



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET

GR
No 18514

P. O. BOX 1599 PHONE (316) 262-5861
WICHITA, KANSAS 67201

Elevation 3904 KB Eff. Pay Ft.

District Colby Date Aug 18 1993 Customer Order No.
COMPANY NAME Martin Drilling Co Inc / DC 7 / Aze Resources
ADDRESS 250 N Water Wichita KS
LEASE AND WEN NO Bobcat #2 COUNTY Greeley STATE KS Sec. 2 Twp. 18 Rge. 15
Mail Invoice To Co. Name Same Address #1 - 2 Bobcat No. Copies Requested Reg
Mail Charts To Same Address No. Copies Requested Reg

Formation Test No. 1 Interval Tested From 5020 ft. to 5160 ft. Total Depth 5160 ft.
Packer Depth 5015 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Packer Depth 5020 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Depth of Selective Zone Set -

Top Recorder Depth (Inside) 5028 ft. Recorder Number 13760 Cap. 3950
Bottom Recorder Depth (Outside) 5031 ft. Recorder Number 13400 Cap. 3950
Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Martin Rig #24 Drill Collar Length 409 I. D. 2.2 in.
Mud Type Chemical Viscosity 56 Weight Pipe Length - I. D. - in.
Weight 9.3 Water Loss 8.2 cc. Drill Pipe Length 4579 I. D. 3.8 in.
Chlorides 4900 P.P.M. Test Tool Length 32 ft. Tool Size 5/200 in.
Jars: Make Western Serial Number 415 Anchor Length 140 ft. Size 5 1/200 in.
Did Well Flow? NO Reversed Out NO Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
Main Hole Size 7/8 in. Tool Joint Size 4 1/2 XH in.

Blow: 1st - Strong blow - Btm of Bucket in 1 min - Gas to surface 30 min
2nd - Gas to surface

Recovered 165 ft. of mco 50% oil 50% mud
Recovered 120 ft. of mco 70% oil 30% mud
Recovered 60 ft. of mco 90% oil 10% mud
Recovered - ft. of
Recovered - ft. of

Chlorides 5000 P.P.M. Sample Jars used - Remarks:

Time On Location 4:00 (A.M. P.M.) Time Pick Up Tool 7:00 (A.M. P.M.) Time Off Location 8:30 (A.M. P.M.)
Time Set Packer(s) 9:45 (A.M. P.M.) Time Started Off Bottom 3:00 (A.M. P.M.) Maximum Temperature 142
Initial Hydrostatic Pressure (A) 2434 P.S.I.
Initial Flow Period Minutes 45 (B) 312 P.S.I. to (C) 390 P.S.I.
Initial Closed In Period Minutes 60 (D) 439 P.S.I.
Final Flow Period Minutes 90 (E) 400 P.S.I. to (F) 400 P.S.I.
Final Closed In Period Minutes 120 (G) 439 P.S.I.
Final Hydrostatic Pressure (H) 2394 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By: [Signature] Signature of Customer or his authorized representative

Western Representative: [Signature] Thanks!

FIELD INVOICE

Open Hole Test \$
Mistun \$
Straddle Test \$
Jars \$
Selective Zone \$
Safety Joint \$
Standby \$
Evaluation \$
Extra Packer \$
Circ. Sub. \$
Mileage \$
Fluid Sampler \$
Extra Charts \$
Insurance \$
Telecopier \$
TOTAL \$



GAS FLOW REPORT

No 5049

Date Aug 18 1993 Ticket 18514 Company Murfin Dalg
 Well Name and No. Bobcat # 2 Dst No. 1 Interval Tested 5020 5160
 County Greeley State KS Sec. 2 Twp. 18 Rg. 45

Time Gauge in Min.	P.S.I. on Merla Orifice Well Tester	Size of Orifice	P.S.I. on Pitot Tester	P.S.I. on Side Static Tester	Description of Flow
PRE FLOW					
30	30	3/4			Gas to Surface in 30 min 522 mcf - Day 569 639 617 697
40	34	3/4			
45	38	3/4			

SECOND FLOW					
10	42	3/4			662 mcf - Day
20	44	3/4			685
30	46	3/4			708
40	48	3/4			732
50	48	3/4			732
60	49	3/4			744
70	50	3/4			766
80	52	3/4			779
90	50	3/4			766

