GEOTHERMAL LOG
Baroid Logging Systems

NL Baroid
P. O. BOX 1675 HOUSTON, TEXAS 77001

COMPANY SUNOCO ENERGY DEVELOPMENT CORPORATION
API No.
WELL FEDERAL 58-28
FIELD BREITENBUSH
COUNTY MARION STATE OREGON
Location
API No.
Sec. 28 Twp. 9S Rge. 7E
Other Services:

Permanent Datum 2950' Elev.
Log Measured From Ft. Above Perm. Datum
Drilling Measured From KB
Elev. K. B. 2973'
D. F.
G. L. 2950'

Logged 0 Ft. 8060 Ft.
Date Logged 10-1-81 To 12-13-81
Depth Measured From KB
Supv. Eng. B. McFall Unit No. ML 7466
Type Muds LOW SOLIDS, NONDISPERSED To 8060 Ft.

LEGEND

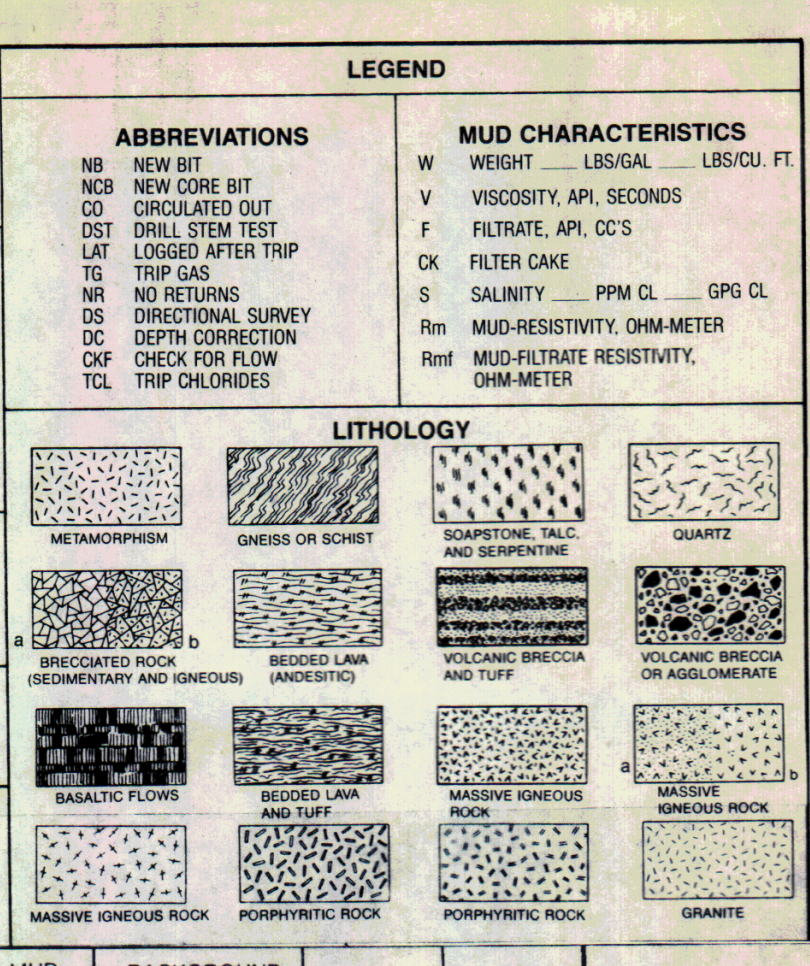
ABBREVIATIONS

NB	NEW BIT
NCB	NEW CORE BIT
CO	CIRCULATED OUT
DST	DRILL STEM TEST
LAT	LOGGED AFTER TRIP
TG	TRIP GAS
NR	NO RETURNS
DS	DIRECTIONAL SURVEY
DC	DEPTH CORRECTION
CKF	CHECK FOR FLOW
TCL	TRIP CHLORIDES

