

E/W Co-ord: 800' FWL LOGGED BY С 0 Ν S U Ν L т G I SOLUTIONS CONSULTING Company: 108 W 35TH Address: HAYS, KS 67602 Phone Nbr: (785) 259-1337 Logged By: Geologist Name: HERB DEINES CONTRACTOR Contractor: SOUTHWIND DRILLING INC. 2 Rig #: Rig Type: MUD ROTARY 8:00 AM Spud Date: 4/30/2012 Time:

Rig Release: 5/7/2012

5/6/2012

TD Date:

Time: 12:00 AM

5:25 AM

## **ELEVATIONS**

K.B. Elevation: 2146.00ft K.B. to Ground: 9.00ft Ground Elevation: 2137.00ft

Time:

## NOTES

RECOMMENDATION TO RUN PRODUCTION CASING TO TEST ARBUCKLE, LKC AND TOPEKA-30' BREAK BASED ON FAVORABLE STRUCTURE AND POSITIVE RESULTS OF DST # 1

FORMATION TOPS AND DAILY PROGRESS REPORT OF DEPTH AND ACTIVITY

WERTH # 1 1650'FNL & 800' FWL, NW/4 SEC.5-13s-20w ELLIS COUNTY, KANSAS GL ELEVATION=2137' KB ELEVATION=2146'



