DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

PREPARED IN COOPERATION WITH THE U.S. DEPARTMENT OF ENERGY

OPEN-FILE REPORT
81-981
SHEET 1 OF 2

A WEST

SINKHOLE FIELD

8
Anadarko Production
1 Black Rock Federal—A
SW¼NE¼ SEC.14,T.23N.,R.99W.
KB 6724

7
May Petroleum
1—7 Federal
SE¼SE¼ SEC.7,T.23N.,R.99W.
GR 6672

5
Sunray Mid Continent
3 Big Dune Unit
NE¼NE¼ SEC.1,T.23N.,R101W.
KB 6997

6
Davis Oil
2 Big Dune Unit
SE¼SE¼ SEC.9,T.23N.,R.100W.
DF 6763

4
Continental Oil
4—1 Big Dune Unit
NW¼SW¼ SEC.4,T.23N.,R.101W.
DF 7198

3
Woods Petroleum
1 Bunten—Federal
NE¼NE¼ SEC.10,T.23N.,R.102W.
KB 7996

2
Mesa Petroleum
1 Federal—Bass
SE¼NW¼ SEC.1,T.23N.,R.103W.
KB 7981
Ties with B–B′, (Law, 1979)

1
W.C. McBride, Inc
1—32 Goverment, Nitchie Gulch
SE¼NW¼ SEC.32,T.24N.,R.103W.
KB 7141
Ties with B–B′, (Law, 1979)

SYSTEM	SERIES	FORMATION
TERTIARY	PALEOCENE	FORT UNION
CRETACEOUS	UPPER CRETACEOUS	LANCE
		FOX HILLS SANDSTONE
		LEWIS SHALE
	MESAVERDE GROUP	ALMOND
		ERICSON SANDSTONE
		ROCK SPRINGS
		BLAIR

LTD 4520
TD 5456
TD 5721
LTD 5998
TD 6953
LTD 7886
LTD 9732
TD 12091

Producing Interval
IPF 24 BCPD
4800 MCFD

DST 01 4963-5016
Rec 370 ft WCM 1950 ft FWTR
IFP 390 FFP 1020
FSIP 1825
FHP 2560

Core 01 4968-5018 Rec 50 ft

DST 01 2435-2490
Rec 2220 ft MW
FSIP 1139

DST 02 6725-6760
Misrun

DST 03 6622-6648
GTS in 15 min at 24 MCFD
Rec 300 ft Mud
FSIP 2430

DST 04 5337-5370
Misrun

DST 05 5293-5375
Rec 180 ft Mud
FSIP 2288

DST 01 5239-5261
Rec 575 ft MW
FP 73-112, 112-294
ISIP 2821 FSIP 2269
HP 2464-2481

DST 02 6833-6877
GTS in 8 min at 500 MCFD
GTS in 5 hrs at 552 MCFD
Rec 1023 ft Fluid 90 ft Cond 933 ft GCM
FP 153-166, 166-359 BHT 137°F
ISIP 2303 FSIP 2861
HP 3273-3273

DST 03 7332-7395
Rec 860 ft VSGCM
FP 112-170, 281-346
ISIP 502 FSIP 684
IHP 3543

DST 04 7614-7660
GTS in 30 min
GTS in 6 min at 11 MCFD
Rec 625 ft VSGCM
FP 50-75, 75-140
ISIP 952 FSIP 1313
HP 3722-3699

DST 05 7745-7759
Rec 980 ft VSGCM
FP 45-64, 42-227 BHT 164°F
ISIP 533 FSIP 3329
HP 3750-3750

Perforation Tests
6827-6838 OFR Details not reported) IFP
SOFR 500 gals) 24 BCPD
ACID 25,000 gals)
14,000 gals) 4800 MCFD

DST 01 No data

DST 02 No data

DST 03 No data

DST 04 9541-9730
GTS in 6 min
GTS in 15 min at 163 MCFD
GTS in 20 min at 153 MCFD
GTS in 1 H 35 min at 69 MCFD

DST 05 No data

DST 06 No data

DST 01 5597-5625
Rec 721 ft SOCW
IFP 382
ISIP 1915 FSIP 1835

DST 02 10240-10818
Misrun

DST 03 10864-10890
Rec 470 ft VSG & WCM
IFP 045
ISIP 1213 FSIP 1237

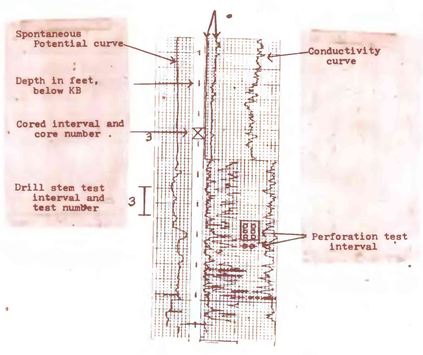
DST 04 11027-11163
Rec 60 ft MCW CUSH 30 ft Mud
IFP 1106
ISIP 1667 FSIP 1459

