

DRILL STEM TEST REPORT

Prepared For: **Anadarko Petroleum**
PO Box 720 Elkhart KS 67950

ATTN: Jerry Caudle

16-34S-43W

USA Interstate A-1

Start Date: 2001.06.19 @ 14:02:41

End Date: 2001.06.20 @ 00:48:55

Job Ticket #: 14550 DST #: 1

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE
TESTING, INC.**

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Anadarko Petroleum
PO Box 720 Elkhart KS 67950

ATTN: Jerry Caudle

USA Interstate A-1
16-34S-43W
Job Ticket: 14550 **DST#: 1**
Test Start: 2001.06.19 @ 14:02:41

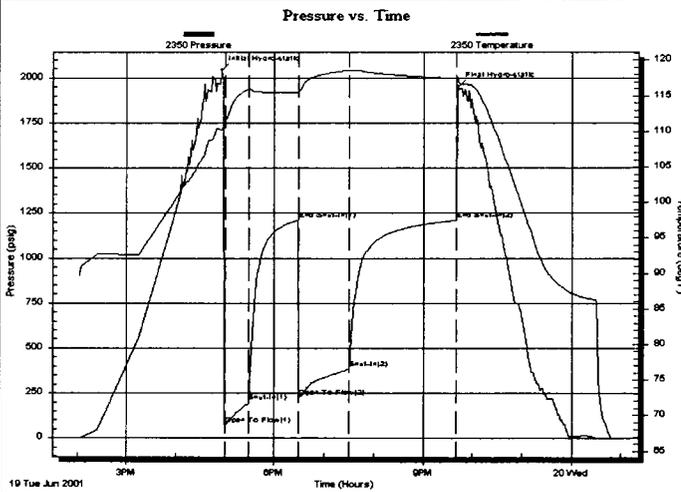
GENERAL INFORMATION:

Formation: **Morrow**
Deviated: **No** Whipstock: ft (KB) Test Type: Conventional Bottom Hole
Time Tool Opened: 17:00:40 Tester: Blake Wallace
Time Test Ended: 00:48:55 Unit No: 20

Interval: **4142.00 ft (KB) To 4178.00 ft (KB) (TVD)** Reference Elevations: 3522.00 ft (KB)
Total Depth: 4178.00 ft (KB) (TVD) 3511.00 ft (CF)
Hole Diameter: 7.78 inches Hole Condition: Fair KB to GR/CF: 11.00 ft

Serial #: 2350 Inside
Press@RunDepth: 385.12 psig @ 4144.00 ft (KB) Capacity: 7000.00 psig
Start Date: 2001.06.19 End Date: 2001.06.20 Last Calib.: 2001.01.20
Start Time: 14:02:41 End Time: 00:48:55 Time On Btm: 2001.06.19 @ 16:56:10
Time Off Btm: 2001.06.19 @ 21:42:10

TEST COMMENT: IF-strong blow BOB in 2 min died back to 4 inches in 30 min
ISl-no blow back
FF-fair blow built to 6 inches died back to 2.5 inches
FSl-no blow back



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2041.83 | 110.29 | Initial Hydro-static |
| 5 | 69.41 | 111.57 | Open To Flow (1) |
| 33 | 196.26 | 115.99 | Shut-In(1) |
| 93 | 1210.22 | 115.52 | End Shut-In(1) |
| 94 | 226.22 | 115.60 | Open To Flow (2) |
| 155 | 385.12 | 118.61 | Shut-In(2) |
| 285 | 1209.98 | 117.51 | End Shut-In(2) |
| 286 | 1950.99 | 117.15 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|--------------------------------------|--------------|
| 544.00 | Water | 2.68 |
| 124.00 | Oil gas cut w atery mud 5%g 5%o 30%w | 1.17.m |
| 62.00 | Mud | 0.87 |
| | | |
| | | |

Gas Rates

| | Choke(inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|--|---------------|-----------------|------------------|
| | | | |



