

1-15-30W

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Computer inventoried

Drill-Stem Test Data

Well Name ZIEGENBALG #2 Test No. 1 Date 4/22/92
 Company CASTLE RESOURCES, INC. Zone LKC-"H"
 Address 1200 E 27th #C HAYS KANSAS 67601-2120 Elevation 2660 K.B.
 Co. Rep./Geo. JERRY GREEN Cont. EMPHASIS RIG #8 Est. Ft. of Pay _____
 Location: Sec. 1 Twp. 15S Rge. 30W Co. GOVE State KS

Interval Tested 3835-3870 Drill Pipe Size 4.5 XH
 Anchor Length 35 Wt. Pipe I.D. - 2.7 Ft. Run _____
 Top Packer Depth 3830 Drill Collar - 2.25 Ft. Run _____
 Bottom Packer Depth 3835 Mud Wt. 9 lb/Gal.
 Total Depth 3870 Viscosity 44 Filtrate 11.6

Tool Open @ 1:04 AM Initial Blow WEAK 1" BLOW BUILDING TO 2"
 Final Blow VERY WEAK SURFACE BLOW TO 1/4"

Recovery - Total Feet 25 Flush Tool? NO

Rec. 25 Feet of SLTLY OIL CUT MUD-5%OIL/95%MUD
 Rec. _____ Feet of _____
 Rec. _____ Feet of _____
 Rec. _____ Feet of _____
 Rec. _____ Feet of _____

BHT 114 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
 RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

(A) Initial Hydrostatic Mud 1871 PSI AK1 Recorder No. 13337 Range 3975

(B) First Initial Flow Pressure 41.2 PSI @ (depth) 3839 w / Clock No. 19960

(C) First Final Flow Pressure 52.3 PSI AK1 Recorder No. 22150 Range 3925

(D) Initial Shut-in Pressure 830.2 PSI @ (depth) 3869 w / Clock No. 17640

(E) Second Initial Flow Pressure 52.3 PSI AK1 Recorder No. _____ Range _____

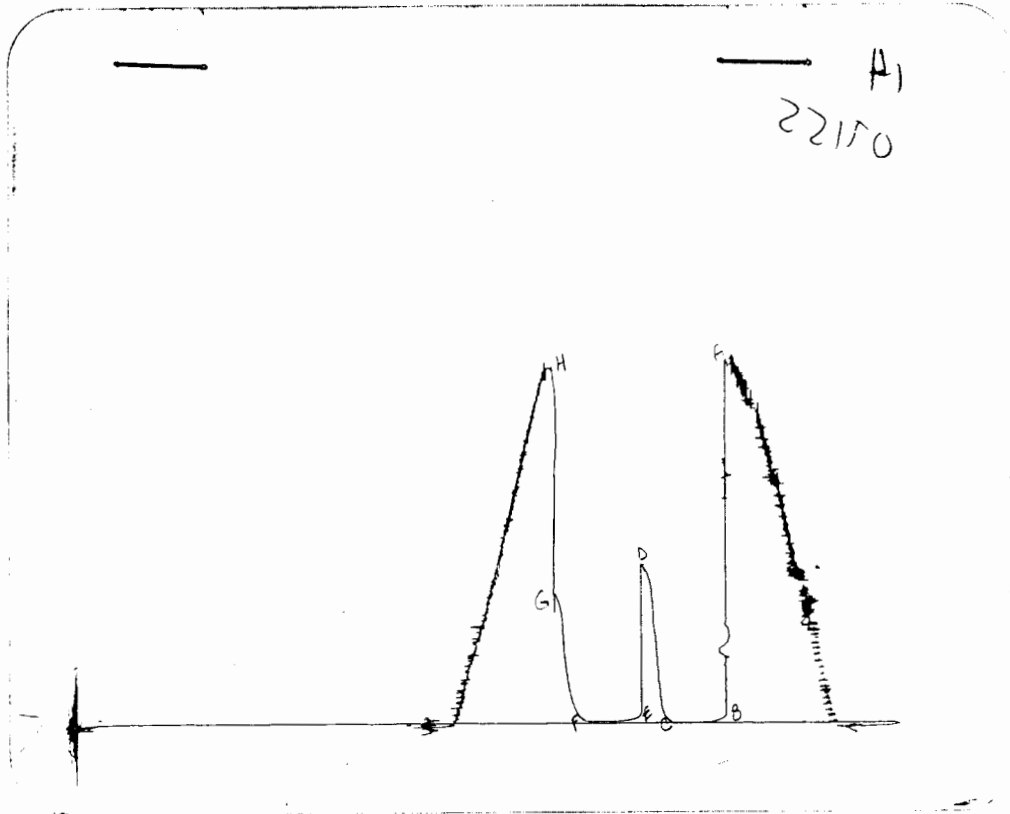
(F) Second Final Flow Pressure 52.3 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 677.4 PSI Initial Opening 30 Final Flow 30

(H) Final Hydrostatic Mud 1840 PSI Initial Shut-in 30 Final Shut-in 30

Our Representative PAUL SIMPSON

CHART PAGE



This is an actual photograph of recorder chart

| | FIELD READING | OFFICE READING |
|----------------------------------|------------------|-------------------|
| (A) INITIAL HYDROSTATIC MUD | 1865 | 1871.2 |
| (B) FIRST INITIAL FLOW PRESSURE | 39 | 41.2 |
| (C) FIRST FINAL FLOW PRESSURE | 49 | 52.3 |
| (D) INITIAL CLOSED-IN PRESSURE | 828 | 830.2 |
| (E) SECOND INITIAL FLOW PRESSURE | 49 | 52.3 |
| (F) SECOND FINAL FLOW PRESSURE | 49 | 52.3 |
| (G) FINAL CLOSED-IN PRESSURE | 671 | 677.4 |
| (H) FINAL HYDROSTATIC MUD | 1836 | 1840.2 |

