KANSAS CORPORATION COMMISSION 1096573
OIL & GAS CONSERVATION DIVISION

Form ACO-1
June 2009
Form Must Be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 3208
Name: K & N Petroleum, Inc.
Address 1: 1105 Walnut
Address 2:
City: Great Bend State: KS Zip: 67530 + ____
Contact Person: Edward Nemnich
Phone: (620) 793-6005
CONTRACTOR: License # 33350
Name: Southwind Drilling, Inc.
Wellsite Geologist: Jim Musgrove
Purchaser:

Designate Type of Completion:

- [x] New Well [ ] Re-Entry [ ] Workover
- [ ] Oil [ ] WSW [x] 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
- [ ] Conv. to GSW
- [ ] Plug Back: Plug Back Total Depth
- [ ] Commingled Permit #:
- [ ] Dual Completion Permit #:
- [ ] SWD Permit #:
- [ ] ENHR Permit #:
- [ ] GSW Permit #:

01/15/2011	01/22/2011	02/10/2011
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-009-25502-00-00
Spot Description: 100' SOUTH OF
SE - NE - SW - SE Sec. 33 Twp. 18 S. R. 11 [ ] East [x] West
908 Feet from [ ] North / [x] South Line of Section
1634 Feet from [x] East / [ ] West Line of Section
Footages Calculated from Nearest Outside Section Corner:
[ ] NE [ ] NW [x] SE [ ] SW
County: Barton
Lease Name: MUSENBERG B Well #: 9
Field Name: St Peter East
Producing Formation: Arbuckle
Elevation: Ground: 1801 Kelly Bushing: 1806
Total Depth: 3850 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 585 Feet
Multiple Stage Cementing Collar Used? [ ] Yes [x] 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: 51000 ppm Fluid volume: 1200 bbls
Dewatering method used: Hauled to Disposal

Location of fluid disposal if hauled offsite:

Operator Name: Outlaw Tank Service
Lease Name: Wirtz License #: 31070
Quarter NE Sec. 33 Twp. 19 S. R. 12 [ ] East [x] West
County: Barton Permit #: E-28319

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

- [ ] Letter of Confidentiality Received
  Date:
- [ ] Confidential Release Date:
- [x] Wireline Log Received
- [ ] Geologist Report Received
- [x] UIC Distribution

ALT [x] I [ ] II [ ] III Approved by: Deanna Garrison Date: 10/16/2012

Side Two

1096573

Operator Name: K & N Petroleum, Inc. Lease Name: MUSENBERG B Well #: 9

Sec. 33 Twp. 18 S. R. 11 ☐ East ☑ West County: Barton

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 complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken *(Attach Additional Sheets)*	☑ Yes	☐ No
Samples Sent to Geological Survey	☑ Yes	☐ No
Cores Taken	☐ Yes	☑ No
Electric Log Run	☑ Yes	☐ No
Electric Log Submitted Electronically *(If no, Submit Copy)*	☑ Yes	☐ No

List All E. Logs Run:

Submitted Electronically

☐ Log Formation (Top), Depth and Datum ☐ Sample

Name Top Datum

See Geo Report Submitted

CASING RECORD ☑ New ☐ Used

Report all strings set-conductor, surface, intermediate, production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12.2500	8.6250	23	598	60/40 Poz	400	3% CC, 4% gel
Production	7.8750	5.5000	15.5	3489	Common	100	2% gel, 15% sell, 3/4% CFR

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose: ___ Perforate ___ Protect Casing ___ Plug Back TD ___ Plug Off Zone	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
	-			
	-			

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: 2.3750 Set At: 3471 Packer At: 3471

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: ☐ Vented ☐ Sold ☐ Used on Lease *(If vented, Submit ACO-18.)*

METHOD OF COMPLETION: ☐ Open Hole ☐ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)* ☐ Other *(Specify)*

PRODUCTION INTERVAL:

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

SOUTHWIND DRILLING, INC.
RIG #4

PO Box 276, Ellinwood, KS 67526
Office Phone 620-564-3800, Fax 620-564-3845

DRILLING REPORT — Musenberg #9

Location: 890' FSL & 1650' FEL
API#: 15-009-25502-00-00

Section 33-18S-11W
Barton County, Kansas

OWNER: K&N Petroleum, Inc.
CONTRACTOR: Southwind Drilling, Inc.

COMMENCED: 1/15/2011
COMPLETED: 1/22/2011

TOTAL DEPTH: Driller: 3850'
Logger: 3851'

Ground Elevation: 1800'
KB Elevation: 1806'

LOG:

0'	-	245'	Sand / Shale
245'	-	598'	Red Bed
598'	-	845'	Red Bed/ Sand
845'	-	2730'	Sand / Shale
2730'	-	3401'	Lime / Shale
3401'		3850'	Arbuckle
		3850'	RTD

CASING RECORDS

Surface casing – 8 5/8"

Ran 14 joints of new 23# 8 5/8 casing, Tally @ 577', Set @ 598', cement with 250 sacks 60/40 Poz with 3% CC and 4% gel, 150 sacks of common 3% CC. Cement did circulate. Plug down @ 8:45 pm on 1/15/2011, by Copeland (Ticket #C37512).

Production casing – 5 ½"

Ran 5 ½ casing, Tally @ _____', Set @ ____', with _____ sacks of cement. Cemented by Copeland. Plug down @ 6:00 am on 1/22/2011

DEVIATION SURVEYS

1 degree(s) @ 598'

MORNING DRILLING REPORT

SOUTHWIND DRILLING, INC.
PO Box 276
8 North Main
Ellinwood, Kansas 67526
PH: (620) 564-3800
Fax: (620) 564-3845

Well Name: Musenberg #9
Location: 890' FSL & 1650' FEL
Section: 33-18S-11W
Barton County, Kansas
Elevation: G.L. 1800'
K.B. 1806'
API# 15-009-25502-00-00

Rig #4
Toolpusher (**Robert Stevenson**): (620) 617-1716
Rig (Doghouse): (620) 566-7052
Geologist Trailer:
Wellsite Geologist (**Jim Musgrove**): (620) 786-0839

K&N Petroleum, Inc.
1105 Walnut
Great Bend, Kansas 67530
PH: (620) 793-4023
Email to: K&N Petroleum (Ed Nemnich)

Driving Directions: From Ellinwood go 5 miles North, 1 ¾ mile East, North Into.

Day 1 **Date** 1/15/2011 **Saturday** **Survey @ 598' @ 1degree**

Spud @ 5:00 pm
Ran 4.25 hours drilling, down 19.75 hours (18.00 rig up, 1.00 jet and connect, .75 rig repair on pump)

Mud Weight = 9.0, VIS = 34
Mud Cost = $786.00, Mud Cost to Date = $786.00
Wt. on bit = 20,000, RPM = 120, Pump Pressure = 600
Hours on Bit = 8.25 hours

1" fuel = 45.70 gallons
Fuel usage: 24" plus 35" delivered = 59.50"

Ran 14 joints of new 23# of 8 5/8, tally @ 577', set @ 598', Cement with 250 sacks 60/40 Poz with 3% CC and 4% gel, 150 sacks of common 3% CC. Cement did circulate. Plug down @ 8:45 pm on 1/15/2011 by Copeland (ticket #C37512).

