Company: Address: Contact Geologist:	OPERATOR Murfin Drilling Company 250 N. Water Suite 300 Wichita, KS 67202 Shauna Gunzelman 246 267 2241		
Well Name: Location: API:	Verna Poore # 1-7 Sec. 7 - T1S - R35W 15-153-21046-0000	Field	Wildest
State:	Kansas Co	puntry:	USA
	DRILLING COMPANY, IN WICHITA, KANSAS		
	Scale 1:240 Imperial		
Well Name: Surface Location: Bottom Location: API: License Number:	Verna Poore # 1-7 Sec. 7 - T1S - R35W 15-153-21046-0000 20606		
Spud Date:	8/9/2014 Rouding County	Time:	2:30 PM
Drilling Completed: Surface Coordinates: Bottom Hole Coordinates:	8/16/2014 660' FNL & 1980' FEL	Time:	4:35 PM
Ground Elevation: K.B. Elevation: Logged Interval: Total Depth: Formation: Drilling Fluid Type:	3210.00ft 3215.00ft 3800.00ft 4467.00ft Lansing/Kansas City Chemical/Fresh Water Gel	To:	4467.00ft
	SURFACE CO-ORDINATES		
Well Type: Longitude: Latitude: N/S Co-ord: E/W Co-ord:	Vertical 660' FNL 1980' FEL		

	Keith Rea	vis		
	Consulting Geo	logist		
Company: Address:	Keith Reavis, Inc. 3420 22nd Street Great Bend, KS 67530			
Phone Nbr: Logged By:	620-617-4091 KLG #136	Name:	Keith Reavis	
	CONTRACTO	२		
Contractor: Rig #: Rig Type: Spud Date: TD Date: Rig Release:	Murfin Drilling Company 7 mud rotary 8/9/2014 8/16/2014	Time: Time: Time:	2:30 PM 4:35 PM	
	ELEVATIONS	;		
K.B. Elevation: K.B. to Ground:	3215.00ft 0 5.00ft	Ground Elevation:	3210.00ft	
	NOTES			

Due to results of Drill Stem Tests #3 and #4, it was determined that 5 1/2" production casing be set and cemented and the Verna Poore #1-7 be further evaluated through perforations and stimulation.

The samples from this well were saved and will be available for review at the Kansas Geological Survey well sample Library located in Wichita, KS.

Respectfully submitted, Keith Reavis

Murfin Drilling Company daily drilling report

DATE	7:00 AM DEPTH	REMARKS
8/11/2014		Geologist Keith Reavis on location @ 2230 hrs, 3800 ft, bit trip
08/12/2014	3900	drilling ahead, Foraker, Stotler, show in Stotler warrants test, TOH w/bit, conduct and complete DST #1, successful test, TIH w/bit, resume drilling
08/13/2014	4035	drilling ahead, Topeka, Oread, Lansing, show in A & B warrant test, short ctch, TOH for DST $\#2$
08/14/2014	4210	TIH w/tools, conduct DST #2, complete DST #2, successful test, TIH w/bit, resume drilling, show in D and G warrant test, TOH for DST #3, conduct DST #3
08/15/2014	4290	complete DST #3, successful test, drill ahead, H, I, J, Stark, shows warrant test, TOH w/bit, in w/tools
08/16/2014	4390	conduct and complete DST #4, successful test, back in hole with PDC bit, rathole ahead to TD, low jack shaft broke at bearing on drawworks at 4467, hook up to high jack, limped out laying down (25 jts.) until weight down, stood balance of string back, lay down collars