TRILOBITE TESTING COMPANY L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No 4796

Well Name & No. Ziegenbaly #2 Test No. 1 Date 4-22-92
Company Castle Resources, Inc Zone Tested LKC'H
Address 1200 E 27th AC Hays KS 67601-2120 Elevation 2660 KB
Co. Rep./Geo. Jerry Green cont. Emphree #8 Est. Ft. of Pay _____
Location: Sec. 1 Twp. 15s Rge. 30w Co. Green State Ks
No. of Copies 3 Distribution Sheet _____ Yes _____ No Turnkey _____ Yes _____ No _____ Evaluation _____

Interval Tested 3835-3870 Drill Pipe Size 4 1/2 IH
Anchor Length 35 Top Choke — 1" _____ Bottom Choke — 3/4" _____
Top Packer Depth 3830 Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____
Bottom Packer Depth 3835 Wt. Pipe I.D. — 2.7 Ft. Run _____
Total Depth 3870 Drill Collar — 2.25 Ft. Run _____
Mud Wt. 9.0 lb/gal. Viscosity 44 Filtrate 11.6
Tool Open @ 1:04 AM Initial Blow weak 1" blow building to 2"

Final Blow very weak surface blow to 4"

| Recovery — Total Feet | Feet of Gas in Pipe | Flush Tool? |
|------------------------------------|--|-------------|
| Rec. <u>25</u> Feet Of <u>SOCM</u> | % gas <u>5</u> % oil _____ % water <u>95</u> % mud _____ | |
| Rec. _____ Feet Of _____ | % gas _____ % oil _____ % water _____ % mud _____ | |
| Rec. _____ Feet Of _____ | % gas _____ % oil _____ % water _____ % mud _____ | |
| Rec. _____ Feet Of _____ | % gas _____ % oil _____ % water _____ % mud _____ | |
| Rec. _____ Feet Of _____ | % gas _____ % oil _____ % water _____ % mud _____ | |

BHT 114 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

(A) Initial Hydrostatic Mud 1865 PSI Ak1 Recorder No. 13337 Range 3925
(B) First Initial Flow Pressure 39 PSI @ (depth) 3839 w/Clock No. 19900
(C) First Final Flow Pressure 49 PSI Ak1 Recorder No. 22150 Range 3925
(D) Initial Shut-In Pressure 828 PSI @ (depth) 3869 w/Clock No. 17640
(E) Second Initial Flow Pressure 49 PSI Ak1 Recorder No. _____ Range _____
(F) Second Final Flow Pressure 49 PSI @ (depth) _____ w/Clock No. _____
(G) Final Shut-In Pressure 671 PSI Initial Opening 30 Test _____
(H) Final Hydrostatic Mud 1838 PSI Initial Shut-In 30 Jars _____

TRILOBITE TESTING COMPANY SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUBSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

Final Flow 30 Safety Joint _____
Final Shut-In 30 Straddle _____
Circ. Sub _____
Sampler _____

Approved By _____

Our Representative Paul Simpson

Extra Packer _____

Other _____

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name ZIEGENBALG #2 Test No. 2 Date 4/22/92
Company CASTLE RESOURCES, INC. Zone MDL CREEK/PL
Address 1200 E 27th #C HAYS KANSAS 67601-2120 Elevation 2660 K.B.
Co. Rep./Geo. JERRY GREEN Cont. EMPHASIS RIG #8 Est. Ft. of Pay _____
Location: Sec. 1 Twp. 15S Rge. 30W Co. GOVE State KS

| | | | |
|---------------------|------------------|-----------------------------|--------------------|
| Interval Tested | <u>3960-4051</u> | Drill Pipe Size | <u>4.5 XH</u> |
| Anchor Length | <u>91</u> | Wt. Pipe I.D. - 2.7 Ft. Run | _____ |
| Top Packer Depth | <u>3955</u> | Drill Collar - 2.25 Ft. Run | _____ |
| Bottom Packer Depth | <u>3960</u> | Mud Wt. | <u>9.1</u> lb/Gal. |
| Total Depth | <u>4051</u> | Viscosity | <u>46</u> |
| | | Filtrate | <u>9.9</u> |

Tool Open @ 10:45 PM Initial Blow WEAK 1/2" BLOW BUILDING TO 3.5"

Final Blow VERY WEAK SURFACE BLOW BUILDING TO 1.5"

Recovery - Total Feet 62 Flush Tool? NO

Rec. 62 Feet of WATERY MUD W/ OIL SCUM @ TOP
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 117 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

