

ORIGINAL

FORM MUST BE TYPED

CONFIDENTIAL

SIDE ONE

KANSAS RECEIVED  
MAY 21 1998  
5-21-97

STATE CORPORATION COMMISSION OF KANSAS  
OIL & GAS CONSERVATION DIVISION  
WELL COMPLETION FORM  
ACO-1 WELL HISTORY  
DESCRIPTION OF WELL AND LEASE

API NO. 15- 179-21090

County Sheridan  
50' W E  
E/2 -W/2 - NE - Sec. 4 Twp. 6S Rge 27 X W

3960 Feet from SN (circle one) Line of Section  
1700 Feet from EW (circle one) Line of Section

Footages Calculated from Nearest Outside Section Corner:  
NE, SE, NW or SW (circle one)

Lease Name Muirhead Farms Well # 1-4

Field Name Unknown

Producing Formation None

Elevation: Ground 2600 KB 2605

Total Depth 4110 PBTB

Amount of Surface Pipe Set and Cemented at 272 Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set Feet

If Alternate II completion, cement circulated from

feet depth to w/ sx cmt.

Drilling Fluid Management Plan D&A 9/4 12-1-97  
(Data must be collected from the Reserve Pit)

Chloride content 650 ppm Fluid volume 2500 bbls

Dewatering method used Evaporation

Location of fluid disposal if hauled offsite: KCC

Operator Name

Lease Name License No. CONFIDENTIAL

Quarter Sec. Twp. S Rng. E/W

County Docket No.

Operator: License # 30606

Name: Murfin Drilling Co., Inc.

Address 250 N. Water, Suite 300

City/State/Zip Wichita, KS 67202

Purchaser:

Operator Contact Person: Larry M. Jack

Phone (316) 267-3241

Contractor: Name: Murfin Drilling Co., Inc.

License: 30606

Wellsite Geologist: Roger Welty

Designate Type of completion  
 New Well  Re-Entry  Workover

Oil SWD SLOW Temp. Abd.  
Gas ENHR SIGW  
 Dry  Other (Core, WSW, Expl., Cathodic, etc)

If Workover/Re-Entry: old well info as follows

Operator: 9-16-98

Well Name: SEP 16 1998

Comp. Date Old Total Depth

Deepening  Re-perf.  Conv. to Inj/SWD

Plug Back  PBTB  
 Commingled  Docket No.  
 Dual Completion  Docket No.  
 Other (SWD or Inj?)  Docket No.

4/18/97 4/24/97  
Spud Date Date Reached TD Completion Date

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market, Room 2078, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information on side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

All requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Signature Larry M. Jack

Title Larry M. Jack, Production Manager Date 5/20/97

Subscribed and sworn to before me this 20 day of May 19 97.

Notary Public Kerran Redington

Date Commission Expires 2/6/98  
KERRAN REDINGTON  
NOTARY PUBLIC  
STATE OF KANSAS  
My Appt. Exp. 2-6-98

K.C.C. OFFICE USE ONLY  
F  Letter of Confidentiality Attached  
C  Wireline Log Received  
C  Geologist Report Received  
Distribution  
 KCC  SWD/Rep  NGPA  
KGS  Plug  Other  
(Specify)

Operator name **Murfin Drilling Co., Inc.**

Lease Name **Muirhead Farms**

Well # **1-4**

Sec. 4 Twp. 6 S Rge. 27

East  
 West

County **Sheridan**

**INSTRUCTIONS:** Show important tops and base of formations penetrated. Detail all cores. Report all drill stem tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface during test. Attach extra sheet if more space is needed. Attach copy of log.

|   |  |       |     |  |      |  |       |             |             |  |             |             |  |        |             |  |         |              |  |         |              |  |     |              |  |      |              |  |     |              |  |
|---|--|-------|-----|--|------|--|-------|-------------|-------------|--|-------------|-------------|--|--------|-------------|--|---------|--------------|--|---------|--------------|--|-----|--------------|--|------|--------------|--|-----|--------------|--|
| <p>Drill Stem Tests Taken (Attach Additional Sheets.) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Samples Sent to Geological Survey <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Cores Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Electric Log Run (Submit Copy.) List all E.Log <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> | <p><input checked="" type="checkbox"/> Log Formation (Top), Depth and Datums <input type="checkbox"/> Sample</p> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:30%;"></td> <td style="width:30%; text-align: center;">Top</td> <td style="width:40%;"></td> </tr> <tr> <td style="text-align: center;">Name</td> <td></td> <td style="text-align: center;">Datum</td> </tr> <tr> <td>T/Anhydrite</td> <td>2230' + 375</td> <td></td> </tr> <tr> <td>B/Anhydrite</td> <td>2262' + 343</td> <td></td> </tr> <tr> <td>Topeka</td> <td>3416' - 811</td> <td></td> </tr> <tr> <td>Heebner</td> <td>3606' - 1001</td> <td></td> </tr> <tr> <td>Toronto</td> <td>3633' - 1028</td> <td></td> </tr> <tr> <td>LKC</td> <td>3648' - 1043</td> <td></td> </tr> <tr> <td>B/KC</td> <td>3843' - 1238</td> <td></td> </tr> <tr> <td>ARB</td> <td>4096' - 1491</td> <td></td> </tr> </table> |       | Top |  | Name |  | Datum | T/Anhydrite | 2230' + 375 |  | B/Anhydrite | 2262' + 343 |  | Topeka | 3416' - 811 |  | Heebner | 3606' - 1001 |  | Toronto | 3633' - 1028 |  | LKC | 3648' - 1043 |  | B/KC | 3843' - 1238 |  | ARB | 4096' - 1491 |  |
|   | Top  |       |     |  |      |  |       |             |             |  |             |             |  |        |             |  |         |              |  |         |              |  |     |              |  |      |              |  |     |              |  |
| Name  |  | Datum |     |  |      |  |       |             |             |  |             |             |  |        |             |  |         |              |  |         |              |  |     |              |  |      |              |  |     |              |  |
| T/Anhydrite   | 2230' + 375  |       |     |  |      |  |       |             |             |  |             |             |  |        |             |  |         |              |  |         |              |  |     |              |  |      |              |  |     |              |  |
| B/Anhydrite   | 2262' + 343  |       |     |  |      |  |       |             |             |  |             |             |  |        |             |  |         |              |  |         |              |  |     |              |  |      |              |  |     |              |  |
| Topeka  | 3416' - 811  |       |     |  |      |  |       |             |             |  |             |             |  |        |             |  |         |              |  |         |              |  |     |              |  |      |              |  |     |              |  |
| Heebner   | 3606' - 1001   |       |     |  |      |  |       |             |             |  |             |             |  |        |             |  |         |              |  |         |              |  |     |              |  |      |              |  |     |              |  |
| Toronto   | 3633' - 1028   |       |     |  |      |  |       |             |             |  |             |             |  |        |             |  |         |              |  |         |              |  |     |              |  |      |              |  |     |              |  |
| LKC   | 3648' - 1043   |       |     |  |      |  |       |             |             |  |             |             |  |        |             |  |         |              |  |         |              |  |     |              |  |      |              |  |     |              |  |
| B/KC  | 3843' - 1238   |       |     |  |      |  |       |             |             |  |             |             |  |        |             |  |         |              |  |         |              |  |     |              |  |      |              |  |     |              |  |
| ARB   | 4096' - 1491   |       |     |  |      |  |       |             |             |  |             |             |  |        |             |  |         |              |  |         |              |  |     |              |  |      |              |  |     |              |  |

| CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used  |                   |                           |                 |               |                |              |                            |
|---|-------------------|---------------------------|-----------------|---------------|----------------|--------------|----------------------------|
| Report all strings set-conductor, surface, intermediate, production, etc. |                   |                           |                 |               |                |              |                            |
| Purpose of String   | Size Hole Drilled | Size Casing Set (In O.D.) | Weight Lbs./Ft. | Setting Depth | Type of Cement | # Sacks Used | Type and Percent Additives |
| Surface   | 12 1/4"           | 8 5/8"                    | 24#             | 272           | 60/40 Poz      | 175          | 3% cc, 2% gel              |
| Production  |                   |                           |                 |               |                |              |                            |
|   |                   |                           |                 |               |                |              |                            |

| ADDITIONAL CEMENTING/SQUEEZE RECORD    |               |                |              |                            |
|--|---------------|----------------|--------------|----------------------------|
| Purpose:                               | Depth Top/Btm | Type of Cement | # Sacks Used | Type and Percent Additives |
| <input type="checkbox"/> Perforate     |               |                |              |                            |
| <input type="checkbox"/> Protect Csg   |               |                |              |                            |
| <input type="checkbox"/> Plug Back TD  |               |                |              |                            |
| <input type="checkbox"/> Plug Off Zone |               |                |              |                            |

| Shots Per Foot | PERFORATION RECORD - Bridge Plugs Set/Type  |  | Acid, Fracture, Shot, Cement Squeeze Record |       |
|----------------|---|--|---|-------|
|                | Specify Footage of Each Interval Perforated |  | (Amount and Kind of Material Used)          | Depth |
|                |   |  |   |       |
|                |   |  |   |       |
|                |   |  |   |       |

|  |                     |                    |                        |  |           |       |  |
|--|---------------------|--------------------|------------------------|--|-----------|-------|--|
| TUBING RECORD                                      |                     |                    | Size                   | Set At   | Packer At | Liner | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Date of First, Resumed Production, SWD or Inj. D&A |                     |                    |                        | Producing Method   |           |       |  |
|  |                     |                    |                        | <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other |           |       |  |
| Estimated Production Per 24 Hours                  | Oil <i>N/A</i> Bbls | Gas <i>N/A</i> Mcf | Water <i>N/A</i> Bbls. | Gas-Oil Ratio  | Gravity   |       |  |

Disposition of Gas:  Vented  Sold  Used on Lease (If vented, submit ACO-18.)

**METHOD OF COMPLETION**

Open Hole  Perf.  Dually Comp.  Commingled  Other (Specify)

Production Interval \_\_\_\_\_

# ALLIED CEMENTING CO., INC. 8327

Federal Tax I.D. [REDACTED]

REMIT TO P.O. BOX 31  
RUSSELL, KANSAS 67665

**CONFIDENTIAL**

SERVICE POINT: Russell

**ORIGINAL**

|                           |                        |  |                  |                           |                            |                          |                           |
|---------------------------|------------------------|--|------------------|---------------------------|----------------------------|--------------------------|---------------------------|
| DATE <u>4-17-97</u>       | SEC. <u>4</u>          | TWP. <u>6 S</u>                            | RANGE <u>27W</u> | CALLED OUT <u>3:45 PM</u> | ON LOCATION <u>6:30 PM</u> | JOB START <u>9:15 PM</u> | JOB FINISH <u>9:45 PM</u> |
| LEASE <u>Muir Head</u>    | WELL# <u>FARMS 1-4</u> | LOCATION <u>Hoxie N. To Hwy #9 4 3/4 E</u> |                  |                           | COUNTY <u>Sheridan</u>     | STATE <u>KANSAS</u>      |                           |
| OLD OR (NEW) (Circle one) |                        |  |                  | <u>4 S</u>                |                            |                          |                           |

CONTRACTOR MURFIN DRILLING RIG #3

TYPE OF JOB SURFACE

HOLE SIZE 12 1/4 T.D. 272'

CASING SIZE 8 5/8 New 23# DEPTH 272'

TUBING SIZE \_\_\_\_\_ DEPTH \_\_\_\_\_

DRILL PIPE \_\_\_\_\_ DEPTH \_\_\_\_\_

TOOL \_\_\_\_\_ DEPTH \_\_\_\_\_

PRES. MAX \_\_\_\_\_ MINIMUM \_\_\_\_\_

MEAS. LINE \_\_\_\_\_ SHOE JOINT \_\_\_\_\_

CEMENT LEFT IN CSG. 15'

PERFS. \_\_\_\_\_

DISPLACEMENT 16 1/2 / BBL

EQUIPMENT \_\_\_\_\_

PUMP TRUCK CEMENTER Will

# 177 HELPER Will

BULK TRUCK DRIVER Dean R.