08/17/2014	4467	conduct open hole logging operations, geologist off location @ 0530 hrs

Murfin Drilling Company well comparison sheet

		DRILLING	WELL			COMPARIS	ON WELL	
	MD	C - Verna	Poore #1	7	1	DC - Sut	ton #3-8	1
		660' FNL	& 1980' I	FEL		1780' FN	L & 420'	FWL
		Sec 7-T1S	-R35W			Sec 8-T1	S-R35W	
							Struct	ural
	3215	KВ			3219	KВ	Relati	onship
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log
Stotler	3886	-671	3884	-669	3886	-667	-4	-2
Topeka	3954	-739	3947	-732	3950	-731	-8	-1
Oread	4060	-845	4060	-845	4058	-839	-6	-6
Lansing	4170	-955	4171	-956	4170	-951	-4	-5
Lansing D	4223	-1008	4222	-1007	4223	-1004	-4	-3
Lansing H	4324	-1109	4324	-1109	4324	-1105	-4	-4
Stark	4384	-1169	4380	-1165	4380	-1161	-8	-4
Base KC	4444	-1229	no log t	ор	4437	-1218	-11	-
Total Depth	4467	-1252	4466	-1251	4513	-1294	42	43

	Drill Stem	lest #1				
	DRILL STEM TES		ORT			
RILUBITE	Murfin Drilling Co. Inc.		7-1-3	5 Rawli	ns Co KS	
ESTING , INC	250 N Water STE 300 Wichita Ks 67202		Verr Job T	ia 1-7 icket: 5911	14 E	DST#:1
	ATTN: Keith Reavis		Test	Start: 2014	1.08.12 @ 14:1	3:15
GENERAL INFORMATION:						
Formation:StutlerDeviated:NoWhipstock:Time Tool Opened:16:15:00Time Test Ended:21:00:00	ft (KB)		Test Teste Unit N	Type: Co r: Mik lo: 65	nventional Bott æ Roberts	om Hole (Initial)
Interval: 3818.00 ft (KB) To 3	940.00 ft (KB) (TVD)		Refer	ence Eleva	ations: 32	215.00 ft (KB)
Total Depth: 3940.00 ft (KB) (T Hole Diameter: 7.88 inches Hol	VD) e Condition: Fair			KB to 0	32 GR/CF:	210.00 ft (CF) 5.00 ft
Start Late: 2014.08.12 Start Time: 14:13:15 TEST COMMENT: IF:Built to w eak IS:No return blo FF:No blow FS:No return bk	End Time: End Time: surface blow w	2014.08.12 21:00:00	Last Callo. Time On Bt Time Off B	: m: 20 tm: 20	2014. 14.08.12 @ 16 14.08.12 @ 18	.08.12 :14:30 :55:00
Pressure vs.	líme	1	PRI	ESSURE	SUMMARY	1
ETERAG294	BO Imputer	Time (Min.) 0 1 32 80 80 91 160 161	Pressure (psig) 2042.20 73.72 97.99 269.41 77.52 78.96 387.10 1962.65	Temp (deg F) 125.55 Ir 125.37 C 126.01 S 127.39 E 127.33 C 127.54 S 129.06 E 128.90 F	Annotation hitial Hydro-stat Dpen To Flow (1 Shut-ln(1) Dpen To Flow (2 Shut-ln(2) End Shut-ln(2) End Shut-ln(2) Enal Hydro-stat	ic)) ?) ic
Recovery			L	Gas	Rates	
Length (ft) Description	Volume (bbl)			Choke (inch	es) Pressure (psig	g) Gas Rate (MMcf/d)
2.00 mud 100% m	0.01			_		

DRILLI STEM TEST REPORT Murin Dilling Co., in: 7-15-35W 2014 Water STE 300 Veria #1-7 Job Title: S150 Test Stat: 2014 08 13 (§ 23 49:00 Test State Boo Boo Dift (KB) (TVD) State Dift (KB) (TVD) S		Drill Ste	em Test #2				
