



WESTERN TESTING CO., INC.
FORMATION TESTING

LAST
No 18697
TICKET

P. O. BOX 1599 PHONE (316) 262-5861
WICHITA, KANSAS 67201

Elevation 1378 GL Formation Simpson Sd. Eff. Pay - Ft.

District GT. Bend Date 5-24-93 Customer Order No. -

COMPANY NAME Oxy USA, Inc.
ADDRESS 110 S. MAIN #800 WICHITA, KS 67202
LEASE AND WELL NO. Wilson "A" #418 COUNTY Butler STATE KS Sec. 9 Twp. 25 Rge. 5E
Mail Invoice To SAME #418 Wilson A Co. Name Address No. Copies Requested Reg
Mail Charts To SAME Address No. Copies Requested Reg

Formation Test No. 1 Interval Tested From 2455 ft. to 2471 ft. Total Depth 2471 ft.
Packer Depth 2450 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.
Packer Depth 2455 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.
Depth of Selective Zone Set -
Top Recorder Depth (Inside) 2463 ft. Recorder Number 10929 Cap. 4100
Bottom Recorder Depth (Outside) 2466 ft. Recorder Number 3354 Cap. 4200
Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
Drilling Contractor Allen Drilling rig 2 Drill Collar Length 180 I. D. 2.2 in.
Mud Type Chemical Viscosity 48 Weight Pipe Length - I. D. - in.
Weight 9.3 Water Loss N/A cc. Drill Pipe Length 2248 I. D. 3.8 in.
Chlorides N/A P.P.M. Test Tool Length 27 ft. Tool Size 5 1/2 in.
Jars: Make WTC Serial Number 418 Anchor Length 16 ft. Size 5 1/2 in.
Did Well Flow? - Reversed Out Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
Main Hole Size 7 in. Tool Joint Size 4 1/2 in.

Blow: IF - WEAK building to a strong blow in 15 min.
FF - STRONG Blow in 9 min

Recovered 1 ft. of Oil
Recovered 330 ft. of Muddy water
Recovered - ft. of
Recovered - ft. of
Recovered - ft. of
Chlorides 15,000 P.P.M. Sample Jars used 2 Remarks: R & W .23 at 64'

MAY 26 1993

Time On Location 4:20 A.M. Time Pick Up Tool 5:00 P.M. Time Off Location - A.M.
Time Set Packer(s) 5:45 A.M. Time Started Off Bottom 8:00 P.M. Maximum Temperature 107° P.M.
Initial Hydrostatic Pressure (A) 1225 P.S.I.
Initial Flow Period Minutes 15 (B) 602 P.S.I. to (C) 73 P.S.I.
Initial Closed In Period Minutes 30 (D) 449 P.S.I.
Final Flow Period Minutes 30 (E) 125 P.S.I. to (F) 135 P.S.I.
Final Closed In Period Minutes 60 (G) 449 P.S.I.
Final Hydrostatic Pressure (H) 1225 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By: [Signature] Signature of Customer or his authorized representative

Western Representative: Ray Schwager

THANK YOU

FIELD INVOICE

Open Hole Test \$ 600.00
Misrun \$
Straddle Test \$
Jars \$ 1225.00
Selective Zone \$
Safety Joint \$
Standby \$
Evaluation \$
Extra Packer \$
Circ. Sub. \$
Mileage \$
Fluid Sampler \$
Extra Charts \$
Insurance \$
Telecopier \$
TOTAL \$ 825.00

WESTERN TESTING CO., INC.

Pressure Data

Date 5-24-93

Test Ticket No. 18697

Recorder No. 10979

Capacity _____ Location _____

Clock No. _____ Elevation _____ Well Temperature _____

| Point | Pressure | Open Tool | Time Given | Time Computed |
|--------------------------------|--------------------|----------------------------|------------------|---------------|
| A Initial Hydrostatic Mud | <u>1245</u> P.S.I. | | | |
| B First Initial Flow Pressure | <u>87</u> P.S.I. | First Flow Pressure | Mins. <u>15</u> | Mi _____ |
| C First Final Flow Pressure | <u>96</u> P.S.I. | Initial Closed-in Pressure | Mins. <u>30</u> | Mi _____ |
| D Initial Closed-in Pressure | <u>473</u> P.S.I. | Second Flow Pressure | Mins. <u>30</u> | Mi _____ |
| E Second Initial Flow Pressure | <u>148</u> P.S.I. | Final Closed-in Pressure | Mins. <u>100</u> | Mi _____ |
| F Second Final Flow Pressure | <u>163</u> P.S.I. | | | |
| G Final Closed-in Pressure | <u>468</u> P.S.I. | | | |
| H Final Hydrostatic Mud | <u>1245</u> P.S.I. | | | |