Day 2 **Date** 1/16/2011 **Sunday** **Survey @ 598' @ 1 degree**

7:00 am Cementing with 8 5/8 @ 598'
Ran 8.50 hours drill (7.75 drill, .75 drill plug), 15.50 hours down (2.50 jet and connect, 8.75 WOC, .25 circulate, .75 trip, 3.25 run casing and cement)

Mud Cost = $786.00, Mud Cost to Date = $786.00
WOB = 25,000, RPM = 80, Pump Pressure = 800
Hours on Bit = 4.25

1" fuel = 45.70 gallons
Fuel usage: 251.35 gallons (59.50" used 5.50" = 54")

Day 3 **Date** 1/17/2011 **Monday**

7:00 am Drilling @ 1354'
Hole Made: 756'
Ran 18.75 hours drilling, 5.25 hours down (1.00 rig check, 4.25 jet/connect).

Mud Cost = $414.00, Mud Cost to Date = $1,200.00
WOB = 30,000, RPM = 80, Pump Pressure = 800
Hours on Bit = 22.50

1" fuel = 45.70 gallons
Fuel usage: 548.40 gallons (54" used 12" = 42")

MORNING DRILLING REPORT

SOUTHWIND DRILLING, INC
PO Box 276
8 North Main
Ellinwood, Kansas 67526
PH: (620) 564-3800
Fax: (620) 564-3845

Well Name: Musenberg #9
Location: 890' FSL & 1650' FEL
Section: 33-18S-11W
Barton County, Kansas
Elevation: G.L. 1800'
K.B. 1806'
API# 15-009-25502-00-00

Rig #4
Toolpusher (**Robert Stevenson**): (620) 617-1716
Rig (Doghouse): (620) 566-7052
Geologist Trailer:
Wellsite Geologist (**Jim Musgrove**): (620) 786-0839

K&N Petroleum, Inc.
1105 Walnut
Great Bend, Kansas 67530
PH: (620) 793-4023
Email to: K&N Petroleum (Ed Nemnich)

Driving Directions: From Ellinwood go 5 miles North, 1 ¾ mile East, North Into.

Day	4	Date	1/18/2011	Tuesday	Displacement (2605')

7:00 am Drilling @ 2273'
Hole Made: 919'
Ran 19.75 hours drilling, down 4.75 hours (2.25 jet/connection, 1.00 rig check, .75 displace @ 2605', .25 repair – fix air leak on draw work)

Mud Weight = 8.9, VIS = 48
Daily Mud Cost = $3,125.00, Mud Cost to Date = $4,325.00
WOB = 30,000, RPM = 80, Pump Pressure = 800
Hours on Bit = 49 hours

1" fuel = 45.70 gallons
Fuel usage: 365.60 gallons (42" used 8" = 34")

Day	5	Date	1/19/2011	Wednesday

7:00 am Drilling @ 2920'
Hole Made: 647'
Ran 19.25 drill, down 4.75 hours (1.50 circulate, 1.00 rig check, .75 repair geo line and tighten snuffin box on mud pump, 1.50 jet/connect)

Mud Weight = 9.6, VIS = 45
Daily Mud Cost = $443.05, Mud Cost to Date = $4768.05
WOB = 30,000, RPM = 80, Pump Pressure = 800
Hours on Bit = 61.25 hours

1" fuel = 45.70 gallons
Fuel usage: 319.90 gallons (34" delivered 16" = 50" used 7" = 43")

Day	6	Date	1/20/2011	Thursday

7:00 am Drilling @ 3353'
Hole Made: 433'
Ran 10.75 hours drilling, 13.25 hours down (4.50 circulate, 5.00 trip, strap w/ .91 long to the board, .50 rig check, .25 repair, 2.50 testing, .50 jet/connect)

Mud Weight = 9.3, VIS = 48
Daily Mud Cost = $1,140.20, Mud Cost to Date = $5,908.25
WOB = 30,000, RPM = 80, Pump Pressure = 800
Hours on Bit = 72.00 hours

1" fuel = 45.70 gallons
Fuel usage: 319.90 gallons (43" used 7" = 36")

MORNING DRILLING REPORT

SOUTHWIND DRILLING, INC
PO Box 276
8 North Main
Ellinwood, Kansas 67526
PH: (620) 564-3800
Fax: (620) 564-3845

Well Name: Musenberg #9
Location: 890' FSL & 1650' FEL
Section: 33-18S-11W
Barton County, Kansas
Elevation: G.L. 1800'
K.B. 1806'
API# 15-009-25502-00-00

Rig #4
Toolpusher (**Robert Stevenson**): (620) 617-1716
Rig (Doghouse): (620) 566-7052
Geologist Trailer:
Wellsite Geologist (**Jim Musgrove**): (620) 786-0839

K&N Petroleum, Inc.
1105 Walnut
Great Bend, Kansas 67530
PH: (620) 793-4023
Email to: K&N Petroleum (Ed Nemnich)

Driving Directions: From Ellinwood go 5 miles North, 1 ¾ mile East, North Into.

Day	7	Date	1/21/2011	Friday	DST #1 (3401') Rec. 20' mud and 1' oil

7:00 am Drilling @ 3533'
Hole Made: 180'
Ran 18.50 hours drilling, down for 5.50 hours (1.25 jet/connect, .50 rig check, 3.25 trip, .50 test)

Mud Weight = 9.3, VIS = 56, WL = 10.0
Daily Mud Cost = $626.75, Mud Cost to Date = $6,535.00
WOB = 30,000, RPM = 80, Pump Pressure = 800
Hours on Bit = 92.25 hours

1" fuel = 45.70 gallons
Fuel usage: 502.70 gallons (36" used 11" = 25")

Day	8	Date	1/22/2011	Saturday	RTD = 3850' LTD = 3851'

7:00 am TIWB @ 3850'
Hole Made: 317'
Ran 1.75 drilling, down 22.5 hours (5.00 rig up tear down, 3.75 circulate, 3.75 trip, 2.25 logging, 2.75 run casing and cement, .25 jet, 3.50 nipple down, 1.00 LDDP).