Aurfin Dilling Co., Inc 7.4S-35W 2000 Test STING, J.M. Murfin Dilling Co., Inc 7.4S-35W 2000 ATTN: Keth Reavis Test Start: 2014.08.13 @ 23.49.00 2011 ATTN: Keth Reavis Test Start: 2014.08.13 @ 23.49.00 2012 ATTN: Keth Reavis Test Type: Conventional Bottom Hole (Initial) more Tool Opened: 2005 00 Test Start: 2014.08.13 @ 23.49.00 me Test Ended: 07.40.00 Test Start: 2014.08.13 @ 23.49.00 terval: 4130.00 r (KB) To 4210.00 r (KB) (TVD) Test Start: 2014.08.14 Ge (NtB) add Depti: 4210.00 r (KB) (TVD) Bit Sch Spig @ 1131.00 r (KB) add Depti: 2014.08.13 End Date: 2014.08.14 2014.08.14 Est Sch Spig @ 1131.00 r (KB) Time: 2014.08.13 End Time: 2014.08.14 (g 05.12.30 EST COMMENT: 30 - IF - Weak surface blow blow Time Orf Bim: 2014.08.14 (g 05.12.30 EST COMMENT: 30 - Fr - Weak surface blow Time Orf Bim: 2014.08.14 (g 05.12.30 Time Orf Bim: 2014.08.14 (g 05.12.30 Time Orf Bim: 2014.08.14 (g 05.12.30 EST COMMENT: 30 - Fr - Weak surface blow Time Orf Bim: 2014.08.14 (g 05.12.30 Time Orf Bim: 2014.08.14 (g 05.12.30 Time Orf Bim: 2014.08.14 (g 05.12.30 EST COMMENT: 30 - Fr - Weak surface blow Time Orf Bim: 2014.08.14 (g 05.12.30 Time Orf Bim: 2014.08.14 (g 05.02.30 Time Orf Bim: 2014.08.14 (g 05.02.30 <th></th> <th>DRILL STEM TE</th> <th>EST REP</th> <th>ORT</th> <th></th> <th></th> <th></th>		DRILL STEM TE	EST REP	ORT			
Verna #1-7 Job Teket: 60130 DST#: 2 ATTN: Keith Reavis Test Bart: 2014.08.13 @ 23.49:00 SENERAL INFORMATION: Test Stat: 2014.08.13 @ 23.49:00 SENERAL INFORMATION: Test Stat: 2014.08.13 @ 23.49:00 Test Stat: 1000 ft (KB) To 4210.00 ft (KB) (TVD) Test Type: Conventional Bottom Hole (Initial) Test Type: 1000 ft (KB) 1000 ft (KB) (TVD) Test Type: 2315.00 ft (KB) Isterval: 1000 ft (KB) 100 ft (KB) (TVD) Test Type: 2315.00 ft (KB) Isterval: 1000 ft (KB) 1000 ft (KB) (TVD) Test Type: 2014.08.14 @ 000.00 psig Test Bart: 2014.08.14 @ 00.14		Murfin Drilling Co., Inc		7-1	S-35W		
Vinitial, N.9, 01202 Job Ticket: 60130 DSTF: 2 ATTN: Keith Reavis Test Start: 2014.08.13 @ 23.49:00 SEENERAL INFORMATION: memory remain: LKC "A&B" evalued: No Willind: No Milling: No Milling: No Milling: Test Start: 2014:00:113 @ 23.49:00 Iterval: Fride March Test Ended: 07.40:00 Unit No: B6 Iterval: 4130.00 ft (KB) Capacity: 8000.00 psig atta Date: 2014.08.14 @ 005.12.30 Time: 2014.08.14 @ 005.12.30 EST COMMENT: 30 - FF: Surface blow B0 - FF: - Noreturn B0 B0 - FF: - Noreturn B0 B0 - FF: - Noreturn B0 B0 - FF: - Noreturn B1 B0 - FF: - Noreturn B1 B0 - FF: - Noreturn B1 B1 - Noreturn B1 B2 - FF: - Noreturn B1 B2 - FF: - Noreturn B1 B1 - Noreturn B1 B2 - FF: - Noreturn <td< td=""><td>ESTING , INC.</td><td>250 N. Water STE 300</td><td></td><td>Ve</td><td>rna #1-7</td><td>7</td><td></td></td<>	ESTING , INC.	250 N. Water STE 300		Ve	rna #1-7	7	
