



Unit Petroleum

Liner Post Job Report

Geesling 16 1HXL

Reno KS

Quote #:

| Execution #:





Unit Petroleum

Attention: Mr. Steven Garrison | (918) 493-7700 | steve.garrison@unitcorp.com

Unit Petroleum | 8200 South Unit Drive | Tulsa, OK 77046

Dear Mr. Steve Garrison,

Thank you for the opportunity to provide cementing services on this well. BJ Services strives to achieve complete customer satisfaction. If you have any questions regarding the services or data provided, please contact BJ Services at any time.

Sincerely,
Kevin Aldridge
Sales Engineer | (405) 423-6862 | kevin.aldrige@bjsservices.com

Cementing Treatment



Start Date	11/03/2017	Well	Geesling 16 1HXL
End Date	11/04/2017	County	
Client	UNIT PETROLEUM CO	State/Province	KS
Client Field Rep		API	15-155-21749-0100
Service Supervisor		Formation	
Field Ticket No.	Production Liner	Rig	
District	Liberal, KS	Type of Job	Liner

WELL GEOMETRY

Type	ID (in)	OD (in)	Wt. (lb/ft)	MD (ft)	TVD (ft)	Excess(%)	Grade	Thread
Previous Casing	6.18	7.00	29.00	4,285.00	3,800.00			
Open Hole	6.13			5,800.00	3,915.00	10.00		
Drill Pipe	3.34	4.00	14.00	4,070.00	3,300.00			
Liner	3.92	4.50	13.60	5,800.00	3,915.00			

Shoe Length (ft): 84

HARDWARE

Bottom Plug Used?	No	Tool Type	Liner Hanger
Bottom Plug Provided By	Non BJ	Tool Depth (ft)	4,060.34
Bottom Plug Size	4.500	Max Tubing Pressure - Rated (psi)	
Top Plug Used?	Yes	Max Tubing Pressure - Operated (psi)	
Top Plug Provided By	Non BJ	Max Casing Pressure - Rated (psi)	12,410.00
Top Plug Size	4.000	Max Casing Pressure - Operated (psi)	9,928.00
Centralizers Used	No	Pipe Movement	
Centralizers Quantity		Job Pumped Through	Manifold
Centralizers Type		Top Connection Thread	LTC
Landing Collar Depth (ft)	5,716	Top Connection Size	4

CIRCULATION PRIOR TO JOB

Cementing Treatment



Well Circulated By	Rig	Solids Present at End of Circulation	No
Circulation Prior to Job	Yes	10 sec SGS	
Circulation Time (min)	30.00	10 min SGS	
Circulation Rate (bpm)	5.00	30 min SGS	
Circulation Volume (bbls)		Flare Prior to/during the Cement Job	No
Lost Circulation Prior to Cement Job	No	Gas Present	No
Mud Density In (ppg)		Gas Units	
Mud Density Out (ppg)			
PV Mud In			
PV Mud Out			
YP Mud In			
YP Mud Out			

TEMPERATURE

Ambient Temperature (°F)	37.00	Slurry Cement Temperature (°F)	58.00
Mix Water Temperature (°F)	50.00	Flow Line Temperature (°F)	62.00

BJ FLUID DETAILS

Fluid Type	Fluid Name	Density (ppg)	Yield (Cu Ft/sk)	H2O Req. (gals/sk)	Vol (sk)	Vol (Cu Ft)	Vol (bbls)
Spacer / Pre Flush / Flush	UltraFlush	8.4000					25.0000
Tail Slurry	Tail Cement	13.6000	1.6213	7.19	140	218.0000	38.8000
Displacement 1	Displacment ahead of plug	8.3300				0.0000	10.0000
Displacement 2	Liner Displacement	8.3300				0.0000	176.0000

Fluid Type	Fluid Name	Component	Concentration	UOM
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Cementing Treatment



Spacer / Pre Flush / Flush	UltraFlush	IntegraGuard ULTRA II	100.00	PCT
Tail Slurry	Tail Cement	CEMENT, CLASS H	50.00	PCT
Tail Slurry	Tail Cement	FL-52C, Fluid Loss Add (BJS Only)	0.50	BWOB
Tail Slurry	Tail Cement	SALT, Sodium Chloride, Medium	10.00	BWOW
Tail Slurry	Tail Cement	IntegraSeal KOL	3.00	LBS/SK
Tail Slurry	Tail Cement	IntegraSeal KOL	5.00	LBS/SK
Tail Slurry	Tail Cement	EXTENDER, BENTONITE	2.00	BWOB
Tail Slurry	Tail Cement	CSI-POZ	50.00	PCT
Tail Slurry	Tail Cement	CD-100	0.20	BWOB
Tail Slurry	Tail Cement	CEMENT EXTENDER, GYPSUM, A-10	5.00	BWOB
Tail Slurry	Tail Cement	FOAM PREVENTER, FP-11	0.20	LBS/SK
Tail Slurry	Tail Cement	IntegraSeal CELLO	0.25	LBS/SK
Displacement 1	Displacement ahead of plug	Fresh Water	100.00	PCT
Displacement 1	Displacement ahead of plug	CR-1000	50.00	LBS

TREATMENT SUMMARY

Time	Fluid	Rate (bpm)	Fluid Vol. (bbls)	Pipe Pressure (psi)	Annulus Pressure (psi)	Comments
	UltraFlush	6.00	25.00			
	Tail Cement	6.00	38.80			
	Displacement ahead of plug	6.00	10.00			
	Liner Displacement	5.00	176.00			