Mud Weight = 9.3, VIS = 56
Daily Mud Cost = 0.00, Mud Cost to Date = $6,535.00
WOB = 0, RPM = 0, Pump Pressure = 0
Hours on Bit = 92.25 hours

Ran 5 ½" casing, Set @ ____' with _____ sacks of cement, cemented by Copeland. Plug down @ 6:00 am on 1/22/2011

R & W Bit Service

500 East Santa Fe • P.O. Box 635
Ellinwood, KS 67526
Phone: Bus. (620) 564-2305
Res. (620) 564-3311

AGENT FOR
REED TOOL COMPANY
KERRY WATKINS

Sales Representative _____ Bit Record No. _____ Page ____ of ____

WELL NAME	WELL No.	API WELL No.	OPERATOR
Musenberg	9	009-25502-00-00	~~Southwind Dr~~ KAN Petroleum

CONTRACTOR	Rig	DIRECTIONAL COMPANY
Southwind	4	Disposal well

Bit Identification						Bit Performance and Operating Parameters																Dull Bit Characteristics										
Bit No.	Size	Mfg	Type	Serial No.	Jets/ TFA	Depth Out	Footage	Hrs.	Acc. Hrs.	ROP	WOB	Table RPM	MTR RPM	PUMP PRESS	GPM Pump No.	Liner	SPM	DEV	Mud WT	VIS	WL	Mud Type	T	To	BOC	LOC	B	G	ODC	Reason Pulled	AZM / DATE
1	11 1/4	RD	XX-C1.D4	F44.DJ	3-15's	598	598	8 1/4	/	72	10 Vac	120	/	600	1	6	60	1°	9.8	35	n/a	Native									
2	7 7/8	RD	S-52	NN2764	14/14/15	3850	3252	92 1/4	/	35	30 Vac	75	/	800	1	6	60	1°	9.5	52	10.0	Chem		Pipe	tol	1/4	@	3412				
																								WOS	1.01	long	to	Board				
DST #1		3401'	ARB	Recovered 30' mud & oil mixed																												
Right. D 3850'			Logger's T.D 3851'			Logged by log tech																										
Ran 14 Joints of New 23# 8 5/8 set @ 585'																																
Cemented by Copeland with 250sx 60/40 pos 4% gel 3% cc																																
∀ 150sx common 3% c.c Cement Did circ. ticket# C37512																																
Plug Down 8:45 A.M 1-11-11																																
Ran 5 1/2 Casing with D.S Casing crew cemented by copeland																																
Didn't get no ticket or ~~tony~~ on it plug Down @ 6:00 P.M. on 1-22-11																																
																															End Fuel 25"	
																															Fuel	
																															Best Fuel	
																															$5610.94 + 5085 = $10695.60	
																															Mud	
																															Mud Co	
																															Acc Cost	
																															$7626.60	
Mikes port-pot & trailer																																
water Hauled by Brackeen																																
pumped from water pit to Rig (gas pump)																																

Mud-Co / Service Mud Inc.

100 S. Main St., Suite #310, Wichita,Ks. 67202

Report: 1

Daily Drilling Mud Report

Date: 01/13/11 Depth: 0

Operator: K&N Petroleum	Contractor: Southwind	Rig No.: 4
Address: Rig	Address: Rig	Spud Date: 01/13/11
Report for Mr.: Ed Nemnich	Report for Mr.: Robert Stevenson	Section: 33 Twp: 18S Range: 11W
Well Name & No.: Musenberg #9	County: Barton	State: Kansas

Operation		Casing	Mud Volume (BBL)		Circulation Data			
Present Activity: RURT		8 5/8 in. at 0	Hole: 0	Pits: 350	Liner Size: 6	Stroke: 14	Opposite Drill Pipe: 62	Pump Pressure:
Bit Size (in.): 12 1/4	No: 1	Intermediate: in. at	Total Circulating Vol.: 350		Est.Hole/DC capacities: 14		Opposite Drill Collars: 72	Pump Make: Emsco
Drill pipe sz: 4 1/2	Type: XH	Production / Liner: in. at	Volume in Storage: 0		BBl/ Strk: 0.129	Strk / Min.: 60	Bottoms Up (Min.): 1	Pump Model: D-375
Drill Collar size: 6 1/4	475	Drilling mud type: Gel/Lime			BBL./Min.: 7.8	GAL/Min.: 326	System Total (Min): 45	

Sample from Flowline ___ or Pit __

Flowline Temperature ____

Mud Properties			
Time Sample Taken	2:53 PM		
Depth (Ft.)	0		
Weight (lb/gal.)			
Mud Gradient (psi/ft.)			
Funnel Viscosity (Sec/qt. API)			
Plastic Viscosity cp			
Yield Point (lb/100 sq.ft.)			
Gel Strength 10 sec/10 min.			
pH			
Filtrate API (ml/30 min.)	Make up		
Cake Thickness 32nd	water		
Alkalinity, Mud (Pm)			
Alkalinity, Filtrate (Pf/Mf)			
Chloride Content, ppm	300		
Calcium. ppm	160		
Sand Content (% by Vol)			
Solids Content (% by Vol.)			
Oil Content (% by Vol.)			
Water Content (% by Vol.)			
LCM, lbs/bbl.			
Reynold's #DP	#DIV/0!		
Reynold's # DC	#DIV/0!		
ECD lb/gal	#DIV/0!		

Daily Mud Cost: 786.00

Cumulative Mud Cost: 786.00

MUD PROPERTIES SPECIFICATIONS

Mud Wt.(lbs/gal.)	Viscosity	Filtrate	LCM
<10.0	36-40	No Cont	As needed

Suggest forsurface hole:
1. *Spud with 36-40 vis of gel and lime slurry.*
2. *Control weight as low as practical, preferaby <10.0*
3. *Add 4-6 sxs hulls initially and then as needed*

Drill out from under surface with water and jet often.

Add premix as needed for hole cleaning:
80 bbls fresh water
1 sk Soda Ash
20-25 sk Premium Gel

Have frac tank and premix full and ready to displace the system at 2600' or per geo's orders.
80 bbls fresh water
2 sk Soda Ash
1 sx Caustic Soda
20 sk Premium Gel
1/3 sx Pack
1 sx lignite

Pump 40-60 bbls fresh water ahead of displacement mud

After displacing:
1. *Maintain viscosity 48-52 sec/qt with gel mixed with pit mud*
2. *Control mud weight 9.2-9.5 with water at flowline*
3. *Add LCM as needed*

Thank You

DRILLING MUD INVENTORY

Products:	Delivery	Transfer	On Hand	Used	Cost
Premium Gel	280		250	30	495.00
Lime	6		5	1	11.00
Soda Ash	28		28		
Caustic Soda	19		19		
Lignite	15		15		
C/S Hulls	100		80	20	280.00
Drill Pak	6		6		
Desco	2		2		
Poly Plus	2		2		
Florigel					
Xcide					
Sapp					
Barite					
MilGuard					

Mud-Co / Service Mud Representative: Rick Hughes	Home Address: Great Bend, Kansas	Telephone Number: 620-792-5425
Cell: 620-791-7623	Warehouse Location: Pratt, Ks.	Telephone Number: 620-672-2957

Mud-Co / Service Mud Inc.