(A) Initial Hydrostatic Mud 1934 PSI AK1 Recorder No. 13337 Range 3975

(B) First Initial Flow Pressure 31.2 PSI @ (depth) 4025 w / Clock No. 17640

(C) First Final Flow Pressure 41.2 PSI AK1 Recorder No. 22150 Range 3925

(D) Initial Shut-in Pressure 822.3 PSI @ (depth) 4050 w / Clock No. 19960

(E) Second Initial Flow Pressure 41.2 PSI AK1 Recorder No. _____ Range _____

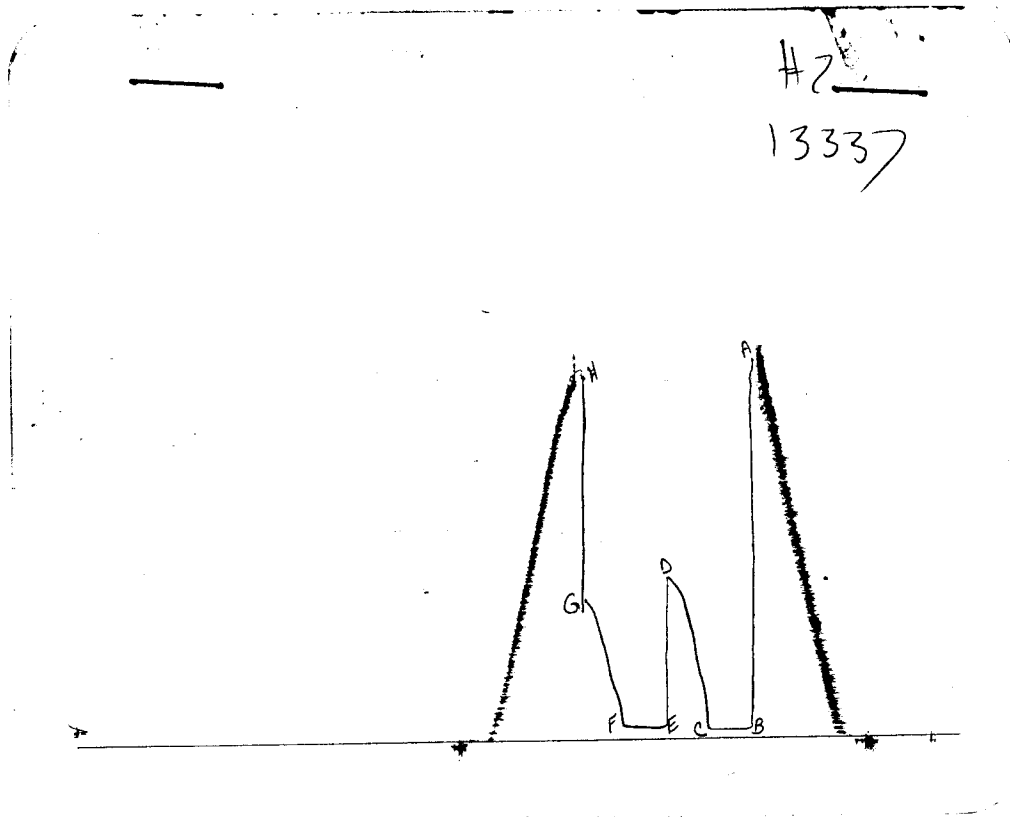
(F) Second Final Flow Pressure 47.8 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 714.6 PSI Initial Opening 30 Final Flow 30

(H) Final Hydrostatic Mud 1896 PSI Initial Shut-in 30 Final Shut-in 30

Our Representative PAUL SIMPSON

CHART PAGE



This is an actual photograph of recorder chart

| | FIELD READING | OFFICE READING |
|----------------------------------|------------------|-------------------|
| (A) INITIAL HYDROSTATIC MUD | 1931 | 1933.6 |
| (B) FIRST INITIAL FLOW PRESSURE | 29 | 31.2 |
| (C) FIRST FINAL FLOW PRESSURE | 38 | 41.2 |
| (D) INITIAL CLOSED-IN PRESSURE | 818 | 822.3 |
| (E) SECOND INITIAL FLOW PRESSURE | 38 | 41.2 |
| (F) SECOND FINAL FLOW PRESSURE | 46 | 47.8 |
| (G) FINAL CLOSED-IN PRESSURE | 711 | 714.6 |
| (H) FINAL HYDROSTATIC MUD | 1892 | 1895.6 |

TRILOBITE TESTING COMPANY L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No 4797

| | | | | | | | | | |
|----------------|-----------------------|--------------------|---------------------------|-----------------|---------|-----|-------|------------|----|
| Well Name & No | Ziegenbalg | Test No. | 2 | Date | 4-22-92 | | | | |
| Company | Castle Resources, Inc | Zone Tested | Middle Creek - Pleasanton | | | | | | |
| Address | | Elevation | 2660 | | | | | | |
| Co. Rep./Geo. | Jerry Green | cont. | Emphasis #8 | Est. Ft. of Pay | | | | | |
| Location: Sec. | 1 | Twp. | 15s | Rge. | 30w | co. | Grave | State | KS |
| No. of Copies | | Distribution Sheet | Yes | No | Turnkey | Yes | No | Evaluation | |

| | | | | | | |
|---------------------|-----------|-----------------|-----------------------------------|--------------|----------|-----|
| Interval Tested | 3960-4051 | Drill Pipe Size | 4 1/2 X 11 | | | |
| Anchor Length | a1 | Top Choke | 1" | Bottom Choke | 3/4" | |
| Top Packer Depth | 3955 | Hole Size | 77/8" | Rubber Size | 6 3/4" | |
| Bottom Packer Depth | 3960 | Wt. Pipe I.D. | 2.7 Ft. Run | | | |
| Total Depth | 4051 | Drill Collar | 2.25 Ft. Run | | | |
| Mud Wt. | 9.1 | lb/gal. | Viscosity | 46 | Filtrate | 9.9 |
| Tool Open @ | 10:45 PM | Initial Blow | weak 1/2" blow building to 3 1/2" | | | |