GAS BOTTLE

Serial No. _____ Date Bottle Filled _____ Date to be Invoiced _____

Requisition and Provisions for high pressure stainless steel gas bottles. Western Testing Co., Inc. shall not be liable for damage of any kind to property or personnel of the one whom gas bottle is filled or for any loss suffered or sustained directly or indirectly through the use of these bottles. By signing of this ticket showing receipt of a gas testing bottle, the undersigned agrees for himself and as agent for operator, to return this bottle to Western Testing Co., Inc. within thirty (30) days free of charge, or be invoiced in the amount of \$75.00 (total charge). Should valve or seal plug be missing or damaged beyond repair, operator shall be invoiced for repairs at our invoiced price.

All charges subject to 1 1/2% per month, equal to 18% interest per annum after 30 days from date of invoice. Any expense incurred for collection will be added to the original amount.

COMPANY'S NAME _____

Authorized by _____



Fluid Sample Report

Date Aug 18 1993 Ticket No. 18514Company Murphy Drilling Co.Well Name & No. Bulcat #2 DST No. 1County Smith State KSSampler No. 2 Test Interval 5020 5140Pressure in Sampler 400 PSIG BHT 142 OFTotal Volume of Sampler 3150 cc.Total Volume of Sample: 540 cc.Oil: 100 cc.Waters: - cc.Mud: 400 cc.Gas: 4.0 cu. ft.Others: -

Resistivity

Water: 65 @ 80° of Chloride Content 5000 ppm.Mud Pit Sample 65 @ 80° of Chloride Content 5000 ppm.

Gas/Oil Ratio _____ Gravity _____ °API @ _____ OF

Where was sample drained _____

Remarks: _____

WESTERN TESTING CO., INC.

Pressure Data

Date 9-18-93

Test Ticket No. 18514

Recorder No. _____ Capacity _____ Location _____ Ft.

Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2444</u>	P.S.I.	<u>9:45 AM</u>	
B First Initial Flow Pressure	<u>353</u>	P.S.I.	<u>45</u> Mins	<u>45</u> Mins.
C First Final Flow Pressure	<u>404</u>	P.S.I.	<u>60</u> Mins	<u>60</u> Mins.
D Initial Closed-in Pressure	<u>436</u>	P.S.I.	<u>90</u> Mins	<u>90</u> Mins.
E Second Initial Flow Pressure	<u>412</u>	P.S.I.	<u>120</u> Mins	<u>120</u> Mins.
F Second Final Flow Pressure	<u>412</u>	P.S.I.		
G Final Closed-in Pressure	<u>435</u>	P.S.I.		
H Final Hydrostatic Mud	<u>2414</u>	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>353</u>	0	<u>404</u>	0	<u>412</u>	0	<u>412</u>
P 2 5	<u>368</u>	3	<u>420</u>	5		3	<u>422</u>
P 3 10	<u>389</u>	6	<u>421</u>	10		6	<u>422</u>
P 4 15	<u>393</u>	9	<u>422</u>	15		9	<u>423</u>
P 5 20	<u>395</u>	12	<u>423</u>	20		12	<u>423</u>
P 6 25	<u>397</u>	15	<u>424</u>	25		15	<u>424</u>
P 7 30	<u>399</u>	18	<u>425</u>	30		18	<u>424</u>
P 8 35	<u>401</u>	21	<u>426</u>	35		21	<u>425</u>
P 9 40	<u>402</u>	24	<u>427</u>	40		24	<u>425</u>
P10 45	<u>404</u>	27	<u>428</u>	45		27	<u>426</u>
P11 50		30	<u>429</u>	50		30	<u>427</u>
P12 55		33	<u>430</u>	55		33	<u>429</u>
P13 60		36	<u>431</u>	60		36	<u>431</u>
P14 65		39	<u>432</u>	65		39	<u>432</u>
P15 70		42	<u>433</u>	70		42	<u>433</u>
P16 75		45	<u>434</u>	75		45	<u>434</u>
P17 80		48	<u>434</u>	80	✓	48	<u>435</u>
P18 85		51	<u>435</u>	85		51	
P19 90		54	<u>435</u>	90	<u>412</u>	54	
P20 95		57	<u>436</u>	<u>95</u>		57	
100		60	<u>436</u>	<u>100</u>		60	<u>435</u>

WESTERN TESTING CO., INC.