MUD CHARACTERISTICS

W	WEIGHT ___ LBS/GAL ___ LBS/CU. FT.
V	VISCOSITY, API, SECONDS
F	FILTRATE, API, CC'S
CK	FILTER CAKE
S	SALINITY ___ PPM CL ___ GPG CL
Rm	MUD-RESISTIVITY, OHM-METER
Rmf	MUD-FILTRATE RESISTIVITY, OHM-METER

LITHOLOGY



METAMORPHISM
GNEISS OR SCHIST
SOAPSTONE, TALC, AND SERPENTINE
QUARTZ
a
b
BRECCIATED ROCK (SEDIMENTARY AND IGNEOUS)
BEDDED LAVA (ANDESITIC)
VOLCANIC BRECCIA AND TUFF
VOLCANIC BRECCIA OR AGGLOMERATE
BASALTIC FLOWS
BEDDED LAVA AND TUFF
MASSIVE IGNEOUS ROCK
a
b
MASSIVE IGNEOUS ROCK
MASSIVE IGNEOUS ROCK
PORPHYRITIC ROCK
PORPHYRITIC ROCK
GRANITE

RECEIVED-PTLD
FEB 21 1982
DEPT OF GEOLOGY

DRILLING RATE
☐ FT PER HR
☒ MIN PER FT
5 10 15 20
LITHOLOGY
DEPTH
TEMPERATURE °F
IN
OUT
60 80 100
CONDUCTIVITY MUD
IN
OUT
BACKGROUND GAS HOT WIRE UNITS
5 10
H2S PPM
5
CO2 PPM
5000
REMARKS
BEGIN LOGGING 9:00PM 10-1-81
RIG SPUD 10-1-81 AT 87'
NB1 17-1/2" STC 4JS 18-18-18 IN 87'
DRILLING CONTRACTOR MONTGOMERY RIG 43
2-GARDNER-DENVER PZ9
9x6-1/2 TRIPLEX PUMPS
MIN PER FT
5 10 15 20
TEMP °F
IN —
OUT - - -
60 80 100
BACKGROUND GAS 5 10
H2S PPM 5
CO2 PPM 5000
X10 -10-2-81
100
DS 1°
WT 8.7
VIS 33
PH 9.0
FIL 17
CL 50
BSLT dkgy, aph, hd
-10-3-81
X10
-10-4-81
WOB 5/15
RPM 30/50
SPM 100
PP 500
BSLT a/a mnr alt glass, fe stn
DS 7/8°
BN1 115'
41-1/4 HR 3-3-1
NB2 SEC M44N
X10 16-16-18 IN 202
200
INCR WOB TO 22
DS 1° S5W ADD WATER
DECR WOB TO 15
BSLT m-dk gy, aph, hd
-10-5-81
X10
X10
-10-6-81
X10
WOB 5/38
RPM 30/55
SPM 140
PP 750
BSLT a/a
300
BN2 140 90-1/2 HR 3/3/1
-10-7,8 ... 14,15-81
OPEN HOLE TO 26"
E-LOG-SET 20" CSG TO 288'
NB3 SEC M44N 17-1/2" 18/18/18 IN 342
WT 8.9
VIS 40
PH 8.5
FIL 10
CL 50
VOLC SEDS lt gy, lt-m brn, vf xln, mhd
WOB 12/20
RPM 55
SPM 100
PP 350
VOLC SEDS a/a mnr org fe stn
400
WT 8.7+
VIS 41
PH 12.5
FIL 24
CL 100
VOLC SEDS a/a mnr pyr
DS 3/4°
VOLC SEDS lt-dkgy, mbrn, mnr wh, vgr, tr pyr, mhd
500
VOLC SEDS a/a tr org
VOLC SEDS var col, vfgr, mhd, brit
ADDING WATER
VOLC SEDS a/a
VOLC SEDS lt brn, brl, mcro xln, xllith, brt
VOLC SEDS a/a abnt bent
VOLC SEDS mgy, fxln, frm
VOLC SED a/a abnt bent, mnr chlor
1000
VOLC SEDS, TUFF lt-dkgy, mbrn, mnr wh, xllith, mcro xln, abnt bent
VOLC SEDS, TUFF ltgy, lt-mbrn, vfxln, frm, mnr bent
VOLC SEDS, TUFF a/a
