

# PATRICK J. DEENIHAN

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## GEOLOGIST'S REPORT DRILLING TIME AND SAMPLE LOG

OPERATOR SHAKESPEARE OIL Co., Inc.  
 LEASE HABIGER #1-28  
 FIELD WILDCAT  
 LOCATION 1980 FSL & 580' FEL  
 SEC. 28 TWP. 17<sup>S</sup> RGE. 31<sup>W</sup>  
 COUNTY SCOTT STATE KS

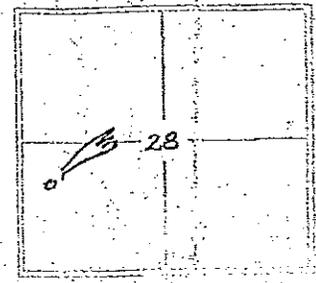
ELEVATION  
 KB 2947'  
 DF \_\_\_\_\_  
 GL 2942'  
 Measurements Are All  
 From K.B.

CONTRACTOR WU DRILLING Rig # 8  
 COMM. 6-18-12 COMP. 6-30-12  
 RTD 4700' LOG TO 4706'  
 SAMPLES SAVED FROM 3750 TO T.D.  
 DRILLING TIME KEPT FROM 3700 TO T.D.  
 SAMPLES EXAMINED FROM 3750 TO T.D.  
 GEOLOGICAL SUPERVISION FROM 3800 TO T.D.  
 LOG UP 3353' TYPE LOG CHEMICAL  
 API # 15-171-20860-00-00

CASING RECORD  
 SURFACE 8 5/8 @ 260  
 PRODUCTION N/A

WELL LOG SURVEYS  
 ARRAY INDUCTION,  
 PHOTO-DENSITY,  
 COND & MICRO  
 WEATHERFORD

FORMATION	LOG		SAMPLE		STRUCT. COMP.
	TOP	DATE	TOP	DATE	
ANHYDRITE	2298	(+649)	2295	(+652)	
BASE/ANHY	2318	(+629)	2318	(+629)	
HELBNER	3905	(-958)	3898	(-951)	
LANGSAG	3945	(-998)	3938	(-991)	
MUNCIE CREEK	4112	(-1165)	4115	(-1168)	
STARK SHALE	4206	(-1259)	4206	(-1259)	
BKC	4293	(-1346)	4291	(-1344)	
MARMATON	4337	(-1390)	4341	(-1394)	
PAWNEE	4411	(-1464)	4422	(-1475)	
CHEROKEE SH.	4487	(-1540)	4488	(-1541)	
JOHNSON	4526	(-1579)	4481	(-1584)	
MORROW SH	4558	(-1611)	4546	(-1599)	
MISSISSIPPIAN	4567	(-1620)	4565	(-1618)	



REFERENCE WELL FOR STRUCTURAL COMPARISON: SLAWSON EXPLORATION, INC  
#1 HABIGER, SE-SE-30, SEC. 28-T13-R31W

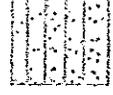
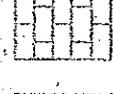
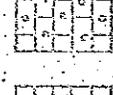
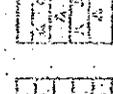
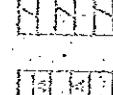
REMARKS - IT WAS RECOMMENDED & AGREED UPON BY ALL PARTIES CONCERNED THAT THIS WELL BE PLUGGED & ABANDONED ON 6-30-12

RESPECTFULLY SUBMITTED

BY: *Patrick J. Deenihan*

PATRICK J. DEENIHAN  
PETROLEUM GEOLOGIST

LEGEND

-  Anhydrite
-  Salt
-  Sandstone
-  Gyps
-  Gyps sh
-  Limestone
-  Goliath
-  Chert
-  Dolomite

SCALE 1" = 100'

DEPTH	SAMPLE DESCRIPTION	REMARKS
0-18-12	MURM	
0-19-12	600	
0-20-12	2640	
0-21-12	3895	
0-22-12	3988	
0-23-12	3988	
0-24-12	4150	
0-25-12	4210	
0-26-12	4290	

6-27-12 = 8458  
9-28-12 = 4560  
6-29-12 = 1700

22.50

ADHYORITE

2295 (7002)

2300

BASE/ADHYORITE

2378 (7629)

MUD-50 / SERVICE MUD, INC.