Final Blow very weak surface blow building to 1 1/2"

| Recovery - Total Feet | Feet of Gas in Pipe | Flush Tool? | | | | | | |
|-----------------------|---------------------|-------------|------|---------|-------|-------|---------|-------|
| 62 | | | Rec. | Feet Of | % gas | % oil | % water | % mud |
| | | | Rec. | Feet Of | % gas | % oil | % water | % mud |
| | | | Rec. | Feet Of | % gas | % oil | % water | % mud |
| | | | Rec. | Feet Of | % gas | % oil | % water | % mud |
| | | | Rec. | Feet Of | % gas | % oil | % water | % mud |

BHT 117 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

- (A) Initial Hydrostatic Mud 1931 PSI AK1 Recorder No. 13337 Range 3975
- (B) First Initial Flow Pressure 29 PSI @ (depth) 4025 w/Clock No. 17640
- (C) First Final Flow Pressure 38 PSI AK1 Recorder No. 22150 Range 3925
- (D) Initial Shut-In Pressure 818 PSI @ (depth) 4050 w/Clock No. 19960
- (E) Second Initial Flow Pressure 38 PSI AK1 Recorder No. _____ Range _____
- (F) Second Final Flow Pressure 46 PSI @ (depth) _____ w/Clock No. _____
- (G) Final Shut-In Pressure 711 PSI Initial Opening 30 Test _____
- (H) Final Hydrostatic Mud 1892 PSI Initial Shut-In 30 Jars _____

Final Flow 30 Safety Joint _____
Final Shut-In 30 Straddle _____
Circ. Sub _____
Sampler _____

Approved By _____
Our Representative Paul Simpson

Printcraft Printers - Hays, KS TOTAL PRICE \$ _____

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name ZIEGENBALG #2 Test No. 3 Date 4/23/92
Company CASTLE RESOURCES, INC. Zone MYRIK STATIO
Address 1200 E 27th #C HAYS KANSAS 67601-2120 Elevation 2660 K.B.
Co. Rep./Geo. JERRY GREEN Cont. EMPHASIS RIG #8 Est. Ft. of Pay 7
Location: Sec. 1 Twp. 15S Rge. 30W Co. GOVE State KS

Interval Tested 4145-4170 Drill Pipe Size 4.5 XH
Anchor Length 25 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 4140 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 4145 Mud Wt. 9.1 lb/Gal.
Total Depth 4170 Viscosity 50 Filtrate 8.8

Tool Open @ 5:06 PM Initial Blow 1/2" BLOW BUILDING TO BOTTOM OF BUCKET IN 17
MINUTES-(SURFACE BLOW BACK ON SHUTIN)
Final Blow 1" BLOW BUILDING TO BOTTOM OF BUCKET IN 9 MINUTES
(BLOW BACK BUILT TO 1/4")

Recovery - Total Feet 125 Flush Tool? NO

Rec. 45 Feet of CLEAN GASSY OIL-10%GAS/90%OIL
Rec. 80 Feet of GASSY MUD CUT OIL-10%GAS/60%OIL/30%MUD
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 119 °F Gravity 36 °API @ 70 °F Corrected Gravity 35 °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

(A) Initial Hydrostatic Mud 2065 PSI AK1 Recorder No. 13337 Range 3975

(B) First Initial Flow Pressure 19.8 PSI @ (depth) 4150 w / Clock No. 19960

(C) First Final Flow Pressure 35.6 PSI AK1 Recorder No. 22150 Range 3925

(D) Initial Shut-in Pressure 492.1 PSI @ (depth) 4169 w / Clock No. 17640

(E) Second Initial Flow Pressure 47.4 PSI AK1 Recorder No. _____ Range _____

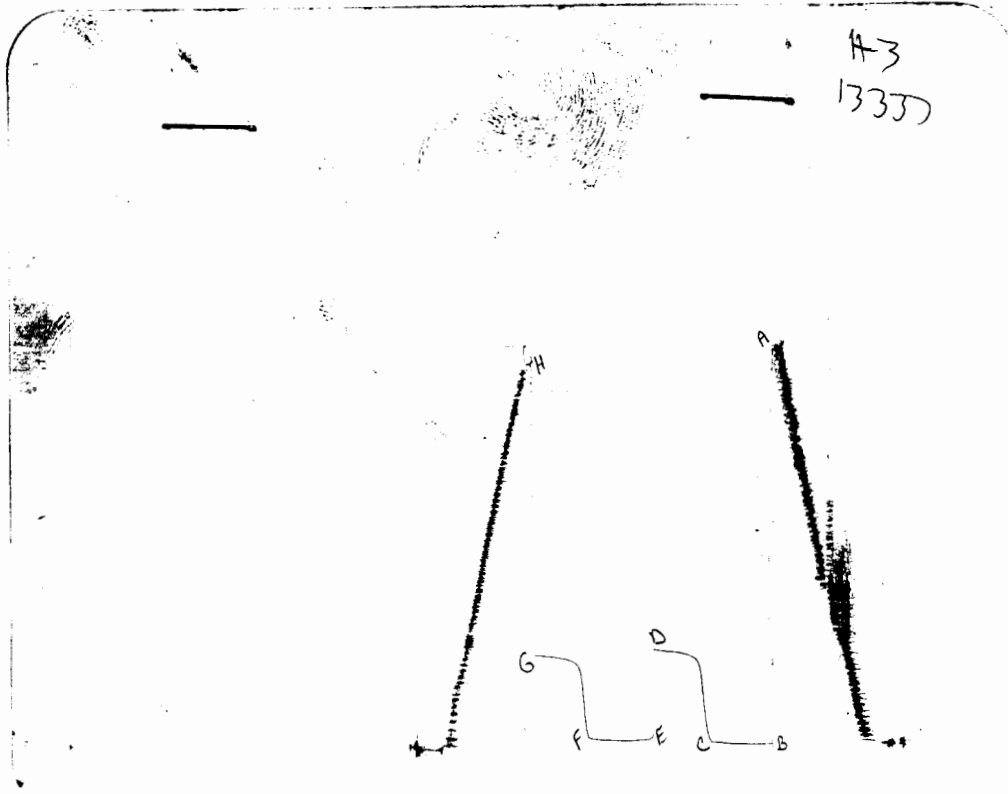
(F) Second Final Flow Pressure 61.3 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 476.3 PSI Initial Opening 45 Final Flow 45

