CEMENTING TREATMENT REPORT

PIONEER NATURAL RESOURCES

TREATMENT NUMBER	DATE
GH2013002	2/13/2013
STAGE	**JOB TYPE**
1	Surface Top Off

WELL NAME AND NO.	LOCATION (LEGAL)	
Weirich 32-33	T20S R-50Wsec 33	
FIELD	**FORMATION**	
Black Fox		
COUNTY	**STATE**	**API NO.**
Kiowa	CO	506106876

RIG FORMAN: Dave Martinez

CEMENT SUPER: Gary Hessling

SPECIAL INSTRUCTIONS

RIG NAME:	CEMENT PUMPER:
Patterson UTI 190	23005

WELL DATA			BOTTOM	FT	TOP	FT	FT
BIT SIZE		CSG/Liner Size	8 5/8				
TOTAL DEPTH	1588	WEIGHT	24				
MUD TYPE		FOOTAGE	1579				
☐ BHST		GRADE					
☐ BHCT		THREAD					
MUD DENSITY		LESS FOOTAGE SHOE JOINT(S)	42.42				TOTAL:
MUD VISC		Disp. Capacity	97.7				97.7

Include Footage From Ground Level To Head In Disp. Capacity

FLOAT	TYPE		Stage Tool	TYPE		
	DEPTH			DEPTH		
SHOE	TYPE			TYPE		
	DEPTH			DEPTH		

Head & Plugs		☐ TBG ☑ D.P.	SQUEEZE JOB	
	SIZE		TOOL	TYPE
☐ Double Box 6	WEIGHT			DEPTH
☐ Single	GRADE		TAIL PIPE:	SIZE DEPTH
☐ Swage	THREADS		TUBING VOLUME	BBLs
☐ Knockout	☐ New ☐ Used		CSG VOL BELOW TOOL	BBLs
	DEPTH		TOTAL	BBLs
CEMENT TEMPERATURE:			ANNULAR VOLUME	BBLs
WATER QUALITY:		pH	SG	TEMP

LIFT PRESSURE	546 psi		
PRESSURE LIMIT	psi	BUMP PLUG TO	630
		NO. of Centralizers	15

TIME	PRESSURE		VOLUME PUMPED		JOB SCHEDULED FOR	ARRIVE ON LOCATION	RIG UP	LEFT LOCATION
0001 to 2400	TBG	CSG	INCR	CUM	TIME: 8:00 DATE:	TIME: 8:00 DATE: 2/13/2013	TIME: 8:30 DATE: 2/13/2012	TIME: 21:00 DATE: 2/13/2013

TIME	TBG	CSG	INCR	CUM	RATE	FLUID TYPE	DENSITY	
8:00								Arrive on location
8:30								Rig up pumps and bulk equipment
8:45								Held safety meeting
9:00			6		0.5	Cmt	15.8	Mix and pump 6 (29 sks) neat G @ 15.8
20:15			1	7	0.5	H20	8.34	Conduct formation integrity test to 100 psi hold and check for leak off for 15 min. Test good
21:00								Rigged down and left location

System Used	No.of Sacks	Yield ft^3/sk	COMPOSITION OF SYSTEM	SLURRY MIXED BBLS	SLURRY MIXED DENSITY
Neat G	29	1.15	Class G cement	6	15.8

CIRCULATION ☐ Yes ☐ No	WASHED CASING DOWN ☐ Yes ☐ No	BREAKDOWN	PSI	FINAL	PSI
DISPLACEMENT VOL. BBLS	RETURNED TO SURFACE yes	BEFORE PLUG BUMP PRESSURE	PSI	RATE	0.5 BPM