

COUNTY LEA FIELD Knowles, W. STATE NM
 OPR MESA PETROLEUM CO. API 30-025-27467
 NO 9 LEASE West Knowles MAP
Sec 35, T16S, R37E COORD
1980 FNL, 660 FWL of Sec 11-4-10 NM
8 mi SE/Lovington SPD 8-21-81 CMP 11-1-81

CSG

13 3/8-404-530 sx
 8 5/8-4949-2275 sx
 5 1/2-8515-680 sx
 2 7/8-8359

WELL CLASS: INIT D FIN DO LSE CODE			
FORMATION	DATUM	FORMATION	DATUM
TD 8516 (DRKD)		PBD 8473	

IP (Drinkard) Perfs 8304-72 P 36 BOPD + 14 BW. Pot based on
 24 hr test. GOR 1805; gty 37.4

CONTR Moranco #7

OPRSELEV 3768 GL, 3783 KB sub-s 14

F.R. 7-6-81
 PD 8600 RT (Drinkard)
 8-26-81 Drlg 4275
 9-2-81 Drlg 6425
 9-9-81 Coring @ 8343
 9-15-81 TD 8516; WOC
 Cored (Drinkard) 8286-8345, rec 55 FT, no descr
 9-23-81 Cored (Drinkard) 8345-8404, rec 57 FT, no descr
 10-1-81 TD 8516; PBD 8473; Prep Perf
 TD 8516; PBD 8473; Prep Swab
 Perf (Drinkard) 8304-72 w/21 shots (overall)
 10-7-81 Acid (8304-72) 15,000 gals foamed acid
 TD 8516; PBD 8473; Prep Swab
 Frac (8304-72) 21,000 gals + 13,000# sd
 11-4-10 NM

LEA
MESA PETROLEUM CO.

Knowles, W.
9 West Knowles
Sec 35, T16S, R37E

NM
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10-14-81 TD 8516; PBD 8473; WOPT
11-2-81 TD 8516; PBD 8473; WOSP
11-23-81 TD 8516; PBD 8473; Complete
LOG TOPS: San Andres 4887, Paddock 6479,
Tubb 7991, Drinkard 8169
LOG RUN: MSMG
BHT 125 deg @ 8456
Rig Released 9-14-81
11-28-81 COMPLETION ISSUED

11-4-10 NM
IC 30-025-70328-81

	Test No.	8288' to 8404'	MESA PETROLEUM COMPANY
	Tested Interval		Lease Owner/Company Name
	HOBBS	9-11-81	7832 - 7831
Ticket Number	Camp	Date	Gauge Number(s)

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TICKET NO. 186435 DATE 9-11-81 HALLIBURTON CAMP HOBBS

LEASE OWNER MESA PETROLEUM COMPANY NM bj

LEASE NAME WEST KNOWLES WELL NO. #9 TEST NO. #1

LEGAL LOCATION 35 16S 37E FORMATION TESTED DRINKARD

FIELD AREA WEST KNOWLES COUNTY LEA STATE NEW MEXICO

TYPE OF D.S.T. OPEN HOLE

TESTER(S) T. LINDSEY

WITNESS CLYDE REESE DRILLING CONTRACTOR MORANCO DRILLING COMPANY # 7

DEPTHS MEASURED FROM KELLY BUSHING 15' CASING PERFS (FT.)

TYPE AND SIZE OF GAS MEASURING DEVICE GAS METER

CUSHION DATA

TYPE AMOUNT WEIGHT (lb./gal.)

TYPE AMOUNT WEIGHT (lb./gal.)

RECOVERY (ft. or bbl.):

APPROXIMATELY 1100' OF OIL AND GAS CUT MUD.

FLUID PROPERTIES

SOURCE	RESISTIVITY	CHLORIDES (PPM)	SOURCE	RESISTIVITY	CHLORIDES (PPM)
	@ °F			@ °F	
	@ °F			@ °F	
	@ °F			@ °F	

REMARKS:

SEE PRODUCTION TEST DATA SHEET....

TICKET NO. 186435 DATE 9-11-81 ELEVATION (FT.) 3768' GL
 TOP OF TESTED INTERVAL (ft.) 8288' BOTTOM OF TESTED INTERVAL (ft.) 8404'
 NET PAY (ft.) 35' TOTAL DEPTH (ft.) 8404'
 HOLE OR CASING SIZE (in.) 7.875" MUD WEIGHT (lb./gal.) 9.1 VISCOSITY (sec.) 43
 SURFACE CHOKE (in.) 1" Adj. BOTTOM CHOKE (in.) .75"
 OIL GRAVITY _____ @ _____ °F GAS GRAVITY—ESTIMATED _____ ACTUAL _____

SAMPLER DATA

PRESSURE (P.S.I.) 280 CUBIC FT. OF GAS 2.7
 C.C.'s OF OIL 1600 C.C.'s OF WATER _____
 C.C.'s OF MUD _____ TOTAL LIQUID C.C.'s 1600

GAS/OIL RATIO (cu. ft. per bbl.)