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Anadarko Petroleum
PO Box 720 Elkhart KS 67950

ATTN: Jerry Caudle

USA Interstate A-1
16-34S-43W
Job Ticket: 14550 **DST#: 1**
Test Start: 2001.06.19 @ 14:02:41

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3522.00 ft | Diameter: 3.80 inches | Volume: 49.40 bbl | Tool Weight: 1800.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 30000.00 lb |
| Drill Collar: | Length: 607.00 ft | Diameter: 2.25 inches | Volume: 2.99 bbl | Weight to Pull Loose: 120000.0 lb |
| | | | <u>Total Volume: 52.39 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 17.00 ft | | | String Weight: Initial 90000.00 lb |
| Depth to Top Packer: | 4142.00 ft | | | Final 92000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 36.00 ft | | | |
| Tool Length: | 66.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|------------------------------------|
| C.O. Sub | 1.00 | | | 4113.00 | |
| S.I. Tool | 5.00 | | | 4118.00 | |
| Sampler | 3.00 | | | 4121.00 | |
| HMV | 5.00 | | | 4126.00 | |
| Jars | 5.00 | | | 4131.00 | |
| Safety Joint | 2.00 | | | 4133.00 | |
| Packer | 5.00 | | | 4138.00 | 30.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 4142.00 | |
| Stubb | 1.00 | | | 4143.00 | |
| Perforations | 1.00 | | | 4144.00 | |
| Recorder | 0.00 | 2350 | Inside | 4144.00 | |
| Perforations | 32.00 | | | 4176.00 | |
| Recorder | 0.00 | 13277 | Outside | 4176.00 | |
| Bullnose | 2.00 | | | 4178.00 | 36.00 Bottom Packers & Anchor |

Total Tool Length: 66.00



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FLUID SUMMARY

Anadarko Petroleum
PO Box 720 Elkhart KS 67950

ATTN: Jerry Caudle

USA Interstate A-1
16-34S-43W
Job Ticket: 14550 **DST#: 1**
Test Start: 2001.06.19 @ 14:02:41

Mud and Cushion Information

| | | | |
|----------------------------------|----------------------------|-----------------|-----------|
| Mud Type: Gel Chem | Cushion Type: | Oil API: | deg API |
| Mud Weight: 9.00 lb/gal | Cushion Length: ft | Water Salinity: | 29000 ppm |
| Viscosity: 50.00 sec/qt | Cushion Volume: bbl | | |
| Water Loss: 9.17 in ³ | Gas Cushion Type: | | |
| Resistivity: ohm.m | Gas Cushion Pressure: psig | | |
| Salinity: ppm | | | |
| Filter Cake: inches | | | |

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|--|---------------|
| 544.00 | Water | 2.675 |
| 124.00 | Oil gas cut w atery mud 5%g 5%o 30%w 60% | 1.165 |
| 62.00 | Mud | 0.870 |

Total Length: 730.00 ft Total Volume: 4.710 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: RW= .276 @ 63.4 deg Chlorides= 29000
.2 cubic feet of gas @ 550 psi 900 ML of 5% O 20% M 75% W

