

NL Baroid

MUD LOG

BAROID LOGGING SYSTEMS

P.O. BOX 1878 HOUSTON, TEXAS 77001

COMPANY SEAGULL OPERATING COMPANY

API No. 15-141-21531

WELL YEAROUT NO. 1

FIELD _____

COUNTY SUMNER

STATE KANSAS

Location 2160' FNL, 330' FWL

Other Services:

Sec 2 Twp 35 S Rge 1 W

Permanent Datum GROUND LEVEL, Elev. 1078

Elev. K.B. 1087

Log Measured From K.B., 9 Ft. Above Perm. Datum

D.F. —

Drilling Measured From K.B.

G.L. 1078

Logged 2500' to Ft. 4400' Ft

Supv. Eng. JEFF FLOYD Unit No. 7589

Date Logged _____ To _____

Type Muds CHEM- GEL To 3030 Ft

Depth Measured From K.B.

STARCH To T.D. Ft

LEGEND

ABBREVIATIONS

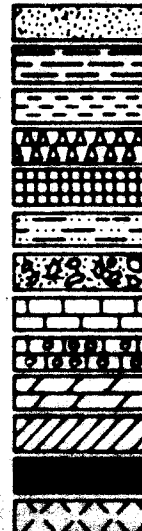
NB NEW BIT
NCB NEW CORE BIT
CO CIRCULATED OUT
DST DRILL STEM TEST
LAT LOGGED AFTER TRIP
TG TRIP GAS
NR NO RETURNS
DS DIRECTIONAL SURVEY
DC DEPTH CORRECTION
CKF CHECK FOR FLOW
TCL TRIP CHLORIDES

MUD CHARACTERISTICS

W WEIGHT X LBS/GAL — LBS/CUFT
V VISCOSITY, API, SECONDS
F FILTRATE, API, CC'S
CK FILTER CAKE
CL SALINITY X PPM CL' — GPG CL'
Rm MUD-RESISTIVITY, OHM-METER
Rmc MUD-CAKE RESISTIVITY, OHM-METER
Rmf MUD-FILTRATE RESISTIVITY, OHM-METER

LITHOLOGY

SAND
SHALE
CLAY
CHERT
SALT
SILTSTONE
CONGLOMERATE
LIMESTONE
OOLITIC LIMESTONE
DOLOMITE
GYPSUM, ANHYDRITE
COAL OR LIGNITE
GRANITE WASH



This Heading and Log Conform To API RP 31 A

Fold Here

REMARKS

BR1883B PRINTED IN U.S.A.

4-73 JR

WELL
COMPANY
LOCATION

LEGEND

DRILLING RETURN
ELECTRIC LOG
CIRCUIT A FOOT RETURNS
CHECK FOR FLOW



BAROID
LOGGING
SYSTEMS

MUD
LOG

DRILLING RATE

☐ FT PER HR
☒ MIN PER FT

25 5 7.5

DEPTH
FEET

LITHOLOGY

DEPTH
FEET

DATE
TIME
BY

PRE LOG - HYPERBARONS IN MUD (MB-1000)

LOG LOG - GAS IN MUD AIR/GAS ANALYSIS

☒ GAS LOG - UNITS OF GAS IN AIR

UNITS	C ₁	C ₂	C ₃	C ₄	C ₅₊
25					
50					

REMARKS

LS - BUF-WH, FXLN,
HD, BRIT

SH - GY-DK GY, SLTY,
TR PYR, PLTY,
SFT - FRM

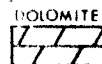
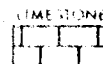
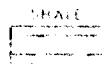
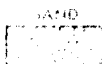
2600

WELL _____
COMPANY _____
LOCATION _____

LEGEND

NR NO RETURNS
EL ELECTRIC LOG
COC CIRCULATE OUT RETURNS
CKF CHECK FOR FLOW

NR NO RETURNS
EL ELECTRIC LOG
COC CIRCULATE OUT RETURNS
CKF CHECK FOR FLOW



BAROID
LOGGING
SYSTEMS

MUD
LOG

DRILLING RATE

☐ FT PER HR

☐ MIN PER FT

VISUAL
POROSITY

LITHOLOGY

DEPTH

DATE
TIME

LOG LOG - HYDROCARBON IN MUD (M-1000)