FROM SAMPLER _____ OTHER _____

TEMPERATURE (°F)

ESTIMATE _____
 ACTUAL _____
 DEPTH (ft.) 8404'
 H.T.-500 ☐; THERMOMETER ☒;
 T.E. OR R.T.-7 ☐; OTHER ☐
 SERIAL NO. _____

RECORDER AND PRESSURE DATA

CHARTS READ BY T. LINDSEY

DATA APPROVED BY _____

RECORDERS	GAUGE NUMBER	7832	7831			TIMES (00:00-24:00 HRS.)	
	GAUGE TYPE	-	-			TOOL OPENED	1215
GAUGE DEPTH (ft.)	8264'	8400'			DATE	9-11-81	
CLOCK NUMBER	11954	5991			BYPASS OPENED	1643	
CLOCK RANGE (HR.)	24	24			DATE	9-11-81	
INITIAL HYDROSTATIC	4036.0	4126.0			PERIOD	MINUTES	
INITIAL FLOW	122.1	184.3			XXX	XXX	
1st. FINAL FLOW	210.6	265.7			1st. FLOW	15 *	
CLOSED-IN	1073.7	1150.7			1st. C.I.P.	73 *	
INITIAL FLOW	307.9	365.5			XXX	XXX	
2nd. FINAL FLOW	353.0	405.6			2nd. FLOW	60 *	
CLOSED-IN	1046.5	1115.9			2nd. C.I.P.	120*	
INITIAL FLOW					XXX	XXX	
3rd. FINAL FLOW	*See attached incremental pressure sheet....				3rd. FLOW		
CLOSED-IN					3rd. C.I.P.		
FINAL HYDROSTATIC	4044.7	4117.3			XXX	XXX	

Casing perf. _____ Bottom choke _____ Surf. temp. _____ °F Ticket No. 186435
 Gas gravity _____ Oil gravity _____ GOR _____
 Spec. gravity _____ Chlorides _____ ppm Res. _____ @ _____ °F
 INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED _____

Date Time	a.m. p.m.	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
9-11-81						
0730						On location.
0830						Picked up tools.
1000						Went in hole.
1215		Bubble Hose				Opened tool with a weak blow.
1220		"				Fair blow.
1225		"				Good blow.
1230		"				Closed tool with a good blow.
1330						Tried to open tool. Tool would not
1335						open. Worked pipe.
1336						Tried to open.
1341						Worked pipe.
1343		"				Tool opened.
1353		1/4"	1.5			Pressure increased.
1403		"	1.75			"
1413		"	2			"
1423		"	2.25			"
1433		"	2			Pressure decreased.
1443		"	2			Closed tool. Tool did not stay
						closed.
1445						Closed tool-OK. Gas to surface.
1643						Opened bypass and pulled out of hole.
1815						Reversed out.
						Tools out of hole.

MESA PETROLEUM COMPANY
Lease Owner/Company Name

186435
Ticket Number

B.T. 7832

B.T.

B.T. 7831

Depth 8264'

Depth

Depth 8400'

24 HOUR

24 HOUR

Time (minutes)	Log $\frac{t - t_0}{t}$	PSIG Temp Corr.	Time (minutes)	Log $\frac{t - t_0}{t}$	PSIG Temp Corr.	Time (minutes)	Log $\frac{t - t_0}{t}$	PSIG Temp Corr.
FLOW PERIOD #1						FLOW PERIOD #1		
0		122.1				0		184.3
3		165.9				3		226.7
6		199.3				6		258.3
9		205.3				9		263.1
12		210.6				12		265.9
14.8		210.6				15.2		265.7
CLOSED IN PERIOD #1						CLOSED IN PERIOD #1		
0		210.6				0		265.7
3		434.6				3		517.8
6		628.7				6		704.5
9		754.3				9		840.5
12		842.9				12		921.6
15		903.8				15		978.5
18		946.2				18		1018.9
21		975.2				21		1045.6
24		997.6				24		1065.4
27		1012.9				27		1080.5
30		1024.4				30		1092.2
33		1033.3				33		1101.1
36		1040.4				36		1107.4
39		1046.6				39		1113.9
42		1050.4				42		1119.0
45		1054.7				45		1123.0
48		1057.8				48		1125.9
51		1060.8				51		1128.8
54		1063.7				54		1131.7
57		1065.6				57		1134.6
60		1067.5				60		1136.5
63		1070.1				63		1139.5
66		1073.0				66		1141.0
69		1077.1				69		1149.6
72		1077.6				72		1149.6
74.6		1078.7				73.9		1150.7
FLOW PERIOD #2						FLOW PERIOD #2		
0		307.9				0		365.5
10		265.9				10		222.5
20		285.4				20		338.8
30		305.0				30		358.7