(H) Final Hydrostatic Mud 2034 PSI Initial Shut-in 45 Final Shut-in 45

Our Representative PAUL SIMPSON

CHART PAGE

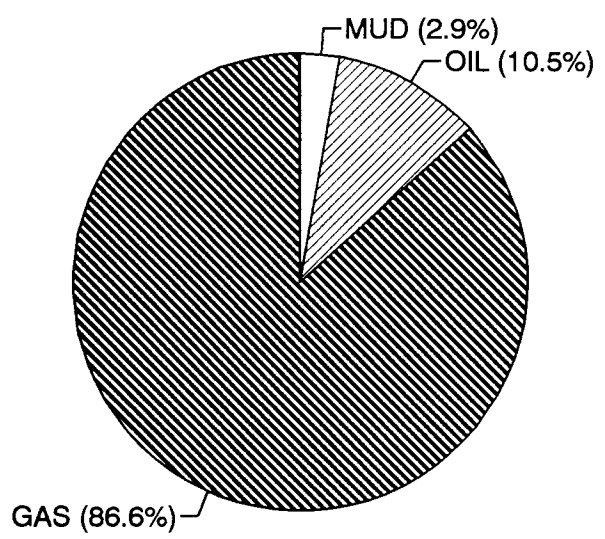


This is an actual photograph of recorder chart

| | FIELD READING | OFFICE READING |
|----------------------------------|------------------|-------------------|
| (A) INITIAL HYDROSTATIC MUD | 2060 | 2064.7 |
| (B) FIRST INITIAL FLOW PRESSURE | 20 | 19.8 |
| (C) FIRST FINAL FLOW PRESSURE | 38 | 35.6 |
| (D) INITIAL CLOSED-IN PRESSURE | 479 | 492.1 |
| (E) SECOND INITIAL FLOW PRESSURE | 48 | 47.4 |
| (F) SECOND FINAL FLOW PRESSURE | 76 | 61.3 |
| (G) FINAL CLOSED-IN PRESSURE | 450 | 476.3 |
| (H) FINAL HYDROSTATIC MUD | 2030 | 2033.7 |

| DST # | CALCULATED RECOVERY ANALYSIS | | | | | DRILL | PIPE | | |
|----------|------------------------------|-----------|----------|-------|------|---------|------|-------|------|
| | 3 | TICKET | | | | | 4798 | | |
| SAMPLE # | TOTAL FEET | GAS % | OIL FEET | OIL % | FEET | WATER % | FEET | MUD % | FEET |
| 1 | 715 | 100 | 715 | | 0 | 0 | 0 | 0 | 0 |
| 2 | 45 | 10 | 4.5 | 90 | 40.5 | 0 | 0 | | 0 |
| 3 | 80 | 10 | 8 | 60 | 48 | 0 | 0 | 30 | 24 |
| 4 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 |
| 5 | | | 0 | | 0 | | 0 | | 0 |
| TOTAL | 840 | 86.607143 | 727.5 | 10.5 | 88.5 | 0 | 0 | 2.86 | 24 |

HRS BBL/DAY
 BBL OIL= 1.25847 * 1.5 20.136
 BBL WATER= 0 * 0
 BBL MUD= 0.34128
 BBL GAS 10.34505



COMPUTER EVALUATION BY TRILOBITE TESTING, L.L.C.
 CASTLE RESOURCES, INC.

ZIEGENBALG #2 DST #3 6
 3 15S 30W GOVE KS

 ELEVATION: 2660 KB EST. PAY: 7 FT
 DATUM: -1491 ZONE TESTED: MYRICH ST
 TEST INTERVAL: 4145-4170 TIME INTERVALS: 45-45-45-45
 RECORDER DEPTH: 4150 VISCOSITY: 5.1424 CP
 BOTTOM HOLE TEMP: 119 HOLE SIZE: 7.875 IN

CUBIC FEET OF GAS IN PIPE: 57.09
 TOTAL FEET OF RECOVERY: 125 CORRECTED PIPE FILLUP: 166.30
 TOTAL BARRELS OF RECOVERY: 1.78 CORR. BARRELS OF RECOVERY: 2.36
 BARRELS IN DRILL PIPE: 1.78 API GRAVITY: 35
 BARRELS IN WEIGHT PIPE: 0.00 FLUID GRADIENT: 0.368
 BARRELS IN DRILL COLLARS 0.00
 GAS OIL RATIO: 32.115 CU.FT./BBL
 BUBBLE POINT PRESSURE: 5.434142

UNCORRECTED INITIAL PRODUCTION: 28.44 BBL/DAY
 INITIAL PRODUCTION CORRECTED TO FINAL FLOW PRESSURE: 37.84 BBL
 INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE: 22.19