# 218 DRIVER \_\_\_\_\_

BULK TRUCK DRIVER \_\_\_\_\_

OWNER \_\_\_\_\_

CEMENT AMOUNT ORDERED 175 SK 60 2% Gel

3 % CC

|                      |             |   |              |               |
|----------------------|-------------|---|--------------|---------------|
| COMMON               | <u>10.5</u> | @ | <u>720</u>   | <u>756.00</u> |
| POZMIX               | <u>70</u>   | @ | <u>315</u>   | <u>220.50</u> |
| GEL                  | <u>3</u>    | @ | <u>950</u>   | <u>28.50</u>  |
| CHLORIDE             | <u>5</u>    | @ | <u>28.00</u> | <u>140.00</u> |
|                      |             | @ |              |               |
|                      |             | @ |              |               |
|                      |             | @ |              |               |
|                      |             | @ |              |               |
|                      |             | @ |              |               |
| HANDLING             |             | @ | <u>10.5</u>  | <u>183.75</u> |
| MILEAGE <u>6.0 m</u> |             | @ | <u>24</u>    | <u>420.00</u> |

RELEASED TOTAL 1748.75

RECEIVED COMM. DIVISION  
 MAY 21 11 47 03

REMARKS:

SEP 16 1998 SERVICE

*Cement CIRCULATED*

*Shanks*

FROM **CONFIDENTIAL**

|                            |   |                   |
|----------------------------|---|-------------------|
| PUMP TRUCK CHARGE          |   | <u>445.00</u>     |
| EXTRA FOOTAGE              | @ |                   |
| MILEAGE <u>6.0 m</u>       | @ | <u>285 171.00</u> |
| PLUG <u>1-8 5/8 WOODEN</u> | @ | <u>45.00</u>      |
|                            | @ |                   |
|                            | @ |                   |

TOTAL 661.00

**CONFIDENTIAL**

MAY 20

CHARGE TO: MURFIN DRILLING Co.

STREET 250 N Water, #300

CITY Wichita STATE Kan ZIP 67202

FLOAT EQUIPMENT

|       |   |       |
|-------|---|-------|
| _____ | @ | _____ |
| _____ | @ | _____ |
| _____ | @ | _____ |
| _____ | @ | _____ |
| _____ | @ | _____ |

TOTAL \_\_\_\_\_

To Allied Cementing Co., Inc.  
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read & understand the "TERMS AND CONDITIONS" listed on the reverse side.

TAX \_\_\_\_\_

TOTAL CHARGE \_\_\_\_\_

DISCOUNT \_\_\_\_\_ IF PAID IN 30 DAYS

SIGNATURE Kirk Van Pelt

PRINTED NAME \_\_\_\_\_

# ALLIED CEMENTING CO., INC. 5088

REMIT TO P.O. BOX 31  
RUSSELL, KANSAS 67665

## CONFIDENTIAL

SERVICE POINT:

Corkley

RECEIVED  
 KANSAS CORP COMM  
 1997 MAY 21 A 2:03

|                         |                  |   |                 |            |                            |                          |                        |
|-------------------------|------------------|---|-----------------|------------|----------------------------|--------------------------|------------------------|
| DATE <u>4-24-97</u>     | SEC. <u>4</u>    | TWP. <u>6</u>                                       | RANGE <u>27</u> | CALLED OUT | ON LOCATION <u>2:00 PM</u> | JOB START <u>2:15 PM</u> | JOB FINISH <u>2:15</u> |
| Muirhead Farms<br>LEASE | WELL# <u>1-4</u> | LOCATION <u>Hoxie N To Hwy #19 4 1/4 E Sheridan</u> |                 | COUNTY     | STATE                      | <u>KS</u>                |                        |

OLD OR NEW (Circle one)

|                                     |                    |
|-------------------------------------|--------------------|
| CONTRACTOR <u>Murfin Drlg Rig 3</u> | OWNER <u>Same</u>  |
| TYPE OF JOB <u>PTR</u>              | CEMENT             |
| HOLE SIZE <u>7 1/4"</u>             | T.D. <u>4075</u>   |
| CASING SIZE                         | DEPTH              |
| TUBING SIZE                         | DEPTH              |
| DRILL PIPE <u>4 1/2"</u>            | DEPTH <u>2250'</u> |
| TOOL                                | DEPTH              |
| PRES. MAX                           | MINIMUM            |
| MEAS. LINE                          | SHOE JOINT         |
| CEMENT LEFT IN CSG.                 |                    |
| PERFS.                              |                    |

AMOUNT ORDERED 190 sks 60/40 pos  
620 Gal 1/4" Flo Seal

|                 |                        |   |             |               |
|-----------------|------------------------|---|-------------|---------------|
| COMMON          | <u>114</u> sks         | @ | <u>7.20</u> | <u>820.80</u> |
| POZMIX          | <u>76</u> sks          | @ | <u>3.15</u> | <u>239.40</u> |
| GEL             | <u>10</u> sks          | @ | <u>9.50</u> | <u>95.00</u>  |
| CHLORIDE        |                        | @ |             |               |
| <u>Flo-Seal</u> | <u>48#</u>             | @ | <u>1.15</u> | <u>55.20</u>  |
|                 |                        | @ |             |               |
|                 |                        | @ |             |               |
|                 |                        | @ |             |               |
|                 |                        | @ |             |               |
|                 |                        | @ |             |               |
| HANDLING        | <u>190</u> sks         | @ | <u>1.05</u> | <u>199.50</u> |
| MILEAGE         | <u>4.6</u> per sk mile |   |             | <u>440.80</u> |

### EQUIPMENT

|              |                      |
|--------------|----------------------|
| PUMP TRUCK   | CEMENTER <u>Dean</u> |
| # <u>300</u> | HELPER <u>Wayne</u>  |
| BULK TRUCK   |                      |
| # <u>218</u> | DRIVER <u>Lennie</u> |
| BULK TRUCK   |                      |
| #            | DRIVER               |

# ORIGINAL

RELEASED

SEP 16 1998

TOTAL 1,850.80 FROM CONFIDENTIAL

### REMARKS:

### SERVICE

1st Plug 97 2250' w/ 25 sks  
2d Plug 97 1450' w/ 100 sks  
3rd Plug 97 320 w/ 40 sks  
40' w/ 10 sks  
1.5 sks in Rat Hole  
Thank you

|                      |                 |   |               |
|----------------------|-----------------|---|---------------|
| DEPTH OF JOB         | <u>2250'</u>    |   |               |
| PUMP TRUCK CHARGE    |                 |   | <u>550.00</u> |
| EXTRA FOOTAGE        |                 | @ |               |
| MILEAGE              | <u>5.8</u> mile | @ | <u>2.25</u>   |
| PLUG <u>Dry Hole</u> |                 | @ | <u>23.00</u>  |
|                      |                 | @ |               |
|                      |                 | @ |               |
| TOTAL                |                 |   | <u>738.30</u> |

KCC  
MAY 20  
CONFIDENTIAL

CHARGE TO: Murfin Drlg Co, Inc  
 STREET 250 N Water #300  
 CITY Wichita STATE Kan ZIP 67202

### FLOAT EQUIPMENT

|  |   |  |  |
|--|---|--|--|
|  | @ |  |  |
|  | @ |  |  |
|  | @ |  |  |
|  | @ |  |  |
|  | @ |  |  |

TOTAL \_\_\_\_\_

To Allied Cementing Co., Inc.  
 You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read & understand the "TERMS AND CONDITIONS" listed on the reverse side.

TAX \_\_\_\_\_  
 TOTAL CHARGE \_\_\_\_\_  
 DISCOUNT \_\_\_\_\_ IF PAID IN 30 DAYS

SIGNATURE

Charles Canfield

CONFIDENTIAL

ORIGINAL

**WELL NAME:** Muirhead Farms 1-4  
**COMPANY:** Murfin Drilling Company  
**LOCATION:** 4-6S-27W  
Sheridan County Kansas  
**DATE:** 04/30/97

**WELL FILE**

RELEASED

SEP 16 1998

FROM CONFIDENTIAL

RCC

MAY 20

CONFIDENTIAL

RECEIVED  
KANSAS CORP COMM  
1997 MAY 21 A 2:03

CONFIDENTIAL

TRILOBITE TESTING L.L.C.

ORIGINAL

OPERATOR : Murfin Drilling DATE 4-21-97  
 WELL NAME: Muirhead Farms 1-4 KB 2605.00 ft TICKET NO: 9927 DST #1  
 LOCATION : 4-6S-27W GR 2600.00 ft FORMATION: KC  
 INTERVAL : 3663.00 To 3687.00 ft TD 3687.00 ft TEST TYPE: CONV.