100 S. Main St., Suite #310, Wichita,Ks. 67202

Report: 1

Daily Drilling Mud Report

Date: 01/13/11 Depth: 0

Operator: K&N Petroleum	Contractor: Southwind	Rig No.: 4	
Address: Rig	Address: Rig	Spud Date: 01/13/11	
Report for Mr.: Ed Nemnich	Report for Mr.: Robert Stevenson	Section: 33	Twp: 18S Range: 11W
Well Name & No.: Musenberg #9	County: Barton	State: Kansas	

Operation		Casing	Mud Volume (BBL)		Circulation Data			
Present Activity: RURT		8 5/8 in. at 0	Hole: 0	Pits: 350	Liner Size: 6	Stroke: 14	Opposite Drill Pipe: 62	Pump Pressure:
Bit Size (in.): 12 1/4	No: 1	Intermediate: in. at	Total Circulating Vol.: 350		Est.Hole/DC capacities: 14		Opposite Drill Collars: 72	Pump Make: Emsco
Drill pipe sz: 4 1/2	Type: XH	Production / Liner: in. at	Volume in Storage: 0		BBl/ Strk: 0.129	Strk / Min.: 60	Bottoms Up (Min.): 1	Pump Model: D-375
Drill Collar size: 6 1/4	475	Drilling mud type: Gel/Lime			BBL./Min.: 7.8	GAL/Min.: 326	System Total (Min): 45	

Sample from Flowline ___ or Pit ___

Flowline Temperature ___

Mud Properties			
Time Sample Taken			
Depth (Ft.)	0		
Weight (lb/gal.)			
Mud Gradient (psi/ft.)			
Funnel Viscosity (Sec/qt. API)			
Plastic Viscosity cp			
Yield Point (lb/100 sq.ft.)			
Gel Strength 10 sec/10 min.			
pH			
Filtrate API (ml/30 min.)	Make up		
Cake Thickness 32nd	water		
Alkalinity, Mud (Pm)			
Alkalinity, Filtrate (Pf/Mf)			
Chloride Content, ppm			
Calcium, ppm			
Sand Content (% by Vol)			
Solids Content (% by Vol.)			
Oil Content (% by Vol.)			
Water Content (% by Vol.)			
LCM, lbs/bbl.			
Reynold's #DP	#DIV/0!		
Reynold's # DC	#DIV/0!		
ECD lb/gal	#DIV/0!		

Daily Mud Cost	Cumulative Mud Cost
0.00	0.00

MUD PROPERTIES SPECIFICATIONS

Mud Wt.(lbs/gal.)	Viscosity	Filtrate	LCM
<10.0	36-40	No Cont	As needed

Suggest forsurface hole:
1. *Spud with 36-40 vis of gel and lime slurry.*
2. *Control weight as low as practical, preferaby <10.0*
3. *Add 4-6 sxs hulls initially and then as needed*

Drill out from under surface with water and jet often.

Add premix as needed for hole cleaning:
80 bbls fresh water
1 sk Soda Ash
20-25 sk Premium Gel

Have frac tank and premix full and ready to displace the system at 2600' or per geo's orders.
80 bbls fresh water
2 sk Soda Ash
1 sx Caustic Soda
20 sk Premium Gel
1/3 sx Pack
1 sx lignite

Pump 40-60 bbls fresh water ahead of displacement mud

After displacing:
1. *Maintain viscosity 48-52 sec/qt with gel mixed with pit mud*
2. *Control mud weight 9.2-9.5 with water at flowline*
3. *Add LCM as needed*

Thank You

DRILLING MUD INVENTORY

Products:	Delivery	Transfer	On Hand	Used	Cost
Premium Gel	280		280		
Lime	6		6		
Soda Ash	28		28		
Caustic Soda	19		19		
Lignite	15		15		
C/S Hulls	100		100		
Drill Pak	6		6		
Desco	2		2		
Poly Plus	2		2		
Flotgel					
Xcide					
Sapp					
Barite					
MilGuard					

Mud-Co / Service Mud Representative	Home Address	Telephone Number
Rick Hughes	Great Bend, Kansas	620-792-5425
Cell: 620-791-7623	Warehouse Location: Pratt, Ks.	Telephone Number: 620-672-2957

Mud-Co / Servile Mud, Inc.

100 S. Main St., Suite #310, Wichita,Ks. 67202

Report: 2

Daily Drilling Mud Report

Date: 01/17/11 Depth: 1599

Operator: K&N Petroleum	Contractor: Southwind	Rig No.: 4	
Address: Rig	Address: Rig	Spud Date: 01/13/11	
Report for Mr.: Jim Musgrove	Report for Mr.: Robert Stevenson	Section: 33	Twp: 18S Range: 11W
Well Name & No.: Musenberg #9	County: Barton	State: Kansas	

Operation	Casing	Mud Volume (BBL)	Circulation Data
Present Activity: Drilling	8 5/8 in. at 585	Hole: 176 Pits: 400	Liner Size: 6 Stroke: 14
Bit Size (in.): 7 7/8 No: 2	Intermediate: in. at	Total Circulating Vol.: 576	Est.Hole/DS capacities: 11 | 2.327
Drill pipe sz: 4 1/2 Type: XH	Production / Liner: in. at	Volume in Storage	BBl/ Strk: 0.129 Strk / Min.: 60
Drill Collar size: 6 1/4 | 473	Drilling mud type: Native		BBL./Min.: 7.8 GAL/Min.: 326

Circulation Data			
Opposite Drill Pipe: 191	Pump Pressure: -		
Opposite Drill Collars: 348	Pump Make: Emsco		
Bottoms Up (Min.): 20	Pump Model: D-375		
System Total (Min): 74			

Sample from Flowline _x__ or Pit __

Flowline Temperature _____

Mud Properties			
Time Sample Taken	1:35 PM		
Depth (Ft.)	1,599		
Weight (lb/gal.)	10.0		
Mud Gradient (psi/ft.)	0.520		
Funnel Viscosity (Sec/qt. API)	27		
Plastic Viscosity cp	0		
Yield Point (lb/100 sq.ft.)	1		
Gel Strength 10 sec/10 min.	0/1		
pH	7.0		
Filtrate API (ml/30 min.)	N/C		
Cake Thickness 32nd	-		
Alkalinity, Mud (Pm)	0		
Alkalinity, Filtrate (Pf/Mf)	0/-		
Chloride Content, ppm	106K		
Calcium. ppm	Hvy		
Sand Content (% by Vol)	Tr		
Solids Content (% by Vol.)	5.8		
Oil Content (% by Vol.)	0.0		
Water Content (% by Vol.)	94.2		
LCM, lbs/bbl.	0		
Reynold's #DP	26,568		
Reynold's # DC	87,965		
ECD lb/gal	10.82		

Daily Mud Cost: 414.00

Cumulative Mud Cost: 1,200.00

MUD PROPERTIES SPECIFICATIONS

Mud Wt.(lbs/gal.)	Viscosity	Filtrate	LCM
9.0-9.5	As needed	No Cont	As needed

DRILLING MUD INVENTORY

Products:	Prior Day	Delivery	On Hand	Used	Cost
Premium Gel	250		230	20	330.00
Lime	5		5		
Soda Ash	28		28		
Caustic Soda	19		19		
Lignite	15		15		
C/S Hulls	80		74	6	84.00
Drill Pak	6		6		
Desco	2		2		
Poly Plus	2		2		
Florigel					
Xcide					
Sapp					
Barite					
MilGuard					

Suggest....