3579

WT: 8.8 DT: 8.8 AL: 7.2  
CMC: 1500 LCM: 30

3700

50

25, CRIM. GRAY - SING - P-556 76  
CHERRY

SM, BLACK - DK GRAY

SM, VARI - COLOR

25, CRIM. GRAY - SING - P-556 76  
CHERRY - No. 580 03

SM - GRAY

25, CRIM. GRAY - SING - P-556 76  
SM - F55C - CHERRY - No. 580 03

25, A/A

SM, BLACK - CARB

SM, VARI - COLOR

3900

LS, CRM, TAN, SNG - FSS - P. 1188  
 NO. 51000

LS, CRM, TAN, SNG, MOTT - PEN -  
 XON P. FSSL - SHALEY

LS, CRM, TAN, SNG, MOTT - P. FSSL -  
 CLIFFSOL 100. 51000

SH, GR, GRN, DRNGE - ARGIL

SH, GRYS - GRN - ARGIL

LS, CRM, GRV, MOTT - P. FSSL  
 V. 5 HALEY

SH, GRV'S

LS, GRV, MOTT - P. FSSL - P. CHALKY  
 P. 51000 - NO. 51000

SH, GRV, DRNGE, BRN - ARGIL

SH, BLACK CARB

SH, VAR - SOLOX - PSEDOM. GRV

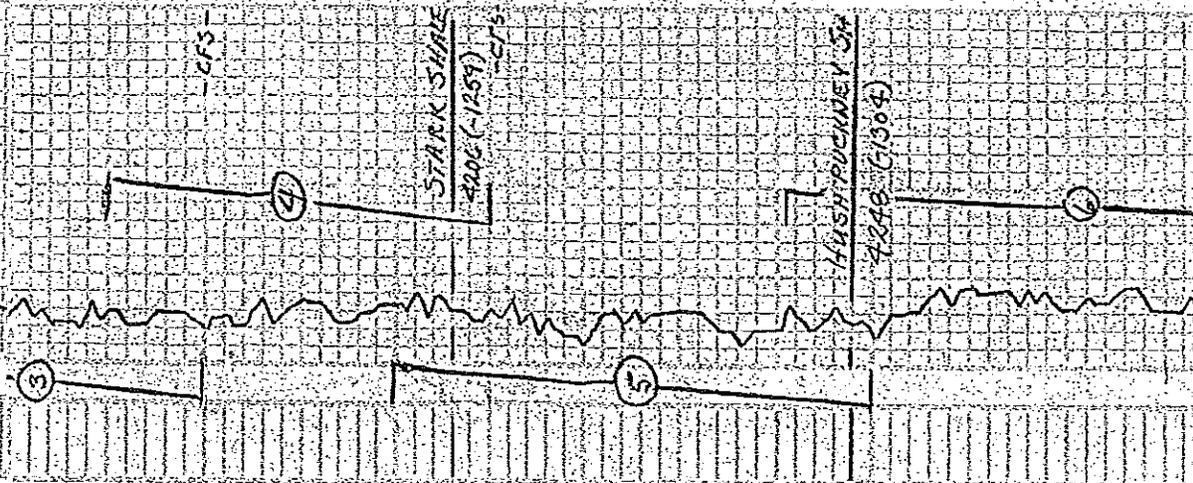
3900

WIPONER SHALE

3898 (-95T)







25. GRAY - SING/MOTT - 10-XM  
 FLOOR - SING/MOTT 10 PART  
 60 IN. D. SILL - TO SU - 50 IN -  
 60 IN. TO 72 IN. TO SU - 50 IN -  
 1/2 OIL PAN TO SU - 50 IN -  
 SH. BLACK CARB - ABOVE GRAY  
 H. 91L

LS. WHT. GRAY - SING/MOTT  
 1/2 IN. X 1/2 IN. TO 1/2 IN. TO  
 3/4 IN. TO 5/8 IN. TO 5/8 IN. TO  
 3/4 IN. TO 5/8 IN. TO 5/8 IN. TO  
 3/4 IN. TO 5/8 IN. TO 5/8 IN. TO  
 FULL FLOOR

