

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1
September 1999
Form Must Be Typed

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

ORIGINAL

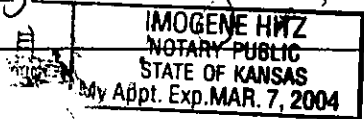
Operator: License # 5097
 Name: Martin Oil Producers, Inc.
 Address: 150 North Main #1010
 City/State/Zip: Wichita, Kansas 67202
 Purchaser: _____
 Operator Contact Person: Joseph P. Moreland Jr.
 Phone: (316) 264-0352
 Contractor: Name: Duke Drilling Co., Inc.
 License: 5929
 Wellsite Geologist: Roger Martin
 Designate Type of Completion:
 New Well Re-Entry Workover
 Oil SWD SIOW Temp. Abd.
 Gas ENHR SIGW
 Dry Other (Core, WSW, Expl., Cathodic, 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./SWD
 Plug Back Plug Back Total Depth
 Commingled Docket No. _____
 Dual Completion Docket No. _____
 Other (SWD or Enhr.?) Docket No. _____

<u>08-29-02</u>	<u>09-07-02</u>	<u>9/08/02</u>
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 135-24189-00-00
 County: Ness County, Kansas
NW SW NW Sec. 19 Twp. 17 S. R. 24 East West
1450 feet from S / (circle one) Line of Section
385 feet from E / (circle one) Line of Section
 Footages Calculated from Nearest Outside Section Corner:
 (circle one) NE SE NW SW
 Lease Name: Mildred Schaben Well #: 4
 Field Name: Aldrich NE
 Producing Formation: _____
 Elevation: Ground: 2374' Kelly Bushing: 2382'
 Total Depth: 4390' Plug Back Total Depth: _____
 Amount of Surface Pipe Set and Cemented at 310 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 PEA 8-10-02
 (Data must be collected from the Reserve Pit)
 Chloride content 10,000 ppm Fluid volume 7300 bbls
 Dewatering method used absorbed into surface soil
 Location of fluid disposal if hauled offsite: 10-03-2002
 Operator Name: _____
 Lease Name: _____ License No.: _____
 Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West
 County: _____ Docket No.: _____

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

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

Signature: Joseph P. Moreland Jr.
 Title: Geologist Date: 10/02/02
 Subscribed and sworn to before me this 2nd day of October,
 19 2002.
 Notary Public: Imogene HWZ
 Date Commission Expires: _____


KCC Office Use ONLY

Letter of Confidentiality Attached
 If Denied, Yes Date: _____
 Wireline Log Received
 Geologist Report Received
 UIC Distribution



Operator Name: **Martin Oil Producers, Inc.** Lease Name: **Mildred Schaben** Well #: **4**
 Sec. **19** Twp. **17** S. R. **24** East West County: **Ness County, Kansas**

INSTRUCTIONS: Show important tops and base 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. Attach copy of all Electric Wireline Logs surveyed. Attach final geological well site report.

Drill Stem Test <input checked="" type="checkbox"/> Taken <input type="checkbox"/> No (Attach Additional Sheets)	<input checked="" type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample																																	
Samples Sent to Geological Survey <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Electric Log Run <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Submit Copy)	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Name</th> <th>Top</th> <th>Datum</th> </tr> </thead> <tbody> <tr> <td>Anhydrite</td> <td>1638</td> <td>+ 744</td> </tr> <tr> <td>B/Anhydrite</td> <td>1667</td> <td>+ 715</td> </tr> <tr> <td>Heebner</td> <td>3683</td> <td>-1301</td> </tr> <tr> <td>Lansing</td> <td>3725</td> <td>-1343</td> </tr> <tr> <td>B/KC</td> <td>4020</td> <td>-1638</td> </tr> <tr> <td>Ft Scott</td> <td>4227</td> <td>-1845</td> </tr> <tr> <td>Cherokee</td> <td>4252</td> <td>-1870</td> </tr> <tr> <td>Cong. Sand</td> <td>4307</td> <td>-1925</td> </tr> <tr> <td>Miss Chert</td> <td>4346</td> <td>-1964</td> </tr> <tr> <td>Miss Dolomite</td> <td>4360</td> <td>-1978</td> </tr> </tbody> </table>	Name	Top	Datum	Anhydrite	1638	+ 744	B/Anhydrite	1667	+ 715	Heebner	3683	-1301	Lansing	3725	-1343	B/KC	4020	-1638	Ft Scott	4227	-1845	Cherokee	4252	-1870	Cong. Sand	4307	-1925	Miss Chert	4346	-1964	Miss Dolomite	4360	-1978
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List All E. Logs Run: Radiation Guard Log																																		

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	# Sacs Used	Type and Percent Additives
Surface	12-1/4"	8-5/8"	20#	310'	60/40 Poz	175	3%cc 2%gel

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				

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

TUBING RECORD		Size	Set At	Packer At	Liner Run <input type="checkbox"/> Yes <input type="checkbox"/> No
Date of First, Resumed Production, SWD or Enhr.		Producing Method <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain)			
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

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

METHOD OF COMPLETION Open Hole Perf. Dually Comp. Commingled Other (Specify) _____

Production Interval _____

MUD-CO

SERVICE MUD INC.

100 S. Main, Suite 405 / Wichita, KS 67202 / 316-264-2814

DRILLING MUD REPORT NO. 8

DATE 6/20/02 DEPTH 4326

API WELL NO.

STATE COUNTY

OPERATOR Martin O-I

CONTRACTOR Duke ORIGINAL

RIG NO. 8

ADDRESS Rig

ADDRESS Rig

SPUD DATE 8-29-02

REPORT FOR MR. Roger Martin

REPORT FOR MR. Rich Wheeler

SECTION, TOWNSHIP, RANGE 19 17 25

WELL NAME AND NO. #4 Mildred Schaeben

FIELD OR BLOCK NO. 8.5/2.6

COUNTY Ness

STATE KS

OPERATION PRESENT ACTIVITY

CASING SURFACE 8 3/4 IN. at 310 FT.

