



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1102778  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

Form must be Typed  
Form must be Signed  
All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

- New Well       Re-Entry       Workover
- Oil       WSW       SWD       SIOW
- Gas       D&A       ENHR       SIGW
- OG       GSW       Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic       Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

- Deepening       Re-perf.       Conv. to ENHR       Conv. to SWD
- Plug Back       Conv. to GSW       Conv. to Producer
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

|                                   |                 |   |
|-----------------------------------|-----------------|---|
| Spud Date or<br>Recompletion Date | Date Reached TD | Completion Date or<br>Recompletion Date |
|-----------------------------------|-----------------|---|

API No. 15 - \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE       NW       SE       SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx)      (e.g. -xxx.xxxxx)

Datum:  NAD27       NAD83       WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ 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

*(Data must be collected from the Reserve Pit)*

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite: \_\_\_\_\_

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

AFFIDAVIT

I am the affiant and I hereby certify that 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.

Submitted Electronically

KCC Office Use ONLY

- Confidentiality Requested  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_



1102778

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems 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 test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

|   |  |                              |                                  |                                 |
|---|--|------------------------------|----------------------------------|---------------------------------|
| Drill Stem Tests Taken<br><i>(Attach Additional Sheets)</i> | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Log | Formation (Top), Depth and Datum | <input type="checkbox"/> Sample |
| Samples Sent to Geological Survey                           | <input type="checkbox"/> Yes <input type="checkbox"/> No | Name                         | Top                              | Datum                           |
| Cores Taken   | <input type="checkbox"/> Yes <input type="checkbox"/> No |                              |                                  |                                 |
| Electric Log Run  | <input type="checkbox"/> Yes <input type="checkbox"/> No |                              |                                  |                                 |
| List All E. Logs Run:                                       |  |                              |                                  |                                 |

| 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 |
|   |                   |                           |                   |               |                |              |                            |
|   |                   |                           |                   |               |                |              |                            |
|   |                   |                           |                   |               |                |              |                            |

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

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

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

TUBING RECORD:      Size: \_\_\_\_\_ Set At: \_\_\_\_\_ Packer At: \_\_\_\_\_ Liner Run:  Yes  No

Date of First, Resumed Production, SWD or ENHR: \_\_\_\_\_ Producing Method:  Flowing  Pumping  Gas Lift  Other *(Explain)* \_\_\_\_\_

| Estimated Production Per 24 Hours | Oil Bbls. | Gas Mcf | Water Bbls. | Gas-Oil Ratio | Gravity |
|-----------------------------------|-----------|---------|-------------|---------------|---------|
|                                   |           |         |             |               |         |

|  |   |   |
|--|---|---|
| <b>DISPOSITION OF GAS:</b><br><input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease<br><i>(If vented, Submit ACO-18.)</i> | <b>METHOD OF COMPLETION:</b><br><input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled<br><i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____<br><input type="checkbox"/> Other <i>(Specify)</i> _____ | <b>PRODUCTION INTERVAL:</b><br>_____<br>_____ |
|--|---|---|

|           |                        |
|-----------|------------------------|
| Form      | ACO1 - Well Completion |
| Operator  | Chaco Energy Company   |
| Well Name | Scheetz 2-21           |
| Doc ID    | 1102778                |

All Electric Logs Run

|                  |
|------------------|
|                  |
| Induction        |
| Density          |
| Neutron          |
| Sonic            |
| Microresistivity |



**CONSOLIDATED**  
Oil Well Services, LLC

**REMIT TO**  
Consolidated Oil Well Services, LLC  
Dept. 970  
P.O. Box 4346  
Houston, TX 77210-4346

SEP 24 2012

MAIN OFFICE  
P.O. Box 884  
Chanute, KS 66720  
620/431-9210 • 1-800/467-8676  
Fax 620/431-0012

INVOICE

Invoice # 252977

Invoice Date: 09/18/2012 Terms: 10/10/30,n/30 Page 1

CHACO ENERGY COMPANY  
P.O. BOX 1587  
DENVER CO 80201  
(303)744-1480

SCHEETZ 2-21  
37152  
21-13-32  
09-17-2012  
KS

| Part Number | Description             | Qty    | Unit Price | Total   |
|-------------|-------------------------|--------|------------|---------|
| 1104S       | CLASS "A" CEMENT (SALE) | 165.00 | 17.6500    | 2912.25 |
| 1102        | CALCIUM CHLORIDE (50#)  | 465.00 | .8900      | 413.85  |
| 1118B       | PREMIUM GEL / BENTONITE | 310.00 | .2500      | 77.50   |

| Sublet Performed | Description               | Total   |
|------------------|---------------------------|---------|
| 9996-130         | CEMENT MATERIAL DISCOUNT  | -340.36 |
| 9995-130         | CEMENT EQUIPMENT DISCOUNT | -154.50 |

| Description                       | Hours | Unit Price | Total   |
|-----------------------------------|-------|------------|---------|
| 460 MIN. BULK DELIVERY            | 1.00  | 410.00     | 410.00  |
| T-118 CEMENT PUMP (SURFACE)       | 1.00  | 1085.00    | 1085.00 |
| T-118 EQUIPMENT MILEAGE (ONE WAY) | 10.00 | 5.00       | 50.00   |

*Alm Chukon*  
SEP 25 2012

Amount Due 5214.09 if paid after 10/18/2012

|        |         |           |     |         |         |    |         |
|--------|---------|-----------|-----|---------|---------|----|---------|
| Parts: | 3403.60 | Freight:  | .00 | Tax:    | 238.94  | AR | 4692.68 |
| Labor: | .00     | Misc:     | .00 | Total:  | 4692.68 |    |         |
| Sublt: | -494.86 | Supplies: | .00 | Change: | .00     |    |         |

SCANNED

Signed \_\_\_\_\_ Date \_\_\_\_\_

BARTLESVILLE, OK 318/338-0808 EL DORADO, KS 316/322-7022 EUREKA, KS 620/583-7664 PONCA CITY, OK 580/762-2303 OAKLEY, KS 785/672-2227 OTTAWA, KS 785/242-4044 THAYER, KS 620/839-5269 GILLETTE, WY 307/686-4914



**CONSOLIDATED**  
Oil Well Services, LLC

TICKET NUMBER 37152

LOCATION Oakley KS

FOREMAN Mike Shaw

PO Box 884, Chanute, KS 66720  
620-431-9210 or 800-467-8876

**FIELD TICKET & TREATMENT REPORT**  
**CEMENT**

KS

| DATE                            | CUSTOMER # | WELL NAME & NUMBER | SECTION | TOWNSHIP | RANGE | COUNTY |
|---------------------------------|------------|--------------------|---------|----------|-------|--------|
| 9-17-12                         | 1809       | Sheetz #2-21       | 21      | 13S      | 32W   | Logan  |
| CUSTOMER<br><u>Chaco Energy</u> |            |                    | TRUCK # |          |       |        |
| MAILING ADDRESS                 |            |                    | DRIVER  |          |       |        |
| CITY                            |            |                    | TRUCK # |          |       |        |
| STATE                           |            |                    | DRIVER  |          |       |        |
| ZIP CODE                        |            |                    | TRUCK # |          |       |        |
|                                 |            |                    | DRIVER  |          |       |        |

JOB TYPE Surface HOLE SIZE 12 1/4 HOLE DEPTH 219 CASING SIZE & WEIGHT PH 24#  
 CASING DEPTH 217.98 DRILL PIPE \_\_\_\_\_ TUBING \_\_\_\_\_ OTHER \_\_\_\_\_  
 SLURRY WEIGHT 14.8 SLURRY VOL. 1.36 WATER gal/ek \_\_\_\_\_ CEMENT LEFT IN CASING 20'  
 DISPLACEMENT 12 1/2 bbls DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE \_\_\_\_\_

REMARKS: Safety Marking and rig up on W/L Drilling #2 Circulate casing  
Mix 1165 SLS Common w/ th 38 calcium + 28 gal displace 12 1/2 bbls water slurry  
Cement did Circulate SLS to top

| ACCOUNT CODE | QUANTITY or UNITS | DESCRIPTION of SERVICES or PRODUCT | UNIT PRICE      | TOTAL    |
|--------------|-------------------|------------------------------------|-----------------|----------|
| 5101S        | 1                 | PUMP CHARGE                        | 108.00          | 108.00   |
| 5102L        | 10                | MILEAGE                            | 5.00            | 50.00    |
| 5107         | 7.75 TONS         | Ten Mileage delivery               | 410.00          | 410.00   |
| 1104S        | 1165 SLS          | Common Class A                     | 17.65           | 20527.25 |
| 1102         | 4165 #            | Calcium Chloride                   | .99             | 4132.95  |
| 1116B        | 315 #             | Bentonite gel                      | .25             | 77.50    |
|              |                   |                                    | Subtotal        | 4948.60  |
|              |                   |                                    | less Deduction  | 494.86   |
|              |                   |                                    | Subtotal        | 4453.74  |
|              |                   |                                    | SALES TAX       | 238.94   |
|              |                   |                                    | ESTIMATED TOTAL | 4692.68  |

Revin 5737

AUTHORIZATION harris

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.

252977



**CONSOLIDATED**  
Oil Well Services, LLC

**REMIT TO**  
Consolidated Oil Well Services, LLC  
Dept. 970  
P.O. Box 4346  
Houston, TX 77210-4346

**MAIN OFFICE**  
P.O. Box 884  
Chanute, KS 66720  
620/431-9210 • 1-800/467-8676  
Fax 620/431-0012

INVOICE

Invoice # 253294

Invoice Date: 09/28/2012 Terms: 10/10/30,n/30

Page 1

CHACO ENERGY COMPANY  
P.O. BOX 1587  
DENVER CO 80201  
(303)744-1480

SCHEETZ #2-21  
37154  
21-13-32  
09-28-2012  
KS

| Part Number | Description               | Qty     | Unit Price | Total   |
|-------------|---------------------------|---------|------------|---------|
| 1104S       | CLASS "A" CEMENT (SALE)   | 300.00  | 17.6500    | 5295.00 |
| 1111        | SODIUM CHLORIDE (GRANULA) | 1435.00 | .4500      | 645.75  |
| 1118B       | PREMIUM GEL / BENTONITE   | 564.00  | .2500      | 141.00  |
| 1142A       | KCL SUB MB6875 CC3107 (1  | 2.00    | 39.1000    | 78.20   |
| 4161        | FLOAT SHOE 4 1/2" AFU     | 1.00    | 342.0000   | 342.00  |
| 4453        | 4 1/2" LATCH DOWN PLUG    | 1.00    | 276.0000   | 276.00  |
| 4129        | CENTRALIZER 4 1/2"        | 10.00   | 46.0000    | 460.00  |
| 4103        | CEMENT BASKET 4 1/2"      | 2.00    | 261.0000   | 522.00  |
| 4314        | RECIPROCATING SCRATCHERS  | 20.00   | 78.0000    | 1560.00 |
| 4284        | 4 1/2" PORT COLLAR        | 1.00    | 1890.0000  | 1890.00 |

| Sublet Performed | Description               | Total    |
|------------------|---------------------------|----------|
| 9996-130         | CEMENT MATERIAL DISCOUNT  | -1121.00 |
| 9995-130         | CEMENT EQUIPMENT DISCOUNT | -348.00  |

| Description                       | Hours | Unit Price | Total   |
|-----------------------------------|-------|------------|---------|
| T-118 SINGLE PUMP                 | 1.00  | 3020.00    | 3020.00 |
| T-118 EQUIPMENT MILEAGE (ONE WAY) | 10.00 | 5.00       | 50.00   |
| T-129 MIN. BULK DELIVERY          | 1.00  | 410.00     | 410.00  |

*Alan Schubert*  
OCT - 5 2012

*PF*

Amount Due 15564.34 if paid after 10/28/2012

|        |          |           |     |         |          |    |          |
|--------|----------|-----------|-----|---------|----------|----|----------|
| Parts: | 11209.95 | Freight:  | .00 | Tax:    | 786.95   | AR | 14007.90 |
| Labor: | .00      | Misc:     | .00 | Total:  | 14007.90 |    |          |
| Sublt: | -1469.00 | Supplies: | .00 | Change: | .00      |    |          |

**SCANNED**

Signed \_\_\_\_\_ Date \_\_\_\_\_



PO Box 884, Chanute, KS 66720  
620-431-9210 or 800-467-8676

**FIELD TICKET & TREATMENT REPORT**  
**CEMENT**

TICKET NUMBER 37154  
LOCATION Oakley KS  
FOREMAN Miles Shaw  
Walt Dunkel

| DATE            | CUSTOMER # | WELL NAME & NUMBER | SECTION    | TOWNSHIP | RANGE      | COUNTY |
|-----------------|------------|--------------------|------------|----------|------------|--------|
| 9-28-12         | 1809       | Sheetz # 2-21      | 21         | 13S      | 32W        | Logan  |
| CUSTOMER        |            |                    | Oakley, KS |          |            |        |
| MAILING ADDRESS |            |                    | TRUCK #    | DRIVER   | TRUCK #    | DRIVER |
| Chaco Energy    |            |                    | 135        | 452-T18  | Damon M    |        |
| CITY            |            |                    | STATE      | ZIP CODE |            |        |
|                 |            |                    | 1 W        | 530-T12A | Tim Graham |        |
|                 |            |                    | 1 S        |          |            |        |
|                 |            |                    | 1/2 W      |          |            |        |

JOB TYPE Port collar HOLE SIZE 7 7/8 HOLE DEPTH 4750 CASING SIZE & WEIGHT 4 1/2" 11.6 #  
 DRILL DEPTH 4750 DRILL PIPE \_\_\_\_\_ TUBING \_\_\_\_\_ OTHER Port collars 2507  
 SLURRY WEIGHT \_\_\_\_\_ SLURRY VOL \_\_\_\_\_ WATER gal/ok \_\_\_\_\_ CEMENT LEFT IN CASING 45.10'  
 DISPLACEMENT 73 DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE \_\_\_\_\_

