CEMENTING TREATMENT REPORT

PIONEER NATURAL RESOURCES

TREATMENT NUMBER	DATE
FG2012018	11/26/2012
STAGE	**JOB TYPE**
1	Top Off / Misc. Pump

WELL NAME AND NO.	LOCATION (LEGAL)	
Modavi 31-16	NW/NE 16-34S-65W	
FIELD	**FORMATION**	
Raton / Long Canyon	RATON	
COUNTY	**STATE**	**API NO.**
LAS ANIMAS	COLORADO	05-071-09833

RIG NAME: N/A

CEMENT PUMPER: 23004

RIG FORMAN: Eddie Morris

CEMENT SUPER: Frank L. Gonzales

SPECIAL INSTRUCTIONS

Personnel : Mike Vecellio, Barry Clemmenson, Ronald Trujillo

Engineer : Bryant Morris

LIFT PRESSURE	N/A	psi
PRESSURE LIMIT	500	psi

BUMP PLUG TO N/A

NO. of Centralizers N/A

WELL DATA			BOTTOM		FT	TOP		FT
BIT SIZE		**CSG/Liner Size**	5 1/2					
TOTAL DEPTH		**WEIGHT**	17					
MUD TYPE		**FOOTAGE**	1522					
☐ BHST		**GRADE**	J-55					
☐ BHCT		**THREAD**	LT&C					
MUD DENSITY		SHOE JOINT(S)						TOTAL:
MUD VISC		**Disp. Capacity**						0

Include Footage From Ground Level To Head In Disp. Capacity

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

Head & Plugs		☑ TBG	☐ D.P.	SQUEEZE JOB	
		SIZE	1 inch	TOOL TYPE	
☐ Double Box 6	**WEIGHT**			TOOL DEPTH	
☐ Single	**GRADE**			**TAIL PIPE:** SIZE	DEPTH
☐ Swage	**THREADS**			**TUBING VOLUME**	BBLs
☐ Knockout	☐ New	☑ Used		**CSG VOL BELOW TOOL**	BBLs
	DEPTH	50		**TOTAL**	BBLs
CEMENT TEMPERATURE:		52		**ANNULAR VOLUME**	BBLs
WATER QUALITY:		8	**pH** 0	**PPM** 45	**TEMP**

TIME	PRESSURE		VOLUME PUMPED		JOB SCHEDULED FOR			ARRIVE ON LOCATION			RIG UP			LEFT LOCATION		
0001 to 2400	TBG	CSG	INCR	CUM	**TIME:** 14:00	**DATE:** 11/26/2012		**TIME:** 12:40	**DATE:** 11/26/2012		**TIME:** 12:50	**DATE:** 11/26/2012		**TIME:** 14:55	**DATE:** 11/26/2012	
					RATE	FLUID TYPE	DENSITY									
13:30								Safety meeting								
13:40	600		1	1	1	H2O	8.3	Pressure Test								
13:52	10		2.5	3.5	1	H2O	8.3	Load Hole								
13:55	10		3.5	7	1	Cmt.	15.8	Pump Cement @ 15.8 PPG / 24.4 Sks.								
14:05			0.5	7.5		Cmt.	15.8	Pull Tubing and top off								
14:07			1	8.5	3	Cmt.	15.8	Pump rest of cement to pit								
14:10			40	48.5	3	H2O	8.3	Wash up Pump and Lines								
14:30						H2O	8.3	Rig Down								

System Used	No.of Sacks	Yield ft^3/sk	COMPOSITION OF SYSTEM	SLURRY MIXED BBLS	SLURRY MIXED DENSITY
Class G	25	1.15	25 Sacks Class G Cement	5	15.8
			6 lbs CDI Dispersant		

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