MUD VOLUME (BBL) HOLE 367 PITS 450

CIRCULATION DATA PUMP SIZE 6 X 15

ANNULAR VEL. (FT./MIN.) 142

BIT SIZE (IN.) NO. 7 7/8

INTERMEDIATE IN. at FT.

TOTAL CIRCULATING VOLUME 817

PUMP MAKE MODEL

OPPOSITE OP. 350

DRILL PIPE SIZE TYPE 4 1/2 XH

PRODUCTION OR LINER IN. at FT.

IN STORAGE

BBL/STROKE STROKE/MIN 162 60

CIRCULATING PRESSURE PSI 40+

DRILL COLLAR SIZE 6 1/4 X 539

MUD TYPE Chemical

BBL/MIN. 7.8 @ 80%

BOTTOMS UP (MIN.) SYSTEM TOTAL (MIN.) 105+

Sample from Flowline Pit Flowline Temp.ature

DAILY COST 185.00

CUMULATIVE COST 5479.32

Time Sample Taken	MUD PROPERTIES
(AM) PM 9:45	
Depth (ft) 4326	
Weight (ppg) (lb/cu ft) 9.4	
Mud Gradient (psi/ft) 4888	
Funnel Viscosity (sec/qt) API at 46	
Plastic Viscosity cp at 15	
Yield Point (lb/100 sq ft) 13	
Gel Strength (lb/100 sq ft) 10 sec/10 min 626	1 1
pH Strip Meter 9.0	
Filtrate API (ml/30 min) 9.4	
Cake Thickness 32nd in API HP-HT 2	
Alkalinity, Mud (Pm) .6	
Alkalinity, Filtrate (Pf/Mf) .051	1 1
Salt ppm Chloride ppm 3400	
Calcium ppm Gyp (ppb) 60	
Sand Content (% by Vol) 17	
Solids Content (% by Vol) 7.6	
Oil Content (% by Vol) 0	
Water Content (% by Vol) 93.4	
L.C.M. #/bbl 3	
Preservative #/bbl	

MUD PROPERTIES SPECIFICATIONS		
WEIGHT 9.2-9.4	VISCOSITY 48-50	FILTRATE 8-12
BY AUTHORITY <input type="checkbox"/> OPERATOR'S WRITTEN <input type="checkbox"/> DRILLING CONTRACTOR <input type="checkbox"/> OPERATOR'S REPRESENTATIVE <input type="checkbox"/> OTHER		

MATERIALS RECOMMENDED

Get-As needed for vis-mix with pit mud

Suggest after DST#3:

- 40 bbls water
- 40 bbls pit mud
- 2 caustic
- 2 Soda Ash
- 1 kgite Gel as needed
- 5 St Hulls

Dump & Add over 1 1/2 - 2 hours

Maintain 2#/bbl LCM

Keep hole full on all trips

Circulate hole clean or 105

RECEIVED
MUD-CO
3 12:53

MUD ON HAND/USED	MUD ON HAND/USED
165 Premium Gel	87 Drillpac
13 Soda Ash	20 C/S Hulls
5 Caustic Soda	Multi Seal
7 Super Lig	Cedar Fiber
3 Lime	Cello Flake

Thanks

THE RECOMMENDATIONS MADE HEREON SHALL NOT BE CONSTRUED AS AUTHORIZING THE INFRINGEMENT OF ANY VALID PATENT, AND ARE MADE WITHOUT ASSUMPTION OF ANY LIABILITY BY MUD-CO / SERVICE MUD, INC. OR ITS AGENTS, AND ARE STATEMENTS OF OPINION ONLY.

REPRESENTATIVE Kick Hughes	HOME ADDRESS Grant Bend 620-791-5425	TELEPHONE 620-793-7957
MOBILE UNIT 620-791-7623	WAREHOUSE LOCATION Pratt	TELEPHONE 620-672-0957

MUD-CO / SERVICE MUD INC.

100 S. Main, Suite 405 / Wichita, KS 67202 / 316-264-2814

DRILL MUD REPORT NO. 7
 DATE 9-7 2002 DEPTH 4370
 API WELL NO. STATE COUNTY

OPERATOR Martin Oil CONTRACTOR Duke ORIGINAL RIG NO. 8
 ADDRESS Big ADDRESS Big SPUD DATE 8 29 02
 REPORT FOR MR. Roger Martin REPORT FOR MR. Wheeler SECTION, TOWNSHIP, RANGE 19 17 25
 WELL NAME AND NO. 4 Mildred Scheeben FIELD OR BLOCK NO. COUNTY Ness STATE Kansas

OPERATION		CASING		MUD VOLUME (BBL)		CIRCULATION DATA	
PRESENT ACTIVITY <u>C.F.S.</u>		SURFACE <u>8 5/8</u> IN. at <u>310</u> FT.		HOLE PITS <u>328</u> <u>450</u>		PUMP SIZE X IN. <u>6</u> <u>15</u>	
BIT SIZE (IN.) <u>1 7/8</u>	NO. <u>2</u>	INTERMEDIATE IN. at FT.		TOTAL CIRCULATING VOLUME <u>778</u>		ANNULAR VEL. (FT./MIN.) <u>192</u>	
DRILL PIPE SIZE <u>4 1/2</u>	TYPE <u>XH</u>	PRODUCTION OR LINER IN. at FT.		IN STORAGE		OPPOSITE DP <u>192</u>	
DRILL COLLAR SIZE <u>6 1/4</u>	LENGTH <u>529</u>	MUD TYPE <u>Chemical</u>		MODEL <u>-162</u>		OPPOSITE COLLAR <u>350</u>	
Sample from <input checked="" type="checkbox"/> Flowline <input type="checkbox"/> Pit		MUD PROPERTIES		DAILY COST <u>540.70</u>		CUMULATIVE COST <u>6020.09</u>	
Flowline Temp.ature °F							

