



Cement Jobs by Well

Well Name: Apache Canyon 34-08

Surface Casing Cement

API/UWI 05071085410000	Location T33S-R67W-S34	Field Name Purgatoire River	Permit Number 20052313	State/Province Colorado	Well Configuration Type Vertical
Gr Elev (ft) 7,067.00	Casing Flange Elevation (ft)	KB-Ground Distance (ft) 0.00	KB-Casing Flange Distance (ft)	Spud Date 11/20/2005 12:15	Rig Release Date 11/22/2005 00:00

Surface Casing Cement, 11/20/2005 00:00

Type Casing	Cementing Start Date 11/20/2005	Cementing End Date	Wellbore Original Hole	String Surface, 226.1ftKB
Cementing Company	Evaluation Method	Cement Evaluation Results		

Comment
Circ 15 bbls cmt to surf.

1, 0.0-229.0ftKB

Top Depth (ftKB) 0.0	Bottom Depth (ftKB) 229.0	Full Return? No	Vol Cement Ret (bbl) 15.0	Top Plug? No	Bottom Plug? No
Initial Pump Rate (bbl/min)	Final Pump Rate (bbl/min)	Avg Pump Rate (bbl/min)		Final Pump Pressure (psi)	Plug Bump Pressure (psi)
Pipe Reciprocated? No	Reciprocation Stroke Length (ft)	Reciprocation Rate (spm)		Pipe Rotated? No	Pipe RPM (rpm)
Tagged Depth (ftKB)	Tag Method	Depth Plug Drilled Out To (ftKB)		Drill Out Diameter (in)	Drill Out Date

<typ>

Fluid Type	Fluid Description	Amount (sacks) 101	Class Midcon II	Volume Pumped (bbl)
Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H2O Ratio (gal/sack)
Free Water (%)	Density (lb/gal)	Plastic Viscosity (cP)	Thickening Time (hr)	1st Compressive Strength (psi)

Cement Fluid Additives

Add	Type	Conc

Conductor Casing Cement, 11/20/2005 00:00

Type Casing	Cementing Start Date 11/20/2005	Cementing End Date	Wellbore Original Hole	String Conductor, 20.0ftKB
Cementing Company	Evaluation Method	Cement Evaluation Results		

Comment

1, 0.0-20.0ftKB

Top Depth (ftKB) 0.0	Bottom Depth (ftKB) 20.0	Full Return? No	Vol Cement Ret (bbl)	Top Plug? No	Bottom Plug? No
Initial Pump Rate (bbl/min)	Final Pump Rate (bbl/min)	Avg Pump Rate (bbl/min)		Final Pump Pressure (psi)	Plug Bump Pressure (psi)
Pipe Reciprocated? No	Reciprocation Stroke Length (ft)	Reciprocation Rate (spm)		Pipe Rotated? No	Pipe RPM (rpm)
Tagged Depth (ftKB)	Tag Method	Depth Plug Drilled Out To (ftKB)		Drill Out Diameter (in)	Drill Out Date

<typ>

Fluid Type	Fluid Description	Amount (sacks) 7	Class	Volume Pumped (bbl)
Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H2O Ratio (gal/sack)
Free Water (%)	Density (lb/gal)	Plastic Viscosity (cP)	Thickening Time (hr)	1st Compressive Strength (psi)

Cement Fluid Additives

Add	Type	Conc

Production Casing Cement, 11/21/2005 00:00

Type Casing	Cementing Start Date 11/21/2005	Cementing End Date	Wellbore Original Hole	String Production, 1,777.8ftKB
Cementing Company	Evaluation Method	Cement Evaluation Results		

Comment
Circ 15 bbls cmt off DV tl. Circ 30 bbls cmt in second stage to surf.

1, 1,039.0-1,778.0ftKB

Top Depth (ftKB) 1,039.0	Bottom Depth (ftKB) 1,778.0	Full Return? No	Vol Cement Ret (bbl) 15.0	Top Plug? No	Bottom Plug? No
Initial Pump Rate (bbl/min)	Final Pump Rate (bbl/min)	Avg Pump Rate (bbl/min)		Final Pump Pressure (psi)	Plug Bump Pressure (psi)
Pipe Reciprocated? No	Reciprocation Stroke Length (ft)	Reciprocation Rate (spm)		Pipe Rotated? No	Pipe RPM (rpm)
Tagged Depth (ftKB)	Tag Method	Depth Plug Drilled Out To (ftKB)		Drill Out Diameter (in)	Drill Out Date



Cement Jobs by Well

Well Name: Apache Canyon 34-08

Surface Casing Cement

API/UWI 05071085410000	Location T33S-R67W-S34	Field Name Purgatoire River	Permit Number 20052313	State/Province Colorado	Well Configuration Type Vertical
Gr Elev (ft) 7,067.00	Casing Flange Elevation (ft)	KB-Ground Distance (ft) 0.00	KB-Casing Flange Distance (ft)	Spud Date 11/20/2005 12:15	Rig Release Date 11/22/2005 00:00

<typ>					
Fluid Type	Fluid Description	Amount (sacks) 135	Class Midcon II	Volume Pumped (bbl)	
Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H2O Ratio (gal/sack)	
Free Water (%)	Density (lb/gal)	Plastic Viscosity (cP)	Thickening Time (hr)	1st Compressive Strength (psi)	

Cement Fluid Additives					
Add		Type		Conc	

2, 0.0-1,039.0ftKB					
Top Depth (ftKB) 0.0	Bottom Depth (ftKB) 1,039.0	Full Return? No	Vol Cement Ret (bbl) 30.0	Top Plug? No	Bottom Plug? No
Initial Pump Rate (bbl/min)	Final Pump Rate (bbl/min)	Avg Pump Rate (bbl/min)		Final Pump Pressure (psi)	Plug Bump Pressure (psi)
Pipe Reciprocated? No	Reciprocation Stroke Length (ft)	Reciprocation Rate (spm)		Pipe Rotated? No	Pipe RPM (rpm)
Tagged Depth (ftKB)	Tag Method	Depth Plug Drilled Out To (ftKB)		Drill Out Diameter (in)	Drill Out Date

<typ>					
Fluid Type	Fluid Description	Amount (sacks) 180	Class Midcon II	Volume Pumped (bbl)	
Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H2O Ratio (gal/sack)	
Free Water (%)	Density (lb/gal)	Plastic Viscosity (cP)	Thickening Time (hr)	1st Compressive Strength (psi)	

Cement Fluid Additives					
Add		Type		Conc	