REMARKS: Safety meeting and rig up on W/W Drilling #2, Ran float & equipment Centralizers on 2, 4, 6, 8, 10, 12, 14, 16, 18, 5' Baskets on 20, 52 Port collar top of 52 @ 2507' Run casing to bottom, circ 1hr, Pumped 500 gal Mud Flush + 10 BBL KCL, mixed 15 sks in fill, 30 sks in fill, mixed 255 sks conc, 10% salt, 2% gel, clear Pump Lines, release Plug + Displace 1st 10 BBL KCL + Total of 73 BBL W/O @ 900#, Landed Plug @ 1500', released Pressure Float Hold

20 EX STCK - MUSE - RAT/WIT 14.5 PPG  
275 @

Thank You  
Walt, Miles + crew

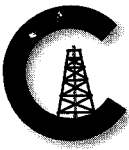
| ACCOUNT CODE | QUANTITY or UNITS | DESCRIPTION of SERVICES or PRODUCT | UNIT PRICE | TOTAL     |
|--------------|-------------------|------------------------------------|------------|-----------|
| 5401C        | 1                 | PUMP CHARGE                        | 3020.00    | 3020.00   |
| 5406         | 10                | MILEAGE                            | 5.00       | 50.00     |
| 11045        | 300 sks           | Class A Cement                     | 17.65      | 5,295.00  |
| 1111         | 1435 #            | Salt                               | 1.45       | 845.75    |
| 1118B        | 564 #             | gel                                | .25        | 141.00    |
| 1142A        | 2 gal             | KCL                                | 39.10      | 78.20     |
| 5407         | 14.1              | Ton Mileage Delivery               | 1.67       | 410.00    |
| 4161         | 1                 | AEU Float shoe                     | 342.00     | 342.00    |
| 4453         | 1                 | Latch down Plug Assy               | 276.00     | 276.00    |
| 4129         | 10                | Centralizers                       | 46.00      | 460.00    |
| 4103         | 2                 | Baskets                            | 261.00     | 522.00    |
| 4314         | 20                | Reciprocation Scrapers             | 78.00      | 1560.00   |
| 4284         | 1                 | Port Collar 'B'                    | 1870.00    | 1870.00   |
|              |                   |                                    |            | 14689.95  |
|              |                   | Loss 10% Disc                      |            | - 1468.99 |
|              |                   |                                    |            | 13,220.95 |
|              |                   | SALES TAX                          |            | 786.95    |
|              |                   | ESTIMATED TOTAL                    |            | 14007.90  |

Rev'n 3737

AUTHORIZATION Ann Warrilow TITLE \_\_\_\_\_ DATE \_\_\_\_\_

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.

253294



**CONSOLIDATED**  
Oil Well Services, LLC

**REMIT TO**  
Consolidated Oil Well Services, LLC  
Dept. 970  
P.O. Box 4346  
Houston, TX 77210-4346

NOV 05 2012

**MAIN OFFICE**  
P.O. Box 884  
Chanute, KS 66720  
620/431-9210 • 1-800/467-8676  
Fax 620/431-0012

INVOICE

Invoice # 254123

=====  
Invoice Date: 10/30/2012 Terms: 10/10/30,n/30 Page 1  
=====

CHACO ENERGY COMPANY  
P.O. BOX 1587  
DENVER CO 80201  
(303)744-1480

SCHEETZ 2-21  
37262  
21-13-32  
10-29-2012  
KS

| Part Number | Description             | Qty     | Unit Price | Total   |
|-------------|-------------------------|---------|------------|---------|
| 1104S       | CLASS "A" CEMENT (SALE) | 275.00  | 17.6500    | 4853.75 |
| 1108        | FLY ASH (POZMIX)        | 50.00   | .1200      | 6.00    |
| 1118B       | PREMIUM GEL / BENTONITE | 2444.00 | .2500      | 611.00  |
| 1107        | FLO-SEAL (25#)          | 81.00   | 2.8200     | 228.42  |
| 1105        | COTTONSEED HULLS        | 250.00  | .5500      | 137.50  |

| Sublet Performed | Description               | Total   |
|------------------|---------------------------|---------|
| 9996-130         | CEMENT MATERIAL DISCOUNT  | -583.67 |
| 9995-130         | CEMENT EQUIPMENT DISCOUNT | -215.50 |

|     | Description                       | Hours | Unit Price | Total   |
|-----|-----------------------------------|-------|------------|---------|
| 399 | SQUEEZE PUMP (KICK OFF PLUG PUMP) | 1.00  | 1695.00    | 1695.00 |
| 399 | EQUIPMENT MILEAGE (ONE WAY)       | 10.00 | 5.00       | 50.00   |
| 528 | MIN. BULK DELIVERY                | 1.00  | 410.00     | 410.00  |

*Alan Blukow*  
NOV 13 2012

Amount Due 8446.94 if paid after 11/29/2012

|        |         |           |     |         |         |    |         |
|--------|---------|-----------|-----|---------|---------|----|---------|
| Parts: | 5836.67 | Freight:  | .00 | Tax:    | 409.74  | AR | 7602.24 |
| Labor: | .00     | Misc:     | .00 | Total:  | 7602.24 |    |         |
| Sublt: | -799.17 | Supplies: | .00 | Change: | .00     |    |         |

Signed \_\_\_\_\_ Date \_\_\_\_\_





**CONSOLIDATED**  
Oil Well Services, LLC

TICKET NUMBER 37262  
LOCATION Oakley, KS  
FOREMAN Kelly Gabe

PO Box 884, Chanute, KS 66720  
620-431-9210 or 800-467-8676

**FIELD TICKET & TREATMENT REPORT**  
**CEMENT**

| DATE            | CUSTOMER # | WELL NAME & NUMBER | SECTION | TOWNSHIP        | RANGE            | COUNTY |
|-----------------|------------|--------------------|---------|-----------------|------------------|--------|
| 10-29-12        | 1809       | Schaetz #2-21      | 21      | 13 <sup>s</sup> | 32 <sup>49</sup> | Logan  |
| CUSTOMER        |            |                    | OKLEY   |                 |                  |        |
| MAILING ADDRESS |            |                    | TRUCK # | DRIVER          | TRUCK #          | DRIVER |
| CITY            |            |                    | 5109    | Jelly J         |                  |        |
| STATE           |            |                    | RD 1W   | Miles S         |                  |        |
| ZIP CODE        |            |                    | 15 W    | Jordan L        |                  |        |
|                 |            |                    | into    |                 |                  |        |

JOB TYPE Post-corer HOLE SIZE \_\_\_\_\_ HOLE DEPTH 4756 CASING SIZE & WEIGHT 4 1/2 11.6 #  
 CASING DEPTH \_\_\_\_\_ DRILL PIPE \_\_\_\_\_ TUBING 2 3/8 OTHER PC @ 2507  
 SLURRY WEIGHT 125 SLURRY VOL \_\_\_\_\_ WATER gal/sk \_\_\_\_\_ CEMENT LEFT in CASING \_\_\_\_\_  
 DISPLACEMENT 8 3/4 bbl DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE \_\_\_\_\_

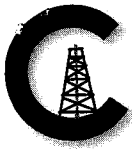
REMARKS: safety meeting, rigged up on well, circulated oil out of hole, spotted sand on plug & displaced to 3326', ~~then~~ waited for sand to drop, opened tool, mixed 275 sks 85/15 89 gel 1/4 # Flo-seal with 250 # Hulls, shut down for 15 min, mixed 50 sks, & displaced with 8 3/4 bbl water, shut tool & pressured to 1000 #, ran 5 JTS & reversed out, washed out pump & lines, rigged down

| ACCOUNT CODE | QUANTITY or UNITS | DESCRIPTION of SERVICES or PRODUCT | UNIT PRICE         | TOTAL              |
|--------------|-------------------|------------------------------------|--------------------|--------------------|
| 5401B        | 1                 | PUMP CHARGE                        | 1695 <sup>00</sup> | 1695 <sup>00</sup> |
| 5406         | 10                | MILEAGE                            | 5 <sup>00</sup>    | 50 <sup>00</sup>   |
| 1104S        | 275 SKS           | Class A cement                     | 17 <sup>65</sup>   | 4853 <sup>75</sup> |
| 1108         | 50 SKS            | Poz                                | .12                | 6 <sup>00</sup>    |
| 1118B        | 2444 #            | Bentonite                          | .25                | 611 <sup>00</sup>  |
| 1107         | 81 #              | Flo-seal                           | 2 <sup>82</sup>    | 228 <sup>42</sup>  |
| 5407         | 15.25             | Ton Mileage delivery               | 1 <sup>67</sup>    | 410 <sup>00</sup>  |
| 1105         | 250 #             | Cotton seed Hulls                  | .55                | 137 <sup>50</sup>  |
|              |                   |                                    |                    | 7991 <sup>67</sup> |
|              |                   |                                    |                    | 799 <sup>17</sup>  |
|              |                   |                                    |                    | 7192 <sup>50</sup> |
|              |                   |                                    | SALES TAX          | 409.74             |
|              |                   |                                    | ESTIMATED TOTAL    | 7602.24            |

Ravin 3737  
1:00 PM  
AUTHORIZATION Don W... TITLE \_\_\_\_\_ DATE 10-29-12

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.

254123



**CONSOLIDATED**  
Oil Well Services, LLC

**REMIT TO**  
Consolidated Oil Well Services, LLC  
Dept. 970  
P.O. Box 4346  
Houston, TX 77210-4346

NOV 05 2012

**MAIN OFFICE**  
P.O. Box 884  
Chanute, KS 66720  
620/431-9210 • 1-800/467-8676  
Fax 620/431-0012

INVOICE Invoice # 254144  
-----  
Invoice Date: 10/31/2012 Terms: 10/10/30,n/30 Page 1  
-----

CHACO ENERGY COMPANY  
P.O. BOX 1587  
DENVER CO 80201  
(303)744-1480

SCHEETZ 2-21  
37264  
21-13-32  
10-30-2012  
KS

| Part Number | Description             | Qty     | Unit Price | Total   |
|-------------|-------------------------|---------|------------|---------|
| 1104S       | CLASS "A" CEMENT (SALE) | 285.00  | 17.6500    | 5030.25 |
| 1108        | FLY ASH (POZMIX)        | 40.00   | .1200      | 4.80    |
| 1118B       | PREMIUM GEL / BENTONITE | 2002.00 | .2500      | 500.50  |
| 1107        | FLO-SEAL (25#)          | 68.75   | 2.8200     | 193.88  |
| 1102        | CALCIUM CHLORIDE (50#)  | 141.00  | .8900      | 125.49  |

| Sublet Performed | Description               | Total   |
|------------------|---------------------------|---------|
| 9996-130         | CEMENT MATERIAL DISCOUNT  | -585.49 |
| 9995-130         | CEMENT EQUIPMENT DISCOUNT | -215.50 |

|     | Description                       | Hours | Unit Price | Total   |
|-----|-----------------------------------|-------|------------|---------|
| 399 | SQUEEZE PUMP (KICK OFF PLUG PUMP) | 1.00  | 1695.00    | 1695.00 |
| 399 | EQUIPMENT MILEAGE (ONE WAY)       | 10.00 | 5.00       | 50.00   |
| 566 | MIN. BULK DELIVERY                | 1.00  | 410.00     | 410.00  |

*Alan Peterson*

NOV 13 2012

Amount Due 8466.60 if paid after 11/30/2012

|        |         |           |     |         |         |    |         |
|--------|---------|-----------|-----|---------|---------|----|---------|
| Parts: | 5854.92 | Freight:  | .00 | Tax:    | 411.01  | AR | 7619.94 |
| Labor: | .00     | Misc:     | .00 | Total:  | 7619.94 |    |         |
| Sublt: | -800.99 | Supplies: | .00 | Change: | .00     |    |         |

Signed \_\_\_\_\_ Date \_\_\_\_\_



**CONSOLIDATED**  
Oil Well Services, LLC

TICKET NUMBER 37264  
LOCATION Oakley, KS  
FOREMAN Kelly Gabel  
Walt Dinkel

PO Box 884, Chanute, KS 66720  
620-431-9210 or 800-467-8676

**FIELD TICKET & TREATMENT REPORT**  
**CEMENT**

| DATE                            | CUSTOMER # | WELL NAME & NUMBER | SECTION | TOWNSHIP        | RANGE           | COUNTY |
|---------------------------------|------------|--------------------|---------|-----------------|-----------------|--------|
| 10-30-12                        | 1809       | Scheetz #2-21      | 21      | 13 <sup>s</sup> | 32 <sup>w</sup> | Logan  |
| CUSTOMER<br><u>Chaco Energy</u> |            |                    | Oakley  |                 |                 |        |
| MAILING ADDRESS                 |            |                    | 5 + 0   |                 |                 |        |
| CITY                            |            |                    | Quailed |                 |                 |        |
| STATE                           |            |                    | 1w      |                 |                 |        |
| ZIP CODE                        |            |                    | 15      |                 |                 |        |
|                                 |            |                    | Winto   |                 |                 |        |
| TRUCK #                         | DRIVER     | TRUCK #            | DRIVER  |                 |                 |        |
| 399                             | Damon M    |                    |         |                 |                 |        |
| 528                             | Travis W   |                    |         |                 |                 |        |
| 566                             | Mike M     |                    |         |                 |                 |        |

JOB TYPE Squeeze HOLE SIZE \_\_\_\_\_ HOLE DEPTH \_\_\_\_\_ CASING SIZE & WEIGHT 4 1/2 11.6 #  
 CASING DEPTH \_\_\_\_\_ DRILL PIPE \_\_\_\_\_ TUBING \_\_\_\_\_ OTHER Perfs 1650'  
 SLURRY WEIGHT 12<sup>s</sup>-15 SLURRY VOL \_\_\_\_\_ WATER gal/sk \_\_\_\_\_ CEMENT LEFT in CASING \_\_\_\_\_  
 DISPLACEMENT \_\_\_\_\_ DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE \_\_\_\_\_

REMARKS: safety meeting, tied onto backside & pressured to 500 #  
Hooked onto tubing, pumped 3 bbl, mixed SKS 85/15 800 gal 1/4 #  
Flu-seal & tailed in with 50 SKS com 390 CC, washed out pumps &  
lines, displaced with 7 bbl water & staged on cement, pressured  
squeeze to 500 #, Released pressure, dried up, reversed out  
rigged down

*Thank You  
Walt, Kelly & Crew*

| ACCOUNT CODE | QUANTITY or UNITS | DESCRIPTION of SERVICES or PRODUCT | UNIT PRICE         | TOTAL              |
|--------------|-------------------|------------------------------------|--------------------|--------------------|
| 5401B        | 1                 | PUMP CHARGE                        | 1695 <sup>00</sup> | 1695 <sup>00</sup> |
| 5406         | 10                | MILEAGE                            | 5 <sup>00</sup>    | 50 <sup>00</sup>   |
| 11045        | 285 SKS           | Class A cement                     | 1765               | 5030 <sup>25</sup> |
| 1108         | 40 SKS            | Poz                                | .12                | 4 <sup>80</sup>    |
| 1118B        | 2002 #            | Bentonite                          | .25                | 500 <sup>50</sup>  |
| 1107         | 6875 #            | Flu-seal                           | 2.83               | 19388              |
| 1102         | 141 #             | calcium chloride                   | .89                | 1254.9             |
| 5407         | 14,86             | Ton Mileage                        | 1.67               | 410 <sup>00</sup>  |
|              |                   |                                    |                    | 8009.92            |
|              |                   |                                    |                    | 800.99             |
|              |                   |                                    |                    | 2209.93            |
|              |                   |                                    | SALES TAX          | 411.01             |
|              |                   |                                    | ESTIMATED TOTAL    | 7619.94            |

Ravin 3737

2:00 PM

AUTHORIZATION Arin W... TITLE \_\_\_\_\_ DATE 10-30-12

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.