Time Sample Taken	<u>(AM)</u> PM	<u>7:25</u>		
Depth (ft)		<u>4370</u>		
Weight <input checked="" type="checkbox"/> (ppg) <input type="checkbox"/> (lb/cu ft)		<u>9.3</u>		
Mud Gradient (psi/ft)		<u>483</u>		
Funnel Viscosity (sec/qt) API at °F		<u>49</u>		
Plastic Viscosity cp at °F		<u>14</u>		
Yield Point (lb/100 sq ft)		<u>16</u>		
Gel Strength (lb/100 sq ft) 10 sec/10 min		<u>824</u>	<u>1</u>	<u>1</u>
pH <input checked="" type="checkbox"/> Strip <input type="checkbox"/> Meter		<u>10.5</u>		
Filtrate API (ml/30 min)		<u>9.6</u>		
Cake Thickness 32nd in API <input checked="" type="checkbox"/> HP-HT <input type="checkbox"/>		<u>1</u>		
Alkalinity, Mud (P _m)		<u>—</u>		
Alkalinity, Filtrate (P _f /M _f)		<u>81</u>	<u>1</u>	<u>1</u>
Salt <input type="checkbox"/> ppm <input type="checkbox"/> Chloride <input type="checkbox"/> ppm		<u>3,000</u>		
Calcium <input checked="" type="checkbox"/> ppm <input type="checkbox"/> Gyp (ppb)		<u>40</u>		
Sand Content (% by Vol)		<u>72</u>		
Solids Content (% by Vol)		<u>6.2</u>		
Oil Content (% by Vol)		<u>—</u>		
Water Content (% by Vol)		<u>23.8</u>		
L.C.M. #/bbl		<u>3</u>		
Preservative #/bbl				

MUD PROPERTIES SPECIFICATIONS

WEIGHT <u>9.2-9.4</u>	VISCOSITY <u>48-50</u>	FILTRATE <u>10</u>
--------------------------	---------------------------	-----------------------

BY AUTHORITY OPERATOR'S WRITTEN DRILLING CONTRACTOR
 OPERATOR'S REPRESENTATIVE OTHER

MATERIALS RECOMMENDED

Vis 48-50 sec/qt - 40 bbl water,
40 bbl mud
thicken w/gel.

Mud wt 9.2-9.4 ppg.

1 cm 3 bbl

No chemical treatment
is needed

Trip in hole slow
* break circ,

RECEIVED
 KANSAS CORP CO.
 2002 OCT - 3 P 12:54
 Thanks

MUD ON HAND/USED		MUD ON HAND/USED	
<u>130</u>	<u>35</u>		
<u>9</u>	<u>4</u>	<u>83</u>	<u>4</u>
<u>1</u>	<u>4</u>		
<u>5</u>	<u>2</u>		
<u>3</u>			

Premium Gel
Soda Ash
Caustic Soda
Super Lig
Lime

Drillpac
C/S Hulls
Multi Seal
Cedar Fiber
Cello Flake

THE RECOMMENDATIONS MADE HEREON SHALL NOT BE CONSTRUED AS AUTHORIZING THE INFRINGEMENT OF ANY VALID PATENT, AND ARE MADE WITHOUT ASSUMPTION OF ANY LIABILITY BY MUD-CO / SERVICE MUD, INC. OR ITS AGENTS, AND ARE STATEMENTS OF OPINION ONLY.

REPRESENTATIVE David Atkins HOME ADDRESS Colby KS TELEPHONE 785 462 3411
 MOBILE UNIT 285 694 3741 WAREHOUSE LOCATION Pott KS TELEPHONE 620 672 2951

MUD-CO / SERVICE MUD INC.

100 S. Main, Suite 405 / Wichita, KS 67202 / 316-264-2814

DRILLING MUD REPORT NO. 2

DATE 2 2002 DEPTH 3344

API WELL NO. STATE COUNTY

OPERATOR Martin O-1

CONTRACTOR Duke ORIGINAL

RIG NO. 8

ADDRESS Ris

ADDRESS Rig

SPUD DATE 8-29-02

REPORT FOR MR. Roger Martin

REPORT FOR MR. Rich Wheeler

SECTION, TOWNSHIP, RANGE 19 17 25

WELL NAME AND NO. #4 Mildred Schaeben

FIELD OR BLOCK NO.

COUNTY Ness

STATE KS

OPERATION PRESENT ACTIVITY Drls
 BIT SIZE (IN.) NO. 7/8
 DRILL PIPE SIZE TYPE 4 1/2 2H
 DRILL COLLAR LENGTH SIZE 6 1/4 539

CASING SURFACE IN. at 310 FT.
 INTERMEDIATE IN. at FT.
 PRODUCTION OR LINER IN. at FT.

MUD VOLUME (BBL) HOLE PITS 267 500
 TOTAL CIRCULATING VOLUME 767
 IN STORAGE 500

CIRCULATION DATA PUMP SIZE X IN. 6 X 15
 PUMP MAKE MODEL
 BBL/STROKE STROKE/MIN. 1.62 60
 BBL/MIN. 7.8 @ 80%

ANNULAR VEL. (FT./MIN.) OPPOSITE DP 192
 OPPOSITE COLLAR 350
 CIRCULATING PRESSURE PSI
 BOTTOMS UP (MIN.) 34
 SYSTEM TOTAL (MIN.) 98