LOG LOG - % GAS IN MUD AIR/GAS ANALYSIS

LOG LOG - UNITS OF GAS IN AIR

C₁ C₂ C₃ C₄ C₅₊

REMARKS

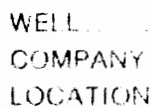
SH - GY-DK GY, SLTY,
PLTY-BLKY,
SFT - FRM

SLTS - LT GY-GY, BLKY
SDY IP, TR FOS,
VSFT

SS - WH, VFG, SLTY,
WCMT, TR GLAU
DIRTY, HD-FRI

2700

28



4. RETURN TO PROBABILITIES	4R. NO RETURNS
5. RETURN TO LOG	5. ELECTRIC LOG
6. RETURN TO RECORD	6. CHECK OUT RETURNS
7. RETURN TO START TIME	7. CHECK FOR FLOW
8. RETURN TO	

MUD
LOG

☐ MIN. PER +1

GAS LOG - 10750' GAS IN AIR

REMARKS

W	95
V	30
F	-
CK	3
PH	75
CL	13000

SH - GY, PLTY-SPLTY,
SFT

LS - BUF-TN,F-MXLN,
HD-SBCHKY

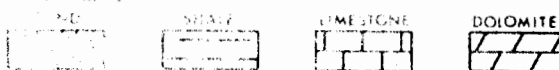
SH- GY-DK GY,SLTY,
BLKY-PLTY,
SFT-FRM

WELL
COMPANY
LOCATION

LEGEND

NO. 1 FILL - H. O. N. D. S.
NO. 2 FILL - H. O. N. D. S.
NO. 3 FILL - H. O. N. D. S.
NO. 4 FILL - H. O. N. D. S.
NO. 5 FILL - H. O. N. D. S.

NO. 1 NO RETURNS
NO. 2 NO RETURNS
NO. 3 NO RETURNS
NO. 4 NO RETURNS
NO. 5 NO RETURNS



BAROID
LOGGING
SYSTEMS

MUD
LOG

DRILLING RATE

□ FT PER HR.

□ MIN PER FT

MINUTES PER FOOT

DEPTH

DATE

TIME

CM

IN

FEET

YARDS

MILES

KILOMETERS

METERS

DECIMETERS

CENTIMETERS

MILLIMETERS

MICROMETERS

NANOMETERS

PICOMETERS

FEMTOMETERS

ATTOMETERS

SEPTA

DECA

HECTO

KILO

MEGA

GIGA

TERA

PETA

EXA

ZETTA

YOTTA

ROUNDOFF

UPPER

LOWER

MIDDLE

BASE

TOP

END

START

STOP

GO

NO

YES

NEVER

ALWAYS

SOMETIMES

RARELY

USUALLY

ORDINARILY

COMMONLY

USUALLY

ORDINARILY

COMMONLY

USUALLY

- PRO LOG - HYDROCARBONS IN MUD (M=1000)
- GAS LOG - % GAS IN MUD (M=1000) GAS ANALYSIS
- GAS LOG - UNITS OF GAS IN AIR

REMARKS

MINUTES PER FOOT

25 50 75

UNITS GAS IN AIR

25 50

SLTS-GY-LT GY, BLKY
SFT-VSFT

SH-GY-DK GY, SLTY,
BLKY-PLTY,
SFT-FRM

STUCK PIPE

WELL _____
COMPANY _____
LOCATION _____

LEGEND

NO RETURNS
NO RETURNS
NO RETURNS
NO RETURNS
NO RETURNS

NO RETURNS
ELECTRIC LOG
CHECK FOR OUT RETURNS
CHECK FOR FLOW

STONE

SHALE

LIMESTONE

DOLOMITE

BAROID
LOGGING
SYSTEMS

MUD
LOG

DRILLING RATE

☐ FT PER HR
☐ MIN. PER FT

LOGGING

LOGGING

LOGGING

LOGGING - HYDROCARBONS IN MUD (M-1000)