1 1 2 2

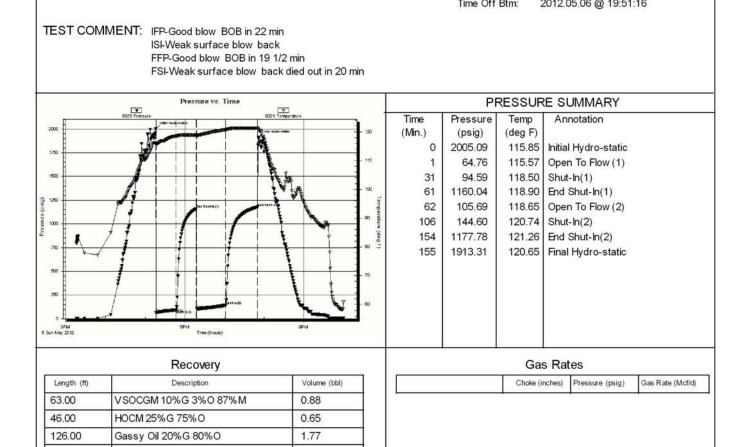
SAMPLE TOP

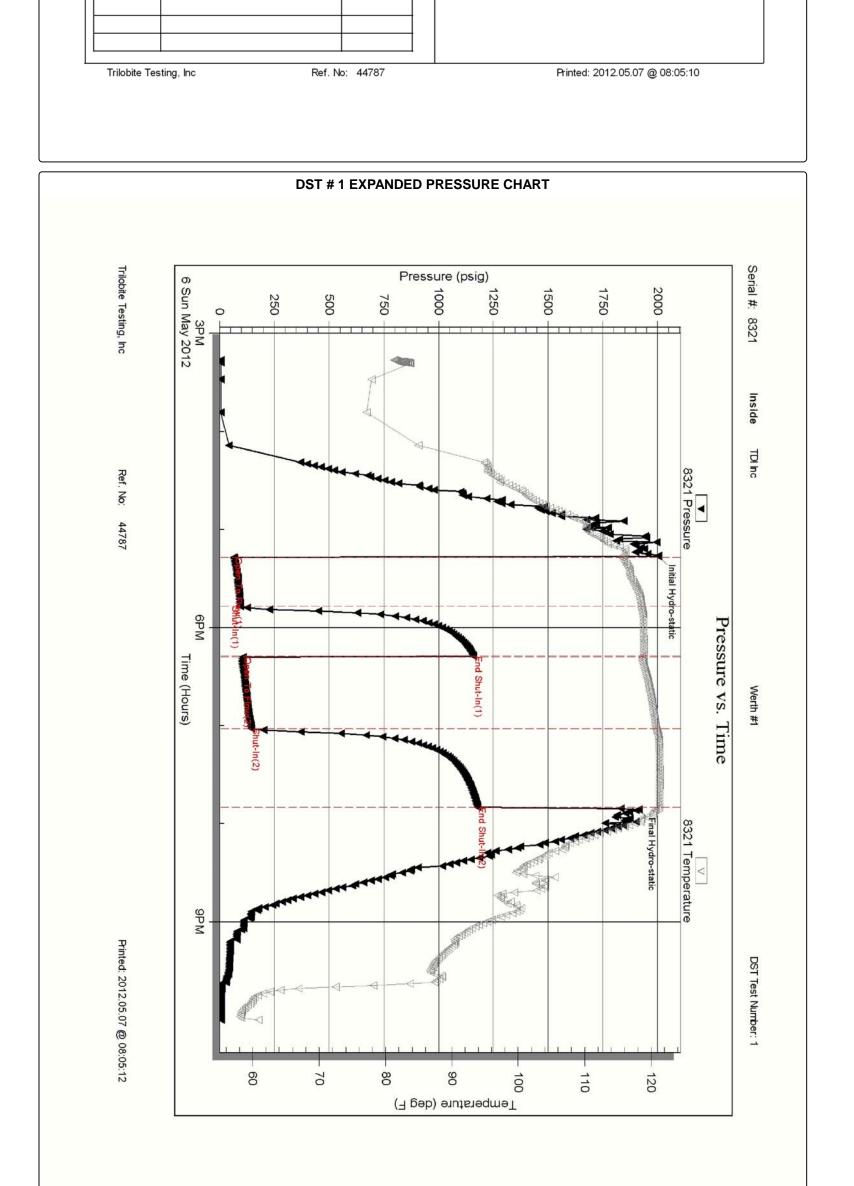
<u>LOG TOP</u>

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Annyarite top	1486+ 660	1486 +660
Anhydrite base	1526+ 620	1524 +622
Topeka	3163-1017	3164-1018
Heebner Shale	3395-1249	3393-1247
Toronto	3417-1271	3414-1268
LKC	3435-1289	3432-1286
ВКС	3681-1535	3672-1526
Marmaton	3723-1577	3723-1577
Arbuckle	3794-1648	3798-1652
RTD	3900-1754	
LTD		3901-1755
4-30-2012	RU, Spud, set 8 5/8" surface	e pipe to 212' w150 sacks common,
	2%gel, 3%CC, Quality ticket	# 498, plug down 2:30PM, WOC 8
	hrs, slope survey ¼ degree.	
5-01-2012	833' Drilling	
5-02-2012	1995' Drilling	
5-03-2012	2626' Drilling, Displaced 27	75'
5-04-2012	3212' Drilling	
5-05-2012	3585' Drilling	
5-06-2012	3900' RTD, short trip, logs,	DST #1 straddle - Arbuckle
5-07-2012	3900' Lay down drill pipe, r	un 5 $\frac{1}{2}$ " casing with DV tool,
	cement bottom stage and [	DV to surface.

ATR. T	-	DRILL STEM TEST REPORT						
(14) 11	RILOBITE							
			5-13s-20v	/				
ESTING , INC		1310 Bison Rd		Werth #1	Werth #1			
		Hays Ks 67601		Job Ticket:	44787	DST#:1		
M SON		ATTN: Tom Denning		Test Start:	2012.05.06 @	) 15:16:16		
		ft (KB)		Test Type: Tester: Unit No:	Inflate Strad Jeff Brow n 44	dle (Initial)		
Interval: 374	12.00 ft (KB) To 382	20.00 ft (KB) (TVD)		Reference I	Bevations:	2162.00	ft (KB)	
Total Depth:	3901.00 ft (KB) (TV					2152.00		
Hole Diameter:	7.88 inchesHole	Condition: Good		K	B to GR/CF:	10.00	ft	