Sample from Flowline Pit Flowline Temp. sure °F

MUD PROPERTIES DAILY COST - 0 -

CUMULATIVE COST 3582.87

Time Sample Taken	AM	PM	
Depth (ft)			<u>3344</u>
Weight <input checked="" type="checkbox"/> (ppg) <input type="checkbox"/> (lb/cu ft)			<u>10.0</u>
Mud Gradient (psi/ft)			<u>1.52</u>
Funnel Viscosity (sec/qt) API at °F			<u>30</u>
Plastic Viscosity cp at °F			<u>4</u>
Yield Point (lb/100 sq ft)			<u>5</u>
Gel Strength (lb/100 sq ft) 10 sec/10 min			<u>112 1 1</u>
pH <input checked="" type="checkbox"/> Strip <input type="checkbox"/> Meter			<u>7.0</u>
Filtrate API (ml/30 min)			<u>N/C</u>
Cake Thickness 32nd in API <input type="checkbox"/> HP-HT <input type="checkbox"/>			<u>-</u>
Alkalinity, Mud (P _m)			<u>0</u>
Alkalinity, Filtrate (P _f /M _f)			<u>0 1 1</u>
Salt <input type="checkbox"/> ppm <input type="checkbox"/> gpg Chloride <input type="checkbox"/> ppm <input type="checkbox"/> gpg			<u>30000</u>
Calcium <input type="checkbox"/> ppm <input type="checkbox"/> Gyp (ppb)			<u>N/C</u>
Sand Content (% by Vol)			<u>TC</u>
Solids Content (% by Vol)			<u>10.4</u>
Oil Content (% by Vol)			<u>0</u>
Water Content (% by Vol)			<u>89.6</u>
L.C.M. #/bbl			<u>0</u>
Preservative #/bbl			

MUD PROPERTIES SPECIFICATIONS		
WEIGHT <u>9.2-9.6</u>	VISCOSITY <u>27-32</u>	FILTRATE <u>N/C</u>
BY AUTHORITY <input type="checkbox"/> OPERATOR'S WRITTEN <input type="checkbox"/> DRILLING CONTRACTOR <input type="checkbox"/> OPERATOR'S REPRESENTATIVE <input type="checkbox"/> OTHER		

MATERIALS RECOMMENDED

water-run moderate stream & dump pits as needed
 Premix:
 80 bbls water } Add as needed for
 20-25 gel } ~~only~~ only for tight cement

Displace by 3600'g
 80 bbl water caustic } Fill Fract
 1 Soda Ash No Pac } Premix
 23 Gel 1ignite }

Pump 5-7 min of fresh water ahead of displacement mud
 After displacing:
 ① vis, 38-44, 45-50 DST with gel mixed with pit mud
 ② wt 9.0-9.4 w/ water @ sample box

MUD ON HAND/USED	MUD ON HAND/USED
<u>163</u> Premium Gel	<u>0</u> Drillpac
<u>17</u> Soda Ash	<u>51</u> C/S Hulls
<u>13</u> Caustic Soda	Multi Seal
<u>12</u> Super Lig	Cedar Fiber
<u>3</u> Lime	Cello Flake

Thanks

THE RECOMMENDATIONS MADE HEREON SHALL NOT BE CONSTRUED AS AUTHORIZING THE INFRINGEMENT OF ANY VALID PATENT, AND ARE MADE WITHOUT ASSUMPTION OF ANY LIABILITY BY MUD-CO / SERVICE MUD, INC. OR ITS AGENTS, AND ARE STATEMENTS OF OPINION ONLY.

REPRESENTATIVE <u>Kick Hughes</u>	HOME ADDRESS <u>Great Bend 620-792-5725</u>	TELEPHONE <u>620-793-7957</u>
MOBILE UNIT <u>620-791-7623</u>	WAREHOUSE LOCATION <u>Pratt</u>	TELEPHONE <u>620-672-2957</u>

MUD-CO / SERVICE MUD INC.

100 S. Main, Suite 405 / Wichita, KS 67202 / 316-264-2814

DRILLING MUD REPORT NO. 4

DATE 9 3 2002 DEPTH 3605

API WELL NO. STATE COUNTY

OPERATOR: Martin O. I. CONTRACTOR: Duke ORIGINAL
 ADDRESS: Rigs REPORT FOR MR.: Rick Wheeler
 RIG NO. 8 SPUD DATE 8-29-02
 SECTION, TOWNSHIP, RANGE 19 17 25

WELL NAME AND NO. #4 Mildred Schoeben FIELD OR BLOCK NO. 9/2.6 COUNTY Ness STATE KS

OPERATION		CASING		MUD VOLUME (BBL)		CIRCULATION DATA	
PRESENT ACTIVITY Drls	IN. at 310 FT.	HOLE PITS 324 280	PUMP SIZE X IN. 6 x 15	ANNULAR VEL. (FT. MIN.) 192			
BIT SIZE (IN.) NO. 7/8	INTERMEDIATE IN. at FT.	TOTAL CIRCULATING VOLUME 604	PUMP MAKE	OPPOSITE DP			
DRILL PIPE SIZE TYPE 4 1/2 x H	PRODUCTION OR LINER IN. at FT.	IN STORAGE	MODEL	OPPOSITE COLLAR 350			
DRILL COLLAR LENGTH SIZE 6 1/4 x 5 3/4 539	MUD TYPE Chemical		BBL/STROKE STROKE/MIN 1.62 60	CIRCULATING PRESSURE PSI			
			BBL/MIN. 7.8 @ 80%	BOTTOMS UP (MIN.) 36+			
				SYSTEM TOTAL (MIN.) 78+			

Sample from Flowline Pit Flowline Temp.ature MUD PROPERTIES DAILY COST 483.20 CUMULATIVE COST 4066.07

Time Sample Taken	AM	PM	12:05
Depth (ft)			3605
Weight <input checked="" type="checkbox"/> (ppg) <input type="checkbox"/> (lb/cu ft)			8.7
Mud Gradient (psi/ft)			45.4
Funnel Viscosity (sec/qt) API at _____ °F			41
Plastic Viscosity cp at _____ °F			11
Yield Point (lb/100 sq ft)			10
Gel Strength (lb/100 sq ft) 10 sec/10 min			1302 1 1
pH <input checked="" type="checkbox"/> Strip <input type="checkbox"/> Meter			12.0
Filtrate API (ml/30 min)			9.4
Cake Thickness 32nd in API <input checked="" type="checkbox"/> HP-HT <input type="checkbox"/>			1
Alkalinity, Mud (P _m)			-
Alkalinity, Filtrate (P _f /M _f)			171 1 1
Salt <input type="checkbox"/> ppm <input checked="" type="checkbox"/> Chloride <input type="checkbox"/> ppm			1500
Calcium <input checked="" type="checkbox"/> ppm <input type="checkbox"/> Gyp (ppb)			40
Sand Content (% by Vol)			11
Solids Content (% by Vol)			2.6
Oil Content (% by Vol)			0
Water Content (% by Vol)			97.4
L.C.M. #/bbl			0
Preservative #/bbl	RNDP 2474	ECD	9.06
	Dispac e3574		