SH. BLK. CARB

LS. WHT. GRAY - SING/MOTT - 10-XM  
 1/2 IN. X 1/2 IN. TO 1/2 IN. TO  
 3/4 IN. TO 5/8 IN. TO 5/8 IN. TO  
 3/4 IN. TO 5/8 IN. TO 5/8 IN. TO  
 3/4 IN. TO 5/8 IN. TO 5/8 IN. TO  
 FULL FLOOR

LS. WHT. GRAY - SING/MOTT - 10-XM  
 1/2 IN. X 1/2 IN. TO 1/2 IN. TO  
 3/4 IN. TO 5/8 IN. TO 5/8 IN. TO  
 3/4 IN. TO 5/8 IN. TO 5/8 IN. TO  
 3/4 IN. TO 5/8 IN. TO 5/8 IN. TO  
 FULL FLOOR

LS. WHT. GRAY - SING/MOTT - 10-XM  
 1/2 IN. X 1/2 IN. TO 1/2 IN. TO  
 3/4 IN. TO 5/8 IN. TO 5/8 IN. TO  
 3/4 IN. TO 5/8 IN. TO 5/8 IN. TO  
 3/4 IN. TO 5/8 IN. TO 5/8 IN. TO  
 FULL FLOOR

LS. WHT. GRAY - SING/MOTT - 10-XM  
 1/2 IN. X 1/2 IN. TO 1/2 IN. TO  
 3/4 IN. TO 5/8 IN. TO 5/8 IN. TO  
 3/4 IN. TO 5/8 IN. TO 5/8 IN. TO  
 3/4 IN. TO 5/8 IN. TO 5/8 IN. TO  
 FULL FLOOR

REC: 70' MUD W/ 10' SPOTS  
 IHP: 2046 FHP: 1999  
 WTR: 19-43 FFP: 42-68  
 ISEP: 866 CSIP: 850  
 BHT: 125 CAL: 3400 (SYS)

VIS: LS. WT: 8.7 WL: 7.2  
 CAL: 2600 LCM: TRC

DST # 4 (4170 - 4210)  
 30" - 45" - 36" - 30"  
 IF: 1" - No RETURN  
 FF: No BLOW - No RETURN  
 REC: 80' OCMW FHP: 2005  
 IHP: 2069 FHP: 2005  
 ISEP: 20-42 FFP: 45-65  
 WTR: 19-43 CSIP: 879  
 BHT: 120 CAL: 3550

DST # 5 (4200 - 4250)  
 30" - 30" - 45" - 40"  
 IF: 1 1/2" - No RETURN  
 FF: 1" - No RETURN  
 REC: 134' MUD W/ 10' SPOTS  
 IHP: 2158 FHP: 1996  
 ISEP: 26-76 FFP: 29-106  
 WTR: 19-43 CSIP: 749  
 BHT: 130 CAL: 3200 (SYS)

VIS: 49 WT: 8.9 WL: 7.2  
 CAL: 3200 LCM: 1M

DST # 6 (4241 - 4296)  
 15" - 45" - 15" - 10"  
 IF: 208 IN 2" - No RETURN  
 FF: 408 IN 2" - No RETURN  
 REC: 105' OCMW - 5% OIL, 65%  
 WTR: 30-40  
 IHP: 2104 FHP: 2067  
 ISEP: 14-384 FFP: 34-539  
 WTR: 19-43 CSIP: 900  
 BHT: 133 CAL: 23,000

BKC  
4391 (-1344)  
-GFS-

MARMATION "A"  
4371 (-1392)  
-GFS-

MARMATION "B"  
4371 (-1424)  
-GFS-

MARMATION "C"  
4380 (-1471)  
-GFS-

4300	5-SEAF-FAUSE-DRY ABOVE 570-OUT-CHIMNEY
	SH, BLACK CARB. VARI-COLOR STILL CARRYING ABOVE COM 6500/7500
	SS, WHT COY - WEN - COLORED - VAD 6000/7000/8000
	SH, ABUND VARI - COLOR - STAY 3500/4500/5500
	SH, DARK CARB
	SH, GRU - GR. FINE
	LS, WHT - GR. FINE - V-COMER FUND - SOL - WASH - TO - GIVE 5000/6000/7000
	LS, ADA - POK SHOD IN DEYS MOR IN CARB
	LS, A/A - MOR IN MICR - FINE SH, ABUND - WASH - COLO LS, WHT, GR. FINE - WASH - WEN - SH, WASH - WASH - WASH
	LS, ADA - FINE - WASH - WASH - WASH
	LS, CAN-TM - GR. SING - WASH FUND - WASH - WASH - WASH - WASH 6000/7000/8000
4400	LS, DNT - BIRT - SING - CHARY TO - WEN - SUN