VOLC SEDS, TUFF lt gn, rd, gy, vf-m xln
SCALE CHANGE 60 80 100 / 120 140 160
VOLC SEDS, TUFF a/a
VOLC SEDS, TUFF pred lt gy, frm, brit
VOLC SEDS, TUFF incr rd
1400
ADDING WATER
DS 1-1/2° N24W
VOLC SEDS, TUFF pred rd, ltgr, mgy, xl lith, sft-mhd, tr cly
1500
VOLC SEDS, TUFF, vari col, xl lith, sft-mhd, frcly
VOLC SEDS, TUFF, a/a
VOLC SEDS, TUFF vari col, xllith, sft-mhd
1700
ADD WATER DS 2° N49W
1800
VOLC SEDS, TUFF a/a
DECREASE WATER DS 1-1/4° N55W
2000
DS 1° N 33 W
TEMP °F 120 140 160
CONDUCTIVITY
BACKGROUND GAS 10 20
H2S PPM
VOLC SEDS, TUFF pred lt gr, mnr org, xl lith, sft-frm, mnr chlor
VOLC SEDS, TUFF gr, org, mbrn, mgy, xllith, frm-mhd
VOLC SEDS, TUFF ltgy, lt gr, xllith, frm-mhd
DS 1-1/2° S69W
ADD WATER
STOP WATER
VOLC SEDS, TUFF a/a
-10-22-81
VOLC SEDS, TUFF ltgy, lt gr, xllith, sft-mhd, mnr chlor
VOLC SEDS, TUFF a/a
DECR WOB TO 35
DS 1-3/4° N74W
VOLC SEDS, TUFF wh, milky, lt gr, mcroxln-xllith, sft-frm
INCR RPM TO 200
DECR SPM TO 100
-10-23-81
INCR WATER
VOLC SEDS, TUFF vari colored, xllith, frm
VOLC SEDS, TUFF incr rd-brn
-10-25,26 SET 13-3/8 CSG AT 2622
-10-27,28 NIPPLE UP BOP
VOLC SEDS, TUFF a/a
TEMP SURVEY ADD WATER
VOLC SEDS, TUFF brn, gy, xllith, sft-hd, f-crs gr
DS 2° N?W
-10-31-81
ANDESITE LAVA wh, lt gy, vf xln, porph ip
AND LAVA a/a darker col
VOLC SEDS, TUFF lt-m brn, xl-lith, sft-frm
VOLC SEDS, TUFF a/a gy, xl-lith, porphy, wided ip
VOLC SEDS, TUFF brn, gy, gn, xl-lith, sft
VOLC SEDS, TUFF a/a
MIN PER FT
TOTAL GAS 10 20
H2S PPM 5
CO2 PPM 5000
VOLC SEDS, TUFF lt brn, buff, mnr lt gn, xl-lith, wided ip
VOLC SEDS, TUFF lt brn, ltgy, gn, xl-lith, crsted, wided
VOLC SEDS, TUFF a/a
ADD WATER
ANDESITE lt gn vf xln, porph
VOLC SEDS, TUFF brn, gy, gn xl-lith
VOLC SEDS, TUFF a/a, w/ mnr wh
AND wh, lt-dk gy vf xln, porph
TUFF wh, lt gn xl-lith, vhd
VOLC SEDS, TUFF brn, gy, gn xl-lith
AND a/a
INCR WATER
VOLC SEDS, TUFF m brn, gn, gy, xl-lith
BSLT m-dkgy, vf xln wt lith incl, porph ip
VOLC SEDS, TUFF a/a, incr grn
VOLC SEDS, TUFF m brn, grn, xl-lith
VOLC SEDS, TUFF a/a mnr grn
AND INT a/a
VOLC SEDS, TUFF a/a pred brn
VOLC SEDS, TUFF rd-brn, gy, gn, xl-lith, frm
VOLC SEDS, TUFF a/a pred gy, xln
VOLC SEDS, TUFF a/a mnr wh