MUD PROPERTIES SPECIFICATIONS
 WEIGHT 9.2-9.4 VISCOSITY 45-48 FILTRATE DST 8-12
 BY AUTHORITY OPERATOR'S WRITTEN DRILLING CONTRACTOR
 OPERATOR'S REPRESENTATIVE OTHER

MATERIALS RECOMMENDED
 Gel-As needed for vis-mix with pit mud or with hourly treatment suggest 38-44, 45-48 DST water-small stream while drls
 Hourly treatment beginning with 1/2 tour or when mud wt reaches 9.2
 40bbls mud 40bbls water } Add over 1/2-2 hours
 1 caustic 1 Soda Ash }
 1 highlite Gel as needed }
 Keep hole full on all trips
 Add HCM as needed
 Circulate hole clean prior to DST or logs
 Thanks

MUD ON HAND/USED		MUD ON HAND/USED	
117	40		Drillpac
15	2	51	C/S Hulls
11	2		Multi Seal
10	2		Cedar Fiber
3			Cello Flake

THE RECOMMENDATIONS MADE HEREON SHALL NOT BE CONSTRUED AS AUTHORIZING THE INFRINGEMENT OF ANY VALID PATENT, AND ARE MADE WITHOUT ASSUMPTION OF ANY LIABILITY BY MUD-CO / SERVICE MUD, INC. OR ITS AGENTS, AND ARE STATEMENTS OF OPINION ONLY. ATTS SV

REPRESENTATIVE Rick Hughes HOME ADDRESS Great Bend 620-790-5125 TELEPHONE 620-793-7957
 MOBILE UNIT 620-791-7623 WAREHOUSE LOCATION Pratt TELEPHONE 620-672-2957

MUD-CO / SERVICE MUD INC.

100 S. Main, Suite 405 / Wichita, KS 67202 / 316-264-2814

DATE 8/3/2002 DEPTH 3875

API WELL NO. STATE COUNTY

OPERATOR Martin D. J. CONTRACTOR Dak ORIGINAL RIG NO. 8

ADDRESS Rig ADDRESS Rig SPUD DATE 8-29-02

REPORT FOR MR. Roger Martin REPORT FOR MR. Rich Wheeler SECTION, TOWNSHIP, RANGE 19 17 25

WELL NAME AND NO. #4 Mildred Schaebein FIELD OR BLOCK NO. 9/26 COUNTY Ness STATE KS

OPERATION	CASING	MUD VOLUME (BBL)	CIRCULATION DATA
PRESENT ACTIVITY <u>Drilling</u>	SURFACE <u>6 5/8</u> IN. at <u>310</u> FT.	HOLE <u>346</u> PITS <u>400</u>	PUMP SIZE <u>6 X 15</u> IN. ANNULAR VEL. (FT./MIN.) <u>192</u>
BIT SIZE (IN.) NO. <u>7 7/8</u>	INTERMEDIATE IN. at FT.	TOTAL CIRCULATING VOLUME <u>746</u>	PUMP MAKE <u>MODEL</u>
DRILL PIPE SIZE TYPE <u>4 1/2 KH</u>	PRODUCTION OR LINER IN. at FT.	IN STORAGE	OPPOSITE COLLAR <u>350</u>
DRILL COLLAR LENGTH SIZE <u>6 1/2 X 11</u> <u>539</u>	MUD TYPE <u>Chemical</u>		CIRCULATING PRESSURE PSI <u>380</u>
			BOTTOMS UP (MIN.) <u>96</u>
			SYSTEM TOTAL (MIN.) <u>96</u>

Sample from <input type="checkbox"/> Flowline <input type="checkbox"/> Pit	MUD PROPERTIES
Flowline Temp.ature °F	
Time Sample Taken <u>(AM)</u> PM <u>11:00</u>	
Depth (ft) <u>3875</u>	
Weight <input checked="" type="checkbox"/> (ppg) <input type="checkbox"/> (lb/cu ft) <u>8.9</u>	
Mud Gradient (psi/ft) <u>4628</u>	
Funnel Viscosity (sec/qt) API at °F <u>41</u>	
Plastic Viscosity cp at °F <u>13</u>	
Yield Point (lb/100 sq ft) <u>10</u>	
Gel Strength (lb/100 sq ft) 10 sec/10 min <u>853</u>	
pH <input type="checkbox"/> Strip <input type="checkbox"/> Meter <u>11.0</u>	
Filtrate API (ml/30 min) <u>8.8</u>	
Cake Thickness 32nd in API <input checked="" type="checkbox"/> AP-HT <input type="checkbox"/> <u>1</u>	
Alkalinity, Mud (P _m) <u>1.8</u>	
Alkalinity, Filtrate (P _f /M _f) <u>851</u>	
Salt <input type="checkbox"/> ppm <input type="checkbox"/> Chloride <input type="checkbox"/> ppm <u>2000</u>	
Calcium <input type="checkbox"/> ppm <input type="checkbox"/> Gyp (ppb) <u>40</u>	
Sand Content (% by Vol) <u>71</u>	
Solids Content (% by Vol) <u>4</u>	
Oil Content (% by Vol) <u>0</u>	
Water Content (% by Vol) <u>96</u>	
L.C.M. #/bbl <u>0</u>	
Preservative #/bbl <u>RNDP 2431</u> <u>ICD</u> <u>9.25</u>	

DAILY COST 307.40 CUMULATIVE COST 4373.47

MUD PROPERTIES SPECIFICATIONS

WEIGHT 9.2-9.4 VISCOSITY 38-44, 45-48 FILTRATE 8-12

BY AUTHORITY OPERATOR'S WRITTEN DRILLING CONTRACTOR OPERATOR'S REPRESENTATIVE OTHER

MATERIALS RECOMMENDED

Get As needed for vis-mix with pit med - suggest 45-48 vis by 4200'