(Continued)

(Continued)

Remarks:

Lease Owner/Company Name

186435

B.T. 7832

B.T. _____

B.T. 7831

Depth 8264'

Depth _____

Depth 8400'

24 HOUR

24 HOUR

Page #2

Time (minutes)	Log $\frac{t - t_0}{(t)}$	PSIG Temp. Corr.	Time (minutes)	Log $\frac{t - t_0}{(t)}$	PSIG Temp. Corr.	Time (minutes)	Log $\frac{t - t_0}{(t)}$	PSIG Temp. Corr.
FLOW PERIOD #2 CONTINUED						FLOW PERIOD #2 CONTINUED		
40		323.6				40		377.1
50		339.2				50		393.5
59.5		353.0				58.2		405.6
CLOSED IN PERIOD #2						CLOSED IN PERIOD #2		
0		353.0				0		405.6
5		605.5				5		627.8
10		733.3				10		777.2
15		816.2				15		864.7
20		874.1				20		931.2
25		915.1				25		973.5
30		944.1				30		1003.5
35		963.5				35		1025.7
40		978.6				40		1041.9
45		990.9				45		1055.9
50		999.3				50		1065.0
55		1006.7				55		1072.4
60		1012.0				60		1079.2
65		1017.7				65		1085.4
70		1022.4				70		1089.8
75		1026.0				75		1094.3
80		1029.0				80		1097.7
85		1031.8				85		1100.0
90		1034.8				90		1104.2
95		1037.2				95		1106.5
100		1039.4				100		1108.1
105		1041.4				105		1111.5
110		1043.5				110		1112.4
115		1044.9				115		1114.3
119.9		1046.5				120.8		1115.9

Remarks: _____

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HALLIBURTON DIVISION LABORATORY

HALLIBURTON SERVICES

MIDLAND DIVISION

HOBBS, NEW MEXICO 88240

LABORATORY WATER ANALYSIS

No. W81-810To Mesa Petroleum Co.Date 9/14/81Box 1756Hobbs, NM 88240

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TICKET NO. 186435

Submitted by LindseyDate Rec. 9/12/81Well No. West Knowles #9 Depth 8404Formation DrinkardCounty Lea Field W. KnowlesSource DST #1

	Sampler		Tool Top		Middle Recovery	
Resistivity _____	.120 @ 74°		.120 @ 74°		.145 @ 74°	
Specific Gravity _____						
pH _____						
Calcium (Ca) _____					*MPL	
Magnesium (Mg) _____						
Chlorides (Cl) 7.7	38,500		7.7	38,500	6.1	30,500
Sulfates (SO ₄) _____						
Bicarbonates (HCO ₃) _____						
Soluble Iron (Fe) _____						
Oil Gravity	39° API					
	Top Recovery		Mud Pit			
Res.	.117 @ 74°		.123 @ 74°			
Cl.	8.2	41,000	7.5	37,500		
Remarks:	*Milligrams per liter					

Lionel Brewer

Respectfully submitted,

Analyst: _____

HALLIBURTON COMPANY

cc: _____

By W. L. Brewer

CHEMIST

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Tool Description	O.D.	I.D.	Length	Depth
DRILL PIPE	4.50"	3.640"	7729'	
DRILL COLLARS	6.00"	2.25"	423'	
REVERSING SUB	5.75"	3.25"	1.00'	8152'
DRILL COLLARS	6.00"	2.25"	91'	
CROSSOVER	5.75"	2.25"	1'	
HYDROSPRING TESTER	5.00"	.75"	4'	8245'
MULTI SAMPLER	5.00"	.75"	5'	8249'
EXTENSION JOINT	5.00"	.87"	5'	
EXTENSION JOINT	5.00"	.87"	5'	
AP RUNNING CASE	5.00"	3.75"	5'	8264'
JARS	5.00"	1.75"	5'	
VR SAFETY JOINT	5.00"	1.00"	3'	
OPEN HOLE PACKER	7.00"	1.53"	6'	8277'
DISTRIBUTOR VALVE	5.00"	1.68"	2'	
OPEN HOLE PACKER	7.00"	1.53"	6'	8285'
ANCHOR TYPE SAFETY JOINT	5.75"	1.50"	4'	
CROSSOVER	5.75"	3.25"	1'	
DRILL COLLARS	6.00"	2.25"	91'	
CROSSOVER	5.50"	3.25"	1'	
PERFORATED ANCHOR	5.75"	2.87"	12'	
SHOE	5.75"	2.50"	4'	8400'
TOTAL DEPTH				8404'