PRESSURE BREAKDOWN

| First Flow Pressure | | Initial Shut-In | | Second Flow Pressure | | Final Shut-In | |
|-----------------------------|-----------|-----------------------------|------------|-----------------------------|------------|-----------------------------|------------|
| Breakdown: _____ Inc. | | Breakdown: _____ Inc. | | Breakdown: _____ Inc. | | Breakdown: _____ Inc. | |
| of <u>5</u> mins. and a | | of <u>3</u> mins. and a | | of <u>5</u> mins. and a | | of <u>3</u> mins. and a | |
| final inc. of <u>0</u> Min. | | final inc. of <u>0</u> Min. | | final inc. of <u>0</u> Min. | | final inc. of <u>0</u> Min. | |
| Point Mins. | Press. | Point Minutes | Press. | Point Minutes | Press. | Point Minutes | Press. |
| P 1 0 | <u>87</u> | 0 | <u>96</u> | 0 | <u>148</u> | 0 | <u>163</u> |
| P 2 5 | <u>87</u> | 3 | <u>205</u> | 5 | <u>148</u> | 3 | <u>357</u> |
| P 3 10 | <u>91</u> | 6 | <u>413</u> | 10 | <u>148</u> | 6 | <u>406</u> |
| P 4 15 | <u>96</u> | 9 | <u>434</u> | 15 | <u>148</u> | 9 | <u>440</u> |
| P 5 20 | | 12 | <u>445</u> | 20 | <u>152</u> | 12 | <u>434</u> |
| P 6 25 | | 15 | <u>454</u> | 25 | <u>160</u> | 15 | <u>440</u> |
| P 7 30 | | 18 | <u>459</u> | 30 | <u>163</u> | 18 | <u>447</u> |
| P 8 35 | | 21 | <u>463</u> | 35 | | 21 | <u>453</u> |
| P 9 40 | | 24 | <u>467</u> | 40 | | 24 | <u>456</u> |
| P10 45 | | 27 | <u>469</u> | 45 | | 27 | <u>459</u> |
| P11 50 | | 30 | <u>473</u> | 50 | | 30 | <u>461</u> |
| P12 55 | | 33 | | 55 | | 33 | <u>462</u> |
| P13 60 | | 36 | | 60 | | 36 | <u>464</u> |
| P14 65 | | 39 | | 65 | | 39 | <u>465</u> |
| P15 70 | | 42 | | 70 | | 42 | <u>466</u> |
| P16 75 | | 45 | | 75 | | 45 | <u>466</u> |
| P17 80 | | 48 | | 80 | | 48 | <u>467</u> |
| P18 85 | | 51 | | 85 | | 51 | <u>467</u> |
| P19 90 | | 54 | | 90 | | 54 | <u>468</u> |
| P20 95 | | 57 | | 95 | | 57 | <u>468</u> |
| 100 | | 60 | | 100 | | 60 | <u>468</u> |

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone **1-800-688-7021**

DST REPORT

GENERAL INFORMATION

| | |
|--|-------------------------|
| DATE : 5/24/93 | TICKET : 18697 |
| CUSTOMER : OXY USA, INC. | LEASE : WILSON A |
| WELL : #418 TEST: 1 | GEOLOGIST: SCHROEDER? |
| ELEVATION: 1378 GL | FORMATION: SIMPSON SAND |
| SECTION : 9 | TOWNSHIP : 25S |
| RANGE : 5E COUNTY: BUTLER | STATE : KS |
| GAUGE SN#: 10979 RANGE : 4100 | CLOCK : 12 |

