. | | 7/8 | Deg. off |
| **SLUSH PUMP RECORD** No. 1 No. 2 | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
| | 7 3/4 | | 900 | 12" | 72 | 5 1/2 | 5 1/2 | 1/4 | 900 | 12" | 72 | 5 1/2 | 6 1/2 | | 900 | 12" | 70 | 5 1/2 |
| **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 | 40 | 10.6 | 5 | 9 | | 8 | 40 | 10.8 | 5.6 | 9 | | 4:00 | 45 | 10.8 | 6.2 | 9 | |
| | 4:00 | 40 | 10.6 | | | | 12 | 40 | 10.8 | | | | 6:00 | 43 | 10.7 | | | |
| | 6:00 | 41 | 10.6 | | | | 2 | 40 | 10.8 | | | | 8:00 | 44 | 10.7 | | | |
| | | | | | | | | | | | | | 10:00 | 42 | 10.8 | | | |
| **CORING** | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
| | | | | | | | | | | | | | | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| From | To | Hrs. | |
|---|---|---|---|
| 12:00 | 7:00 | 7 | DRLG |
| 7:00 | 7:15 | 1/4 | RIG SERV + WORK ON PUMP |
| 7:15 | 8:00 | 3/4 | DRLG |

| From | To | Hrs. | |
|---|---|---|---|
| 8:00 | 8:15 | 1/4 | RIG SERV |
| 8:15 | 9:15 | 1 | DRLG |
| 9:15 | 10:00 | 3/4 | HOIST FOR BIT |
| 10:00 | 10:15 | 1/4 | CHECK BOP |
| 10:15 | 11:00 | 3/4 | RUN IN |
| 11:00 | 11:15 | 1/4 | BREAK CIRC + BEAM IN |
| 11:15 | 3:45 | 4 1/2 | DRLG |
| 3:45 | 4:00 | 1/4 | CIR SAMPLE |

| From | To | Hrs. | |
|---|---|---|---|
| 4:00 | 4:15 | 1/4 | SERVICE RIG. |
| 4:15 | 8:15 | 4 | DRILL 6 3/4 Hole. |
| 8:15 | 8:45 | 1/2 | SURVEY @ 2293 |
| 8:45 | 11:15 | 2 1/2 | DRILL 6 3/4 Hole. |
| 11:15 | 12:00 | 3/4 | PULL BIT # 13. |

Driller Jim Bryt

Driller E. O. Lamb

Driller H. Jarrell

**CLASSES OF TIME BREAKDOWN**

HEADING UP & DRLG. OUT: DRILLING: REAMING: 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.:

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....

MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES NO

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-10-61)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 32

OE TRIAD EBRUTT LSD. C SEC. 50 TWN. RGE. W. Contractor TRI-CITY Type Rig FAILING STR# Month FEB Day 16 19 64

| | 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 | Hole Size | Formation |
|---|---|---|---|---|
| 2175 | 2177 | 2 | 6 5/8 | |
| 2177 | 2191 | 14' | 6 3/4 | |
| 2191 | 2210 | 19 | 6 3/4 | |

## DRILLING STRING

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3½ | 3 | | Own | 234.28 | Sub 3.00 |
| 3½ | 31 | 1 | 11.62 up | 234.28 | Sub 3.00 |
| 3½ | 32 | | 23.04 up | 234.28 | sub. 3.00 |

| DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING | DRILL COLLARS |
|---|---|---|---|---|---|---|
| | 8 | 4½ | 2¼ | 234.28 | 60 M | |
| | 8 | 4½ | 2¼ | 234.28 | 60 M | 11,300 |
| | 8 | 4½ | 2¼ | 234.28 | 62 000 | 11,300 |

## BIT RECORD

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 9 | O | 815 | 130 | 292 | 2177 | 12 | [illegible] | |
| 11 | OWC | | | 2 | | 2M | 150 | 60 |
| 11 | OWC | 10 30 | | 5¾ 7¼ | | 10M | 14' | 106 |
| 11 | OWC | | 6 00 | 9½ | 2197 | 12 | 20 | 101 |
| 12 | OWC | 8 [illegible] | | 3¾ | | 20 | 13 | |

Bit Serial No. 55091 (11) 27913 Table R.P.M. 180

Jet or Conventional - Conv. Nozzle Size

Bit Serial No. 27913 Table R.P.M. 115

Jet or Conventional - Nozzle Size

Bit Serial No. 27913 (12) 13127 Table R.P.M. 115

Jet or Conventional - Nozzle Size 3-

## SURVEYS

Kind at Ft. Deg. off

Kind S.S at Ft. Deg. off

Kind S.S at 2190 Ft. 1½ Deg. off

## WASH PUMP RECORD

| No. | On Line | Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| 1 | 3½ | | 800 | | | 5½ |
| 2 | | | | | | |
| 1 | 5½ | | 800 | 12" | 72 | 5½ |
| 1 | 5¾ | | 800 | 12" | 70 | 5½ |

## MUD RECORD

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 12 00 | 47 | 10.5 | | | |
| 10 | 40 | 10.4 | | | Q BROXIN - 15# |
| 12 | 42 | 10.4 | 6.4 | 9.5 | CAUSTIC - 50# |
| 2 | 42 | 10.4 | | | |
| 4 00 | 42 | 10.4 | 6 | 9.5 | |
| 8 00 | 44 | 10.4 | | | |
| 10 00 | 40 | 10.5 | | | |

## CORING

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| 2166 | 2177 | 8 | 4 | 3C | |

## DETAIL OF OPERATIONS AND REMARKS

| | From | To | Hrs. |
|---|---|---|---|
| Cut Core No 30 | 12 00 | 1 30 | 1½ |
| Rig Service | 1 30 | 1 45 | ¼ |
| Hoist Core #30 | 1 45 | 3 00 | 1¼ |
| Recover Core, Service & Stand | 3 00 | | |
| Back Core Barrel | | 4 00 | 1 |
| Pick up 20 D.C.'s. Service & D.L. | 4 00 | 4 30 | ½ |
| Work on hydromatic | 4 30 | 5 00 | ½ |
| Run In w/ Bit | 5 00 | 6 00 | 1 |
| Ream Undergage hole above casing | 6 00 | 8 00 | 2 |

Driller Jim Bright

| | From | To | Hrs. |
|---|---|---|---|
| R.G. SERV & CHECK BOP | 8 00 | 8 30 | ½ |
| REPLACE WASH PIPE PACKING | 8 30 | 10 30 | 2 |
| REAM RAT HOLE | 10 30 | 11 45 | 1¼ |
| DRLG 6¾" HOLE | 11 45 | 4 00 | 4¼ |

Driller E. D. Lamb

| | From | To | Hrs. |
|---|---|---|---|
| DRILL 6¾ Hole. | 4 00 | 6 00 | 2 |
| RUN SURVEY. | 6 00 | 6 15 | ¼ |
| SERVICE RIG. | 6 15 | 6 30 | ¼ |
| TRIP FOR BIT. | 6 30 | 8 00 | 1½ |
| REAM TO BOTTOM. | 8 00 | 8 15 | ¼ |
| DRILL 6¾ Hole. | 8 15 | 12 00 | 3¾ |

Driller H. Jandle

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ____ REEL SERIAL No. ____

MNFR. OF KELLY HOSE IN USE ____ HOSE SERIAL No. ____

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ✓ NO

Total Contract Time ____ hrs. Total Company Time ____ hrs. Toolpusher ____ Approved by ____

Form 34402 (300 bks.-10-61)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 21

988 Swan Elbow LSD. 0 SEC. 50 TWN. ..... RGE. ..... W. ..... Contractor TRI-CITY DRLG Type Rig FAIRING STRIPT Month FEB Day 15 1964

## 1st Tour From: 12:00 Midnight To: 8:00 a.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 2149 | 2156 | 7 | 6 5/8 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 2 1/2 | 21 | | 9' up | 173.38 | 55.52 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 6 | 4 1/2 | 2 1/4 | 173.38 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 58M | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 8 | ◇ | 2 45 | | 280 1/2 | | 14M | 693 | |

Bit Serial No. 5509C Table R.P.M. 100

Jet or Conventional - ◇ Nozzle Size

**SURVEYS**

Kind at Ft. Deg. off

**MUD PUMP RECORD**

| No. | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| 1 | 3 | 1/2 | 800 | 12 | 49 | 5 1/2 |
| 2 | | | | | | |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 4:00 | 45 | 10.3 | 6.2 | 8.5 | |
| 2:00 | 45 | 10.3 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| 2149 | 2153 | 4 | 4 | 27 | Johnston |
| 2153 | 2156 | 3 | | 28 | " |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| TRIP FOR JAMMED C.B. | 12:00 | 2:15 | 2 1/4 |
| RIG SERVICE | 2:15 | 2:30 | 1/4 |
| CIRC CORE BARREL | 2:30 | 2:45 | 1/4 |
| CUT CORE NO 27 | 2:45 | 4:15 | 1 1/2 |
| TRIP FOR JAMMED CB | 4:15 | 6:15 | 2 |
| CIRC. C.B | 6:15 | 6:30 | 1/4 |
| CUT CORE No 28 | 6:30 | 8:00 | 1 1/2 |

Driller Jim Bryt

## 2nd Tour From: 8:00 a.m. To: 4:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 2156 | 2165 | 9' | 6 3/8 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 31 | 1 | 30 F | 173.38 | 55.52 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 6 | 4 1/2 | 2 1/4 | 173.38 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 58M | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 9 | ◇ | 12 30 | | 285 | | 10M 12 M. | 692 | |

Bit Serial No. 5509C Table R.P.M. 60

Jet or Conventional - Nozzle Size

Kind at Ft. Deg. off

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 4 1/2 | 1/4 | 750 | 12" | 48 | 5 1/2 |

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 4:00 | 42 | 10.4 | | | |
| 12:00 | 42 | 10.4 | 6.2 | 8.5 | |
| 2:00 | 42 | 10.4 | | | |

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| 2156 | 2157 | 4' | 3 | 28 | Johnson |
| 2157 | 2165 | 8 | | 29 | |

| | From | To | Hrs. |
|---|---|---|---|
| CUT CORE #28 | 8:00 | 9:00 | 1 |
| RIG SERVICE | 9:00 | 9:15 | 1/4 |
| HOIST JAMMED CORE | 9:15 | 10:15 | 1 |
| RECOVER CORE & SERVICE BBL | 10:15 | 11:00 | 3/4 |
| SLIP LINE & CHECK BOP | 11:00 | 11:15 | 1/4 |
| RUN IN FOR CORE 29 | 11:15 | 12:15 | 1 |
| CIRC CORE BBL | 12:15 | 12:30 | 1/4 |
| CUT CORE #29 | 12:30 | 4:00 | 3 1/2 |

Driller Ed Lovell

## 3rd Tour From: 4:00 p.m. To: 12:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 2165 | 2175 | 10 | 6 5/8 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 31 | 1 | 21.2 up | 173.38 | 57.50 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 6 | 4 1/2 | 2 1/2 | 173.38 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 58 000 | 8,400 |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 9 | ◇ | 12 30 | 5 45 | | 2169 | 12 | | |
| 9 | ◇ | 8:15 | | 290 1/2 | | 12 | 702 | |

Bit Serial No. 5509-C Table R.P.M. 90

Jet or Conventional - Nozzle Size

Kind at Ft. Deg. off

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 5 1/2 | 1/4 | 800 | 12" | 48 | 5 1/2 |

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 4:00 | 42 | 10.4 | 6.2 | 8.5 | |
| 8:00 | 44 | 10.4 | | | |
| 10:00 | 44 | 10.4 | | | |

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| 2157 | 2169 | 12 | 9 | 29 | Johnston |
| 2169 | | | | 30 | " |

| | From | To | Hrs. |
|---|---|---|---|
| CUT CORE # 29 | 4:00 | 5:45 | 1 3/4 |
| SERVICE RIG. | 5:45 | 6:00 | 1/4 |
| PULL OUT. | 6:00 | 7:00 | 1 |
| RECOVER CORE. | 7:00 | 7:15 | 1/4 |
| RUN IN HOLE. | 7:15 | 8:00 | 3/4 |
| CIRC. hole. | 8:00 | 8:15 | 1/4 |
| CUT CORE # 30. | 8:15 | 12:00 | 3 3/4 |

Driller H. Jarvell

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....

MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ✓ NO

Total Contract Time ..... hrs. Total Company Time ..... hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-10-61)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 30

Well No. 19 LSD. D SEC. 32 TWN. RGE. W. Contractor TRI-City Drlg Co Type Rig Loeling Stad Month Feb Day 14 19 64

## 1st Tour From: 12:00 Midnight To: 8:00 a.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 2141 | 2147 | 6 | 6 5/8 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 21 | | 18' up | 173.38 | 55.52 |

| DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL: DRILLING STRING | DRILL COLLARS |
|---|---|---|---|---|---|---|
| | 6 | 4 1/2 | 2 1/4 | 173.38 | 56M. | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 8 | D | 3:30 | 5:30 | 27 1/2 | 2141 | 14M | 67' | |
| | | | | 288 | | | | |

Bit Serial No. 5509C Table R.P.M. 100

Jet or Conventional - Nozzle Size

**SURVEYS**

Kind at Ft. Deg. off

**MUD PUMP RECORD No. 1 No. 2**

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 2 | 1/4 | 750 | 12 | 51 | 5 1/2" |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 4:00 | 47 | 10.3 | 5.8 | 8.5 | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| 2141 | | | | 25 | Johnston |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| Replace Swivel On Kelly | 7:00 | 8:00 | |
| Rig Service | 12:00 | 12:15 | 1/4 |
| Hoist Bit No 10 | 12:15 | 1:00 | 3/4 |
| Replace Swivel In C.B. | 1:00 | 2:00 | 1 |
| Run In Hole With C.B. | 2:00 | 3:00 | 1 |
| Service Kelly + Clean Suction | 3:00 | 3:15 | 1/4 |
| Circ. C.B. | 3:15 | 3:30 | 1/4 |
| Cut Core No 25 | 3:30 | 5:30 | 2 |
| Hoist Core No 25 + Recover | 5:30 | 6:45 | 1 1/4 |
| Service + Stand Back C.B | 6:45 | 7:00 | 1/4 |

Driller Jim Byrd

## 2nd Tour From: 8:00 a.m. To: 4:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| | 2147 | | | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| | | | | | |

| DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL: DRILLING STRING | DRILL COLLARS |
|---|---|---|---|---|---|---|
| | | | | | | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

Bit Serial No. Table R.P.M.

Jet or Conventional - Nozzle Size

Kind at Ft. Deg. off

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| | | | | | |

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| | | | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| Rig Serv & Check B.O.P. | 8:00 | | |
| Wait on Link For Swivel Bail | | 4:00 | 8 |

Driller Ed Landa

## 3rd Tour From: 4:00 p.m. To: 12:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 2147 | 2149 | 2 | 6 5/8 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 31 | | 16 up. | 173.38 | 57.50 |

| DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL: DRILLING STRING | DRILL COLLARS |
|---|---|---|---|---|---|---|
| | 6 | 4 1/2 | 2 1/4 | 173.38 | 58000 | 8,400 |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 9 | D | 10:30 | 11:45 | 29Q | | 4M | 67' | |

Bit Serial No. 5509-C. Table R.P.M. 100

Jet or Conventional - Nozzle Size

Kind at Ft. Deg. off

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 1 1/4 | 1/2 | 775 | 12" | 50 | 5 1/2" |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 6:00 | 40 | 10.1 | 6.6 | 8.5 | |
| 10:30 | 42 | 10.2 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| 2147 | 2149 | 2 | | 26 | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| Wait on Link For Swivel Bail. | 4:00 | 8:30 | 4 1/2 |
| Install link on bail. | 8:30 | 9:00 | 1/2 |
| Pick up C.B. + Run in. | 9:00 | 10:00 | 1 |
| Circ. hole. | 10:00 | 10:30 | 1/2 |
| Cut Core #26. | 10:30 | 11:45 | 1 1/4 |
| Pull out. Core (Jammed.) | 11:45 | 12:00 | 1/4 |

Driller H. Jandl

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ____ REEL SERIAL No. ____

MNFR. OF KELLY HOSE IN USE ____ HOSE SERIAL No. ____

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY? YES ✓ NO

Total Contract Time ____ hrs. Total Company Time ____ hrs. Toolpusher ____ Approved by ____

Form 34402 (300 bks.-10-61)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 25

70 E Swd Elkwd LSD. 0 SEC. 50 TWN. RGE. W. Contractor TRI-City Drlg. Co. Type Rig Parkersburg Month Feb Day 13 19 64

## 1st Tour From: 12:00 Midnight To: 8:00 a.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 2121 | 2134 | 13 | 6 5/8 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 31 | | 29' up | 173.38 | 55.52 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 6 | 4 1/2 | 2 1/4 | 173.38 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 50 M. | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 8 | ◇ | | | 273 1/4 | 2134 | 14M | 661 | |

Bit Serial No. 55095 Table R.P.M. 100

Jet or Conventional - ◇ Nozzle Size

**SURVEYS**

Kind at Ft. Deg. off

**MUD PUMP RECORD No. 1 No. 2**

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 5 1/2 | | 800 | 12 | 54 | 5 1/2 |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 12 noon | 48 | 10.1 | 6 | 9.5 | |
| 2 pm | 47 | 10.3 | | | |
| 4 pm | 46 | 10.3 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| 2110 | 2134 | 24 | 23 | 23 | Johnston |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| Cut Core No 23 | 12 noon | 5:00 | 5 |
| Rig Service + Clean Suction | 5 pm | 5:30 | 1/2 |
| Cut Core No 23 | 5:30 | 6:00 | 1/2 |
| Hoist Core No 23 | 6:00 | 7:00 | 1 |
| Recover Core + Serv. Rig | 7:00 | 8:00 | 1 |

Driller Jim Boyd

## 2nd Tour From: 8:00 a.m. To: 4:00 p.m.

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 2134 | 2141 | 7 | 6 5/8 | |

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 31 | | 22' up | 173.38 | 55.52 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 6 | 4 1/2 | 2 1/4 | 173.38 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 58 M. | |

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 9 | ◇ | | 12 45 | 276 1/2 | | 14M | 668 | |

Bit Serial No. 55095 Table R.P.M. 100

Jet or Conventional - Nozzle Size

Kind at Ft. Deg. off

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 3 1/4 | 1/2 | 800 | 12" | 52 | 5 1/2 |

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 10 | 42 | 10.2 | | | |
| 12 | 42 | 10.2 | 6. | 9. | |

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| 2134 | 2141 | 7' | | #24 | Johnson |

| From | To | Hrs. | |
|---|---|---|---|
| 8:00 | 8:15 | 1/4 | Rig Serv & Check BOP |
| 8:15 | 9:00 | 3/4 | Run in with Core Bbl |
| 9:00 | 9:30 | 1/2 | Circ Core Bbl |
| 9:30 | 12:45 | 3 1/4 | Cut Core # 24 |
| 12:45 | 1:30 | 3/4 | Hoist Core |
| 1:30 | 2:15 | 3/4 | Recover Core & Stand Back Bbl |
| 2:15 | 4:00 | 1 3/4 | Rig To Logg & Logg |

Driller Ed Lauck

## 3rd Tour From: 4:00 p.m. To: 12:00 p.m.

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 2141 | 2141 | 0 | 6 3/4 | |

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 31 | 1 | Down | 173.38 | 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 6 | 4 1/2 | 2 1/4 | 173.38 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 60 000 | 8 400 |

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 10 | WTR | | | 5 1/2 | | 2. | | 445 |

Bit Serial No. 74767 Table R.P.M. 90

Jet or Conventional - Nozzle Size

Kind at Ft. Deg. off

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| | | 750 | 12" | | 5 1/2" |

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 8:00 | 38 | 10.3 | | | Gel. 500 |
| 9:30 | 37 | 10.4 | 6.4 | 8.5 | |

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

| From | To | Hrs. | |
|---|---|---|---|
| 4:00 | 5:15 | 1 1/4 | Logging. |
| 5:15 | 6:00 | 3/4 | Run in to Ream. |
| 6:00 | 11:30 | 5 1/2 | Ream Rat Hole. |
| 11:30 | 12:00 | 1/2 | Circ. Hole. |

Driller H. Jandl

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....

MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ✓ NO

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-10-61)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 28

mod Elkwt LSD. 0 SEC. 50 TWN. ____ RGE. ____ W. ____ Contractor TRI CITY DRLG. Co Type Rig Failure Stnd. Month Feb. Day 12 19 63

## 1st Tour From: 12:00 Midnight To: 8:00 a.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 2088 | 2110 | 22 | 6 5/8 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3½ | 30 | 1 | 23.97 Ft. | 173.38 | 55.52 |

| DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING | DRILL COLLARS |
|---|---|---|---|---|---|---|
| | 6 | 4½ | 2¼ | 173.38 | 58M | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 8 | ◇ | | | 26¾ | 2110 | 14M | 637 | |

Bit Serial No. 5509C Table R.P.M. 100

Jet or Conventional - ◇ Nozzle Size

**SURVEYS** Kind at Ft. Deg. off

**MUD PUMP RECORD**

| | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| No. 1 | 1½ | | 800 | 12 | 50 | 5½ |
| No. 2 | | | | | | |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 12⁰⁰ | 54 | 10.3 | 6.3 | 8 | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| 2083 | 2110 | 27' | | 22 | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| CUT CORE NO 22 | 12⁰⁰ | 1³⁰ | 1½ |
| RIG SERVICE | 1³⁰ | 1⁴⁵ | ¼ |
| HOIST CORE NO 22 - STAND OUT | 1⁴⁵ | 2⁴⁵ | 1 |
| RECOVER CORE | 2⁴⁵ | 3¹⁵ | ½ |
| SERVICE + STAND BACK C.B | 3¹⁵ | 3³⁰ | ¼ |
| WAIT ON SCHLUMBERGER | 3³⁰ | 5⁴⁵ | 2¼ |
| RIG TO LOG | 5⁴⁵ | 6¹⁵ | ½ |
| LOGGING W/ SCHLUMBERGER | 6¹⁵ | 8⁰⁰ | 1¾ |

Driller Jim Rust

## 2nd Tour From: 3:00 a.m. To: 4:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 2110 | | | | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3½ | | | | 173.38 | |

| DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING | DRILL COLLARS |
|---|---|---|---|---|---|---|
| | 6 | 4½ | 2¼ | 173.38 | | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

Bit Serial No. Table R.P.M.

Jet or Conventional - Nozzle Size

Kind at Ft. Deg. off

**MUD PUMP RECORD**

| | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| No. 1 | | | | | | |
| No. 2 | | | | | | |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| | | | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| LOGGING WITH SCHLUMBERGER | 8⁰⁰ | 4⁰⁰ | 8 |

Driller Ed. Faudt

## 3rd Tour From: 4:00 p.m. To: 12:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 2110 | 2121 | 11 | 6 5/8 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3½ | 30 | 1 | 12.97 Ft. | 173.38 | 56.64 |

| DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING | DRILL COLLARS |
|---|---|---|---|---|---|---|
| | 6 | 4½ | 2¼ | 173.38 | 60.00 | 8,400 |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 9 | ◇ | 7.30 | | 26¾ | | 12. | 648 | |

Bit Serial No. 5509-C Table R.P.M. 90

Jet or Conventional - Nozzle Size

Kind at Ft. Deg. off

**MUD PUMP RECORD**

| | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| No. 1 | 4½ | ¼ | 800 | 12" | 54 | 5½" |
| No. 2 | | | | | | |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 7³⁰ | 58 | 10.3 | | | Caustic - 50 |
| 10⁰⁰ | 53 | 10. | 6.2 | 9.5 | Qbrokin. - 25 |
| 11⁰⁰ | 53 | 10 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| 2110 | 2121 | 11 | | 23 | Johnston. |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| Logging. | 4⁰⁰ | 5³⁰ | 1½ |
| Pick up C.B. + Work on same. | 5³⁰ | 6¹⁵ | ¾ |
| Run in Hole. | 6¹⁵ | 7¹⁵ | 1 |
| Circ. hole. | 7¹⁵ | 7³⁰ | ¼ |
| CUT Core #23 | 7³⁰ | 12⁰⁰ | 4½ |

Driller H. Jandl.

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ____ REEL SERIAL No. ____

MNFR. OF KELLY HOSE IN USE ____ HOSE SERIAL No. ____

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ___ NO ___

Total Contract Time ____ hrs. Total Company Time ____ hrs. Toolpusher ____ Approved by ____

Form 34402 (300 bks.-10-61)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 27

D.D.E. Triad Elkhart LSD. 0 SEC. 50 TWN. ____ RGE. ____ W. ____ Contractor TRI-CITY DRLG. Type Rig Failing Steel Month February Day 11 1964

| | 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 | Hole Size | Formation | From | To | Hole Made | Hole Size | Formation | From | To | Hole Made | Hole Size | Formation |
| | 2057 | 2080 | 23 | 6 5/8 | | 2080 | 2088 | 8' | 6 5/8 | | 2088 | 2108 | 20 | 6 5/8 | |
| **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 | 30 | 0 | 22' up | 173.38 | 53.52 | 3 1/2 | 30 | | 19.3' | 173.38 | 55.52 | 3 1/2 | 30 | 1 | 25.97 up | 173.38 | 56.64 |
| | DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING / DRILL COLLARS | DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING / DRILL COLLARS | DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING / DRILL COLLARS |
| | | | | | | 56M | | | | | | | | | | | 58000 / 9,400 | |
| **BIT RECORD** | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | Reamed | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | Reamed | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | Reamed |
| | 9 | ◇ | 12 00 | | 25 3/4 | | 14M | 607 | | 9 | ◇ | 2 00 | | 26 1/4 | | 14M | 615 | | 9 | ◇ | 2.00 | | 26 3/4 | | 12 | 635 | |
| | Bit Serial No. 5509C | | | | Table R.P.M. 100 | | Bit Serial No. 5509C | | | | Table R.P.M. 90 | | Bit Serial No. 5509-C | | | | Table R.P.M. 90 | |
| | Jet or Conventional - ◇ | | | | Nozzle Size | | Jet or Conventional - | | | | Nozzle Size | | Jet or Conventional - | | | | Nozzle Size | |
| **SURVEYS** | Kind | at | Ft. | Deg. off | | Kind | at | Ft. | Deg. off | | Kind | at | Ft. | Deg. off | |
| **MUD PUMP RECORD** No. 1 No. 2 | 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 |
| | 7 3/4 | | 800 | 12 | 45 | 5 1/2 | 3 3/4 | 1/4 | 800 | 12" | 52 | 5 1/2 | 7 3/4 | | 825 | 12" | 52 | 5 1/2" |
| **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 | 52 | 10.3 | 5.8 | 8.5 | QBROXIN 30# | 8 00 | 54 | 10.4 | 5.7 | | CAUSTIC - 20#<br>QBROXIN - 10# | 4 00 | 48 | 10.3 | 6.6 | 8.5 | |
| | 2 00 | 50 | 10.3 | | | | | | | | | | 6.00 | 50 | 10.3 | | | |
| | 4 00 | 54 | 10.3 | | | | | | | | | | 8.00 | 50 | 10.3 | | | |
| | 6 00 | 54 | 10.4 | | | | | | | | | | 10.00 | 50 | 10.3 | | | |
| **CORING** | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
| | 2057 | | | | 21 | JOHNSTON | 2057 | 2083 | 26' | 21 | 21 | JOHNSON | 2083 | 2108 | 25 | | 22 | Johnston |
| | | | | | | | 2083 | 2088 | 8 | | 22 | | | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| CUT CORE NO 21 | 12 00 | 4 45 | 4 3/4 |
| RIG SERVICE | 4 45 | 5 00 | 1/4 |
| CORING | 5 00 | 8 00 | 3 |

Driller Jim Byrd

| | From | To | Hrs. |
|---|---|---|---|
| CUT CORE # 21 | 8 00 | 9 45 | 1 3/4 |
| HOIST CORE | 9 45 | 10 45 | 1 |
| RECOVER CORE | 10 45 | 11 30 | 3/4 |
| SERVICE CORE BARREL | 11 30 | 12 00 | 1/2 |
| RIG SERV + CHECK BOP | 12 00 | 12 15 | 1/4 |
| RUN IN WITH CORE BARREL | 12 15 | 1.00 | 3/4 |
| CIRC CORE BARREL. | 1 00 | 1 30 | 1/2 |
| WORK ON PUMP VALVES | 1 30 | 2 00 | 1/2 |
| CUT CORE #22 | 2 00 | 4 00 | 2 |

Driller Earl Hunt

| | From | To | Hrs. |
|---|---|---|---|
| CUT CORE #22. | 4 00 | 9 30 | 5 1/2 |
| SERVICE RIG. | 9 30 | 9 45 | 1/4 |
| CUT CORE #22. | 9 45 | 12 00 | 2 1/4 |

Driller H. Jandl

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ____ REEL SERIAL No. ____

MNFR. OF KELLY HOSE IN USE ____ HOSE SERIAL No. ____

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES NO

Total Contract Time ____ hrs. Total Company Time ____ hrs. Toolpusher ____ Approved by ____

Form 34402 (300 bks.-10-61)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 26

2.0.E. Triad Elkwater LSD. 0 SEC. 50 TWN. ..... RGE. ..... W. ..... Contractor IRI - City Drlg Co Type Rig Sterling Star Month Feb Day 10 19 64

## 1st Tour From: 12:00 Midnight To: 8:00 a.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 2034 | 2036 | 2 | 6 3/8 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3½ | 29 | | 6 up | 173.38 | 55.52 |

| DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL: DRILLING STRING | DRILL COLLARS |
|---|---|---|---|---|---|---|
| | 6 | 4½ | 2¼ | 173.38 | 50M. | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 8 | D | | | 243¾ | 2036 | 11M | 563 | |

Bit Serial No. 5509C Table R.P.M. 100

Jet or Conventional - D Nozzle Size

**SURVEYS**

Kind at Ft. Deg. off

**MUD PUMP RECORD** No. 1 / No. 2

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 1½ | | 800 | 12 | 96 | 5½ |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 12 M | 40 | 10.4 | 5.2 | 8.5 | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| 2011 | 2036 | 25 | 21 | 19 | Johnston |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| Cut Core No 19 | 12 00 | 1 30 | 1½ |
| Rig Service | 1 30 | 1 45 | ¼ |
| Hoist Core No 19 | 1 45 | 2 30 | ¾ |
| Recover Core, Service RR | 2 30 | 3 00 | ½ |
| Wait On Orders | 3 00 | 3 15 | ¼ |
| Stand Back D.B. Make Up Packer | 3 15 | 4 30 | 1¼ |
| Run In W/ Packer | 4 30 | 5 15 | ¾ |
| Rig To Test | 5 15 | 5 30 | ¼ |
| Testing | 5 30 | 8 00 | 2½ |

Driller Jim Right

## 2nd Tour From: 8:00 a.m. To: 4:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 2036 | 2044 | 8' | 6 3/8 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3½ | | 5 5/8 1.12 | | 173.38 | 55.52 |

| DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL: DRILLING STRING | DRILL COLLARS |
|---|---|---|---|---|---|---|
| | 6 | 6½ | 2¼ | 173.38 | 56M | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 8 | D | 1 15 | | 246½ | | 12M | 591 | |

Bit Serial No. 5509C Table R.P.M. 90

Jet or Conventional - D Nozzle Size

Kind at Ft. Deg. off

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| | | 850 | 12" | 49 | 5½ |

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 2 00 | 47 | 10.4 | 5.2 | 8.5 | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| 2036 | 2044 | 8 | | 20 | Johnson |

| | From | To | Hrs. |
|---|---|---|---|
| Testing | 8 00 | 10 00 | 2 |
| Hoist D.S.T. #2 | 10 00 | 11 00 | 1 |
| Break Down Tool | 11 00 | 11 30 | ½ |
| Close B.O.P. | 11 30 | 11 45 | ¼ |
| Slip 5' Drlg Line | 11 45 | 12 00 | ¼ |
| Run In With Core Bbl | 12 00 | 12 45 | ¾ |
| Circ. Core Bbl & Drop Ball | 12 45 | 1 15 | ½ |
| Cut Core #20 | 1 15 | 4 50 | 23/4 |

Driller E. D. Sandl

## 3rd Tour From: 4:00 p.m. To: 12:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 2044 | 2057 | 13 | 6 5/8 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3½ | 29 | 1 | 15.55 up | 173.38 | 56.64 |

| DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL: DRILLING STRING | DRILL COLLARS |
|---|---|---|---|---|---|---|
| | 6 | 6½ | 2½ | 173.38 | 56 000 | 28,400 |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 9 | D | 1 15 | 9 30 | 25¼ | 2057 | 12M | 584 | |

Bit Serial No. 5509-C Table R.P.M. 90

Jet or Conventional - Nozzle Size

Kind at Ft. Deg. off

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 5½ | ¼ | 850 | 12" | | 5½" |

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 4 00 | 52 | 10.3 | 5.2 | 8.5 | |
| 6 00 | 52 | 10.3 | | | |
| 8 00 | 53 | 10.4 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| 2044 | 2057 | 13 | 20 (21) | 20 | Johnston. |

| | From | To | Hrs. |
|---|---|---|---|
| Cut Core # 20. | 4 00 | 9 30 | 5½ |
| Hoist To Recover Core | 9 30 | 10 30 | 1 |
| Recover Core. | 10 30 | 11 00 | ½ |
| Run in hole. | 11 00 | 11 45 | ¾ |
| Circ. hole. | 11 45 | 12 00 | ¼ |

Driller H. Jandl.

**CLASSES OF TIME BREAKDOWN**

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....
MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY? YES ✓ NO

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-10-61)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 25

90 E. Grand Central LSD. 9 SEC. 52 TWN. ____ RGE. ____ W. ____ Contractor TRI-CITY DRLG. Type Rig FALKINER SPIRIT Month Feb. Day 9 19 63

## 1st Tour From: 12:00 Midnight To: 8:00 a.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 1983 | 1996 | 13 | 6 3/8 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 28 | 1 | 17 up | 173.38 | 55.52. |

| | DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|---|
| | COLLAR | 6 | 4 1/2 | 2 1/4 | 173.38 | DRILLING STRING | DRILL COLLARS |
| | DATA | | | | | 40 M. | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 8 | ◻ | | | 23 1/2 | | 11M. | 523 | |

Bit Serial No. 5509C. Table R.P.M. 100

Jet or Conventional - ◻ Nozzle Size

**SURVEYS** Kind at Ft. Deg. off

**MUD PUMP RECORD** No. 1 No. 2

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 4 3/4 | 3/4 | 800 | 12 | 48 | 5 1/2. |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 12 N | 37 | 10.3 | 6 | 8 | GEL 500 # |
| 2 N | 37 | 10.3 | | | |
| 4 N | 37 | 10.3 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| 1961 | 1995 | 34 | 31 | 17 | |
| 1995 | 1996 | 1 | | 18 | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| CUT CORE No. 17 | 12 00 | 4 30 | 4 1/2 |
| HOIST CORE #17 | 4 30 | 5 15 | 3/4 |
| RECOVER CORE | 5 15 | 6 00 | 3/4 |
| RUN IN W/ C.B. | 6 00 | 6 45 | 3/4 |
| RIG SERVICE | 6 45 | 9 00 | 1/4 |
| CIRC C.B. & MIX MUD | 7 00 | 7 45 | 3/4 |
| CUT CORE No. 18 | 7 45 | 5 00 | 1/4 |

Driller Jim Byrd

## 2nd Tour From: 8:00 a.m. To: 4:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 1996 | 2011 | 15' | 6 3/8 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 28 | 1 | 35.90 | 173.38 | 55.52 |

| | DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|---|
| | COLLAR | 6 | 4 1/2 | 2 1/4 | | DRILLING STRING | DRILL COLLARS |
| | DATA | | | | | 40 M | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 6 | ◇ | | | 23 3/4 | | 12M | 538 | |

Bit Serial No. 5509-C Table R.P.M. 100

Jet or Conventional - ◇ Nozzle Size

Kind at Ft. Deg. off

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| | | 800 | 12" | 49 | 5 1/2 |

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 8 | 38 | 10.4 | | | Gel = 400 # |
| 10 | 36 | 10.4 | 6.2 | 8.5 | |
| 12 | 38 | 10.4 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| 1995 | 2011 | 16 | 16 | 18 | JOHNSON |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| CUT CORE # 18 | 8 00 | 1 30 | 5 1/2 |
| HOIST FOR TIGHT SPOT | 1 30 | 2 30 | 1 |
| RECOVER CORE | 2 30 | 3 15 | 3/4 |
| RIG SERV + CHECK BOP | 3 15 | 3 30 | 1/4 |
| RUN IN | 3 30 | 4 00 | 1/2 |

Driller Ed Lamb

## 3rd Tour From: 4:00 p.m. To: 12:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 2011 | 2034 | 23 | 6 5/8 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 29 | | 7.69 up | 173.38 | 56.64 |

| | DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|---|
| | COLLAR | 6 | 4 1/2 | 2 1/2 | 173.38 | DRILLING STRING | DRILL COLLARS |
| | DATA | | | | | 42 000 | 8.400 |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 9 | O | 4.30 | | 24 3/4 | | 12. | 561 | |

Bit Serial No. 5509-C Table R.P.M. 90

Jet or Conventional - Nozzle Size

Kind at Ft. Deg. off

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 7 1/2 | 1/4 | 800 | 12" | 50 | 5 1/2" |

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 4.30 | 45 | 10.2 | 6.2 | 8.5 | Caustic 25 |
| 6.00 | 43 | 10.3 | | | |
| 8.00 | 40 | 10.2 | | | |
| 10.00 | 42 | 10.4 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| 2011 | 2034 | 23 | | 19 | Johnston |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| RUN IN. | 4 00 | 4 15 | 1/4 |
| CIRC. HOLE. | 4 15 | 4 30 | 1/4 |
| CUT CORE # 19. | 4 30 | 12 00 | 7 1/2 |

Driller H. Jandl

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ____ REEL SERIAL No. ____

MNFR. OF KELLY HOSE IN USE ____ HOSE SERIAL No. ____

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES NO

Total Contract Time ____ hrs. Total Company Time ____ hrs. Toolpusher ____ Approved by ____

Form 34402 (300 bks.-10-61)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 24

90E Swan Chute LSD. 0 SEC. 50 TWN. ..... RGE. ..... W. ..... Contractor TRI-CITY DRLG. CO Type Rig Sailing Star Month FEB Day 8 19 64

## 1st Tour From: 12:00 Midnight To: 8:00 a.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 1918 | 1942 | 24 | 6 3/8 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3½ | 27 | 1 | 28.98 up | 173.38 | 55.52. |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 6 | 4½ | 2¼ | 173.38 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 41000 | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 8 | ◇ | | | 210¾ | | 11m | 469 | |

Bit Serial No. 5509C Table R.P.M. 102.