 INITIAL SLOPE 122.67 PSI/CYCLE
 INITIAL P* 529 PSI

FINAL SLOPE 59.75 PSI/CYCLE
 FINAL P* 505 PSI

 TRANSMISSIBILITY 102.97 (MD.-FT./CP.)
 PERMEABILITY 75.65 (MD.)
 INDICATED FLOW CAPACITY 529.52 (MD.FT)
 PRODUCTIVITY INDEX 0.12 (BARRELS/DAY/PSI)
 DAMAGE RATIO 1.36
 RADIUS OF INVESTIGATION 82.51 (FT.)
 POTENTIOMETRIC SURFACE -319.35 (FT.)
 DRAWDOWN FACTOR 4.58 (%)
 THEORETICAL POTENTIAL FROM FINAL FLOW PRESSURE 51.41 BBL/DAY
 THEORETICAL POTENTIAL FROM PSEUDO STEADY FLOW STATE 30.15 BBL/DAY

INITIAL FLOW

RECORDER # 13309

DST #

| TIME (MIN) | PRESSURE | <> PRESSURE |
|------------|----------|-------------|
| 0 | 19.8 | 19.8 |
| 3 | 19.8 | 0 |
| 6 | 19.8 | 0 |
| 9 | 19.8 | 0 |
| 12 | 19.8 | 0 |
| 15 | 19.8 | 0 |
| 18 | 19.8 | 0 |
| 21 | 22.7 | 2.9 |
| 24 | 24.7 | 2 |
| 27 | 25.6 | 0.9 |
| 30 | 25.6 | 0 |
| 33 | 27.7 | 2.1 |
| 36 | 30.6 | 2.9 |
| 39 | 34.5 | 3.9 |
| 42 | 34.5 | 0 |
| 45 | 35.5 | 1 |

FINAL FLOW

RECORDER # 13309

DST #

| TIME (MIN) | PRESSURE | <> PRESSURE |
|------------|----------|-------------|
| 0 | 47.4 | 47.4 |
| 3 | 47.4 | 0 |
| 6 | 47.4 | 0 |
| 9 | 47.4 | 0 |
| 12 | 47.4 | 0 |
| 15 | 47.4 | 0 |
| 18 | 47.4 | 0 |
| 21 | 47.4 | 0 |
| 24 | 47.4 | 0 |
| 27 | 47.4 | 0 |
| 30 | 55.3 | 7.9 |
| 33 | 55.3 | 0 |
| 36 | 55.3 | 0 |
| 39 | 55.3 | 0 |
| 42 | 57.3 | 2 |
| 45 | 61.2 | 3.9 |

ZIEGENBALG #2 DST #3
 INITIAL SHUTIN
 45 FLOW TIME

 Slope 122.67 psi/cycle
 P * 529 psi

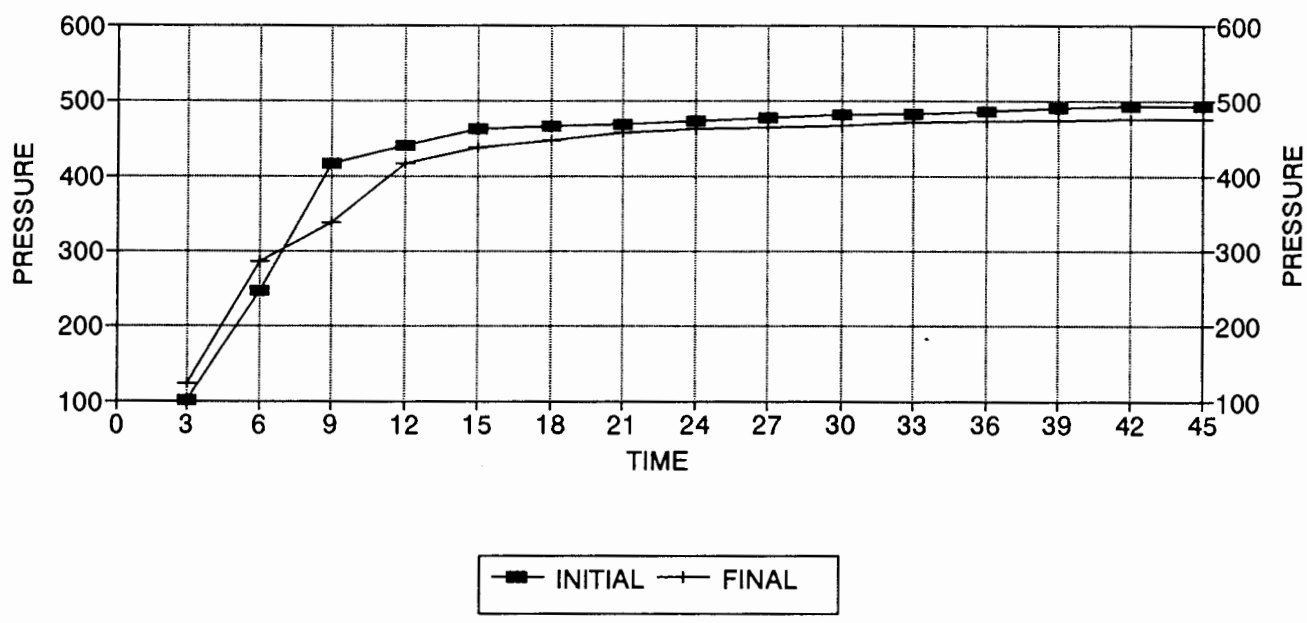
| TIME(MIN) | Pws (psi) | Log Horn T | <> PRESSURE | Horn T |
|-----------|-----------|---------------|----------------|--------|
| 3 | 100.7 | 1.204 | 100.7 | 16 |
| 6 | 246.1 | 0.929 | 145.4 | 9 |
| 9 | 417.1 | 0.778 | 171.0 | 6 |
| 12 | 440.7 | 0.677 | 23.6 | 5 |
| 15 | 463.4 | 0.602 | 22.7 | 4 |
| 18 | 466.4 | 0.544 | 3.0 | 4 |
| 21 | 468.4 | 0.497 | 2.0 | 3 |
| 24 | 472.3 | 0.459 | 3.9 | 3 |
| 27 | 477.3 | 0.426 | 5.0 | 3 |
| 30 | 481.2 | 0.398 | 3.9 | 3 |
| X 33 | 483.2 | 0.374 | 2.0 | 2 |
| 36 | 486.1 | 0.352 | 2.9 | 2 |
| 39 | 488.7 | 0.333 | 2.6 | 2 |
| 42 | 490.9 | 0.316 | 2.2 | 2 |
| X 45 | 492.1 | 0.301 | 1.2 | 2 |