DST 05 11706-12093
Rec 189 ft Mud 94 ft MW
FFP 1341
ISIP 3873 FSIP 3322

* Clarity on several of the electric logs is very low due to a poor original film. If a better quality original is needed, contact Rocky Mtn. Well Logging (offices in Denver & Midland).

EXPLANATION

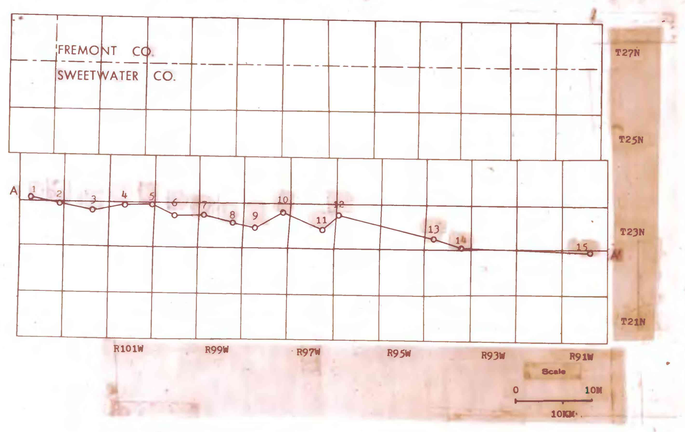
TYPE OF LOG USED



VERTICAL SCALE

FEET	METERS
0	0
200	100
400	200
600	
800	
1000	300

INDEX MAP SHOWING LOCATION OF CROSS SECTION



KB	Kelly bushing, elevation in feet
GR	Ground, elevation in feet
DF	Derrick floor, elevation in feet
TD	Total depth drilled, in feet
LTD	Logged total depth, in feet
DST	Drill stem test
Rec	Recovered
IFP	Initial flow pressure
FFP	Final flow pressure
ISIP	Initial shut in presdure
FSIP	Final shut in pressure
IHP	Initial hydrostatic pressure
FHP	Final hydrostatic pressure
GTS	Gas to surface
GCM	Gas cut mud
SGCM	Slightly gas cut mud
VSGCM	Very slightly gas cut mud
HGCM	Highly gas cut mud
VSG & WCM	Very slightly gas and water cut mud
SGCW	Slightly gas cut water
HGCW	Highly gas cut water
BCPD	Barrels of condensate per day
Cond	Condensate
MW	Muddy water
W CUSH	Water cushion
MCW CUSH	Mud cut water cushion
FWTR	Fresh water
IPF	Initial production flow
BHT	Bottom hole temperature
MCFD	Thousand cubic feet per day

MA	Mud acid
SCF	Standard cubic feet
NTGN	Nitrogen
SEFR	Sand emulsion frac
CUSH	Cushion
N	Nevyt
HP	Hydrostatic pressure
HGCCUSH	Highly gas cut, chalon
FP	Flow pressure
SOFR	Sand oil frac
AC	Air chamber
OFR	Oil frac

Correlation line—facies relationship and (or) formation contact, queried where uncertain

Unconformity, queried where uncertain

Abandoned oil and gas test well

Producing gas well

3 SHOWS LOCATION OF DRILL HOLE AND REFERENCE NUMBER USED IN CROSS SECTION
0

METRIC EQUIVALENTS

1 ft = 0.3048 m
1 psi = 7.03 10_3^{-2} kg/cm^2
1 MCFD = 28.32 m^3 of gas per day

REFERENCES

Gill, J. R., Merewether, E. A., and Cobban, W. A., 1970, Stratigraphy and nomenclature of some Upper Cretaceous and lower Tertiary rocks in south-central Wyoming: U.S. Geological Survey Professional Paper 667, 53 p.

Law, B. E., 1979, Section B–B′; Subsurface and surface correlations of some Upper Cretaceous and Tertiary rocks, northern Green River Basin, Wyoming: U.S. Geological Survey Open-File Report 79-1689.

SHEET 1—WESTERN PART
SECTION A–A′

SUBSURFACE CORRELATIONS OF SOME UPPER CRETACEOUS AND TERTIARY ROCKS, GREAT DIVIDE BASIN, WYOMING

By
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1981