Pressure Data

Date: _____

Test Ticket No. 18574

Recorder No. _____ Capacity _____ Location _____ Ft. _____

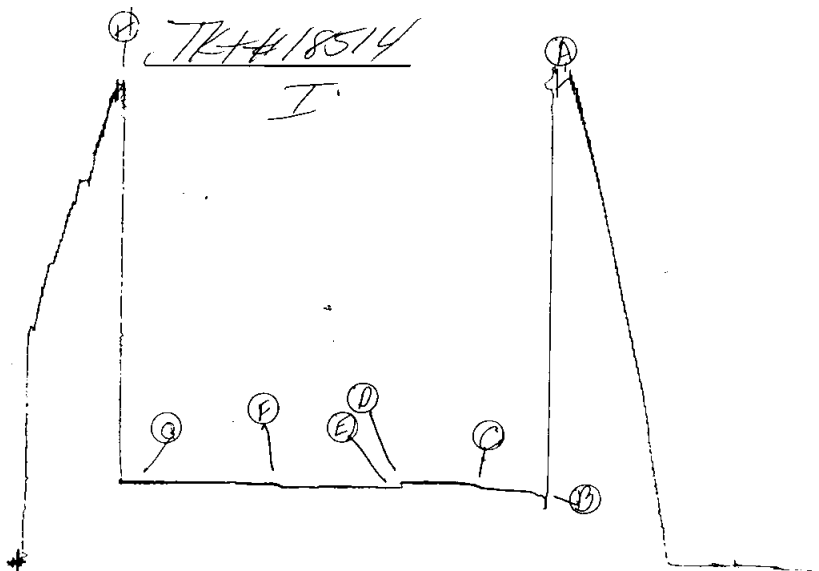
Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud _____	P.S.I.	Open Tool	_____	M _____
B First Initial Flow Pressure _____	P.S.I.	First Flow Pressure	_____	Mins. _____ Mins. _____
C First Final Flow Pressure _____	P.S.I.	Initial Closed-in Pressure	_____	Mins. _____ Mins. _____
D Initial Closed-in Pressure _____	P.S.I.	Second Flow Pressure	_____	Mins. _____ Mins. _____
E Second Initial Flow Pressure _____	P.S.I.	Final Closed-in Pressure	_____	Mins. _____ Mins. _____
F Second Final Flow Pressure _____	P.S.I.			
G Final Closed-in Pressure _____	P.S.I.			
H Final Hydrostatic Mud _____	P.S.I.			

PRESSURE BREAKDOWN

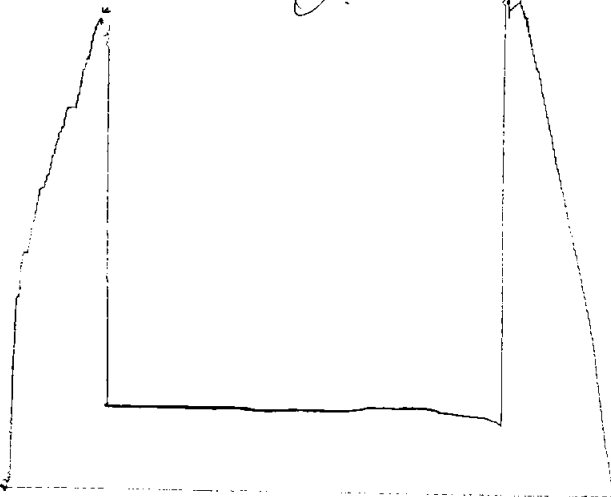
First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.	
of _____ mins. and a		of _____ mins. and a		of _____ mins. and a		of _____ mins. and a	
final inc. of _____ Min.		final inc. of _____ Min.		final inc. of _____ Min.		final inc. of _____ Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 105		63		105		63	435
P 2 110		66		110		66	
P 3 115		69		115		69	
P 4 120		72		120		72	
P 5 125		75		125		75	
P 6 130		78		130		78	
P 7 135		81		135		81	
P 8 140		84		140		84	
P 9 145		87		145		87	
P10 150		90		150		90	
P11 155		93		155		93	
P12 160		96		160		96	
P13 165		99		165		99	
P14 170		102		170		102	
P15 175		105		175		105	
P16 180		108		180		108	
P17 185		111		185		111	
P18 190		114		190		114	
P19 195		117		195		117	
P20 200		120		200		120	435

137600



TK# 18574

0.



