

Operator Name Duke Drilling Co., Inc. Lease Name Miller Well # 1

Sec. 19 Twp. 22 Rge. 22 East West County Hodgeman

WELL LOG

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all drill stem 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 during test. Attach extra sheet if more space is needed. Attach copy of log.

Drill Stem Tests Taken Yes No
 Samples Sent to Geological Survey Yes No
 Core Marked Yes No

Formation Description
 Log Sample

DST #1 4335'-4355' Marmaton
 15" 30" 15" 30"
 1st Open: Weak blow, died in 9 min.
 2nd Open: No Blow
 Recovered: 20' Drilling Mud
 IFP 31#-35# ISIP 585#
 FFP 45#-45# FSIP 267#

DST #2 4573'-4598' Mississippi-Osage
 30" 45" 60" 45"
 1st Open: Weak blow throughout
 2nd Open: Weak blow throughout
 Recovered: 130' MCO 70% Oil 30% Mud
 IFP 34#-40# ISIP 1316#
 FFP 47#-61# FSIP 1253#

Name	Top	Bottom
Anhydrite	1492'	
Base Anhydrite	1522'	
Heebner	3882'	
Lansing	3940'	
Base KC	4242'	
Marmaton	4320'	
Pawnee	4411'	
Ft. Scott	4476'	
Cherokee	4500'	
Miss-Osage	4577'	

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 1/4"	8-5/8"	23#	311'	60/40poz	215	2% gel, 3% C.C.
Production		4 1/2"	10.5#	4648'	Surfill	125	5# gilsonite/sack, 200# salt flush, 300# mudsweep

Shots Per Foot	Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)	Depth
4	4578'-4586'	114 jts. 2-3/8" tubing; Acidized w/2% KCL 250 gal. 15% HCL, 3 gal. FE, 300L 2 gal MMR-2, 1 gal NE-7, 1 gal. Gatrol 5 & 1 gal. CI-23.	4578-4586

TUBING RECORD Size 2-3/8" Set At 4590' Packer at 4515' Liner Run Yes No

Date of First Production 4/18/88 Producing Method Flowing Pumping Gas Lift Other (explain).....

Estimated Production Per 24 Hours	Oil Bbls	Gas MCF	Water Bbls	Gas-Oil Ratio	Gravity
	14	0	0		36°

METHOD OF COMPLETION Production Interval

Disposition of gas: Vented Open Hole Perforation Sold Other (Specify) 4578'-4586'
 Used on Lease Dually Completed Commingled

APR 083-21303 15-083-21303-0000

Date 7-13-88 District Atchafalaya Ticket No. 280797
 Company Duke Rig Blaine
 Lease Miller Well No. 51
 County Madison State La
 Location Harris Cemetery Field 12a
3' 2" w NIS

CEMENT DATA: 19-22-22
 Spacer Type: _____
 Amt. _____ Skts Yield _____ ft³/sk Density _____ PPG _____

CASING DATA: PTA Squeeze Port Collar
 Surface Intermediate Production Liner
 Size _____ Type _____ Weight _____ Collar _____

LEAD: Pump Time _____ hrs. Type _____
Thiopyrid Excess _____
 Amt. 250 Skts Yield 3.73 ft³/sk Density 10.6 PPG _____
 TAIL: Pump Time _____ hrs. Type _____
 Excess _____

Casing Depths: Top _____ Bottom _____

Amt. _____ Skts Yield _____ ft³/sk Density _____ PPG _____
 WATER: Lead 22.0 gals/sk Tail y gals/sk Total 130 Bbls. _____

Drill Pipe: Size _____ Weight _____ Collars _____
 Open Hole: Size _____ T.D. _____ ft. P.B. to _____ ft.

Pump Trucks Used 30
 Bulk Equip. T-25

CAPACITY FACTORS:
 Casing: + Bbls/Lin. ft. .0159 Lin. ft./Bbl. 62
 Open Hole: + Bbls/Lin. ft. .0039 Lin. ft./Bbl. 258
 Drill Pipe: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Annulus: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Perforations: From _____ ft. to _____ ft. Amt. _____

Float Equip: Manufacturer _____
 Shoe: Type _____ Depth _____
 Float: Type _____ Depth _____
 Centralizers: Quantity _____ Plug Top _____ Btm. _____
 Stage Collars _____
 Special Equip. _____
 Disp. Fluid Type U-20 Amt. 5.9 Bbls. Weight 8.34 PPG _____
 Mud Type _____ Weight _____ PPG _____

COMPANY REPRESENTATIVE _____

CEMENTER M. Nichols J. S.