254144



## DRILL STEM TEST REPORT

Prepared For: **Chaco Energy Company**

PO Box 1587  
Denver, Co 80201

ATTN: Austin Garner

### **Scheetz #1-21**

#### **21-13s-32w Logan,KS**

Start Date: 2012.09.12 @ 07:09:00

End Date: 2012.09.12 @ 13:36:00

Job Ticket #: 50139                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.09.18 @ 10:11:16



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Chaco Energy Company

**21-13s-32w Logan,KS**

PO Box 1587  
Denver, Co 80201

**Scheetz #1-21**

Job Ticket: 50139

**DST#: 1**

ATTN: Austin Garner

Test Start: 2012.09.12 @ 07:09:00

## GENERAL INFORMATION:

Formation: **"K & L"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:24:30

Time Test Ended: 13:36:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Sam Esparza

Unit No: 64

**Interval: 4267.00 ft (KB) To 4325.00 ft (KB) (TVD)**

Reference Elevations: 3029.00 ft (KB)

Total Depth: 4325.00 ft (KB) (TVD)

3024.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 8167 Outside**

Press @ Run Depth: 22.72 psig @ 4268.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.09.12

End Date:

2012.09.12

Last Calib.:

2012.09.12

Start Time: 07:09:05

End Time:

13:35:59

Time On Btm:

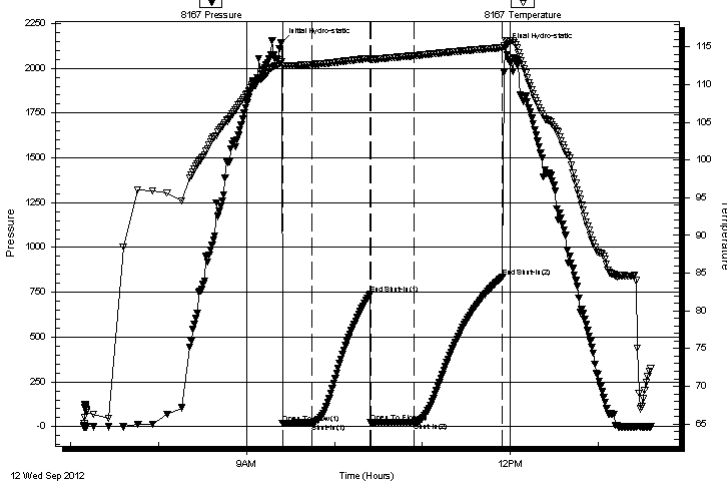
2012.09.12 @ 09:24:00

Time Off Btm:

2012.09.12 @ 11:56:30

**TEST COMMENT:** IF: Weak surface blow .  
IS: No return.  
FF: No blow .  
FS: No return.

Pressure vs. Time



## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 2143.65         | 113.01       | Initial Hydro-static |
| 1           | 19.18           | 112.54       | Open To Flow (1)     |
| 21          | 20.47           | 112.64       | Shut-In(1)           |
| 60          | 737.72          | 113.49       | End Shut-In(1)       |
| 61          | 21.83           | 113.29       | Open To Flow (2)     |
| 90          | 22.72           | 113.82       | Shut-In(2)           |
| 151         | 835.31          | 114.89       | End Shut-In(2)       |
| 153         | 2115.34         | 115.79       | Final Hydro-static   |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 5.00        | Mud 100m    | 0.02         |
|             |             |              |
|             |             |              |
|             |             |              |
|             |             |              |

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Chaco Energy Company

**21-13s-32w Logan,KS**

PO Box 1587  
Denver, Co 80201

**Scheetz #1-21**

Job Ticket: 50139

**DST#: 1**

ATTN: Austin Garner

Test Start: 2012.09.12 @ 07:09:00

## GENERAL INFORMATION:

Formation: "K & L"

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:24:30

Time Test Ended: 13:36:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Sam Esparza

Unit No: 64

**Interval: 4267.00 ft (KB) To 4325.00 ft (KB) (TVD)**

Total Depth: 4325.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3029.00 ft (KB)

3024.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 6669** Outside

Press @ RunDepth: psig @ 4268.00 ft (KB)

Start Date: 2012.09.12

End Date:

2012.09.12

Start Time: 07:09:05

End Time:

13:35:44

Capacity: 8000.00 psig

Last Calib.:

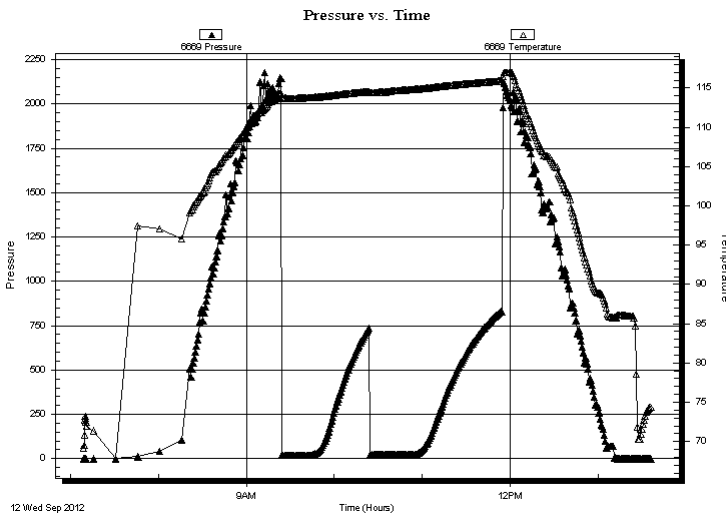
2012.09.12

Time On Btm:

Time Off Btm:

**TEST COMMENT:** IF: Weak surface blow .  
IS: No return.  
FF: No blow .  
FS: No return.

## PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|------------|
|             |                 |              |            |
|             |                 |              |            |
|             |                 |              |            |
|             |                 |              |            |
|             |                 |              |            |
|             |                 |              |            |
|             |                 |              |            |
|             |                 |              |            |
|             |                 |              |            |
|             |                 |              |            |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 5.00        | Mud 100m    | 0.02         |
|             |             |              |
|             |             |              |
|             |             |              |
|             |             |              |
|             |             |              |

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Chaco Energy Company

**21-13s-32w Logan,KS**

PO Box 1587  
Denver, Co 80201

**Scheetz #1-21**

Job Ticket: 50139

**DST#: 1**

ATTN: Austin Garner

Test Start: 2012.09.12 @ 07:09:00

## Tool Information

|                           |                    |                       |                                |                                    |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe:               | Length: 4130.00 ft | Diameter: 3.80 inches | Volume: 57.93 bbl              | Tool Weight: 2000.00 lb            |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 0.00 inches | Volume: 0.00 bbl               | Weight set on Packer: 20000.00 lb  |
| Drill Collar:             | Length: 123.00 ft  | Diameter: 2.25 inches | Volume: 0.60 bbl               | Weight to Pull Loose: 80000.00 lb  |
|                           |                    |                       | <u>Total Volume: 58.53 bbl</u> | Tool Chased 0.00 ft                |
| Drill Pipe Above KB:      | 15.00 ft           |                       |                                | String Weight: Initial 54000.00 lb |
| Depth to Top Packer:      | 4267.00 ft         |                       |                                | Final 54000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                       |                                |                                    |
| Interval between Packers: | 58.00 ft           |                       |                                |                                    |
| Tool Length:              | 87.00 ft           |                       |                                |                                    |
| Number of Packers:        | 2                  | Diameter: 6.75 inches |                                |                                    |

Tool Comments:

## Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths                |
|------------------|-------------|------------|----------|------------|-------------------------------|
| Change Over Sub  | 1.00        |            |          | 4239.00    |                               |
| Shut In Tool     | 5.00        |            |          | 4244.00    |                               |
| Hydraulic tool   | 5.00        |            |          | 4249.00    |                               |
| Jars             | 5.00        |            |          | 4254.00    |                               |
| Safety Joint     | 3.00        |            |          | 4257.00    |                               |
| Packer           | 5.00        |            |          | 4262.00    | 29.00 Bottom Of Top Packer    |
| Packer           | 5.00        |            |          | 4267.00    |                               |
| Stubb            | 1.00        |            |          | 4268.00    |                               |
| Recorder         | 0.00        | 6669       | Outside  | 4268.00    |                               |
| Recorder         | 0.00        | 8167       | Outside  | 4268.00    |                               |
| Perforations     | 20.00       |            |          | 4288.00    |                               |
| Change Over Sub  | 1.00        |            |          | 4289.00    |                               |
| Drill Pipe       | 31.00       |            |          | 4320.00    |                               |
| Change Over Sub  | 1.00        |            |          | 4321.00    |                               |
| Bullnose         | 4.00        |            |          | 4325.00    | 58.00 Bottom Packers & Anchor |

**Total Tool Length: 87.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Chaco Energy Company

**21-13s-32w Logan,KS**

PO Box 1587  
Denver, Co 80201

**Scheetz #1-21**

Job Ticket: 50139

**DST#: 1**

ATTN: Austin Garner

Test Start: 2012.09.12 @ 07:09:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

| Length<br>ft | Description | Volume<br>bbl |
|--------------|-------------|---------------|
| 5.00         | Mud 100m    | 0.025         |

Total Length: 5.00 ft      Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

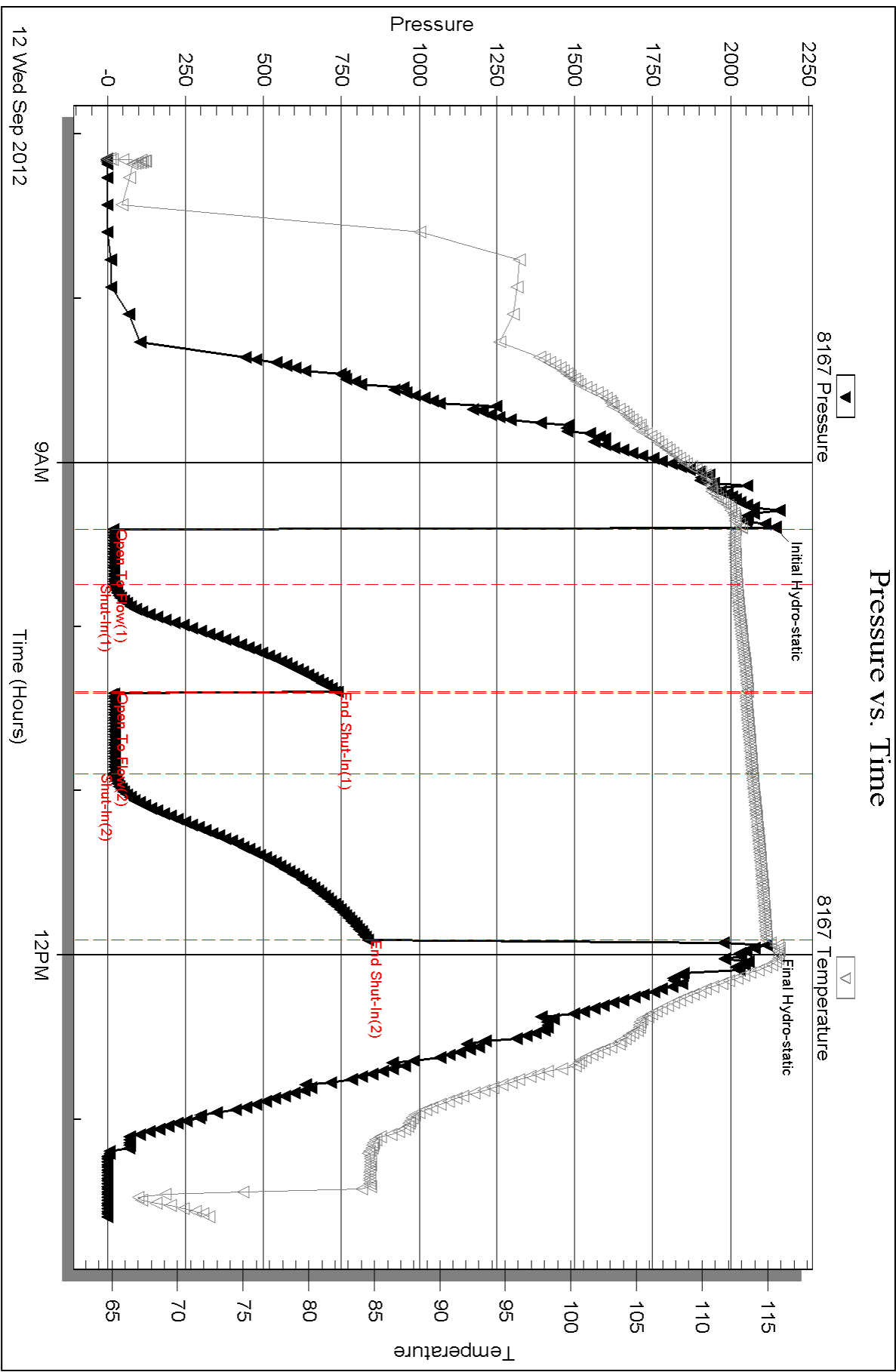
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



