API #15-023-21376

Saman Shaffaie Petroleum Geologist

GEOLOGIST'S REPORT
DRILLING TIME AND SAMPLE LOG

WELL NAME	Schumacher 8-2-2L
LOCATION	SE - SW - NE - NW
COUNTY, STATE	Cheyenne, KS
SECTION	2
TOWNSHIP	10S
RANGE	42W
COORDINATES	2310' FNL & 1980' FWL
GROUND ELEV.	3371'
KB ELEV.	3386'
LOG MEASURED FROM	KB - 15'
DRILLING MEASURED FROM	KB
SPUD DATE	12/6/21
TD DATE	12/12/21
TOTAL DEPTH	5610'
CASING	Surface: 8 5/8" @ 417' Production: 5 1/2" @ 5610'
ELECTRICAL SURVEY	Dual Induction, Dual Compensated Porosity, Borehole Compensated Sonic, Microlog
DRILLING CONTRACTOR	Company Tools
DRILLING TIME INTERVAL	4300' - TD
SAMPLE INTERVAL	4300' - TD
GEOLOGICAL SUPERVISION FROM	3900'
GEOLOGICAL SUPERVISION TO	TD

Drilling Operations	Sample Type	Lithology Type 1	Lithology Type 2	Lithology Type 3
Drilling	Cuttings	Limestone	Shale	Chert
Circulating	Core	Dolomite	Sandstone	Oolite
Coring	Lost	Anhydrite	Coal	Gypsum
Trip		Salt	Granite	Chert w/ Sandstone
Reaming		Chert w/ Limestone	Chert w/ Dolomite	Chert w/ Shale
Lost Circ.		Chert w/ Sandstone	Chert w/ Oolite	Chert w/ Gypsum
Cutting Rate		Chert w/ Shale	Chert w/ Chert	Chert w/ Chert
Gas Detector		Chert w/ Gypsum	Chert w/ Oolite	Chert w/ Sandstone
Gas Chromatograph		Chert w/ Oolite	Chert w/ Limestone	Chert w/ Dolomite

REMARKS: Due to the to great stress of oil in multiple pay zones and positive DST results, it is recommended and agreed upon by all parties that production casing be set to further evaluate this well.

Respectfully Submitted,

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Petroleum Geologist

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*Tops have been adjusted to electric logs

Curve Track 1
SP (MeV)
Curve Track 2
SP (MeV)
Gamma (API)
Caliper (inches)

Depth | Formation | Geological Descriptions | Engineering Data

Anhydrite 3588 (+101)

Base Anhydrite 3623 (-64)

Depth | Formation | Geological Descriptions | Engineering Data

DAILY PENETRATION
@ 7:00 AM
12/6/21 - Spudded at 7:00 PM
12/7/21 - Drilling at 1000'
12/8/21 - Drilling at 1450'
12/9/21 - Drilling at 2950'
12/10/21 - Drilling at 4250'
12/11/21 - Drilling at 5250'
12/12/21 - Tasking at 4020'
12/13/21 - Tasking at 5610'
12/14/21 - Tasking at 5610'
12/15/21 - CTCH at 5450'

Plan Rate @ BWI: 2.5' Short to Board
Deviation Survey @ 5610': 1°

Morgan Mud @ 4004'
Wt. 9.2
Vis. 73
Wl. 5.8
Ch. 1,000
LCM: 5#

Topeka 4344 (-977)

Deer Creek 4387 (-720)

LeCompton 4418 (-751)

Oread 4483 (-786)

Morgan Mud @ 4524'
Wt. 9.2
Vis. 58
Wl. 5.8
Ch. 600
LCM: 4#

Lansing 4566 (-973)

DST #1
(LKC: 7x,D)
4550-4627

20-60-30-60
IF: Weak blow in 10 minutes
FF: No blow
ISIP: 1,162 (PSIG) FFSIP: 1,162 (PSIG)

IFP: 30
FFP: 30 - 30
ISIP: 783
FSIP: 783
HP: 2207
IHP: 2208
FHP: 2208
BHT: 98°F

Recovery: 10' gcm
API WW: 28@ 64.8 °F
Gas: 20x20 #1/M

Deviation Survey @ 4627: 1°

Morgan Mud @ 4627'
Wt. 9.1
Vis. 67
Wl. 5.8
Ch. 600
LCM: 5#

Stark 4775 (-1212)

DST #2
(LKC: 14H)
4800-4850

30-60-60-90
Tool Plugged Back in BOB (17') in 4Ts mins
IF: 2 blow
FF: Blw built to BOB in 6Ts mins
ISIP: 1,162 (PSIG) FFSIP: 1,162 (PSIG)

IFP: 30 - 48
FFP: 48 - 78
ISIP: 1,162
FSIP: 1,162
HP: 2207
IHP: 2208
FHP: 2208
BHT: 98°F

Recovery: 10' gcm
API WW: 28@ 64.8 °F
Gas: 20x20 #1/M

Morgan Mud @ 4830'
Wt. 9.1
Vis. 67
Wl. 5.8
Ch. 1,000
LCM: 5#

Chanute 5057 (-1688)

Cherokee Sh. 5104 (-1735)

Mississippian 5163 (-1792)

Morgan Mud @ 5310'
Wt. 9.2
Vis. 67
Wl. 5.8
Ch. 1,000
LCM: 5#

RTD 5450 (-1793)

Deviation Survey @ 5450': 1°

Depth | Formation | Geological Descriptions | Engineering Data

Curve Track 1
SP (MeV)
Curve Track 2
SP (MeV)
Gamma (API)
Caliper (inches)