

CEMENTING TREATMENT REPORT



TREATMENT NUMBER GH2013001	DATE 2/12/2013
STAGE 2	JOB TYPE Surface

WELL NAME AND NO. Weirich 32-33	LOCATION (LEGAL) T20S R-50Wsec 33	RIG NAME: Patterson UTI 190	CEMENT PUMPER: 23005
FIELD	FORMATION	WELL DATA	FT TOP FT
COUNTY Kiowa	STATE CO	API NO. 506106876	
RIG FORMAN Dave Martinez		BIT SIZE	CSG/Liner Size 8 5/8
CEMENT SUPER Gary Hessling		TOTAL DEPTH 1588	WEIGHT 24
		MUD TYPE	FOOTAGE 1579
		<input type="checkbox"/> BHST	GRADE
		<input type="checkbox"/> BHCT	THREAD
		MUD DENSITY	LESS FOOTAGE (SHOE JOINTS) 42.42
		MUD VISC	Disp. Capacity 97.7
		TOTAL: 97.7	

SPECIAL INSTRUCTIONS	Include Footage From Ground Level To Head In Disp. Capacity												
	<table border="1"> <tr> <td>FLY</td> <td>TYPE</td> <td>DEPTH</td> <td>STAGE TOOL</td> <td>TYPE</td> <td>DEPTH</td> </tr> <tr> <td>SHOE</td> <td>TYPE</td> <td>DEPTH</td> <td></td> <td>TYPE</td> <td>DEPTH</td> </tr> </table>	FLY	TYPE	DEPTH	STAGE TOOL	TYPE	DEPTH	SHOE	TYPE	DEPTH		TYPE	DEPTH
FLY	TYPE	DEPTH	STAGE TOOL	TYPE	DEPTH								
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Head & Plugs	<input type="checkbox"/> TBG <input checked="" type="checkbox"/> D.P.	SQUEEZE JOB
<input type="checkbox"/> Double Box 6	WEIGHT	TOOL TYPE DEPTH
<input type="checkbox"/> Single	GRADE	TAIL PIPE: SIZE DEPTH
<input type="checkbox"/> Swage	THREADS	TUBING VOLUME BBLs
<input type="checkbox"/> Knockout	<input type="checkbox"/> New <input type="checkbox"/> Used	CSG VOL BELOW TOOL BBLs
	DEPTH	TOTAL BBLs

LIFT PRESSURE 546 psi	BUMP PLUG TO 630	CEMENT TEMPERATURE:	ANNULAR VOLUME BBLs
PRESSURE LIMIT	NO. of Centralizers 15	WATER QUALITY:	TEMP
TIME 0001 to 2400	ARRIVE ON LOCATION TIME: 4:00 DATE: 2/11/2013	RIG UP TIME: 11:30 DATE: 2/11/2012	LEFT LOCATION TIME: 7:30 DATE: 2/12/2013

TIME	PRESSURE TBG	PRESSURE CSG	VOLUME PUMPED INCR	VOLUME PUMPED CUM	RATE	FLUID TYPE	DENSITY	DESCRIPTION
4:00								Arrive on location
23:30								Rig up pumps and bulk equipment
1:30								Held safety meeting
1:45		1000						Test pumps and lines to 1000 psi. Test good.
1:50		180	14		4	H2o	8.34	pumped H2o ahead. Cirrculation at 14 bbls away
2:05		210	88	102	4	Cmt	12.5	Mix and pump 88 bbls ( 233 sks) 12.5 # SDC lead cement
2:40		280	143	245	4	Cmt	15	Mix and pump 143 bbls ( 664 sks) 15# surface set
3:25		68			1			Lost cirrculation with 122 bbls tail cement away slowed pump rate to 1 bbls
3:45		27	97.7	342.7	1	H2o	8.34	Start displacement regained cirrculation with 11 bbls H2o away
4:05		187			0.7			Lost cirrculation with 31 bbls H2O away slowed rate to .5bpm
4:45		320						Regained cirrculation with 51 bbls H2o away maintained cirrculation through remainder of pump job.
5:55		630			0.7	H2o	8.34	Landed plug High lift 570psi Test plug held
6:00								Call out for displacement 32bbls 187 psi, .5 bpm 64 bbls 420psi, 95 bbls 567 psi .5 bpm

System Used	No. of Sacks	Yield ft³/sk	COMPOSITION OF SYSTEM		SLURRY MIXED	
			BBLs	DENSITY	BBLs	DENSITY
SDC	233	2.11	25/75 SDC blend 6% P20, 3% S1, 0.25#/sx P29, 0.25#/sx P46 @ 12.5 #/gal		88	12.5
Surface Set	664	1.21	Surface set 25:75 (p:G) + 2% P20, .35% P13, .25 #/sx P46 @ 15 # gal		143	15

CIRCULATION <input type="checkbox"/> Yes <input type="checkbox"/> No	WASHED CASING DOWN <input type="checkbox"/> Yes <input type="checkbox"/> No	BREAKDOWN PSI	FINAL 630 PSI
DISPLACEMENT VOL. 97.8 BBLs	RETURNED TO SURFACE yes 60 bbls	BEFORE PLUG BUMP PRESSURE 560 PSI	RATE 0.5 BPM