RECORDER DATA

| Mins              | Field  | 1      | 2      | 3   | 4   | TIME DATA-----         |
|-------------------|--------|--------|--------|-----|-----|------------------------|
| PF 30 Rec.        | 11057  | 11057  | 2342   |     |     | PF Fr. 2349 to 1219 hr |
| SI 45 Range(Psi ) | 4500.0 | 4500.0 | 4995.0 | 0.0 | 0.0 | IS Fr. 1219 to 0104 hr |
| SF 45 Clock(hrs)  | 12 hr  | 12 hr  | Elec   |     |     | SF Fr. 0104 to 0149 hr |
| FS 45 Depth(ft )  | 3664.0 | 3364.0 | 3682.0 | 0.0 | 0.0 | FS Fr. 0149 to 0234 hr |

|                | Field  | 1      | 2      | 3   | 4   |                               |
|----------------|--------|--------|--------|-----|-----|-------------------------------|
| A. Init Hydro  | 1690.0 | 1715.0 | 1667.0 | 0.0 | 0.0 | T STARTED 2212 hr             |
| B. First Flow  | 56.0   | 68.0   | 15.0   | 0.0 | 0.0 | T ON BOTM 2345 hr             |
| B1. Final Flow | 44.0   | 55.0   | 21.0   | 0.0 | 0.0 | T OPEN 2349 hr                |
| C. In Shut-in  | 917.0  | 915.0  | 922.0  | 0.0 | 0.0 | T PULLED 0234 hr              |
| D. Init Flow   | 56.0   | 79.0   | 24.0   | 0.0 | 0.0 | T OUT 0440 hr                 |
| E. Final Flow  | 44.0   | 67.0   | 30.0   | 0.0 | 0.0 |                               |
| F. Fl Shut-in  | 750.0  | 752.0  | 771.0  | 0.0 | 0.0 | TOOL DATA-----                |
| G. Final Hydro | 1679.0 | 1699.0 | 1657.0 | 0.0 | 0.0 | Tool Wt. 4000.00 lbs          |
| Inside/Outside | I      | I      | O      |     |     | Wt Set On Packer 26000.00 lbs |
|                |        |        |        |     |     | Wt Pulled Loose 93000.00 lbs  |
|                |        |        |        |     |     | Initial Str Wt 72000.00 lbs   |
|                |        |        |        |     |     | Unseated Str Wt 72000.00 lbs  |
|                |        |        |        |     |     | Bot Choke 0.75 in             |
|                |        |        |        |     |     | Hole Size 7.88 in             |
|                |        |        |        |     |     | D Col. ID 0.00 in             |
|                |        |        |        |     |     | D. Pipe ID 0.00 in            |
|                |        |        |        |     |     | D.C. Length 505.00 ft         |
|                |        |        |        |     |     | D.P. Length 3168.00 ft        |

RECOVERY

Tot Fluid 15.00 ft of 15.00 ft in DC and 0.00 ft in DP  
 15.00 ft of drilling mud 100 % mud  
 0.00 ft of  
 0.00 ft of  
 0.00 ft of  
 0.00 ft of  
 0.00 ft of  
 0.00 ft of  
 0.00 ft of

SALINITY 0.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

Initial Flow:  
1/4" blow - blew throughout

Initial Shut-in:  
No return

Final Flow:  
Bubble to open tool - weak surface  
blow in 38 minutes - blew rest of  
open

Final Shut-in:  
No return

SAMPLES:  
SENT TO:

NO  
MAY 20  
CONFIDENTIAL

RELEASED

SEP 16 1998

FROM CONFIDENTIAL

Test Successful: Y

MUD DATA-----

|                |               |
|----------------|---------------|
| Mud Type       | chem          |
| Weight         | 8.70 lb/cf    |
| Vis.           | 51.00 S/L     |
| W.L.           | 8.40 in3      |
| F.C.           | 0.00 in       |
| Mud Drop N     |               |
| Amt. of fill   | 0.00 ft       |
| Btm. H. Temp.  | 111.00 F      |
| Hole Condition | good          |
| % Porosity     | 0.00          |
| Packer Size    | 6.75 in       |
| No. of Packers | 2             |
| Cushion Amt.   | 0.00          |
| Cushion Type   |               |
| Reversed Out N |               |
| Tool Chased N  |               |
| Tester         | Shane McBride |
| Co. Rep.       | Roger Welty   |
| Contr.         | Murfin        |
| Rig #          | 3             |
| Unit #         |               |
| Pump T.        |               |

\*\*\* TOOL DIAGRAM \*\*\* CONV.

WELL NAME: Muirhead Farms 1-4

LOCATION : 4-6S-27W

TICKET No. 9927 D.S.T. No. 1 DATE 4-21-97

TOTAL TOOL TO BOTTOM OF TOP PACKERS ..... 20

INTERVAL TOOL .....

BOTTOM PACKERS AND ANCHOR ..... 24

TOTAL TOOL ..... 44

DRILL COLLAR ANCHOR IN INTERVAL .....

|                   |        |        |       |
|-------------------|--------|--------|-------|
| D.C. ANCHOR STND. | Stands | Single | Total |
|-------------------|--------|--------|-------|

|                   |        |        |       |
|-------------------|--------|--------|-------|
| D.P. ANCHOR STND. | Stands | Single | Total |
|-------------------|--------|--------|-------|

TOTAL ASSEMBLY ..... 44

|                   |        |   |        |   |       |     |
|-------------------|--------|---|--------|---|-------|-----|
| D.C. ABOVE TOOLS. | Stands | 8 | Single | 1 | Total | 505 |
|-------------------|--------|---|--------|---|-------|-----|

|                   |        |    |        |       |      |
|-------------------|--------|----|--------|-------|------|
| D.P. ABOVE TOOLS. | Stands | 51 | Single | Total | 3168 |
|-------------------|--------|----|--------|-------|------|

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 3717

TOTAL DEPTH ..... 3687

TOTAL DRILL PIPE ABOVE K.B. .... 30

REMARKS:

|                        |      |
|------------------------|------|
| P.O. SUB               |      |
| C.O. SUB 1'            | 3643 |
| S.I. TOOL 5'           | 3649 |
|                        |      |
| HMV 5'                 | 3654 |
| JARS n/a               |      |
|                        |      |
| SAFETY JOINT n/a       |      |
| ■ PACKER top           | 3658 |
| ■ PACKER bottom        | 3663 |
| DEPTH                  |      |
| STUBB 1'               | 3664 |
| ANCHOR alpine recorder | 3664 |
|                        |      |
| 18' perf               | 3682 |
|                        |      |
|                        |      |
|                        |      |
| T.C.                   |      |
| DEPTH                  |      |
|                        |      |
|                        |      |
|                        |      |
|                        |      |
| AK-1 recorder          | 3682 |
|                        |      |
| BULLNOSE 5' bullplug   | 3687 |
| T.D.                   | 3687 |

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9927 DST #1 Murihead Farms 1-4 Murfin Drilg.

DATE: 04/21/97 TIME: 21:15:44

|                      | Time  | Pressure<br>PSig | delta P<br>PSig | Temp.<br>DEG F | (T+dT)/dT | P <sup>2</sup> /10 <sup>6</sup> |
|----------------------|-------|------------------|-----------------|----------------|-----------|---------------------------------|
| ***** Initial Hydro. | 95.00 | 1667.0           | 0.0             | 101.74         |           |                                 |
| ***** Start Flow 1   | 0.00  | 15.3             | 0.0             | 102.40         |           |                                 |
|                      | 1.00  | 15.9             | 0.6             | 102.67         |           |                                 |
|                      | 2.00  | 16.5             | 1.3             | 102.89         |           |                                 |
|                      | 3.00  | 16.8             | 1.5             | 103.08         |           |                                 |
|                      | 4.00  | 17.4             | 2.1             | 103.23         |           |                                 |
|                      | 5.00  | 17.8             | 2.5             | 103.34         |           |                                 |
|                      | 6.00  | 18.1             | 2.9             | 103.44         |           |                                 |
|                      | 7.00  | 19.2             | 3.9             | 103.53         |           |                                 |
|                      | 8.00  | 18.9             | 3.6             | 103.60         |           |                                 |
|                      | 9.00  | 19.2             | 3.9             | 103.65         |           |                                 |
|                      | 10.00 | 19.8             | 4.5             | 103.70         |           |                                 |
|                      | 11.00 | 19.8             | 4.5             | 103.74         |           |                                 |
|                      | 12.00 | 20.1             | 4.9             | 103.78         |           |                                 |
|                      | 13.00 | 20.3             | 5.0             | 103.81         |           |                                 |
|                      | 14.00 | 20.9             | 5.6             | 103.86         |           |                                 |
|                      | 15.00 | 20.5             | 5.2             | 103.92         |           |                                 |
|                      | 16.00 | 20.6             | 5.4             | 103.99         |           |                                 |
|                      | 17.00 | 20.9             | 5.6             | 104.08         |           |                                 |
|                      | 18.00 | 21.2             | 6.0             | 104.17         |           |                                 |
|                      | 19.00 | 21.1             | 5.8             | 104.26         |           |                                 |
|                      | 20.00 | 21.4             | 6.1             | 104.34         |           |                                 |
|                      | 21.00 | 21.6             | 6.3             | 104.43         |           |                                 |
|                      | 22.00 | 21.6             | 6.3             | 104.52         |           |                                 |
|                      | 23.00 | 21.7             | 6.5             | 104.60         |           |                                 |
|                      | 24.00 | 21.6             | 6.3             | 104.68         |           |                                 |
|                      | 25.00 | 21.6             | 6.3             | 104.76         |           |                                 |
|                      | 26.00 | 21.6             | 6.3             | 104.84         |           |                                 |
|                      | 27.00 | 21.8             | 6.5             | 104.92         |           |                                 |
|                      | 28.00 | 21.5             | 6.2             | 105.00         |           |                                 |
|                      | 29.00 | 21.3             | 6.0             | 105.10         |           |                                 |
| ***** End Flow 1     | 30.00 | 21.6             | 6.3             | 105.19         |           |                                 |
| ***** Start Shutin 1 | 0.00  | 21.6             | 0.0             | 105.19         | 0.0000    | 0.000                           |
|                      | 1.00  | 34.7             | 13.1            | 105.27         | 31.0000   | 0.001                           |
|                      | 2.00  | 55.3             | 33.7            | 105.35         | 16.0000   | 0.003                           |
|                      | 3.00  | 84.7             | 63.1            | 105.43         | 11.0000   | 0.007                           |
|                      | 4.00  | 156.1            | 134.5           | 105.50         | 8.5000    | 0.024                           |
|                      | 5.00  | 222.7            | 201.2           | 105.56         | 7.0000    | 0.050                           |
|                      | 6.00  | 294.0            | 272.4           | 105.62         | 6.0000    | 0.086                           |
|                      | 7.00  | 360.8            | 339.2           | 105.66         | 5.2857    | 0.130                           |
|                      | 8.00  | 420.1            | 398.5           | 105.71         | 4.7500    | 0.176                           |
|                      | 9.00  | 470.2            | 448.7           | 105.74         | 4.3333    | 0.221                           |
|                      | 10.00 | 513.8            | 492.2           | 105.79         | 4.0000    | 0.264                           |
|                      | 11.00 | 551.7            | 530.2           | 105.82         | 3.7273    | 0.304                           |
|                      | 12.00 | 584.7            | 563.2           | 105.85         | 3.5000    | 0.342                           |
|                      | 13.00 | 613.8            | 592.2           | 105.89         | 3.3077    | 0.377                           |
|                      | 14.00 | 639.6            | 618.0           | 105.92         | 3.1429    | 0.409                           |
|                      | 15.00 | 662.8            | 641.2           | 105.94         | 3.0000    | 0.439                           |
|                      | 16.00 | 683.8            | 662.2           | 105.96         | 2.8750    | 0.468                           |
|                      | 17.00 | 702.7            | 681.2           | 105.99         | 2.7647    | 0.494                           |
|                      | 18.00 | 719.9            | 698.4           | 106.03         | 2.6667    | 0.518                           |



ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9927 DST #1 Murihead Farms 1-4 Murfin Drilg.