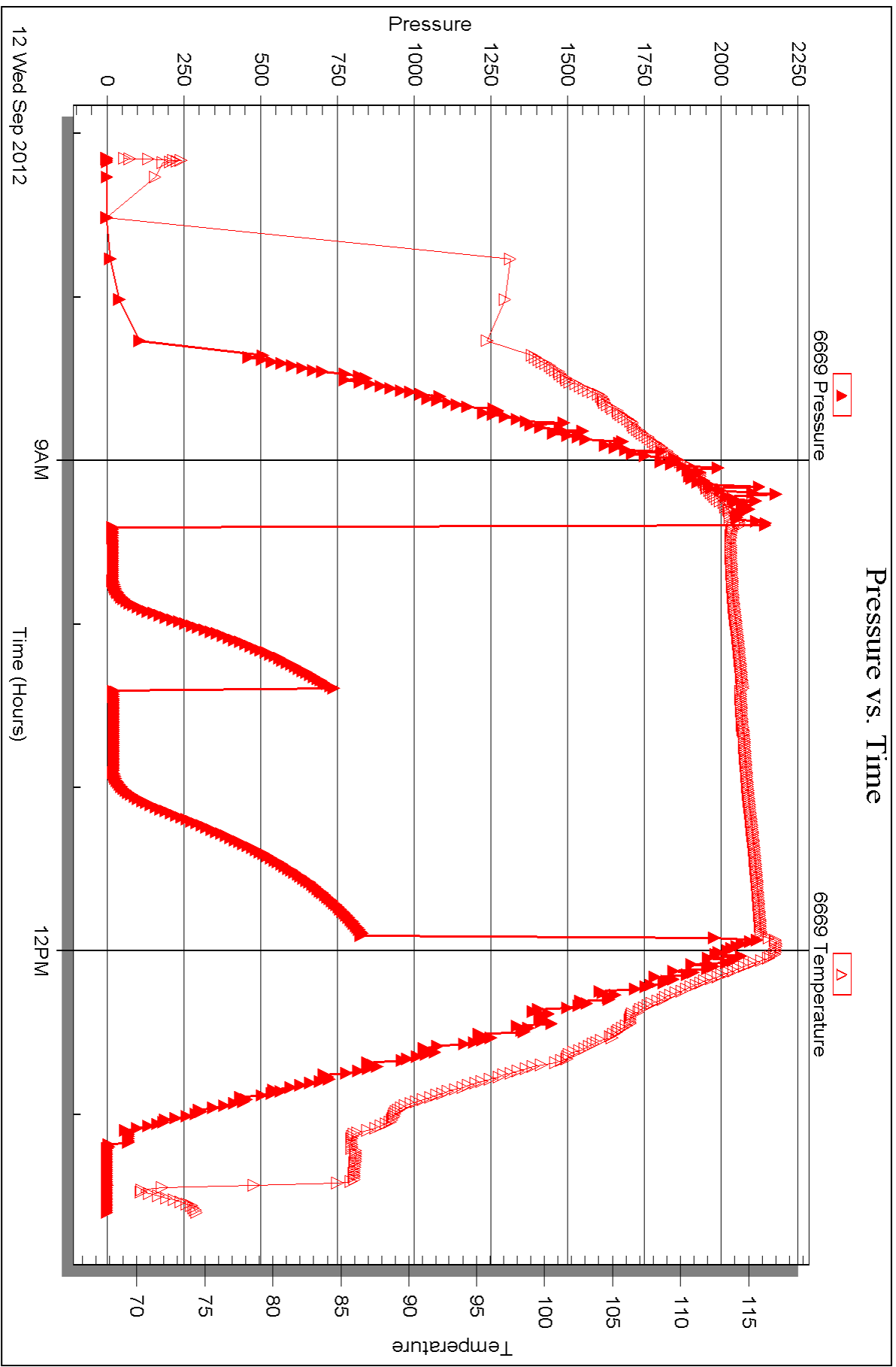


Serial #: 6669

Outside Chaco Energy Company

Scheetz #1-21

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **Chaco Energy Company**

PO Box 1587  
Denver, Co 80201

ATTN: Austin Garner

### **Scheetz #1-21**

### **21-13s-32w Logan,KS**

Start Date: 2012.09.13 @ 19:22:00

End Date: 2012.09.14 @ 01:32:30

Job Ticket #: 50140                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.09.18 @ 10:10:13



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Chaco Energy Company

**21-13s-32w Logan,KS**

PO Box 1587  
Denver, Co 80201

**Scheetz #1-21**

Job Ticket: 50140

**DST#: 2**

ATTN: Austin Garner

Test Start: 2012.09.13 @ 19:22:00

## GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:19:30

Time Test Ended: 01:32:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Sam Esparza

Unit No: 64

**Interval: 4545.00 ft (KB) To 4615.00 ft (KB) (TVD)**

Reference Elevations: 3029.00 ft (KB)

Total Depth: 4615.00 ft (KB) (TVD)

3024.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 6772 Outside**

Press @ Run Depth: 22.25 psig @ 4546.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.09.13

End Date:

2012.09.14

Last Calib.:

2012.09.14

Start Time:

19:22:05

End Time:

01:32:29

Time On Btm:

2012.09.13 @ 21:19:15

Time Off Btm:

2012.09.13 @ 23:51:00

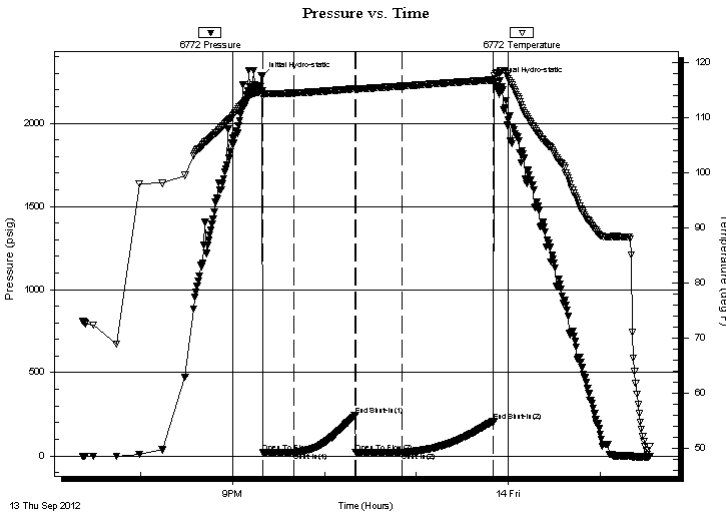
**TEST COMMENT:** IF: Weak surface blow died @ 19 min.

IS: No return.

FF: No blow.

FS: No return.

## PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 2283.28         | 114.80       | Initial Hydro-static |
| 1           | 21.06           | 113.73       | Open To Flow (1)     |
| 21          | 21.40           | 114.39       | Shut-In(1)           |
| 61          | 245.33          | 115.17       | End Shut-In(1)       |
| 61          | 21.22           | 115.03       | Open To Flow (2)     |
| 91          | 22.25           | 115.65       | Shut-In(2)           |
| 151         | 208.37          | 116.78       | End Shut-In(2)       |
| 152         | 2248.70         | 117.59       | Final Hydro-static   |

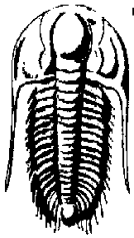
## Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 5.00        | Mud 100m    | 0.02         |
|             |             |              |
|             |             |              |
|             |             |              |
|             |             |              |

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC.**

## DRILL STEM TEST REPORT

Chaco Energy Company

**21-13s-32w Logan,KS**

PO Box 1587  
Denver, Co 80201

**Scheetz #1-21**

Job Ticket: 50140

**DST#: 2**

ATTN: Austin Garner

Test Start: 2012.09.13 @ 19:22:00

### GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:19:30

Time Test Ended: 01:32:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Sam Esparza

Unit No: 64

**Interval: 4545.00 ft (KB) To 4615.00 ft (KB) (TVD)**

Total Depth: 4615.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3029.00 ft (KB)

3024.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 6669 Outside**

Press @ Run Depth: psig @ 4546.00 ft (KB)

Start Date: 2012.09.13

End Date:

Start Time: 19:22:05

End Time:

Capacity: 8000.00 psig

Last Calib.: 2012.09.14

Time On Btm:

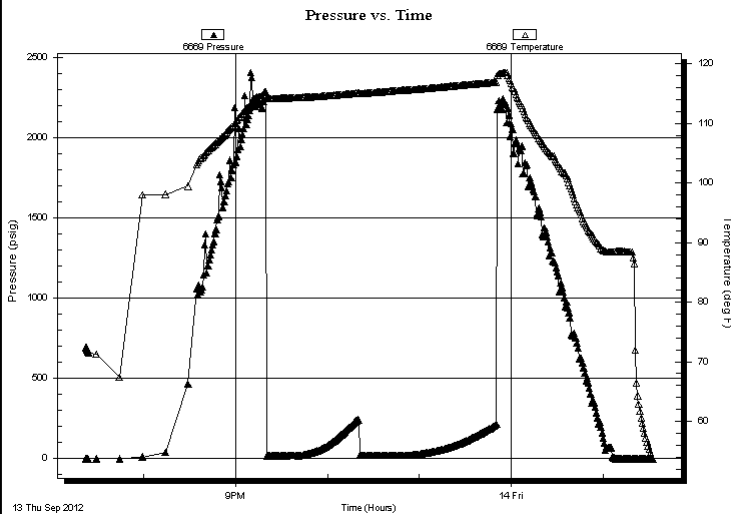
Time Off Btm:

**TEST COMMENT:** IF: Weak surface blow died @ 19 min.

IS: No return.

FF: No blow.

FS: No return.



### PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|------------|
|             |                 |              |            |
|             |                 |              |            |
|             |                 |              |            |

### Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 5.00        | Mud 100m    | 0.02         |
|             |             |              |
|             |             |              |
|             |             |              |

### Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Chaco Energy Company

**21-13s-32w Logan,KS**

PO Box 1587  
Denver, Co 80201

**Scheetz #1-21**

Job Ticket: 50140

**DST#: 2**

ATTN: Austin Garner

Test Start: 2012.09.13 @ 19:22:00

## Tool Information

|                           |                    |                       |                                |                                    |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe:               | Length: 4415.00 ft | Diameter: 3.80 inches | Volume: 61.93 bbl              | Tool Weight: 2000.00 lb            |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 0.00 inches | Volume: 0.00 bbl               | Weight set on Packer: 20000.00 lb  |
| Drill Collar:             | Length: 123.00 ft  | Diameter: 2.25 inches | Volume: 0.60 bbl               | Weight to Pull Loose: 80000.00 lb  |
|                           |                    |                       | <u>Total Volume: 62.53 bbl</u> | Tool Chased 0.00 ft                |
| Drill Pipe Above KB:      | 22.00 ft           |                       |                                | String Weight: Initial 55000.00 lb |
| Depth to Top Packer:      | 4545.00 ft         |                       |                                | Final 55000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                       |                                |                                    |
| Interval between Packers: | 70.00 ft           |                       |                                |                                    |
| Tool Length:              | 99.00 ft           |                       |                                |                                    |
| Number of Packers:        | 2                  | Diameter: 6.75 inches |                                |                                    |

Tool Comments:

## Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths                |
|------------------|-------------|------------|----------|------------|-------------------------------|
| Change Over Sub  | 1.00        |            |          | 4517.00    |                               |
| Shut In Tool     | 5.00        |            |          | 4522.00    |                               |
| Hydraulic tool   | 5.00        |            |          | 4527.00    |                               |
| Jars             | 5.00        |            |          | 4532.00    |                               |
| Safety Joint     | 3.00        |            |          | 4535.00    |                               |
| Packer           | 5.00        |            |          | 4540.00    | 29.00 Bottom Of Top Packer    |
| Packer           | 5.00        |            |          | 4545.00    |                               |
| Stubb            | 1.00        |            |          | 4546.00    |                               |
| Recorder         | 0.00        | 6669       | Outside  | 4546.00    |                               |
| Recorder         | 0.00        | 6772       | Outside  | 4546.00    |                               |
| Perforations     | 32.00       |            |          | 4578.00    |                               |
| Change Over Sub  | 1.00        |            |          | 4579.00    |                               |
| Drill Pipe       | 31.00       |            |          | 4610.00    |                               |
| Change Over Sub  | 1.00        |            |          | 4611.00    |                               |
| Bullnose         | 4.00        |            |          | 4615.00    | 70.00 Bottom Packers & Anchor |

**Total Tool Length: 99.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Chaco Energy Company

**21-13s-32w Logan,KS**

PO Box 1587  
Denver, Co 80201

**Scheetz #1-21**

Job Ticket: 50140

**DST#: 2**

ATTN: Austin Garner

Test Start: 2012.09.13 @ 19:22:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.19 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3500.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

| Length<br>ft | Description | Volume<br>bbl |
|--------------|-------------|---------------|
| 5.00         | Mud 100m    | 0.025         |

