



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1186983
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 Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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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: _____

1186983

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 <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 Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <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

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Mai Oil Operations, Inc.
Well Name	Herber 'A' 1
Doc ID	1186983

Tops

Name	Top	Datum
Anhydrite	626	+1099
Tarkio Lm	2275	-550
Topeka	2551	-826
Heebner	2791	-1066
Toronto	2809	-1084
Lansing	2875	-1150
Base Kansas City	3159	-1434
Arbuckle	3225	-1500

JAMES C. MUSGROVE

Petroleum Geologist
212 Main Street
P.O. Box 215
Claflin, KS 67525

Office (620) 588-4250

Res. Claflin (620) 587-3444

Mai Oil Operations Inc.
Herber 'A' #1
NE-SW-SE-NW (2125' FNL & 1875' FWL)
Section 21-14s-12w
Russell County, KS
Page 1

5 1/2" Production Casing Set

Contractor: Southwind Drilling Company (Rig #3)
Commenced: October 23, 2013
Completed: October 29, 2013
Elevation: 1725' K.B; 1723' D.F; 1717' G.L.
Casing program: Surface; 8 5/8" @ 349'
Production 5 1/2" @ 3273'
Sample: Samples saved and examined 2100' to the Rotary Total Depth.
Drilling time: One (1) foot drilling time recorded and kept 2100 ft to the Rotary Total Depth.
Measurements: All depths measured from the Kelly Bushing.
Drill Stem Tests: There were three (3) Drill Stem Tests ran by Trilobite Testing Co.
Electric Log: By Nabors Completion and Production Services Co; Dual Induction, Compensated Density/Neutron Log, and Micro Log.

<u>Formation</u>	<u>Log Depth</u>	<u>Sub-Sea Datum</u>
Anhydrite	626	+1099
Base Anhydrite	649	+1076
Grand Haven	2200	-475
1 st Tarkio Sand	2213	-488
Dover	2224	-499
2 nd Tarkio Sand	2232	-507
Tarkio Lime	2275	-550
3 rd Tarkio Sand	2308	-583
Elmont	2336	-611
Howard	2477	-752
Topeka	2551	-826
Heebner	2791	-1066
Toronto	2809	-1084
Lansing	2875	-1150
Base Kansas City	3159	-1434
Conglomerate	3175	-1447
Arbuckle	3225	-1500
Rotary Total Depth	3274	-1549
Log Total Depth	3276	-1551

(All tops and zones corrected to Electric Log measurements).

SAMPLE ANALYSIS, SHOWS OF OIL, TESTING DATA, ETC.

1ST TARKIO SAND SECTION

2213-2218' Sand; gray, very fine grained, silty, micaceous, poor visible porosity, trace stain, trace free oil and no odor.

2ND TARKIO SAND SECTION

2232-2246' Sand; white and gray, very fine grained, calcareous, poor visible porosity, trace stain, show of free oil and questionable odor.

Drill Stem Test #1 2207-2246'

Times: 30-30-45-45

Blow: Weak

**Recovery: 230' gas in pipe
70' oil and gas cut mud
(15% gas, 10% oil, 75% mud)**

**Pressures: ISIP 522 psi
FSIP 572 psi
IFP 14-29 psi
FFP 31-48 psi
HSH 1018-1008 psi**

3RD TARKIO SAND THROUGH TOPEKA SECTION

2308-2790' There were several zones of well-developed porosity encountered in the drilling of the Willard Sand (3rd Tarkio Sand) through Topeka section but no shows of oil and/or gas was noted.

TORONTO SECTION

2809-2820' Limestone; white/gray, fine and medium crystalline, dolomitic, brown stain, no free oil and no odor in fresh samples.

LANSING SECTION

2883-2896' Limestone; white, cream, tan, oolitic, chalky, trace brown stain, trace of free oil and questionable odor in fresh samples.

2910-2916' Limestone; tan, finely oomoldic, few highly oolitic, questionable stain, no free oil and no odor in fresh samples.

2935-2944' Limestone; tan, gray, fossiliferous, oolitic, chalky, poor visible porosity, no shows.

2956-2960' Limestone; white, cream, oolitic, sub oomoldic, chalky, trace poor stain, trace of free oil and no odor in fresh samples.