The result near Test call 2014 06:13 (2:23.45.00 SENERAL INFORMATION: Test Type: Conventional Bottom Hole (hilia) Treating: LKC*A&F* teviated: No Whipstock: ft (KB) me Test Ender: 2014 00:14 (KB) (TVD) Test Type: Conventional Bottom Hole (hilia) terval: 4130.00 ft (KB) (TVD) Reference Bevations: 3215:00 ft (KB) terval: 7.88 incheside Condition: Cool KB to GROCF: 500 ft (KB) test Date: 2014:08:14 (2:00:00 psig) 2014:08:14 (2:00:00 psig) 2014:08:14 (2:00:00 psig) test Date: 2014:08:14 (2:00:00 psig) The of Bm: 2014:08:14 (2:00:00 psig) test Date: 2014:08:14 (2:00:00 psig) Time Of Bm: 2014:08:14 (2:00:00 psig) test Date: 2014:08:14 (2:00:00 psig) Time Of Bm: 2014:08:14 (2:00:00 psig) test Date: 2014:08:14 (2:00:00 psig) Time Of Bm: 2014:08:14 (2:00:00 psig) test Date: 2014:08:14 (2:00:00 psig) Time Of Bm: 2014:08:14 (2:00:00 psig) test Date: 2014:08:14 (2:00:00 psig) Time Of Bm: 2014:08:14 (2:00:00 psig) test Date: 2014:08:14 (2:00:00 psig) Time Of Bm: 2014:08:14 (2:00:00 psig) test Date: 2014:08:15 (2:00 psig) Time Of Bm: </td <td></td> <td>ATTN: Keith Beevie</td> <td></td> <td>Job</td> <td>Ticket: 60</td> <td>0130 014.09.12 @ 0</td> <td>DST#: 2</td>		ATTN: Keith Beevie		Job	Ticket: 60	0130 014.09.12 @ 0	DST#: 2
EINERAL INFORMATION: ormation: LKC *A8P' owner tool Opened: 02:05:00 Test Type: Conventional Bottom Hole (hitial) me Test Brided: Dorosonal Burnann Unit No: 66 tterval: 4130.00 ft (KB) To 210.00 ft (KB) Type: Conventional Bottom Hole (hitial) terval: 4130.00 ft (KB) To 210.00 ft (KB) Type: Conventional Bottom Hole (hitial) terval: 4130.00 ft (KB) To 210.00 ft (KB) Type: Conventional Bottom Hole (hitial) terval: 4130.00 ft (KB) To 210.00 ft (KB) 2210.00 ft (KB) 2210.00 ft (KB) tertal #: 856 prigition (B 4131.00 ft (KB) Capacity: 8000.00 prigition (CF) Extended: 2014.08.14 @ 02:08.30 Time Of Brm: 2014.08.14 @ 05:12.30 EST COMMENT: 30 - FF - Noretum 30 - FF - Weak surface blow OFF - Noretum Surface blow boult to 14** 60.02 213.08 ft (AB) 214.08 ft (AB) Officient FF - Weak surface blow Officient FF - Weak surface blow	and .	ATTN. Keilli Reavis		Tes	t Start. 20	J14.06.13 @ 2.	5.49.00
Orrestor: LKC *A&F weitate: No Whijstock: ft (KB) ime Tool Opened: 02:09:00 iserial #: 8874 iserial #: 2014:00:13 East Endet: 2014:00:14 iserial #: 2014:00:14 East Colume East Call iserial #: 2014:00:13 East Colume East Call iserial #: 2014:00:14	GENERAL INFORMATION:						
me Tod Opened: 02:09:00 me Tod Opened: 07:40:00 ther val: 4130.00 ft (KB) TO 210.00 ft (KB) (TVD) old Depth: 4210.00 ft (KB) (TVD) old De	Pormation: LKC "A&B" Deviated: No Whipstock:	ft (KB)		Tes	t Type:	Conventional B	ottom Hole (Initial)
Preset Ended: 07:40:00 Unit No: 66 Attorval: 4130.00 ft (KB) To 4210.00 ft (KB) (TVD) Reference Elevations: 3210.00 ft (KB) old Depth: 7.88 inchesHole Condition: Good KB to GR/CF: 5.00 ft istrial #: 8374 Inside 2110.00 ft (KB) CEpacity: 8000.00 psig istrial #: 2014.08.13 End Date: 2014.08.14 2014.08.14 2014.08.14 istrial Time: 23.50:00 End Time: 07.40:00 Time On Bim: 2014.08.14 20.20.8:30 EST COMMENT: 30 - Fr - Weak surface blow 60 - Fr - Weak surface blow 07.40:00 Time On Bim: 2014.08.14 20.512.30 PRESSURE SUMMARY Time 0.6 - Fr - Weak surface blow 0.6 - Fr - Weak surface blow <td>Time Tool Opened: 02:09:00</td> <td>dod a Noem dhe P2</td> <td></td> <td>Tes</td> <td>ter:</td> <td>Donovan Baum</td> <td>nann</td>	Time Tool Opened: 02:09:00	dod a N oem dhe P 2		Tes	ter:	Donovan Baum	nann
Harvat: 4130.00 ft (KB) TVD; Reference Elevations: 3212.00 ft (KB) old Deptit: 4210.00 ft (KB) (TVD) Reference Elevations: 3212.00 ft (CF) old Deptit: 4210.00 ft (KB) (TVD) Reference Elevations: 3212.00 ft (CF) terial #: 85.65 psig @ 4131.00 ft (KB) Capacity: 8000.00 psig tart Time: 2014.08.13 End Date: 2014.08.14 Last Calib.: 2014.08.14 @ 02.08.30 Time Off Btm: 2014.08.14 @ 02.08.30 Time Off Btm: 2014.08.14 @ 02.01.30 Time Off Btm: 2014.08.14 @ 05.12.30 EST COMMENT: 30 - IF - Surface blow bulk to 1/4" 60 - SI - No return 30 - FF - Weak surface blow 7.69 Time Off Btm: 2014.08.14 @ 05.12.30 Experiment Time PRESSURE SUMMARY Time Off Btm: 2014.08.14 @ 05.12.30 Experiment Time Off Btm: 2014.08.14 @ 05.12.30 Experiment Time Off Btm: 2014.08.14 @ 05.12.30 Experiment Time Tem Off Btm: 2014.08.14 @ 05.12.30 Off Btm: 2014.08.14 @ 05.14 <td< td=""><td>Time Test Ended: 07:40:00</td><td></td><td></td><td>Unit</td><td>No:</td><td>66</td><td></td></td<>	Time Test Ended: 07:40:00			Unit	No:	66	
Value Deprint 121000 ft (KB) (1V0) S21000 ft (KB) ierial #: 8874 Inside KB to GROCE 5.00 ft ierial #: 8874 Inside Capacity: 8000.00 psig tart Date: 2014.08.14 Lest Calib: 2014.08.14 tart Time: 23:50:00 End Date: 014.08.14 Lest Calib: 2014.08.14 tart Time: 23:50:00 End Time: 07:40:00 Time Off Bim 2014.08.14 EST COMMENT: 30 - IF - Surface blow built to 14" 00 Time Off Bim 2014.08.14 (@ 05:12:30) EST COMMENT: 30 - IF - Weak surface blow Bo - FSI - No return Time Off Bim 2014.08.14 (@ 05:12:30) PRESSURE SUMMARY Time Off Bim 2014.08.14 (@ 05:12:30) PRESSURE SUMMARY Time Pressure (Min) 0 Pressure Band Date: 10000 ft (KB) Out Mut Surface blow Band Date: 0 SURE SUMMARY Temp Annotation Mandation (Min) 120:5 Bit Stored 120:	Interval: 4130.00 ft (KB) To 42	210.00 ft (KB) (TVD)		Ref	erence ⊟e	evations:	3215.00 ft (KB)
Rerial #: 8874 Inside teres@RunDepth: 95.65 psig @ 4131.00 ft (KB) Capacity: 8000.00 psig tant Date: 2014.08.13 End Date: 2014.08.14 Last Calib: 2014.08.14 @ 02.08.30 tant Time: 23.50:00 End Time: 07.40:00 Time On Bim: 2014.08.14 @ 02.08.30 Time: 07.40:00 Time Of Bim: 2014.08.14 @ 05.12:30 EST COMMENT: 30 - FF - Surface blow Bit 1014/4" 60 - ISI - No return 30 - FF - Weaks surface blow Bit 116.12 120.91 0 FFI - No return 30 - FFI - No return 116.12 126.95 Instide 1 128.95 126.95 126.95 Instide Monotation 1 128.95 126.95 127.87 Subu + I(1) 90 233.83 128.97 End Shut + I(1) 121 95.65 127.87 Subu + I(2) 121 95.65 127.87 Subu + I(2) 121 95.65 127.87 Subu + I(2) 122 123.41 128.97 End Shut + I(2) 124	Hole Diameter: 7.88 inches Hole	e Condition: Good			KB t	to GR/CF:	5.00 ft
Pertain #: 5074 Inside ress@hunDeph: 9565 psip @ 4131 00 ft (KB) Capacity: 8000.00 psig tart Date: 2014.08.14 Last Calib:: 2014.08.14 @ 02:08:30 Time On Bitm: 2014.08.14 @ 02:08:30 Time On Bitm: 2014.08.14 @ 05:12:30 EST COMMENT: 30 - IF - Surface blow built to 1/4": 60 - ISI - No return 30 - FF - Weak surface blow 30 - FF - Weak surface blow 60 - ISI - No return 30 - FF - Weak surface blow 10 - FSI - No return 30 - FF - No return 30 - FF - No return 70 - FSI - No return 70 - FSI - No return 30 - FF - Weak surface blow 60 - ISI - No return 71 - 12:222 Initial Hydro-static 11 16 12 - 12:02 +	0						
Description Description Control (New) Control (New	Serial #: 88/4 Inside Press@RunDenth: 95.65.nsid	@ 4131.00 ft (KB)		Canacity			8000.00 psig
tart Time: 23:50:00 End Time: 07:40:00 Time On Bim: 2014.08.14 @ 02:08:30 Time Off Bim: 2014.08.14 @ 05:12:30 EST COMMENT: 30 - Fr - Surface blow built to 1/4" EST COMMENT: 30 - FF - Weak surface blow Both or burn: 30 - FF - Weak surface blow Both or burn: PRESSURE SUMMARY Time (Mn.) Pressure (Mn.) Annotation 11 12:29 Initial Hydro-static 12:39:11 12:697 End Stut-hr(1) 90 233.83 126.97 End Stut-hr(1) 91 50.82 126.95 End Stut-hr(2) 121 95.65 127.27 Stut-hr(2) 121 95.65 127.27 Stut-hr(2) 122.42 Final Hydro-static Gas Rates Chele (inches) Value (kt) 200 Mud On thele (inches)	Start Date: 2014.08.13	End Date:	2014.08.14	Last Cali	b.:	20	14.08.14
Time Off Bitri 2014.08.14 @ 05.12:30 EST COMMENT: 30 - IF - Surface blow built to 1/4" 30 - FF - Weak surface blow 60 - FSI - No return Time PRESSURE SUMMARY Time of source Source 9 Source Source Source Time of source Source Source </td <td>Start Time: 23:50:00</td> <td>End Time:</td> <td>07:40:00</td> <td>Time On</td> <td>Btm: :</td> <td>2014.08.14 @</td> <td>02:08:30</td>	Start Time: 23:50:00	End Time:	07:40:00	Time On	Btm: :	2014.08.14 @	02:08:30
EST COMMENT: 30 - IF - Surface blow built to 1/4" 60 - ISI - No return 30 - FSI - No return 50 - FSI - No r					Dun.	2014.00.14 @	03.12.30
Image: Constraint of the second se	Pressure vs. 7	Time 8574 Temponature	Time	PI Pressure	RESSUF Temp	RE SUMMAF	RY
Image: Construction of the second			(Min.)	(psig)	(deg F)	7 unrotation	
Image: Second			m 0	2139.91 16.12	122.22	Initial Hydro-s	tatic
30 30 283.83 126.97 End Shut-In(1) 90 283.83 126.97 End Shut-In(2) 121 95.65 127.57 Shut-In(2) 182 213.41 128.97 End Shut-In(2) 184 2048.10 129.42 Final Hydro-static Gas Rates Choke (inches) Pressure (peig) Gas Rate (Mcdd) 2.00 Mud 0.01 Image: State (Mcdd) Image: State (Mcdd) 2.00 Mud 0.01 Image: State (Mcdd) Image: State (Mcdd)			31	28.95	124.65	Shut-In(1)	
Image: Second			9 0	283.83	126.97	End Shut-In(1)
Image: Second			m g 91	95.65	126.89	Shut-In(2)	(2)
Image: Second			a a 182	213.41	128.97	End Shut-In(2	?)
