CEMENTING TREATMENT REPORT

PIONEER NATURAL RESOURCES

TREATMENT NUMBER	DATE
FG2013019	7/27/2013
STAGE 2	**JOB TYPE** Production

WELL NAME AND NO.	LOCATION (LEGAL)	RIG NAME:	CEMENT PUMPER:
Illinois Banker Life ATU1	247'FNL&224'FEL,SEC.21,T30S,R38W	Trinidad drilling Rig #216	23004
FIELD Hugoton/Panoma	**FORMATION** Glorietta		
COUNTY Grant	**STATE** Kansas / **API NO.**		

RIG FORMAN: Kevin Swafford

CEMENT SUPER: Frank L. Gonzales

Mike Vecellio

SPECIAL INSTRUCTIONS

Personnel; J.R. Ortiz,Ronald Trujillo,Robert Ashe

WELL DATA		BOTTOM	FT	TOP	FT
BIT SIZE	7 7/8	CSG/Liner Size	5 1/2		
TOTAL DEPTH	3000	WEIGHT	15.5		
MUD TYPE		FOOTAGE	2976.45		
☐ BHST		GRADE	J-55		
☐ BHCT		THREAD	LT&C		
MUD DENSITY		LESS FOOTAGE SHOE JOINT(S)	42.2		TOTAL:
MUD VISC		Disp. Capacity	68.4		68.4

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

LIFT PRESSURE	811	psi			
PRESSURE LIMIT	3000	psi	BUMP PLUG TO	1300	
			NO. of Centralizers	15	

CEMENT TEMPERATURE:	80	ANNULAR VOLUME	BBLs
WATER QUALITY:	7	pH 0	PPG 78	TEMP

JOB SCHEDULED FOR	ARRIVE ON LOCATION	RIG UP	LEFT LOCATION
TIME: 23:30 DATE 7/27/132	TIME: 22:30 DATE: 7/27/2013	TIME: 22:15 DATE: 7/27/2013	TIME: 3:30 DATE: 7/28/2013

TIME 0001 to 2400	PRESSURE TBG	PRESSURE CSG	VOLUME PUMPED INCR	VOLUME PUMPED CUM	RATE	FLUID TYPE	DENSITY	
23:40								Safety Meeting
23:59						H2O	8.3	Load Bottom Plug
0:08		2500	2	2	1			Pressure Test
0:10		90	75	77	4	H2O	8.3	Water Ahead
0:31		245	133	210	4	Cmt.	12.5	Pump Cement @ 12.5 PPG (312 Sks.)
1:37		200	34	244	4	Cmt.	13.5	Pump Cement @ 13.5 PPG (120 Sks.)
1:47					4	H2O		DROP PLUG
1:47		50	68.4		4	H2O	8.3	Pump Displacement
1:55		100		264	4	H2O	8.3	1st. Call Out
2:03		400		284	4	H2O	8.3	2nd. Call Out
2:17		700		304	4	H2O	8.3	3rd. Call Out
2:25		750		312.4	1	H2O	8.3	Final Lift
2:25		1272			1	H2O	8.3	Bump Plug
2:30			50	362.4	4	H2O	8.3	Wash Up Pump and Lines
3:00								RIG DOWN

System Used	No.of Sacks	Yield ft^3/sk	COMPOSITION OF SYSTEM	SLURRY MIXED BBLS	SLURRY MIXED DENSITY
lead	312	2.4	Class G,Pozz,P20,S1,P29,P46,P42,P154	114.5	12.5
tail	120	1.61	Class G,Pozz,P42,S1,P46,P167,P20	34	13.5

CIRCULATION ☑ Yes ☐ No	WASHED CASING DOWN ☐ Yes ☑ No	BREAKDOWN 90 PSI	FINAL 1272 PSI
DISPLACEMENT VOL. 68.4 BBLS	RETURNED TO SURFACE 40	BEFORE PLUG BUMP PRESSURE 750 PSI	RATE 1 BPM