Drill Stem Test #2 **2881-2964'**

Times: 30-30-30-30

Blow: Weak

Recovery: 35' mud, few oil spots

**Pressures: ISIP 564 psi
FSIP 529 psi
IFP 16-29 psi
FFP 29-37 psi
HSH 1443-1387 psi**

- 2966-2980' Limestone; white, cream, finely oomoldic/oolitic, fair porosity, no shows.
- 2980-2995' Limestone; as above.
- 3022-3030' Limestone; white, gray, finely crystalline, few fossiliferous, no shows.
- 3043-3050' Limestone; tan, white, oolitic, poorly developed porosity, no shows.
- 3058-3068' Limestone; white, cream, oomoldic, chalky, trace stain, show of free oil and no odor in fresh samples.
- 3095-3104' Limestone; white, sub oomoldic, chalky, no shows.

Drill Stem Test #3 **3046-3114'**

Times: 20-20-20-20

Blow: Weak

Recovery: 20' mud

**Pressures: ISIP 784 psi
FSIP 765 psi
IFP 16-23 psi
FFP 24-28 psi
HSH 1505-1489 psi**

- 3125-3140' Limestone; white, gray, fine and medium crystalline, chalky, poor porosity, no shows.

CONGLOMERATE SECTION

- 3175-3225' Varied colored chert in matrix of varied colored sandy shale, with loose rounded quartz grains, no shows.

ARBUCKLE SECTION

- 3225-3230' Dolomite; tan, finely crystalline, slightly cherty, dense.

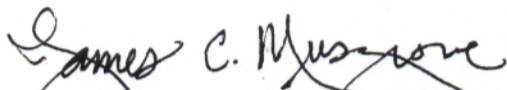
3230-3250'	Dolomite; tan, finely cryatline, sucrosic, poorly developed porosity, cherty in part, no shows.
3250-3260'	Dolomite; as above, sucrosic, no shows.
3260-3274'	Dolomite; white/gray, finely crystalline, oolitic, few with vuggy type porosity, no shows.

Rotary Total Depth	3274 (-1549)
Log Total Depth	3276 (-1551)

Recommendations:

5 1/2" production casing was set and cemented on the Herber 'A' #1.

Respectfully submitted;


James C. Musgrove
Petroleum Geologist





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Mai Oil Co Inc
 8411 Preston Rd.
 STE 800
 Dallas Tx 75225-5520
 ATTN: Kurt Mai, Jim Musgro

21-14s-12w Russell, KS
Herber "A" #1
 Job Ticket: 54360 **DST#: 1**
 Test Start: 2013.10.26 @ 03:55:10

GENERAL INFORMATION:

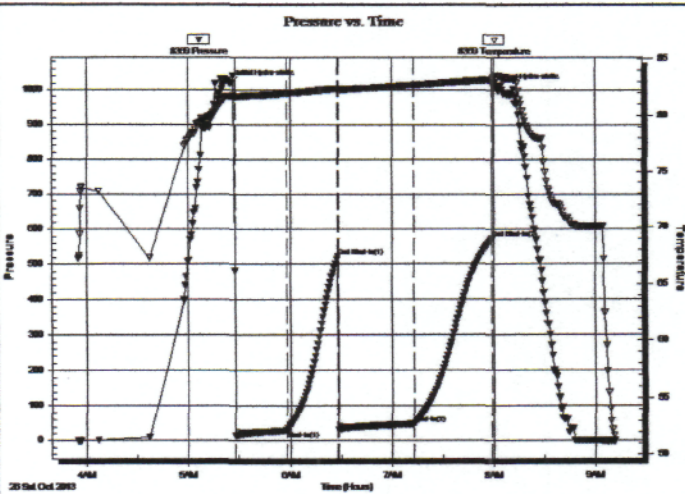
Formation: **Tarkio**
 Deviated: **No Whipstock:** ft (KB)
 Time Tool Opened: 05:27:35
 Time Test Ended: 09:12:04
 Interval: **2207.00 ft (KB) To 2246.00 ft (KB) (TVD)**
 Total Depth: 2246.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Ray Schwager
 Unit No: 70
 Reference Elevations: 1723.00 ft (KB)
 1715.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8369

Inside

Press@RunDepth: 48.77 psig @ 2213.00 ft (KB)
 Start Date: 2013.10.26 End Date: 2013.10.26
 Start Time: 03:55:10 End Time: 09:12:04
 Capacity: 8000.00 psig
 Last Calib.: 2013.10.26
 Time On Btm: 2013.10.26 @ 05:24:50
 Time Off Btm: 2013.10.26 @ 08:01:50

TEST COMMENT: 30-IFP-w k bl thru-out 1/2" to 1 1/4" bl
 30-ISIP-no bl
 30-FFP-w k to a strg bl in 35 min
 30-FSIP-no bl