Total Length: 5.00 ft      Total Volume: 0.025 bbl

Num Fluid Samples: 0

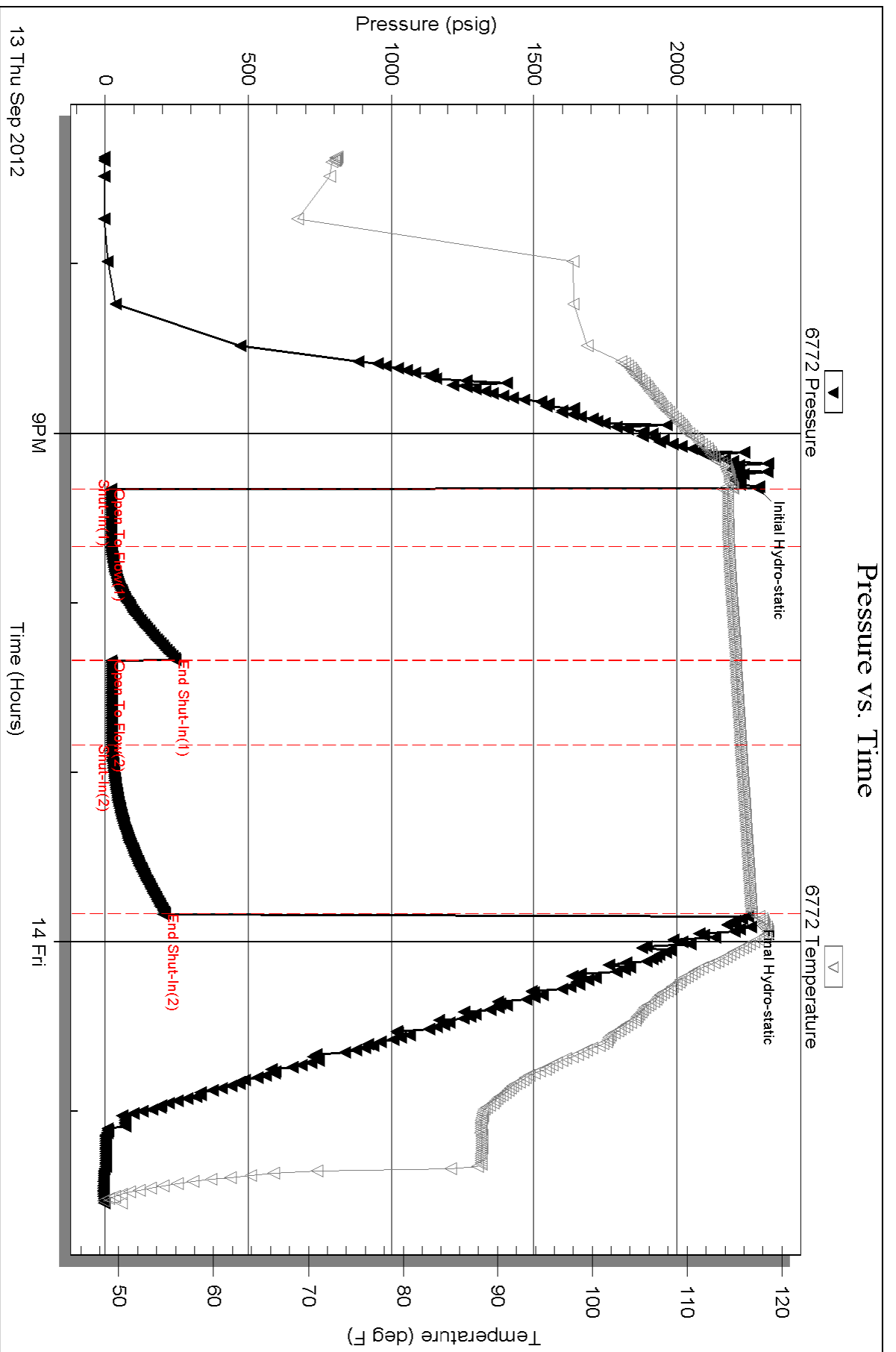
Num Gas Bombs: 0

Serial #:

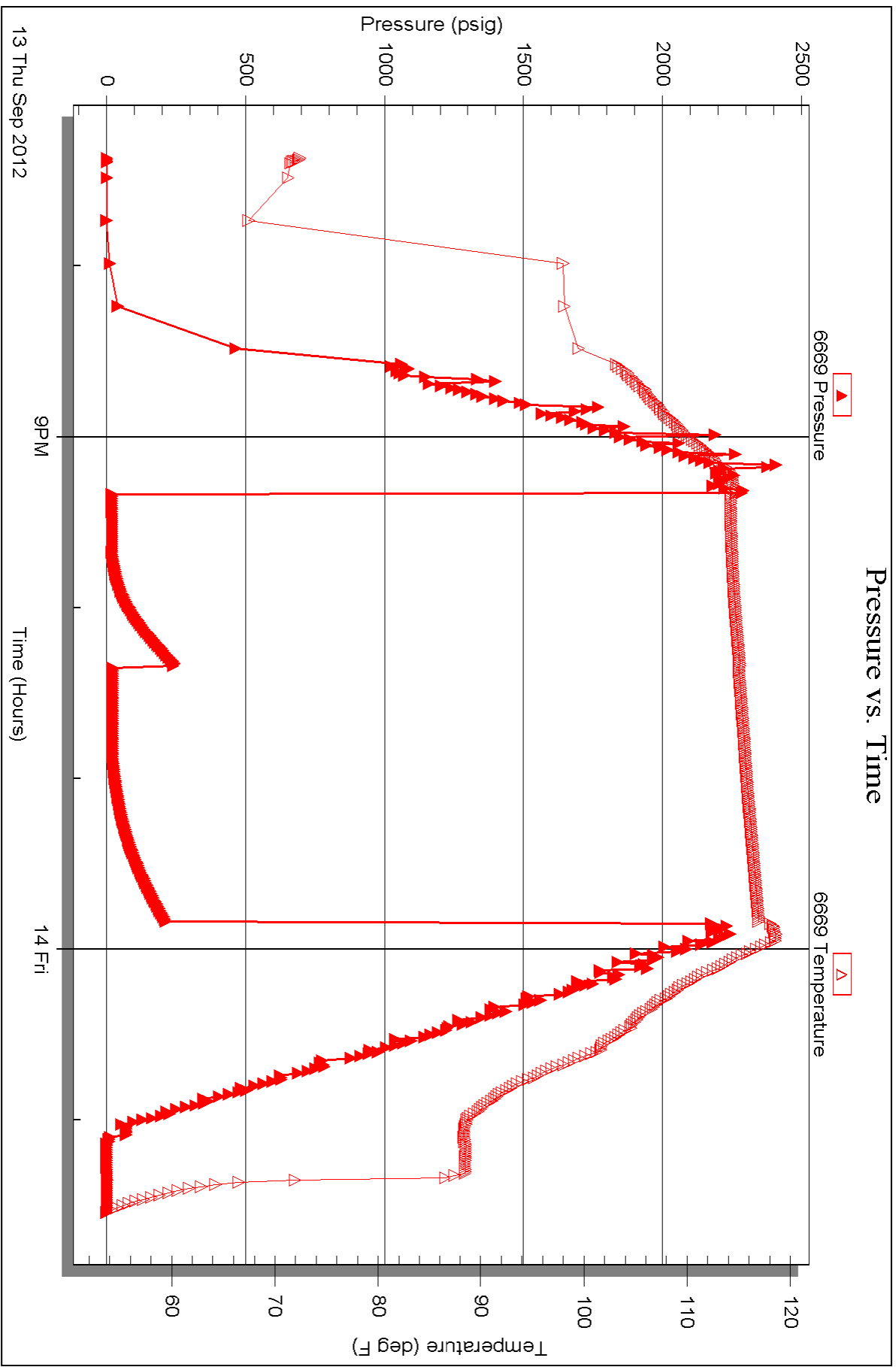
Laboratory Name:

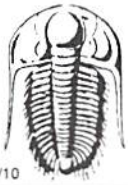
Laboratory Location:

Recovery Comments:









# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 50139

Well Name & No. Schertz #1-21 Test No. 1 Date 9/12/12  
 Company Chaco Energy Company Elevation 3229 KB 3024 GL  
 Address Po Box 1587 Denver, CO 80201  
 Co. Rep / Geo. Austin Garner Rig WW#2  
 Location: Sec. 21 Twp. 13N Rge. 32W Co. Logan State KS

Interval Tested 4267-4325 Zone Tested "K+L" zone  
 Anchor Length 58' Drill Pipe Run 4130 Mud Wt. 9.2  
 Top Packer Depth 4263 Drill Collars Run 123 Vis 57  
 Bottom Packer Depth 4267 Wt. Pipe Run Ø WL 7.2  
 Total Depth 4325 Chlorides 3000 ppm System LCM 1

Blow Description Weak surface blow.  
No returns  
No blow.  
No returns

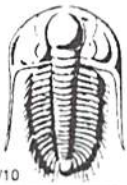
| Rec      | Feet of    | %gas | %oil | %water     | %mud |
|----------|------------|------|------|------------|------|
| <u>5</u> | <u>Mud</u> |      |      | <u>100</u> |      |
| Rec      | Feet of    | %gas | %oil | %water     | %mud |
| Rec      | Feet of    | %gas | %oil | %water     | %mud |
| Rec      | Feet of    | %gas | %oil | %water     | %mud |
| Rec      | Feet of    | %gas | %oil | %water     | %mud |

Rec Total 5 BHT 115 Gravity — API RW — @ — °F Chlorides — ppm

|                                     |  |  |
|-------------------------------------|--|--|
| (A) Initial Hydrostatic <u>2144</u> | <input checked="" type="checkbox"/> Test 1250                    | T-On Location <u>5:45</u>                    |
| (B) First Initial Flow <u>19</u>    | <input checked="" type="checkbox"/> Jars 250                     | T-Started <u>7:09</u>                        |
| (C) First Final Flow <u>20</u>      | <input checked="" type="checkbox"/> Safety Joint 75              | T-Open <u>9:24</u>                           |
| (D) Initial Shut-In <u>738</u>      | <input checked="" type="checkbox"/> Circ Sub <u>N/C</u>          | T-Pulled <u>11:54</u>                        |
| (E) Second Initial Flow <u>22</u>   | <input type="checkbox"/> Hourly Standby                          | T-Out <u>13:36</u>                           |
| (F) Second Final Flow <u>23</u>     | <input checked="" type="checkbox"/> Mileage <u>75 R/Y</u> 116.25 | Comments _____                               |
| (G) Final Shut-In <u>835</u>        | <input type="checkbox"/> Sampler                                 | _____  |
| (H) Final Hydrostatic <u>2115</u>   | <input type="checkbox"/> Straddle                                | _____  |
| Initial Open <u>20</u>              | <input checked="" type="checkbox"/> Shale Packer 250             | <input type="checkbox"/> Ruined Shale Packer |
| Initial Shut-In <u>40</u>           | <input type="checkbox"/> Extra Packer                            | <input type="checkbox"/> Ruined Packer       |
| Final Flow <u>30</u>                | <input type="checkbox"/> Extra Recorder                          | <input type="checkbox"/> Extra Copies        |
| Final Shut-In <u>60</u>             | <input type="checkbox"/> Day Standby                             | Sub Total <u>0</u>                           |
|                                     | <input type="checkbox"/> Accessibility                           | Total <u>1941.25</u>                         |
|                                     | Sub Total <u>1941.25</u>   | MP/DST Disc't _____                          |

Approved By Austin Garner Our Representative [Signature]

TriLOBITE TESTING INC. shall not be liable for damaged 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.



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 50140

Well Name & No. Schertz #1-21 Test No. 2 Date 9/13/12  
 Company Chaco Energy Company Elevation 3029 KB 3024 GL  
 Address Po Box 1587 Denver, CO 80201  
 Co. Rep / Geo. Austin Garner Rig WW #2  
 Location: Sec. 21 Twp. 13S Rge. 32W Co. Logan State KS

Interval Tested 4545-4615 Zone Tested Johnson  
 Anchor Length 70' Drill Pipe Run 4115 Mud Wt. 9.2  
 Top Packer Depth 4541 Drill Collars Run 123 Vis 58  
 Bottom Packer Depth 4545 Wt. Pipe Run Ø WL 9.2  
 Total Depth 4615 Chlorides 3500 ppm System LCM 1

Blow Description Weak surface blow direct @ 19 min.  
No return.  
No blow.  
No return.

| Rec      | Feet of    | %gas | %oil | %water     | %mud |
|----------|------------|------|------|------------|------|
| <u>5</u> | <u>Mud</u> |      |      | <u>100</u> |      |
| 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 Total 5 BHT 117 Gravity — API RW — @ — °F Chlorides — ppm

|                                     |  |  |
|-------------------------------------|--|--|
| (A) Initial Hydrostatic <u>2283</u> | <input checked="" type="checkbox"/> Test 1250                    | T-On Location <u>18:45</u>                   |
| (B) First Initial Flow <u>21</u>    | <input checked="" type="checkbox"/> Jars 250                     | T-Started <u>19:22</u>                       |
| (C) First Final Flow <u>21</u>      | <input checked="" type="checkbox"/> Safety Joint 75              | T-Open <u>21:20</u>                          |
| (D) Initial Shut-In <u>245</u>      | <input checked="" type="checkbox"/> Circ Sub <u>N/C</u>          | T-Pulled <u>23:51</u>                        |
| (E) Second Initial Flow <u>21</u>   | <input type="checkbox"/> Hourly Standby                          | T-Out <u>1:33</u>                            |
| (F) Second Final Flow <u>22</u>     | <input checked="" type="checkbox"/> Mileage <u>75 R/T</u> 116.25 | Comments _____                               |
| (G) Final Shut-In <u>208</u>        | <input type="checkbox"/> Sampler                                 |  |
| (H) Final Hydrostatic <u>2279</u>   | <input type="checkbox"/> Straddle                                |  |
| Initial Open <u>20</u>              | <input checked="" type="checkbox"/> Shale Packer 250             | <input type="checkbox"/> Ruined Shale Packer |
| Initial Shut-In <u>40</u>           | <input type="checkbox"/> Extra Packer                            | <input type="checkbox"/> Ruined Packer       |
| Final Flow <u>30</u>                | <input type="checkbox"/> Extra Recorder                          | <input type="checkbox"/> Extra Copies        |
| Final Shut-In <u>60</u>             | <input type="checkbox"/> Day Standby                             | Sub Total <u>0</u>                           |
|                                     | <input type="checkbox"/> Accessibility                           | Total <u>1941.25</u>                         |
|                                     | Sub Total <u>1941.25</u>   | MP/DST Disc't _____                          |

Approved By Austin Garner Our Representative [Signature]

Trilobite Testing Inc. shall not be liable for damaged 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.



