

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 1/2"

Ran 5 1/2 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 ¼ 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

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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 ¼ mile East, North Into.

Day	4	Date	1/18/2011	Tuesday	Displacement (2605')
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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
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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
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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
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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 ¼ mile East, North Into.

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

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'
					<u>LTD = 3851'</u>

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
 R TOOL COMPANY

KERRY WATKINS

Sales Representative _____

Bit Record No. _____

Page _____ of _____

WELL NAME: Musenberg WELL NO.: 9 API WELL NO.: 009-25502-00-00 OPERATOR: KTN Petro leum
 CONTRACTOR: Southwind RIG: H DIRECTIONAL COMPANY: Disposal well

Bit Identification

Bit Performance and Operating Parameters

Dull Bit Characteristics

Bit No.	Size	Mfg	Type	Serial No.	Leat TFA	Depth Out	Footage	Hrs.	Acc. Hrs.	ROP	WOB	Table RPM	MTR RPM	PUMP PRESS	Pump No.	GPM	SPM	DEV	Mud WT	VIS	WL	Mud Type	TI	To MDC	Loc	B	G	Occ	Reason Pulled	AZA DATE	
1	1 1/4	RD	XX-CID4	F440J5	3755	598	598	8 1/2	1	72	1000	120	1	600	1	60	10	98	35	2 1/2	2 1/2										
2	7/8	RD	S-52	NN274	1 1/4 1/5	3850	3252	92 1/2	1	35	3000	75	1	800	1	60	10	95	52	1 1/2	1 1/2										
		DST #1	3401' ARB	Revised																											
		RIG T.D	3850'	Logger																											
		Ran 14 joints of new 23# cemented by copeland with 1505x common brcc cement did circ. ticket# C3752																													
		plug down 8.45 AM 11-11																													
		RAN 5 1/2 casing with R.S.C																													
		didn't get no ticket or tag																													
		RAN 5 1/2 casing with R.S.C																													
		didn't get no ticket or tag																													
		Mikes part-pot + trailer																													
		water hauled by Brackeen																													
		pumped from water pit to Rig (gas pump)																													

Fuel
 Best
 15.1494 56085
 11.1494 87659.50

Mud SO
 Accast
 87626.60

pipe 10/11 @ 3413
 was 1.01 long to board

End Fuel 25"

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

Sample from Flowline <input type="checkbox"/> or Pit <input type="checkbox"/>	Daily Mud Cost	Cumulative Mud Cost
Flowline Temperature	786.00	786.00

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!

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

Suggest for surface hole:

1. Spud with 36-40 vis of gel and lime slurry.
2. Control weight as low as practical, preferably <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 sk Caustic Soda
- 20 sk Premium Gel
- 1/3 sk Pack
- 1 sk lignite

Pump 40-60 bbls fresh water ahead of displacement mud

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					

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	Telephone Number
	Pratt, Ks.	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	
Well Name & No. Musenberg #9		County Barton		Twp 18S	
				Range 11W	
				State Kansas	

Operation RURT		Casing 8 5/8 in. at 0		Mud Volume (BBL) 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		BBH/ 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 <input type="checkbox"/> or Pit <input type="checkbox"/>		Daily Mud Cost 0.00		Cumulative Mud Cost 0.00	
Flowline Temperature		Mud Properties			

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

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!

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		
Florigel					
Xoide					
Sapp					
Barite					
MilGuard					

Suggest for surface hole:

1. Spud with 36-40 vis of gel and lime slurry.
2. Control weight as low as practical, preferably <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 sk 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 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: **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
Well Name & No. Musenberg #9		County Barton		State Kansas	
Range 11W					

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	Opposite Drill Pipe 191	Pump Pressure -
Bit Size (in.) 7 7/8	No 2	Intermediate in. at		Total Circulating Vol. 576		Est. Hole/DS capacities 11 2.327		Opposite Drill Collars 348	Pump Make Emsco
Drill pipe sz 4 1/2	Type XH	Production / Liner in. at		Volume in Storage		BBW/Strk 0.129	Strk / Min. 60	Bottoms Up (Min.) 20	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.) 74	

Sample from Flowline <input type="checkbox"/> or Pit <input type="checkbox"/>	Daily Mud Cost 414.00	Cumulative Mud Cost 1,200.00
Flowline Temperature	Mud Properties	

MUD PROPERTIES SPECIFICATIONS			
Time Sample Taken 1:35 PM	Mud Wt. (lbs/gal.) 9.0-9.5	Viscosity As needed	LCM As needed
Depth (Ft.) 1,599	Filtrate No Cont		
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

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

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					

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 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: **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 Twp Range 33 18S 11W	
Well Name & No. Musenberg #9		County Barton		State Kansas	

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

Sample from Flowline x__ or Pit	Daily Mud Cost	Cumulative Mud Cost
Flowline Temperature	3,125.00	4,325.00

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

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

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:

- Maintain viscosity 48-52 sec/qt with gel mixed with pit mud
- Control mud weight 9.2-9.5 with water at flowline
- Add LCM 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		
Florigel					
Xcide					
Sapp					
Barite					
MilGuard					