Jet or Conventional - ◇ Nozzle Size

**SURVEYS**

Kind ..... at ..... Ft. ..... Deg. off

**MUD PUMP RECORD No. 1 No. 2**

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 7½ | | 800 | 12 | 48 | 5½ |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 12 MN | 37 | 10.1 | 7 | 8.5 | |
| 2 AM | 37 | 10.1 | | | |
| 4 AM | 37 | 10.2 | | | |
| 6 AM | 36 | 10.2 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| 1911 | 1942 | 31 | | 16 | JOHNSTON. |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| CUT CORE NO 16. | 12 00 | 12 30 | ½. |
| SERVICE RIG | 12 30 | 12 45 | ¼ |
| CLEAN SUCTION | 12 45 | 1 00 | ¼ |
| CORING | 1 00 | 8 00 | 7 |

Driller Jim Byrt

## 2nd Tour From: 8:00 a.m. To: 4:00 p.m.

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 1942 | 1961 | 19 | 6 5/8 | |

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3½ | 28 | | 29 up | 173.38 | 55.52 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 6 | 4½ | 2¼ | 173.38 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 4 | |

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 8 | ◇ | | | 216¼ | 1961 | 12m | 488 | |

Bit Serial No. 5509C Table R.P.M. 80

Jet or Conventional - ◇ Nozzle Size

Kind ..... at ..... Ft. ..... Deg. off

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 5½ | | 750 | 12" | 48 | 5½ |
| | | 800 | 12" | 45 | 5½ |

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 8 00 | 32 | 10.1 | | | Gel = 400# |
| 10 00 | 33 | 10.2 | 6.5 | 8.5 | |
| 12 00 | 33 | 10.2 | | | |
| 2 00 | | | | | |

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| 1911 | 1961 | 50 | 49 | 16 | JOHNSON |

| | From | To | Hrs. |
|---|---|---|---|
| CUT CORE #16 | 8 00 | 10 30 | 2½ |
| RIG SERV | 10 30 | 10 45 | ¼ |
| CORING | 10 45 | 1 45 | 3 |
| HOIST | 1 45 | 2 30 | ¾ |
| RECOVER CORE | 2 30 | 3 15 | ¾ |
| RUN WITH CORE BARREL | 3 15 | 4 00 | ¾ |

Driller E. D. Kemble

## 3rd Tour From: 4:00 p.m. To: 12:00 p.m.

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 1961 | 1983 | 22 | 6 5/8 | |

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3½ | 28 | 1 | 28.86up | 173.38 | 56.64 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 6 | 4½ | 2½ | 173.38 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 41000 | 8,400 |

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 8 | ◇ | 430 | | 223¾ | | 12m. | 510 | |

Bit Serial No. 5509-C Table R.P.M. 90

Jet or Conventional - Nozzle Size

Kind ..... at ..... Ft. ..... Deg. off

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 7½ | ¼ | 825 | 12" | 52. | 5½" |

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 5 00 | 35 | 10.2 | 7.4 | 8.5 | |
| 8 00 | 37 | 10.3 | | | |
| 11 00 | 38 | 10.3 | | | |

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| 1961 | 1983 | 22 | | 17 | Johnston |

| | From | To | Hrs. |
|---|---|---|---|
| SERVICE RIG. | 4 00 | 4 15 | ¼ |
| Circ. hole. | 4 15 | 4 30 | ¼ |
| CUT CORE # 17 | 4 30 | 12 00 | 7½ |

Driller H. Jandl.

CLASSES OF TIME BREAKDOWN

HEADING UP & DRLG. OUT: DRILLING: REAMING: 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.:

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....

MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES NO

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-10-61)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 23

DOE Elbert LSD. d SEC. 50 TWN. ..... RGE. ..... W. ..... Contractor Tri-City Drlg Co Type Rig Fording Strat Month Feb. 7 Day 7 1964

| | 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 1865 / To 1877 / Hole Made 12 / Hole Size 6 5/8 / Formation | From 1877 / To 1904 / Hole Made 27' / Hole Size 6 5/8 / Formation | From 1904 / To 1918 / Hole Made 14 / Hole Size 6 5/8 / Formation |
| **DRILLING STRING** | Size-D.P. 3½ / Stands 26 / Singles 1 / Kelly 17' up. / Drill. Collar Ft. 173.38 / Core Bbl. Ft. 55.52 | Size-D.P. 3½ / Stands 27 / Singles 5-17 1.12 / Kelly 19.34 / Drill. Collar Ft. 173.38 / Core Bbl. Ft. 55.52 | Size-D.P. 3½ / Stands 27 / Singles / Kelly 2.46 up. / Drill. Collar Ft. 173.38 / Core Bbl. Ft. 56.64 |
| | DRILL COLLAR DATA: Number 6 / OD 4½ / ID 2¼ / Length 173.38 / INDICATOR WEIGHT OF TOTAL: DRILLING STRING 32M. / DRILL COLLARS | DRILL COLLAR DATA: Number 6 / OD 4½ / ID 2¼ / Length 173.38 / INDICATOR WEIGHT OF TOTAL: DRILLING STRING 32M / DRILL COLLARS | DRILL COLLAR DATA: Number 6 / OD 4½ / ID 2½ / Length 173.38 / INDICATOR WEIGHT OF TOTAL: DRILLING STRING 40000 / DRILL COLLARS 8,400 |
| **BIT RECORD** | No. 8 / Type D / Time On Bottom At 2:30 / Time Pulled At / Total Hours Run 18½ / Depth Pulled / Weight On Bit M Pounds 11M / FOOTAGE Drilled 404 / Reamed<br>Bit Serial No. 5509C. / Table R.P.M. 100<br>Jet or Conventional - D / Nozzle Size | No. 8 / Type D / Time On Bottom At 2:30 / Time Pulled At / Total Hours Run 18 3/4 / Depth Pulled / Weight On Bit M Pounds 12M / FOOTAGE Drilled 431 / Reamed<br>Bit Serial No. 5509C / Table R.P.M. 80<br>Jet or Conventional - D / Nozzle Size | No. 8 / Type D / Time On Bottom At 3:30 / Time Pulled At 6:00 / Total Hours Run 20 3/4 / Depth Pulled 1911 / Weight On Bit M Pounds 12 / FOOTAGE Drilled 438 / Reamed<br>8 / D / 9:30 / 20 3/4 / 12 / 445<br>Bit Serial No. 5509-C / Table R.P.M. 80<br>Jet or Conventional - / Nozzle Size |
| **SURVEYS** | Kind / at / Ft. / Deg. off | Kind / at / Ft. / Deg. off | Kind / at / Ft. / Deg. off |
| **MUD PUMP RECORD** No. 1 No. 2 | HOURS On Line 4½ / Circulating ½ / Pump Press 500 / Length of Pump Stroke 12 / Strokes Per Min. 48 / Liner Size 5½ | HOURS On Line / Circulating / Pump Press 800 / Length of Pump Stroke 12" / Strokes Per Min. 48 / Liner Size 5½ | HOURS On Line 4½ / Circulating ½ / Pump Press 800 / Length of Pump Stroke 12" / Strokes Per Min. 52 / Liner Size 5½ |
| **MUD RECORD** | Time / Visc. / Wt. / W L / pH / ADDITIVES — POUNDS<br>4:00 / 42 / 10.5 / 5 / 8 /<br>6:00 / 42 / 10.5 | Time / Visc. / Wt. / W L / pH / ADDITIVES — POUNDS<br>8 / 42 / 10.7 / / / CAUSTIC = 25#<br>10 / 42 / 10.7 / 5.2 / 8 / QBROXIN = 15#<br>12 / 42 / 10.7<br>2 / 39 / 10.7 | Time / Visc. / Wt. / W L / pH / ADDITIVES — POUNDS<br>4:00 / 38 / 10.7 / 5.6 / 8. / Gel - 800<br>6:00 / 38 / 10.7 / / / Caustic - 25<br>10:00 / 38 / 9.7 / 7.8 / / Qbroxin - 15 |
| **CORING** | From 1865 / To 1877 / Ft. Cored 12 / Ft. Rec'd. / Core No. 15 / Type Bbl. JOHNSTON | From 1877 / To 1904 / Ft. Cored 27' / Ft. Rec'd. / Core No. 15 / Type Bbl. JOHNSON | From 1904 / To 1911 / Ft. Cored 7 / Ft. Rec'd. / Core No. 15 / Type Bbl.<br>1911 / 16 |

**DETAIL OF OPERATIONS AND REMARKS**

| From | To | Hrs. | Operation |
|---|---|---|---|
| 12:00 | 12:15 | ¼ | SERVICE RIG |
| 12:15 | 12:30 | ¼ | REPAIR POP VALVE |
| 12:30 | 1:15 | ¾ | HOIST CORE NO 14 |
| 1:15 | 1:45 | ½ | RECOVER CORE |
| 1:45 | 2:15 | ½ | REPAIR CORE BBL. |
| 2:15 | 3:00 | ¾ | RUN IN W/C.B. |
| 3:00 | 3:30 | ½ | CLEAN SUCTION & CIRC C.B. |
| 3:30 | 8:00 | 4½ | CUT CORE NO 15 |

Driller Jim Bujt

| From | To | Hrs. | Operation |
|---|---|---|---|
| 8:00 | 11:15 | 3¼ | CUT CORE #15 |
| 11:15 | 11:30 | ¼ | RIG SERVICE |
| 11:30 | 4:00 | 4½ | CORING |

Driller Ed Kamb

| From | To | Hrs. | Operation |
|---|---|---|---|
| 4:00 | 6:00 | 2 | CUT CORE # 15. |
| 6:00 | 6:15 | ¼ | SERVICE RIG. |
| 6:15 | 7:00 | ¾ | HOIST TO RECOVER CORE. |
| 7:00 | 7:30 | ½ | RECOVER CORE. |
| 7:30 | 7:45 | ¼ | SLIP LINE. |
| 7:45 | 8:15 | ½ | PUMP DOWN P.T. + [redacted] |
| 8:15 | 9:00 | ¾ | RUN IN HOLE. |
| 9:00 | 9:30 | ½ | CIRC HOLE + DROP BALL. |
| 9:30 | 12:00 | 2½ | CUT CORE # 16. |

Driller H. Jandl.

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....
MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ... NO

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-10-61)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 22

W.C. Red Earth LSD. D SEC. 50 TWN. ____ RGE. ____ W. ____ Contractor Tri-City Drlg Co. Type Rig Sailing Strat Month Feb. Day 6. 19 64

## 1st Tour From: 12:00 Midnight To: 8:00 a.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 1804 | 1817 | 13 | 6 5/8 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3½ | 25 | 54 ea. 1.12. | 12' up | 173.38 | 56.52. |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 6 | 4½ | 2¼ | 173.38 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 35 M. | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 9 | ◇ | | 6:30 | 16 2¾ | 1809 | 11 M | 24' | |

Bit Serial No. 5509C. Table R.P.M. 102

Jet or Conventional - ◇ Nozzle Size

**SURVEYS**

**MUD PUMP RECORD**

Kind at Ft. Deg. off

| No. | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| 1 | 6 1/4 | | 800 | 12 | 48 | |
| 2 | | | | | | |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 12:00 | 40 | 10.6 | 5. | 8 | |
| 2:00 | 40 | 10.6 | | | |
| 4:00 | 40 | 10.6 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| 1804 | 1817 | 13 | 49 | 13 | JOHNSTON |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| Cut Core No 13 | 12:00 | 6:15 | 6 1/4 |
| Service Rig | 6:15 | 6:30 | 1/4 |
| Hoist Core No 13 | 6:30 | 7:15 | 3/4 |
| Recover Core | 7:15 | 8:00 | 3/4 |

Driller Jim Boyd

## 2nd Tour From: 8:00 a.m. To: 4:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 1817 | 1838 | 21' | 6 5/8 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3½ | 1593.74 | 54 ea. 1.12 | 14.26 | 173.38 | 55.52 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 6 | 4½ | 2¼ | 173.38 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 30M | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 9 | ◇ | 9:45 | | 16 9 | | 12M | 36 5 | |

Bit Serial No. 5509C Table R.P.M. 80

Jet or Conventional - Nozzle Size

**SURVEYS**

**MUD PUMP RECORD**

Kind at Ft. Deg. off

| No. | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| 1 | 6 1/4 | 1/4 | 850 | 12" | 47 | 5½ |
| 2 | | | | | | |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 8 | 42 | 10.6 | | | |
| 10 | 41 | 10.6 | 5.2 | 8.5 | |
| 12 | 40 | 10.6 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| 1817 | 1838 | 21 | | #14 | JOHNSON |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| R.G. SERV | 8:00 | 8:15 | 1/4 |
| Close Rams + Hydrill | 8:15 | 8:45 | 1/2 |
| Run in with Core Bbl | 8:45 | 9:30 | 3/4 |
| Circ Core Bbl. | 9:30 | 9:45 | 1/4 |
| Cut Core #14 | 9:45 | 4:00 | 6 1/4 |

Driller Ed Lamb

## 3rd Tour From: 4:00 p.m. To: 12:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 1838 | 1865 | 27 | 6 5/8 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3½ | 26 | 1 | 24.80 up. | 173.38 | 56.64 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 6 | 4½ | 2½ | 173.38 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 32 000 | 8,400 |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 9 | ◇ | 9:45 | 11:45 | 17 6½ | 1865 | 12M. | 17 6½ | |

Bit Serial No. 5509-C Table R.P.M. 90

Jet or Conventional - Nozzle Size

**SURVEYS**

**MUD PUMP RECORD**

Kind at Ft. Deg. off

| No. | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| 1 | 7½ | ~~7½~~ | 850 | 12" | 48 | 5½ |
| 2 | | | | | | |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 4:00 | 42 | 10.6 | | | |
| 6:00 | 42 | 10.6 | 5.4 | 8.5 | |
| 8:00 | 41 | 10.6 | | | |
| 10:00 | 41 | 10.3 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| 1838 | 1865 | 27 | | 14 | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| Cut Core # 14. | 4:00 | 9:30 | 5½ |
| Service Rig. | 9:30 | 9:45 | 1/4 |
| Cut Core # 14 | 9:45 | 11:45 | 2 |
| Pull To Recover Core. | 11:45 | 12:00 | 1/4 |

Driller H. Jandl

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.:

MNFR. DRILLING LINE IN USE ____ REEL SERIAL No. ____

MNFR. OF KELLY HOSE IN USE ____ HOSE SERIAL No. ____

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ✓ NO

Total Contract Time ____ hrs. Total Company Time ____ hrs. Toolpusher ____ Approved by ____

Form 34402 (300 bks.-10-61)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 21

9.0.E. Swd Elbert LSD. 2 SEC. 52 TWN. ..... RGE. ..... W. ..... Contractor TRI CITY DRLG. CO. Type Rig FAILING. STRAT. Month FEB. Day 5 19 64

## 1st Tour From: 12:00 Midnight To: 8:00 a.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 1757 | 1770 | 13 | 6 5/8 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3½ | 1532.64 | 5@3 1.12 | 21.49 | 173.38 | 68.52. |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 6 | 4½ | 2¼ | 173.38 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 35M. | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 8 | ◇ | | | 14½ | | 11M | 297 | |

Bit Serial No. 5509C Table R.P.M. 100.

Jet or Conventional - □ Nozzle Size

**SURVEYS**

Kind at Ft. Deg. off

**MUD PUMP RECORD No. 1 No. 2**

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 5½ | 1/4 | 800 | 12 | 49 | 5½ |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 12 noon | 38 | 10.5 | 5 | 8 | |
| 2 pm | 38 | 10.5 | | | |
| 7 pm | 40 | 10.4 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| 1757 | 1767 | 10 | 21 | 12. | Johnson |
| 1767 | 1770 | 3 | | 13 | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| Cut Core No 12 | 12 00 | 4 15 | 4 1/4 |
| Rig Service | 4 15 | 4 30 | 1/4 |
| Hoist Core No 12 | 4 30 | 5 15 | 3/4 |
| Recover Core | 5 15 | 5 45 | 1/2 |
| Run In W/ C.B. | 5 45 | 6 30 | 3/4 |
| Circ C.B. + Drop Ball | 6 30 | 6 45 | 1/4 |
| Cut Core No 13 | 6 45 | 8 00 | 1 1/4 |

Driller Jim Byrd

## 2nd Tour From: 8:00 a.m. To: 4:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 1770 | 1790 | 20' | 6 5/8 | |

**DRILLING STRING**

| Size-D.P. | Stands | ~~Singles~~ | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3½ | 1532.64 | 5@3 1.12 | 27.33 IN | 173.38 | 55.52 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 6 | 4½ | 2¼ | 173.38 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 35M | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 8 | ◇ | 6.45 AM | | 149 | | 11M | 317 | |

Bit Serial No. 5509C Table R.P.M. 100

Jet or Conventional - △ Nozzle Size

Kind at Ft. Deg. off

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 8 | | 800 | 12" | 48 | 5½ |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 8 00 | 38 | 10.4 | | 8.5 | |
| 10 00 | 38 | 10.5 | 5.2 | | |
| 12 | 38 | 10.5 | | | |
| 2 | 38 | 10.5 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| 1770 | 1790 | 20' | | 13 | Johnson |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| Cut Core # 13 | 8 00 | 4 00 | 8 |

Driller Ed Kamb

## 3rd Tour From: 4:00 p.m. To: 12:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 1790 | 1804 | 14 | 6 5/8 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3½ | 25 | 1 | 25.45 4A | 173.38 | 56.64 + sub |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 6 | 4½ | 2½ | 173.38 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 35000 | 8,400 |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 8 | ◇ | 6.45 | | 156½ | | 11 | 331 | |

Bit Serial No. 5509-C Table R.P.M. 100

Jet or Conventional - Nozzle Size

Kind at Ft. Deg. off

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 7¼ | | 800 | 12" | 48 | 5½" |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 4.00 | 38 | 10.5 | 5. | 8. | |
| 6.00 | 38 | 10.5 | | | |
| 8.00 | 43 | 10.5 | | | |
| 10.00 | 41 | 10.6 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| 1790 | 1804 | 14 | | 13 | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| Cut Core # 13. | 4.00 | 7.45 | 3¾ |
| Service Rig + Repack Swivel | 7.45 | 8.30 | ¾ |
| Cut Core # 13. | 8.30 | 12.00 | 3½ |

Driller H. Jandl.

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....

MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY? YES NO

Total Contract Time ..... hrs. Total Company Time ..... hrs. Tooipusher ..... Approved by .....

