Marathon Oil Company

Casing & Cement
Well Name: 697-26A-21

02054393

Casing Detail:

Casing Description	Prop Run?	Run Date	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	Set Tension (1000lbf)	Centralizers	Scratchers
Surface	Yes	5/9/2010 00:00	2,199.3			One rigid	

Wellbore Name	Original KB Elevation (ft)	Water Depth (ft)	KB-Mud Line Distance (ft)
697-26A-21	8,424.00		

Comment: 045-19203

Casing Components

Joints	Item Description		Icon	OD (in)	ID (in)	Wt (lbs/ft)	Grade	Top Thread	Length (ft)	Top (ftKB)	Bottom (ftKB)	Comment
0	Casing Joints		Casing (black)	9 5/8	8.921	36.00	J-55	Buttress Thread	0.00	24.0	24.0	
0	Landing joint		Casing (black)	9 5/8	8.921	36.00	J-55	Buttress Thread	0.00	24.0	24.0	
1	Casing Hanger		Casing (black)	9 5/8	8.921	36.00	J-55	Buttress Thread	3.18	24.0	27.2	
49	Casing Joints		Casing (black)	9 5/8	8.921	36.00	J-55	Buttress Thread	2,034.68	27.2	2,061.9	
1	Air Collar		Casing (black)	9 5/8	8.921	36.00	J-55	Buttress Thread	1.60	2,061.9	2,063.5	
1	Casing Joints		Casing (black)	9 5/8	8.921	36.00	J-55	Buttress Thread	45.10	2,063.5	2,108.6	
1	Float Joint	"A"	Casing (black)	9 5/8	8.921	36.00	J-55	Buttress Thread	44.06	2,108.6	2,152.6	
1	Float	"A"	Casing (black)	9 5/8	8.921	36.00	J-55	Buttress Thread	1.24	2,152.6	2,153.9	
1	Shoe Joint	"A"	Casing (black)	9 5/8	8.921	36.00	J-55	Buttress Thread	43.79	2,153.9	2,197.7	
1	Shoe	"A"	Casing (black)	9 5/8	8.921	36.00	J-55	Buttress Thread	1.66	2,197.7	2,199.3	

Cementing Job Details:

String	Description	Type	Cementing Start Date	Cementing End Date	Cementing Company
Surface, 2,199.3ftKB	Surface Casing Cement	casing	5/10/2010 02:45	5/10/2010 17:35	BJ Services Company

Comment: No returns. Bumped plug @ 1274 psi Floats held OK. Got 1 bbl back. Final lift pressure prior to landing plug - 170 psi. Pumped 2 top outs for a total 315 sxs and 2 cubic yards of pea gravel.

Cement Stage#1 Description:

Stg No.	Top (ftKB)	Bottom (ftKB)	Pump Start Date	Pump End Date	Cement Volume Return (bbl)	Lost Volume (bbl)
1	24.0	2,199.0	5/10/2010 06:50	5/10/2010 09:43	0.0	

Float Failed?	Plug Failed?	Full Return?	Pipe Reciprocated?	Pipe Rotated?	Top Plug?	Bottom Plug?	Plug Bump Pressure (psi)	Pressure Held (psi)
No	No	No	No	No	No	Yes	1,274.0	1,274.0

Initial Pump Rate (bbl/min)	Final Pump Rate (bbl/min)	Average Pump Rate (bbl/min)	Final Pump Pressure (psi)	Pres Rel Time	Plug Depth (ftKB)	Drill Out Time	Drill Out Dia (in)
5	3	5	0.0	09:35			

Comment: Primary Cement

Spacer

Density (lb/gal)	Class	Amount (sacks)	Yield (ft³/sack)	V (bbl)	Mix H20 Ratio (gal/sack)	Water Source	Excess (%)	Pump Start	Pump End
8.34				20.0		Fresh Water - other		5/10/2010 06:50	5/10/2010 06:55

Fluid Type	Comment
Spacer	

Add	Type	Conc	Conc Unit	Amount	Amount Units

Lead

Density (lb/gal)	Class	Amount (sacks)	Yield (ft³/sack)	V (bbl)	Mix H20 Ratio (gal/sack)	Water Source	Excess (%)	Pump Start	Pump End
12.30	Type III	1,088	2.09	404.0	11.62	Fresh Water - other		5/10/2010 07:00	5/10/2010 08:26

Fluid Type	Comment
Lead	

Marathon Oil Company

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Add	Type	Conc	Conc Unit	Amount	Amount Units
Calcium Chloride	accelerator	1.0	%BWOC		
Static Free	anti-static	0.05	lb/sk		
Bentonite	extender	8.0	%BWOC		
FP-13L	foam preventer	1.0	lb/100 sk		

Tail

Density (lb/gal)	Class	Amount (sacks)	Yield (ft³/sack)	V (bbl)	Mix H20 Ratio (gal/sack)	Water Source	Excess (%)	Pump Start	Pump End
14.20	Type III	150	1.47	39.0	7.35	Fresh Water - other		5/10/2010 08:26	5/10/2010 08:40

Fluid Type	Comment
Tail	

Add	Type	Conc	Conc Unit	Amount	Amount Units
Calcium Chloride	accelerator	1.0	%BWOC		
Static Free	anti-static	0.05	lb/sk		
FP-13L	foam preventer	1.0	gal/100 sk		

Displacement

Density (lb/gal)	Class	Amount (sacks)	Yield (ft³/sack)	V (bbl)	Mix H20 Ratio (gal/sack)	Water Source	Excess (%)	Pump Start	Pump End
8.33				164.0		Fresh Water - other		5/10/2010 08:51	5/10/2010 09:31

Fluid Type	Comment
Displacement	

Add	Type	Conc	Conc Unit	Amount	Amount Units

Cement Stage#2 Description:

Stg No.	Top (ftKB)	Bottom (ftKB)	Pump Start Date	Pump End Date	Cement Volume Return (bbl)	Lost Volume (bbl)
2	24.0	2,199.0	5/10/2010 06:15	5/10/2010 14:32	5.0	

Float Failed?	Plug Failed?	Full Return?	Pipe Reciprocated?	Pipe Rotated?	Top Plug?	Bottom Plug?	Plug Bump Pressure (psi)	Pressure Held (psi)
No	No	No	No	No	No	No		

Initial Pump Rate (bbl/min)	Final Pump Rate (bbl/min)	Average Pump Rate (bbl/min)	Final Pump Pressure (psi)	Pres Rel Time	Plug Depth (ftKB)	Drill Out Time	Drill Out Dia (in)
2	2	2					

Comment
Top Out

Top out

Density (lb/gal)	Class	Amount (sacks)	Yield (ft³/sack)	V (bbl)	Mix H20 Ratio (gal/sack)	Water Source	Excess (%)	Pump Start	Pump End
14.20	Type III	315	1.61	92.0	7.35	Fresh Water - other		5/10/2010 14:10	5/10/2010 17:35

Fluid Type	Comment
Top out	2 top outs for a total 315 sxs and 2 cubic yards of pea gravel.

Add	Type	Conc	Conc Unit	Amount	Amount Units
A-10		10.0	%		
Calcium Chloride	accelerator	2.0	%		
Static Free	anti-static	0.04	lb/sk		

Wellheads

Install Date	Type	Job	Removed Date	Comment
5/10/2010	WEATHERFORD WELLHEAD	ORIGINAL DRILLING, 5/8/2010 00:00		11" WFT-RL-R07 5,000 # WP