Water - run good stream and jet often

Add premix as needed for hole cleaning:
80 bbls fresh water
1 sk Soda Ash
20-25 sk Premium Gel

Have frac tank and premix full and ready to displace the system at 2600' or per geo's orders.
80 bbls fresh water
2 sk Soda Ash
1 sx Caustic Soda
20 sk Premium Gel
1/3 sx Pack
1 sx lignite

Pump 40-60 bbls fresh water ahead of displacement mud

After displacing:
1. *Maintain viscosity 48-52 sec/qt with gel mixed with pit mud*
2. *Control mud weight 9.2-9.5 with water at flowline*
3. *Add LCM as needed*

Thank You

Mud-Co / Service Mud Representative	Home Address	Telephone Number
Rick Hughes	Great Bend, Kansas	620-792-5425
Cell: 620-791-7623	Warehouse Location: Pratt, Ks.	Telephone Number: 620-672-2957

Mud-Co / Service Mud, Inc.

100 S. Main St., Suite #310, Wichita,Ks. 67202

Report: 3

Daily Drilling Mud Report

Date: 01/18/11 Depth: 2476

Operator: K&N Petroleum	Contractor: Southwind	Rig No.: 4	
Address: Rig	Address: Rig	Spud Date: 01/13/11	
Report for Mr.: Ed Nemnich	Report for Mr.: Robert Stevenson	Section: 33	Twp: 18S Range: 11W
Well Name & No.: Musenberg #9	County: Barton	State: Kansas	

Operation	Casing	Mud Volume (BBL)	Circulation Data			
Present Activity: Drilling	8 5/8 in. at 585	Hole: 248 Pits: 400	Liner Size: 6 Stroke: 14	Opposite Drill Pipe: 191	Pump Pressure: -	
Bit Size (in.): 7 7/8 No: 2	Intermediate: in. at	Total Circulating Vol.: 648	Est.Hole/DC capacities: 10 2.327	Opposite Drill Collars: 348	Pump Make: Emsco	
Drill pipe sz: 4 1/2 Type: XH	Production / Liner: in. at	Volume in Storage: 600	BBl/ Strk: 0.129 Strk / Min.: 60	Bottoms Up (Min.): 28	Pump Model: D-375	
Drill Collar size: 6 1/4 473	Drilling mud type: Native		BBL./Min.: 7.8 GAL/Min.: 326	System Total (Min): 84	Critical GPM DC/DP: 37 50	

Sample from Flowline _x__ or Pit __

Flowline Temperature _____

Mud Properties			
Time Sample Taken	1:45 PM		
Depth (Ft.)	2,476		
Weight (lb/gal.)	9.8		
Mud Gradient (psi/ft.)	0.510		
Funnel Viscosity (Sec/qt. API)	27		
Plastic Viscosity cp	1		
Yield Point (lb/100 sq.ft.)	1		
Gel Strength 10 sec/10 min.	0/1		
pH	7.0		
Filtrate API (ml/30 min.)	N/C		
Cake Thickness 32nd	-		
Alkalinity, Mud (Pm)	0		
Alkalinity, Filtrate (Pf/Mf)	0/-		
Chloride Content, ppm	75,000		
Calcium. ppm	Hvy		
Sand Content (% by Vol)	Tr		
Solids Content (% by Vol.)	6.2		
Oil Content (% by Vol.)	0.0		
Water Content (% by Vol.)	93.8		
LCM, lbs/bbl.	0		
Reynold's #DP	28,233		
Reynold's # DC	42,949		
ECD lb/gal	10.42		

Daily Mud Cost: 3,125.00

Cumulative Mud Cost: 4,325.00

MUD PROPERTIES SPECIFICATIONS

Mud Wt.(lbs/gal.)	Viscosity	Filtrate	LCM
9.4-9.8	As needed	No Cont	As needed

DRILLING MUD INVENTORY

Products:	Prior Day	Delivery	On Hand	Used	Cost
Premium Gel	230		120	110	1,815.00
Lime	5		5		
Soda Ash	28		23	5	126.25
Caustic Soda	19		14	5	327.75
Lignite	15		10	5	140.00
C/S Hulls	74		70	4	56.00
Drill Pak	6		4	2	660.00
Desco	2		2		
Poly Plus	2		2		
Flonigel					
Xcide					
Sapp					
Barite					
MilGuard					

Suggest....

Water - run good stream and jet often

Add premix as needed for hole cleaning:
- *80 bbls fresh water*
- *1 sk Soda Ash*
- *20-25 sk Premium Gel*

Have frac tank and premix full and ready to displace the system at 2600' or per geo's orders.
- *80 bbls fresh water*
- *2 sk Soda Ash*
- *1 sx Caustic Soda*
- *20 sk Premium Gel*
- *1/3 sx Pack*
- *1 sx lignite*

Pump 40-60 bbls fresh water ahead of displacement mud

After displacing:
1. *Maintain viscosity 48-52 sec/qt with gel mixed with pit mud*
2. *Control mud weight 9.2-9.5 with water at flowline*
3. *Add LCM as needed*

Thank You

Mud-Co / Service Mud Representative	Home Address	Telephone Number
Rick Hughes	Great Bend, Kansas	620-792-5425
Cell: 620-791-7623	Warehouse Location: Pratt, Ks.	Telephone Number: 620-672-2957

Mud-Co / Service Mud, Inc.

100 S. Main St., Suite #310, Wichita,Ks. 67202

Report: 4

Daily Drilling Mud Report

Date: 01/19/11 Depth: 2929

Operator: K&N Petroleum	Contractor: Southwind	Rig No.: 4
Address: Rig	Address: Rig	Spud Date: 01/13/11
Report for Mr.: Ed Nemnich	Report for Mr.: Robert Stevenson	Section: 33 Twp: 18S Range: 11W
Well Name & No.: Musenberg #9	County: Barton	State: Kansas

Operation	Casing	Mud Volume (BBL)	Circulation Data			
Present Activity: Drilling	8 5/8 in. at 585	Hole: 256 Pits: 350	Liner Size: 6	Stroke: 14	Opposite Drill Pipe: 191	Pump Pressure: -
Bit Size (in.): 7 7/8	No: 2	Intermediate: in. at	Total Circulating Vol.: 606	Est.Hole/DS capacities: 8.75 / 2.327	Opposite Drill Collars: 348	Pump Make: Emsco
Drill pipe sz: 4 1/2	Type: XH	Production / Liner: in. at	Volume in Storage: Volume	BBl/ Strk: 0.129	Strk / Min.: 60	Bottoms Up (Min.): 28	Pump Model: D-375
Drill Collar size: 6 1/4	473	Drilling mud type: Chemical		BBL./Min.: 7.8	GAL/Min.: 326	System Total (Min): 78	Critical GPM DC/DP: 193 / 254

Sample from Flowline _x__ or Pit __

Flowline Temperature _____

Mud Properties			
Time Sample Taken	7:45 AM		
Depth (Ft.)	2,929		
Weight (lb/gal.)	9.0		
Mud Gradient (psi/ft.)	0.468		
Funnel Viscosity (Sec/qt. API)	44		
Plastic Viscosity cp	10		
Yield Point (lb/100 sq.ft.)	9		
Gel Strength 10 sec/10 min.	11/28		
pH	11.5		
Filtrate API (ml/30 min.)	9.6	Reserve	
Cake Thickness 32nd	1	pit	
Alkalinity, Mud (Pm)	-	⇩	
Alkalinity, Filtrate (Pf/Mf)	.7/-		
Chloride Content, ppm	5,300	68,000	
Calcium. ppm	20	Estimated	
Sand Content (% by Vol)	TR	Volume:	
Solids Content (% by Vol.)	4.7	1200 bbls	
Oil Content (% by Vol.)	0.0		
Water Content (% by Vol.)	95.3		
LCM, lbs/bbl.	0		
Reynold's #DP	2,821		
Reynold's # DC	4,151		
ECD lb/gal	9.52		