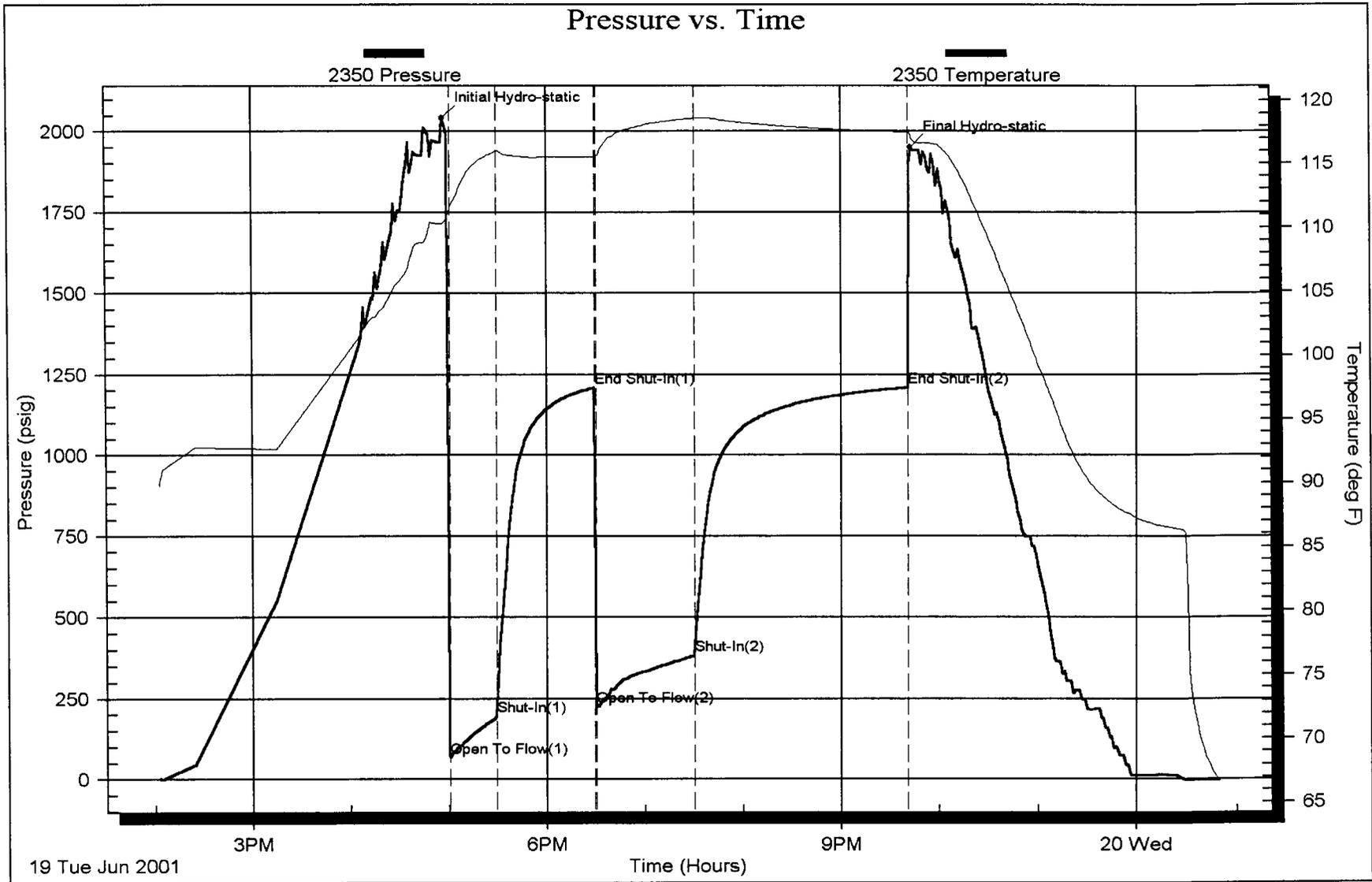
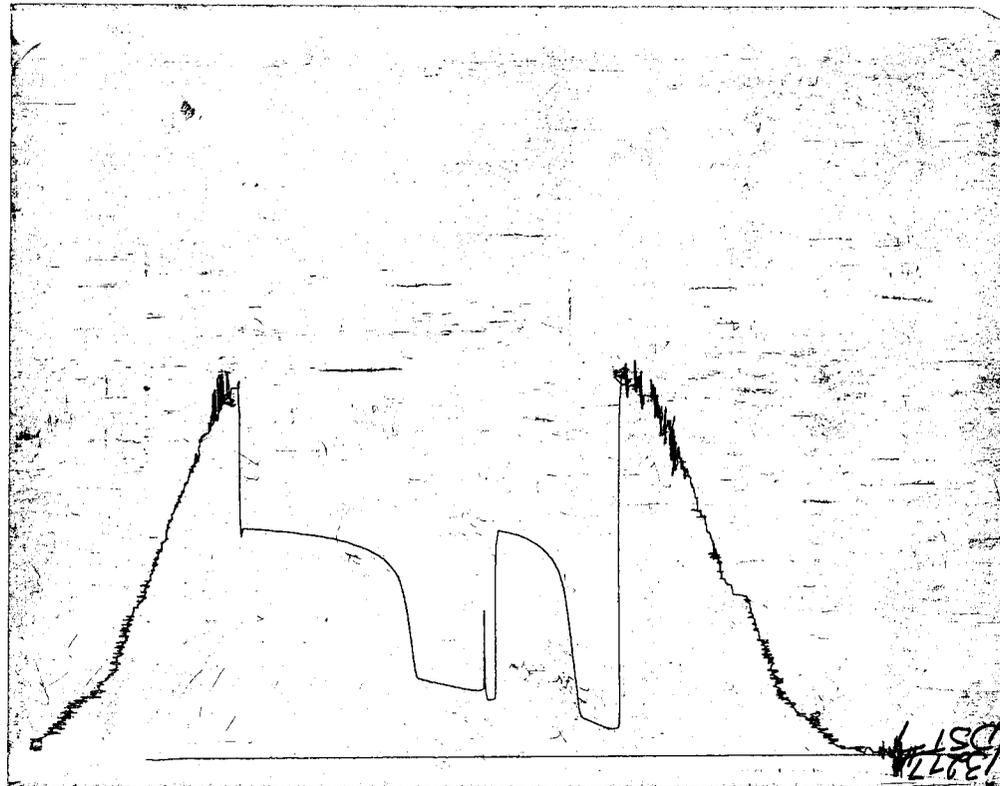