ZIEGENBALG #2 DST #3
 FINAL SHUTIN
 90 TOTAL FLOW TIME

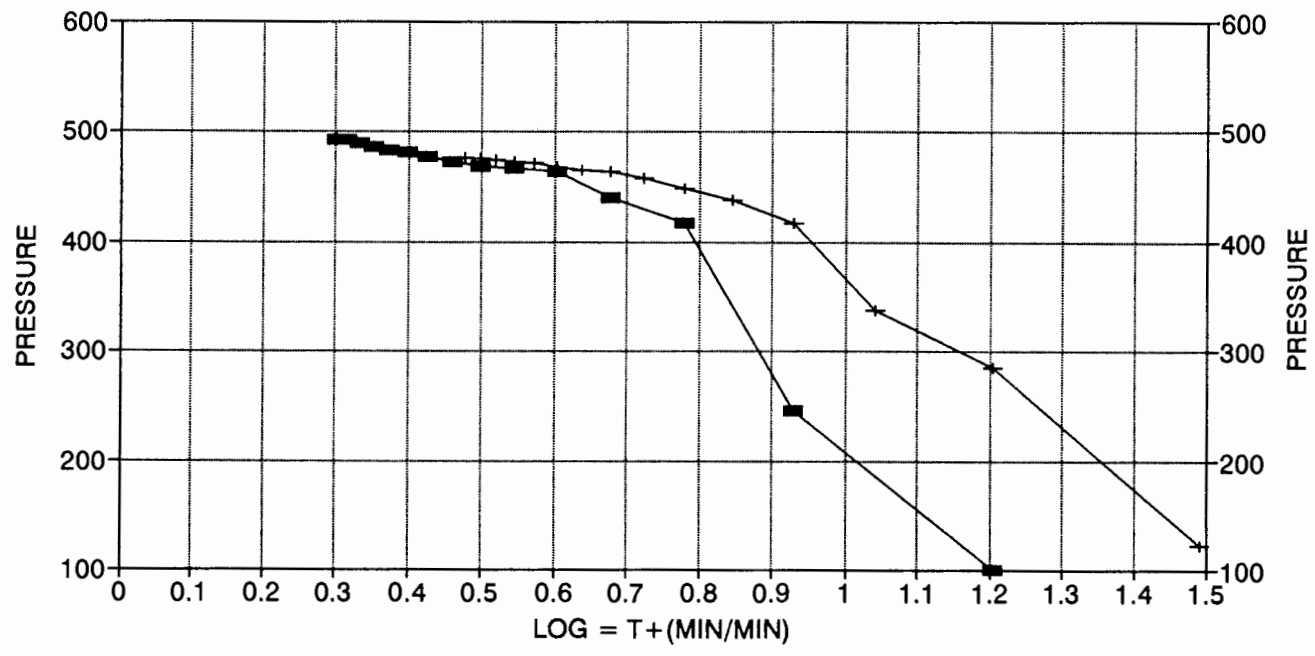
 Slope 59.75 psi/cycle
 P * 505 psi

| TIME(MIN) | Pws (psi) | Log Horn T | <> PRESSURE | Horn T |
|-----------|-----------|---------------|----------------|--------|
| 3 | 122.5 | 1.491 | 122.5 | 31 |
| 6 | 285.5 | 1.204 | 163.0 | 16 |
| 9 | 337.9 | 1.041 | 52.4 | 11 |
| 12 | 417.1 | 0.929 | 79.2 | 9 |
| 15 | 437.7 | 0.845 | 20.6 | 7 |
| 18 | 447.6 | 0.778 | 9.9 | 6 |
| 21 | 457.5 | 0.723 | 9.9 | 5 |
| 24 | 463.4 | 0.677 | 5.9 | 5 |
| 27 | 464.4 | 0.637 | 1.0 | 4 |
| 30 | 467.4 | 0.602 | 3.0 | 4 |
| 33 | 471.3 | 0.571 | 3.9 | 4 |
| X 36 | 472.3 | 0.544 | 1.0 | 4 |
| 39 | 474.3 | 0.520 | 2.0 | 3 |
| 42 | 475.3 | 0.497 | 1.0 | 3 |
| X 45 | 476.3 | 0.477 | 1.0 | 3 |