DST #7 (4410 - 4450)  
30" - 30" - 30" - 30"  
TF, VAD - WASH - WASH

PAWJEE

4422 (-1475)

MYRIK STAM

4482 (-1305)

EDNET 5057

4464 (-1515)

LENE CHALK SH

4488 (-1541) - CFS

JOHNSON BME

SH, BLACK CARB

SH, TAN-COOR-ORANGE, GRT, GRU, ARGIL

LS, UNT, LT, GRT, SING - FA, 284  
FSSL - 9 SGRD, F-000R - DRIF  
9200 FLUR

LS, A7A - OIL IS SLACK BUT USED  
4422 - FA - SGRD TO 2041 - 9500  
STRONG 000R

SH, BLACK CARB  
SH, GRY TO DK GRY

LS, TAN GRT - SING/MOIT - FSSL -  
1-001, 04-004, 9500 - FRY -  
9-000, 000R - BRIGHT WHT TO  
9-010, FUR

SH, BLK CARB

LS, CRN-LT GRY - SING/SU - WHITE  
F - SGRD - P - FSSL - GRILLAR VLN  
F - 22-000 STR - STORM 000R  
(NO FUR)

LS, A7A

SH, BLACK CARB

LS, CRN GRY - CRATO - XCN - 000R - F

4500

LS, GRT - SING/MOIT - MICRO - XCN  
FA - SGRD - FSSL - NO SING

LS, UNT - LT - GRY - SING/SU - WHITE  
FA - SGRD - FSSL - NO SING

LS, CRN - TAN - SGT - FSSL - GRASSLS  
FA - SGRD - FSSL - S - LI - FLAVOR  
FAINT 000R

SH, VARI COLOR

FF - UNBLOWN - NO RETURN

REC: 5 MPO  
HP: 2302  
FFP: 53-578  
LSIP: 327  
BMT: 1270  
FHP: 2197  
FFP: 58-00  
FSP: 304  
CML: 4200

VIS: 57 WT 9.3 WLB.0  
CAL: 3400 LCM: 14

057-48 (-4500, -4560)  
30" - 30" - 30" - 30"  
IF: WK 3078 - DIED IN 20" - No Return  
FF: NO. 000R - NO RETURN  
REC: 5 MPO  
HP: 2346  
FFP: 21-23  
LSIP: 65  
BMT: 130  
FHP: 2191  
FFP: 29-24  
FSP: 57  
CAL: 3700 (CYS)

9587 (1584)

MARROW - 5 INCH

4546 (-159)

MISSISSIPPIAN

4565 (-1615)

4600

LS. WHT. GRAY - LOOK SIMPLY  
ORIGHT WHT. - SLT - 500 - 1000  
SLT - 500 - 1000 - 1000 - 1000  
LS. (A) A - 1 - STRONG - 1000 - 1000  
FLUR. - 500 - 1000 - 1000 - 1000  
NEAR - MARINE - NOT IN CHANNEL

LS. (A) A - PEREGRIN - SHALE - 1000 - 1000  
TRIP - STILL - CARRYING - 500 - 1000  
LS. WHT. GRAY - LOOK SIMPLY  
ORIGHT WHT. - SLT - 500 - 1000  
SLT - 500 - 1000 - 1000 - 1000  
LS. (A) A - 1 - STRONG - 1000 - 1000  
FLUR. - 500 - 1000 - 1000 - 1000  
NEAR - MARINE - NOT IN CHANNEL