Computer Inventoried

API#15-071-20604

COMPANY MURFIN DRILLING/
DCX RESOURCES/AXEM RESOURCES

LEASE & WELL NO. #1-2 BOBCAT

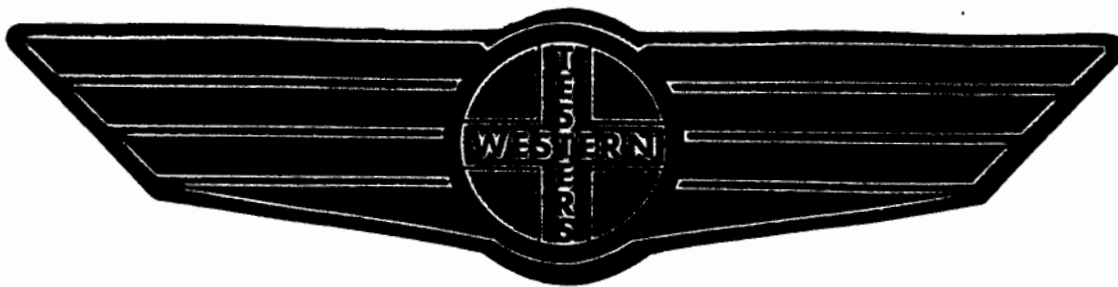
SEC. 2 TWP. 18S RGE. 43W TEST NO. 1 DATE 8/18/93

FORMATION

COPY

TEST

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1 - 800-688-7021

RECEIVED
STATE CORPORATION COMMISSION

DEC 06 1993

CONSERVATION DIVISION
Wichita, Kansas

DST REPORT

GENERAL INFORMATION

DATE	: 8/18/93	TICKET	: 18514
CUSTOMER	: MURFIN DRLG/DCX/AXEM	LEASE	: BOBCAT
WELL	: #1-2	TEST: 1	GEOLOGIST: BANKS
ELEVATION	: 3904 KB EST	FORMATION	: MORROW
SECTION	: 2	TOWNSHIP	: 18S
RANGE	: 43W	COUNTY: GREELEY	STATE : KS
GAUGE SN#	: 13760	RANGE : 3950	CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM:	5020.00 ft	TO:	5160.00 ft	TVD:	5160.0 ft
DEPTH OF SELECTIVE ZONE:				TEST TYPE:	GAS
DEPTH OF RECORDERS:	5028.0 ft	5031.0 ft			
TEMPERATURE:	142.0				
DRILL COLLAR LENGTH:	409.0 ft	I.D.:	2.200 in		
WEIGHT PIPE LENGTH :	0.0 ft	I.D.:	0.000 in		
DRILL PIPE LENGTH :	4579.0 ft	I.D.:	3.800 in		
TEST TOOL LENGTH :	32.0 ft	TOOL SIZE :	5.500 in		
ANCHOR LENGTH :	140.0 ft	ANCHOR SIZE:	5.500 in		
SURFACE CHOKE SIZE :	0.750 in	BOTTOM CHOKE SIZE:	0.750 in		
MAIN HOLE SIZE :	7.875 in	TOOL JOINT SIZE :	4.5XH		
PACKER DEPTH:	5015.0 ft	SIZE:	6.750 in		
PACKER DEPTH:	5020.0 ft	SIZE:	6.750 in		
PACKER DEPTH:	0.0 ft	SIZE:	0.000 in		
PACKER DEPTH:	0.0 ft	SIZE:	0.000 in		

MUD INFORMATION

DRILLING CON. :	MURFIN RIG 24	VISCOSITY :	56.00 cp
MUD TYPE :	CHEMICAL	WATER LOSS:	8.200 cc
WEIGHT :	9.300 ppg		
CHLORIDES :	4900 ppm	SERIAL NUMBER:	415
JARS-MAKE :	WTC	REVERSED OUT?:	NO
DID WELL FLOW?:	NO		

COMMENTS

Comment

INITIAL FLOW PERIOD STRONG BLOW -BOTTOM OF BUCKET
IN 1 MINUTE. GAS TO SURFACE IN 30 MINUTES.
FINAL FLOW PERIOD GAS TO SURFACE. SEE GAS SHEET

DST REPORT (CONTINUED)

COPY

COMMENTS (CONTINUED)

Comment

ATTACHED.