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Chaco Energy Company  
PO Box 1587  
Denver CO. 80201-1587  
ATTN: Austin Garner

**21-13s-32w Logan Co. KS**

**Scheetz 2-21**

Job Ticket: 48895

**DST#: 3**

Test Start: 2012.09.23 @ 01:05:00

## GENERAL INFORMATION:

Formation: **Kansas City "J-K"**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 03:09:30  
 Tester: Jace McKinney  
 Time Test Ended: 08:29:45  
 Unit No: 46  
 Interval: **4220.00 ft (KB) To 4270.00 ft (KB) (TVD)**  
 Reference Elevations: 3037.00 ft (KB)  
 Total Depth: 4270.00 ft (KB) (TVD)  
 3032.00 ft (CF)  
 Hole Diameter: 7.88 inches  
 Hole Condition: Fair  
 KB to GR/CF: 5.00 ft

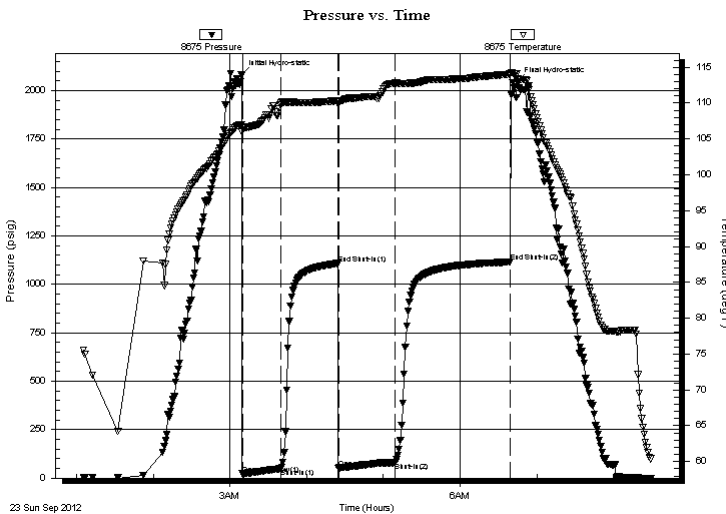
## Serial #: 8675

Inside

Press @ Run Depth: 80.45 psig @ 4221.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.09.23 End Date: 2012.09.23 Last Calib.: 2012.09.23  
 Start Time: 01:05:15 End Time: 08:29:45 Time On Btm: 2012.09.23 @ 03:08:45  
 Time Off Btm: 2012.09.23 @ 06:45:00

TEST COMMENT: Built to 2" blow  
 No return blow  
 Built to 1" blow, Died to 1/2"  
 No return blow

## PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 2083.54         | 107.00       | Initial Hydro-static |
| 1           | 21.56           | 105.98       | Open To Flow (1)     |
| 31          | 48.94           | 110.02       | Shut-In(1)           |
| 76          | 1108.13         | 110.34       | End Shut-In(1)       |
| 76          | 51.83           | 109.94       | Open To Flow (2)     |
| 121         | 80.45           | 112.80       | Shut-In(2)           |
| 211         | 1115.37         | 114.06       | End Shut-In(2)       |
| 217         | 2048.47         | 113.41       | Final Hydro-static   |

## Recovery

| Length (ft) | Description            | Volume (bbl) |
|-------------|------------------------|--------------|
| 125.00      | 100% Mud with oil scum | 0.62         |
|             |                        |              |
|             |                        |              |
|             |                        |              |
|             |                        |              |

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE**  
TESTING, INC

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Chaco Energy Company  
PO Box 1587  
Denver CO. 80201-1587  
ATTN: Austin Garner

**21-13s-32w Logan Co. KS**  
**Scheetz 2-21**  
Job Ticket: 48895      **DST#: 3**  
Test Start: 2012.09.23 @ 01:05:00

## Mud and Cushion Information

|                                  |                            |                 |         |
|----------------------------------|----------------------------|-----------------|---------|
| Mud Type: Gel Chem               | Cushion Type:              | Oil API:        | deg API |
| Mud Weight: 9.00 lb/gal          | Cushion Length: ft         | Water Salinity: | ppm     |
| Viscosity: 54.00 sec/qt          | Cushion Volume: bbl        |                 |         |
| Water Loss: 7.20 in <sup>3</sup> | Gas Cushion Type:          |                 |         |
| Resistivity: ohm.m               | Gas Cushion Pressure: psig |                 |         |
| Salinity: 2800.00 ppm            |                            |                 |         |
| Filter Cake: 1.00 inches         |                            |                 |         |

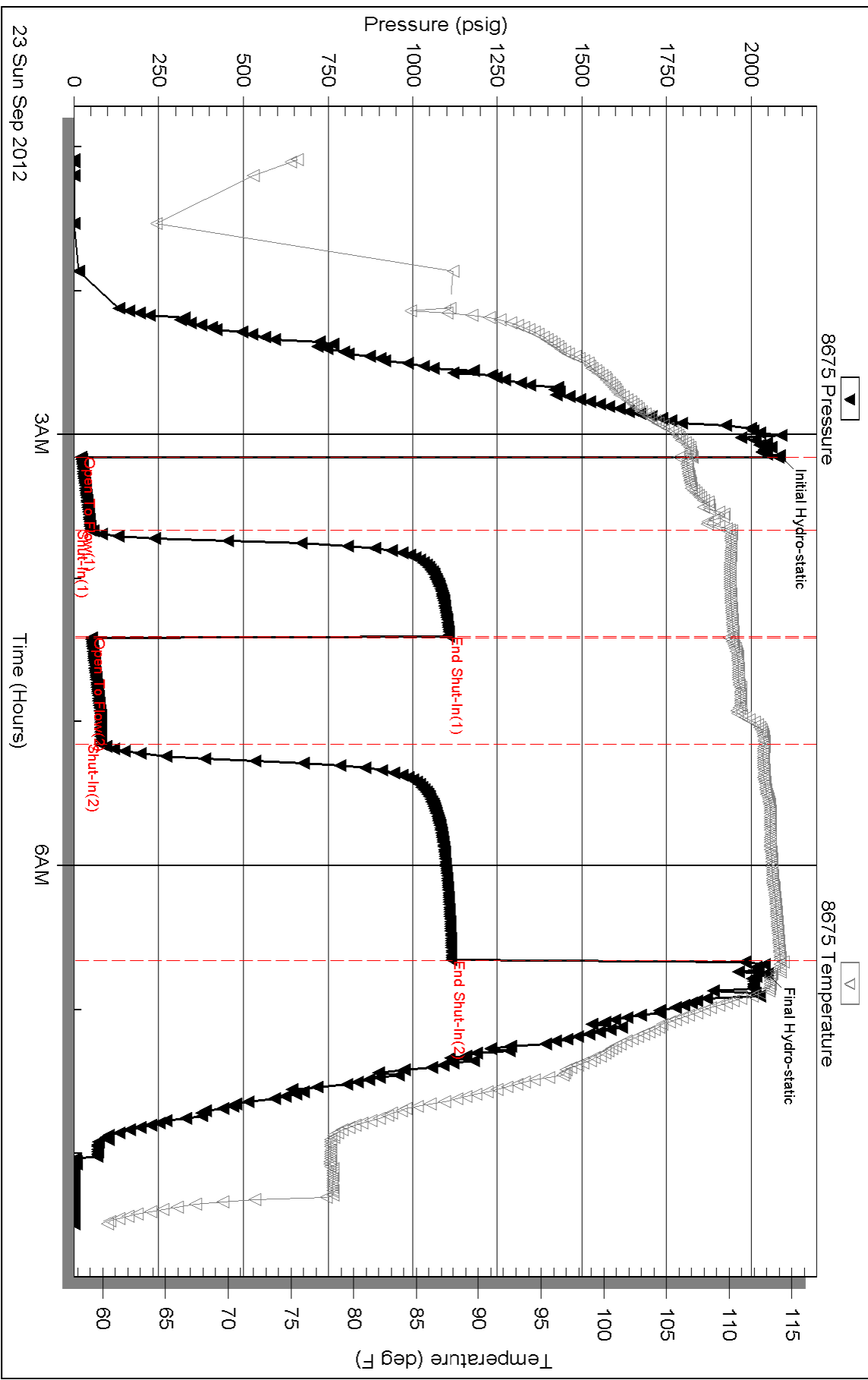
## Recovery Information

Recovery Table

| Length<br>ft | Description            | Volume<br>bbl |
|--------------|------------------------|---------------|
| 125.00       | 100% Mud with oil scum | 0.623         |

Total Length: 125.00 ft      Total Volume: 0.623 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:

### Pressure vs. Time





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Chaco Energy Company  
PO Box 1587  
Denver CO. 80201-1587  
ATTN: Austin Garner

**21-13s-32w Logan Co. KS**

**Scheetz 2-21**

Job Ticket: 48896

**DST#: 4**

Test Start: 2012.09.24 @ 16:05:00

## GENERAL INFORMATION:

Formation: **Fort Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:15:00

Time Test Ended: 21:24:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 46

**Interval: 4502.00 ft (KB) To 4536.00 ft (KB) (TVD)**

Total Depth: 4536.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 3037.00 ft (KB)

3032.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 8675**

**Inside**

Press @ Run Depth: 21.16 psig @ 4503.00 ft (KB)

Start Date: 2012.09.24

End Date:

2012.09.24

Start Time: 16:05:15

End Time:

21:24:00

Capacity: 8000.00 psig

Last Calib.: 2012.09.24

Time On Btm: 2012.09.24 @ 18:13:45

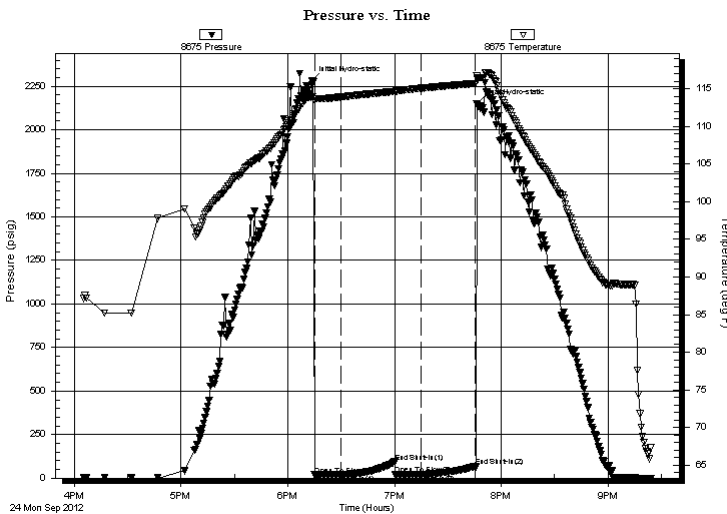
Time Off Btm: 2012.09.24 @ 19:46:15

**TEST COMMENT:** Weak blow, Died in 12 min.

No return blow

No blow

No return blow



## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 2280.18         | 113.93       | Initial Hydro-static |
| 2           | 19.07           | 113.38       | Open To Flow (1)     |
| 17          | 20.29           | 113.90       | Shut-In(1)           |
| 47          | 93.21           | 114.65       | End Shut-In(1)       |
| 47          | 19.65           | 114.61       | Open To Flow (2)     |
| 62          | 21.16           | 115.06       | Shut-In(2)           |
| 92          | 67.85           | 115.69       | End Shut-In(2)       |
| 93          | 2147.62         | 116.65       | Final Hydro-static   |

## Recovery

| Length (ft) | Description                   | Volume (bbl) |
|-------------|-------------------------------|--------------|
| 5.00        | 100% Mud w with few oil spots | 0.02         |
|             |                               |              |
|             |                               |              |
|             |                               |              |
|             |                               |              |

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Chaco Energy Company  
 PO Box 1587  
 Denver CO. 80201-1587  
 ATTN: Austin Garner

**21-13s-32w Logan Co. KS**  
**Scheetz 2-21**  
 Job Ticket: 48896      **DST#: 4**  
 Test Start: 2012.09.24 @ 16:05:00

## Mud and Cushion Information

|                                  |                            |                 |         |
|----------------------------------|----------------------------|-----------------|---------|
| Mud Type: Gel Chem               | Cushion Type:              | Oil API:        | deg API |
| Mud Weight: 9.00 lb/gal          | Cushion Length: ft         | Water Salinity: | ppm     |
| Viscosity: 54.00 sec/qt          | Cushion Volume: bbl        |                 |         |
| Water Loss: 9.58 in <sup>3</sup> | Gas Cushion Type:          |                 |         |
| Resistivity: ohm.m               | Gas Cushion Pressure: psig |                 |         |
| Salinity: 4000.00 ppm            |                            |                 |         |
| Filter Cake: 1.00 inches         |                            |                 |         |

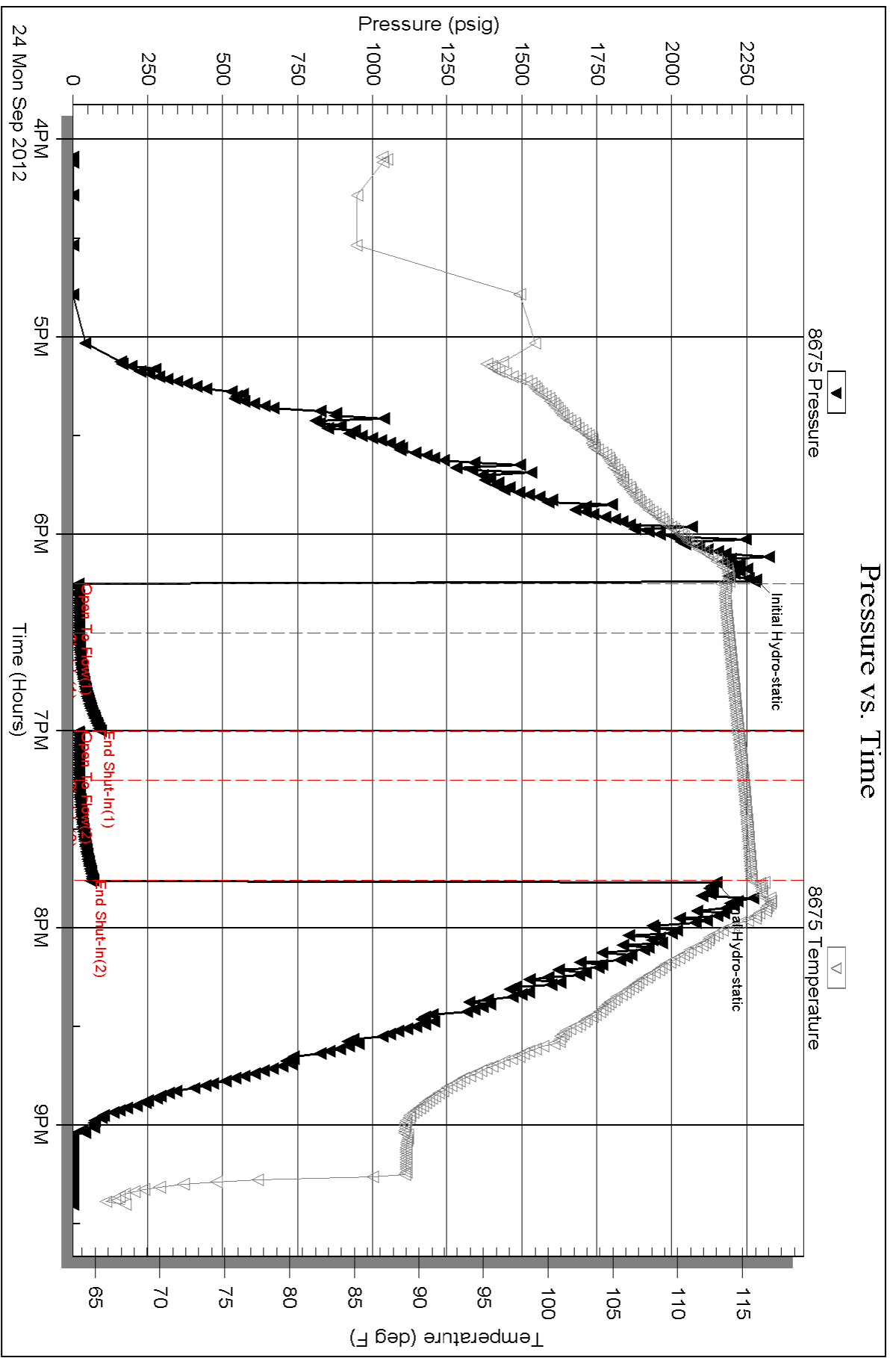
## Recovery Information

Recovery Table

| Length<br>ft | Description                 | Volume<br>bbl |
|--------------|-----------------------------|---------------|
| 5.00         | 100% Mud with few oil spots | 0.025         |