Form 34402 (300 bks.-10-61)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 20

9 0.E. Swan Hills LSD. P SEC. 32 TWN ..... RGE ..... W ..... Contractor TRI-CITY DRLG Type Rig FAILING STRAT Month FEB Day 4 19 63

| | 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 | Hole Size | Formation | From | To | ~~Hole Made~~ | ~~Hole Size~~ | Formation | From | To | Hole Made | Hole Size | Formation |
| | 1704 | 1724 | 20 | 6 5/8 | | 1724 | 1744 | 6 5/8 | 20' | | 1744 | 1757 | 13 | 6 5/8 | |
| **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. |
| | 3½ | 1491.05 | SUB 1.12 | 13' up | 173.38 | 55.52 | 3½ | | | | 173.38 | 55.52 | 3½ | 24 | 1 | 10.88 up | 173.38 | 56.64 |
| | DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL: DRILLING STRING / DRILL COLLARS | DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL: DRILLING STRING / DRILL COLLARS | DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL: DRILLING STRING / DRILL COLLARS |
| | COLLAR | 6 | 4½ | 2¼ | 173.38 | 35 M. / | COLLAR | 6 | 4½ | 2¼ | 173.38 | 39m / | COLLAR | 6 | 4½ | 2½ | 173.38 | 34000 / 8,400 |
| **BIT RECORD** | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
| | 8 | ◇ | | | 122½ | | 11000 | 251 | | 8 | ◇ | 8 PM | | 130½ | | 11M | 271 | | 8 | ◇ | 8.00 | 445 | 131¼ | 1746 | 11m. | 273 | |
| | | | | | | | | | | | | | | | | | | | 8 | ◇ | 7.45 | | 135½ | | 11m. | 284 | |
| | Bit Serial No. 5509C. | | | Table R.P.M. 100 | | Bit Serial No. 5509C | | | Table R.P.M. 100 | | Bit Serial No. 5509C | | | Table R.P.M. 100 | |
| | Jet or Conventional - ◇ | | | Nozzle Size | | Jet or Conventional - ◇ | | | Nozzle Size | | Jet or Conventional - | | | Nozzle Size | |
| **SURVEYS** | Kind | at | Ft. | Deg. off | | Kind | at | Ft. | Deg. off | | Kind | at | Ft. | Deg. off | |
| **MUD PUMP RECORD No. 1 No. 2** | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
| | 7¾ | | 800 | 12 | 48 | 5½ | | | 800 | 12" | 48 | 5½ | 5 | ¼ | 800 | 12" | 50 | 5½" |
| **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 | 10.2 | | | | 8 00 | 10.3 | 37 | | | | 4.00 | 38 | 10.7 | | | |
| | 2 00 | 37 | 10.2 | | | | 10 00 | 10.4 | 37 | 5.2 | 8. | | 8.00 | 40 | 10.4 | 5.4 | 8. | |
| | 4 00 | 38 | 10.2 | | | | 12 00 | 10.4 | 37 | | | | 10.00 | 36 | 10.4 | | | |
| | 6 00 | 38 | 10.3 | | | | | | | | | | | | | | | |
| **CORING** | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
| | | | | | | | 1724 | 1744 | 20' | | #11 | ◇ | 1744 | 1746 | 50 | 50 | 11 | |
| | | | | | | | | | | | | | 1746 | 1757 | 13 | | 12 | ◇ |
| **DETAIL OF OPERATIONS AND REMARKS** | | From | To | Hrs. | | | From | To | Hrs. | | | From | To | Hrs. |
| | Cut Core No 11 | 12 00 | 12 45 | 3/4 | | CUT CORE #11 | 8 00 | 4 00 | 8 | | CUT CORE #11. | 4.00 | 4.45 | 3/4 |
| | Service Rig | 12 45 | 1 00 | 1/4 | | | | | | | Service Rig. | 4.45 | 5.00 | 1/4 |
| | Coring | 1 00 | 8 00 | 7 | | | | | | | Hoist to Recover Core. | 5.00 | 5.45 | 3/4 |
| | | | | | | | | | | | Recover Core. | 5.45 | 6.30 | 3/4 |
| | | | | | | | | | | | Slip line, Caliper DRILL COLLARS. | 6.30 | 7.30 | 1 |
| | | | | | | | | | | | Run in hole. | 7.30 | ~~DRILL~~ | ~~1/4~~ |
| | | | | | | | | | | | Circ. hole. | 7.30 | 7.45 | 1/4 |
| | | | | | | | | | | | Cut Core # 12. | 7.45 | 12.00 | 4¼ |
| | Driller Jim Byt | | | | | Driller Ed Land | | | | | Driller H. Jandl. | | | |

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....

MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES NO

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-10-61)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 19

9 0E Swan Hills LSD. 0 SEC. 50 TWN. ..... RGE. ..... W. ..... Contractor TRI City Drlg. Type Rig Fairway Strat Month FEB Day 8 19 64

## 1st Tour From: 12:00 Midnight To: 8:00 a.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| | | | | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| | | | | | |

| | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| DRILL COLLAR | | | | | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| | | | | | | | | |

Bit Serial No. ..... Table R.P.M. .....

Jet or Conventional - ..... Nozzle Size .....

**SURVEYS**

Kind ..... at ..... Ft. ..... Deg. off .....

**MUD PUMP RECORD**

| | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| No. 1 | | | | | | |
| No. 2 | | | | | | |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 12^00 | 42 | 10.2 | 5 | 8 | |
| 6^00 | 42 | 10.2 | | | |
| | | | | | |
| | | | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| Rig Service + Wait On Core Barrel | 12^00 | 9^00 | 8 |

Driller Jim Boyd

## 2nd Tour From: 8:00 a.m. To: 4:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 1696 | | | | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| | | | | | |

| | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| DRILL COLLAR | | | | | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 9 | ◊ | | | 110 1/4 | | | 269 | |

Bit Serial No. ..... Table R.P.M. .....

Jet or Conventional - ..... Nozzle Size .....

Kind ..... at ..... Ft. ..... Deg. off .....

**MUD PUMP RECORD**

| | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| | | | | | | |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 12 | 42 | 10.1 | | | |
| | | | | | |
| | | | | | |
| | | | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| Rig Serv & Close B.O.P | 8^00 | 4^00 | 8 |
| Wait on Core Barrel | | | |

Driller Ed Lamb

## 3rd Tour From: 4:00 p.m. To: 12:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 1696 | 1704 | 8 | 6 5/8 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 23 | 1 | 2.12 up | 173.38 | 56.67 |

| | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| DRILL COLLAR | 6 | 4 1/2 | 2 1/2 | 173.38 | DRILLING STRING 38000 | DRILL COLLARS 8,400 |
| DATA | | | | | | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 8 | ◊ | 8.00 | | 114 3/4 | [illegible] | 10 | 277 | |

Bit Serial No. 5509C - Table R.P.M. 90

Jet or Conventional - Nozzle Size

Kind ..... at ..... Ft. ..... Deg. off .....

**MUD PUMP RECORD**

| | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| | 4 | 1/2 | 825 | 12" | 53 | 3 1/2 |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 8.00 | 38 | 10.1 | | | |
| 10.00 | 37 | 10.2 | 5.8 | 8.0 | |
| | | | | | |
| | | | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| 1696 | 1704 | 8 | | 11 | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| Unload C.B + Drill Collars. | 4^00 | 4^15 | 1/4 |
| Pick up C.B + Make up. | 4^15 | 6^00 | 1 3/4 |
| Run in hole. | 6^00 | 6^45 | 3/4 |
| Ream to Bottom. | 6^45 | 7^30 | 3/4 |
| Circ. hole. | 7^30 | 8^00 | 1/2 |
| Cut Core #11. | 8^00 | 12^00 | 4 |

Driller H. Jandl

HEADING UP & DRLG. OUT:
DRILLING:
REAMING:

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....

MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ✓ NO

Total Contract Time ..... hrs. Total Company Time ..... hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-10-61)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 18

2 D.E Swad Elbert LSD. D SEC. 20 TWN. ..... RGE. ..... W. ..... Contractor TRI-CITY DRLG Type Rig FAIRING STRAT Month FEB Day 2 19 64

| | 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 / Hole Size / Formation: | From: 1696 | From: 1696 / To: 1696 / Hole Made: — / Hole Size: 6 3/4 |
| **DRILLING STRING** | Size-D.P. / Stands / Singles / Kelly / Drill. Collar Ft. / Core Bbl. Ft. | | Size-D.P.: 3 1/2 / Stands: 24 / Singles: 1 / Kelly: 18.23up / Drill. Collar Ft.: 173.38 |
| | DRILL COLLAR DATA: Number / OD / ID / Length / INDICATOR WEIGHT OF TOTAL DRILLING STRING / DRILL COLLARS | | DRILL COLLAR DATA: Number: 10 / OD: 4 1/2 / ID: 2 1/2 / Length: 173.38 / DRILLING STRING / DRILL COLLARS: 8,400 |
| **BIT RECORD** | No. / Type / Time On Bottom At / Time Pulled At / Total Hours Run / Depth Pulled / Weight On Bit M Pounds / FOOTAGE Drilled / Reamed | | |
| | Bit Serial No. / Table R.P.M. / Jet or Conventional - / Nozzle Size / Kind / at / Ft. / Deg. off | | |
| **SURVEYS** | | | |
| **MUD PUMP RECORD** No. 1 No. 2 | HOURS On Line / Circulating / Pump Press / Length of Pump Stroke / Strokes Per Min. / Liner Size | Length of Pump Stroke: 12" / Liner Size: 5 1/2 | Length of Pump Stroke: 12" / Liner Size: 5 1/2" |
| **MUD RECORD** | Time / Visc. / Wt. / W L / pH / ADDITIVES — POUNDS | ADDITIVES — POUNDS: GEL 300# | Time: 6.00 / Visc.: 48 / Wt.: 10.2 / W L: 5 / pH: 8.5<br>Time: 10.00 / Visc.: 48 / Wt.: 10.2 / W L: 5 / pH: 8.5 |
| **CORING** | From / To / Ft. Cored / Ft. Rec'd. / Core No. / Type Bbl. | | |

**DETAIL OF OPERATIONS AND REMARKS**

| From | To | Hrs. | Remarks |
|---|---|---|---|
| 12:00 | 8:00 | 8 | WAIT ON CORE BARREL |
| 8:00 | — | | RIG SERV & CHECK BOP |
| — | | | CIRC & WAIT ON CORE BBL |
| | | | CHANGE SHALE SHAKER SCREEN & CHANGE LINERS IN PUMP. |
| | 4:00 | | MIX MUD |
| 4:00 | 12:00 | 8 | SERVICE RIG & WAITON C.B. |

Driller: Jim Byte

Driller: Ed Lamb

Driller: H. Jandle

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....
MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ✓ NO

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-10-61)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 19

W.C.E. Chute LSD. D SEC. 50 TWN. RGE. W. Contractor TRI-CITY DRLG. CO. Type Rig CHINA STRAT Month FEB Day 1 19 62

| | 1st Tour From: 12:00 Midnight To: 8:00 a.m. | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **DEPTH** | From | To | Hole Made | Hole Size | Formation | | | | | | | | | | | | | | | | | | | |
| | 1678 | 1693 | 15 | 6 5/8 | | | | | | | | | | | | | | | | | | | | |
| **DRILLING STRING** | Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. | | | | | | | | | | | | | | | | | | |
| | 3 1/2 | 14 | 1 | 22 up | 173.38 | 35.13 Sub. | | | | | | | | | | | | | | | | | | |
| | DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING | DRILL COLLARS | | | | | | | | | | | | | | | | | |
| | | 6 | 4 1/2 | 2 | 173.38 | 40M | | | | | | | | | | | | | | | | | | |
| **BIT RECORD** | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed | | | | | | | | | | | | | | | |
| | 8 | ◇ | | | 110 | | 11M. | 269 | | | | | | | | | | | | | | | | |
| | Bit Serial No. 5509 C | | | | | Table R.P.M. 100 | | | | | | | | | | | | | | | | | | |
| | Jet or Conventional - ◇ | | | | | Nozzle Size | | | | | | | | | | | | | | | | | | |
| **SURVEYS** | Kind | at | Ft. | Deg. off | | | | | | | | | | | | | | | | | | | | |
| **MUD PUMP RECORD** | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | | | | | | | | | | | | | | | | | | |
| No. 1 | 7 1/2 | 0 | 750 | 12 | 48-50 | 5 1/2 | | | | | | | | | | | | | | | | | | |
| No. 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| **MUD RECORD** | Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS | | | | | | | | | | | | | | | | | | |
| | 12 00 | 40 | 10.1 | 5 | 8 | | | | | | | | | | | | | | | | | | | |
| | 2 00 | 40 | 10.2 | | | | | | | | | | | | | | | | | | | | | |
| | 4 00 | 38 | 10.2 | | | | | | | | | | | | | | | | | | | | | |
| | 6 00 | 38 | 10.2 | | | | | | | | | | | | | | | | | | | | | |
| **CORING** | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | | | | | | | | | | | | | | | | | | |
| | 1678 | 93 | 15 | | 1? | 10 | | | | | | | | | | | | | | | | | | |
| **DETAIL OF OPERATIONS AND REMARKS** | | | From | To | Hrs. | | | | | | | | | | | | | | | | | | | |
| | CUT CORE NO 1. 10 | | 12 00 | 3 00 | 3 | | | | | | | | | | | | | | | | | | | |
| | CONNECTION AND RIG SERVICE | | 3 00 | 3 30 | 1/2 | | | | | | | | | | | | | | | | | | | |
| | CORING | | 3 30 | 8 45 | 4 1/2. | | | | | | | | | | | | | | | | | | | |
| | Driller Jim Bapt | | | | | | | | | | | | | | | | | | | | | | | |

| | 2nd Tour From: 8:00 a.m. To: 4:00 p.m. | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **DEPTH** | From | To | Hole Made | Hole Size | Formation | | | | | | | | | | | | | | | | | | | |
| | 1693 | 1695 | 2 | 6 5/8 | | | | | | | | | | | | | | | | | | | | |
| **DRILLING STRING** | Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. | | | | | | | | | | | | | | | | | | |
| | 3 1/2 | 13 | 5 | 1N | 173.38 | W-SUB 35.13 | | | | | | | | | | | | | | | | | | |
| | DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING | DRILL COLLARS | | | | | | | | | | | | | | | | | |
| | | 6 | 4 1/2 | 2 | 173.38 | | | | | | | | | | | | | | | | | | | |
| **BIT RECORD** | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed | | | | | | | | | | | | | | | |
| | 8 | ◇ | 945 PM | | 110 3/4 | | 11M | 269 | | | | | | | | | | | | | | | | |
| | 9 | OWC | 3.00 | | 1 | | 2M | | 60' | | | | | | | | | | | | | | | |
| | Bit Serial No. 5509 C | | | | | Table R.P.M. 100 | | | | | | | | | | | | | | | | | | |
| | Jet or Conventional - 27915 | | | | | Nozzle Size | | | | | | | | | | | | | | | | | | |
| **SURVEYS** | Kind | at | Ft. | Deg. off | | | | | | | | | | | | | | | | | | | | |
| **MUD PUMP RECORD** | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | | | | | | | | | | | | | | | | | | |
| No. 1 | | | 750 | 12" | 50 | 5 1/2 | | | | | | | | | | | | | | | | | | |
| No. 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| **MUD RECORD** | Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS | | | | | | | | | | | | | | | | | | |
| | 8 00 | 38 | 10.2 | 5. | 8 | | | | | | | | | | | | | | | | | | | |
| **CORING** | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | | | | | | | | | | | | | | | | | | |
| | 1693 | 1695 | 2 | 20' | 10 | ◇ | | | | | | | | | | | | | | | | | | |
| **DETAIL OF OPERATIONS AND REMARKS** | | | From | To | Hrs. | | | | | | | | | | | | | | | | | | | |
| | CUT CORE #10 | | 8 00 | 8.45 | 3/4 | | | | | | | | | | | | | | | | | | | |
| | HOIST + REC CORE. | | 8.45 | 11.00 | 2 1/4 | | | | | | | | | | | | | | | | | | | |
| | REPAIR C.B. SWIVEL | | | | | | | | | | | | | | | | | | | | | | | |
| | WELD INNER BBL. SERVICE | | | | | | | | | | | | | | | | | | | | | | | |
| | OUTER BBL. FOUND ALL | | | | | | | | | | | | | | | | | | | | | | | |
| | SUBS ELGED AND BAD | | | | | | | | | | | | | | | | | | | | | | | |
| | THREADS. LAY DOWN C.B. | | 11.00 | 2 15 | 3 1/4 | | | | | | | | | | | | | | | | | | | |
| | RIN IN WITH BIT | | 2 15 | 3 00 | 3/4 | | | | | | | | | | | | | | | | | | | |
| | REAM RAT HOLE | | 3 00 | 4 00 | 1 | | | | | | | | | | | | | | | | | | | |
| | Driller Ed Lamb | | | | | | | | | | | | | | | | | | | | | | | |

| | 3rd Tour From: 4:00 p.m. To: 12:00 p.m. | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **DEPTH** | From | To | Hole Made | Hole Size | Formation | | | | | | | | | | | | | | | | | | | |
| | 1695 | 1696 | 1 | 6 3/4 | | | | | | | | | | | | | | | | | | | | |
| **DRILLING STRING** | Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. | | | | | | | | | | | | | | | | | | |
| | 3 1/2 | 24 | 1 | 18.23 up | 173.38 | 3.00 Sub. | | | | | | | | | | | | | | | | | | |
| | DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING | DRILL COLLARS | | | | | | | | | | | | | | | | | |
| | | 6 | 4 1/2 | 2 1/2 | 173.38 | 40 000 | 8,400 | | | | | | | | | | | | | | | | | |
| **BIT RECORD** | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed | | | | | | | | | | | | | | | |
| | 9 | OWC | | | 5 1/4 | | 2 | | 270 | | | | | | | | | | | | | | | |
| | 109 | OWC | | 9 30 | 5 1/2 | 1696 | 12 | 1 | | | | | | | | | | | | | | | | |
| | Bit Serial No. 27915 | | | | | Table R.P.M. 175 | | | | | | | | | | | | | | | | | | |
| | Jet or Conventional - | | | | | Nozzle Size | | | | | | | | | | | | | | | | | | |
| **SURVEYS** | Kind S.S. | at 1696 | Ft. | 2 1/4 | Deg. off | | | | | | | | | | | | | | | | | | | |
| **MUD PUMP RECORD** | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | | | | | | | | | | | | | | | | | | |
| No. 1 | 4 1/2 | 1/4 | 800 | 12" | | 5 1/2 | | | | | | | | | | | | | | | | | | |
| No. 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| **MUD RECORD** | Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS | | | | | | | | | | | | | | | | | | |
| | 4.00 | 41 | 10.3 | 5.2 | 8.5 | | | | | | | | | | | | | | | | | | | |
| | 6.00 | 41 | 10.3 | | | | | | | | | | | | | | | | | | | | | |
| | 8.00 | 42 | 10.1 | | | | | | | | | | | | | | | | | | | | | |
| **CORING** | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| **DETAIL OF OPERATIONS AND REMARKS** | | | From | To | Hrs. | | | | | | | | | | | | | | | | | | | |
| | SERVICE RIG. | | 4.00 | 4.15 | 1/4 | | | | | | | | | | | | | | | | | | | |
| | REAM RAT hole. | | 4.15 | 8.30 | 4 1/4 | | | | | | | | | | | | | | | | | | | |
| | DRILL 6 3/4 hole. | | 8.30 | 8.45 | 1/4 | | | | | | | | | | | | | | | | | | | |
| | Circ. hole. | | 8.45 | 9.00 | 1/4 | | | | | | | | | | | | | | | | | | | |
| | RUN SURVEY @ 1696 | | 9.00 | 9.30 | 1/2 | | | | | | | | | | | | | | | | | | | |
| | Pull out + RUN IN 4 stds Flexweight. | | 9.30 | 10.15 | 3/4 | | | | | | | | | | | | | | | | | | | |
| | CIRC. WAIT FOR C.B. | | 10.15 | 12.00 | 1 3/4 | | | | | | | | | | | | | | | | | | | |
| | Driller H. Jandl | | | | | | | | | | | | | | | | | | | | | | | |