Image: Second			184	2048.10	129.42	Final Hydro-s	tatic
Image: Second		m 1					
Image: Second strain			m				
Image: Second		CAM					
Recovery Length (ft) Description Volume (bbl) 2.00 Mud 0.01	kg 2014 Tine (Hous)			e		~	
Length (ft) Description Volume (bbl) 2.00 Mud 0.01	Recovery			- 10 J	Ga	s Rates	
2.00 Mud 0.01	Longth (ft) Description) (aluma (bbl)			Choke (i	inches) Pressure (psig) Gas Rate (Mcf/d)
	Length (it) Description	Volume (bbi)				(SE)	1997
	2.00 Mud	0.01					
	2.00 Mud	0.01					
	2.00 Mud	0.01					
	2.00 Mud	0.01					
	2.00 Mud	0.01					

	DRILL STEM TEST F	REPORT
	Murfin Drilling Co. Inc.	7-1-35 Rawlins Co KS
ESTING, INC.	250 N Water STE 300	Verna Poore #1-7
	Wichita Ks 67202	Job Ticket: 60131 DST#: 3
NO.	ATTN: Keith Reavis	Test Start: 2014.08.14 @ 08:44:00

Deviated: Time Tool Ope Time Test End	No Whipstock: ened: 11:18:00 ded: 19:40:00	ft	(KB)		Tes Tes Unit	t Type: ter: t No:	Conventiona Donovan Ba 66	al Bottom Ho aumann	ıle (Initial)
Interval:	4188.00 ft (KB) To 42	90.00 ft (KB)	(TVD)		Ref	erence B	evations:	3215.00	ft (KB)
Total Depth: Hole Diameter	r: 7.88 inchesHole	/D) e Condition: G	Good			KB	to GR/CF:	3210.00 5.00	ft (CF) ft
Serial #: { Press@RunD Start Date: Start Time:	8874 Inside Depth: 613.49 psig 2014.08.14 08:45:00	@ 4189.0 End Da End Ti	0 ft (KB) ate: me:	2014.08.14	Capacity Last Cali Time On	r: ib.: Btm:	2014 08 14	8000.00 2014.08.15 @ 11:17:30	psig
TEST COM	1MENT: 30 - IF - Surface 60 - ISI - Return 60 - FF - Surfac 90 - FSI - Return	blow built to E built to 6 1/4 e blow built to built to BOB ir	30B in 3 1/2 min B0B in 4 min. 1 14 min.		Time Off	Btm:	2014.08.14	@ 15:22:00	
	Pressure vs. 7	ime			P	RESSU	RE SUMM	ARY	
2250	SCA Presure	S574 Temps	140 	Time (Min.) 0	Pressure (psig) 2206.57	Temp (deg F) 122.57	Annotatio	on o-static	
1750			- 120	1	185.41 365.78	122.21 134 55	Open To F	low(1)	
1500	A	11		91	1125.19	131.86	End Shut-I	h(1)	
120				9 1	382.18	131.38	Open To F	low(2)	
1000			100		613.49	137.22	Shut-h(2)	L (D)	
500 200 9 994 4 Thu Ag 20H			- 70 - 70	245	1990.10	134.00		0-512110	
	Recovery					Ga	, as Rates		