DATE: 04/21/97

TIME: 21:15:44

| Time                | Pressure<br>PSig | delta P<br>PSig | Temp.<br>DEG F | (T+dT)/dT | P <sup>2</sup> /10 <sup>6</sup> |
|---------------------|------------------|-----------------|----------------|-----------|---------------------------------|
| 19.00               | 735.5            | 714.0           | 106.05         | 2.5789    | 0.541                           |
| 20.00               | 750.0            | 728.4           | 106.07         | 2.5000    | 0.562                           |
| 21.00               | 763.1            | 741.6           | 106.10         | 2.4286    | 0.582                           |
| 22.00               | 775.5            | 753.9           | 106.12         | 2.3636    | 0.601                           |
| 23.00               | 787.0            | 765.4           | 106.15         | 2.3043    | 0.619                           |
| 24.00               | 797.6            | 776.1           | 106.17         | 2.2500    | 0.636                           |
| 25.00               | 807.5            | 786.0           | 106.20         | 2.2000    | 0.652                           |
| 26.00               | 816.9            | 795.4           | 106.23         | 2.1538    | 0.667                           |
| 27.00               | 825.6            | 804.0           | 106.25         | 2.1111    | 0.682                           |
| 28.00               | 833.8            | 812.3           | 106.28         | 2.0714    | 0.695                           |
| 29.00               | 841.5            | 820.0           | 106.30         | 2.0345    | 0.708                           |
| 30.00               | 848.8            | 827.3           | 106.34         | 2.0000    | 0.721                           |
| 31.00               | 855.8            | 834.2           | 106.36         | 1.9677    | 0.732                           |
| 32.00               | 862.3            | 840.8           | 106.38         | 1.9375    | 0.744                           |
| 33.00               | 868.6            | 847.1           | 106.41         | 1.9091    | 0.755                           |
| 34.00               | 874.7            | 853.1           | 106.44         | 1.8824    | 0.765                           |
| 35.00               | 880.2            | 858.7           | 106.48         | 1.8571    | 0.775                           |
| 36.00               | 885.7            | 864.1           | 106.51         | 1.8333    | 0.784                           |
| 37.00               | 890.9            | 869.3           | 106.54         | 1.8108    | 0.794                           |
| 38.00               | 895.8            | 874.3           | 106.57         | 1.7895    | 0.803                           |
| 39.00               | 900.6            | 879.1           | 106.59         | 1.7692    | 0.811                           |
| 40.00               | 905.2            | 883.7           | 106.63         | 1.7500    | 0.819                           |
| 41.00               | 909.5            | 888.0           | 106.65         | 1.7317    | 0.827                           |
| 42.00               | 913.8            | 892.2           | 106.68         | 1.7143    | 0.835                           |
| 43.00               | 917.9            | 896.3           | 106.72         | 1.6977    | 0.843                           |
| 44.00               | 921.9            | 900.3           | 106.75         | 1.6818    | 0.850                           |
| ***** End Shut-in 1 |                  |                 |                |           |                                 |
| ***** Start Flow 2  |                  |                 |                |           |                                 |
| 0.00                | 24.5             | 0.0             | 106.78         |           |                                 |
| 1.00                | 24.5             | 0.0             | 106.82         |           |                                 |
| 2.00                | 25.0             | 0.5             | 106.88         |           |                                 |
| 3.00                | 25.7             | 1.2             | 106.93         |           |                                 |
| 4.00                | 26.5             | 2.0             | 107.01         |           |                                 |
| 5.00                | 26.9             | 2.4             | 107.09         |           |                                 |
| 6.00                | 30.0             | 5.5             | 107.19         |           |                                 |
| 7.00                | 27.2             | 2.7             | 107.28         |           |                                 |
| 8.00                | 26.8             | 2.4             | 107.38         |           |                                 |
| 9.00                | 26.1             | 1.6             | 107.47         |           |                                 |
| 10.00               | 26.0             | 1.5             | 107.56         |           |                                 |
| 11.00               | 26.2             | 1.7             | 107.64         |           |                                 |
| 12.00               | 26.2             | 1.7             | 107.72         |           |                                 |
| 13.00               | 26.1             | 1.6             | 107.79         |           |                                 |
| 14.00               | 26.3             | 1.8             | 107.86         |           |                                 |
| 15.00               | 26.4             | 1.9             | 107.93         |           |                                 |
| 16.00               | 26.5             | 2.0             | 107.99         |           |                                 |
| 17.00               | 26.7             | 2.2             | 108.06         |           |                                 |
| 18.00               | 26.8             | 2.4             | 108.11         |           |                                 |
| 19.00               | 27.1             | 2.6             | 108.17         |           |                                 |
| 20.00               | 27.4             | 2.9             | 108.22         |           |                                 |
| 21.00               | 27.4             | 2.9             | 108.27         |           |                                 |
| 22.00               | 27.6             | 3.1             | 108.32         |           |                                 |
| 23.00               | 27.7             | 3.2             | 108.38         |           |                                 |
| 24.00               | 27.9             | 3.4             | 108.42         |           |                                 |

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9927 DST #1 Murihead Farms 1-4 Murfin Drilg.

DATE: 04/21/97

TIME: 21:15:44

|                      | Time  | Pressure<br>PSig | delta P<br>PSig | Temp.<br>DEG F | (T+dT)/dT | P <sup>2</sup> /10 <sup>6</sup> |
|----------------------|-------|------------------|-----------------|----------------|-----------|---------------------------------|
|                      | 25.00 | 28.3             | 3.8             | 108.47         |           |                                 |
|                      | 26.00 | 28.3             | 3.8             | 108.51         |           |                                 |
|                      | 27.00 | 28.4             | 3.9             | 108.56         |           |                                 |
|                      | 28.00 | 28.7             | 4.2             | 108.60         |           |                                 |
|                      | 29.00 | 28.5             | 4.0             | 108.64         |           |                                 |
|                      | 30.00 | 28.6             | 4.1             | 108.67         |           |                                 |
|                      | 31.00 | 28.8             | 4.3             | 108.72         |           |                                 |
|                      | 32.00 | 28.8             | 4.3             | 108.77         |           |                                 |
|                      | 33.00 | 28.9             | 4.4             | 108.81         |           |                                 |
|                      | 34.00 | 29.0             | 4.5             | 108.85         |           |                                 |
|                      | 35.00 | 29.2             | 4.7             | 108.90         |           |                                 |
|                      | 36.00 | 29.5             | 5.0             | 108.93         |           |                                 |
|                      | 37.00 | 29.5             | 5.0             | 108.97         |           |                                 |
|                      | 38.00 | 29.7             | 5.2             | 109.01         |           |                                 |
|                      | 39.00 | 29.8             | 5.3             | 109.05         |           |                                 |
|                      | 40.00 | 30.0             | 5.5             | 109.08         |           |                                 |
|                      | 41.00 | 30.0             | 5.5             | 109.12         |           |                                 |
|                      | 42.00 | 29.9             | 5.4             | 109.16         |           |                                 |
|                      | 43.00 | 30.1             | 5.6             | 109.20         |           |                                 |
| ***** End Flow 2     | 44.00 | 30.2             | 5.7             | 109.24         |           |                                 |
| ***** Start Shutin 2 | 0.00  | 30.2             | 0.0             | 109.24         | 0.0000    | 0.001                           |
|                      | 1.00  | 37.3             | 7.1             | 109.28         | 75.0000   | 0.001                           |
|                      | 2.00  | 47.6             | 17.4            | 109.32         | 38.0000   | 0.002                           |
|                      | 3.00  | 57.9             | 27.7            | 109.35         | 25.6667   | 0.003                           |
|                      | 4.00  | 70.3             | 40.1            | 109.37         | 19.5000   | 0.005                           |
|                      | 5.00  | 85.9             | 55.7            | 109.39         | 15.8000   | 0.007                           |
|                      | 6.00  | 104.5            | 74.3            | 109.42         | 13.3333   | 0.011                           |
|                      | 7.00  | 127.9            | 97.7            | 109.44         | 11.5714   | 0.016                           |
|                      | 8.00  | 155.7            | 125.5           | 109.46         | 10.2500   | 0.024                           |
|                      | 9.00  | 188.3            | 158.1           | 109.47         | 9.2222    | 0.035                           |
|                      | 10.00 | 223.8            | 193.6           | 109.49         | 8.4000    | 0.050                           |
|                      | 11.00 | 261.1            | 230.9           | 109.51         | 7.7273    | 0.068                           |
|                      | 12.00 | 298.6            | 268.4           | 109.54         | 7.1667    | 0.089                           |
|                      | 13.00 | 335.0            | 304.8           | 109.56         | 6.6923    | 0.112                           |
|                      | 14.00 | 369.4            | 339.2           | 109.57         | 6.2857    | 0.136                           |
|                      | 15.00 | 401.4            | 371.2           | 109.60         | 5.9333    | 0.161                           |
|                      | 16.00 | 430.9            | 400.7           | 109.61         | 5.6250    | 0.186                           |
|                      | 17.00 | 457.6            | 427.4           | 109.64         | 5.3529    | 0.209                           |
|                      | 18.00 | 482.3            | 452.1           | 109.66         | 5.1111    | 0.233                           |
|                      | 19.00 | 504.8            | 474.6           | 109.69         | 4.8947    | 0.255                           |
|                      | 20.00 | 525.5            | 495.3           | 109.71         | 4.7000    | 0.276                           |
|                      | 21.00 | 544.3            | 514.1           | 109.74         | 4.5238    | 0.296                           |
|                      | 22.00 | 562.0            | 531.8           | 109.75         | 4.3636    | 0.316                           |
|                      | 23.00 | 578.3            | 548.1           | 109.77         | 4.2174    | 0.334                           |
|                      | 24.00 | 593.4            | 563.2           | 109.79         | 4.0833    | 0.352                           |
|                      | 25.00 | 607.5            | 577.3           | 109.82         | 3.9600    | 0.369                           |
|                      | 26.00 | 620.6            | 590.3           | 109.83         | 3.8462    | 0.385                           |
|                      | 27.00 | 633.0            | 602.8           | 109.86         | 3.7407    | 0.401                           |
|                      | 28.00 | 644.5            | 614.3           | 109.88         | 3.6429    | 0.415                           |
|                      | 29.00 | 655.3            | 625.1           | 109.90         | 3.5517    | 0.429                           |
|                      | 30.00 | 665.5            | 635.3           | 109.92         | 3.4667    | 0.443                           |

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 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9927 DST #1 Murihead Farms 1-4 Murfin Drilg.

