

# TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

## Drill-Stem Test Data

|                 |                                        |             |                |                 |              |
|-----------------|----------------------------------------|-------------|----------------|-----------------|--------------|
| Well Name & No. | JACOBSON #1-1<br>W000-JACOBS           | Test No.    | 1              | Date            | 1/12/91      |
| Company         | CHARTER PRODUCTIONS                    | Zone Tested | ST LOUIS       |                 |              |
| Address         | 400 KRESS ENERGY CNTR WICHITA KS 67202 |             | Elevation      | 2837            |              |
| Co. Rep./Geo.   | N/A                                    | Cont.       | MURFIN RIG #24 | Est. Ft. of Pay | 10           |
| Location: Sec.  | 1                                      | Twp.        | 30S            | Rge.            | 31W          |
|                 |                                        |             | Co.            | HASKELL         | State KANSAS |

|                     |           |              |                                |                     |          |     |
|---------------------|-----------|--------------|--------------------------------|---------------------|----------|-----|
| Interval Tested     | 5580-5601 | NW-NW-NE     | Drill Pipe Size                | 4.5" XH             |          |     |
| Anchor Length       | 21        |              | Top Choke — 1"                 | Bottom Choke — 3/4" |          |     |
| Top Packer Depth    | 5575      |              | Hole Size — 77/8"              | Rubber Size — 63/4" |          |     |
| Bottom Packer Depth | 5580      |              | Wt. Pipe I.D. — 2.7 Ft. Run    | 62                  |          |     |
| Total Depth         | 5601      |              | Drill Collar — 2.25 Ft. Run    | 408                 |          |     |
| Mud Wt.             | 9.1       | lb/gal.      | Viscosity                      | 52                  | Filtrate | 8.0 |
| Tool Open @         | 4:34 PM   | Initial Blow | SURFACE BLOW TO 3/4" IN 30 MIN |                     |          |     |

Final Blow SURFACE BLOW TO 1 1/2" IN 60 MINUTES

|                       |     |             |                                      |
|-----------------------|-----|-------------|--------------------------------------|
| Recovery — Total Feet | 90  | Flush Tool? |                                      |
| Rec.                  | 90  | Feet of     | OIL CUT MUD-5%OIL/95%MUD             |
| Rec.                  | 0   | Feet of     |                                      |
| Rec.                  | 0   | Feet of     |                                      |
| Rec.                  | 0   | Feet of     |                                      |
| Rec.                  | 0   | Feet of     |                                      |
| BHT                   | 136 | °F Gravity  | °API @ 0 °F Corrected Gravity 0 °API |

