PATRICK J. DEENIHAN
Licensed Geologist No. 234
4002 Sheridan Circle (316) 663-2681 Wichita, Ks. 67228

GEOLOGIST'S REPORT
DRILLING TIME AND SAMPLE LOG

OPERATOR: ATLAS OPERATING, LLC
LEASE: B & A SMITH # 5-8
FIELD: SPIVEY-GRABS-BASIL
LOCATION: 1700' FNL & 1650' FEL
SEC. 8 TWP. 31S RGE. 8W
COUNTY: HARPER STATE: KANSAS
CONTRACTOR: VAL ENERGY, INC. RIG #3
COMM. 1-19-11 COMP. 1-25-11
TD 4547' LOG TD 4549'
SAMPLES SAVED FROM N/A TO N/A
DRILLING TIME KEPT FROM 3600' TO RTD
SAMPLES EXAMINED FROM 3900' TO RTD
GEOLOGICAL SUPERVISION FROM 3580' TO RTD
MUD UP 3235' TYPE MUD CHEMICAL
API # 15-077-21730-00-00

ELEVATION
KB 1655'
DF
GL 1645'
Measurements Are All From K.B.

CASING RECORD
SURFACE 8 5/8" @ 237'-w/200 sxs
PRODUCTION 4 1/2" @ 4549'

WELL LOG SURVEYS
SUPERIOR
DUAL COMP POROSITY
DUAL INDUCTION
MICRO

FORMATION	LOG TOP	LOG DATUM	SAMPLE TOP	SAMPLE DATUM	STRUCT COMP
LANSING	3619	(-1962)	3616	(-1961)	-6
STARK SHALE	4058	(-2403)	4056	(-2401)	-13
CHEROKEE SH.	4298	(-2643)	4297	(-2642)	-11
MISSISSIPPIAN	4394	(-2739)	4392	(-2737)	-29

PIONEER EXPLORATION'S B&A SMITH # 4-8; 100'S OF NE.NW.NE; SEC 08-31-08W

REMARKS: IT WAS RECOMMENDED THAT 4 1/2" CSG BE SET ON THE B&A SMITH # 5-8 TO FURTHER EVALUATE THIS WELL. THIS WAS RECOMMENDED AS A RESULT OF STRONG SAMPLE SHOWS, GAS DETECTOR MEASUREMENTS & E-LOG ANALYSIS.

PATRICK J DEENIHAN
PETROLEUM GEOLOGIST

LEGEND

Anhydrite, Salt, Sandstone, Shale, Coal, Limestone, Dolomite, Chert, Dolomite

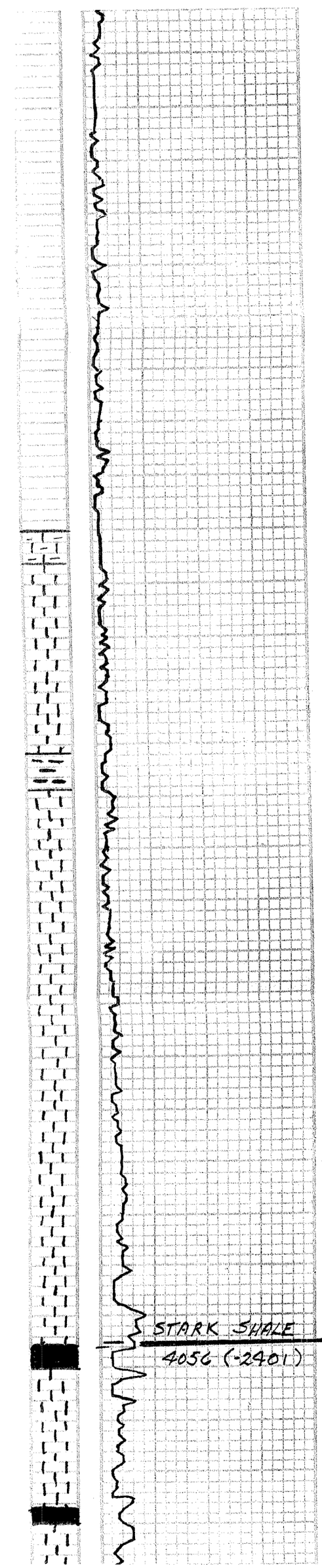
SCALE 2" = 100'