Length (ft)	Description		Volume (bbl)			Choke	(inches) Pressu	ure (psig) G	as Rate (Mcf/d)
252.00	MCO - 650 - 35M		1.83	18		(197)			
378.00	OCWM - 200 - 25W - 55I	M	5.30						
63.00	MCW - 80W - 20M		0.88						
378.00	MCO - 950 - 5M		5.30						
252.00	01 - 1000		3.53						
			ļ]						
			Drill Sten	n Test #4					
(Or)		DRILL	STEM TES	ST REP	ORT				
N/HU		Murfin Drillin	g Co. Inc.		7-1	-35 Rav	vlins Co K	(S	
	ESTING , INC.	250 N Wate	r STE300		Ve	rna Poo	ore #1-7		
		Wichita Ks			Job	Ticket: 6	0132	DST#:4	4
NO.		ATTN: Keit	th Reavis		Tes	t Start: 2	014.08.16 @	00:06:00	
whendy.							e e		

GENERAL INF	ORMATION:							
Formation:	LSG "G-J"							
Deviated:	No Whipstock:	ft (KB)		Test	Type:	Conventional	Bottom Hole	e (Initial)
Time Tool Opened	1: 02:57:00			Teste	er:	Donovan Bau	umann	
Time Test Ended:	10:19:00			Unit I	No:	66		
Interval: 4	288.00 ft (KB) To 43	90.00 ft (KB) (TVD)		Refe	rence 🖂	evations:	3215.00	ft (KB)
Total Depth:	4390.00 ft (KB) (T\	/D)					3210.00	ft (CF)
Hole Diameter:	7.88 inchesHole	Condition: Good			KBt	to GR/OF:	5.00	ft
Serial #: 8874	4 Inside							
Press@RunDepth	n: 534.07 psig	@ 4289.00 ft (KB)		Capacity:			8000.00	psig
Start Date:	2014.08.16	End Date:	2014.08.16	Last Calib	LC .	2	2014.08.16	
Start Time:	00:07:00	End Time:	10:19:00	Time On E	Btm:	2014.08.16 @	2 02:56:30	
				Time Off E	3tm:	2014.08.16 @	06:59:30	
TEST COMME	NT: 30 - IF - valve sh	ut						
	60 - ISI - Return I	ouilt to BOB in 10 mi.						
	60 - FF - Surface	blow built to BOB right after t	turning the tool					
	90 - FSI - Return	built to BOB in 30 min						
	Pressure vs. T	ime T		PR	ESSUF	RESUMMA	ARY	
E T	2574 Pressure	8574 Temperature	Time	Pressure	Temp	Annotatio	n	
			(Min.)	(psig)	(deg F)			







0	T	otal	Ga	s (u	nits	5)		100
		С	1 (u	nits)	<u> </u>		100
0		_ C	2 (u	nits	<u>,</u>		-	100
0		- C	3 iu	nits	<u>.</u>		<u> </u>	100
0	-	- c	4 (u	nite	<u>.</u>			100
			<u> </u>	Mor	gan	Mu	d c	hk
			-	@ 4	210) ft.		
				090	0 hi	's. 8	/14	/14
				Vis.	50	Wt.	9.4	ł
				PV	14	rP 1	4	
				WL	10.	0		
				Cak	(e 2	32		
	-			pН	9.0			
	-			CHI	_ 70	0 p	pm	
	-		-	Ca	50 p	pm		
	-		-	Sol	7.9	LCI	VI 4	#
				DM		0.00)	
				CM	C \$	165	66.0	0