Total Length: 5.00 ft      Total Volume: 0.025 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Chaco Energy Company  
PO Box 1587  
Denver CO. 80201-1587  
ATTN: Austin Garner

**21-13s-32w Logan Co. KS**

**Scheetz 2-21**

Job Ticket: 48896

**DST#: 4**

Test Start: 2012.09.24 @ 16:05:00

## GENERAL INFORMATION:

Formation: **Fort Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:15:00

Time Test Ended: 21:24:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 46

**Interval: 4502.00 ft (KB) To 4536.00 ft (KB) (TVD)**

Total Depth: 4536.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 3037.00 ft (KB)

3032.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 8675**

**Inside**

Press @ Run Depth: 21.16 psig @ 4503.00 ft (KB)

Start Date: 2012.09.24

End Date:

2012.09.24

Start Time: 16:05:15

End Time:

21:24:00

Capacity: 8000.00 psig

Last Calib.: 2012.09.24

Time On Btm: 2012.09.24 @ 18:13:45

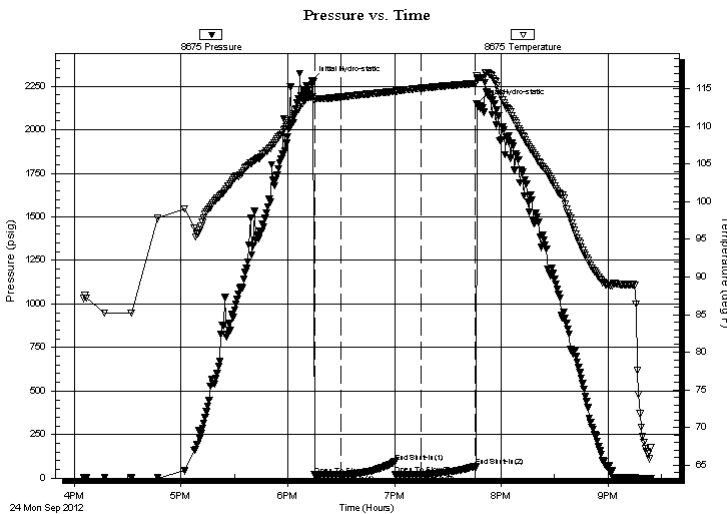
Time Off Btm: 2012.09.24 @ 19:46:15

**TEST COMMENT:** Weak blow , Died in 12 min.

No return blow

No blow

No return blow



## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 2280.18         | 113.93       | Initial Hydro-static |
| 2           | 19.07           | 113.38       | Open To Flow (1)     |
| 17          | 20.29           | 113.90       | Shut-In(1)           |
| 47          | 93.21           | 114.65       | End Shut-In(1)       |
| 47          | 19.65           | 114.61       | Open To Flow (2)     |
| 62          | 21.16           | 115.06       | Shut-In(2)           |
| 92          | 67.85           | 115.69       | End Shut-In(2)       |
| 93          | 2147.62         | 116.65       | Final Hydro-static   |

## Recovery

| Length (ft) | Description                   | Volume (bbl) |
|-------------|-------------------------------|--------------|
| 5.00        | 100% Mud w with few oil spots | 0.02         |
|             |                               |              |
|             |                               |              |
|             |                               |              |
|             |                               |              |

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Chaco Energy Company  
 PO Box 1587  
 Denver CO. 80201-1587  
 ATTN: Austin Garner

**21-13s-32w Logan Co. KS**  
**Scheetz 2-21**  
 Job Ticket: 48896      **DST#: 4**  
 Test Start: 2012.09.24 @ 16:05:00

## Mud and Cushion Information

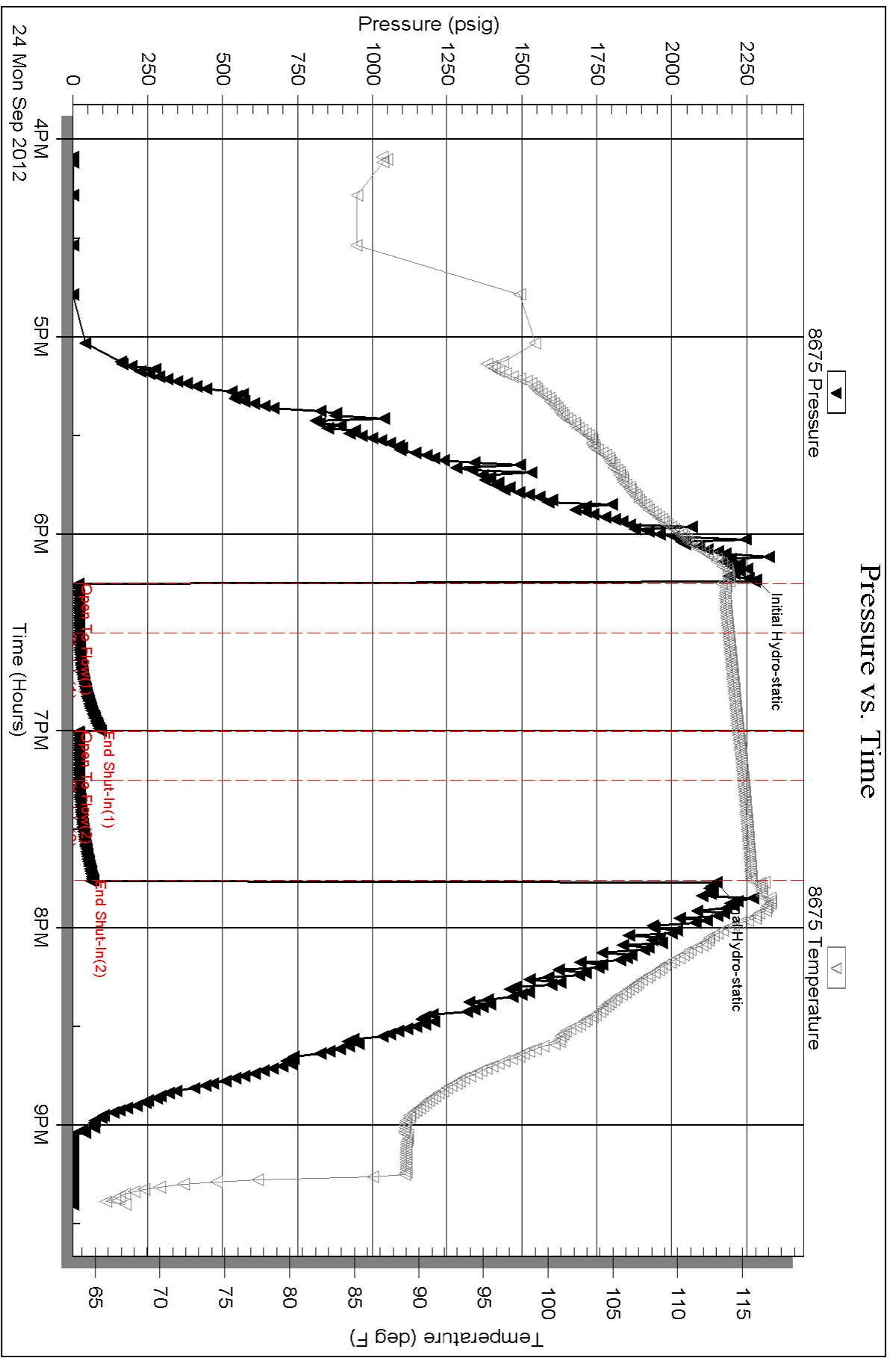
|                                  |                            |                 |         |
|----------------------------------|----------------------------|-----------------|---------|
| Mud Type: Gel Chem               | Cushion Type:              | Oil API:        | deg API |
| Mud Weight: 9.00 lb/gal          | Cushion Length: ft         | Water Salinity: | ppm     |
| Viscosity: 54.00 sec/qt          | Cushion Volume: bbl        |                 |         |
| Water Loss: 9.58 in <sup>3</sup> | Gas Cushion Type:          |                 |         |
| Resistivity: ohm.m               | Gas Cushion Pressure: psig |                 |         |
| Salinity: 4000.00 ppm            |                            |                 |         |
| Filter Cake: 1.00 inches         |                            |                 |         |

## Recovery Information

Recovery Table

| Length<br>ft | Description                 | Volume<br>bbl |
|--------------|-----------------------------|---------------|
| 5.00         | 100% Mud with few oil spots | 0.025         |

Total Length: 5.00 ft      Total Volume: 0.025 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Chaco Energy Company  
PO Box 1587  
Denver CO. 80201-1587  
ATTN: Austin Garner

**21-13s-32w Logan Co. KS**

**Scheetz 2-21**

Job Ticket: 48897

**DST#: 5**

Test Start: 2012.09.25 @ 09:00:00

## GENERAL INFORMATION:

Formation: **Cherokee & Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:10:00

Time Test Ended: 16:35:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 46

**Interval: 4544.00 ft (KB) To 4614.00 ft (KB) (TVD)**

Reference Elevations: 3037.00 ft (KB)

Total Depth: 4614.00 ft (KB) (TVD)

3032.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8675**

**Inside**

Press @ Run Depth: 25.48 psig @ 4545.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.09.25 End Date: 2012.09.25

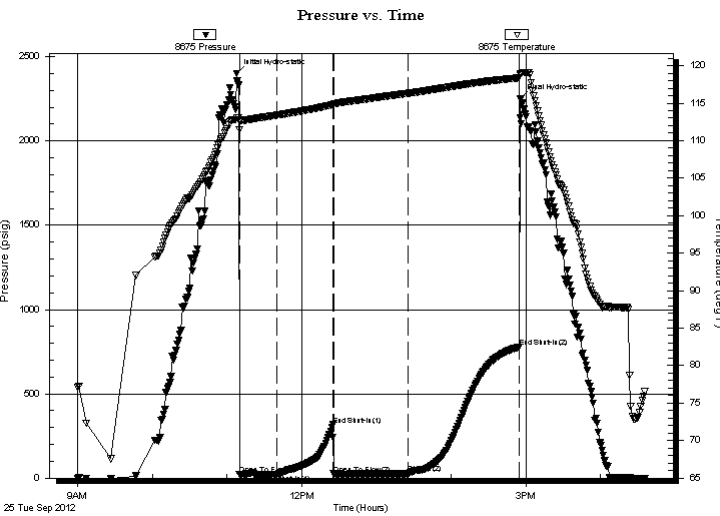
Last Calib.: 2012.09.25

Start Time: 09:00:15 End Time: 16:35:30

Time On Btm: 2012.09.25 @ 11:08:00

Time Off Btm: 2012.09.25 @ 14:55:45

**TEST COMMENT:** Built to 3/4" blow  
No return blow  
Built to 1 1/2" blow  
No return blow



## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 2401.52         | 113.08       | Initial Hydro-static |
| 2           | 22.78           | 111.47       | Open To Flow (1)     |
| 32          | 19.58           | 113.40       | Shut-In(1)           |
| 77          | 316.00          | 114.80       | End Shut-In(1)       |
| 78          | 24.80           | 114.71       | Open To Flow (2)     |
| 137         | 25.48           | 116.30       | Shut-In(2)           |
| 227         | 777.33          | 118.39       | End Shut-In(2)       |
| 228         | 2250.96         | 118.87       | Final Hydro-static   |

## Recovery

| Length (ft) | Description         | Volume (bbl) |
|-------------|---------------------|--------------|
| 0.00        | 60 feet gas in pipe | 0.00         |
| 15.00       | ocm 20%O 80%M       | 0.07         |
|             |                     |              |
|             |                     |              |
|             |                     |              |

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Chaco Energy Company  
 PO Box 1587  
 Denver CO. 80201-1587  
 ATTN: Austin Garner

**21-13s-32w Logan Co. KS**  
**Scheetz 2-21**  
 Job Ticket: 48897      **DST#: 5**  
 Test Start: 2012.09.25 @ 09:00:00

## Mud and Cushion Information

|                                  |                            |                 |         |
|----------------------------------|----------------------------|-----------------|---------|
| Mud Type: Gel Chem               | Cushion Type:              | Oil API:        | deg API |
| Mud Weight: 9.00 lb/gal          | Cushion Length: ft         | Water Salinity: | ppm     |
| Viscosity: 57.00 sec/qt          | Cushion Volume: bbl        |                 |         |
| Water Loss: 9.58 in <sup>3</sup> | Gas Cushion Type:          |                 |         |
| Resistivity: ohm.m               | Gas Cushion Pressure: psig |                 |         |
| Salinity: 4000.00 ppm            |                            |                 |         |
| Filter Cake: 1.00 inches         |                            |                 |         |