LOGGING - GAS - MUD GAS ANALYSIS

LOGGING - LINES - MUD GAS

REMARKS

-CG 20

-CG 17

SS - WH, VFG, SLTY,
M-WCMT, CAL,
TR GLAU, HD-FRI
WH FLOIP,
F CUT-TR STNIP

SS - WH, VFG, SLTY,
WCMT, CAL,
HD, FRI IP

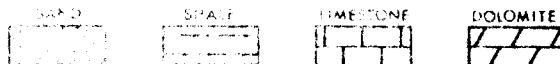
SLTS - LT GX-WH,
BLKY, SFT

3200

WELL _____
COMPANY _____
LOCATION _____

LEGEND

NO. NO RETURNS
ELECTRIC LOG
CHECK OUT RETURNS
CHECK FOR FLOW



BAROID
LOGGING
SYSTEMS

MUD
LOG

DRILLING RATE

☐ FT PER HR
☐ MIN PER FT

LIBRARY LOG - HYDROCARBONS IN MUD (M-1000)
GAS TO AIR GAS IN MUD (M-1000) AS ANALYSIS
GAS TO AIR GAS IN MUD (M-1000) AS ANALYSIS

REMARKS

-CG 22

SH - GY-DK GY,
BLKY-PLTY,
TR PYR, SFT-
FRM

LS - BRN-TN, F-VFXLN,
TR ARG IP,
HD-BRIT

SH - GY-DKGY, SL SLTY,
SFT

LS - BUF-WH, F-MXLN,
FOSIP, TR PYR,
HD-SBCHKY

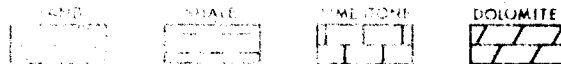
3300

3400

WELL _____
COMPANY _____
LOCATION _____

LEGEND

NO. 100 - NO. 1000 DEPT. NO. NO RETURNS
NO. 100 - NO. 1000 DEPT. NO. NO RETURNS
NO. 100 - NO. 1000 DEPT. NO. NO RETURNS
NO. 100 - NO. 1000 DEPT. NO. NO RETURNS



BAROID
LOGGING
SYSTEMS

MUD
LOG

DRILLING RATE

☐ FT PER HR
☐ MIN PER FT

MINUTES
25
75

UNITS GAS IN AIR
25
50

REMARKS

SS - WH - LT GY, VFG,
WCMT, SLTY, CAL,
TR GLAU + PYR,
FRM - FRI

SLTS - LT GY - WH,
BLKY, SFT - FRM

LS - BUF - TN, F - MXLN,
FOS IP, HD - VHD,
SBCHKY IP

SH - DK GY - GY - BLK,
PLTY, FRM - HD



WELL
COMPANY
LOCATION

[illegible]

NH NH RETURNS
 FL FL ELECTRIC LOG
 CO CO ASSOCIATE OUT RETURNS
 EE EE CHECK FOR FLOW

BAROID LOGGING SYSTEMS

MUD
LOG

DRILLING RATE

REPORT

CLARENCE

DOI: 10.1002/polb.10003

CLASIFICACIÓN DE LAS ACTIVIDADES DE LAS ANÁLISIS

205 (2) 11-2000 (2) 2451. AP

REMARKS

LS - BUF, F-MXLN,
HD-V HD, BRIT,
SBCHKY I P

SH - BLK, BLKY-PLTY
HD-FRM

LS - BUF-BRN,FXLN,
FOS IP, HD -
SBCHKY

LS - BUF-TN,F-MXLN,
FOS IP,HD-BRIT

SH - BLK-GY,SLTY IR,
SFT-FRM

SS - WH-LT GY, VF-
MG, PSRTD, SLTY,
WCMT, CAL
DIRTY, HD-FRI

WELL
COMPANY
LOCATION

USE TO RECORD
USE TO RECORD
USE TO RECORD
USE TO RECORD
USE TO RECORD

**BAROID
LOGGING
SYSTEMS**

**MUD
LOG**



DRILLING RATE

☐ FT PER HR
☐ MIN PER FT

PRO LOG - PROLOG - PROLOG - PROLOG - PROLOG
GAS LOG - GAS LOG - GAS LOG - GAS LOG - GAS LOG
GAS LOG - GAS LOG - GAS LOG - GAS LOG - GAS LOG

