

# CHARLES SCHMALTZ

CONSULTING GEOLOGIST  
WICHITA, KANSAS

REPORT LOG  
GEOLOGIC

COMPANY: GORE OIL CO.  
WELL: SARVER 'A' #1  
FIELD: LATON

LOCATION: 330 FSL 1930 FWL  
SEC: 1 TWP: 9S RGE: 16W  
COUNTY: ROOKS  
STATE: KANSAS

AP #1: 15-163-24317-00-00  
LAND OWNER: MIDCO/SERVICE INC.  
CONTRACT: W.W. DRILLING RIG #12  
COMMENCED: 18 AUG 2016  
COMPLETED: 23 AUG 2016

STORAGE: 876 @ 211' PRODUCTION: NONE  
TOTAL DEPTH: 3565'  
TOTAL DEPTH: 3560'

FORMATION TOPS & STRUCTURAL POSITION

FORMATION	SAMPLE TOP	ELECTRIC LOG TOP	SHAPE-DRAWN	STRUCTURAL POSITION
ANHYDRITE - TOP	1312	1310	+165	+21
TOPEKA	2973	2973	-893	NL
OREAD	3137	3137	-1056	-12
HEEBNER	3199	3199	-1117	-11
TORONTO	3220	3220	-1137	-8
LANSING	3243	3243	-1160	-7
BKC	3505	3505	-1475	NL
TOTAL DEPTH			3565	-13

PRODUCTION: T95  
ELEVATION: 2075  
DRAINAGE: 2074  
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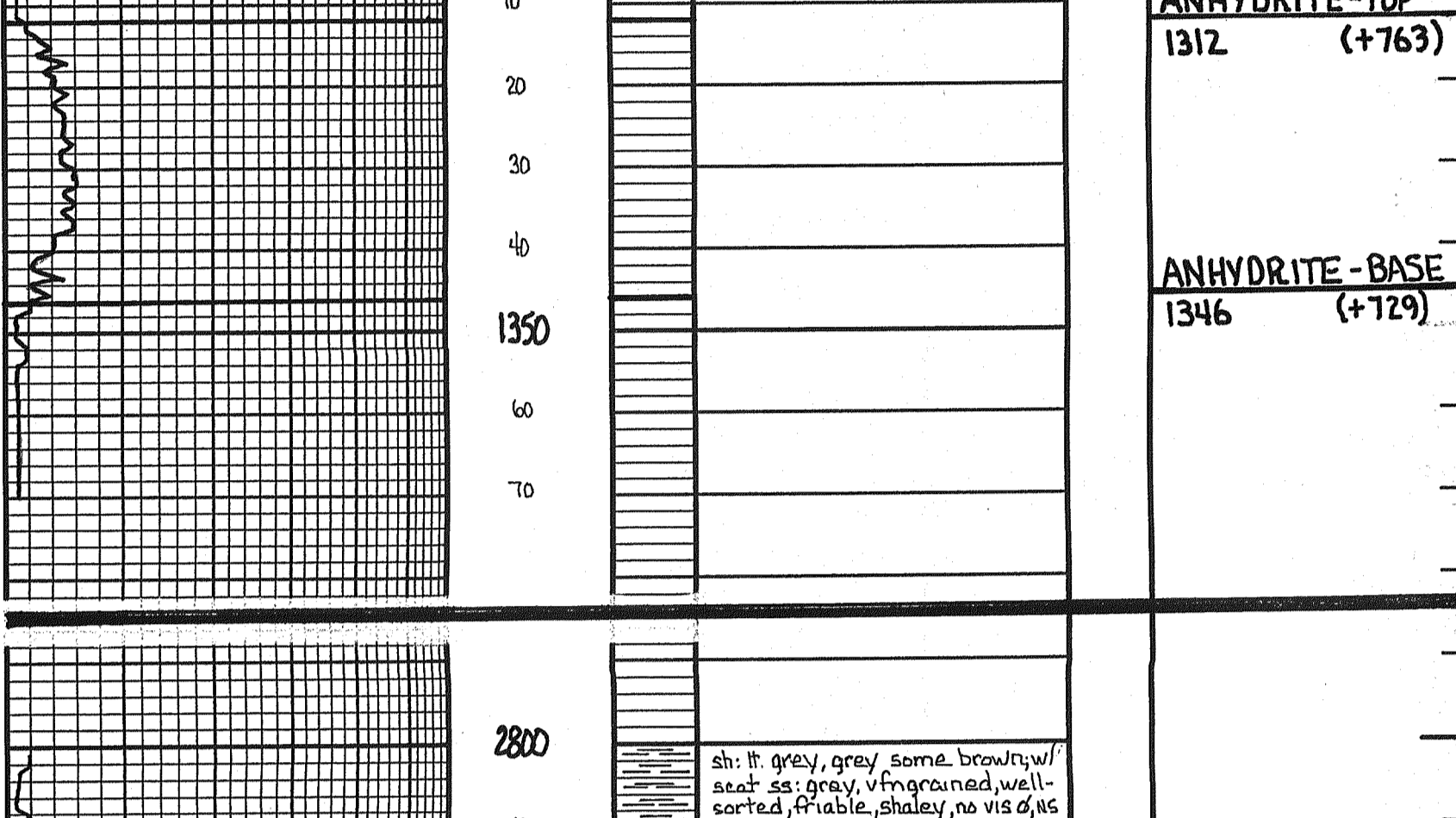
No.	Interval	Depth	SP/Time	SR/Time	FR/Time	HR-FH	REMARKS
1	2982-3040	20'-27'	986	28'-32'	901	1434	20' MUD w/ SHOWN OIL IN TOOL
2	3197-3358	20'-48'	568	51'-84'	544	1622	130' VSOCM
	TOR-LANS	30'	60'	60'	90'	99'	