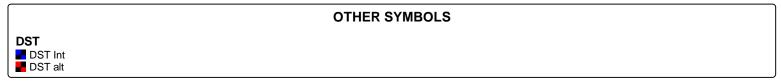




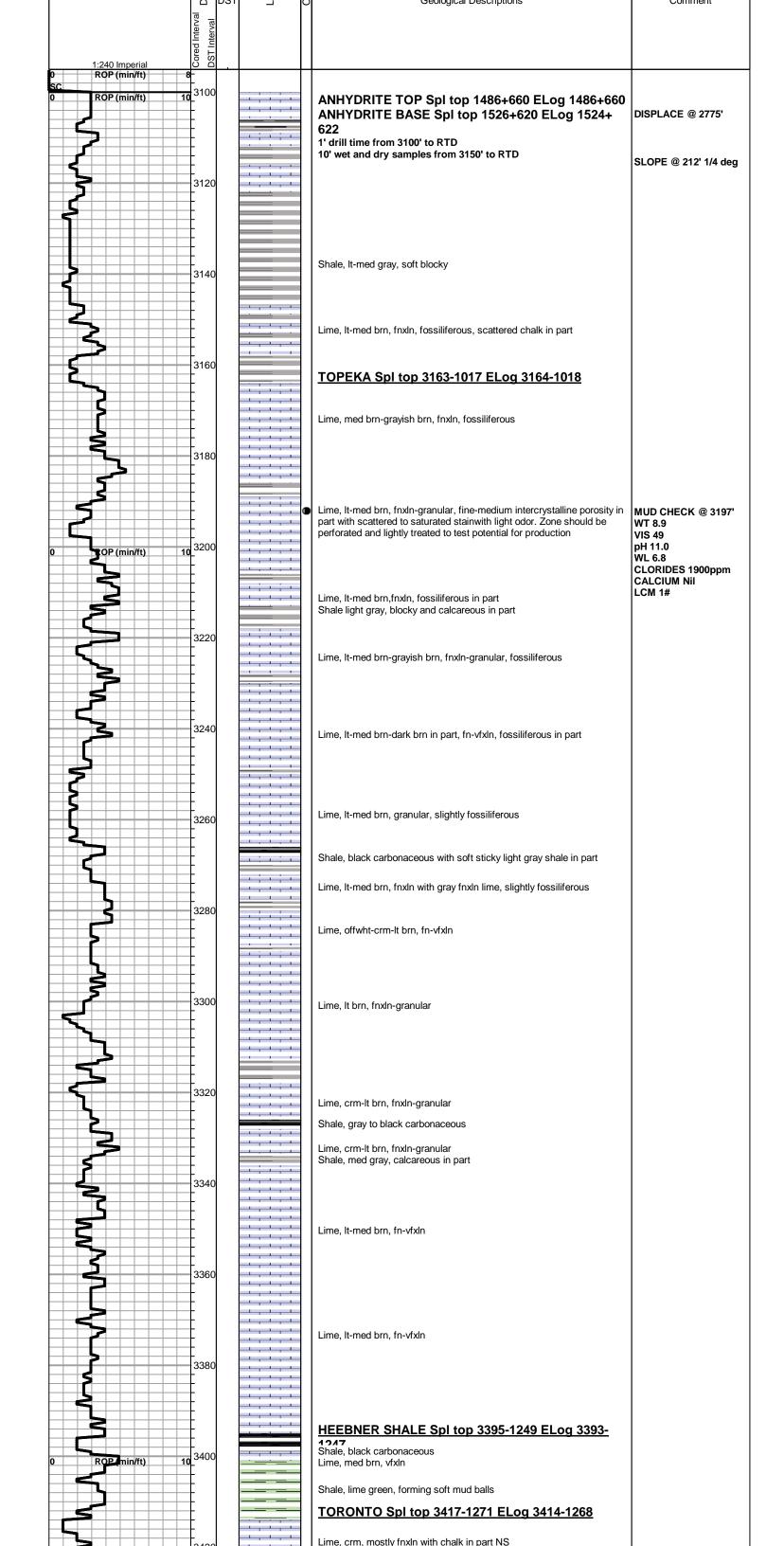
				ROC	K TYPES	
			<b>_</b>			
	Cht vari	$\sim \sim \sim$	Dol Lime		Carbon Sh	shale, red
• • • • • • • •	Chtcongl		Lmst fw7>		shale, grn	
1 1 1	Dolprim		Shgy		shale, gry	