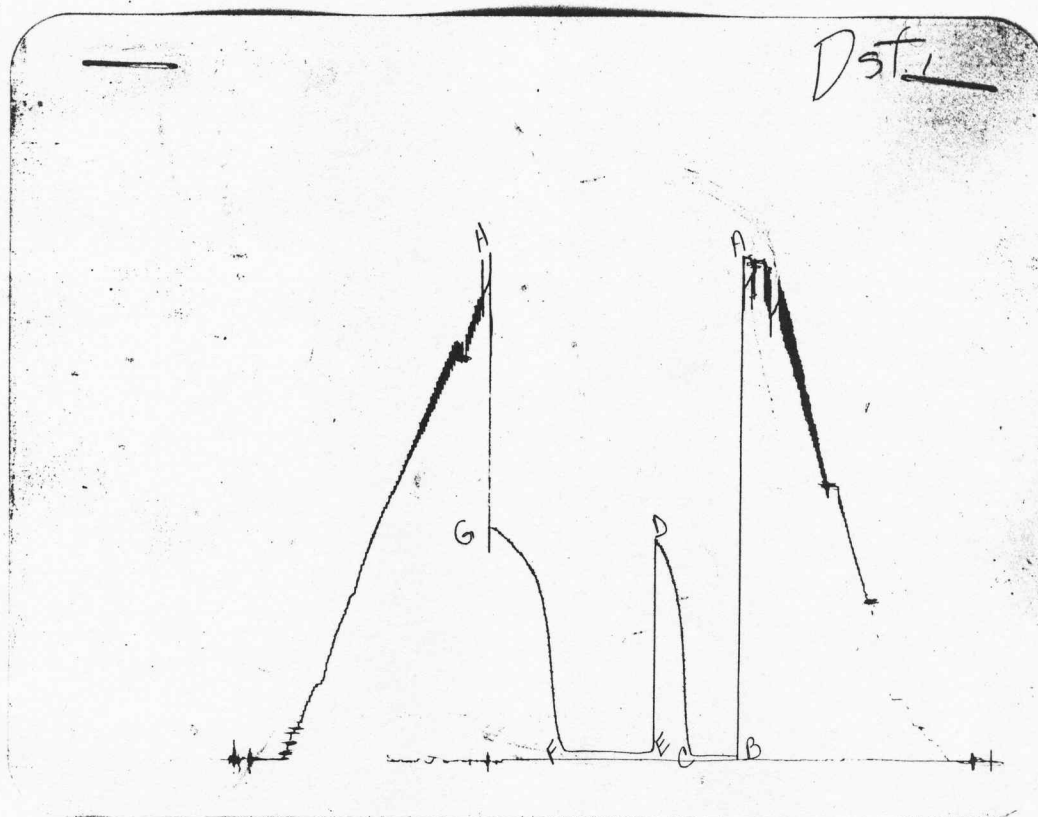
|                                  |        |              |                  |           |             |            |
|----------------------------------|--------|--------------|------------------|-----------|-------------|------------|
| RW                               | @      | °F Chlorides | ppm Recovery     | Chlorides | 4000        | ppm System |
| (A) Initial Hydrostatic Mud      | 2760.2 | PSI          | AK1 Recorder No. | 2023      | Range       | 4000       |
| (B) First Initial Flow Pressure  | 12.3   | PSI          | @ (depth)        | 5582      | w/Clock No. | 27573      |
| (C) First Final Flow Pressure    | 12.3   | PSI          | AK1 Recorder No. | 10248     | Range       | 4400       |
| (D) Initial Shut-In Pressure     | 1260.3 | PSI          | @ (depth)        | 5594      | w/Clock No. | 31152      |
| (E) Second Initial Flow Pressure | 24.5   | PSI          | AK1 Recorder No. | 0         | Range       | 0          |
| (F) Second Final Flow Pressure   | 36.9   | PSI          | @ (depth)        | 0         | w/Clock No. | 0          |
| (G) Final Shut-In Pressure       | 1324.8 | PSI          | Initial Opening  | 30        |             |            |
| (H) Final Hydrostatic Mud        | 2710.2 | PSI          | Initial Shut-In  | 30        |             |            |
|                                  |        |              | Final Flow       | 60        |             |            |
|                                  |        |              | Final Shut-In    | 60        |             |            |

MR MARK HERSKOWITZ

900

Our Representative

TOTAL PRICE \$

DST# 1RECORDER# 10248

This is an actual photograph of recorder chart.

| POINT                            | PRESSURE      |                |
|----------------------------------|---------------|----------------|
|                                  | Field Reading | Office Reading |
| (A) Initial Hydrostatic Mud      | 2754          | 2760.2         |
| (B) First Initial Flow Pressure  | 11            | 12.3           |
| (C) First Final Flow Pressure    | 11            | 12.3           |
| (D) Initial Closed-In Pressure   | 1254          | 1260.3         |
| (E) Second Initial Flow Pressure | 22            | 24.5           |
| (F) Second Final Flow Pressure   | 33            | 36.9           |
| (G) Final Closed-In Pressure     | 1323          | 1324.8         |
| (H) Final Hydrostatic Mud        | 2714          | 2710.2         |