EPOCH WELL LOGGING, INC.

COMPANY	DY Oil Inc.
WELL	FOREST 13-6
FIELD	MIST
LOCATION	2352' N and 684' E of the SW corner of Sec 6, T5N, R5W WMB
COUNTY, STATE	Columbia, Oregon
API WELL INDEX NO.	
ELEVATION	1232' Gr.L., 1243.4' K.B.
DATES FROM 8-8-89 TO 8-12-89	
DEPTHS FROM 355' K.B. TO 1796'K.B.	
SPUD DATE	8-8-89
DRILLING CONTRACTOR	Taylor Drilling, Rig #5
MUD COMPANY	Beaver Drilling Fluids Inc.
LOGGING GEOLOGISTS	Craig Anderson Jim Lastes

ABBREVIATIONS

NB	BIT	MW	MUD WEIGHT
RRB	RERUN BIT	VIS	FUNNEL VISCOSITY
RTB	RE-TIP BIT	PV	PLASTIC VISCOSITY
CB	CORE BIT	YP	YIELD POINT
T.G.	TRIP GAS	FL	FLUID LOSS (cc/30 min)
S.G.	SURVEY GAS	CL	PPM CHLORIDE ION
W.G.	WIPER GAS	RM	MUD RESISTIVITY
C.G.	CONNECTION GAS	RMF	FILTRATE RESISTIVITY
WOB	WEIGHT ON BIT	LAT	LOGGED AFTER TRIP
RPM	ROTARY REV/MIN	NR	NO RETURNS
PP	PUMP PRESSURE	PR	POOR RETURNS
SPM	STROKES/MIN	MUD TYPE	Lignosulfonate

CASING RECORD

	AT
8 5/8"	AT 359'K.B.
	AT
	AT

HOLE SIZE

12¼"	AT 361'K.B.
7 7/8"	AT 1796'K.B.
	AT
	AT

SAND/SANDSTONE · CLAY · LIMESTONE · TUFF · LIGNITE
SHALE · MUDSTONE · DOLOMITE · FOSSIL · GLAUCONITE
SILTSTONE · CONGLOMERATE · BASALT · MICA · PYRITE

OIL: BASED ON LIVE OIL IN UNWASHED CUTTINGS AND PERCENT STAINING AND FLUORESCENCE OF WASHED SAMPLES.

PENETRATION

EPOCH WELL LOGGING, INC.

DRILL RATE (FT/HR)
drilling data

ANALYSIS OF RETURNS

DEPTH · LITHOLOGY · TRACE · STRONG TRACE · STRONG SHOW

OIL — GAS — UNITS

DITCH — TOTAL GAS

CUTTINGS GAS

CALIBRATION 100 units = 3% methane by volume

CHROMATOGRAPH — PPM

METHANE, C-1 _____
ETHANE, C-2 _____
PROPANE, C-3 _____
BUTANES, C-4 _____ 4
PENTANES, C-5 _____ 5

Note: Modifiers in Accessory Mineral Column are referenced to the number of cuttings present in a standard sample tray:
Rare.....1-5 cuttings
Occasional.....5-10 cuttings
Common.....10+ cuttings
Abundant.....present thru entire sample

Accessory Mineral Column
Occ.....c
Com.....c
Abund.....a

REMARKS

LITHOLOGIC DESCRIPTION
MUD PROPERTIES
SURVEYS, OTHER TEST DATA

Note: All colors are reference to the GSA Rock Color Chart. All carbitres are 500gns unless otherwise noted.
All connection and survey gases are reported as units above background; trip and carbide gases are reported as maximum gas units.

13 3/8" cond set @ 311'K.B.
Spud @ 2:05pm 8-8-89

RRB #1, 12¼"
Sec 5351

WOB 5,000

8-9-89

WOB 6-20,000
RPM 90-130
PP 600
SPM #2-60

8-10-89
NB No. 2, 7 7/8"
STC F2, 14x13's, 35.7 FPH
73/94/10
RRB No. 2+#
STC F2S

WOB 5-9,000
Maximum
PP 650
SPM #1-60
WOB 10,000

WOB 17,000
RPM 0
PP 700
SPM #2-60

Rotate

SPM 0
WOB 10,000
PP 700
SPM #2-70

WOB 10,000
Mud Motor
PP 800
SPM #2-70

RRB No. 2, 7 7/8"
STC F2S

WOB 10-20,000
RPM 60-100
PP 1200
SPM #1-56

8-11-89

WOB 15-20,000
RPM 60-100
PP 1200
SPM #1-56

8-12-89

WOB 15-20,000
RPM 100
PP 1200
SPM #1-60

Total Depth (DRILLERS DEPTH)
1796'
TD @ 4:22 am, 8-12-89

Cuttings Gas on X1
No Oil scensable Ditch Gas

Ditch and Cuttings Gas
1X

WG 9u

CG 3u

CG 6u

CG 6u

CG 3u

WG 12

CG 2u

CG 3u

CG 3u

CG 2u

CG 2u

CG 6u

CG 5u

CG 6u

CG 5u

CG 4u

WG 16u

Ran 2.0 @ 894'
Sat 2000ppm

Ran 2,7 @ 1749'
Ran 3,5 @ 1749'
NaCl 1600 ppm

Ran 3,25 @ 1546'
Sat 16250ppm NaCl

Ran 2,0 @ 1759'
Ran 2,0 @ 1759'
Sat 20500ppm
Eng 2,4 @ 1796'

Note: Set 8 5/8" Csg to 359' KB

Survey @ 1,75°, 1,75°, 0°

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Survey @ 1,75°, 1,75°, 0°

Survey @ 1,75°, 1,75°, 0°

Survey @ 1796', 24°, S82E
TVD 1725.51', 57.66'S, 389.49'E
Run Halliburton Logging Services
DISGRAV/CBL