15: 87 BT: 9.3 WL: 8.8  
CAL: 3400 ICM: 2 #  
817 TRIP: 1 DST BIT IS SHOT

LS. WHT. GRAY - LOOK SIMPLY  
ORIGHT WHT. - SLT - 500 - 1000  
SLT - 500 - 1000 - 1000 - 1000  
LS. (A) A - 1 - STRONG - 1000 - 1000  
FLUR. - 500 - 1000 - 1000 - 1000  
NEAR - MARINE - NOT IN CHANNEL

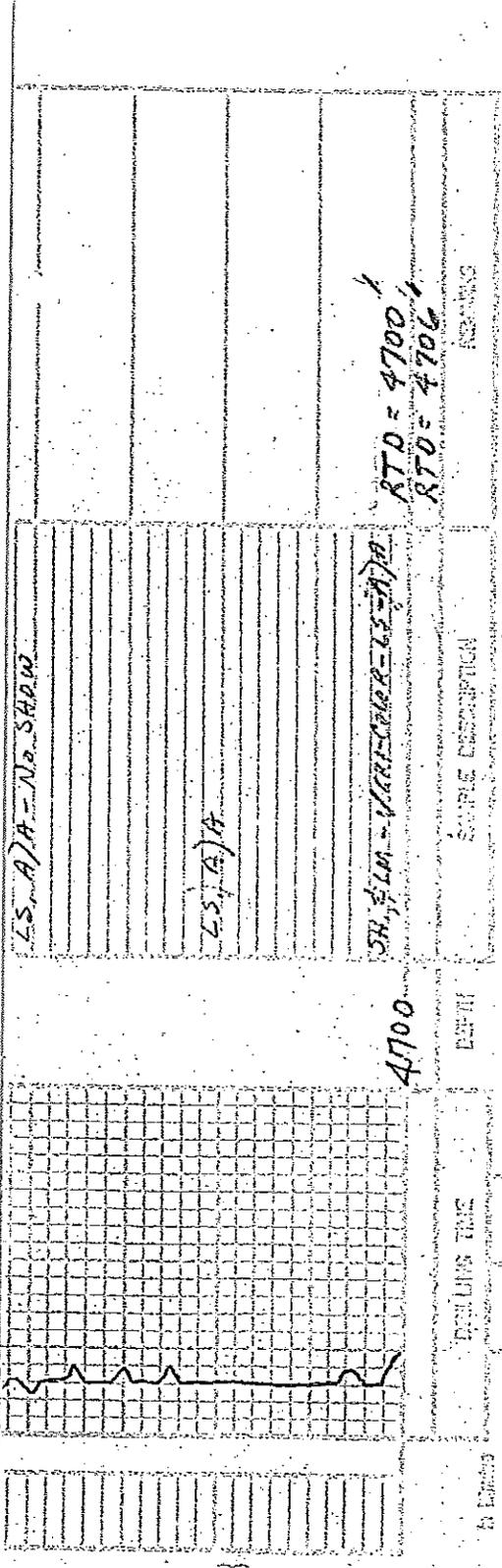
LS. WHT. GRAY - LOOK SIMPLY  
ORIGHT WHT. - SLT - 500 - 1000  
SLT - 500 - 1000 - 1000 - 1000  
LS. (A) A - 1 - STRONG - 1000 - 1000  
FLUR. - 500 - 1000 - 1000 - 1000  
NEAR - MARINE - NOT IN CHANNEL

LS. (A) A - 1 - STRONG - 1000 - 1000  
FLUR. - 500 - 1000 - 1000 - 1000  
NEAR - MARINE - NOT IN CHANNEL

LS. (A) A - 1 - STRONG - 1000 - 1000  
FLUR. - 500 - 1000 - 1000 - 1000  
NEAR - MARINE - NOT IN CHANNEL

LS. (A) A - 1 - STRONG - 1000 - 1000  
FLUR. - 500 - 1000 - 1000 - 1000  
NEAR - MARINE - NOT IN CHANNEL

LS. (A) A - 1 - STRONG - 1000 - 1000  
FLUR. - 500 - 1000 - 1000 - 1000  
NEAR - MARINE - NOT IN CHANNEL



4700

ES/A/A

RETENTION TIME

0 5 10 15 20

ES/A/A - No. SHAW  
 ES/A/A  
 SHAW - VARI-COR-12-A/A

SAMPLE DESCRIPTION

RTD = 4700  
 RTD = 4700

RTD