WELL INFORMATION

| | | |
|---------------------------------------|--------------------|----------------|
| PERFORATION INTERVAL FROM: 2455.00 ft | TO: 2471.00 ft | TVD: 2471.0 ft |
| DEPTH OF SELECTIVE ZONE: | | TEST TYPE: OIL |
| DEPTH OF RECORDERS: 2463.0 ft | 2466.0 ft | |
| TEMPERATURE: 107.0 | | |
| | | |
| DRILL COLLAR LENGTH: 180.0 ft | I.D.: | 2.200 in |
| WEIGHT PIPE LENGTH : 0.0 ft | I.D.: | 0.000 in |
| DRILL PIPE LENGTH : 2248.0 ft | I.D.: | 3.800 in |
| TEST TOOL LENGTH : 27.0 ft | TOOL SIZE : | 5.500 in |
| ANCHOR LENGTH : 16.0 ft | ANCHOR SIZE: | 5.500 in |
| SURFACE CHOKE SIZE : 0.750 in | BOTTOM CHOKE SIZE: | 0.750 in |
| MAIN HOLE SIZE : 7.875 in | TOOL JOINT SIZE : | 4.5XH |
| PACKER DEPTH: 2450.0 ft | SIZE: | 6.630 in |
| PACKER DEPTH: 2455.0 ft | SIZE: | 6.630 in |
| PACKER DEPTH: 0.0 ft | SIZE: | 0.000 in |
| PACKER DEPTH: 0.0 ft | SIZE: | 0.000 in |

MUD INFORMATION

| | |
|----------------------------------|----------------------|
| DRILLING CON. : ALLEN DRLG RIG 2 | VISCOSITY : 48.00 cp |
| MUD TYPE : CHEMICAL | WATER LOSS: 0.000 cc |
| WEIGHT : 9.300 ppg | |
| CHLORIDES : 0 ppm | |
| JARS-MAKE : WTC | SERIAL NUMBER: 418 |
| DID WELL FLOW?: NO | REVERSED OUT?: NO |

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK BLOW BUILDING TO A STRONG BLOW IN 15 MINUTES. FINAL FLOW PERIOD STRONG BLOW IN 9 MINUTES.

DST REPORT (CONTINUED)

FLUID RECOVERY

| Feet of Fluid | % Oil | % Gas | % Water | % Mud | Comments |
|---------------|-------|-------|---------|-------|-----------------------|
| 1.0 | 100.0 | 0.0 | 0.0 | 0.0 | OIL |
| 330.0 | 0.0 | 0.0 | 75.0 | 25.0 | MUDDY WATER |
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | CHLORIDES 15000 PPM |
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | RW .23 @ 64 DEGREES F |

RATE INFORMATION

| | | | |
|---------------|------------|---------------------|---------------|
| OIL VOLUME: | 0.0140 STB | TOTAL FLOW TIME: | 45.0000 min. |
| GAS VOLUME: | 0.0000 SCF | AVERAGE OIL RATE: | 0.4488 STB/D |
| MUD VOLUME: | 0.7375 STB | AVERAGE WATER RATE: | 94.4063 STB/D |
| WATER VOLUME: | 2.2126 STB | | |
| TOTAL FLUID : | 2.9642 STB | | |

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1225.00

| Description | Duration | p1 | p End |
|-----------------|----------|--------|--------|
| INITIAL FLOW | 15.00 | 62.00 | 73.00 |
| INITIAL SHUT-IN | 30.00 | | 449.00 |
| FINAL FLOW | 30.00 | 125.00 | 135.00 |
| FINAL SHUT-IN | 60.00 | | 449.00 |

FINAL HYDROSTATIC PRESSURE: 1225.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1243.00

| Description | Duration | p1 | p End |
|-----------------|----------|--------|--------|
| INITIAL FLOW | 15.00 | 87.00 | 96.00 |
| INITIAL SHUT-IN | 30.00 | | 473.00 |
| FINAL FLOW | 30.00 | 148.00 | 163.00 |
| FINAL SHUT-IN | 60.00 | | 468.00 |

FINAL HYDROSTATIC PRESSURE: 1243.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

| | |
|------------------------------------|-------------------------|
| DATE : 5/24/93 | TICKET : 18697 |
| CUSTOMER : OXY USA, INC. | LEASE : WILSON A |
| WELL : #418 TEST: 1 | GEOLOGIST: SCHROEDER? |
| ELEVATION: 1378 GL | FORMATION: SIMPSON SAND |
| SECTION : 9 | TOWNSHIP : 25S |
| RANGE : 5E COUNTY: BUTLER | STATE : KS |
| GAUGE SN#: 10979 RANGE : 4100 | CLOCK : 12 |