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
165.0	50.0	0.0	0.0	50.0	MUD CUT OIL
120.0	90.0	0.0	0.0	10.0	MUD CUT OIL
60.0	90.0	0.0	0.0	10.0	MUD CUT OIL
0.0	0.0	0.0	0.0	0.0	CHLORIDES 5000 PPM

RATE INFORMATION

OIL VOLUME: 1.1495 STB
 GAS VOLUME: 0.0000 SCF
 MUD VOLUME: 0.4725 STB
 WATER VOLUME: 0.0000 STB
 TOTAL FLUID : 1.6220 STB

TOTAL FLOW TIME: 135.0000 min.
 AVERAGE OIL RATE: 17.3010 STB/D
 AVERAGE WATER RATE: 0.0000 STB/D

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2434.00

Description	Duration	p1	p End
INITIAL FLOW	45.00	312.00	390.00
INITIAL SHUT-IN	60.00		439.00
FINAL FLOW	90.00	400.00	400.00
FINAL SHUT-IN	120.00		439.00

FINAL HYDROSTATIC PRESSURE: 2394.00

DST REPORT (CONTINUED)

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2444.00

Description	Duration	p1	p End
INITIAL FLOW	45.00	353.00	404.00
INITIAL SHUT-IN	60.00		436.00
FINAL FLOW	90.00	412.00	412.00
FINAL SHUT-IN	120.00		435.00
FINAL HYDROSTATIC PRESSURE:	2414.00		

GAS FLOW REPORT

COPY

GENERAL INFORMATION

DATE : 8/18/93
CUSTOMER : MURFIN DRLG/DCX/AXEM
WELL : #1-2 TEST: 1
ELEVATION: 3904 KB EST
SECTION : 2
RANGE : 43W COUNTY: GREELEY
GAUGE SN#: 13760 RANGE : 3950

TICKET : 18514
LEASE : BOBCAT
GEOLOGIST: BANKS
FORMATION: MORROW
TOWNSHIP : 18S
STATE : KS
CLOCK : 12

PRE FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
30 MIN	MERLA	0.750	30 PSIG	522000 SCF/D
40 MIN	MERLA	0.750	34 PSIG	569000 SCF/D
45 MIN	MERLA	0.750	38 PSIG	617000 SCF/D

SECOND FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
10 MIN	MERLA	0.750	42 PSIG	662000 SCF/D
20 MIN	MERLA	0.750	44 PSIG	685000 SCF/D
30 MIN	MERLA	0.750	46 PSIG	708000 SCF/D
40 MIN	MERLA	0.750	48 PSIG	732000 SCF/D
50 MIN	MERLA	0.750	48 PSIG	732000 SCF/D
60 MIN	MERLA	0.750	49 PSIG	744000 SCF/D
70 MIN	MERLA	0.750	50 PSIG	756000 SCF/D
80 MIN	MERLA	0.750	52 PSIG	779000 SCF/D
90 MIN	MERLA	0.750	50 PSIG	756000 SCF/D

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 8/18/93	TICKET : 18514
CUSTOMER : MURFIN DRLG/DCX/AXEM	LEASE : BOBCAT
WELL : #1-2 TEST: 1	GEOLOGIST: BANKS
ELEVATION: 3904 KB EST	FORMATION: MORROW
SECTION : 2	TOWNSHIP : 18S
RANGE : 43W COUNTY: GREELEY	STATE : KS
GAUGE SN#: 13760 RANGE : 3950	CLOCK : 12

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	353.00	353.00
5.00	368.00	15.00
10.00	389.00	21.00
15.00	393.00	4.00
20.00	395.00	2.00
25.00	397.00	2.00
30.00	399.00	2.00
35.00	401.00	2.00
40.00	402.00	1.00
45.00	404.00	2.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	420.00	420.00	0.00
6.00	421.00	1.00	0.00
9.00	422.00	1.00	0.00
12.00	423.00	1.00	0.00
15.00	424.00	1.00	0.00
18.00	425.00	1.00	0.00
21.00	426.00	1.00	0.00
24.00	427.00	1.00	0.00
27.00	428.00	1.00	0.00
30.00	429.00	1.00	0.00
33.00	430.00	1.00	0.00
36.00	431.00	1.00	0.00
39.00	432.00	1.00	0.00
42.00	433.00	1.00	0.00
45.00	434.00	1.00	0.00
48.00	434.00	0.00	0.00