Daily Mud Cost: 443.05

Cumulative Mud Cost: 4,768.05

MUD PROPERTIES SPECIFICATIONS

Mud Wt.(lbs/gal.)	Viscosity	Filtrate	LCM
9.0-9.4	48-52	8-10.0	As Needed

Suggest:

Water - small stream while drilling

Gel - as needed for vis, mix with pit mud

Suggest at 3200' or after DST #1, whichever comes first:
80 bbls water
2 caustic
2 Soda Ash
1 lignite
1/2 sx pac
Gel as needed
Jet hole and add over 1 1/2 hours

Add LCM as needed
Add 15 sxs Hulls after 1st Arbuckle test or if more than 30' *of Arbuckle is drilled*

Keep hole full on all trips

Circulate hole clean prior to DST or log

Thanks

DRILLING MUD INVENTORY

Products:	Prior Day	Delivery	On Hand	Used	Cost
Premium Gel	120		120		
Lime	5		5		
Soda Ash	23		17	6	151.50
Caustic Soda	14		13	1	65.55
Lignite	10		9	1	28.00
C/S Hulls	70		69	1	14.00
Drill Pak	4		4		
Desco	2		2		
Poly Plus	2		1	1	184.00
Florigel					
Xcide					
Sapp					
Barite					
MilGuard					

Mud-Co / Service Mud Representative	Home Address	Telephone Number
Rick Hughes	Great Bend, Kansas	620-792-5425
Cell: 620-791-7623	Warehouse Location: Pratt, Ks.	Telephone Number: 620-672-2957

Mud-Co / Servi 2 Mud, Inc.

100 S. Main St., Suite #310, Wichita,Ks. 67202

Report: 5

Daily Drilling Mud Report

Date: 01/20/11 Depth: 3369

Operator: K&N Petroleum	Contractor: Southwind	Rig No.: 4	
Address: Rig	Address: Rig	Spud Date: 01/13/11	
Report for Mr.: Jim Musgrove	Report for Mr.: Robert Stevenson	Section: 33	Twp: 18S Range: 11W
Well Name & No.: Musenberg #9	County: Barton	State: Kansas	

Operation	Casing	Mud Volume (BBL)	Circulation Data			
Present Activity: Drilling	8 5/8 in. at 585	Hole: 295 Pits: 350	Liner Size: 6 Stroke: 14	Opposite Drill Pipe: 191	Pump Pressure: -	
Bit Size (in.): 7 7/8 No: 2	Intermediate: in. at	Total Circulating Vol.: 645	Est.Hole/DS capacities: 8.75 / 2.327	Opposite Drill Collars: 348	Pump Make: Emsco	
Drill pipe sz: 4 1/2 Type: XH	Production / Liner: in. at	Volume in Storage: 100	BBl/ Strk: 0.129 Strk / Min.: 60	Bottoms Up (Min.): 32	Pump Model: D-375	
Drill Collar size: 6 1/4 473	Drilling mud type: Chemical		BBL./Min.: 7.8 GAL/Min.: 326	System Total (Min): 83	Critical GPM DC/DP: 214 / 283	

Sample from Flowline _x__ or Pit __

Flowline Temperature _____

Mud Properties			
Time Sample Taken	8:40 AM		
Depth (Ft.)	3,369		
Weight (lb/gal.)	9.45		
Mud Gradient (psi/ft.)	0.491		
Funnel Viscosity (Sec/qt. API)	47		
Plastic Viscosity cp	12		
Yield Point (lb/100 sq.ft.)	11		
Gel Strength 10 sec/10 min.	22/47		
pH	9.5		
Filtrate API (ml/30 min.)	10.6		
Cake Thickness 32nd	1		
Alkalinity, Mud (Pm)	-		
Alkalinity, Filtrate (Pf/Mf)	.1/-		
Chloride Content, ppm	6,500		
Calcium, ppm	20		
Sand Content (% by Vol)	Tr		
Solids Content (% by Vol.)	7.5		
Oil Content (% by Vol.)	0.0		
Water Content (% by Vol.)	92.5		
LCM, lbs/bbl.	0		
Reynold's #DP	2,433		
Reynold's # DC	3,601		
ECD lb/gal	9.96		

Daily Mud Cost: 1,140.20

Cumulative Mud Cost: 5,908.25

MUD PROPERTIES SPECIFICATIONS

Mud Wt.(lbs/gal.)	Viscosity	Filtrate	LCM
9.0-9.4	48-52	8-10.0	2-4 lb/bbl

DRILLING MUD INVENTORY

Products:	Prior Day	Delivery	On Hand	Used	Cost
Premium Gel	120		87	33	544.50
Lime	5		5		
Soda Ash	17		11	6	151.50
Caustic Soda	13		9	4	262.20
Lignite	9		7	2	56.00
C/S Hulls	69		60	9	126.00
Drill Pak	4		4		
Desco	2		2		
Poly Plus	1		1		
Florigel					
Xcide					
Sapp					
Barite					
MilGuard					

Suggest:

Water - small stream while drilling

Today, add tank of mud currently in premix to the system over 1 1/2 hours

Maintain viscosity and mud wt. with this premix:

40 bbls water/40 bbls pit mud
1 caustic
1 Soda Ash
1/2 lignite
1/2 sx pac
Gel as needed
Hulls as needed

Use 80 bbls water if mud wt. 9.5 or greater

Jet hole and add over 1 1/2 hours

Today add 25 sxs Hulls and maintain 2-4 lb/bbl LCM

After adding above hulls, you will be low on hulls, call right away if any problems

Keep hole full on all trips

Circulate hole clean prior to DST or log

Thanks

Mud-Co / Service Mud Representative	Home Address	Telephone Number
Rick Hughes	Great Bend, Kansas	620-792-5425
Cell: 620-791-7623	Warehouse Location: Pratt, Ks.	Telephone Number: 620-672-2957

Mud-Co / Service Mud, Inc.

100 S. Main St., Suite #310, Wichita,Ks. 67202

Report: 6

Daily Drilling Mud Report

Date: 01/21/11 Depth: 3508

Operator: K&N Petroleum	Contractor: Southwind	Rig No.: 4	
Address: Rig	Address: Rig	Spud Date: 01/13/11	
Report for Mr.: Jim Musgrove	Report for Mr.: Robert Stevenson	Section: 33	Twp: 18S Range: 11W
Well Name & No.: Musenberg #9	County: Barton	State: Kansas	

Operation	Casing	Mud Volume (BBL)	Circulation Data			
Present Activity: Drilling	8 5/8 in. at 585	Hole: 307 Pits: 350	Liner Size: 6 Stroke: 14	Opposite Drill Pipe: 191	Pump Pressure: -	
Bit Size (in.): 7 7/8 No: 2	Intermediate: in. at	Total Circulating Vol.: 657	Est.Hole/DS capacities: 8.75 / 2.327	Opposite Drill Collars: 348	Pump Make: Emsco	
Drill pipe sz: 4 1/2 Type: XH	Production / Liner: in. at	Volume In Storage: 40	BBl/ Strk: 0.129 Strk / Min.: 60	Bottoms Up (Min.): 34	Pump Model: D-375	
Drill Collar size: 6 1/4 | 473	Drilling mud type: Chemical		BBL./Min.: 7.8 GAL/Min.: 326	System Total (Min): 85	Critical GPM DC/DP: 226 | 300	

Sample from Flowline _x__ or Pit __

Flowline Temperature _____

Mud Properties			
Time Sample Taken	6:55 AM		
Depth (Ft.)	3,508		
Weight (lb/gal.)	9.5		
Mud Gradient (psi/ft.)	0.494		
Funnel Viscosity (Sec/qt. API)	48		
Plastic Viscosity cp	13		
Yield Point (lb/100 sq.ft.)	12		
Gel Strength 10 sec/10 min.	12/39		
pH	10.0		
Filtrate API (ml/30 min.)	10.0		
Cake Thickness 32nd	1		
Alkalinity, Mud (Pm)	-		
Alkalinity, Filtrate (Pf/Mf)	.25/-		
Chloride Content, ppm	6,600		
Calcium. ppm	40		
Sand Content (% by Vol)	TR		
Solids Content (% by Vol.)	8.1		
Oil Content (% by Vol.)	0.0		
Water Content (% by Vol.)	91.9		
LCM, lbs/bbl.	2		
Reynold's #DP	2,246		
Reynold's # DC	3,330		
ECD lb/gal	10.01		

Daily Mud Cost: 626.75

Cumulative Mud Cost: 6,535.00

MUD PROPERTIES SPECIFICATIONS

Mud Wt.(lbs/gal.)	Viscosity	Filtrate	LCM
9.0-9.4	48-52	8-10.0	2-4 lb/bbl

DRILLING MUD INVENTORY

Products:	Prior Day	Delivery	On Hand	Used	Cost
Premium Gel	87		87		
Lime	5		5		
Soda Ash	11		12	-1	-25.25
Caustic Soda	9		9		
Lignite	7		8	-1	-28.00
C/S Hulls	60		35	25	350.00
Drill Pak	4		3	1	330.00
Desco	2		2		
Poly Plus	1		1		
Flonigel					
Xcide					
Sapp					
Barite					
MilGuard					

Suggest:

Water - small stream while drilling

Suggest today,

Top off premix with water and add additional:
2 caustic
1 Soda Ash
1/2 lignite
1/2 sx pac
Gel as needed
15 sxs Hulls
Jet hole and add over 1 1/2 hours

After above premix is added, maintain vis with this premix:
40 bbls water/40 bbls pit mud
1 caustic
1 Soda Ash
1/2 lignite
1/2 sx pac
Gel as needed
Hulls as needed
Jet hole and add over 1 1/2 hours

Use 80 bbls water if mud wt. 9.5 or greater

Maintain 2-4 lb/bbl LCM

Keep hole full on all trips

Circulate hole clean prior to DST or log

Thanks

Mud-Co / Service Mud Representative: Rick Hughes	Home Address: Great Bend, Kansas	Telephone Number: 620-792-5425
Cell: 620-791-7623	Warehouse Location: Pratt, Ks.	Telephone Number: 620-672-2957

Mud-Co / Service Mud. Inc.

100 S. Main St., Suite #310, Wichita,Ks. 67202

Report: 7

Daily Drilling Mud Report

Date: 01/22/11 Depth: 3850

Operator: K&N Petroleum	Contractor: Southwind	Rig No.: 4	
Address: Rig	Address: Rig	Spud Date: 01/15/11	
Report for Mr.: Jim Musgrove	Report for Mr.: Robert Stevenson	Section: 33	Twp: 18S Range: 11W
Well Name & No.: Musenberg #9	County: Barton	State: Kansas	

Operation: Present Activity: LDDP	Casing: 8 5/8 in. at 585	Mud Volume (BBL): Hole 0 Pits 400	Liner Size: 6	Stroke: 14	Circulation Data: Opposite Drill Pipe: 191	Pump Pressure: -
Bit Size (in.): 7 7/8 No: No.	Intermediate: in. at	Total Circulating Vol.: 400	Est.Hole/DS capacities:	0	Opposite Drill Collars: 348	Pump Make: Emsco
Drill pipe sz: 4 1/2 Type: XH	Production / Liner: in. at	Volume in Storage: Volume	BBl/ Strk: 0.129	Strk / Min.: 60	Bottoms Up (Min.): -7	Pump Model: D-375
Drill Collar size: 6 1/4	Drilling mud type: Mud Type		BBL./Min.: 7.8	GAL/Min.: 326	System Total (Min): 52	Critical GPM DC/DP: ##### / #####

Sample from Flowline ___ or Pit ___

Flowline Temperature _____

Mud Properties			
Time Sample Taken	12:20 PM		
Depth (Ft.)	3,850		
Weight (lb/gal.)			
Mud Gradient (psi/ft.)	0.000		
Funnel Viscosity (Sec/qt. API)			
Plastic Viscosity cp			
Yield Point (lb/100 sq.ft.)			
Gel Strength 10 sec/10 min.			
pH			
Filtrate API (ml/30 min.)			
Cake Thickness 32nd			
Alkalinity, Mud (Pm)			
Alkalinity, Filtrate (Pf/Mf)			
Chloride Content, ppm			
Calcium. ppm			
Sand Content (% by Vol)			
Solids Content (% by Vol.)			
Oil Content (% by Vol.)			
Water Content (% by Vol.)	100.0		
LCM, lbs/bbl.			
Reynold's #DP	#DIV/0!		
Reynold's # DC	#DIV/0!		
ECD lb/gal	#DIV/0!		

Daily Mud Cost: 1,091.60

Cumulative Mud Cost: 7,626.60

MUD PROPERTIES SPECIFICATIONS

Mud Wt.(lbs/gal.)	Viscosity	Filtrate	LCM
9.0-9.2	As needed	Filtrate	As Needed

Final

1 DST

LTD 3851

Lost 80 bbls while tripping out for log

Ran pipe

DRILLING MUD INVENTORY

Products:	Prior Day	Delivery	On Hand	Used	Cost
Premium Gel	87	50	119	18	297.00
Lime	5	4	8	1	11.00
Soda Ash	12	16	26	2	50.50
Caustic Soda	9	7	14	2	131.10
Lignite	8	6	12	2	56.00
C/S Hulls	35	67	63	39	546.00
Drill Pak	3	2	5		
Desco	2	2	4		
Poly Plus	1		1		
Florigel					
Xcide					
Sapp		1	1		
Barite					
MilGuard					

Mud-Co / Service Mud Representative: Rick Hughes	Home Address: Great Bend, Kansas	Telephone Number: 620-792-5425
Cell: 620-791-7623	Warehouse Location: Pratt, Ks.	Telephone Number: 620-672-2957

MUD-CO / SERVICE MUD INC.