DATE: 04/21/97

TIME: 21:15:44  
 -----

|                     | Time   | Pressure<br>PSig | delta P<br>PSig | Temp.<br>DEG F | (T+dT)/dT | P <sup>2</sup> /10 <sup>6</sup> |
|---------------------|--------|------------------|-----------------|----------------|-----------|---------------------------------|
|                     | 31.00  | 675.2            | 645.0           | 109.94         | 3.3871    | 0.456                           |
|                     | 32.00  | 684.3            | 654.1           | 109.96         | 3.3125    | 0.468                           |
|                     | 33.00  | 693.0            | 662.8           | 109.99         | 3.2424    | 0.480                           |
|                     | 34.00  | 701.3            | 671.1           | 110.01         | 3.1765    | 0.492                           |
|                     | 35.00  | 709.2            | 679.0           | 110.03         | 3.1143    | 0.503                           |
|                     | 36.00  | 716.7            | 686.4           | 110.05         | 3.0556    | 0.514                           |
|                     | 37.00  | 723.8            | 693.6           | 110.07         | 3.0000    | 0.524                           |
|                     | 38.00  | 730.6            | 700.4           | 110.10         | 2.9474    | 0.534                           |
|                     | 39.00  | 737.1            | 706.9           | 110.12         | 2.8974    | 0.543                           |
|                     | 40.00  | 743.4            | 713.2           | 110.14         | 2.8500    | 0.553                           |
|                     | 41.00  | 749.4            | 719.2           | 110.16         | 2.8049    | 0.562                           |
|                     | 42.00  | 755.2            | 725.0           | 110.19         | 2.7619    | 0.570                           |
|                     | 43.00  | 760.8            | 730.6           | 110.20         | 2.7209    | 0.579                           |
|                     | 44.00  | 766.2            | 736.0           | 110.22         | 2.6818    | 0.587                           |
| ***** End Shut-in 2 | 45.00  | 771.5            | 741.3           | 110.26         | 2.6444    | 0.595                           |
| ***** Final Hydro.  | 266.00 | 1657.3           | 0.0             | 110.57         |           |                                 |

# TEST HISTORY

9927 DST #1 Murihead Farms 1-4 Murfin Drilg.

Flag Points  
t(Min.) P( PSig)

|    |       |         |
|----|-------|---------|
| A: | 0.00  | 1667.05 |
| B: | 0.00  | 15.27   |
| C: | 30.00 | 21.56   |
| D: | 44.00 | 921.85  |
| E: | 0.00  | 24.50   |
| F: | 44.00 | 30.21   |
| G: | 45.00 | 771.54  |
| Q: | 0.00  | 1657.31 |

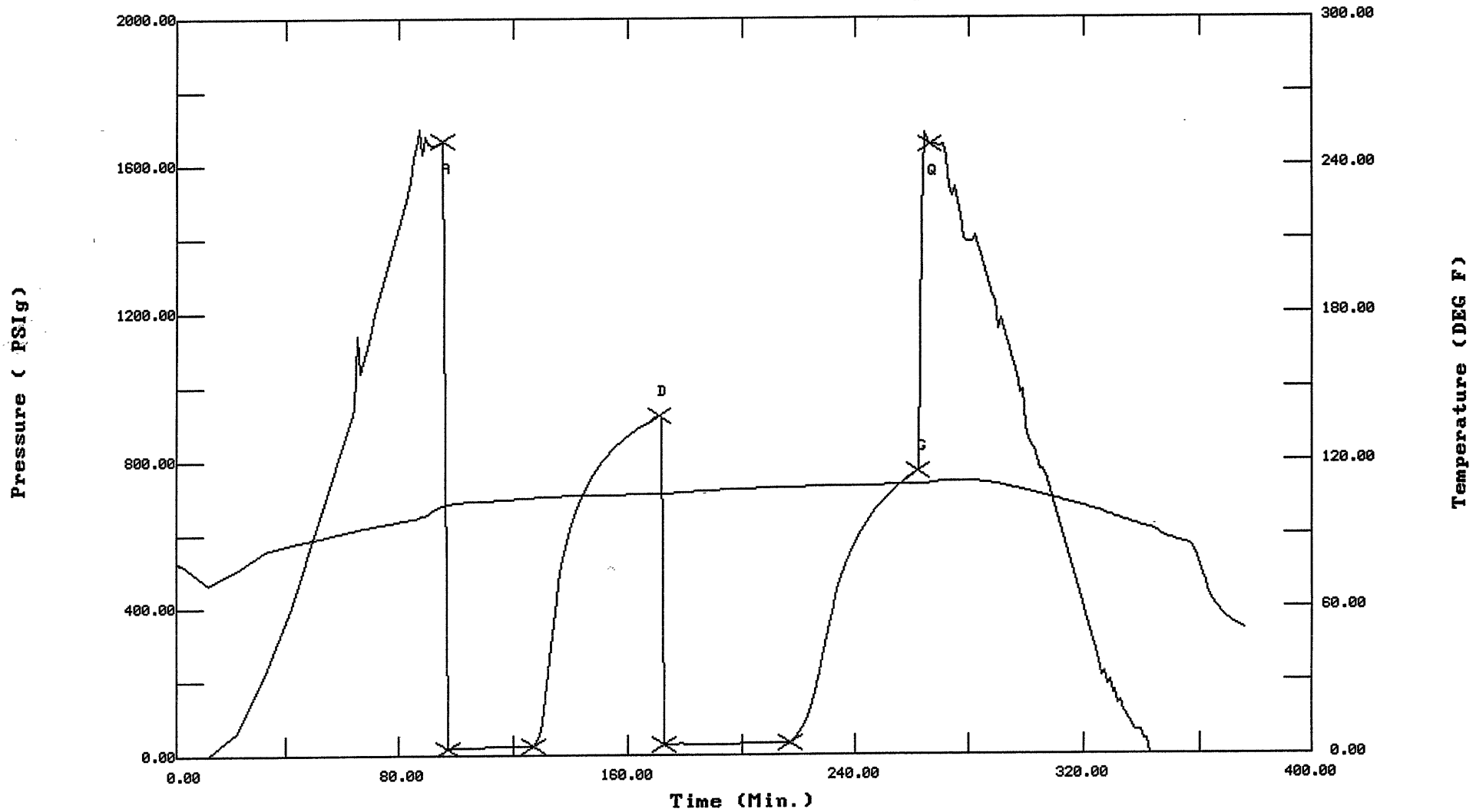
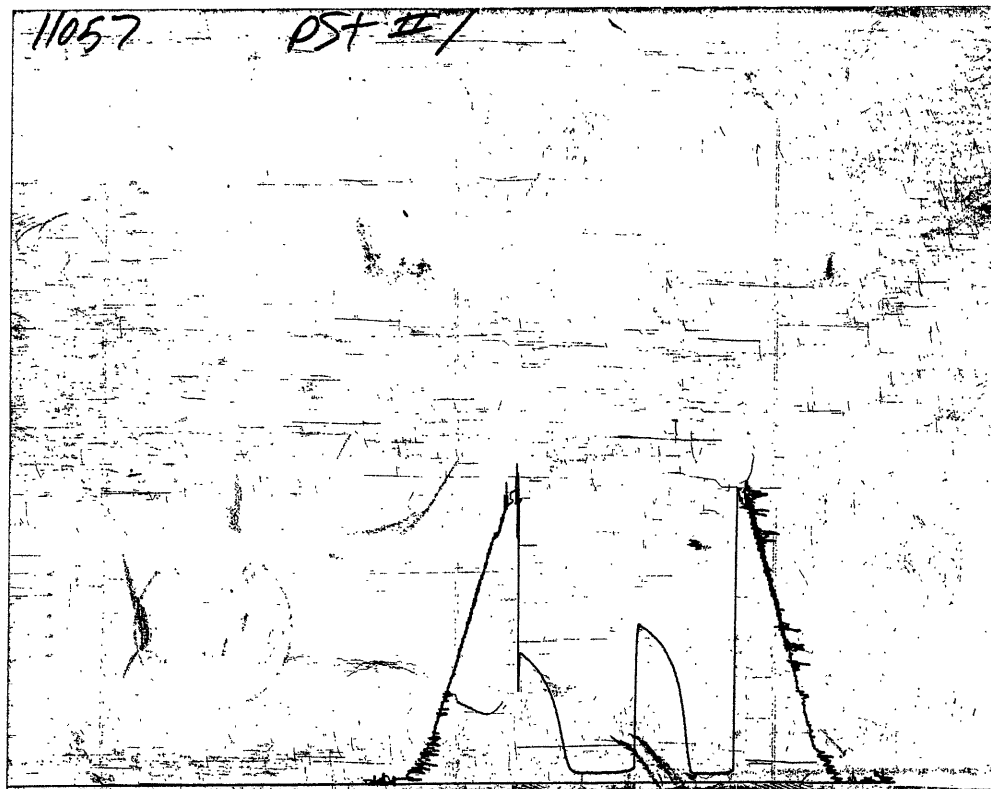


CHART PAGE



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

# TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

## Test Ticket

N<sup>o</sup> 9927

Well Name & No. Murhead farms 1-4 Test No. #1 Date 4-21-97  
 Company Murfin Drilling Zone Tested KC  
 Address 250 N. Waters, He 300 Wichita, KS 67202 Elevation 2605' KB 2600' GL  
 Co. Rep / Geo. Roger Welty Cont. Murfin #3 Est. Ft. of Pay \_\_\_\_\_ Por. \_\_\_\_\_ %  
 Location: Sec. 4 Twp. 6 Rge. 27 Co. Sheridan State KS  
 No. of Copies Num. Distribution Sheet (Y, N) \_\_\_\_\_ Turnkey (Y, N) N Evaluation (Y, N) \_\_\_\_\_

Interval Tested 3663' 3687' Initial Str Wt./Lbs. 22,000 Unseated Str Wt./Lbs. 22,000  
 Anchor Length \_\_\_\_\_ 24' Wt. Set Lbs. 26,000 Wt. Pulled Loose/Lbs. 93,000  
 Top Packer Depth \_\_\_\_\_ 3658' Tool Weight 4,000  
 Bottom Packer Depth \_\_\_\_\_ 3663' Hole Size — 7 7/8"  Rubber Size — 6 3/4"   
 Total Depth \_\_\_\_\_ 3687' Wt. Pipe Run \_\_\_\_\_ Drill Collar Run 505'  
 Mud Wt. 8-7 LCM \_\_\_\_\_ Vis. 51 WL 8.4 Drill Pipe Size 4 1/2 X H Ft. Run 3168'  
 Blow Description 1/4" in blow blow throughout

IS: NO return  
 F.F: Bubble to open tool - weak 1/8" in blow in ~~38 min~~ 38 min blow rest of op  
 FS: No return

| Recovery — Total Feet | GIP                         | Ft. in DC | Ft. in DP | %gas | %oil | %water | %mud |
|-----------------------|-----------------------------|-----------|-----------|------|------|--------|------|
| 15'                   | —                           | 15'       | —         |      |      | 100    |      |
| Rec. 15'              | Feet Of <u>Drilling mud</u> |           |           |      |      |        |      |
| Rec. _____            | Feet Of _____               |           |           |      |      |        |      |
| Rec. _____            | Feet Of _____               |           |           |      |      |        |      |
| Rec. _____            | Feet Of _____               |           |           |      |      |        |      |
| Rec. _____            | Feet Of _____               |           |           |      |      |        |      |

BHT 111° °F Gravity \_\_\_\_\_ °API D@ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API

RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm Recovery Chlorides 600 ppm System

| (A) Initial Hydrostatic Mud      | 1690 | 1667 | PSI | Recorder No.    | 2342  | T-Started    | 22:12 P.M. |
|----------------------------------|------|------|-----|-----------------|-------|--------------|------------|
| (B) First Initial Flow Pressure  | 56   | 15   | PSI | (depth)         | 3664' | T-Open       | 23:49 P.M. |
| (C) First Final Flow Pressure    | 44   | 21   | PSI | Recorder No.    | 11057 | T-Pulled     | 02:34 A.M. |
| (D) Initial Shut-in Pressure     | 917  | 921  | PSI | (depth)         | 3682' | T-Out        | 04:40 AM.  |
| (E) Second Initial Flow Pressure | 56   | 24   | PSI | Recorder No.    |       |              |            |
| (F) Second Final Flow Pressure   | 44   | 30   | PSI | (depth)         |       |              |            |
| (G) Final Shut-in Pressure       | 750  | 771  | PSI | Initial Opening | 30    | Test         | 600        |
| (H) Final Hydrostatic Mud        | 1679 | 1688 | PSI | Initial Shut-in | 45    | Jars         |            |
|                                  |      |      |     | Final Flow      | 45    | Safety Joint |            |
|                                  |      |      |     | Final Shut-in   | 45    | Straddle     |            |

TRILOBITE TESTING L.L.C. 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 SUSTAINED, 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.