Depth	Sample Description	Remarks, drill stem tests, etc.
	01-19-11 - MIRU	
	01-20-11 - SPUD	
	01-21-11 - 365'	
3600		
	01-22-11 - 1984'	
	01-23-11 - 3327'	
	01-24-11 - 4240'	
	01-25-11 - 4547'	

Drilling time in minutes

LANSING
3616 (-1961)

Survey	Drilling time in minutes	DEPTH	Sample Description	Remarks, drill stem tests, etc.
			01-19-11 - MIRU	
			01-20-11 - SPUD	
		3600	01-21-11 - 365'	
			01-22-11 - 1984'	
			01-23-11 - 3327'	
			01-24-11 - 4240'	
	LANSING		01-25-11 - 4547'	
	3616 (-1961)			
		50		
		3700		
		50		
		3800		
		50		



50

3900 LS., WHT TO LT GRY - OOS TO CHALKY - ROUND GRY SHALE

LS., WHT TO CRM TO GRY - DENSE CRYPTO-XLN TO P-FN-XLN

LS., A/A.

SH., GRY'S

50

LS., CM-TAN - FSSL, OOL, OOL & CHALKY

LS., CRM-TAN-FSSL & CHALKY

4000 LS., CRM-LT GRY, FN-XLN, CRYPTO-XLN & SLI CHERTY

LS., CRM-TAN SUB-CHALKY, SLI-FSSL - V DENSE IN PT.