TIME AM/PM	PRESSURES PSI		FLUID PUMPED DATA			REMARKS
	DRILL PIPE CASING	ANNULUS	TOTAL FLUID	Pumped Per Time Period	RATE Bbls. Min.	
						Port Collar @ 1525 Mined
						250 skts Thiopyrid + Run 10 more ft
						& washed tubing clean. Pressured to
						500 # & held.
						Cement did circulate
						Thanks
						RECEIVED
						STATE CORPORATION COMMISSION
						SEP 29 1988
						OBSERVATION DIVISION
						Wichita, Kansas

19-22-22W

BJ-TITAN SERVICES COMPANY

15-083-21303-0000

INVOICE DATE
07/13/88

DIRECT BILLING INQUIRIES TO:	TERMS:	REMIT TO:
71-695-5821	NET AMOUNT DUE 30 DAYS FROM DATE OF INVOICE	BJ-TITAN SERVICES P.O. BOX 200416 HOUSTON, TX 77216

PAGE:	INVOICE NO.:
1	US077

DUKE DRILLING INC
310 W. CENTRAL, SUITE 117
WICHITA

KS 67202

AUTHORIZED BY:
260797

PURCH. ORDER REF. NO.

WELL NUMBER : #1

CUSTOMER NUMBER : 03458006

LEASE NAME AND NUMBER	STATE	COUNTY/PARISH	CITY	DISTRICT NAME	DISTR. NO.
MILLER	KS			GREAT BEND	3310
JOB LOCATION/FIELD	MTA DISTRICT	DATE OF JOB	TYPE OF SERVICE		
		07/13/88	LAND-LONG STRING/PRODUC		

PRODUCT NUMBER	QUANTITY	DESCRIPTION	UNIT PRICE	U/M	EXTENDED PRICE
0102115	1.00	CEMENTING THRU TUBING 1501 TO 3000	879.00		879.00
0109005	68.00	MILEAGE CHRG. FROM NEAREST BASE OF	1.10		74.80
0410504	163.00	CLASS "A" CEMENT	5.25	CF	855.75
0415018	97.00	DIAMIX F	2.46	CF	214.02
0420145	21.75	BJ-TITAN GEL, BENTONITE, BULK SALES	6.75	CW	146.81
0421005	435.00	A-2	1.00	LB	435.00
0940101	414.80	GRAYAGE, PER TON MILE	0.70		290.36
0850055	250.00	MIXING CUSTOMERS MATERIALS, PER CUB	0.95		237.50

RECEIVED
STATE CORPORATION COMMISSION
SEP 12 1988
CONSERVATION DIVISION
Wichita, Kansas

DAVE WORTZ
This is the D.V. ticket we talked about.
Jim

SUBTOTAL	3,133.24
DISCOUNT	751.97
	2381.27
	2381.27
	95.24
	23.83

ACCOUNT:
4.00000% STATE TAX 1.00000% COUNTY TAX

TAX EXEMPTION STATUS:	PAY THIS AMOUNT	2,500.34
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APL 083-21303

15-083-21303.0000

Date 7-13-88 District Atchafalaya Ticket No. 286797
 Company Duke Rig Blaine
 Lease Miller Well No. 51
 County Madison State La
 Location Hanston Cemetery Field _____

CEMENT DATA: 19-22-22
 Spacer Type: _____
 Amt. _____ Skts Yield _____ ft³/sk Density _____ PPG _____

CASING DATA: PTA Squeeze Port Collar
 Surface Intermediate Production Liner
 Size _____ Type _____ Weight _____ Collar _____

LEAD: Pump Time _____ hrs. Type _____ Excess _____
 Amt. 250 Skts Yield 3.73 ft³/sk Density 10.6 PPG _____
 TAIL: Pump Time _____ hrs. Type _____ Excess _____

Casing Depths: Top _____ Bottom _____

Amt. _____ Skts Yield _____ ft³/sk Density _____ PPG _____
 WATER: Lead 22.0 gals/sk Tail y gals/sk Total 130 Bbls.

Pump Trucks Used 30
 Bulk Equip. T-25

Drill Pipe: Size _____ Weight _____ Collars _____
 Open Hole: Size _____ T.D. _____ ft. P.B. to _____ ft.

Float Equip: Manufacturer _____

CAPACITY FACTORS:
 Casing: + Bbls/Lin. ft. 0.159 Lin. ft./Bbl. 6.2
 Open Hole: Bbls/Lin. ft. 0.039 Lin. ft./Bbl. 25.8
 Drill Pipe: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Annulus: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Perforations: From _____ ft. to _____ ft. Amt. _____

Shoe: Type _____ Depth _____
 Float: Type _____ Depth _____
 Centralizers: Quantity _____ Plugs Top _____ Bim. _____
 Stage Collars _____
 Special Equip. _____
 Disp. Fluid Type H₂O Amt. 5.9 Bbls. Weight 8.34 PPG _____
 Mud Type _____ Weight _____ PPG _____

COMPANY REPRESENTATIVE _____

CEMENTER Mike J...

TIME AM/PM	PRESSURES PSI		FLUID PUMPED DATA			REMARKS
	DRILL PIPE CASING	ANNULUS	TOTAL FLUID	Pumped Per Time Period	RATE Bbls. Min.	
						Port Collar @ 1525. Mixed
						250 of the tip and a RealDense if
						diverted tubing clean. Pressured to
						500 = 1/2 hold.
						Cemented and circulate
						Thanks
						RECEIVED
						STATE REGISTRATION COMMISSION
						SEP 29 1988
						CONSERVATION DIVISION
						Wichita, Kansas