Approved By Roger Welty  
 Our Representative Shane M. Bird

Circ. Sub X N/C  
 Sampler \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Elect. Rec. X 150  
 Other \_\_\_\_\_  
 TOTAL PRICE \$ 750

TRILOBITE TESTING L.L.C.

OPERATOR : Murfin Drilg. Co.

DATE 4-22-97

WELL NAME: Muirhead Farms 1-4

KB 2605.00 ft

TICKET NO: 9928 DST #2

LOCATION : 4-6-27

GR 2600.00 ft

FORMATION: Lansing KC

INTERVAL : 3685.00 To 3710.00 ft

TD 3710.00 ft

TEST TYPE: CONV.

RECORDER DATA

| Mins               | Field  | 1      | 2      | 3   | 4   | TIME DATA-----         |
|--------------------|--------|--------|--------|-----|-----|------------------------|
| PF 30 Rec.         | 11057  | 11057  | 2342   |     |     | PF Fr. 1225 to 1255 hr |
| 3I 45 Range (Psi ) | 4500.0 | 4500.0 | 4995.0 | 0.0 | 0.0 | IS Fr. 1255 to 1340 hr |
| SF 45 Clock (hrs)  | 12 HR  | 12 HR  | Elec   |     |     | SF Fr. 1340 to 1425 hr |
| FS 45 Depth(ft )   | 3705.0 | 3705.0 | 3686.0 | 0.0 | 0.0 | FS Fr. 1425 to 1510 hr |

|                | Field  | 1      | 2      | 3   | 4   |                               |
|----------------|--------|--------|--------|-----|-----|-------------------------------|
| A. Init Hydro  | 1690.0 | 1669.0 | 1687.0 | 0.0 | 0.0 | T STARTED 1100 hr             |
| B. First Flow  | 22.0   | 52.0   | 27.0   | 0.0 | 0.0 | T ON BOTM 1221 hr             |
| B1. Final Flow | 22.0   | 45.0   | 43.0   | 0.0 | 0.0 | T OPEN 1225 hr                |
| C. In Shut-in  | 828.0  | 836.0  | 874.0  | 0.0 | 0.0 | T PULLED 1510 hr              |
| D. Init Flow   | 33.0   | 77.0   | 44.0   | 0.0 | 0.0 | T OUT 1650 hr                 |
| E. Final Flow  | 33.0   | 61.0   | 48.0   | 0.0 | 0.0 |                               |
| F. Fl Shut-in  | 683.0  | 698.0  | 742.0  | 0.0 | 0.0 | TOOL DATA-----                |
| G. Final Hydro | 1679.0 | 1629.0 | 1660.0 | 0.0 | 0.0 | Tool Wt. 4000.00 lbs          |
| Inside/Outside | 0      | 0      | I      |     |     | Wt Set On Packer 26000.00 lbs |
|                |        |        |        |     |     | Wt Pulled Loose 94000.00 lbs  |
|                |        |        |        |     |     | Initial Str Wt 73000.00 lbs   |
|                |        |        |        |     |     | Unseated Str Wt 76000.00 lbs  |
|                |        |        |        |     |     | Bot Choke 0.75 in             |
|                |        |        |        |     |     | Hole Size 7.88 in             |
|                |        |        |        |     |     | D Col. ID 0.00 in             |
|                |        |        |        |     |     | D. Pipe ID 0.00 in            |
|                |        |        |        |     |     | D.C. Length 505.00 ft         |
|                |        |        |        |     |     | D.P. Length 3168.00 ft        |

RECOVERY

Pot Fluid 70.00 ft of 70.00 ft in DC and 0.00 ft in DP  
 70.00 ft of Slight Watery Mud 20% water 80% mud  
 0.00 ft of  
 0.00 ft of  
 0.00 ft of  
 0.00 ft of  
 0.00 ft of  
 0.00 ft of  
 0.00 ft of

SALINITY 0.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

Initial Flow:  
 1/2" blow at open, built to 3"

Initial Shut In:  
 No return

Final Flow:  
 Weak surface blow, blew throughout

Final Shut In:  
 No return

SAMPLES:  
 SENT TO:

| MUD DATA-----  |               |
|----------------|---------------|
| Mud Type       | Chemical      |
| Weight         | 8.80 lb/cf    |
| Vis.           | 53.00 S/L     |
| W.L.           | 7.60 in3      |
| F.C.           | 0.00 in       |
| Mud Drop Y     | 30.0 ft       |
| Amt. of fill   | 0.00 ft       |
| Btm. H. Temp.  | 107.00 F      |
| Hole Condition | good          |
| % Porosity     | 0.00          |
| Packer Size    | 6.75 in       |
| No. of Packers | 2             |
| Cushion Amt.   | 0.00          |
| Cushion Type   |               |
| Reversed Out N |               |
| Tool Chased N  |               |
| Tester         | Shane McBride |
| Co. Rep.       | Roger Welty   |
| Contr.         | Murfin        |
| Rig #          | 3             |
| Unit #         |               |
| Pump T.        |               |

Test Successful: Y

\*\*\* TOOL DIAGRAM \*\*\* CONV.

WELL NAME: Muirhead Farms 1-4  
 LOCATION : 4-6-27  
 TICKET No. 9928      D.S.T. No. 2      DATE 4-22-97  
 TOTAL TOOL TO BOTTOM OF TOP PACKERS ..... 20  
 INTERVAL TOOL .....  
 BOTTOM PACKERS AND ANCHOR ..... 25  
 TOTAL TOOL ..... 45  
 DRILL COLLAR ANCHOR IN INTERVAL .....  
 D.C. ANCHOR STND.Stands      Single      Total  
 D.P. ANCHOR STND.Stands      Single      Total  
 TOTAL ASSEMBLY ..... 45  
 D.C. ABOVE TOOLS.Stands8      Single 1      Total 505  
 D.P. ABOVE TOOLS.Stands51      Single      Total 3168  
 TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 3718  
 TOTAL DEPTH ..... 3710  
 TOTAL DRILL PIPE ABOVE K.B. .... 8  
 REMARKS:

|                           |      |
|---------------------------|------|
| P.O. SUB                  |      |
| C.O. SUB 1'               | 3665 |
| S.I. TOOL 5'              | 3671 |
| HMV 5'                    | 3676 |
| JARS n/a                  |      |
| SAFETY JOINT n/a          |      |
| PACKER Top                | 3680 |
| PACKER Bottom             | 3685 |
| DEPTH 3685                |      |
| STUBB 1'                  | 3686 |
| ANCHOR Alpine Rec. @ 3686 |      |
| 19' perf                  | 3705 |
| T.C. DEPTH                |      |
| AK-1 Rec. @ 3705          |      |
| BULLNOSE 5' bullplug      | 3710 |
| T.D.                      | 3710 |



ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9928 DST #2 Muirhead Farms 1-4 Murfin Drilg.

DATE: 04/22/97 TIME: 10:05:39

|                      | Time  | Pressure<br>PSig | delta P<br>PSig | Temp.<br>DEG F | (T+dT)/dT | P <sup>2</sup> /10 <sup>6</sup> |
|----------------------|-------|------------------|-----------------|----------------|-----------|---------------------------------|
| ***** Initial Hydro. | 82.00 | 1687.4           | 0.0             | 98.74          |           |                                 |
| ***** Start Flow 1   | 0.00  | 27.9             | 0.0             | 99.14          |           |                                 |
|                      | 1.00  | 27.4             | -0.5            | 99.31          |           |                                 |
|                      | 2.00  | 27.7             | -0.2            | 99.46          |           |                                 |
|                      | 3.00  | 28.1             | 0.3             | 99.60          |           |                                 |
|                      | 4.00  | 31.5             | 3.6             | 99.72          |           |                                 |
|                      | 5.00  | 32.2             | 4.4             | 99.82          |           |                                 |
|                      | 6.00  | 32.8             | 5.0             | 99.89          |           |                                 |
|                      | 7.00  | 33.1             | 5.2             | 99.95          |           |                                 |
|                      | 8.00  | 33.3             | 5.5             | 99.99          |           |                                 |
|                      | 9.00  | 33.7             | 5.9             | 100.03         |           |                                 |
|                      | 10.00 | 33.7             | 5.9             | 100.05         |           |                                 |
|                      | 11.00 | 39.4             | 11.6            | 100.07         |           |                                 |
|                      | 12.00 | 41.5             | 13.6            | 100.09         |           |                                 |
|                      | 13.00 | 41.5             | 13.7            | 100.16         |           |                                 |
|                      | 14.00 | 41.7             | 13.8            | 100.26         |           |                                 |
|                      | 15.00 | 42.0             | 14.1            | 100.36         |           |                                 |
|                      | 16.00 | 42.2             | 14.4            | 100.45         |           |                                 |
|                      | 17.00 | 42.4             | 14.5            | 100.53         |           |                                 |
|                      | 18.00 | 42.1             | 14.3            | 100.61         |           |                                 |
|                      | 19.00 | 42.6             | 14.8            | 100.67         |           |                                 |
|                      | 20.00 | 42.5             | 14.7            | 100.72         |           |                                 |
|                      | 21.00 | 42.5             | 14.6            | 100.76         |           |                                 |
|                      | 22.00 | 42.6             | 14.8            | 100.80         |           |                                 |
|                      | 23.00 | 42.5             | 14.6            | 100.82         |           |                                 |
|                      | 24.00 | 42.6             | 14.8            | 100.84         |           |                                 |
|                      | 25.00 | 42.5             | 14.7            | 100.85         |           |                                 |
|                      | 26.00 | 42.5             | 14.7            | 100.87         |           |                                 |
|                      | 27.00 | 42.8             | 14.9            | 100.88         |           |                                 |
|                      | 28.00 | 42.8             | 14.9            | 100.90         |           |                                 |
|                      | 29.00 | 43.0             | 15.1            | 100.91         |           |                                 |
| ***** End Flow 1     | 30.00 | 43.0             | 15.2            | 100.92         |           |                                 |
| ***** Start Shutin 1 | 0.00  | 43.0             | 0.0             | 100.92         | 0.0000    | 0.002                           |
|                      | 1.00  | 59.2             | 16.2            | 100.93         | 31.0000   | 0.004                           |
|                      | 2.00  | 90.5             | 47.4            | 100.95         | 16.0000   | 0.008                           |
|                      | 3.00  | 127.2            | 84.2            | 100.97         | 11.0000   | 0.016                           |
|                      | 4.00  | 171.0            | 127.9           | 100.99         | 8.5000    | 0.029                           |
|                      | 5.00  | 219.1            | 176.1           | 101.01         | 7.0000    | 0.048                           |
|                      | 6.00  | 269.5            | 226.4           | 101.04         | 6.0000    | 0.073                           |
|                      | 7.00  | 318.7            | 275.6           | 101.07         | 5.2857    | 0.102                           |
|                      | 8.00  | 364.8            | 321.8           | 101.10         | 4.7500    | 0.133                           |
|                      | 9.00  | 407.4            | 364.3           | 101.13         | 4.3333    | 0.166                           |
|                      | 10.00 | 445.9            | 402.9           | 101.16         | 4.0000    | 0.199                           |
|                      | 11.00 | 480.6            | 437.6           | 101.21         | 3.7273    | 0.231                           |
|                      | 12.00 | 512.0            | 469.0           | 101.23         | 3.5000    | 0.262                           |
|                      | 13.00 | 540.4            | 497.4           | 101.28         | 3.3077    | 0.292                           |
|                      | 14.00 | 566.1            | 523.0           | 101.32         | 3.1429    | 0.320                           |
|                      | 15.00 | 589.6            | 546.5           | 101.36         | 3.0000    | 0.348                           |
|                      | 16.00 | 611.2            | 568.1           | 101.40         | 2.8750    | 0.374                           |
|                      | 17.00 | 630.9            | 587.8           | 101.43         | 2.7647    | 0.398                           |
|                      | 18.00 | 649.0            | 606.0           | 101.48         | 2.6667    | 0.421                           |