CHART PAGE

This is a photocopy of the actual AK-1 recorder chart



TRILOBITE TESTING L.L.C.

P.O. Box 362 - Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 14550 Date 6-19-01
Company Name ANADARCO PETRO
Lease USA INTERSTATE A-1 Test No. DST#1
County MOBLON Sec. 16 Twp. 34S Rng. 13W

SAMPLER RECOVERY

Gas _____ ML
Oil 5% _____ ML
Mud 20% _____ ML
Water 75% _____ ML
Other .7 cubic ft gas _____ ML
Pressure _____ PSI
Total _____ ML

PIT MUD ANALYSIS

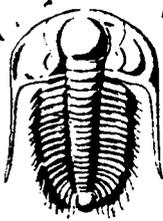
Chlorides _____ ppm.
Resistivity _____ ohms @ _____ F
Viscosity _____
Mud Weight _____
Filtrate _____
Other _____

SAMPLER ANALYSIS

Resistivity .276 ohms @ 63.4 F
Chlorides 29,000 ppm.
Gravity _____ corrected @ 60 F

PIPE RECOVERY

TOP
Resistivity _____ ohms @ _____ F
Chlorides _____ ppm.
MIDDLE
Resistivity _____ ohms @ _____ F
Chlorides _____ ppm.
BOTTOM
Resistivity _____ ohms @ _____ F
Chlorides _____ ppm.



TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 14550

Test Ticket

Well Name & No. USA Interstate A-1 Test No. 1 Date 6-19-01
 Company Anadarko Petroleum Inc. Zone Tested Upper Morrow
 Address 1106 Sherman Ave PO Box 720 Elkhardt, KY Elevation 3522 KB 3511 GL
 Co. Rep / Geo. Jerry CAUDLE Cont. Big A Right Est. Ft. of Pay 8 Por. 12 %
 Location: Sec. 16 Twp. 345 Rge. 48 W Co. Morton State KY
 No. of Copies _____ Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 4142 - 4178 Initial Str Wt./Lbs. 9000 Unseated Str Wt./Lbs. 92000
 Anchor Length 36' Wt. Set Lbs. 30000 Wt. Pulled Loose/Lbs. 120000
 Top Packer Depth 4158' Tool Weight 1800
 Bottom Packer Depth 4142' Hole Size — 7 7/8" Rubber Size — 6 3/4"
 Total Depth 4178' Wt. Pipe Run N/A Drill Collar Run 607
 Mud Wt. 9.0-9.1 LCM 60 Vis. 750 WL 9.2 Drill Pipe Size 4.5 Ft. Run 3522
 Blow Description IF - Strong blow BOB 2 min died back to 4 inches in 30 min.
ISI - No blow back
IF - Fair blow built to 6 inches died back to 2 1/2 inches (Flush tool after 10 min)
ISI - No blow back

| Recovery — Total Feet | GIP | Ft. in DC | Ft. in DP |
|-----------------------|--------------------------------|-----------------------------|------------------------------------|
| Rec. <u>62'</u> | Feet Of <u>Mud</u> | %gas _____ %oil _____ | %water <u>100</u> %mud _____ |
| Rec. <u>124'</u> | Feet Of <u>Oil/gas cut mud</u> | <u>3</u> %gas <u>5</u> %oil | <u>30</u> %water <u>60</u> %mud |
| Rec. <u>544'</u> | Feet Of <u>SALTWATER</u> | %gas _____ %oil _____ | <u>100</u> %water _____ %mud _____ |
| Rec. _____ | Feet Of _____ | %gas _____ %oil _____ | %water _____ %mud _____ |
| Rec. _____ | Feet Of _____ | %gas _____ %oil _____ | %water _____ %mud _____ |

BHT _____ °F Gravity _____ °API D@ _____ °F Corrected Gravity _____ °API
 RW .270 @ 63.4 °F Chlorides 29,000 ppm Recovery Chlorides _____ ppm System

| | AK-1 | Alpine | PSI Recorder No. | T-On Location |
|----------------------------------|------|-------------|-------------------------------|---|
| (A) Initial Hydrostatic Mud | | <u>2041</u> | <u>2356</u> | <u>11:45</u> |
| (B) First Initial Flow Pressure | | <u>69</u> | (depth) <u>4142</u> | T-Started <u>13:30</u> |
| (C) First Final Flow Pressure | | <u>196</u> | PSI Recorder No. <u>13277</u> | T-Open <u>16:37</u> |
| (D) Initial Shut-In Pressure | | <u>1210</u> | (depth) <u>4176</u> | T-Pulled <u>21:27</u> |
| (E) Second Initial Flow Pressure | | <u>226</u> | PSI Recorder No. _____ | T-Out <u>00:30</u> |
| (F) Second Final Flow Pressure | | <u>385</u> | PSI (depth) _____ | T-Off Location _____ |
| (G) Final Shut-in Pressure | | <u>1209</u> | PSI Initial Opening <u>30</u> | Test <input checked="" type="checkbox"/> Conversion <u>1800</u> |
| (Q) Final Hydrostatic Mud | | <u>1950</u> | PSI Initial Shut-in <u>60</u> | Jars <u>200</u> |
| | | | Final Flow <u>60</u> | Safety Joint <u>50</u> |
| | | | Final Shut-in <u>120</u> | Straddle _____ |
| | | | | Circ. Sub _____ |
| | | | | Sampler <u>200</u> |
| | | | | Extra Packer <u>1 shale 150</u> |
| | | | | Elec. Rec. <u>150</u> |
| | | | | Mileage <u>\$55.00</u> |
| | | | | Other <u>4 hrs Std by 120</u> |
| | | | | TOTAL PRICE \$ <u>\$1875.00</u> |

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Approved By Brands
 Our Representative Blake L Wallace

12:45
 1800
 200
 50
 150
 \$55.00
 4 hrs Std by 120
 \$1875.00