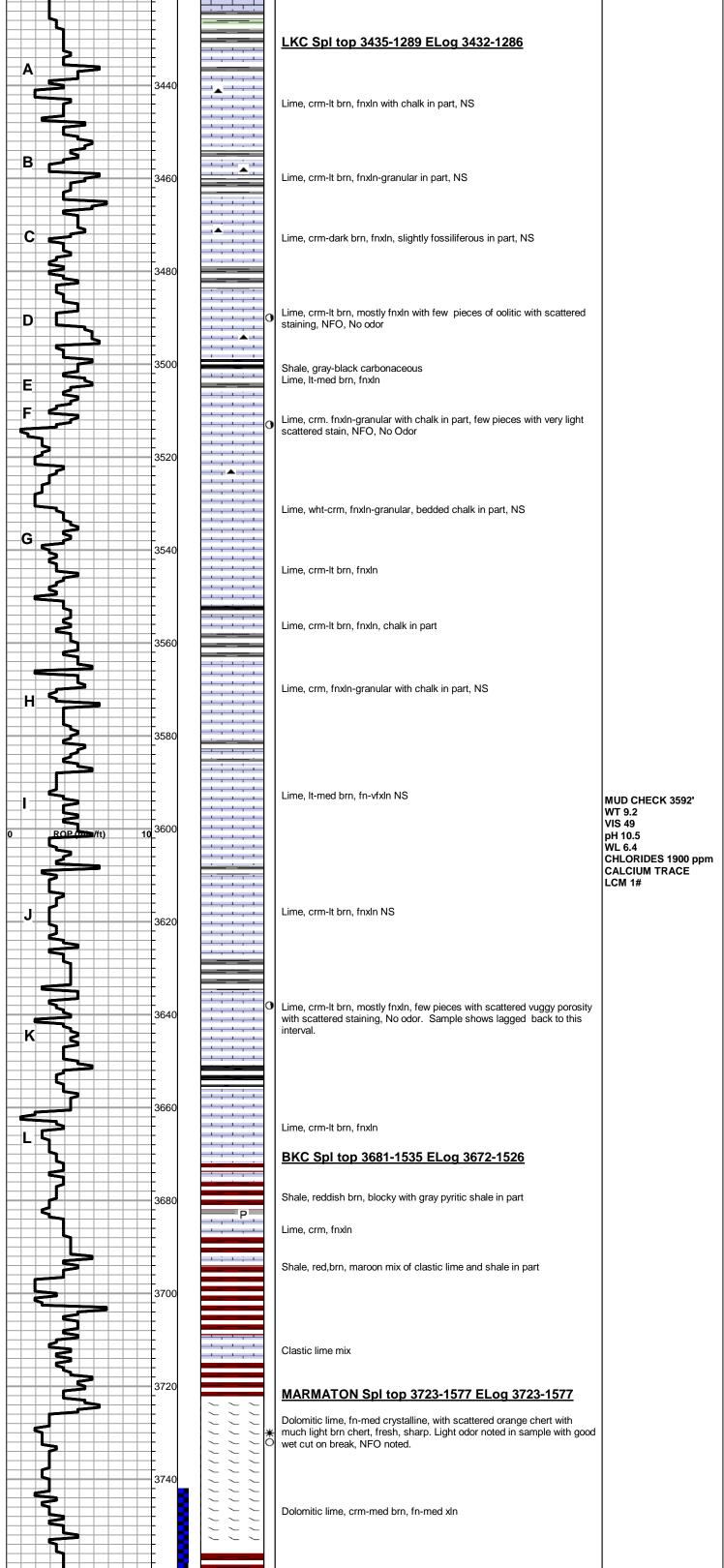
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	ACCESSORIES	
MINERAL ▲ Chert, dark P Pyrite ▲ Chert White		