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9928 DST #2 Muirhead Farms 1-4 Murfin Drilg.

DATE: 04/22/97

TIME: 10:05:39

| Time                | Pressure<br>PSig | delta P<br>PSig | Temp.<br>DEG F | (T+dT)/dT | P <sup>2</sup> /10 <sup>6</sup> |
|---------------------|------------------|-----------------|----------------|-----------|---------------------------------|
| 19.00               | 666.0            | 622.9           | 101.52         | 2.5789    | 0.444                           |
| 20.00               | 681.4            | 638.4           | 101.56         | 2.5000    | 0.464                           |
| 21.00               | 695.8            | 652.8           | 101.60         | 2.4286    | 0.484                           |
| 22.00               | 709.3            | 666.2           | 101.65         | 2.3636    | 0.503                           |
| 23.00               | 721.9            | 678.8           | 101.69         | 2.3043    | 0.521                           |
| 24.00               | 733.6            | 690.6           | 101.74         | 2.2500    | 0.538                           |
| 25.00               | 744.6            | 701.6           | 101.78         | 2.2000    | 0.554                           |
| 26.00               | 755.1            | 712.0           | 101.83         | 2.1538    | 0.570                           |
| 27.00               | 764.8            | 721.8           | 101.88         | 2.1111    | 0.585                           |
| 28.00               | 774.1            | 731.1           | 101.92         | 2.0714    | 0.599                           |
| 29.00               | 783.0            | 739.9           | 101.96         | 2.0345    | 0.613                           |
| 30.00               | 791.3            | 748.2           | 102.02         | 2.0000    | 0.626                           |
| 31.00               | 799.2            | 756.1           | 102.07         | 1.9677    | 0.639                           |
| 32.00               | 806.6            | 763.6           | 102.12         | 1.9375    | 0.651                           |
| 33.00               | 813.8            | 770.7           | 102.17         | 1.9091    | 0.662                           |
| 34.00               | 820.6            | 777.5           | 102.21         | 1.8824    | 0.673                           |
| 35.00               | 826.9            | 783.9           | 102.26         | 1.8571    | 0.684                           |
| 36.00               | 833.1            | 790.1           | 102.32         | 1.8333    | 0.694                           |
| 37.00               | 838.9            | 795.9           | 102.36         | 1.8108    | 0.704                           |
| 38.00               | 844.8            | 801.8           | 102.42         | 1.7895    | 0.714                           |
| 39.00               | 850.2            | 807.1           | 102.46         | 1.7692    | 0.723                           |
| 40.00               | 855.7            | 812.7           | 102.51         | 1.7500    | 0.732                           |
| 41.00               | 860.6            | 817.5           | 102.57         | 1.7317    | 0.741                           |
| 42.00               | 865.4            | 822.3           | 102.61         | 1.7143    | 0.749                           |
| 43.00               | 870.0            | 826.9           | 102.66         | 1.6977    | 0.757                           |
| 44.00               | 874.4            | 831.4           | 102.71         | 1.6818    | 0.765                           |
| ***** End Shut-in 1 |                  |                 |                |           |                                 |
| ***** Start Flow 2  |                  |                 |                |           |                                 |
| 0.00                | 44.2             | 0.0             | 102.73         |           |                                 |
| 1.00                | 44.5             | 0.3             | 102.75         |           |                                 |
| 2.00                | 44.1             | -0.1            | 102.79         |           |                                 |
| 3.00                | 44.2             | 0.0             | 102.81         |           |                                 |
| 4.00                | 44.6             | 0.3             | 102.84         |           |                                 |
| 5.00                | 44.6             | 0.4             | 102.87         |           |                                 |
| 6.00                | 44.6             | 0.4             | 102.90         |           |                                 |
| 7.00                | 45.0             | 0.8             | 102.94         |           |                                 |
| 8.00                | 45.1             | 0.8             | 102.98         |           |                                 |
| 9.00                | 45.4             | 1.2             | 103.03         |           |                                 |
| 10.00               | 45.2             | 1.0             | 103.08         |           |                                 |
| 11.00               | 45.4             | 1.2             | 103.13         |           |                                 |
| 12.00               | 45.3             | 1.1             | 103.18         |           |                                 |
| 13.00               | 45.5             | 1.3             | 103.23         |           |                                 |
| 14.00               | 45.6             | 1.3             | 103.27         |           |                                 |
| 15.00               | 45.7             | 1.5             | 103.33         |           |                                 |
| 16.00               | 45.8             | 1.6             | 103.38         |           |                                 |
| 17.00               | 45.9             | 1.7             | 103.43         |           |                                 |
| 18.00               | 46.1             | 1.8             | 103.49         |           |                                 |
| 19.00               | 46.2             | 1.9             | 103.54         |           |                                 |
| 20.00               | 46.2             | 2.0             | 103.59         |           |                                 |
| 21.00               | 46.3             | 2.1             | 103.64         |           |                                 |
| 22.00               | 46.4             | 2.2             | 103.70         |           |                                 |
| 23.00               | 46.5             | 2.3             | 103.75         |           |                                 |
| 24.00               | 46.6             | 2.3             | 103.80         |           |                                 |

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9928 DST #2 Muirhead Farms 1-4 Murfin Drilg.

DATE: 04/22/97

TIME: 10:05:39

|                      | Time  | Pressure<br>PSig | delta P<br>PSig | Temp.<br>DEG F | (T+dT)/dT | P^2/10^6 |
|----------------------|-------|------------------|-----------------|----------------|-----------|----------|
|                      | 25.00 | 46.7             | 2.5             | 103.85         |           |          |
|                      | 26.00 | 46.8             | 2.6             | 103.90         |           |          |
|                      | 27.00 | 47.0             | 2.8             | 103.95         |           |          |
|                      | 28.00 | 47.1             | 2.9             | 104.00         |           |          |
|                      | 29.00 | 47.2             | 2.9             | 104.05         |           |          |
|                      | 30.00 | 47.3             | 3.1             | 104.10         |           |          |
|                      | 31.00 | 47.3             | 3.1             | 104.16         |           |          |
|                      | 32.00 | 47.5             | 3.3             | 104.21         |           |          |
|                      | 33.00 | 47.7             | 3.5             | 104.25         |           |          |
|                      | 34.00 | 47.8             | 3.6             | 104.31         |           |          |
|                      | 35.00 | 47.8             | 3.6             | 104.36         |           |          |
|                      | 36.00 | 48.0             | 3.8             | 104.40         |           |          |
|                      | 37.00 | 48.1             | 3.9             | 104.45         |           |          |
|                      | 38.00 | 48.2             | 4.0             | 104.50         |           |          |
|                      | 39.00 | 48.6             | 4.4             | 104.55         |           |          |
|                      | 40.00 | 48.6             | 4.4             | 104.60         |           |          |
|                      | 41.00 | 48.7             | 4.4             | 104.65         |           |          |
|                      | 42.00 | 48.7             | 4.4             | 104.70         |           |          |
|                      | 43.00 | 48.7             | 4.4             | 104.74         |           |          |
|                      | 44.00 | 48.8             | 4.5             | 104.79         |           |          |
| ***** End Flow 2     | 45.00 | 48.8             | 4.5             | 104.84         |           |          |
| ***** Start Shutin 2 | 0.00  | 48.8             | 0.0             | 104.84         | 0.0000    | 0.002    |
|                      | 1.00  | 58.0             | 9.2             | 104.89         | 76.0000   | 0.003    |
|                      | 2.00  | 72.8             | 24.1            | 104.94         | 38.5000   | 0.005    |
|                      | 3.00  | 90.6             | 41.9            | 104.99         | 26.0000   | 0.008    |
|                      | 4.00  | 111.2            | 62.4            | 105.05         | 19.7500   | 0.012    |
|                      | 5.00  | 135.6            | 86.9            | 105.09         | 16.0000   | 0.018    |
|                      | 6.00  | 162.4            | 113.6           | 105.14         | 13.5000   | 0.026    |
|                      | 7.00  | 191.1            | 142.3           | 105.19         | 11.7143   | 0.037    |
|                      | 8.00  | 221.1            | 172.4           | 105.25         | 10.3750   | 0.049    |
|                      | 9.00  | 251.9            | 203.1           | 105.30         | 9.3333    | 0.063    |
|                      | 10.00 | 282.6            | 233.8           | 105.35         | 8.5000    | 0.080    |
|                      | 11.00 | 312.7            | 264.0           | 105.40         | 7.8182    | 0.098    |
|                      | 12.00 | 341.7            | 292.9           | 105.44         | 7.2500    | 0.117    |
|                      | 13.00 | 368.8            | 320.0           | 105.50         | 6.7692    | 0.136    |
|                      | 14.00 | 394.2            | 345.4           | 105.55         | 6.3571    | 0.155    |
|                      | 15.00 | 418.2            | 369.5           | 105.59         | 6.0000    | 0.175    |
|                      | 16.00 | 440.2            | 391.4           | 105.64         | 5.6875    | 0.194    |
|                      | 17.00 | 460.8            | 412.0           | 105.69         | 5.4118    | 0.212    |
|                      | 18.00 | 480.0            | 431.2           | 105.74         | 5.1667    | 0.230    |
|                      | 19.00 | 497.9            | 449.2           | 105.79         | 4.9474    | 0.248    |
|                      | 20.00 | 514.6            | 465.9           | 105.84         | 4.7500    | 0.265    |
|                      | 21.00 | 530.3            | 481.6           | 105.89         | 4.5714    | 0.281    |
|                      | 22.00 | 545.0            | 496.3           | 105.93         | 4.4091    | 0.297    |
|                      | 23.00 | 558.9            | 510.1           | 105.99         | 4.2609    | 0.312    |
|                      | 24.00 | 571.9            | 523.1           | 106.03         | 4.1250    | 0.327    |
|                      | 25.00 | 584.1            | 535.4           | 106.08         | 4.0000    | 0.341    |
|                      | 26.00 | 595.8            | 547.0           | 106.12         | 3.8846    | 0.355    |
|                      | 27.00 | 606.7            | 558.0           | 106.17         | 3.7778    | 0.368    |
|                      | 28.00 | 617.1            | 568.4           | 106.22         | 3.6786    | 0.381    |
|                      | 29.00 | 626.9            | 578.2           | 106.26         | 3.5862    | 0.393    |

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 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9928 DST #2 Muirhead Farms 1-4 Murfin Drilg.