COPY

PRESSURE TRANSIENT REPORT (CONTINUED)

INITIAL SHUT IN (CONTINUED)

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
51.00	435.00	1.00	0.00
54.00	435.00	0.00	0.00
57.00	436.00	1.00	0.00
60.00	436.00	0.00	0.00

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	412.00	412.00
5.00	412.00	0.00
10.00	412.00	0.00
15.00	412.00	0.00
20.00	412.00	0.00
25.00	412.00	0.00
30.00	412.00	0.00
35.00	412.00	0.00
40.00	412.00	0.00
45.00	412.00	0.00
50.00	412.00	0.00
55.00	412.00	0.00
60.00	412.00	0.00
65.00	412.00	0.00
70.00	412.00	0.00
75.00	412.00	0.00
80.00	412.00	0.00
85.00	412.00	0.00
90.00	412.00	0.00

FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	422.00	422.00	0.00
6.00	422.00	0.00	0.00
9.00	423.00	1.00	0.00
12.00	423.00	0.00	0.00
15.00	424.00	1.00	0.00
18.00	424.00	0.00	0.00
21.00	425.00	1.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL SHUT IN (CONTINUED)

Time (min)	Pressure	Delta P	Horner T
24.00	425.00	0.00	0.00
27.00	426.00	1.00	0.00
30.00	427.00	1.00	0.00
33.00	429.00	2.00	0.00
36.00	431.00	2.00	0.00
39.00	432.00	1.00	0.00
42.00	433.00	1.00	0.00
45.00	434.00	1.00	0.00
48.00	435.00	1.00	0.00
51.00	435.00	0.00	0.00
54.00	435.00	0.00	0.00
57.00	435.00	0.00	0.00
60.00	435.00	0.00	0.00
63.00	435.00	0.00	0.00
66.00	435.00	0.00	0.00
69.00	435.00	0.00	0.00
72.00	435.00	0.00	0.00
75.00	435.00	0.00	0.00
78.00	435.00	0.00	0.00
81.00	435.00	0.00	0.00
84.00	435.00	0.00	0.00
87.00	435.00	0.00	0.00
90.00	435.00	0.00	0.00
93.00	435.00	0.00	0.00
96.00	435.00	0.00	0.00
99.00	435.00	0.00	0.00
102.00	435.00	0.00	0.00
105.00	435.00	0.00	0.00
108.00	435.00	0.00	0.00
111.00	435.00	0.00	0.00
114.00	435.00	0.00	0.00
117.00	435.00	0.00	0.00
120.00	435.00	0.00	0.00

COF

FLUID SAMPLE REPORT

GENERAL INFORMATION

DATE : 8/18/93
CUSTOMER : MURFIN DRLG/DCX/AXEM
WELL : #1-2 TEST: 1
ELEVATION: 3904 KB EST
SECTION : 2
RANGE : 43W COUNTY: GREELEY
GAUGE SN#: 13760 RANGE : 3950

TICKET : 18514
LEASE : BOBCAT
GEOLOGIST: BANKS
FORMATION: MORROW
TOWNSHIP : 18S
STATE : KS
CLOCK : 12

SAMPLE INFORMATION

PRESSURE IN SAMPLER: 400.00 PSIG BHT: 142.0 DEG F
TOTAL VOLUME OF SAMPLER: 3150.00 cc
TOTAL VOLUME OF SAMPLE: 500.00 cc
OIL: 100.00 cc
WATER: 0.00 cc
MUD: 400.00 cc
GAS: 4.00 cc
OTHER: 0.00 cc

RESISTIVITY

DRILLING MUD: .65 @ 80 DEGREES F CHLORIDE CONTENT: 5000.00 ppm
MUD PIT SAMPLE: .65 @ 80 DEGREES F CHLORIDE CONTENT: 5000.00 ppm
GAS/OIL RATIO: GRAVITY:
WHERE WAS SAMPLE DRAINED:
REMARKS: