DIVISION OF XCO

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BWAB INC.

GREEN #32-14

SWSW SECTION 32, T9N, R89W

MOFFAT COUNTY, COLORADO

LOGGING GEOLOGISTS: Forrest A. Smouse
Dan Burns
James L. Peterson
ANALEX

FORMATION SUMMARY

NOTE: All tops and reported zones of interest are based upon samples and information obtained during the drilling process. Footage and penetration rates were obtained from the drilling contractor's geolograph.

Wasatch Formation (Tw) — Surface (+7020')

Geologic sampling commenced in the Wasatch Formation. Drilling proceeded at a rate of .2 to .5 min/ft. Samples consisted mainly of light gray, smooth to moderately silty, non-calcareous shales, white to clear, poorly indurated to unconsolidated, very fine to fine grain, clay filled -- slightly calcareous sandstones, and a fair amount of coal. The transition to Fort Union Formation was observed as a pebble conglomerate. No shows of fluorescent oil cut were observed.

Fort Union Formation (Tf) — 728' (+6307')

The Fort Union drilled smoothly at a rate of .5 to .7 min/ft. The samples taken were predominantly white to transparent, unconsolidated, very fine to medium grained quartz and chert grains, calcareous sandstones; light to medium brown and red brown, light gray, smooth to moderately silty, non-calcareous shales; light gray, slightly sandy, moderately argillaceous, slightly calcareous siltstones, and hard black coals. No shows were observed.

Lance Formation (Kl) — 1130' (+5905')

The Lance drilled at a variable rate of .5 to 1.0 min/ft. and occasionally upwards of 4 min/ft. The samples in the Lance were light-medium gray, smooth to moderately silty, non-calcareous, carbonaceous shales; white, salt and pepper, very fine to occasionally medium grained quartz and chert, calcareous sandstones; light gray to white, occasionally slightly sandy, moderately argillaceous, slightly calcareous siltstones, and an abundance of hard black coal. No shows were observed.

Lewis Shale (Kls) — 2700' (+4335')

The Lewis drilled at a rate of .7 to 1.0 min/ft. The samples consisted of predominantly dark gray, smooth to slightly silty, slightly bentonitic, calcareous shales; light gray to white, slightly to occasionally sandy, moderately calcareous siltstones; and very fine to fine grained, poorly sorted, calcareous, clay filled sandstones.

RESUME

OPERATOR:	BWAB, Inc.
WELL NAME & NUMBER:	Green #32-14
LOCATION:	SWSW Section 32, T9N, R89W
COUNTY:	Moffat
STATE:	Colorado
SPUD DATE:	October 9, 1985
COMPLETION DATE (TD):	October 15, 1985
ELEVATIONS:	GL 7020' KB 7035'
TOTAL DEPTH:	3700'
CONTRACTOR:	Shelby Drilling
RIG:	#11
TYPE RIG:	IDECO Hydrair H35
PUMPS:	(2) IDECO MM550 5½" x 15"
GEOLOGISTS:	Wellsite: John Williams Company: Mike Moslowski
TOOL PUSHER:	Jim Stark
TYPE DRILLING MUD:	Fresh Water
MUD COMPANY:	Western Mud Company
MUD ENGINEER:	Gregory Terry
HOLE SIZE:	12½" to 380', 7 7/8" to TD
CASING:	8 5/8" to 376'
LOGGING GEOLOGISTS:	Forrest A. Smouse Dan Burns James L. Peterson ANALEX
TYPE UNIT:	FID Total Hydrocarbon Analyzer, FID Gas Chromatograph
DST DEPTH:	#1: 2969' - 3010'
DST COMPANY:	Halliburton
ELECTRICAL LOGS BY:	Gearhardt
LOGGING ENGINEER:	David Jocoboski
TYPE LOGS RUN:	DIL, SP, LDT-CML-GF
BOTTOM FORMATION:	Lewis Formation

SUMMARY AND CONCLUSIONS

BWAB Incorporated's Green #32-14 well was spudded by Shelby Drilling Company's Rig #11 on October 9, 1985. Drilling proceeded without any delays to a total depth of 3700' (Driller), reached on October 15, 1985. One show was observed at 2980' and a DST was run.

Hydrocarbon detection logging was employed from 380' at the base of surface casing on October 10, 1985 to TD. The stratigraphic units encountered while drilling ranged from the Wasatch Formation (Tw) into the Fort Union Formation (Tf), the Lance Formation (Kl), and finally into the Lewis Shale (Kls). The primary objectives of this well were sandstone zones in the Lewis Shale.

The Wasatch, Fort Union, and Lance formations were all made up of sandstones and shales with minor siltstone zones, none showing stains, fluorescence, odor or cuts.

The Lewis Formation had some small siltstone and sandstone zones near the top. At 2980' (Driller), a small 10' sandstone had a 1320' unit gas increase with appearance of propanes and isobutanes. A small amount of black oil was also observed on the shaker when the sample was taken. A DST was run on this zone with down hole charts showing an impermeable barrier. The well was TD at 3700' in the lower Lewis Formation.

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OPERATOR MAB INC SEC 32 TWP 9 N RNG 89 W

WELL GREEN # 32-14 JOB# 85592 MOFFAT CO., COLORADO

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SHOW REPORT# 1 Formation LEWIS FRM Time 6:00 am Date 10/13/85

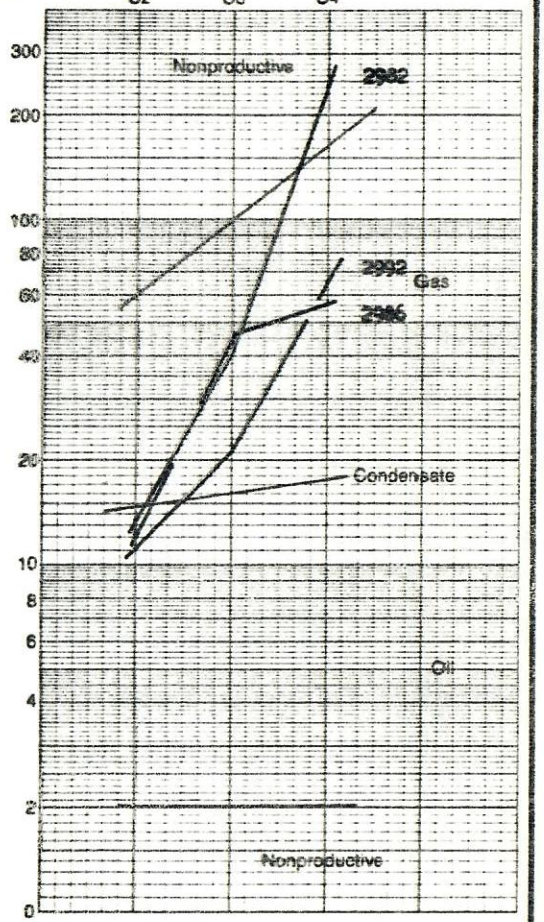
Depth Interval from 2982' to 2988' with X liberated ____ produced gas

Gross Ft 6 Net Ft 6

SHOW EVALUATION

G	F	P	DEPTH	MIN/FT	TOTAL GAS UNITS	TOTAL GAS % M.E	GAS CHROMATOGRAPHY % C1	C2	C3	Σ C4	SHOW GAS MINUS BACKGROUND C1/C2	C1/C3	C1/C4
			BACKGROUND	.9	41	.41	.274	.004	0	0			
			2982	.6	1360	13.60	6.93	.498	.163	.027	13.52	41.04	247.78
			2986	.6	420	4.20	2.26	.169	.064	.025	12.49	45.14	36.74
			2992	.6	200	2.00	1.52	.115	.058	.018	11.23	21.48	65.58
			BACKGROUND										

RATIO PLOT: C1/C2 C1/C3 C1/C4



GAS RATIO EVALUATION: X oil X gas ____ cond X tite ____ wet

LITHOLOGY TYPE: SS SH SLTST LS DOL Other ____

%: (70) (30) ( ) ( ) ( ) ( )

Color wh, clr Grain/Xtal Size f-occ m Shape shrd-sbang Sorting moor Cmt & Mtx calc-sly Acc chert

POROSITY: n (p) m f g X intgran ____ intxln ____ moldic ____ frac ____ vuggy ____ other ____

STAIN: Color NONE ____ even ____ spotted ____ pinpoint ____ bleeding % in total cuttings ____

FLUORESCENCE: Color NONE ____ even ____ spotted ____ pinpoint % in total cuttings ____ % mnrl ____

CHLOROTHENE CUT: Color NONE Development ____ Residual ____ ODOR: n sl gd

CUT FLUORESCENCE: Color NONE Development ____ Residual ____ WETTABILITY TEST: + -

MUD PROPERTIES: Wt ____ FV ____ Fil ____ %Oil ____ Cl ____ ph ____ WOB 10/20 RPM 165 SPM 1 55 PP 1250

REMARKS: INCREASE IN FLOW (SLIGHT), BLACK OIL OVER SHAKER Bit Type HTC R-1 Hrs 10 Footage ____

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OPERATOR BWAB INC SEC 32 TWP 9 N. RNG 89 W.

WELL GREEN # 32-14 MOFFAT CO., COLORADO

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DST REPORT: DST# 1 Formation LEWIS SHALE Interval 2969' To 3010'

Reason for Test 1360 unit show, Company request

Type Test conventional test

Testing Company HALLIBURTON Tester R. O. Ripple

Water Cushion none

IF 15 Minutes Open Tool, 1 PSI 0 to 15 min.

ISI 30 Minutes Closed Tool, 1 PSI

FF 60 Minutes Open Tool, 1 PSI 0 to 60 min.

FSI 116 Minutes Closed Tool, 1 PSI

RECOVERY: Strong blow in bottom of bucket, remaining strong throughout, apparent increase in flow

BOTTOM HOLE SAMPLER: Pressure _____ Recovery MUD

RESISTIVITY DATA: Drill Pipe Recovery 68° @ .125 PPM Cl

Sampler 68° @ .125 PPM Cl

Mud Pit 68° @ .125 PPM Cl

PRESSURES:

	Top Chart		Bottom Chart	
IH	1425.6	FH 1425.6	1451.5	FH 1451.5
IF	26.9	to 26.9	53.4	to 53.4
ISI	201.1	to	226.7	to
FF	26.9	to 26.9	53.4	to 53.4
FSI	655.2	to	690.3	to

Top Choke .125" Bottom Choke .750"

Bottom Hole Temperature 98°F

Remarks Tester remarked that test showed an impermiable barrier was encountered during test