CLASSES OF TIME BREAKDOWN

HEADING UP & DRLG. OUT: TOTCO: CONDITIONING MUD: CASING: LOGGING: RIG MAINTENANCE: REAMING CLEANING: MNFR. DRILLING LINE IN USE ____ REEL SERIAL No. ____ DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY

DRILLING: FISHING: TRIPPING: W.O.C. W O ORDERS: MISCELLANEOUS: WORKING PIPE:

REAMING: CIRCULATING: CORING: D.S. TESTING: RIG REPAIRS: CONDITION HOLE: LOST CIRC.: MNFR. OF KELLY HOSE IN USE ____ HOSE SERIAL No. ____ YES NO

Total Contract Time ____ hrs. Total Company Time ____ hrs. Toolpusher ____ Approved by ____

Form 34402 (300 bks.-10-61)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 16

Joe Trial Exct LSD. D SEC. 50 TWN. RGE. W. Contractor TRI-CITY DRLG. Type Rig Failing START Month JAN Day 31 19 64

| | 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 | Hole Size | Formation | From | To | Hole Made | Hole Size | Formation | From | To | Hole Made | Hole Size | Formation |
| | 1653 | 1659 | 6' | 6 5/8 | | 1659 | 1674 | 15' | 6 5/8 | | 1674 | 1678 | 4 | 6 5/8 | limestone |
| **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 | 1409-66 | | 24' up | 173.38 | 63.23 | 3 1/2 | 1409-66 | 5 1.13 | 26.80 | 173.38 | 63.23 | 3 1/2 | 23 | 1 | 6.87 up. | 173.38 | [illegible] |
| | DRILL COLLAR | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING | DRILL COLLARS | DRILL COLLAR | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING | DRILL COLLARS | DRILL COLLAR | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING | DRILL COLLARS |
| | DATA | 6 | 4 1/2 | 2 | 173.38 | 39M | | DATA | 20 JTS FLEX WT - | | | 173.38 | 39M. | 7200 | DATA | 6 | 4 1/2 | 2 1/2 | 173.38 | 40 000 | 8.400 |
| **BIT RECORD** | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
| | 9 | ◇ | 445 AM | | 9 1/4 | | 11M | 233 | | 8 | □ | 445 AM | | 99 3/4 | | 11M | 248 | | 8 | ◇ | 445 | 500 | 100 1/2 | 1675 | 12 | 249 | |
| | | | | | | | | | | | | | | | | | | | 8 | ◇ | 945 | | 102 1/2 | | 12 | 252 | |
| | Bit Serial No. 5509-C | | | | Table R.P.M. 100 | | Bit Serial No. 5509C | | | | Table R.P.M. 100 | | Bit Serial No. 5509 C | | | | Table R.P.M. 100 | | | | | | | | | | |
| | Jet or Conventional - | | | | Nozzle Size | | Jet or Conventional - | | | | Nozzle Size | | Jet or Conventional - | | | | Nozzle Size | | | | | | | | | | |
| **SURVEYS** | Kind | at | Ft. | | Deg. off | | Kind | at | Ft. | | Deg. off | | Kind | at | Ft. | | Deg. off | | | | | | | | | | |
| **MUD PUMP RECORD No. 1 No. 2** | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | | | | | | | | | |
| | 3 1/2 | 3/4 | 750 | 12" | 50 | 5 1/2 | 8 | | 750 | 12" | 51 | 5 1/2 | 3 | 1/4 | 800 | 12" | 51 | 5 1/2 | | | | | | | | | |
| **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 | | | | | | | | | |
| | 5 AM | 36 | 10 | | | | 8 | 35 | 10.2 | 5.2 | 8.0 | | 400 | 36 | 10.2 | | | Gel. 600 | | | | | | | | | |
| | 6 | 38 | 10.1 | 66 | 8 | | 10 | 35 | 10.2 | | | | 10.00 | 48 | 10.1 | 5.6 | 8 | | | | | | | | | | |
| | | | | | | | 12 | 35 | 10.2 | | | | | | | | | | | | | | | | | | |
| | | | | | | | 2 | 36 | 10.2 | | | | | | | | | | | | | | | | | | |
| **CORING** | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | | | | | | | | | |
| | 1653 | 1659 | 6' | | #9 | ◇ | | | | | | | 1653 | 1675 | 22 | | 9 | | | | | | | | | | |
| | | | | | | | | | | | | | 1675 | 1678 | 3 | | 10 | | | | | | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| FINISH TRIP OUT - RECOVER | 1200 | | |
| CORE - REPAIR + SERVICE CORE | — | | |
| BBL. + SERVICE RIG | | 300 | 3 |
| RUN IN | 300 | 400 | 1 |
| CIRC CORE BBL + CLEAN SUCTION | 400 | | |
| DROP BALL | | 445 | 3/4 |
| CUT CORE #9 | 445 | 800 | 3 1/4 |

Driller Jim Bryt

| | From | To | Hrs. |
|---|---|---|---|
| CUT CORE #9 | 800 | 400 | 8 |

Driller Ed Landl

| | From | To | Hrs. |
|---|---|---|---|
| SERVICE RIG. | 400 | 415 | 1/4 |
| CUT CORE #9. | 415 | 500 | 3/4 |
| HOIST TO RECOVER CORE. | 500 | 545 | 3/4 |
| RECOVER CORE + MAKE UP 30' BARREL OUT OF 60'. | 545 | 830 | 2 3/4 |
| RUN IN HOLE | 830 | 930 | 1 |
| CIRC. HOLE | 930 | 945 | 1/4 |
| CUT CORE # 10 | 945 | 1200 | 2 1/4 |

Driller H. Jandl

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ____ REEL SERIAL No. ____

MNFR. OF KELLY HOSE IN USE ____ HOSE SERIAL No. ____

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ____ NO ____

Total Contract Time ____ hrs. Total Company Time ____ hrs. Toolpusher ____ Approved by ____

Form 34402 (300 bks.-10-61)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 15

Joe Gried Elbert LSD. D SEC. 58 TWN. ..... RGE. ..... W. ..... Contractor TRI CITY DRLG Type Rig FAILING STRNT Month JAN Day 30 1963

| | 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 | Hole Size | Formation | From | To | Hole Made | Hole Size | Formation | From | To | Hole Made | Hole Size | Formation |
| | 1609 | 1625 | 16 | 6 5/8 | | 1625 | 1640 | 15' | 6 5/8 | | 1640 | 1653 | 13 | 6 5/8 | |
| **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 | 1399.91 | | 18' up | 173.38 | 62.23 | 3 1/2 | 1379.11 | SUB 1.13 | up 14.35 | 173.38 | 63.23 | 3 1/2 | 22 | 1 | .85 up | 173.38 | 64.36 |
| | DRILL COLLAR | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING | DRILL COLLARS | DRILL COLLAR | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING | DRILL COLLARS | DRILL COLLAR | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING | DRILL COLLARS |
| | | 6 | 4 1/2 | 2 | 173.38 | | | | 6 | 4 1/2 | " | 173.38 | | | | 6 | 4 1/2 | 2 1/2 | 173.38 | | |
| | DATA | | | | | 38 000 | | DATA | 20 JTS FLEX WT | | | | 38M | 7200 | DATA | | | | | 38000 | 8,400 |
| **BIT RECORD** | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
| | 8 | ◇ | | | 73 3/4 | | 10M | 199 | | 8 | △ | 6PM | | 81 1/2 | | 10M | 214 | | 8 | ◇ | 9:00 | 11:15 | 88 1/2 | 1653 | 10 | 227 | |
| | Bit Serial No. 5509C | | | | Table R.P.M. 90 | | | | | Bit Serial No. 5509-C | | | | Table R.P.M. 90 | | | | | Bit Serial No. 5509C | | | | Table R.P.M. 90 | | | | |
| | Jet or Conventional - ◇ | | | | Nozzle Size | | | | | Jet or Conventional - | | | | Nozzle Size | | | | | Jet or Conventional - | | | | Nozzle Size | | | | |
| **SURVEYS** | Kind | | at | | Ft. | | Deg. off | Kind | | at | | Ft. | | Deg. off | Kind | | at | | Ft. | | Deg. off |
| **MUD PUMP RECORD** | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | |
| No. 1 | 7 3/4 | | 800 | 14 | 53 | 5 1/2 | | 7 1/2 | | 800 | 12" | 50 | 5 1/2 | | 7 1/4 | | 850 | 12 | 54 | 5 1/2 | |
| 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 | 39 | 10.1 | 5.2 | 8.5 | | | 8 | 39 | 10.1 | | | | | 4 00 | 37 | 10.1 | 5.2 | 8 | caustic - 75 | |
| | 2 00 | 39 | 10.1 | | | | | 10 | 38 | 10.1 | 5.2 | 8 | | | 6 00 | 38 | 10.2 | | | | |
| | 4 00 | 39 | 10.1 | | | | | 12 | 37 | 10.1 | | | | | 8 00 | 38 | 10.2 | | 8.5 | | |
| | 6 00 | 38 | 10.1 | | | | | 2 | 37 | 10.2 | | | | | 10 00 | 38 | 10.2 | | 8.5 | | |
| **CORING** | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | |
| | 1609 | 1625 | 16 | — | 8 | | | 1625 | 1640 | 15' | | #8 | △ | | 1640 | 1653 | 44' 11" | | 8 | | |
| **DETAIL OF OPERATIONS AND REMARKS** | | | From | To | Hrs. | | | | | From | To | Hrs. | | | | | From | To | Hrs. | | |
| | CUT CORE #8 | | 12 00 | 6 00 | 6 | | | CUT CORE #8 | | 8 00 | 9 30 | 1 1/2 | | | CUT CORE #8. | | 4 00 | 11 15 | 7 1/4 | | |
| | WORK ON PUMP + SERVICE RIG | | 6 00 | 6 15 | 1/4 | | | CHANGE GLAND PACKING IN PUMP | | 9 30 | 10 00 | 1/2 | | | PULL TO RECOVER CORE. | | 11 15 | 12 00 | 3/4 | | |
| | CORING | | 6 15 | 8 00 | 1 3/4 | | | CORING | | 10 00 | 4 00 | 6 | | | | | | | | | |
| | Driller Jim Bryant | | | | | | | Driller Ed. Lamb | | | | | | | Driller H. Jandl. | | | | | | |

**CLASSES OF TIME BREAKDOWN**

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....
MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ..... NO .....

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-10-61)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 14

NE Swan Ekwan LSD. D SEC. 50 TWN. ..... RGE. ..... W. ..... Contractor TRI CITY DRLG. Type Rig FALLING STRAT Month JAN Day 29 1964

## 1st Tour From: 12:00 Midnight To: 8:00 a.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 1598 | 1606 | 8 | 6 5/8 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 1350 M | | 17' up | 173.38 | 63.23 |

| | DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|---|
| | COLLAR | 6 | 4 1/2 | 2 | 173.38 | DRILLING STRING | DRILL COLLARS |
| | DATA | | | | | 39 M. | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 8 | ◇ | | 3 30 | 63 | 1606 | 10M | 180 | |

Bit Serial No. 5509C Table R.P.M. 50

Jet or Conventional - ◇ Nozzle Size

**SURVEYS**

Kind at Ft. Deg. off

**MUSH PUMP RECORD**

| | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| No. 1 | | | 800 | 12 | 52 | 5 1/2 |
| No. 2 | | | | | | |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 12 M | 36 | 10.1 | 5 | 8.5 | |
| 2 M | 36 | 10.1 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| 1558 | 1606 | | 26 | 6 | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| CORING | 12 M | 3 30 | 3 1/2 |
| RIG SERVICE | 3 30 | 3 45 | 1/4 |
| HOIST CORE | 3 45 | 4 45 | 1 |
| RECOVER CORE + SERVICE BARREL | 4 45 | 5 30 | 3/4 |
| MAKE UP PACKER + START RUNNING IN | 5 30 | 8 M | 2 1/2 |

Driller Jim Byatt

## 2nd Tour From: 8:00 a.m. To: 4:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 1606 | | | | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| | | | | | |

| | DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|---|
| | COLLAR | | | | | DRILLING STRING | DRILL COLLARS |
| | DATA | | | | | | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

Bit Serial No. Table R.P.M.

Jet or Conventional - Nozzle Size

Kind at Ft. Deg. off

**MUSH PUMP RECORD**

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| | | | | | |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| | | | | | GEL 600# |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| RUN IN WITH D.S.T. #1 | 8 30 | 8 45 | 3/4 |
| HEAD UP TO TEST | 8 45 | 9 00 | 1/4 |
| TESTING | 9 00 | 1 00 | 4 |
| HOIST PACKER - BREAK DOWN + SERVICE SAME | 1 00 | 3 30 | 2 1/2 |
| CHANGE SUB ON C. BARREL | 3 30 | 4 00 | 1/2 |

Driller Al Lamb

## 3rd Tour From: 4:00 p.m. To: 12:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 1606 | 1609 | 3 | 6 5/8 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 22 | | 14.81 up | 173.38 | 64.36 |

| | DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|---|
| | COLLAR | 6 | 4 1/2 | 2 1/2 | 173.38 | DRILLING STRING | DRILL COLLARS |
| | DATA | | | | | 38 000 Lbs | 8,400 |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 9 | ◇ | 6 00 | | 66 | | 10 | 183 | |

Bit Serial No. 5509C Table R.P.M. 90

Jet or Conventional - Nozzle Size

Kind at Ft. Deg. off

**MUSH PUMP RECORD**

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 3 | 1/2 | 800 | 12" | 55 | 5 1/2" |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 6 00 | 40 | 10. | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| 1606 | 1607 | 1 | 1 | 7 | |
| 1607 | 1609 | 2 | | 8 | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| SERVICE RIG. | 4 00 | 4 15 | 1/4 |
| Change sub. on C.B. | 4 15 | 4 30 | 1/4 |
| RUN IN HOLE. | 4 30 | 5 30 | 1 |
| Circ. hole. | 5 30 | 6 00 | 1/2 |
| CUT Core # 7 | 6 00 | 7 00 | 1 |
| TRIP FOR JAMMED C.B. | 7 00 | 9 00 | 2 |
| CUT CORE # 8. | 9 00 | 11 00 | 2 |
| Work on Pump. | 11 00 | 12 00 | 1 |

Driller H. Jandl.

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....

MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ..... NO .....

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-10-61)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 13

9-02 Swan Hills Unit LSD. D SEC. 5 TWN. ..... RGE. ..... W. ..... Contractor I.R. Cote Drlg. Type Rig Fleming Strat Month Jan Day 28 19 64

| | 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 | Hole Size | Formation | From | To | Hole Made | Hole Size | Formation | From | To | Hole Made | Hole Size | Formation |
| | 1552 | 1576 | 24 | 6 5/8 | | 1576 | 1580 | 4 | 6 5/8 | | 1580 | 1598 | 18 | 6 5/8 | |
| **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 | 131 9.62 | | 17' up | 173.38 | 63.23 | 3 1/2 | 1319.62 | | 13' up | 173.38 | 63.23 | 3 1/2 | 22 | | 25.81 up | 173.38 | 64.36 |
| | DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING / DRILL COLLARS | DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING / DRILL COLLARS | DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING / DRILL COLLARS |
| | COLLAR | 6 | 4 1/2 | 2 | 173.38 | 39m | COLLAR | 6 | 4 1/2 | 2 | 173.38 | 38m | COLLAR | 6 | 4 1/2 | 2 1/2 | 173.38 | 39000 / 8,400 |
| **BIT RECORD** | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
| | 8 | ◇ | | | 50 1/2 | | 11 | 150 | | 8 | ◇ | 6PM | 10[15] | 523/4 | 1580 | 10M | 154 | | 8 | ◇ | 5:15 | | 59 1/2 | | 10m | 172 | |
| | Bit Serial No. 5509-C | | | | Table R.P.M. 100 | | Bit Serial No. 5509-C | | | | Table R.P.M. 100 | | Bit Serial No. 5509 C | | | | Table R.P.M. 90 | |
| | Jet or Conventional - ◇ | | | | Nozzle Size | | Jet or Conventional - | | | | Nozzle Size | | Jet or Conventional - | | | | Nozzle Size | |
| **SURVEYS** | Kind | | at | | Ft. | Deg. off | Kind | | at | | Ft. | Deg. off | Kind | | at | | Ft. | Deg. off |
| **SLUSH PUMP RECORD No. 1 No. 2** | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
| | 7 3/4 | | 700 | 12 | 53 | 5 1/2 | 2 1/4 | | 700 | 12" | 56 | 5 1/2 | 6 3/4 | 1/4 | 800 | 12" | 55 | 5 1/2 |
| **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 |
| | 0[00] | 36 | 10 | 5.8 | 8.7 | | 8[00] | 35 | 10.1 | | | | 6[00] | 43 | 10.1 | 5.8 | 9. | Gel - 300 |
| | 2[00] | 37 | 10.1 | | | | | | | | | | 8[00] | 40 | 10. | | | Caustic 25 |
| | 4[00] | 37 | 10.1 | | | | | | | | | | 10[00] | 38 | 9.9 | | | Quebracho - 25 |
| **CORING** | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
| | 1552 | 1576 | 24 | | 5 | | 1534 | 1580 | 46 | 44 | 5 | ◇ | 1580 | 1598 | 18 | | 6 | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| Cut Core No 5 | 12[00] | 3[45] | 3 1/4 |
| Rig Service | 3[45] | 4[00] | 1/4 |
| Coring. | 4[00] | 8[00] | 4 |

Driller Jim Byst

| | From | To | Hrs. |
|---|---|---|---|
| Cut Core # 5 | 8[00] | 10[15] | 2 1/4 |
| Hoist & Recover Core | 10[15] | 11[45] | 1 1/2 |
| Repair Core Bbl. - | 11[45] | 2.00 | |
| Change both sides of head | | | |
| Rubbers in Pump - Slip Line | | | |
| Check BOP & Service | 2.00 | | |
| Drill Collars - | | 4[00] | 4 1/4 |

Driller Ed Lemke

| | From | To | Hrs. |
|---|---|---|---|
| Service Rig - | 4[00] | 4[15] | 1/4 |
| Service Collars + Run in. | 4[15] | 5[00] | 3/4 |
| Circ. hole. | 5[00] | 5[15] | 1/4 |
| Cut Core # 6. | 5[15] | 12[00] | 6 3/4 |

Driller H. Jandl

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....
MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ..... NO .....