Suggest @4100':

80 bbls water 1 Soda Ash } let hole
2 caustic 1 high.44 } & add
Thicken w/gel } over 1/2-2 hours

Shortly after above treatment:

1 caustic } Add over 1/2-2 hours
1/2 high.44 }

MUD ON HAND/USED	MUD ON HAND/USED
<u>90</u> Premium Gel	<u>47</u> Drillpac
<u>19</u> Soda Ash	<u>4</u> C/S Hulls
<u>10</u> Caustic Soda	Multi Seal
<u>9</u> Super Lig	Cedar Fiber
<u>3</u> Lime	Cello Flake

Thanks

Keep hole full on all trips

Add LCM as needed

Circulate hole clean prior to DST or log

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REPRESENTATIVE Rick Hughes HOME ADDRESS Great Bend 620-790-5725 TELEPHONE 620-793-7457

MOBILE UNIT 620-791-7023 WAREHOUSE LOCATION Pratt TELEPHONE 620-612-0957

MUD-CO / SERVICE MUD INC.

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DRILLING MUD REPORT NO. 6

DATE 7/20/02 DEPTH 4228

API WELL NO. STATE COUNTY

OPERATOR Martin O. I
 ADDRESS Ris
 REPORT FOR MR. Roger Martin

CONTRACTOR Duke
 ADDRESS Ris ORIGINAL
 REPORT FOR MR. Rich Wheeler

RIG NO. 8
 SPUD DATE 8-29-02
 SECTION, TOWNSHIP, RANGE 19 17 25

WELL NAME AND NO. #4 Mildred Schaeben

FIELD OR BLOCK NO. 8.5/2.4

COUNTY Ness

STATE KS

OPERATION
 PRESENT ACTIVITY Drilling
 BIT SIZE (IN.) NO. 7/8
 DRILL PIPE SIZE TYPE 4 1/2 XH
 DRILL COLLAR LENGTH SIZE 6 1/4 XH 539

CASING
 SURFACE 8 1/2 IN. at 310 FT.
 INTERMEDIATE
 IN. at FT.
 PRODUCTION OR LINER
 IN. at FT.

MUD VOLUME (BBL)
 HOLE PITS 359 400
 TOTAL CIRCULATING VOLUME 759
 IN STORAGE

CIRCULATION DATA
 PUMP SIZE X IN. 6 X 15
 PUMP MAKE
 MODEL
 BBL/STROKE STROKE/MIN. 162 60
 BBL./MIN. 7.8 @ 80%

ANNULAR VEL. (FT./MIN.)
 OPPOSITE DP 192
 OPPOSITE COLLAR 350
 CIRCULATING PRESSURE PSI
 BOTTOMS UP (MIN.) 39±
 SYSTEM TOTAL (MIN.) 97±

Sample from Flowline Pit
 Flowline Temp.ature °F

MUD PROPERTIES

DAILY COST 519.85 CUMULATIVE COST 4893.32

Time Sample Taken	(AM) PM	8:45		
Depth (ft)		<u>4228</u>		
Weight <input checked="" type="checkbox"/> (ppg) <input type="checkbox"/> (lb/cu ft)		<u>9.2</u>		
Mud Gradient (psi/ft)		<u>4.764</u>		
Funnel Viscosity (sec/qt) API at _____ °F		<u>46</u>		
Plastic Viscosity cp at _____ °F		<u>15</u>		
Yield Point (lb/100 sq ft)		<u>11</u>		
Gel Strength (lb/100 sq ft) 10 sec/10 min		<u>8.35</u>	<u>1</u>	<u>1</u>
pH <input checked="" type="checkbox"/> Strip <input type="checkbox"/> Meter		<u>11.5</u>		
Filtrate API (ml/30 min)		<u>9.2</u>		
Cake Thickness 32nd in API <input type="checkbox"/> HP-HT <input type="checkbox"/>		<u>2</u>		
Alkalinity, Mud (P _m)		<u>2.0</u>		
Alkalinity, Filtrate (P _f /M _f)		<u>851</u>	<u>1</u>	<u>1</u>
Salt <input type="checkbox"/> ppm <input checked="" type="checkbox"/> gpg Chloride <input type="checkbox"/> ppm <input checked="" type="checkbox"/> gpg		<u>2700</u>		
Calcium <input checked="" type="checkbox"/> ppm <input type="checkbox"/> Gyp (ppb)		<u>30</u>		
Sand Content (% by Vol)		<u>Tr</u>		
Solids Content (% by Vol)		<u>6.2</u>		
Oil Content (% by Vol)		<u>0</u>		
Water Content (% by Vol)		<u>93.8</u>		
L.C.M. #/bbl		<u>0</u>		
Preservative #/bbl <u>PNDP 2255 FCD</u>		<u>9.55</u>		

MUD PROPERTIES SPECIFICATIONS

WEIGHT <u>9.2-9.4</u>	VISCOSITY <u>46-50</u> <u>45-48</u>	FILTRATE <u>8-12</u>
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BY AUTHORITY OPERATOR'S WRITTEN DRILLING CONTRACTOR
 OPERATOR'S REPRESENTATIVE OTHER

MATERIALS RECOMMENDED

Gel - As needed for vis - mix with pit mud

water - small stream while drlg
 No flowly treatments today

If mud wt reaches 9.5: }
 80bbls water 1 sack ash }
 1 Caustic 1 gyp }
 Gel as needed }
 Add over 1/2 - 2 hours

Suggest @ 4300' - Add 40 sx Hulls + maintain 3#/bbl for M.

keep hole full on all flows
 Circulate hole clear
 to bot or log

RESERVED FOR MUD-CO

MUD ON HAND/USED		MUD ON HAND/USED	
<u>55</u>	<u>35</u>		
<u>13</u>	<u>1</u>	<u>47</u>	
<u>5</u>	<u>5</u>		
<u>7</u>	<u>2</u>		
<u>3</u>			