	3760		Shale, reddish brn, soft, sticky in part	
5			Shale, vari colored, with fresh, sharp chert in part	
			Shale, van colored, with resh, shalp chert in part	DST #1 STRADDLE
3	3780		Cherts, vari colored mixed with reworked dolomite, NS	3742'-3820' 30-30-45-45 Rec: 63' VSOCGM
				46'HOCM-25%OIL
		0.0 <u>0</u> 0 <u>0</u> 0		GRAVITY 34
2			ARBUCKLE Spl top 3794-1648 ELog 3798-1652	FSIP: 1178# FP: 65-95, 106-145
0 ROP (min/ft)	10 3800	0	Dolomite, ivory-crm, fnxln-sucrosic in part, very light odor, scattered to saturated staining.	BHT: 121 DEGREES 1st OPEN: BOB 22 min BLOW BACK-WK 20"
		•	Dolomite, ivory-crm, fn-cxln, fair odor, MSFO, scattered to saturated staining, Good intercrytalline porosity in part with mix of fine crystalline	2nd OPEN: BOB 19.5" BLOW BACK-WK
			to coarse with good rhombic crystalline development in part. Zones of porosity thin but well developed with coarse crystalline dolomite.	
	3820			
		1 1 1 1 1 1 1 1 1	Dolomite, crm-ivory, fnxln to fine grained granular, NS, No odor	
- L				
3	3840		Delemite, arm ivery for even in part, exettered encelve of elecentic, at-	
2			Dolomite, crm-ivory, fn-cxln in part, scattered specks of glaconite, qtz grains with clear dolomite crystals in part	
5				
			Dolomite, Ivory-It brn, fn-cxIn in part	MUD CHECK @ 3900' WT 9.3
2	3860			VIS 59 pH 10.5
<b>&gt;</b>			Dolomite, crm-ivory, fnxln	WL 6.8 CHLORIDES 1900ppm
~ 7				CALCIUM Trace
5	3880		Dolomite, crm-ivory, fn-cxln sucrosic in part	
		· · · ·		
			Dolomite, crm-ivory, fnxln	
				SLOPE 1 1/4 DEGREES
	3900	· · ·	RTD 3900-1754 LTD 3901-1755	
	<u> </u>			

## QUALITY OILWELL CEMENTING, INC. Federal Tax I.D.# 20-2886107

Phone 785-483-2025 Cell 785-324-1041	He	ome Office	P.O. Box 32 Ru	ussell, KS 67665	No.	498		
Sec.	Twp.	Range	County	State	On Location	Finish		
Date 4.30-12 5	13	20	Ellis	Kansas	US TEMOTAUD" a	2:30PM		
Lease 12-cth	Vell No.	1	Location Ellis	IN ZUS	into	ogenol en grienen. Heren de genere		
Contractor South wind	Dillin	Ric2	Owner	to iqwer the rate of in	bermoles Wisedamos	us od ljene tandooa		
Type Job Surface	T	2.2.	To Quality	Oilwell Cementing, Inc	2. t comenting equipmen	nt and furnish		
Hole Size 125	T.D.	212	cementer a	and helper to assist ov	vner or contractor to d	o work as listed.		
Csg. 88 234	Depth	<u><u> </u></u>	Charge To					
Tbg. Size	Depth		Street	Street				
Tool	Depth	enuit schedule	City	JAUD" ni beteli se/bn	State	MA 2301919		
Cement Left in Csg. 10-15	Shoe Jo	pint	Contraction of the state of the state of the	was done to satisfaction	and supervision of owne	r agent or contractor.		
Meas Line	Displace	· 122B	L) Cement Ar	mount Ordered 150	O Common 30	CC 28 Cul		
EQUIPI	MENT	noted ti theore	s bos len diferida Bar	an and a reason to and an a cost of the re	to sector to the	NUALTY be need		
Pumptrk 5 No. Cementer	eur	hallonia ed	Common	150	ist not criteric the part	warm puppe guillaus		
Bulktrk & No. Driver B	uff	ALCON DE LA CAL	Poz. Mix	sayatan 6 waday sawa ƙasara		nagnedo se par (*1) Prace actenda		
Bulktrk No. Driver		10 un bergy	Gel. <b>2</b>	Privati pay QUAUTY	MOTEUS Jehehm	ente so noltrica tra		
JOB SERVICES	& REMA	RKS	Calcium _	5	CPURPERSON CARDING	, GARICI, CIU A Condination tempetiar		
Remarks:	ysmeb yr	oupped when the	Hulls	NUMBER 1. OCALIT	ALL CHARMONIC M	NO STORATS		
Rat Hole	haran galasi Saho kasebu	n del 1011 USBAR Real <sup>e</sup> n del la composición	Salt		official swording and characterized added	CIERSON CARD CO		
Mouse Hole	Ins me	Jamage bos i	Flowseal	, ist officers, agains a	d hamilese ("Onli 11	en bear (bratably and		
Centralizers	numni kan	mary Very Vela	Kol-Seal		Alexandra and a second second	a finite stand 3 ( 6 )		
Baskets			Mud CLR	48	1	busic states		
D/V or Port Collar		n ezer tevre	CFL-117 o	or CD110 CAF 38		(B) Oil spills; s		
art.		sting with the	Sand	n of the second second	server yet bedeles of e	mete to each door		
	0		Handling	158				
(unint diel (	ircul	ate	Mileage		A COLORINA COLORINA	motori bos P12620		
				FLOAT EQUIP	MENT	SUALTY the out		
ameneo ni noloe isoanento	Bigger B	r ano in ma	Guide Sho	be		S DUALITY		
			Centralize	r Streets a	inten el water er elle	need by contains		
	ben forstel		Location F//s       W 3W Sinds         RS       Owner         To Quality Oliwell Cementing, Inc.       You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.         Charge       TDT         Street       City         City       State         The above was done to satisfaction and supervision of owner agent or contractor.         IDSTBS1       Cement Amount Ordered         Common /SO       Poz. Mix         Gel.       3         Cs       Calcium 5         Hulls       Sait         Flowseal       Mud CLR 48         CFL-117 or CD110 CAF 38       Sand         Handling /SS       Mileage					
- Hereit and the second states of the		The second	AFU Inser	ts	and the second of	esinew esit sebru		
ROYO MARKAWARINA CA BA	17. AA		Float Shoe	e				
bute schone which we have a ris		TUNEYCONIC	Latch Dow	/n	PEU BRUTHALUOTTA	* 1 A AQA 8830119		
	BERLIN IN AN	ricandad do National alega	Sunt	GF		on to tidget an ac		
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			Pumptrk C	charge Sur Face	L dort tobraco eta	Al pridioli (A)		
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100	1	1	1605 NO BRD M	nia lignidati teten .	Тах	DV QUALITY of all		
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Signature Mulanc	18a	uder.	an an estador orb neila		Total Charge	to of the CUSTC		