Thank You

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: **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 Twp Range 33 18S 11W	
Well Name & No. Musenberg #9		County Barton		State Kansas	

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

Sample from Flowline <u> </u> or Pit	Daily Mud Cost	Cumulative Mud Cost
Flowline Temperature	443.05	4,768.05

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

Time Sample Taken		Mud Properties	
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)		.71-	
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	

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 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: **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 Twp Range 33 18S 11W	
Well Name & No. Musenberg #9		County Barton		State Kansas	

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

Sample from Flowline _x_ or Pit	Daily Mud Cost	Cumulative Mud Cost
Flowline Temperature	1,140.20	5,908.25

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 (P/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

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

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

Jet hole and add over 1 1/2 hours

Use 80 bbls water if mud wt. 9.5 or greater

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

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					
MitGuard					

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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
Well Name & No. Musenberg #9		County Barton		State Kansas	
Range 11W					

Operation	Casing		Mud Volume (BBL)		Circulation Data			
Present Activity	Hole	Pits	Liner Size	Stroke	Opposite Drill Pipe	Pump Pressure		
Drilling	8 5/8 in. at	585	307	350	6	14	191	-
Bit Size (in.)	Intermediate		Total Circulating Vol.		Est. Hole/DS capacities		Opposite Drill Collars	Pump Make
7 7/8	in. at		657		8.75 2.327		348	EmSCO
Drill pipe sz	Production / Liner		Volume in Storage		BB/ Strk	Strk / Min.	Bottoms Up (Min.)	Pump Model
4 1/2	in. at		40		0.129	60	34	D-375
Drill Collar size	Drilling mud type		BBL/Min.		GAL/Min.	System Total (Min)	Critical GPM DC/DP	
6 1/4	Chemical		7.8		326	85	226	300

Sample from Flowline <u> </u> or Pit <u> </u>	Daily Mud Cost	Cumulative Mud Cost
Flowline Temperature <u> </u>	626.75	6,535.00

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

Time Sample Taken	Mud Properties
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

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

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		
Florigel					
Xcide					
Sapp					
Barite					
MilGuard					

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

Sample from Flowline _____ or Pit _____		Daily Mud Cost 1,091.60		Cumulative Mud Cost 7,626.60	
Flowline Temperature _____		Mud Properties		MUD PROPERTIES SPECIFICATIONS	

Time Sample Taken	12:20 PM	Mud Wt. (lbs/gal.)	Viscosity	Filtrate	LCM
Depth (Ft.)	3,850	9.0-9.2	As needed	Filtrate	As Needed
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!				

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					

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

DELIVERY TICKET

115623

DATE SHIPPED 1-15-11	F.O.B. WAREHOUSE <input type="checkbox"/>	PREPAID <input type="checkbox"/>	FINAL WELL <input type="checkbox"/>
DELIVERING WAREHOUSE PIATT	WELL SITE <input type="checkbox"/>	COLLECT <input type="checkbox"/>	TICKET <input type="checkbox"/>

SOLD TO K & N Petroleum	SHIPPED TO Southwind 9	WELL NAME & NO. Musenberg 9
ADDRESS	SHIPPED VIA 35 35	COUNTY, STATE Darton KS
CITY, STATE, ZIP	ORDER NO.	SEC TWN RNG 33 18s 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	TRANSPORTATION CHARGES		SUB TOTAL
	TRUCK #	MILEAGE	FROM
DATE RECEIVED	@		SALES TAX
	@		
	@		TRANSPORTATION
PURCHASE AUTHORIZED BY	TOTAL TRANSPORTATION CHARGES		TOTAL

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

PLEASE PRESS FIRMLY: YOU ARE MAKING FOUR COPIES



TREATMENT REPORT

Acid Stage No.

Date: 11/11/51 District: 60 F. O. No. 637-10
 Company: W. M. S. Baker
 Well Name & No.: Anderson 27
 Location: _____ Field: _____
 County: Scott State: CO

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 370 Sp. _____ Twin _____
 Auxiliary Equipment 371 310

Packer: _____ Set at: _____ ft.
 Auxiliary Tools _____
 Plugging or Sealing Materials: Type _____

Company Representative: Ed N. Treater: Anderson Co.

TIME a.m./p.m.	PRESSURES		Total Fluid Pumped	REMARKS
	Tubing	Casing		
4:45		275		On location.
:				
:				
:				Depth = 575'
:				Depth = 575'
:				L.J. = 10'
:				
:				Good circulation and pump treat.
:				Mix 250 lbs. Cement and 4% cell.
:				and 5% Calcium Chloride
:				
:				Mix 150 lbs. Cement and 5% Calcium
:				Chloride.
:				
:				Discharge 1 PV. 6 bbls @ 6 1/2 gpm
:				@ 500' circulation cement to surface
:				
:				Plus landed @ 650.'
:				
5:20				shut in
:				
:				
:				Good flow
:				
:				Anderson Co.