Premium Gel
 Soda Ash
 Caustic Soda
 Super Lig
 Lime

Drillpac
 C/S Hulls
 Multi Seal
 Cedar Fiber
 Cello Flake

Thanks

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REPRESENTATIVE Rich Hughes HOME ADDRESS Great Bend 600-742-5125 TELEPHONE 620-742-7957
 MOBILE UNIT 620-791-7623 WAREHOUSE LOCATION Pratt TELEPHONE 620-672-2957

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DRILLING MUD REPORT NO. 7

DATE 9 5 2002 DEPTH 4315

API WELL NO. STATE COUNTY

OPERATOR *Martin O. I*
 ADDRESS *Ris*
 REPORT FOR MR. *Roger Martin*

CONTRACTOR *Duke ORIGINAL*
 ADDRESS *Ris*
 REPORT FOR MR. *Rich Wheeler*

RIG NO. *8*
 SPUD DATE *8-29-02*
 SECTION, TOWNSHIP, RANGE *19 17 25*

WELL NAME AND NO. *#4 Mildre Schaeber* FIELD OR BLOCK NO. *8.5/2.6* COUNTY *Ness* STATE *KS*

OPERATION		CASING		MUD VOLUME (BBL)		CIRCULATION DATA	
PRESENT ACTIVITY <i>CFG</i>		SURFACE <i>6 7/8</i> IN. at <i>310</i> FT.		HOLE <i>3 1/2</i> PITS <i>450</i>		PUMP SIZE <i>6 X 15</i>	ANNULAR VEL. (FT./MIN.) <i>192</i>
BIT SIZE (IN.) <i>7/8</i>	NO.	INTERMEDIATE		TOTAL CIRCULATING VOLUME <i>817</i>		PUMP MAKE	OPPOSITE DP
DRILL PIPE SIZE <i>4 1/2</i>	TYPE <i>X14</i>	IN. at	FT.	IN STORAGE		MODEL	OPPOSITE COLLAR <i>350</i>
DRILL COLLAR SIZE <i>6 1/4 X 2 1/4</i>	LENGTH <i>539</i>	IN. at	FT.	MUD TYPE <i>Chemical</i>		BBL/STROKE <i>1.162</i>	CIRCULATING PRESSURE PSI
						STROKE/MIN. <i>60</i>	BOTTOMS UP (MIN.) <i>40±</i>
						BBL./MIN. <i>7.8 @ 80%</i>	SYSTEM TOTAL (MIN.) <i>105±</i>

Sample from Flowline Pit Flowline Temp.ature °F

DAILY COST *401.00* CUMULATIVE COST *5294.32*

MUD PROPERTIES		MUD PROPERTIES SPECIFICATIONS	
Time Sample Taken <i>AM</i> PM <i>9:50</i>		WEIGHT <i>9.2-9.7</i>	VISCOSITY <i>48-50</i>
Depth (ft) <i>4315</i>		FILTRATE <i>8-12</i>	
Weight <input checked="" type="checkbox"/> (ppg) <input type="checkbox"/> (lb/cu ft) <i>9.4</i>		BY AUTHORITY <input type="checkbox"/> OPERATOR'S WRITTEN <input type="checkbox"/> DRILLING CONTRACTOR	
Mud Gradient (psi/ft) <i>48.88</i>		<input type="checkbox"/> OPERATOR'S REPRESENTATIVE <input type="checkbox"/> OTHER	
Funnel Viscosity (sec/qt) API at _____ °F <i>48</i>		MATERIALS RECOMMENDED	
Plastic Viscosity cp at _____ °F <i>16</i>		<p><i>Get As needed for vis-mix with pit mud</i></p> <p><i>After DST #28</i></p> <p><i>40 bbls water 40 bbls mud</i></p> <p><i>1 caustic 2 soda ash</i></p> <p><i>1 lignite Gel as needed</i></p> <p><i>25 SX Hulls</i></p> <p><i>Add over 1 1/2 - 2 hours</i></p> <p><i>Maintain 3#/bbl ACM with Hulls water - small stream @ flowline while drls</i></p> <p><i>Keep hole full on after steps circulate hole clean prior to DST or log</i></p>	
Yield Point (lb/100 sq ft) <i>13</i>			
Gel Strength (lb/100 sq ft) 10 sec/10 min <i>8.31</i>	<i>1 1</i>		
pH <input checked="" type="checkbox"/> Strip <input type="checkbox"/> Meter <i>10.5</i>			
Filtrate API (ml/30 min) <i>8.8</i>	<i>Reserve</i>		
Cake Thickness 32nd in API <input type="checkbox"/> HP-HT <input type="checkbox"/> <i>2</i>	<i>Reserve</i>		
Alkalinity, Mud (P _m) <i>1.2</i>	<i>Reserve</i>		
Alkalinity, Filtrate (P _f /M _f) <i>261</i>	<i>Reserve</i>		
Salt <input type="checkbox"/> ppm <input type="checkbox"/> Chloride <input type="checkbox"/> ppm <i>2900</i> <i>19000</i>			
Calcium <input type="checkbox"/> ppm <input type="checkbox"/> Gyp (ppb) <i>90</i>	<i>Reserve</i>		
Sand Content (% by Vol) <i>Tr</i>	<i>Reserve</i>		
Solids Content (% by Vol) <i>7.6</i>	<i>1200</i>		
Oil Content (% by Vol) <i>0</i>	<i>60%</i>		
Water Content (% by Vol) <i>92.4</i>			
L.C.M. #/bbl <i>1</i>			
Preservative #/bbl <i>RNDP 2003 ECD</i> <i>9.76</i>			
DST# <i>e4257, #2 @ 4315</i>			

MUD ON HAND/USED		MUD ON HAND/USED	
<i>115</i>	Premium Gel <i>140</i>	<i>107</i>	Drillpac <i>80</i>
<i>13</i>	Soda Ash		C/S Hulls
<i>5</i>	Caustic Soda		Multi Seal
<i>3</i>	Super Lig		Cedar Fiber
	Lime		Cello Flake

Thanks

Get As needed for vis-mix with pit mud

After DST #28

40 bbls water 40 bbls mud

1 caustic 2 soda ash

1 lignite Gel as needed

25 SX Hulls

Add over 1 1/2 - 2 hours

Maintain 3#/bbl ACM with Hulls water - small stream @ flowline while drls

Keep hole full on after steps circulate hole clean prior to DST or log

2002 OCT 12 5:15 PM
 WATKINS CORP. CU

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REPRESENTATIVE *Rick Hughes* HOME ADDRESS *6101st Bend 620-792-5125* TELEPHONE *620-793-2957*
 MOBILE UNIT *620-291-7623* WAREHOUSE LOCATION *Pro H* TELEPHONE *620-672-2957*

MUD-CO / SERVICE MUD INC.