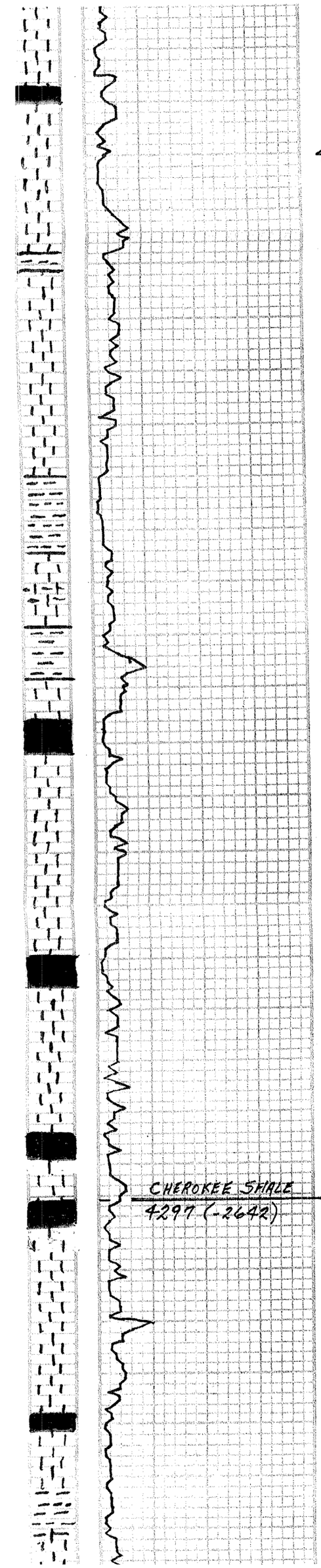
LS., CRM-TAN-FN-XLN-SUB-CHALKY SLI-FSSL-NO SHOW

50

SH., BLACK CARB

LS., CRM-TAN- FSSL TO OOL - SLI-DOLO TO CHALKY - NO SHOW

SH., BLACK CARB



SH., BLACK CARB

4100 LS., WHT-CRM-CHALKY TO SLI-FSSL & EDGE STN-NO FREE OIL NO ODOR.

LS., A) A W) A BLND WHT OOC LS. NO SHOW

SH., BRN & GRY

LS., CRM-FSSL TO OOC,

50 LS., CRM-TAN-SLNG-DENSE FN-XLN, SLI-FSSL & SUB-CHALKY

SH., BLACK & DK GRY-ARGIL

LS., CRM-GRY-FN-XLN-SUB-CHALKY

SH., DK GRY-ARGIL

SH., GRYS & BRN-ARGIL

4200 SH., BLACK CARB

SH., GRY & GRN-SILTY TO ARGIL

VIS: 46
WT: 9.3
WL: 9.6
CHL: 5,000
LCM: 3#

LS., WHT CRM & LT GRY-FN-XLN TO SLI-FSSL

50 SH., BLACK CARB & GRY-ARGIL TO SLI-SILTY

LS., WHT-CRM-TAN-DENSE FN-XLN NO SHOW

SH., BLACK & GRN

LS., TAN-GRY-DENSE FN-XLN

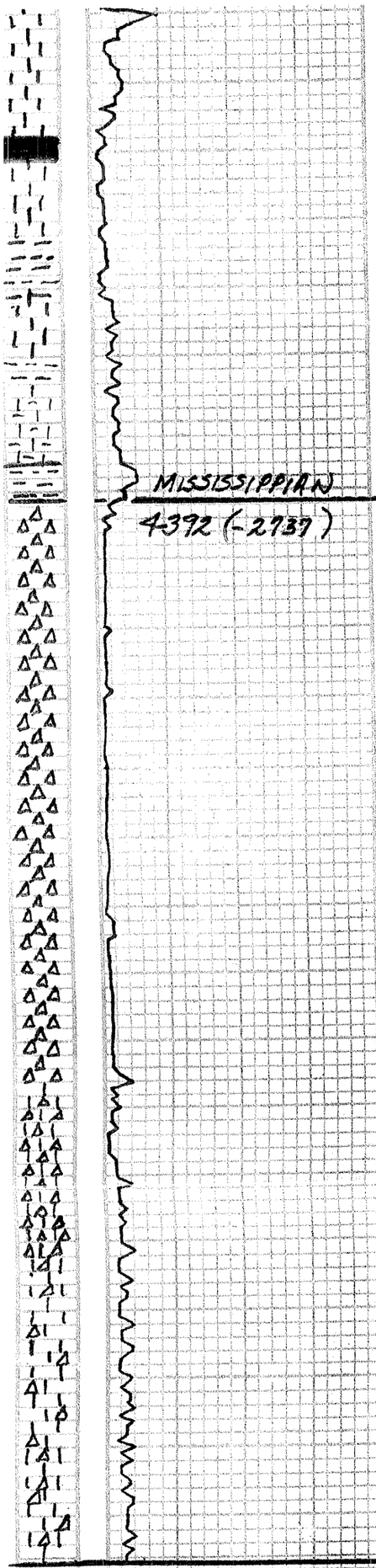
CHEROKEE SHALE
4297 (-2642) 4300 BLACK CARB SHALE

SH., GRY & GRN

LS., TAN-FN-XLN-NO SHOW-STILL CARRYING ALOT OF SHALE

SH., BLACK CARB TO GRY-ARGIL

50 SH., VARI-COLOR.



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SH., BLACK CARB TO GRY-ARGIL

SH., VARI-COLOR.

SH., ABUND. VARI-COLOR

MISSISSIPPIAN

4392 (-2739)

4400

CH., FRESH WHT TO SLI-WEA TRC OF BRN EDGE ON A FEW PCS

CH., FRESH WHT TO LT GRY TRIP Δ V.G-OIL SAT-STRONG ODOR F-SLFGO - GOOD FLUOR.

522 UNIT GAS KICK - CHROM

312 RECYCLE

360 UNIT GAS KICK - CHROM

CH., AS/ABOVE - WITH INCREASE REO V-GD INTER-XLN Ø-VUG IN PT.

300 UNIT RECYCLE

CH., V. SAT & TRIP - STRONG ODOR & G-FLUOR. INTER GRANULAR TO VUG Ø

50

CH AS/ABOVE

CH., WEA WHT TO LT GRY - PPT-VUG Ø FSLFGO - FAIR ODOR - DECREASE IN RARE GAS BUBBLES.

CH., A/A WITH WHT FRESH LS.

CH., V. TRIP - V-GOOD PPT. VUG & INTER-XLN. SHOW IS SLI-DIMINISHING V-STRONG GASSY ODOR

4500

CH., FRESH WHT - P-Ø SCATT. SPOTTY EDGE STAIN - FAINT ODOR.

CH., A/A WITH ABUND VARI-COLOR SH'S.

50

RTD REACHED @ 2:00 P.M. ON 1-24-11

RTD = 4547' (-2892)

LTD = 4549' (-2894)

4600