## Recovery Information

Recovery Table

| Length<br>ft | Description         | Volume<br>bbl |
|--------------|---------------------|---------------|
| 0.00         | 60 feet gas in pipe | 0.000         |
| 15.00        | ocm 20%O 80%M       | 0.074         |

Total Length: 15.00 ft      Total Volume: 0.074 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:

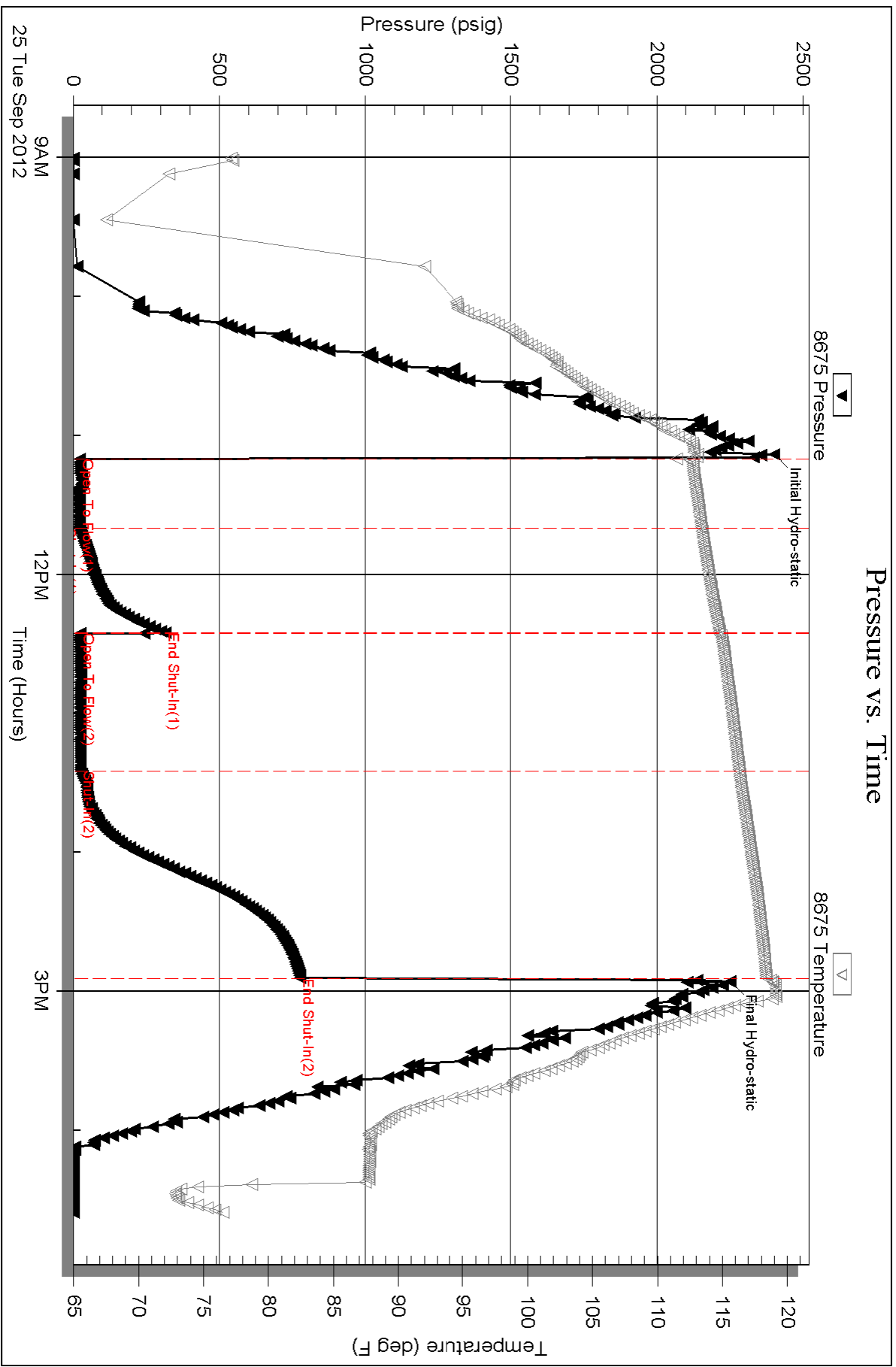
Serial #: 8675

Inside

Chaco Energy Company

Scheetz 2-21

DST Test Number: 5



Triobite Testing, Inc

Ref. No: 48897

Printed: 2012.09.26 @ 07:35:58



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Chaco Energy Company  
 PO Box 1587  
 Denver CO. 80201-1587  
 ATTN: Austin Garner

**21-13s-32w Logan Co. KS**  
**Scheetz 2-21**  
 Job Ticket: 48898      **DST#: 6**  
 Test Start: 2012.09.25 @ 23:50:00

## GENERAL INFORMATION:

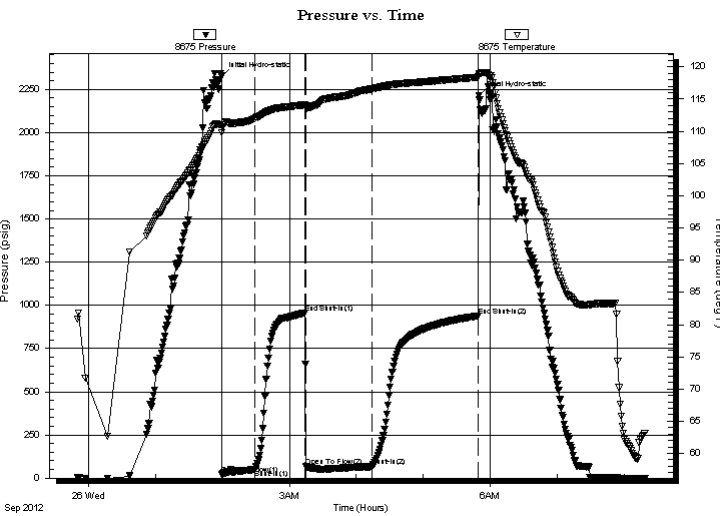
Formation: **Morrow Sand**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 01:59:15  
 Tester: Jace McKinney  
 Time Test Ended: 08:18:30  
 Unit No: 46  
 Interval: **4598.00 ft (KB) To 4632.00 ft (KB) (TVD)**  
 Reference Elevations: 3037.00 ft (KB)  
 Total Depth: 4632.00 ft (KB) (TVD)  
 3032.00 ft (CF)  
 Hole Diameter: 7.88 inches  
 Hole Condition: Fair  
 KB to GR/CF: 5.00 ft

## Serial #: 8675

Inside

Press @ Run Depth: 67.00 psig @ 4599.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2012.09.25      End Date: 2012.09.26      Last Calib.: 2012.09.26  
 Start Time: 23:50:15      End Time: 08:18:30      Time On Btm: 2012.09.26 @ 01:59:00  
 Time Off Btm: 2012.09.26 @ 05:50:00

**TEST COMMENT:** Built to 10" blow  
 Bled off for 5 min. Weak surface return blow  
 B.O.B in 23 min.  
 Bled off for 5 min. Built to 2 1/2" return blow, Died to 1" return blow



## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 2327.63         | 110.97       | Initial Hydro-static |
| 1           | 22.72           | 109.79       | Open To Flow (1)     |
| 31          | 51.00           | 112.00       | Shut-In(1)           |
| 75          | 957.24          | 114.12       | End Shut-In(1)       |
| 76          | 69.33           | 113.61       | Open To Flow (2)     |
| 136         | 67.00           | 116.60       | Shut-In(2)           |
| 230         | 939.54          | 118.40       | End Shut-In(2)       |
| 231         | 2214.52         | 118.84       | Final Hydro-static   |

## Recovery

| Length (ft) | Description             | Volume (bbl) |
|-------------|-------------------------|--------------|
| 60.00       | gcmo 10%G 40%M 50%O     | 0.30         |
| 60.00       | mcgo 10%M 30%G 60%O     | 0.30         |
| 40.00       | Clean Oil gco 15%G 85%O | 0.52         |
| 0.00        | 440 Feet Gas In Pipe    | 0.00         |
|             |                         |              |
|             |                         |              |

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Chaco Energy Company  
 PO Box 1587  
 Denver CO. 80201-1587  
 ATTN: Austin Garner

**21-13s-32w Logan Co. KS**  
**Scheetz 2-21**  
 Job Ticket: 48898      **DST#: 6**  
 Test Start: 2012.09.25 @ 23:50:00

## Mud and Cushion Information

|                                  |                            |                     |
|----------------------------------|----------------------------|---------------------|
| Mud Type: Gel Chem               | Cushion Type:              | Oil API: 29 deg API |
| Mud Weight: 9.00 lb/gal          | Cushion Length: ft         | Water Salinity: ppm |
| Viscosity: 57.00 sec/qt          | Cushion Volume: bbl        |                     |
| Water Loss: 9.58 in <sup>3</sup> | Gas Cushion Type:          |                     |
| Resistivity: ohm.m               | Gas Cushion Pressure: psig |                     |
| Salinity: 4000.00 ppm            |                            |                     |
| Filter Cake: 1.00 inches         |                            |                     |

## Recovery Information

Recovery Table

| Length<br>ft | Description             | Volume<br>bbl |
|--------------|-------------------------|---------------|
| 60.00        | gcmo 10%G 40%M 50%O     | 0.295         |
| 60.00        | mcgo 10%M 30%G 60%O     | 0.295         |
| 40.00        | Clean Oil gco 15%G 85%O | 0.524         |
| 0.00         | 440 Feet Gas In Pipe    | 0.000         |

Total Length: 160.00 ft      Total Volume: 1.114 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments: API: 29 @ 60 F = 29

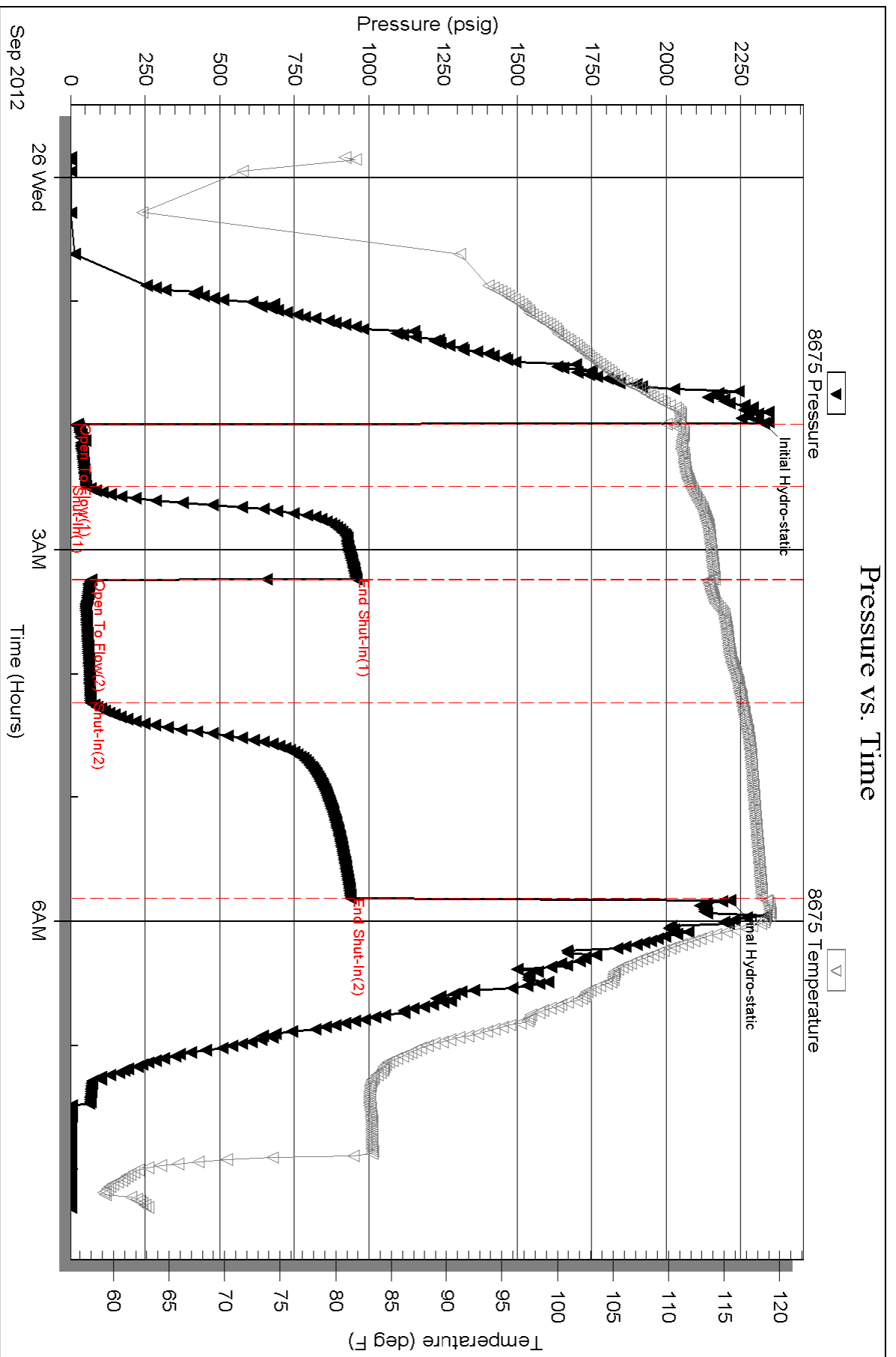
Serial #: 8675

Inside

Chaco Energy Company

Scheetz 2-21

DST Test Number: 6



Conservation Division  
Finney State Office Building  
130 S. Market, Rm. 2078  
Wichita, KS 67202-3802



Phone: 316-337-6200  
Fax: 316-337-6211  
<http://kcc.ks.gov/>

Mark Sievers, Chairman  
Thomas E. Wright, Commissioner  
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

December 31, 2012

Alan B Nelson  
Chaco Energy Company  
PO BOX 1587  
DENVER, CO 80201-1587

Re: ACO1  
API 15-109-21129-00-00  
Scheetz 2-21  
NW/4 Sec.21-13S-32W  
Logan County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,  
Alan B Nelson