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-10-61)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 12

20E 2nd Lloyd LSD. 2 SEC. 20 TWN. ..... RGE. ..... W. ..... Contractor IRI Cdn Drlg. Type Rig Flying Star Month Jan Day 29 19 64

| | 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 | Hole Size | Formation | From | To | Hole Made | Hole Size | Formation | From | To | Hole Made | Hole Size | Formation |
| | 1489 | 1512 | 23 | 6 5/8 | | 1512 | 1534 | 22 | 6 3/4 | | 1534 | 1552 | 18 | 6 5/8 | |
| **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 | 12 stds | | 21' up | 173.38 | 63.23 | 3 1/2 | 12 stds | 1 std 1.13 | 35.80 | 173.38 | 63.23 | 3 1/2 | 21 | | 11.86 up | 173.38 | 63.23 std 1 |
| | DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING / DRILL COLLARS | DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING / DRILL COLLARS | DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING / DRILL COLLARS |
| | | | | | | | | | | | | | | | | | | |
| | COLLAR | 6 | 4 1/2 | 2 | 173.38 | 38 M / | COLLAR | 6 | 4 1/2 | 2 | 173.38 | 38 M / 7200 | COLLAR | 6 | 4 1/2 | 2 1/2 | 173.38 | 39000 / 8.400 |
| | DATA | | | | | | DATA | 26 STDS FLEX WT. | | | | | DATA | | | | | |
| **BIT RECORD** | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
| | 8 | ◇ | 2:30 | | 6 1/2 | | 11M | 23 | | 8 | ◇ | 2:00 | 1:30 | 36 3/4 | 1534 | 10 | ~~45~~ 108 | |
| | Bit Serial No. | | | | Table R.P.M. 90 | | | | | Bit Serial No. 5509C | | | | | Table R.P.M. 90 | | | |
| | Jet or Conventional - ◇ | | | | Nozzle Size | | | | | Jet or Conventional - | | | | | Nozzle Size | | | |
| **SURVEYS** | Kind | at | Ft. | Deg. off | | Kind | at | Ft. | Deg. off | | Kind | at | Ft. | Deg. off | |
| **MUD PUMP RECORD** | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
| No. 1 | 5 1/2 | | 750 | 12 | 50 | 5 1/2 | 5 1/2 | | 850 | 12" | 50 | 5 1/2 | 6 | 1/2 | 750 | 12" | 55 | 5 1/2 |
| 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 |
| | 2:00 | 34 | 9.8 | 9 | 9 | | 8 | 35 | 10.1 | 5.8 | 9 | | 6:00 | 43 | 10.1 | | | Gel. 600 |
| | 4:00 | 35 | 10 | | | | 10 | 35 | 10.1 | | | | 8:00 | 38 | 10.1 | 6.2 | 8.5 | |
| | 6:00 | 35 | 10 | | | | 12 | 34 | 10.1 | | | | 10:00 | 38 | 10.1 | | | |
| **CORING** | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
| | 1489 | 1512 | 23 | | | | 1512 | 1534 | 22 | 42 | 4 | ☆ | 1534 | 1552 | 18 | | 5 | |
| **DETAIL OF OPERATIONS AND REMARKS** | | From | To | Hrs. | | From | To | Hrs. | | From | To | Hrs. |
| | Hoist Core & Recover | 7:00 | | | Cut Core # 4 | 8:00 | 1:30 | 5 1/2 | Break Joints on inner bbl + service same | 4:00 | 4:15 | 1/4 |
| | Service Rig & C.B. | | | | Hoist - Recover Core - | 1:30 | | | Service Rig. | 4:15 | 4:30 | 1/4 |
| | Run In Hole | | 2:00 | 2. | Break all sts of inner | | | | Run in w/ Core Barrel. | 4:30 | 5:30 | 1 |
| | Circ. C.B. & Clean Suction | 2:00 | 2:30 | 1/2 | barrel + service same | | 4:00 | 2 1/2 | Circ hole & Clean screen. | 5:30 | 6:00 | 1/2 |
| | Cut Core No. 4 | 2:30 | 8:00 | 5 1/2 | | | | | Cut Core # 5. | 6:00 | 12:00 | 6 |
| | Driller Jim Byrd | | | | Driller E. D. Lamb | | | | Driller H. Jewell | | | |

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....
MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ..... NO .....

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-10-61)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 11

DOE Swan Chest LSD. D SEC. 50 TWN. ____ RGE. ____ W. ____ Contractor TRI-CITY DRLG. Type Rig FAIRLINE STRAT Month JUNE Day 26 1964

| | 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 | Hole Size | Formation | From | To | Hole Made | Hole Size | Formation | From | To | Hole Made | Hole Size | Formation |
| | 1439 | 11 | 1448 | 6 5/8 | | 1448 | 18 | 1466 | 6 3/8 | | 1466 | 1489 | 23 | 6 5/8 | |
| **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 | 1260.53 | Subs 1.13 | 24' up | 173.38 | 63.23 | 3 1/2 | 1260.53 | Subs 1.13 | 40.6' | 173.38 | 63.23 | 3 1/2 | 20 | | 14.21 up | 173.38 | 64.36 |
| | DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL: DRILLING STRING | DRILL COLLARS | DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL: DRILLING STRING | DRILL COLLARS | DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL: DRILLING STRING | DRILL COLLARS |
| | | 6 | 4 1/2 | 2 | 173.38 | 38 M | | | 6 | 4 1/2 | 2 | 173.38 | 38M | 7200 | | 6 | 4 1/2 | 2 1/2 | 173.38 | 38000 | 8,400 |
| **BIT RECORD** | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
| | 8 | ◇ | | 6 15 | 11 | 1448 | 11 | 22. | | 8 | ◇ | 930 | | 6 1/2 | | 10M | 18' | | 8 | ◇ | 930 | 11 30 | 24 3/4 | 1489 | 10 | 63 | |
| | Bit Serial No. | | | | Table R.P.M. 60 | | | | | Bit Serial No. | | | | Table R.P.M. 60 | | | | | Bit Serial No. | | | | Table R.P.M. 60 | | | | |
| | Jet or Conventional - ◇ | | | | Nozzle Size | | | | | Jet or Conventional - | | | | Nozzle Size | | | | | Jet or Conventional - | | | | Nozzle Size | | | | |
| **SURVEYS** | Kind | at | Ft. | Deg. off | | Kind | at | Ft. | Deg. off | | Kind | at | Ft. | Deg. off | | | | | | | | | | | | | |
| **MUD PUMP RECORD** No. 1 / No. 2 | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | | | | | | | |
| | | | 700 | 12" | 53 | 5 1/2 | | 6 3/4 | | 750 | 12" | 55 | 5 1/2 | | 7 1/4 | | 750 | 12" | 55 | 5 1/2 | | | | | | | |
| **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 | 36 | 10 | 6.4 | 9.5 | | | 10 | 36 | 10 | 6.8 | 8.5 | | | 4 00 | 36 | 9.7 | 6.8 | 8.0 | caust.c - 15 | | | | | | | |
| | 6 00 | 36 | 10 | | | | | 12 | 36 | 10 | | | | | 6 00 | 38 | 9.9 | | | Quebraw - 25 | | | | | | | |
| | 4 00 | 36 | 10 | | | | | 2 | 36 | 10 | | | | | 8 00 | 38 | 10. | | 8.0 | | | | | | | | |
| | | | | | | | | | | | | | | | 10 00 | 36 | 9.9 | | | | | | | | | | |
| **CORING** | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | | | | | | | |
| | 1426 | 1448 | 22. | | | | | 1448 | 1466 | 18' | coring | 3 | 4 | | 1448 | 1489 | 41 | | 3 | | | | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| CUT CORE NO 2 | 12 00 | 6 15 | 6 1/4 |
| HOIST & RECOVER CORE | 6 15 | 8 00 | 1 3/4 |

| | From | To | Hrs. |
|---|---|---|---|
| R.G SERV + CLOSE BOP | 8 00 | 8 15 | 1/4 |
| RUN IN WITH CORE BARREL | 8 15 | 9 15 | 1 |
| CIRC TO CLEAN BOTTOM | 9 15 | 9 30 | 1/4 |
| CUT CORE #3 | 9 30 | 4 00 | 6 1/2 |

| | From | To | Hrs. |
|---|---|---|---|
| CUT CORE # 3. | 4 00 | 6 00 | 2 |
| SERVICE RIG. | 6 00 | 6 15 | 1/4 |
| CUT CORE # 3. | 6 15 | 11 30 | 5 1/4 |
| PULL OUT. | 11 30 | 12 00 | 1/2 |

Driller Jim Byett

Driller Ed Lamb

Driller H. Jandle

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ____ REEL SERIAL No. ____

MNFR. OF KELLY HOSE IN USE ____ HOSE SERIAL No. ____

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ✓ NO ____

Total Contract Time ____ hrs. Total Company Time ____ hrs. Toolpusher ____ Approved by ____

Form 34402 (300 bks.-10-61)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 12

FT. E. TOWN EXT. LSD. SEC. 2 TWN. 50 RGE. ..... W. ..... Contractor Ltd-Cut-Drlg. Type Rig Trailer Set Month Mar Day 25 19 64

## 1st Tour From: 12:00 Midnight To: 8:00 a.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| | | | | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3½ | 122 | 7.45 | 17.4up | 173.38 | Sub. 2.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 6 | 4½ | 2 | 173.38 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 8 | DWI | | | | | | | |

Bit Serial No. 27915 Table R.P.M.

Jet or Conventional - Conv. Nozzle Size

**SURVEYS**

Kind at Ft. Deg. off

**MUD PUMP RECORD**

| No. | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| No. 1 | | | | | | |
| No. 2 | | | | | | |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 12:00 | 32 | 9.7 | 7.2 | 9. | GEL 300# |
| 2:00 | 38 | 9.7 | | | |
| 4:00 | 37 | 9.7 | | | |
| 6:00 | 37 | 9.7 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| WAIT ON CORE BARREL | 12:00 | 8:00 | 8. |
| PULL UP OUT OF CASING | | | |
| PUT ON BIT. RUN IN | | | |
| HOLE & CIRCULATE. | | | |

Driller Jim Burt

## 2nd Tour From: 8:00 a.m. To: 4:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 1425 | 1426 | 1 | 6¾ | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3½ | | | | 173.38 | 64.73 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 6 | 4½ | 2 | 173.38 | DRILLING STRING | DRILL COLLARS |
| DATA | 20 JTS FLEX WT | | | | | 7200 |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

Bit Serial No. Table R.P.M.

Jet or Conventional - Nozzle Size

Kind at Ft. Deg. off

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| | | | 12" | | 5½ |

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 10 | 36 | 10.0 | 7.0 | 9.0 | QBROXIN - 15# |
| | | | | | CAUSTIC - 15# |

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

| | From | To | Hrs. |
|---|---|---|---|
| CLOSE RAMS & HYDRILL | 8:00 | | |
| CIRC & WAIT ON CORE BBL | | 11:00 | |
| DRILL 1 FOOT OF HOLE | | | |
| HOIST TO RUN CORE BBL. | 11:00 | 12:00 | 1 |
| PICK UP CORE BBL — | 12:00 | | |
| THREADS OF INNER BARREL | | | |
| RUSTED OUT- | | | |
| REPAIR SAME | | | |

Driller Ed Lamb

## 3rd Tour From: 4:00 p.m. To: 12:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 1426 | 1437 | 11 | 6 5/8 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3½ | 19 | | 5.21up | 173.38 | 64.36 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 6 | 4½ | 2½ | 173.38 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 38 000 | 8,400 |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 8 | ◇ | 7:15 | | 4¾ | | 10 | 11 | |

Bit Serial No. Table R.P.M. 60

Jet or Conventional - Nozzle Size

Kind at Ft. Deg. off

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 4¾ | ¼ | 700 | 12" | 55 | 5½ |

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 8:00 | 38 | 10. | 7.4 | | |
| 10:00 | 37 | 10.1 | | | |

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| 1426 | 1437 | 11 | | 2 | |

| | From | To | Hrs. |
|---|---|---|---|
| MAKEUP CORE BARREL & MAKE BIT BREAKER. | 4:00 | 6:00 | 2 |
| RUN IN W CORE BARREL | 6:00 | 7:00 | 1 |
| CIRC HOLE. | 7:00 | 7:15 | ¼ |
| CUT CORE # 2. | 7:15 | 12:00 | 4¾ |

Driller H. Jacobs

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....

MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES..... NO.....

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-10-61)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 9

J.D. FRIADEBUT LSD. 0 SEC. 50 TWN. ..... RGE. ..... W. ..... Contractor T.P. City Drlg. Co. Type Rig Failing Spec. Month June Day 24 19 63

| | 1st Tour From: 12:00 Midnight To: 8:00 a.m. | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **DEPTH** | From | To | Hole Made | Hole Size | Formation | | | | | | | |
| | | | | | | | | | | | | |
| **DRILLING STRING** | Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. | | | | | | |
| | | | | | | | | | | | | |
| | DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING | DRILL COLLARS | | | | | |
| **BIT RECORD** | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | Reamed | | | |
| | | | | | | | | | | | | |
| | Bit Serial No. | | | | | | Table R.P.M. | | | | | |
| | Jet or Conventional - | | | | | | Nozzle Size | | | | | |
| **SURVEYS** | Kind | at | Ft. | Deg. off | | | | | | | | |
| **MUD PUMP RECORD** No. 1 No. 2 | HOURS On Line | Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | | | | | | |
| | | | | | | | | | | | | |
| **MUD RECORD** | Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS | | | | | | |
| | 12^00 | 35 | 10. | 7.2 | 9.5 | GEL. 200 # | | | | | | |
| | 4^00 | 32 | 10.1 | | | | | | | | | |
| | 6^00 | 31 | 10.1 | | | | | | | | | |
| | 9^30 | 34 | 9.9. | | | | | | | | | |
| **CORING** | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | | | | | | |
| | | | | | | | | | | | | |
| **DETAIL OF OPERATIONS AND REMARKS** | | | | | | | From | To | Hrs. | | | |
| | WAIT ON CORE BARREL. | | | | | | 12^00 | 8^00 | 8 | | | |
| | Driller Jim Byrd | | | | | | | | | | | |

| | 2nd Tour From: 8:00 a.m. To: 4:00 p.m. | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **DEPTH** | From | To | Hole Made | Hole Size | Formation | | | | | | | |
| | 1425 | | | | | | | | | | | |
| **DRILLING STRING** | Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. | | | | | | |
| | | | | | | | | | | | | |
| | DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING | DRILL COLLARS | | | | | |
| **BIT RECORD** | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | Reamed | | | |
| | | | | | | | | | | | | |
| | Bit Serial No. | | | | | | Table R.P.M. | | | | | |
| | Jet or Conventional - | | | | | | Nozzle Size | | | | | |
| **SURVEYS** | Kind | at | Ft. | Deg. off | | | | | | | | |
| **MUD PUMP RECORD** No. 1 No. 2 | HOURS On Line | Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | | | | | | |
| | | | | 12" | | 5 1/2 | | | | | | |
| **MUD RECORD** | Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS | | | | | | |
| | 8^00 | 34 | 9.9 | | | GEL = 200 # | | | | | | |
| | 10^00 | 37 | 9.9 | | | CAUST. = 25 # | | | | | | |
| **CORING** | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | | | | | | |
| | | | | | | | | | | | | |
| **DETAIL OF OPERATIONS AND REMARKS** | | | | | | | From | To | Hrs. | | | |
| | CHECK HYDRIL - RAMS | | | | | | 8^00 | | | | | |
| | WAIT ON CORE BARREL | | | | | | | 4^00 | 8 | | | |
| | Driller Ed Tomb | | | | | | | | | | | |

| | 3rd Tour From: 4:00 p.m. To: 12:00 p.m. | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **DEPTH** | From | To | Hole Made | Hole Size | Formation | | | | | | | |
| | 1425 | | | | | | | | | | | |
| **DRILLING STRING** | Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. | | | | | | |
| | 3 1/2 | 20 | | 17.13 | 173.38 | | | | | | | |
| | DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING | DRILL COLLARS | | | | | |
| | | 6 | 4 1/2 | 2 1/2 | 173.38 | | 8,400 | | | | | |
| **BIT RECORD** | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | Reamed | | | |
| | | | | | | | | | | | | |
| | Bit Serial No. | | | | | | Table R.P.M. | | | | | |
| | Jet or Conventional - | | | | | | Nozzle Size | | | | | |
| **SURVEYS** | Kind | at | Ft. | Deg. off | | | | | | | | |
| **MUD PUMP RECORD** No. 1 No. 2 | HOURS On Line | Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | | | | | | |
| | | | | 12" | | 5 1/2 | | | | | | |
| **MUD RECORD** | Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS | | | | | | |
| | 4^00 | 35 | 9.8 | 8 | 9.5 | | | | | | | |
| | 6^00 | 35 | 9.8 | | | | | | | | | |
| | 8^00 | 36 | 9.8 | | | | | | | | | |
| | 10^00 | 35 | 9.7 | | | | | | | | | |
| **CORING** | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | | | | | | |
| | | | | | | | | | | | | |
| **DETAIL OF OPERATIONS AND REMARKS** | | | | | | | From | To | Hrs. | | | |
| | WAIT ON CORE BARREL. | | | | | | 4^00 | 12^00 | 8 | | | |
| | Driller H. Jandl. | | | | | | | | | | | |

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....

MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ✓ NO .....

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-10-61)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 8

2 NE Seal Elbow LSD. 0 SEC. 20 TWN. ..... RGE. ..... W. ..... Contractor Ted Cope Drlg. Type Rig Trailer Mount Month Jan Day 23 19 64

## 1st Tour From: 12:00 Midnight To: 8:00 a.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| | | | | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| | | | | | |

| DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING | INDICATOR WEIGHT OF TOTAL DRILL COLLARS |
|---|---|---|---|---|---|---|
| | | | | | | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

Bit Serial No. ..... Table R.P.M. .....

Jet or Conventional - ..... Nozzle Size .....

**SURVEYS**

Kind ..... at ..... Ft. ..... Deg. off .....

**MUD PUMP RECORD**

| No. | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| 1 | | | | | | |
| 2 | | | | | | |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 4:00 | 36 | 10.3 | 6 | 8.7 | |
| | | | | | |
| | | | | | |
| | | | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| WAIT ON CORE BARREL | 1:00 | 8:00 | 7 |

Driller .....

## 2nd Tour From: 8:00 a.m. To: 4:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 1425 | | | | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3½ | 2 | | | 173.38 | SUB-30 |

| DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING | INDICATOR WEIGHT OF TOTAL DRILL COLLARS |
|---|---|---|---|---|---|---|
| COLLAR | 6 | 4½ | 2 | 173.38 | | |
| DATA (20 JTS FLEX WT) | | | | | 40 000 | 72000 |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 8 | OWV | | | | | | | |

Bit Serial No. 27915 Table R.P.M. .....

~~Jet or~~ Conventional - ✓ Nozzle Size .....

Kind ..... at ..... Ft. ..... Deg. off .....

**MUD PUMP RECORD**

| No. | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| 1 | | | | 12" | | 5½ |
| 2 | | | | | | |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 10 | 37 | 10.5 | | | Gel = 400 # |
| | | | | | Caustic = 25 # |
| | | | | | QBROXIN = 25 # |
| | | | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| CHECK BOP & CIRC & WAIT ON CORE BBL | 8:00 | 9:30 | 1½ |
| RUN IN WITH BIT | 9:30 | 10:30 | 1 |
| CIRC & WAIT ON ORDERS CONDITION MUD | 10:30 | | |
| PULL PIPE INTO CASING & CIRC | | 4:00 | |

Driller Ed Lamb .....

## 3rd Tour From: 4:00 p.m. To: 12:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 1425 | | | | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3½ | 20 | | 17.13 ft | 173.38 | |

| DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING | INDICATOR WEIGHT OF TOTAL DRILL COLLARS |
|---|---|---|---|---|---|---|
| COLLAR | 6 | 4½ | 2½ | 173.38 | | |
| DATA | | | | | | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 8 | OWV | | | | | | | |

Bit Serial No. 27915 Table R.P.M. .....

Jet or Conventional - Nozzle Size .....

Kind ..... at ..... Ft. ..... Deg. off .....

**MUD PUMP RECORD**

| No. | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| 1 | | | | 12" | | 5½ |
| 2 | | | | | | |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 5:00 | 34 | 10.3 | | | |
| 7:00 | 35 | 10.3 | 7. | | |
| 9:00 | 35 | 10.2 | 7. | | |
| | | | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| WAIT FOR Core barrel. | 4:00 | | |
| | | 11:00 | 7 |
| Pull out DRILL COLLARS & | 11:00 | | |
| RUN IN 4 STANDS DP. | | 11:30 | ½ |
| WAIT FOR Core barrel. | 11:30 | 12:00 | ½ |

Driller H. Jandl .....

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....

MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ✓ NO .....

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-10-61)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 7

IDETRIAD ERBUT LSD. 12 SEC. 50 TWN. ____ RGE. ____ W. ____ Contractor TRI-CITY DRLG. Type Rig FAILING STRAT Month JAN. Day 22 19 64

## 1st Tour From: 12:00 Midnight To: 8:00 a.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 1283 | 1352 | 69 | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 116867 | | 28' up | 173.38 | SUB 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 6 | 4 1/2 | 2 | 173.38 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 36 M | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 6 | OWV | | 630 | 13 | 1352 | 8-3 | 187 | |

Bit Serial No. 91682 Table R.P.M. 130

Jet or Conventional - Conv. Nozzle Size

**SURVEYS**

Kind S.S. at 1350 Ft. 2 3/4 Deg. off

**MUD PUMP RECORD**

| | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| No. 1 | | | | | | |
| No. 2 | | | | | | |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 10 AM | 35 | 10.4 | 6.4 | 8.7 | |
| 2 PM | 36 | 10.5 | | | |
| 4 PM | 36 | 10.7 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| DRLG | 12 00 | 12 30 | 1/2 |
| RIG SERVICE | 12 30 | 12 45 | 1/4 |
| DRLG. | 12 45 | 3 00 | 2 1/4 |
| SURVEY @ 1320 & RERUN | 3 00 | 3 30 | 1/2 |
| DRLG | 3 30 | 6 00 | 2 1/2 |
| SURVEY @ 1350. | 6 00 | 6 15 | 1/4 |
| DRLG | 6 15 | 6 30 | 1/4 |
| TRIP FOR BIT - SLIP LINE | 6 30 | 8 00 | 1 1/2 |

Driller Jim Byrd

## 2nd Tour From: 8:00 a.m. To: 4:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 1352 | 1402 | 50' | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 123 4.27 | | 9.71 up | 173.38 | SUB - 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 6 | 4 1/2 | 2 | 173.38 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 40 M | 173.38 |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 7 | W7 | 930 | | 6 | | 4 M | 50' | |

Bit Serial No. 4551 Table R.P.M. 170

Jet or Conventional - Nozzle Size

**SURVEYS**

Kind SS at 1380 Ft. Deg. off

**MUD PUMP RECORD**

| | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| | 6 1/2 | 1/2 | 800 | 12" | 72 | 5 1/2" |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 10. | 36 | 10.6 | | 8.0 | GEL = 400 # |
| 12 | 36 | 10.4 | | | CAUSTIC = 25 # |
| 2 | 36 | 10.5 | 8.2 | | QBROXIN = 50 # |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| RIG SERV | 8 00 | 8 15 | 1/4 |
| RUN IN | 8 15 | 9 15 | 1 |
| WORK ON PUMP | 9 15 | 9 30 | 1/4 |
| DRLG | 9 30 | 11 15 | 1 3/4 |
| MIX MUD & SURVEY | 11 15 | 11 45 | 1/2 |
| DRLG | 11 45 | 4 00 | 4 1/4 |

Driller Ed Faust

## 3rd Tour From: 4:00 p.m. To: 12:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 1402 | 1425 | 23 | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 20 | | 17.13 up | 173.38 | Sub. 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 6 | 4 1/2 | 2 1/2 | 173.38 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 38,000 | 8,400 |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 7 | W7 | 930 | 730 | 8 | 1425 | 5000 | 73 | |

Bit Serial No. 4551 Table R.P.M. 130

Jet or Conventional - Conv. Nozzle Size

**SURVEYS**

Kind S.S. at 1411 Ft. 2 3/4 Deg. off

**MUD PUMP RECORD**

| | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| | 2 | 1/2 | 800 | 12" | 72 | 5 1/2" |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 4 00 | 37 | 10.4 | 6.2 | | Strap out 1442.41 |
| 6 00 | 35 | 10.7 | | | board 1442.13 |
| | | | | | diff. .28 |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| SERVICE RIG. | 4 00 | 4 15 | 1/4 |
| DRILL 6 3/4 Hole. | 4 15 | 5 00 | 3/4 |
| RUN SURVEY | 5 00 | 5 15 | 1/4 |
| DRILL 6 3/4 Hole. | 5 15 | 6 30 | 1 1/4 |
| Circ. Sample. | 6 30 | 7 00 | 1/2 |
| Pull To Core + stump Pipe. | 7 00 | 8 00 | 1 |
| change Plug Valves on B.O.P.+ | 8 00 | 10 15 | 2 1/4 |
| Pick up Core barrel Fell [illegible] | 10 15 | | |
| Side of Rig broke [illegible] | | 11 00 | 3/4 |
| WAIT FOR NEW Core barrel | 11 00 | 12 00 | 1 |

Driller H. Farrell

CLASSES OF TIME BREAKDOWN

HEADING UP & DRLG. OUT: DRILLING: REAMING: 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.:

MNFR. DRILLING LINE IN USE ____ REEL SERIAL No. ____

MNFR. OF KELLY HOSE IN USE ____ HOSE SERIAL No. ____

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ____ NO ____

Total Contract Time ____ hrs. Total Company Time ____ hrs. Toolpusher ____ Approved by ____

Form 34402 (300 bks.-10-61)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 6

202 Bried Edmd LSD. 2 SEC. 50 TWN. RGE. W. Contractor TRI-CITY DRLG. CO. Type Rig TRAILING STRAT Month JAN Day 21 19 64

## 1st Tour From: 12:00 Midnight To: 8:00 a.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 1120 | 1153 | 33 | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 9 23.38 ~~3 90.80~~ | | 27' up | 173.38 | 74.79 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| | | | | | DRILLING STRING | DRILL COLLARS |
| COLLAR | 6 | 4 1/2 | 2 | 173.38 | | |
| DATA | | | | | 35M | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 4 | ~~W-7~~ | | 3 00 | 9 3/4 | 1150 | 6 M | 85 | |
| 5 | D | 6 30 | | 1 1/2 | | 10M | 3 | |

Bit Serial No. 7010 Table R.P.M.

Jet or Conventional - CONV. Nozzle Size

**SURVEYS**

Kind at Ft. Deg. off

**~~MUDH~~ PUMP RECORD**

| | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| No. 1 | | | 550 | 12" | 60 | 5 1/2 |
| No. 2 | | | | | | |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 12 00 | 37 | 10.9 | 5.8 | 9.2 | |
| 2 00 | 37 | 10.9 | | | |
| 7 00 | 40 | 10.7 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| 1150 | 1153 | 3 | - | 1 | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| DRLG. | 12 00 | 1 15 | 1/4 |
| RIG SERVICE & CLEAN SUCTION | 1 15 | 1 45 | 1/2 |
| DRLG. | 1 45 | 3 00 | 1 1/4 |
| HOIST TO CORE, PICK UP C.B. & THAW OUT SAME. RUN IN. | 3 00 | 6 00 | 3. |
| CIRC C.B. - DROP BALL | 6 00 | 6 30 | 1/2 |
| CORE #1 | 6 30 | 8 00 | 1 1/2 |

Driller Jim Boyd

## 2nd Tour From: 8:00 a.m. To: 4:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 1153 | 1165 | 12 | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | ~~Core Bbl. Ft.~~ |
|---|---|---|---|---|---|
| 3 1/2 | ~~9~~ 7 92.80 | | 0 | 173.38 | sub - 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| | | | | | DRILLING STRING | DRILL COLLARS |
| COLLAR | 6 | 4 1/2 | 2 | 173.38 | | |
| DATA | | | | | 35M | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 5 | D | 6 30 | 12 00 | 5 1/2 | 1165 | 10 | 15' | |
| 6 | OWV | 3 45 | | | | | 4' | |

Bit Serial No. 4040C Table R.P.M. 70

Jet or Conventional - Nozzle Size

Kind at Ft. Deg. off

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 5 | 3/4 | 550 | 12" | 60 | 5 1/2 |

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 8 00 | 40 | 10.3 | | | GEL 800 # |
| 10 00 | 39 | 10.3 | | | WATER |
| TR 1 | | | | | |

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| 1153 | 1165 | 12' | 15' | #1 | |

| | From | To | Hrs. |
|---|---|---|---|
| CUT CORE #1 | 8 00 | 12 00 | 4 |
| HOIST & RECOVER CORE | 12 00 | 2 00 | 2 |
| RUN IN WITH BIT | 2 00 | 2 45 | 3/4 |
| REAM RAT HOLE | 2 45 | 3 00 | 1/4 |
| MIX MUD | 3 00 | 3 45 | 3/4 |
| DRLG | 3 45 | 4 00 | 1/4 |

Driller Ed Lamb

## 3rd Tour From: 4:00 p.m. To: 12:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 1169 | 1283 | 114 | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 17 | 1 | 7.56 up | 173.38 | sub. 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| | | | | | DRILLING STRING | DRILL COLLARS |
| COLLAR | 6 | 4 1/2 | 2 1/2 | 173.38 | | |
| DATA | | | | | 36000 | 8,400 |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 6 | OWV | 3 45 | | 7 1/2 | | 8 M. | 118 | |

Bit Serial No. 91682 Table R.P.M. 130

Jet or Conventional - CONV. Nozzle Size

Kind S.S. at 1199 Ft. 17/8 Deg. off

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 7 1/4 | | 750 | 12" | 72 | 5 1/2 |

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 4 00 | 60 | 10.7 | 6. | 9. | WATER. |
| 6 00 | 43 | 10.5 | | | |
| 8 00 | 37 | 10.3 | 7.2 | 9 | |
| 10 00 | 35 | 10.4 | | | |

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

| | From | To | Hrs. |
|---|---|---|---|
| SERVICE RIG. | 4 00 | 4 15 | 1/4 |
| DRILL 6 3/4 Hole. | 4 15 | 6 15 | 2 |
| RUN SURVEY | 6 15 | 6 45 | 1/2 |
| DRILL 6 3/4 hole. | 6 45 | 12 00 | 5 1/4 |

Driller H. Saunders

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....

MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES..... NO.....

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-10-61)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 5

T. U.E. TRAD E BRT LSD. 0 SEC. 50 TWN. ..... RGE. ..... W. ..... Contractor TRI-CITY DRLG. Type Rig FAIRWAY STANT Month JANUARY Day 20 19 64

## 1st Tour From: 12:00 Midnight To: 8:00 a.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 1000 | 1047 | 47 | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 965.25 | | 25' up | 173.38 | Sub 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| | | | | | DRILLING STRING | DRILL COLLARS |
| COLLAR | 6 | 4 1/2 | 2 | 173.38 | | |
| DATA | | | | | | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 2 | OSC-3 | 12:00 | 5:15 | 5 | 1046 | 2000 | 46 | |
| 3 | OSC | 7:00 | - | 1 | - | 2000 | 1 | |

Bit Serial No. 64450 ③ 25893 Table R.P.M. 175

Jet or Conventional - CONV. Nozzle Size

**SURVEYS**

Kind SS at 1047 Ft. 2 Deg. off

**MUD PUMP RECORD**

| No. | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|---|
| 1 | 6 | | 600 | 12 | 72 | 5 1/2 |
| 2 | | | | | | |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 12:00 | 35 | SW | 12 | 9 | |
| 2:00 | 35 | 9.9 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| DRLG | 12:00 | 5:00 | 5. |
| SURVEY @ 1046. | 5:00 | 5:15 | 1/4. |
| TRIP FOR BIT. SLIP LINE | 5:15 | 7:00 | 1 3/4 |
| DRLG. | 7:00 | 8:00 | 1 |

Driller John Byatt

## 2nd Tour From: 8:00 a.m. To: 4:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 1047 | 1065 | 18' | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 901 DP | | 12.93 up | 173.38 | SUB 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| | | | | | DRILLING STRING | DRILL COLLARS |
| COLLAR | 6 | 4 1/2 | 2 | 173.38 | | |
| DATA | 20 | 4" | FLEX WT | | | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 3 | OSC | 7:00 | 2:00 | 6 1/4 | 1065 | 2-4M | 19' | |
| 4 | W-7 | | | | | | | |

Bit Serial No. #3 64450 - #4 7010 Table R.P.M. 175

~~Jet~~ Conventional - ✓ Nozzle Size

Kind at Ft. Deg. off

**PUMP RECORD**

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| | | 700 | 12" | 72 | 5 1/2 |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 8 | 31 | 9.9 | | | GEL - 1000# |
| 10 | 41 | 10.3 | | 9.5 | CAUST. C = 25# |
| 12 | 38 | 10.5 | | | QBROXIN = 50# |
| 2 | 37 | 10.4 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| RIG SERV + CLOSE RAMS | 8:00 | 8:15 | 1/4 |
| DRLG | 8:15 | 9:15 | 1 |
| MIX MUD + CLEAN SUCTION | 9:15 | 9:45 | 1/2 |
| DRLG | 9:45 | 2:00 | 4 1/4 |
| HOIST | 2:00 | 2:30 | 1/2 |
| SLIP LINE + REPAIR GOOSE NECK | 2:30 | 3:30 | 1 |
| RUN IN | 3:30 | 4:00 | 1/2 |

Driller E. O. Lamb

## 3rd Tour From: 4:00 p.m. To: 12:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 1065 | 1120 | 55 | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 15 | | 18.56 up | 173.38 | sub 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| | | | | | DRILLING STRING | DRILL COLLARS |
| COLLAR | 6 | 4 1/2 | 2 1/2 | 193.38 | | |
| ~~DATA~~ D.W. | 20 | 4" | | | 35,000 | 8,400 |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 4 | W7 | 4:30 | | 7 1/4 | | 5 | 55 | |

Bit Serial No. 7010 Table R.P.M. 130

Jet or Conventional - CONV. Nozzle Size 3-5/8"

Kind S.S. at 1108 Ft. 1 3/8 Deg. off

**PUMP RECORD**

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 7 1/4 | | 700 | 12" | 72 | 5 1/2 |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 5:00 | 36 | 10.7 | 6.2 | 9.5 | |
| 8:00 | 37 | 10.8 | | | |
| 10:00 | 38 | 10.9 | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| RUN IN hole. | 4:00 | 4:15 | 1/4 |
| SERVICE RIG. | 4:15 | 4:30 | 1/4 |
| DRILL 6 3/4 Hole. | 4:30 | 10:15 | 5 3/4 |
| RUN Survey. | 10:15 | 10:30 | 1/4 |
| DRILL 6 3/4 Hole. | 10:30 | 12:00 | 1 1/2 |

Driller H. Jandl

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....

MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ..... NO .....

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-10-61)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 4

FOE TRIAD FEB 69 LSD. 2 SEC. 6D TWN. ..... RGE. ..... W. ..... Contractor TRI-CITY DRLG. Type Rig FRANKS SERIES Month JUNE Day 19 19 63

## 1st Tour From: 12:00 Midnight To: 8:00 a.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 954 | 1645 | 250 | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 472-45' | | Down | 173.38 | SUB 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 6 | 4 1/2 | 2 | 173.38 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 26M | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 1 | OSC-3 | 1 45 | — | 4 | — | 10M | 250 | |

Bit Serial No. 64455 Table R.P.M.

Jet or Conventional - Conv. Nozzle Size

**SURVEYS**

Kind at Ft. Deg. off

**MUD PUMP RECORD**

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| | | | | | |

No. 1
No. 2

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 4 00 | 30 | 8.5 | | 9. | BICARB. 200. |
| 6 00 | 30 | 8.5 | | 9.5 | Water. |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| REPACK SWIVEL | | | | 7 00 - 8 00 | -1 |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| DRLG. CEMENT, PUMP OUT | 12 00 | | |
| PIT + DISPLACE HOLE. | | 1 45 | 1 3/4 |
| RRLG. | 1 45 | 2 00 | 1/4 |
| CLEAN TO BOTTOM | 2 00 | 2 15 | 1/4 |
| DRLG. | 2 15 | 2 45 | 1/2 |
| REBUILT MUD TROUGH | 2 45 | 3 30 | 3/4 |
| DRLG. | 3 30 | 6 30 | 3 |
| CLEAN SUCTION | 6 30 | 6 45 | 1/4 |
| DRLG. | 6 45 | 7 00 | 1/4 |

Driller Jim Byatt

## 2nd Tour From: 8:00 a.m. To: 4:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 645 | 924 | 279 | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 7474 | | 35.52 | 173.38 | SUB. 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 6 | 4 1/2 | 2" | 173.38 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 1 | OSC-3 | 1 45 | | 9 1/4 | | 10M | 529 | |

Bit Serial No. 64455 Table R.P.M. 160

~~Jet or~~ Conventional - ✓ Nozzle Size

Kind S.S. at 800 Ft. 1 1/2" Deg. off

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| | 924 | 4.50 | 12" | 2" | 5 1/2 |

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 8 | 27 | 8.9 | | 8.7 | GEL - 1200# |
| 10 | 27 | 8.8 | | | CAUSTIC - ~~100~~ 50# |
| 12 | 29 | 8.9 | | | QBROXIN ~~50~~ 100# |
| 2 | 30 | 8.9 | | | |

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

| | From | To | Hrs. |
|---|---|---|---|
| REPACK SWIVEL | 8 00 | 8 45 | 3/4 |
| RIG SERV & CLOSE BOP | 8 45 | 9 00 | 1/4 |
| DRLG. | 9 00 | 9 30 | 1/2 |
| TIGHTEN WASH PIPE | 9 30 | 10 00 | 1/2 |
| DRLG. | 10 00 | 1 00 | 3 |
| SURVEY | 1 00 | 1 15 | 1/4 |
| DRLG. | 1 15 | 2 55 | 1 3/4 |
| MIX MUD + SURVEY | 3 00 | 4 00 | 1 |

Driller E. A. Lamb

## 3rd Tour From: 4:00 p.m. To: 12:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 924 | 1000 | 76 | 6 3/4 | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3 1/2 | 13 | | 15 ft up | 173.38 | Sub. 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 6 | 4 1/2 | | 173.38 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | 32000 | 8400 |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 1 | OSC-3 | 1.45 | 10 30 | 14 1/4 | 1000 | 3 | 605 | |
| 2 | 11 | | | | | | | |

Bit Serial No. 64455 (2) 64450 Table R.P.M. 130

Jet or Conventional - Conv. Nozzle Size

Kind S.S. at 954 Ft. 2. Deg. off

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| 5 | | 475 575 | 12" | | 5 1/2 |

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| 5 00 | 42 | 9.5 | | | Caustic - 25 |
| 7 00 | 42 | 9.5 | 13 | | Quebracho - 50 |
| 10 00 | 35 | 9.5 | | | |

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

| | From | To | Hrs. |
|---|---|---|---|
| SERVICE RIG. | 4 00 | 4 15 | 1/4 |
| DRILL 6 3/4 Hole. | 4 15 | 6 00 | 1 3/4 |
| RUN SURVEY. | 6 00 | 6 15 | 1/4 |
| DRILL 6 3/4 Hole. | 6 15 | 7 15 | 1 |
| WORK ON PUMP. | 7 15 | 8 00 | 3/4 |
| DRILL 6 3/4 Hole. | 8 00 | 9 15 | 1 1/4 |
| RUN SURVEY. | 9 15 | 9 30 | 1/4 |
| DRILL 6 3/4 Hole. | 9 30 | 10 30 | 1 |
| TRIP FOR Bit + SLIP LINE. | 10 30 | 12 00 | 1 1/2 |

Driller H. Jandl

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....

MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ✓ NO .....

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher ..... Approved by .....

F - 34402 (300 bks.-10-61)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 3

IOETRIAD EBBUT LSD. D SEC. 30 TWN. ..... RGE. ..... W. ..... Contractor TRI-CITY DRLG. CO. LTD. Type Rig FAIRINA STRAT Month JAN 64 Day 18 19 64

## 1st Tour From: 12:00 Midnight To: 8:00 a.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| | | | | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| | | | | | |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | | | | | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| | | | | | | | | |

Bit Serial No. ..... Table R.P.M. .....

Jet or Conventional - ..... Nozzle Size .....

**SURVEYS**

Kind ..... at ..... Ft. ..... Deg. off .....

**MUD PUMP RECORD No. 1 No. 2**

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| | | | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| W. O. C. | 12[00] | 8[00] | 8 |

Driller ..... Jim Ebbutt .....

## 2nd Tour From: 8:00 a.m. To: 4:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| | | | | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| | | | | | |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | | | | | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| | | | | | | | | |

Bit Serial No. ..... Table R.P.M. .....

Jet or Conventional - ..... Nozzle Size .....

**SURVEYS**

Kind ..... at ..... Ft. ..... Deg. off .....

**MUD PUMP RECORD No. 1 No. 2**

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| | | | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

PRESSURED HEAD TO 1000# PSI FOR 10 MIN. PRESSURE HELD

| | From | To | Hrs. |
|---|---|---|---|
| W O C | 8[00] | 9[30] | 1½ |
| HEAD up B O P. & CHECK MOTOR SHUT OFFS OK. | 9[30] | 4[00] | |

Driller ..... E. J. Lamb .....

## 3rd Tour From: 4:00 p.m. To: 12:00 p.m.

**DEPTH**

| From | To | Hole Made | Hole Size | Formation |
|---|---|---|---|---|
| 395 | 395 | — | | |

**DRILLING STRING**

| Size-D.P. | Stands | Singles | Kelly | Drill. Collar Ft. | Core Bbl. Ft. |
|---|---|---|---|---|---|
| 3½ | 3 | — | Down | 173.38 | Sub. 3.00 |

| DRILL | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL | |
|---|---|---|---|---|---|---|
| COLLAR | 6 | 4½ | | 173.38 | DRILLING STRING | DRILL COLLARS |
| DATA | | | | | | |

**BIT RECORD**

| No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
|---|---|---|---|---|---|---|---|---|
| 1 | OSC-3 | | | | | | | |

Bit Serial No. 64455 Table R.P.M. .....

Jet or Conventional - CON. Nozzle Size .....

**SURVEYS**

Kind ..... at ..... Ft. ..... Deg. off .....

**MUD PUMP RECORD No. 1 No. 2**

| HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size |
|---|---|---|---|---|---|
| | | | 12" | | 5½ |
| | | | | | |

**MUD RECORD**

| Time | Visc. | Wt. | W L | pH | ADDITIVES — POUNDS |
|---|---|---|---|---|---|
| | | | | | |

**CORING**

| From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. |
|---|---|---|---|---|---|
| | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| | From | To | Hrs. |
|---|---|---|---|
| Head up. Run in. | 400 | | |
| Pressure up to 1000 P.S.I held O.K. | | 930 | 5½ |
| DRILL out Plug. Shoe & Cement. | 930 | 1200 | 2½ |

Driller ..... H. Jandl .....

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ..... NO .....

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ..... REEL SERIAL No. .....

MNFR. OF KELLY HOSE IN USE ..... HOSE SERIAL No. .....

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher ..... Approved by .....

Form 34402 (300 bks.-10-61)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 2

Fort Simpson LSD. 0 SEC. 50 TWN. ____ RGE. ____ W. ____ Contractor IRI - CITY Type Rig FAIRING STRA Month JAN Day 17 19 64

IOE TRIAD EBBUT

| | 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 | Hole Size | Formation | From | To | Hole Made | Hole Size | Formation | From | To | Hole Made | Hole Size | Formation |
| | 222 | 342 | 120 | 12 1/4 | | 342 | 395 | 53 | 12 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 | 127.72 | | 22' up | 173.38 | Subs 5.17 | 4 1/2 | | 142.15 | 33.41 | 173.38 | 5.17 | | | | | | |
| | DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING / DRILL COLLARS | DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING / DRILL COLLARS | DRILL COLLAR DATA | Number | OD | ID | Length | INDICATOR WEIGHT OF TOTAL DRILLING STRING / DRILL COLLARS |
| | | 6 | 4 1/2 | | 173.38 | 21 M | | 6 | 4 1/2 | | 173.38 | 21 M | | | | | | |
| **BIT RECORD** | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed | No. | Type | Time On Bottom At | Time Pulled At | Total Hours Run | Depth Pulled | Weight On Bit M Pounds | FOOTAGE Drilled | FOOTAGE Reamed |
| | 2 | YT3 | | | 11 3/4 | | 10M | 215 | | 2 | YT3 | | | 14 | 395 | 10 | 368 | | | | | | | | | |
| | Bit Serial No. EO3158 | | | | Table R.P.M. 175 | | | | | Bit Serial No. EO 3158 | | | | Table R.P.M. 175 | | | | | Bit Serial No. | | | | Table R.P.M. | | | | |
| | Jet or Conventional - CONV. | | | | Nozzle Size | | | | | Jet or Conventional - | | | | Nozzle Size | | | | | Jet or Conventional - | | | | Nozzle Size | | | | |
| **SURVEYS** | Kind SS at 305' Ft. 3/4 Deg. off | | | | | | | | | Kind SS at 395 Ft. 3/4 Deg. off | | | | | | | | | Kind at Ft. Deg. off | | | | | | | | |
| **PUMP RECORD** No. 1 / No. 2 | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | | | | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | | | | HOURS On Line | HOURS Circulating | Pump Press | Length of Pump Stroke | Strokes Per Min. | Liner Size | | | |
| | | | 350 | | | | | | | 1/4 | 2 1/4 | 350 | 12" | 74 | 5 1/2 | | | | | | | | | | | |
| **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 | | |
| | 2:00 | 48 | 10.4 | | | | | | | 8 | 40 | | | | CAUSTIC - 25# | | | | RAN 9 JTS 367' 8 5/8 J55 24# | | | | | | | |
| | 4:00 | 48 | 10.4 | | | W.L. | | | | 10 | 43 | | | | | | | | R-3 8 THD - STH - MANNESMANN | | | | | | | |
| | 8:00 | 42 | 10.3 | | | | | | | TRIP | | | | | | | | | CASING CEMENTED WITH 200 SACKS | | | | | | | |
| | | | | | | | | | | | | | | | | | | | CEMENT PLUS 2% CACL2 | | | | | | | |
| | | | | | | | | | | | | | | | | | | | CASING LANDED @ 377.13. K.B | | | | | | | |
| **CORING** | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | | | | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | | | | From | To | Ft. Cored | Ft. Rec'd. | Core No. | Type Bbl. | | |
| | | | | | | | | | | | | | | | | | | | PLUG DOWN 9:30 PM JAN 17, 1964 | | | | | | | |
| | | | | | | | | | | | | | | | | | | | GOOD RETURNS. | | | | | | | |

**DETAIL OF OPERATIONS AND REMARKS**

| From | To | Hrs. | Operations |
|---|---|---|---|
| 12:00 | 1:45 | 1 3/4 | DRLG. |
| 1:45 | 2:00 | 1/4 | SERVICE RIG - CLEAN SUCTION |
| 2:00 | 3:30 | 1 1/2 | DRLG. |
| 3:30 | 4:00 | 1/2 | WORK ON D.W. - CLEAN TO BOTTOM |
| 4:00 | 5:30 | 1 1/2 | DRLG. |
| 5:30 | 6:00 | 1/2 | SURVEY & WORK TIGHT HOLE |
| 6:00 | 8:00 | 2. | DRLG. |

Driller Jim Bight

| From | To | Hrs. | Operations |
|---|---|---|---|
| 8:00 | 8:15 | 1/4 | R.C. SERV |
| 8:15 | 10:30 | 2 1/4 | DRLG |
| 10:30 | 10:45 | 1/4 | CIRC HOLE |
| 10:45 | 11:00 | 1/4 | SURVEY |
| 11:00 | 3:45 | 4 3/4 | TRIP OUT TIGHT HOLE |
| 3:45 | 4:00 | 1/4 | RUN IN |

Driller E. W. Lamb

| From | To | Hrs. | Operations |
|---|---|---|---|
| | | | |
| 4:00 | 5:00 | 1 | RUN IN REAM TIGHT SPOT. |
| 5:00 | 5:45 | 3/4 | CIRC. HOLE TO RUN CASING |
| 5:45 | 6:30 | 1/2 | PULL TO RUN CASING. |
| 6:30 | 7:00 | 1/2 | RIG TO RUN CASING. |
| 7:00 | 8:00 | 1 | RUN CASING. |
| 8:00 | 8:30 | 1/2 | CIRC CASING. |
| 8:30 | 9:30 | 1 | RIG TO & CEMENT. |
| 9:30 | 12:00 | 2 1/2 | W.O.C |

Driller H. Jandl

CLASSES OF TIME BREAKDOWN

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

MNFR. DRILLING LINE IN USE ____ REEL SERIAL No. ____

MNFR. OF KELLY HOSE IN USE ____ HOSE SERIAL No. ____

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ____ NO ____

Total Contract Time ____ hrs. Total Company Time ____ hrs. Toolpusher ____ Approved by ____

Form 34402 (300 bks.-10-61)

# IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 1

10E TRIAD EBBUTT LSD. d SEC. 50 TWN. ____ RGE. ____ W. ____ Contractor TRI-CITY DRLG Type Rig FAILING STR. T Month JAN 16 Day 16 19 64

| | 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 / Hole Size / Formation: | From 0 / To 117 / Hole Made 117 / Hole Size 12 1/4 / Formation GRAVEL, SAND | From 117 / To 222 / Hole Made 105 / Hole Size 12 1/4 / Formation |
| **DRILLING STRING** | Size-D.P. / Stands / Singles / Kelly / Drill. Collar Ft. / Core Bbl. Ft.: | Size-D.P. 4 1/2 / Stands / Singles / Kelly 25.27 / Drill. Collar Ft. 86.60 / Core Bbl. Ft. 5" 3 5" 17 | Size-D.P. 3 1/2 / Stands / Singles 30.48 / Kelly 22.83 up / Drill. Collar Ft. 173.38 / Core Bbl. Ft. 5.17 subs. |
| | DRILL COLLAR DATA — Number / OD / ID / Length / INDICATOR WEIGHT OF TOTAL DRILLING STRING / DRILL COLLARS: | DRILL COLLAR DATA — Number 3 / OD 4 1/2 / ID / Length 86.60 / DRILLING STRING 3600 / DRILL COLLARS: | DRILL COLLAR DATA — Number 6 / OD 4 1/2 / ID / Length 173.38 / DRILLING STRING 17000 / DRILL COLLARS 8400 |
| **BIT RECORD** | No. / Type / Time On Bottom At / Time Pulled At / Total Hours Run / Depth Pulled / Weight On Bit M Pounds / FOOTAGE Drilled / Reamed: | No. 1 / Type R.R. / Time On Bottom At 11:30 / Time Pulled At / Total Hours Run 4 3/4 / Depth Pulled / Weight On Bit M Pounds / FOOTAGE Drilled / Reamed: | No. 1 / Type YT-3 / Time On Bottom At 11:30 / Time Pulled At 4:30 / Total Hours Run 11 1/2 / Depth Pulled 129 / Weight On Bit M Pounds 6000 / FOOTAGE Drilled 265 / Reamed: |
| | | | No. 2 / Type " / Time On Bottom At 6:30 / Time Pulled At / Total Hours Run 5 / Depth Pulled 234 / Weight On Bit M Pounds 6000 / FOOTAGE Drilled 104 / Reamed: |
| | Bit Serial No. / Table R.P.M. / Jet or Conventional - / Nozzle Size: | Bit Serial No. / Table R.P.M. 150 / Jet or Conventional - / Nozzle Size: | Bit Serial No. (2) E03158 / Table R.P.M. 175 / Jet or Conventional - / Nozzle Size: |
| **SURVEYS** | Kind / at / Ft. / Deg. off: | Kind S.S. at 60 Ft. / 1/2 Deg. off | Kind TOTCO at 117 Ft. / 3/4 Deg. off |
| **MUD PUMP RECORD** | HOURS On Line / Circulating / Pump Press / Length of Pump Stroke / Strokes Per Min. / Liner Size: | HOURS On Line 4 1/4 / Circulating / Pump Press 200 / Length of Pump Stroke 12" / Strokes Per Min. 74 / Liner Size 5 1/2 | HOURS On Line 21 5 1/2 / Circulating / Pump Press 200 / Length of Pump Stroke 14" / Strokes Per Min. / Liner Size 5 1/2 |
| No. 1 | | | |
| No. 2 | | | |
| **MUD RECORD** | Time / Visc. / Wt. / W L / pH / ADDITIVES — POUNDS: | Time 8 / Visc. 38 / Wt. / W L / pH / ADDITIVES — POUNDS: Gel 1200 # | Time 1:00 / Visc. 50 / Wt. 9.8 / W L / pH / ADDITIVES — POUNDS |
| | | 10 45 Caustic 100 # | 10:00 55 10.2 |
| | GEL 2000 # | 12 60 | |
| | CAUSTIC. 100 # | 2 55 | |
| **CORING** | From / To / Ft. Cored / Ft. Rec'd. / Core No. / Type Bbl.: | From / To / Ft. Cored / Ft. Rec'd. / Core No. / Type Bbl.: | From / To / Ft. Cored / Ft. Rec'd. / Core No. / Type Bbl.: |
| **DETAIL OF OPERATIONS AND REMARKS** | From / To / Hrs.: | From / To / Hrs.: | From / To / Hrs.: |
| | DRILL RAT HOLE & TRY TO GET SOCK TO BOTTOM — 12:00 | RIG SERV & MIX MUD — 8:00 / 8:30 / 1/2 | DRILL 12 1/4 Hole — 4:00 / 4:30 / 1/2 |
| | 5:30 | DRILL RAT HOLE & RUN SOCK — 8:30 / 10:00 / 1 1/2 | TRIP FOR Bit & Ream To Bottom. 4:30 / 6:00 / 1 1/2 |
| | MIXING MUD — 5:30 / 7:15 / 1 3/4 | MIX MUD — 10:00 / 10:30 / 1/2 | SURVEY & SERVICE RIG. 6:00 / 6:30 / 1/2 |
| | TRY TO RUN SOCK. — 7:15 | DIG DITCH & RIG TO SAND — 10:30 / 11:30 / 1 | DRILL 12 1/4 Hole. 6:30 / 11:00 / 4 1/2 |
| | WON'T GO BECAUSE of SAND CAVING. — 8:00 / 3/4 | DRLG 12 1/4 " HOLE | RUN SURVEY. CLEAN TO BOT. 11:00 / 11:30 / 1/2 |
| | MIX MORE MUD | SURVEY | DRILL 12 1/4 Hole. 11:30 / 12:00 / 1/2 |
| | | DRLG 2:15 / 2:30 / 1/4 | |
| | | 2:30 / 4:00 / 1 1/2 | |
| | | 8 | |
| | Driller Jim Bybutt | Driller E.D Lamb | Driller H. Jandl |

CLASSES OF TIME BREAKDOWN

HEADING UP & DRLG. OUT: TOTCO: CONDITIONING MUD: CASING: LOGGING: RIG MAINTENANCE: REAMING CLEANING: MNFR. DRILLING LINE IN USE ____ REEL SERIAL No. ____

DRILLING: FISHING: TRIPPING: W.O.C. W O ORDERS: MISCELLANEOUS: WORKING PIPE:

REAMING: CIRCULATING: CORING: D.S. TESTING: RIG REPAIRS: CONDITION HOLE: LOST CIRC.: MNFR. OF KELLY HOSE IN USE ____ HOSE SERIAL No. ____

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ____ NO ____

Total Contract Time ____ hrs. Total Company Time ____ hrs. Toolpusher ____ Approved by ____

Ottawa Copy

Report No. NCM-D-63-AEHP-1975

Report on 8 lots of Middle Devonian fossils from I.O.E.-Triad Ebbutt D-50 well, submitted by N.C. Meijer-Drees (NTS 95J, 52°19'01"N, 122°24'05"W).

The relevant parts of any manuscript prepared for publication that paraphrase or quote from this report should be referred to the Paleontology Subdivision, Calgary, for possible revision.

| Depth & Stratigraphy | Fauna and Age | GSC Loc. No. |
|---|---|---|
| 1580'; Nahanni Fm., 47' below top, 230' above base | *Mesophyllum (?)* sp.<br>age: probably Middle Devonian | C-37924 |
| 1582 1/2'; Nahann Fm., 49 1/2' below top 227 1/2' above base | *Amphipora* sp.<br>age: Upper Silurian-Upper Devonian | C-37926 |
| 1583'; Nahanni Fm., 50' below top, 227' above base | *Amphipora* sp.<br>age: Upper Silurian-Upper Devonian | C-37923 |
| 1591'; Nahanni Fm., 58' below top, 219' above base | *Amphipora* sp.<br>stromatoporoid, indet.<br>age: Upper Silurian-Upper Devonian | C-37927 |
| 1600'; Nahanni Fm., 67' below top, 210' above base | *Stromatopora* sp.<br>*Alveolites* sp. (same sp. known in Hume Fm.)<br>age: probably Middle Devonian, late Eifelian | C-37928 |
| 1639(±)'; Nahanni Fm., 106(±)' below top, 171(±)' above base | *Thamnopora* sp.<br>age: Silurian-Permian possible, but probably Upper Silurian-Upper Devonian | C-37922 |
| 1700 1/2'; Nahanni Fm., 167 1/2' below top, 109 1/2' above base | *"Microplasma"* sp. of *"M." fongi* sensu Lenz 1961<br>age: Middle Devonian, late Eifelian | C-37925 |
| 1702'; Nahanni Fm., 169' below top, 108' above base | rugose coral, gen. sp. nov. (gen., but not necessarily sp. known in Lower Hume Fm.)<br>age: Middle Devonian, late Eifelian | C-37666 |

## Comments

Most of these lots contain only undetermined, and in some cases possibly new, species of long-ranging genera. However, C-37925 certainly. and C-37666 and C-37928 probably, are diagnostic of the Hume Formation and its correlatives.

.....2.....

The species of *Amphipora* in C-37926 etc. normally lacks an axial canal and where the canal is present it is very small. The species, therefore, is not *A. ramosa* (Phillips). Whatever it is, it is known from the Hume Formation, but as most species of the genus are long ranging this may not be significant.

A.E.H. Pedder.

Paleontology Subdivision
Institute of Sedimentary and Petroleum Geology
Calgary, 2 Feb., 1975.