ISTOMER	G		WELL NO.		SWIFT LEASE			7110
CHADT	IDI T		VOLUME	PUMPS	PRESSUR			2177
CHART NO.	TIME	RATE (BPM)	(BBL) (GAL)	TC	TUBING	CASING	DESCRIPTION OF OPERATION AND MATERIALS	
	0700						ONLOCATION	
	0800	end carrier of a first second					START PIPE 52-14#	
							RTDC3900 SETC. SHOEJT. 43.35'	
							CENTRALIZERS 1,3,57,9,11,13,57	
							BASKEB 2, 14, 58, 85 DVJT TOP OFJT # 58 @ 1497	
							DVJ1 Top of JT 358E1490	)
	-0.0							
	0945						DROP BALL CIRCULATE.	
	1106	Le.	12	~		400	Pump 500 gpc MUD FLUSH	
	100	le	20				Pump 20 Bbl KCL FLUSH	
	1112	4	36	7			MIX/SOSX EA2	
	1124						WASH OUT PUMPING LINES.	
-	1126	le		7			START DISPLACING PLUG.	
	1142	ø	94	1		1500	PLUG DOWN O'PSIUP LATCH PLUG I	J
	1145						DROP DU OPENING TOOL	
	1148		7,5				PLUG RH-MH (305x-205x)	
	1158			V		1100		
1. N.	1158					1100	Pump KCL FLUSH	
	1202	6	97			200	MIX 175 SX SMD	
	1226						WASH OUT PUMOING LINE	
	1228	6		~			WASH OUT PUMPING LINE START DISPLACING CLOSING TOOL/PL	LIG
	1234	Z	36	7		1500	PLUG DOWN PSI UP CLOSE DV	
	1237							
							RELEASE PSI-DRY CIRCULATE 205x TO PIT	
	1239						WASH TRUCK	
	1720						TOP An article	
	1300						JOB COMPLETE	
							THANK5\$110	1999 Anna 1999 Anna 1999 Anna 1999 Anna 1999
							JASON JEFF 15	