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1018.63	81.68	Initial Hydro-static
3	14.44	81.61	Open To Flow (1)
33	29.33	81.94	Shut-In(1)
64	522.76	82.36	End Shut-In(1)
64	31.67	82.29	Open To Flow (2)
109	48.77	82.70	Shut-In(2)
155	572.36	83.20	End Shut-In(2)
157	1008.32	83.53	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	230' GIP	0.00
70.00	O&GCM 15%G10%O75%M	0.34

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Mai Oil Co Inc
 8411 Preston Rd.
 STE 800
 Dallas Tx 75225-5520
 ATTN: Kurt Mai, Jim Musgro

21-14s-12w Russell, KS
Herber "A" #1
 Job Ticket: 54361 **DST#: 2**
 Test Start: 2013.10.27 @ 16:01:03

GENERAL INFORMATION:

Formation: **LKC**
 Deviated: **No** Whipstock: ft (KB)
 Time Tool Opened: 17:19:58
 Time Test Ended: 20:26:27
 Interval: **2881.00 ft (KB) To 2964.00 ft (KB) (TVD)**
 Total Depth: **2964.00 ft (KB) (TVD)**
 Hole Diameter: **7.88 inches** Hole Condition: **Fair**

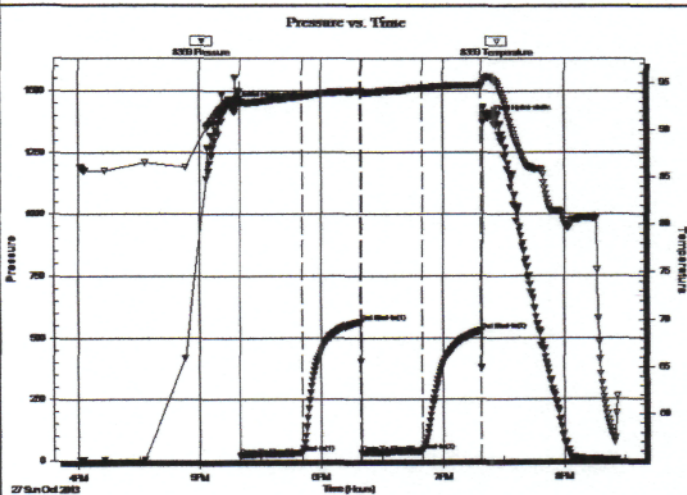
Test Type: **Conventional Bottom Hole (Reset)**
 Tester: **Ray Schwager**
 Unit No: **70**
 Reference Elevations: **1723.00 ft (KB)**
1715.00 ft (CF)
 KB to GR/CF: **8.00 ft**

Serial #: 8369

Inside

Press@RunDepth: **37.13 psig @ 2883.00 ft (KB)**
 Start Date: **2013.10.27** End Date: **2013.10.27**
 Start Time: **16:01:03** End Time: **20:26:27**
 Capacity: **8000.00 psig**
 Last Calib.: **2013.10.27**
 Time On Btm: **2013.10.27 @ 17:18:28**
 Time Off Btm: **2013.10.27 @ 19:22:13**

TEST COMMENT: 30-IFP-w k bl thru-out 1/4" bl
 30-ISIP-no bl
 30-FFP-vy w k surface bl thru-out
 30-FSIP-no bl



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1443.49	93.24	Initial Hydro-static
2	16.56	92.65	Open To Flow (1)
32	29.53	93.53	Shut-In(1)
61	564.12	94.10	End Shut-In(1)
62	29.72	93.96	Open To Flow (2)
92	37.13	94.43	Shut-In(2)
121	529.09	94.73	End Shut-In(2)
124	1387.08	95.56	Final Hydro-static

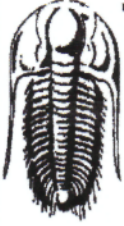
Recovery

Length (ft)	Description	Volume (bbl)
35.00	Mud	0.17

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Mai Oil Co Inc
 8411 Preston Rd.
 STE 800
 Dallas Tx 75225-5520
 ATTN: Kurt Mai, Jim Musgro

21-14s-12w Russell,KS
Herber "A" #1
 Job Ticket: 54362 **DST#: 3**
 Test Start: 2013.10.28 @ 08:35:37

GENERAL INFORMATION:

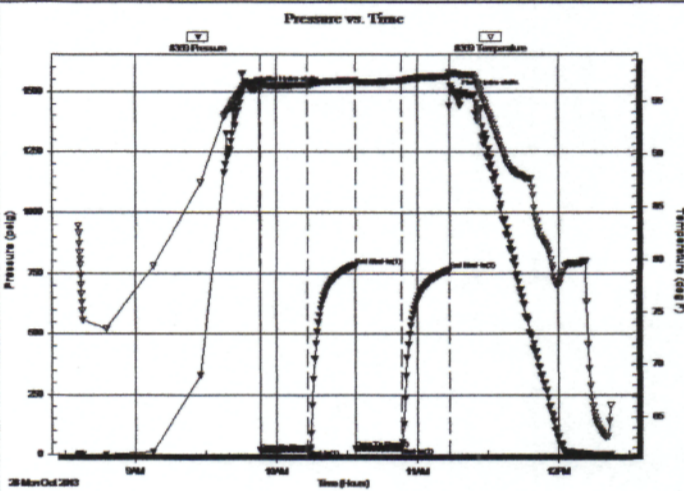
Formation: **LKC**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 09:53:17
 Time Test Ended: 12:22:32
 Interval: **3046.00 ft (KB) To 3114.00 ft (KB) (TVD)**
 Total Depth: 3114.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Ray Schwager
 Unit No: 70
 Reference Elevations: 1723.00 ft (KB)
 1715.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8369

Inside

Press@RunDepth: 28.91 psig @ 3053.00 ft (KB)
 Start Date: 2013.10.28 End Date: 2013.10.28
 Start Time: 08:35:37 End Time: 12:22:32
 Capacity: 8000.00 psig
 Last Calib.: 2013.10.28
 Time On Btm: 2013.10.28 @ 09:50:47
 Time Off Btm: 2013.10.28 @ 11:16:17

TEST COMMENT: 20-IFP-w k bl thru-out 1/4" bl
 20-ISIP-no bl
 20-FFP-no bl
 20-FSIP-no bl



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1505.57	96.83	Initial Hydro-static
3	16.10	96.13	Open To Flow (1)
23	23.19	96.64	Shut-In(1)
43	784.13	97.07	End Shut-In(1)
43	24.65	96.79	Open To Flow (2)
63	28.91	97.02	Shut-In(2)
83	765.69	97.45	End Shut-In(2)
86	1489.44	97.72	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	Mud	0.28

* Recovery from multiple tests

Gas Rates

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

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025

Home Office P.O. Box 32 Russell, KS 67665

No. 7226

Cell 785-324-1041

Date	Sec.	Twp.	Range	County	State	On Location	Finish
10-29-13	21	14	12	Russell	KS		4:00 PM

Location Bunker hill & Hwy 40, 2E, 2S, E2

Lease Herber A Well No. #1 Owner

Contractor Southwind #3 To Quality Oilwell Cementing, Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Type Job long string

Hole Size 7 7/8 T.D. 3276 Charge To Major Oil

Csg. 5 1/2 #14 Depth 3266.74 Street

Tbg. Size Depth City State

Tool Depth The above was done to satisfaction and supervision of owner agent or contractor.

Cement Left in Csg. Shoe Joint 21.45 Cement Amount Ordered 125 sx 60/40 18% salt 2% gel 1/4 Flow

Meas Line Displace 79.18661 100 sx 60/40 10% salt 2% gel 1/4 Flow

EQUIPMENT

Pumptrk 16 No. Cementer Helper Billy Travis Common Poz. Mix

Bulktrk 8 No. Driver Lonnie M. Gel.

Bulktrk 3 No. Driver chad Calcium

JOB SERVICES & REMARKS

Remarks: Halls Salt

Rat Hole 30 sx Flowseal

Mouse Hole Kol-Seal

Centralizers 1-9, 12, 24, 27 Mud CLR 48 1000 gal

Baskets #2, 14 CFL-117 or CD110 CAF 38

D/V or Port Collar Sand

Pipe on bottom broke circulation purged Handling

1000 gal Mud CLR 48 with 10661 lb behind it Mileage

Plugged Rat hole with 30 sx Hooked to 5 3/8 mixed

#9 5/8 sx 60/40 18% salt 2% gel 1/4 Flow followed by **FLOAT EQUIPMENT**

100 sx 60/40 10% salt 2% gel 1/4 Flow shut down Guide Shoe

washed jump and lines Realsed plug and Centralizer 12 turbo's

displaced with 79.18661 from plug landed and Baskets 2 Red

held AFU Inserts

Float Shoe

Latch Down 1

1 ft pressure 900 psi

Plug landed at 1400 psi

Pumptrk Charge

Mileage

Tax

Discount

Total Charge

X Signature Bert Herber