100 S. Main, Suite 405 / Wichita, KS 67202 / 316-264-2814

DRILLING MUD REPORT NO. 2

DATE 9/20/02 DEPTH 2846

API WELL NO. STATE COUNTY

OPERATOR Martin O-1 CONTRACTOR Duke ORIGINAL RIG NO. 8
 ADDRESS Ris ADDRESS Ris SPUD DATE 8-29-02
 REPORT FOR MR. Roger Martin REPORT FOR MR. Rich Wheeler SECTION, TOWNSHIP, RANGE 19 17 25

WELL NAME AND NO. #4 Mildred Schaeber FIELD OR BLOCK NO. COUNTY Ness STATE KS

OPERATION		CASING		MUD VOLUME (BBL)		CIRCULATION DATA	
PRESENT ACTIVITY <u>D/S</u>		SURFACE <u>4 5/8</u> IN. at <u>310</u> FT.		HOLE PITS <u>227</u> <u>500</u>		PUMP SIZE X IN. <u>4</u> X <u>15</u>	ANNULAR VEL. (FT./MIN.) <u>182</u>
BIT SIZE (IN.) NO. <u>7/8</u>		INTERMEDIATE IN. at FT.		TOTAL CIRCULATING VOLUME <u>227</u>		PUMP MAKE	OPPOSITE DP <u>390</u>
DRILL PIPE SIZE TYPE <u>4 1/2</u> <u>LH</u>		PRODUCTION OR LINER IN. at FT.		IN STORAGE		MODEL	OPPOSITE COLLAR
DRILL COLLAR LENGTH SIZE <u>6 1/4</u> <u>539</u>		MUD TYPE <u>NaCl</u>				BBL/STROKE STROKE/MIN <u>1162</u> <u>60</u>	CIRCULATING PRESSURE PSI
						BBL/MIN. <u>7.8 @ 80%</u>	BOTTOMS UP (MIN.) <u>292</u>
							SYSTEM TOTAL (MIN.) <u>932</u>

Sample from Flowline Pit Flowline Temperature MUD PROPERTIES DAILY COST 3159.22 CUMULATIVE COST 3582.87

Time Sample Taken	AM	PM	1145
Depth (ft)			<u>2846</u>
Weight <input checked="" type="checkbox"/> (ppg) <input type="checkbox"/> (lb/cu ft)			<u>9.7</u>
Mud Gradient (psi/ft)			<u>5044</u>
Funnel Viscosity (sec/qt) API at _____ °F			<u>30</u>
Plastic Viscosity cp at _____ °F			<u>3</u>
Yield Point (lb/100 sq ft)			<u>5</u>
Gel Strength (lb/100 sq ft) 10 sec/10 min			<u>112</u> <u>1</u> <u>1</u>
pH <input checked="" type="checkbox"/> Strip <input type="checkbox"/> Meter			<u>7.0</u>
Filtrate API (ml/30 min)			<u>N/C</u>
Cake Thickness 32nd in API <input type="checkbox"/> HP-HT <input type="checkbox"/>			<u>-</u>
Alkalinity, Mud (P _m)			<u>0</u>
Alkalinity, Filtrate (P _f /M _f)			<u>01</u> <u>1</u> <u>1</u>
Salt <input type="checkbox"/> ppm <input type="checkbox"/> gpg Chloride <input type="checkbox"/> ppm <input type="checkbox"/> gpg			<u>48,000</u>
Calcium <input checked="" type="checkbox"/> ppm <input type="checkbox"/> Gyp (ppb)			<u>124</u>
Sand Content (% by Vol)			<u>1</u>
Solids Content (% by Vol)			<u>7.4</u>
Oil Content (% by Vol)			<u>0</u>
Water Content (% by Vol)			<u>92.6</u>
L.C.M. #/bbl			<u>1</u>
Preservative #/bbl			

MUD PROPERTIES SPECIFICATIONS to 3600'
 WEIGHT 9.2-9.6 VISCOSITY 27-32 FILTRATE N/C
 BY AUTHORITY OPERATOR'S WRITTEN DRILLING CONTRACTOR OPERATOR'S REPRESENTATIVE OTHER

MATERIALS RECOMMENDED

water-run moderate stream of jet as needed
 Premix:
 40 bbls water } Add as needed only
 20-25 gal } for tight connections

Displace by 3600':
 80 bbls water - caustic } Fill Frac + Premix
 1 Soda Ash No Pac }
 22 gal 1 lignite }

Pump 5-7 min of fresh water ahead of displacement mud

MUD ON HAND/USED		MUD ON HAND/USED	
<u>163</u> <u>226</u>	Premium Gel	<u>0</u> <u>3</u>	Drillpac
<u>178</u> <u>7</u>	Soda Ash	<u>51</u> <u>21</u>	C/S Hulls
<u>13</u> <u>6</u>	Caustic Soda		Multi Seal
<u>12</u> <u>6</u>	Super Lig		Cedar Fiber
<u>3</u>	Lime		Cello Flake

Thanks

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REPRESENTATIVE Rich Hughes HOME ADDRESS Cat Bend 620-792-5425 TELEPHONE 620-793-7957
 MOBILE UNIT 620-791-7623 WAREHOUSE LOCATION Pratt TELEPHONE 620-670-2957