ZEIGENBALG #2 / DST #3 DELTA T DELTA P

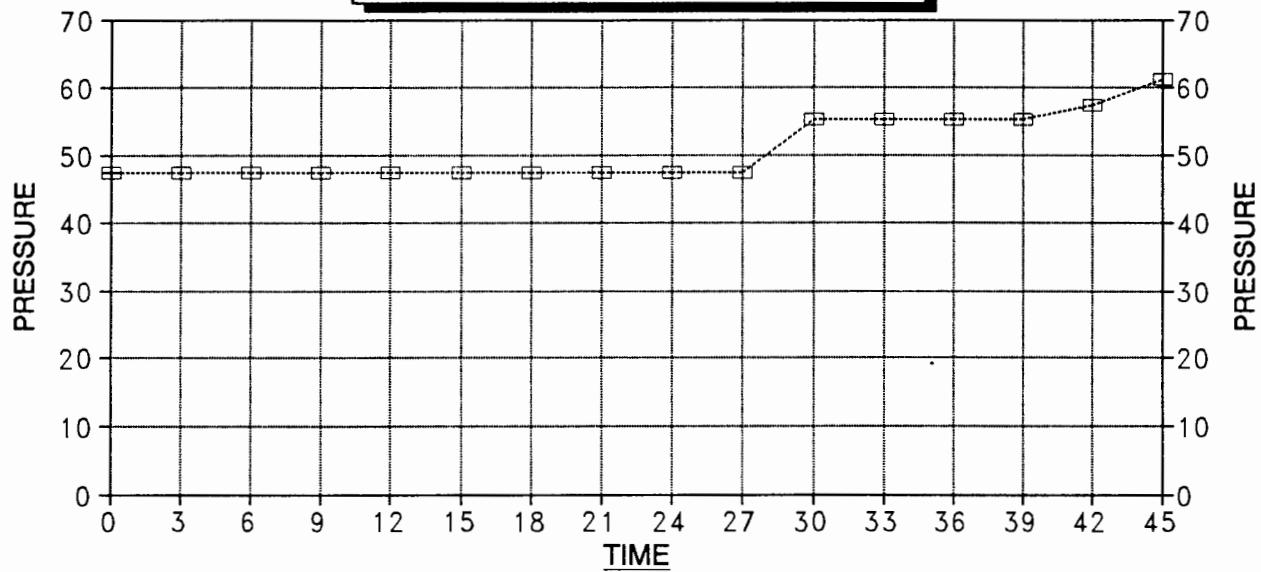


HORNER PLOT



DELTA T DELTA P

FINAL FLOW - DST #2



---□--- SUMNER #1-11

INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE:

22.194261

TRILOBITE TESTING COMPANY L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No 4798

Well Name & No. Ziegenbalg #2 Test No. 3 Date 4-23-92
 Company Castle Resources, Inc Zone Tested Myrick Station
 Address _____ Elevation 2660
 Co. Rep./Geo. Jerry Green cont. Emphasis #8 Est. Ft. of Pay 5
 Location: Sec. 1 Twp. 15S Rge. 30W Co. Wau State Ks
 No. of Copies 3 Distribution Sheet _____ Yes _____ No Turnkey _____ Yes _____ No _____ Evaluation _____

Interval Tested 4145-4170 Drill Pipe Size 4 1/2" XH
 Anchor Length 25 Top Choke — 1" _____ Bottom Choke — 3/4" _____
 Top Packer Depth 4140 Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____
 Bottom Packer Depth 4145 Wt. Pipe I.D. — 2.7 Ft. Run _____
 Total Depth 4170 Drill Collar — 2.25 Ft. Run _____

Mud Wt. 9.1 lb/gal. Viscosity 50 Filtrate 8.8
 Tool Open @ 5'10 6 1/2" Initial Blow 1/2" blow building to bottom of bucket in 17 minutes (surface blow back on shut in)
 Final Blow 1" blow building to bottom of bucket in 9 minutes (blow back built to bit)

Recovery — Total Feet 125 Feet of Gas in Pipe 715 Flush Tool? _____

| Rec. | Feet Of | Fluid | %gas | %oil | %water | %mud |
|-----------|---------------------|-----------|-----------|----------|-----------|----------|
| <u>45</u> | <u>cl glass oil</u> | <u>10</u> | <u>90</u> | <u>0</u> | <u>0</u> | <u>0</u> |
| <u>80</u> | <u>glass MCO</u> | <u>10</u> | <u>60</u> | <u>0</u> | <u>30</u> | <u>0</u> |
| _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ | _____ |

BHT 119 °F Gravity 36 °API @ 70 °F Corrected Gravity 35 °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

- (A) Initial Hydrostatic Mud 2060 PSI AK1 Recorder No. 13337 Range 3975
- (B) First Initial Flow Pressure 20 PSI @ (depth) 4150 w/Clock No. 19960
- (C) First Final Flow Pressure 38 PSI AK1 Recorder No. 22150 Range 3925
- (D) Initial Shut-In Pressure 479 PSI @ (depth) 4169 w/Clock No. 17640
- (E) Second Initial Flow Pressure 48 PSI AK1 Recorder No. _____ Range _____
- (F) Second Final Flow Pressure 76 PSI @ (depth) _____ w/Clock No. _____
- (G) Final Shut-In Pressure 450 PSI Initial Opening 45 Test _____
- (H) Final Hydrostatic Mud 2630 PSI Initial Shut-In 45 Jars _____

Final Flow 75 Safety Joint _____
 Final Shut-In 45 Straddle _____
 Circ. Sub _____
 Sampler _____

Approved By _____
 Our Representative Tom Simpson

Extra Packer _____
 Other evaluation
 TOTAL PRICE \$ _____

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