VOLC SEDS, TUFF gy, brn, xl-lith, org, prly artd
BSLT grn, wh, blk, vf xln, porph brittle
BSLT a/a
VOLC SEDS, TUFF lt grn, wh, xl-lith
VOLC SEDS, TUFF rd-brn, xl-lith
VOLC SEDS, TUFF a/a
VOLC SEDS, TUFF a/a gy-grn ip, brittle
VOLC SEDS, TUFF rd, rd-brn, mnr gy-wh xl-lith
VOLC SEDS, TUFF a/a
VOLC SEDS, TUFF a/a rd-brn, grn, gy, wh, xl-lith, brittle
VOLC SEDS, TUFF rd-brn, gy-grn, wh, xl-lith, prly artd, brittle
VOLC SEDS, TUFF a/a pred rd-brn
VOLC SEDS, TUFF a/a org col ip
VOLC SEDS, TUFF rd-brn, xl-lith, brittle
VOLC SEDS, TUFF a/a
VOLC SEDS, TUFF a/a fr gy, incr lithics
ANDESITE INTRUSIVE lt grn, wh, porph, hd
VOLC SEDS, TUFF rd-brn, m brn, xl-lith, hd
AND INT a/a
AND INT a/a gy ip
VOLC SEDS, TUFF rd, brn, org, xl-lith, frm
VOLC SEDS, TUFF rd-brn, xl-lith, vhd, brit
VOLC SEDS, TUFF a/a
VOLC SEDS, TUFF a/a
VOLC SEDS, TUFF a/a m brn, lt wh
VOLC SEDS, TUFF rd-brn, lt wh, lt gy, xl-lith, hd, brit
AND INT wh, lt grn, porph, hd
VOLC SEDS, TUFF rd brn, m brn, xl-lith, frm, brit ip
VOLC SEDS, TUFF rd brn, m brn, relic clastic-xl-lith, frm-hd
TOTAL GAS 10 20
H2S PPM 5
CO2 PPM 5000
VOLC SEDS, TUFF a/a
VOLC SEDS, TUFF wh, lt grn, rd brn ip, relic xl lith, frm
VOLC SEDS, TUFF a/a
VOLC SEDS, TUFF a/a incr rd brn
VOLC SEDS, TUFF wh, lt grn, relic xl-lith text ip, frm
VOLC SEDS, TUFF a/a
VOLC SEDS, TUFF a/a
VOLC SEDS, TUFF wh, cm, lt grn, rd brn, relic xl-lith, frm
VOLC SEDS, TUFF a/a gy ip
VOLC SEDS, TUFF m-dk gy, rd brn, xl lith, hd
NO SAMPLE
VOLC SEDS, TUFF gy, grn, wh, rd-brn, yel, xl-lith, hd-frm
ANDESITE, lt-m gy, lt-m grn, aphan ip porph, hd
VOLC SEDS, TUFF a/a gy, grn, wh, rd-brn, yel, xl-lith, hd-frm
ANDESITE, a/a lt-m grn, aphan ip porph, hd
ANDESITE lt-m gm, aphan, porph ip, hd
VOLC SEDS, TUFF lt gy, fxln, hd
VOLC SEDS, TUFF wh, milky, f-m xln, hd
VOLC SEDS, TUFF wh, milky, f-m xln, hd
VOLC SEDS, TUFF a/a
VOLC SEDS, TUFF wh, lt gm, xl, hd
VOLC SEDS, TUFF wh, lt gy, f-m xln, hd
DECR WOB TO 27
INCR WOB TO 31
INCR WOB TO 34
-12-1-81
-12-2-81
-12-3-81
-12-4-81
-12-5-81
-12-6-81
-12-7-81
-12-8-81
-12-12-81 RUN AUSTEN SURV
-12-12-81 E-LOG CALIPER SONIC GAMMA FLOW TEMP
-12-13-81 LOGGERS RELEASED 12:00 NOON
LOGGING PERSONNEL: STEVE MOELLER STEVE MILLER CINDY FORELEY W/JEFF MOLSEN
8000