NO	SIZE	MAKE	TYPE	DEPTH OUT	FEET	HOURS	PIPE STRAP: @ 20' @ 3565-5/8"
1	1 1/4"	SMITH	R1	211'	211'	2	ORIENTATION SURVEYS: @ 211' @ 3565-5/8"
2	1 1/8"	SMITH	F21	3565'	3548'	70%	

DATE	DEPTH	NO	DATE	DEPTH	ADJ	VS	HR	CS	LR	CH	
8-18	MISC & SPUD	4	8-21	3040'	TDI	831	59	6.8	36	11.5	11/6
8-19	964'	5	8-22	3330'	CFS	910	59	6.8	26	11.0	17/6
8-20	2342'	6	8-22	3511'	DELS	921	60	7.6	28	10.9	17/2
8-22	3040'-05'										4"
8-22	3298'										4100
8-23	3490'										

LEGEND

Anhydrite	Salt	Sandstone	Shale	Carb sh	Limestone	Ool.Lime	Chert	Dolomite
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DEPTH	LITHOLOGY	SAMPLE DESCRIPTIONS	OIL SHOWS	REMARKS		
1300				ANHYDRITE-TOP 1312 (+763)		
1350				ANHYDRITE-BASE 1346 (+729)		
2800		sh: lt grey, grey, some brown w/ seat ss: grey, vfn-grained, well-sorted, friable, shaley, no vis of, as sh: lt grey, grey; ss: as above w/ sh: grey-green w/ seat ls frags included ls: grey, brown, vfn-xthn, dense; ls: tan, medxthn, sli foss, no vis of, no show sh: grey ls: lt grey, grey, tan, lt brown, vfn-some medxthn, sli foss, sli chalky, no vis of, no show sh: lt grey, grey, soft, gummy in part; sh: med grey, sli mica ls: lt brown, brown, fn-medxthn, pelletal, foss, oolites (scat), some dolo cement no vis of, ls sh: pale grey, gummy; sh: med grey, mica ls: tan, brown, vfn-xthn, dense; medxthn, sli foss, seat interbedded green sh ls: grey, fnxthn, arg, sli dolomite sh: grey, med grey, sli calc, some brown sh: grey, dk grey ls: tan, lt brown, fn-medxthn, sli foss, granular in part; ls: grey, fnxthn, arg, no vis of, no show sh: grey, med grey, sli silty-sandy (vfn-grained), seat ls: tan, lt grey, fnxthn, arg, dense, few pcs grey-green sh w/ ls frags included sh: lt grey, grey, sli silty sh: lt grey, grey, sli calc, seat siltstone -> silty sh, no vis of, NS, sh: rust, brown ls: tan, lt grey, sli foss, fn-medxthn, granular in part, no vis of, no show sh: lt grey, grey, some soft, gummy, seat pcs w/ included ls frags, some brown, rust sh sh: as above, w/ dk grey, calc sh, few pcs lt -> med grey, siltstone ls: brown, grey, micro-vfn-xthn, dense, seat ls: tan, fn-medxthn, sli foss, dense ls: as above, no vis of, no show ls: tan, lt brown, vfn-fnxthn, dense ls: tan, fn-medxthn, granular in part, trc foss, no vis of, no show ls: tan, fnxthn, finely granular in part, vpr ppt & fine interxthn, intergranular, vfn-s, ppt, tray w/ pr apptv to cpl pcs fr-gd st w/ sat, few minute ppts FO on break, no odor ls: tan, brown, brown-grey, vfn-fnxthn, trc foss, dense, w/ sh: grey, calc, mica ls: tan, lt brown, fn-xthn, sli foss, app vpr interxthn of, 1-2 ppt tray w/ pr spotty st & pr patchy sat, rare ppt FO, NS ls: tan, lt grey, mostly fn-some medxthn, chalky in part, few scat pcs wh chalk, no vis of, no show ls: tan, lt brown, very fn-some medxthn, sli foss, no vis of, NS, ls: ls & chalk, vfn-xthn, soft ls: tan, brown, medxthn, pelletal, sli foss, no vis of, seat dolo, vfn-xthn, shaley, ls frags included, no vis of, NS ls: as above, w/ ls: dk brown, dk grey, medxthn, mottled, no vis of, no show ls: brown, grey, medxthn, mottled, dk grey, offwh, fnxthn, vry chalky, sh: dk grey, black sh: grey, green-grey, calc in pt, seat ls frags included, few pcs dolo, vfn-xthn, arg, no vis of, no show sh: as above, w/ few pcs grey, soft ls: tan, fn-medxthn, seat pr interxthn of, NS; ls: grey, vfn-xthn, dense ls: tan, lt grey, lt brown, micro-fnxthn, dense ls: as above, w/ ls: grey, brown, fn-medxthn, granular, sli foss, no vis of, no show sh: grey, calc in part, few pcs dolo; grey, dk grey, vfn-xthn, arg, ls: grey, medxthn, sli ool, pelletal; ls: brown, vfn-xthn, dense sh: dk grey, some black ls: tan, lt brown, vfn-fnxthn, dense, w/ seat ls: brown, grey, med granular/ pelletal, vpr scat pr interparticle of, no st, cut, NSFO, No ls: tan, brown, vfn-some medxthn, sli foss, no vis of, no show ls: tan, vfn-fnxthn, most dense, few pcs w/ vpr interxthn of, vpr spotty st, trc sat, sli oil sheen on wh after break ls: offwh, tan, fnxthn, sli foss, chalky in part; ls: brown, grey, fn-medxthn, trc foss, mottled, no vis of, NS ls: brown, grey, fn-medxthn, sli foss, pelletal in part, interbedded brown shale, no vis of, no show ls: tan, lt brown, fn-medxthn, no vis of, NS sh: dk grey, black ls: tan, fn-medxthn, sli foss, dense sh: grey, lt grey, seat ls inclusions, some brown sh sh: lt grey, grey, sli silty/sandy in part, some rust-brown, soft sh ls: offwh, lt grey, tan, fn-medxthn, trc vpr interxthn of, cpl pcs w/ vpr spotty st w/ trc sat; no show FO, no odor ls: tan, vfn-xthn, dense sh: mostly rust, soft, gummy; seat lt grey, green: few pcs med grey sh sli silty/sandy (vfn-grained) ls: tan, lt grey, vfn-fnxthn, dense; sh: lt grey, grey, calc -> ls: lt grey, fnxthn, arg, dense ls: lt brown, most vfn-xthn, dense; seat ls: tan, lt brown, fn-medxthn, vpr interxthn of, cpl pcs w/ pr spotty st & sat, NSFO, No ls: grey, med granular, w/ grey sh matrix & shaley vfn-xthn also cement; sh: lt grey, gummy; grey, some brown, ls: tan, lt brown, ppt & vry fine medxthn, pr-trc ppt & vry fine interxthn of, few small vugs, pr scat fr st w/ sat, VSS ppts FO, vft odor sh: grey, calc, sh: dk grey ls: tan, fn-medxthn, mostly dense, seat pr-trc fr interxthn & vuggy of, mostly pr spotty st, few pcs pr-fr st w/ sat, VSSFO, no odor; Δ brown, grey, sli foss, fresh, semi-trans, sh: sli calc, silty, grey ls: tan, lt grey, brown, fn-medxthn, granular in part, mottled, no vis of, no show sh: grey ls: tan, lt brown, fn-medxthn, few pcs sh ool, no vis of, no show, ls: tan, vfn-xthn, dense; Δ grey-tan, fresh, semi-trans in part, sli foss, fr ool & pr interxthn of, pr-fr spotty lt golden brown st w/ patchy sat, VSSFO & gas bubbles, pr odor ls: offwh, tan, vfn-medxthn, dense ls: offwh, lt grey, vfn-some medxthn, sli chalky, no vis of, no show, few pcs wh chalk ls: as above, w/ ls: dk brown, fn-medxthn, sli foss, dense, inc in wh chalky ls & wh chalk sh: lt grey, soft, gummy; sh: grey, dk grey, calc in part, some brownish ls: grey, fn-medxthn, shaley, dense ls: tan, lt grey, fn-medxthn, vly foss, sli ool, trc vpr interxthn of, no show w/ ls: lt grey, vfn-xthn, sli chalky, dense few pcs Δ: brown, fresh, semi-trans sh: lt grey, soft, gummy, seat ls inclusions, some rust sh ls: offwh, tan, fn-some medxthn, vpr interxthn of, w/ pr spotty st & sat, ool in part, mostly well cemented, dense few pcs pr-fr interool of, fr st & sat, VSSFO, no odor sh: brown, rust, some grey, green ls: offwh, lt grey, fn-medxthn, sli foss, seat ool, most well cemented, dense few pcs pr interool & interxthn of, pr-trc fr st w/ patchy sat, VSSFO, G, no odor; ls: lt grey, vfn-fnxthn, chalky in part toward base sh: black, dk grey sh: lt grey, pale grey-brown, soft, gummy, some brown, sh: grey, dolo, ls: tan, grey, fn-medxthn, sli foss, pelletal, calcite, cement, no vis of, no show; ls: grey, medxthn, pelletal, foss, calcite, cement, trc glauconite, no vis of, no show sh: black, dk grey, grey sh: lt grey, gummy; sh: grey, dk grey, calc (dolomite) ls: tan, fn-medxthn, pelletal in part, foss, few pcs sli sandy (vfn-grained) poss vpr interparticle of, no show, w/ ls: grey, fn-medxthn, pelletal, well cemented, mottled, no vis of, no show sh: pale grey, soft, gummy, some grey ls: grey, tan, fn-medxthn, pelletal, fragmental, well-cemented, mottled, chalky in part, some shaley, no vis of, no show sh: grey, green-grey, some brown, rust, seat maroon ls: offwh, tan, lt grey, fn-medxthn, few pcs sandy, rust sh stained, chalky in part, no vis of, no show sh: mostly grey, some rust, brown w/ ls: lt grey, green-grey (shale); ls: offwh, tan, lt brown, fn-medxthn, few pcs finely oolitic, sli sandy, (vfn-grained), dense, no vis of, no show sh: lt brown, soft, gummy; sh: grey, green-grey, rust				TOPEKA 2973 (-898) 32 STAND SHORT TRIP PRIOR TO DST #1 DST #1 (2982-3040) 30"-60"-30"-60" IFF: 1/2" BLOW BLDG TO 3/4" ISIP: NO BLOW FFP: NO BLOW FSIP: NO BLOW RECOVERED: 20' MUD w/ SHOWN OIL IN TOOL HSP: 1454#-1439# FFP: 20#-27#-28#-32# SIP: 986#-901# BHT: 95° F
3000			VSS			
3050			TRC			
3100				OREAD 3137 (-1062)		
3150			TRC			
3200				HEEBNER 3199 (-1124)		
3250			TRC			
3300			SS			
3350			SIFS			
3400			VSS			
3450			VSS			
3500				BKC 3505 (-1430)		
3550				LTD 3560 (-1485) RTD 3565 (-1490) 12 STAND SHORT TRIP PRIOR TO LOG		