REMARKS

SH - GY, RED, GRN,
SLTY IP, SFT

LS - GY - TN - BUFFLN,
SLTY + ARG IP,
FRM, FRI

UNCONFORMITY
CONGLOMERATE?
3778' - 3904'

DST #1

3901 - 3912

IHP 1960 FHP 1950

IF 41 - 41 (30) TOOL PLUGGING

ICIP 1533 (60)

FF 31 - 61 (10)

FCIP 216 (10)

WEAK BLOW, REC. 6' MUD

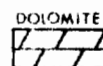
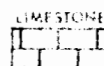
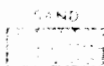
CHT - WH - BUF, GRN,
WEATHERED,
OCC P-P + VUG
POR, WH FLO,
GD CUT, TR STN

WELL _____
COMPANY _____
LOCATION _____

LEGEND

TO - NO RETURNS
NR - NO RETURNS
LE - ELECTRIC LOG
CO - CIRCULATE OUT RETURNS
CK - CHECK FOR FLOW

TO - NO RETURNS
NR - NO RETURNS
LE - ELECTRIC LOG
CO - CIRCULATE OUT RETURNS
CK - CHECK FOR FLOW



BAROID
LOGGING
SYSTEMS

MUD
LOG

DRILLING RATE

☐ FT PER MIN

☐ MIN PER FT

PER TO - IN FROM APPROX IN MUD (M-1000)

PER TO - IN FROM APPROX IN MUD (M-1000)

PER TO - IN FROM APPROX IN MUD (M-1000)

DEPTH

4000

REMARKS

CHT-WH-BRN,FRESH

LS - BRN-TN,F-MXLN,
CHTY, SIL,
EXHD,DNS

MINUTES PER FOOT

25 5 75

UNITS GAS IN AIR

25 50

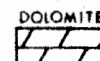
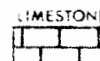
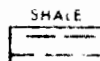
X2

D.C. -7'



WELL _____
COMPANY _____
LOCATION _____

TCL TRIP CHLORIDES	NR NO RETURNS
NB NEW BIT	EL ELECTRIC LOG
NCB NEW CORE BIT	CO CIRCULATE OUT RETURNS
DST DRILL STEM TEST	CKF CHECK FOR FLOW
TG TRIP GAS	



BAROID LOGGING SYSTEMS

MUD
LOG

DRILLING RATE

DATE: 12/15/50

MIN. PER FE

VI 3041
P 090517

LITHOLOGY

DEPTH

DATE
120
AM

☐ ppm LOG-HYDROCARBONS IN MUD (M=1000)☐ GAS LOG - % GAS IN MUD AIR/GAS ANALYSIS☐ GAS LOG - UNITS OF GAS IN AIRC₂

C

C.

5

C.

REMARKS

4300

X2

X2

SS - WH, F-MG, SBRD,
M-WCMT, CAL,
GLAU IP, FRI-HD,
SOME WH FLO,
TR STN, F-P CUT

DOL- BUF-LT GY,
MXLN, CAL, HD

DOL - BRN, MX LN, CAL,
HD - DNS

WELL
COMPANY
LOCATION

LEGEND

TCL TRIP CHLORIDES
NB NEW BIT
NCB NEW CORE BIT
DST DRILL STEM TEST
TG TRIP GAS

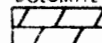
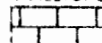
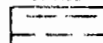
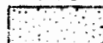
NR NO RETURNS
EL ELECTRIC LOG
CO CIRCULATE OUT RETURNS
CKF CHECK FOR FLOW

SAND

SHALE

LIMESTONE

DOLOMITE



BAROID
LOGGING
SYSTEMS

MUD
LOG

DRILLING RATE

☐ FE PER HR

☐ MIN PER FT

VISUAL
PROBITY
E.S.T.

LITHOLOGY

DEPTH

DATE
12:00 AM

- ☐ ppm LOG - HYDROCARBONS IN MUD (M=1000) _____
☐ GAS LOG - % GAS IN MUD AIR/GAS ANALYSIS _____
☐ GAS LOG - UNITS OF GAS IN AIR _____

OM	C ₁	C ₂	C ₃	C ₄	C ₅ +
%					
UNITS					
1					
1					

REMARKS

RTD 4400