INITIAL FLOW

| <u>Time (min)</u> | <u>Pressure</u> | <u>Delta P</u> |
|-----------------------|-----------------|----------------|
| 0.00 | 87.00 | 87.00 |
| 5.00 | 87.00 | 0.00 |
| 10.00 | 91.00 | 4.00 |
| 15.00 | 96.00 | 5.00 |

INITIAL SHUT IN

| <u>Time (min)</u> | <u>Pressure</u> | <u>Delta P</u> | <u>Horner T</u> |
|-----------------------|-----------------|----------------|-----------------|
| 3.00 | 335.00 | 335.00 | 0.00 |
| 6.00 | 413.00 | 78.00 | 0.00 |
| 9.00 | 434.00 | 21.00 | 0.00 |
| 12.00 | 445.00 | 11.00 | 0.00 |
| 15.00 | 454.00 | 9.00 | 0.00 |
| 18.00 | 459.00 | 5.00 | 0.00 |
| 21.00 | 463.00 | 4.00 | 0.00 |
| 24.00 | 467.00 | 4.00 | 0.00 |
| 27.00 | 469.00 | 2.00 | 0.00 |
| 30.00 | 473.00 | 4.00 | 0.00 |

FINAL FLOW

| <u>Time (min)</u> | <u>Pressure</u> | <u>Delta P</u> |
|-----------------------|-----------------|----------------|
| 0.00 | 148.00 | 148.00 |
| 5.00 | 148.00 | 0.00 |
| 10.00 | 148.00 | 0.00 |
| 15.00 | 148.00 | 0.00 |

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

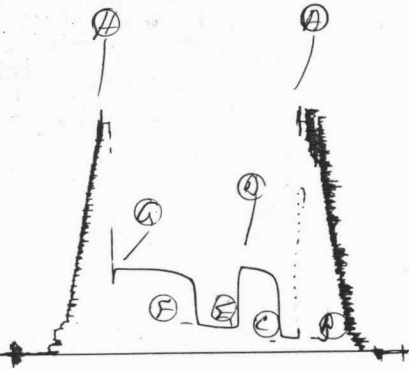
| <u>Time (min)</u> | <u>Pressure</u> | <u>Delta P</u> |
|-----------------------|-----------------|----------------|
| 20.00 | 153.00 | 5.00 |
| 25.00 | 160.00 | 7.00 |
| 30.00 | 163.00 | 3.00 |

FINAL SHUT IN

| <u>Time (min)</u> | <u>Pressure</u> | <u>Delta P</u> | <u>Horner T</u> |
|-----------------------|-----------------|----------------|-----------------|
| 3.00 | 357.00 | 357.00 | 0.00 |
| 6.00 | 406.00 | 49.00 | 0.00 |
| 9.00 | 420.00 | 14.00 | 0.00 |
| 12.00 | 434.00 | 14.00 | 0.00 |
| 15.00 | 440.00 | 6.00 | 0.00 |
| 18.00 | 447.00 | 7.00 | 0.00 |
| 21.00 | 453.00 | 6.00 | 0.00 |
| 24.00 | 456.00 | 3.00 | 0.00 |
| 27.00 | 459.00 | 3.00 | 0.00 |
| 30.00 | 461.00 | 2.00 | 0.00 |
| 33.00 | 463.00 | 2.00 | 0.00 |
| 36.00 | 464.00 | 1.00 | 0.00 |
| 39.00 | 465.00 | 1.00 | 0.00 |
| 42.00 | 466.00 | 1.00 | 0.00 |
| 45.00 | 466.00 | 0.00 | 0.00 |
| 48.00 | 467.00 | 1.00 | 0.00 |
| 51.00 | 467.00 | 0.00 | 0.00 |
| 54.00 | 468.00 | 1.00 | 0.00 |
| 57.00 | 468.00 | 0.00 | 0.00 |
| 60.00 | 468.00 | 0.00 | 0.00 |

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