DATE: 04/22/97

TIME: 10:05:39  
 -----

|                     | Time   | Pressure<br>PSig | delta P<br>PSig | P      | Temp.<br>DEG F | (T+dT)/dT | P <sup>2</sup> /10 <sup>6</sup> |
|---------------------|--------|------------------|-----------------|--------|----------------|-----------|---------------------------------|
|                     | 30.00  | 636.3            | 587.6           | 106.30 | 106.30         | 3.5000    | 0.405                           |
|                     | 31.00  | 645.3            | 596.6           | 106.35 | 106.35         | 3.4194    | 0.416                           |
|                     | 32.00  | 653.7            | 605.0           | 106.39 | 106.39         | 3.3438    | 0.427                           |
|                     | 33.00  | 661.8            | 613.0           | 106.44 | 106.44         | 3.2727    | 0.438                           |
|                     | 34.00  | 669.5            | 620.7           | 106.48 | 106.48         | 3.2059    | 0.448                           |
|                     | 35.00  | 677.0            | 628.2           | 106.53 | 106.53         | 3.1429    | 0.458                           |
|                     | 36.00  | 684.1            | 635.3           | 106.58 | 106.58         | 3.0833    | 0.468                           |
|                     | 37.00  | 691.0            | 642.2           | 106.61 | 106.61         | 3.0270    | 0.477                           |
|                     | 38.00  | 697.6            | 648.8           | 106.67 | 106.67         | 2.9737    | 0.487                           |
|                     | 39.00  | 703.9            | 655.1           | 106.70 | 106.70         | 2.9231    | 0.495                           |
|                     | 40.00  | 710.0            | 661.3           | 106.75 | 106.75         | 2.8750    | 0.504                           |
|                     | 41.00  | 716.0            | 667.2           | 106.79 | 106.79         | 2.8293    | 0.513                           |
|                     | 42.00  | 721.6            | 672.8           | 106.83 | 106.83         | 2.7857    | 0.521                           |
|                     | 43.00  | 727.1            | 678.4           | 106.88 | 106.88         | 2.7442    | 0.529                           |
|                     | 44.00  | 732.4            | 683.7           | 106.93 | 106.93         | 2.7045    | 0.536                           |
|                     | 45.00  | 737.5            | 688.8           | 106.96 | 106.96         | 2.6667    | 0.544                           |
| ***** End Shut-in 2 | 46.00  | 742.5            | 693.7           | 107.01 | 107.01         | 2.6304    | 0.551                           |
| ***** Final Hydro.  | 252.00 | 1660.1           | 0.0             | 107.24 | 107.24         |           |                                 |

# TEST HISTORY

9928 DST #2 Muirhead Farms 1-4 Murfin Drilg.

Flag Points  
t(Min.) P( PSig)

|    |       |         |
|----|-------|---------|
| A: | 0.00  | 1687.44 |
| B: | 0.00  | 27.86   |
| C: | 30.00 | 43.05   |
| D: | 44.00 | 874.44  |
| E: | 0.00  | 44.22   |
| F: | 45.00 | 48.75   |
| G: | 46.00 | 742.50  |
| Q: | 0.00  | 1660.08 |

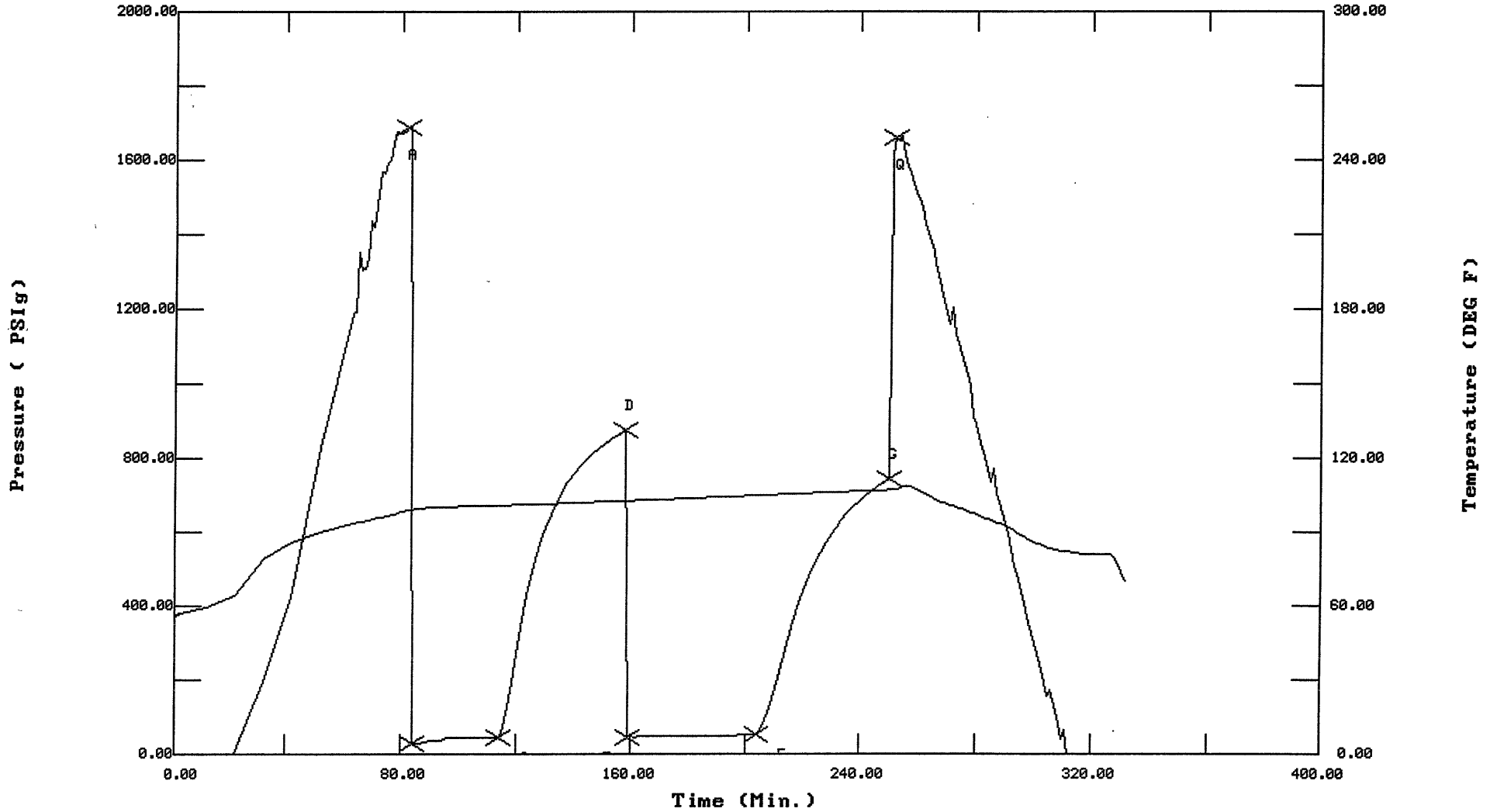
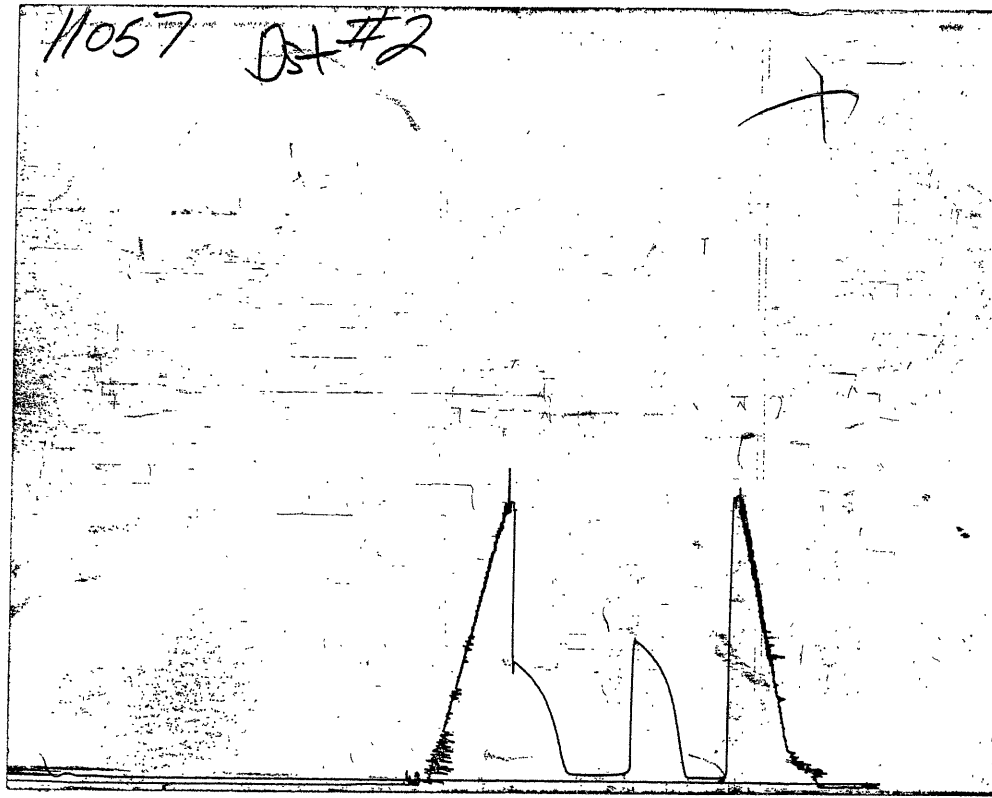


CHART PAGE



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