100 S. Main, Suite 310 • Wichita, KS 67202 • 316-264-2814

DELIVERY TICKET 115623

DATE SHIPPED: 1-15-11

DELIVERING WAREHOUSE: Plant

F.O.B. WAREHOUSE ☐ WELL SITE ☐ | PREPAID ☐ | COLLECT ☐ | FINAL WELL TICKET ☐

SOLD TO: R & N Petroleum

ADDRESS:

CITY, STATE, ZIP:

SHIPPED TO: Sunflower 4

SHIPPED VIA: SS 35

ORDER NO.:

WELL NAME & NO.: Musenberg 9

COUNTY, STATE: Barton Ks

SEC 35 TWN 16S RNG 11W

	PRODUCT	PACKAGE SIZE	QUANTITY	PRICING LIST	CODE	UNIT PRICE	AMOUNT
1.	UN# 1823 SODIUM HYDROXIDE-SOLID 8 II Emergency #1-800-424-9300	50#	19	Bag			
2.	Mud-Co Gel	100#	280	Bag			
3.	Salt Clay	50#		Bag			
4.	Mud-Co Starch	50#		Bag			
5.	Lime	50#	6	Bag			
6.	Cotton Seed Hulls	50#	100	Bag			
7.	Soda Ash	50#	28	Bag			
8.	Lignite	50#	15	Bag			
9.	Dyna Pac	50#	6	Bag			
10.	Desco	25#	2	Bag			
11.	Co-Poly L	5gal	2				
12.	X-Cide 102W	5gal					
13.							
14.							
15.							
16.							
17.							
18.							
19.							
20.							
21.							
22.							

MATERIAL RECEIVED IN GOOD ORDER

DATE RECEIVED

PURCHASE AUTHORIZED BY

TRANSPORTATION CHARGES

TRUCK #	MILEAGE	FROM	
@			
@			
@			
TOTAL TRANSPORTATION CHARGES			

SUB TOTAL	
SALES TAX	
TRANSPORTATION	
TOTAL	

ROUTING: WHITE - CUSTOMER; BLUE - CUSTOMER RIG; GREEN - WICHITA; CANARY - WAREHOUSE

PLEASE PRESS FIRMLY: YOU ARE MAKING FOUR COPIES

COPELAND
Acid & Cement

TREATMENT REPORT

Acid Stage No. .....

Date: 11-6-11 District: [illegible] F. O. No. [illegible]
Company: [illegible]
Well Name & No. [illegible]
Location: Field:
County: [illegible] State: [illegible]

Casing: Size: 2 7/8 Type & Wt. Set at ft.
Formation: Perf. to
Formation: Perf. to
Formation: Perf. to
Liner: Size Type & Wt. Top at ft. Bottom at ft.
Cemented: Yes/No. Perforated from ft. to ft.
Tubing: Size & Wt. Swung at ft.
Perforated from ft. to ft.

Open Hole Size T.D. ft. P.B. to ft.

Type Treatment:	Amt.	Type Fluid	Sand Size	Pounds of Sand
Bkdown	Bbl. /Gal.			
	Bbl. /Gal.			
	Bbl. /Gal.			
	Bbl. /Gal.			
Flush	Bbl. /Gal.			

Treated from ft. to ft. No. ft.
from ft. to ft. No. ft.
from ft. to ft. No. ft.

Actual Volume of Oil/Water to Load Hole: Bbl. /Gal.

Pump Trucks. No. Used: Std. 350 Sp. Twin
Auxiliary Equipment 3171316
Packer: Set at ft.
Auxiliary Tools
Plugging or Sealing Materials: Type
Gals. lb.

Company Representative [illegible] Treater [illegible]

TIME (a.m./p.m.)	PRESSURES Tubing	PRESSURES Casing	Total Fluid Pumped	REMARKS
4 :45		2 7/8		On location.
:				
:				
:				Mule : 5 1/2
:				Pipe : 5 7/8"
:				L.J : 10'
:				
:				
:				Break circulation and pump load.
:				
:				Mix 250 sks Premium 4% gel
:				w/ 2% Calcium chloride.
:				
:				Mix 150 sks. Common 2% Calcium
:				Chloride.
:				
:				Displace w/ 34.6 bbls @ 6 1/2 bpm
:				@ 500# circulated cement to surface.
:				
:				Plug landed @ 650#
5 :30				shut in.
:				
:				
:				Rack Up.
:				
:				Nichols LLC
:				
:				
:				
:				
:				
:				
:				

COPELAND
Acid & Cement

TREATMENT REPORT

Acid Stage No. .....

Date 11-2-11 District G. B. F. O. No. C2-11

Company Texas Petroleum

Well Name & No. Cimarron #9

Location ..... Field .....

County Archer State Texas

Casing: Size 5½" Type & Wt. 15.5# Set at 3003 ft.

Formation: ..... Perf. ..... to .....

Formation: ..... Perf. ..... to .....

Formation: ..... Perf. ..... to .....

Liner: Size ..... Type & Wt. ..... Top at ..... ft. Bottom at ..... ft.

Cemented: Yes / No. Perforated from ..... ft. to ..... ft.

Tubing: Size & Wt. ..... Swung at ..... ft.

Perforated from ..... ft. to ..... ft.

Open Hole Size ..... T.D. ..... ft. P.B. to ..... ft.

Type Treatment:	Amt.	Type Fluid	Sand Size	Pounds of Sand
Bkdown	Bbl. /Gal.			
	Bbl. /Gal.			
	Bbl. /Gal.			
	Bbl. /Gal.			
Flush	Bbl. /Gal.			
Treated from	ft. to	ft. No. ft.		
from	ft. to	ft. No. ft.		
from	ft. to	ft. No. ft.		

Actual Volume of Oil / Water to Load Hole: ..... Bbl. /Gal.

Pump Trucks. No. Used: Std. 220 Sp. ..... Twin .....

Auxiliary Equipment 3121 310

Packer: ..... Set at ..... ft.

Auxiliary Tools .....

Plugging or Sealing Materials: Type .....

..... Gals. ..... lb.

Company Representative Ed M. Treater Nelson G.

TIME a.m / p.m.	PRESSURES Tubing	PRESSURES Casing	Total Fluid Pumped	REMARKS
1 : 30		5½"		On location.
:				
:				
:				Pipe : 3003'
:				Shoe : 42'
:				
:				
:				Break circulation w/ mud pump
:				Circulate 20 min.
:				
:				Drop ball & load plug
:				
:				Pump mud flush. Pressure up to
:				1000# Take circulation.
:				
:				Blue Red Hol. w/ 20 sks
:				
:				Mix 100 sks Common 2% cc 1. 15%
:				salt ¼# CFR
:				
:				Release plug
:				Displace w/ 57 bbls @ 7% bpm @
:				500#
:				Plug landed @ 1,500#
5 : 35				Released Float held.
:				
:				
:				Cement to Surface
:				
:				Nelson G.
:				
:				
:				
:				