	Min	Max	Avg
Pressure (psi)	0.00	4,000.00	650.00
Rate (bpm)	3.50	6.00	5.00

DISPLACEMENT AND END OF JOB SUMMARY

Cementing Treatment



Displaced By	BJ	Amount of Cement Returned/Reversed	10.00
Calculated Displacement Volume (bbls)	68.00	Method Used to Verify Returns	Visual
Actual Displacement Volume (bbls)	68.00	Amount of Spacer to Surface	
Did Float Hold?	Yes	Pressure Left on Casing (psi)	
Bump Plug	Yes	Amount Bled Back After Job	0.50
Bump Plug Pressure (psi)	2,000.00	Total Volume Pumped (bbls)	363.00
Were Returns Planned at Surface	No	Top Out Cement Spotted	No
Cement returns During Job	None	Lost Circulation During Cement Job	No

CEMENT PLUG

Bottom of Cement Plug?	No	Wiper Balls Used?	No
Wiper Ball Quantity		Plug Catcher	Yes
Number of Plugs			

SQUEEZE

Injection Rate (bpm)	Fluid Density (ppg)
Injection Pressure (psi)	ISIP (psi)
Type of Squeeze	FSIP (psi)
Operators Max SQ Pressure (psi)	

COMMENTS

Treatment Report

Job Summary

Cementing Treatment



25bbls HIVIS SWEEP
38bbls Tail cement
shut down wash up to pit
pump 2bbls sugar water
drop the plug
pump 8bbls of sugar water behind plug and continue with displacement
68bbls of displacement pumped including the 8bbls of sugar water
set packer put 500PSI to release liner to reverse out
92bbls to reverse out
1000Psi to test against the annular rams

Customer Name Unit Petroleum Company
 Well Name Geesing 15 1HX1
 Job Type Liner

District Liberal
 Supervisor Hector Esqueda
 Engineer Kevin A.



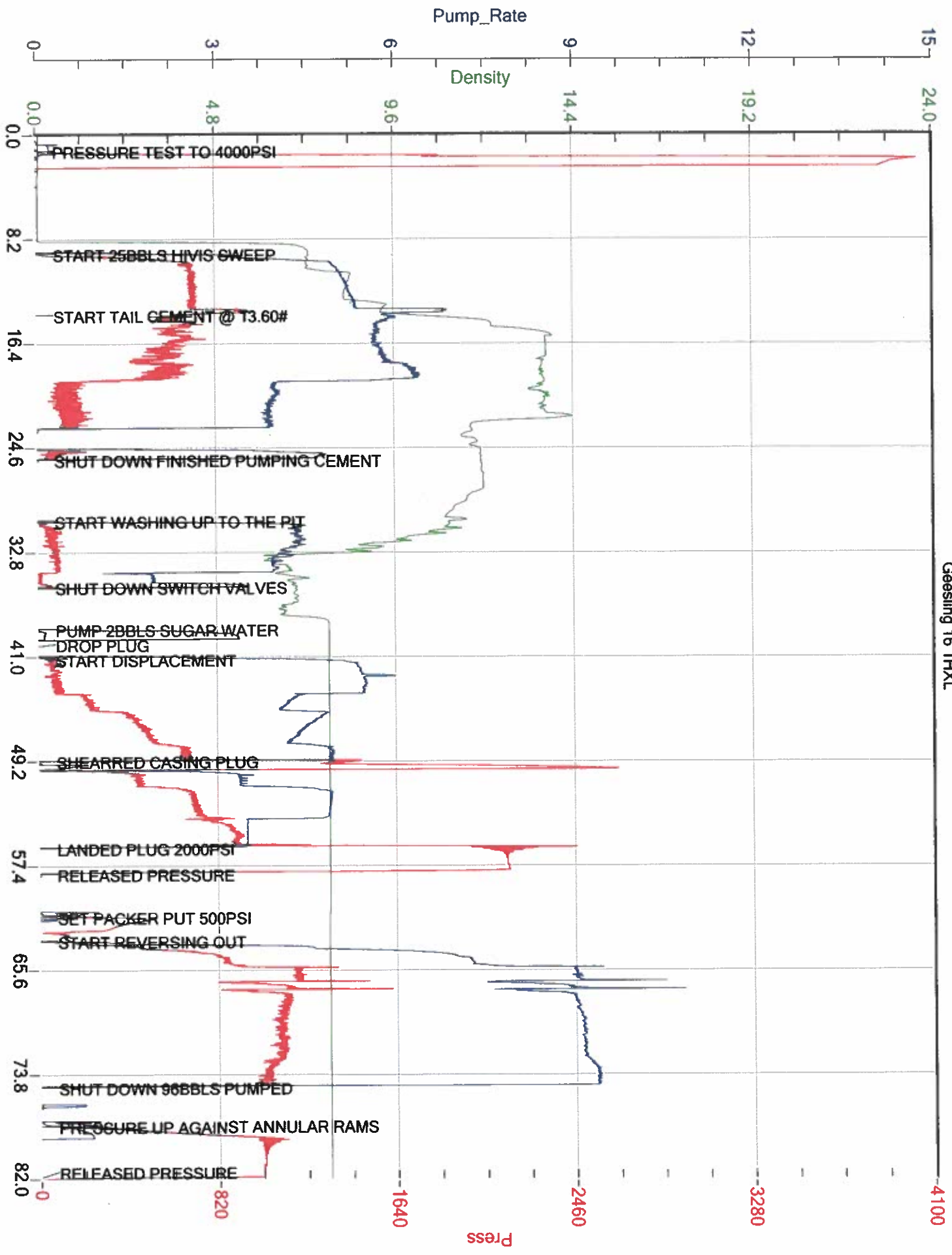
Seq No.	Start Date/Time	Category	Event	Equipment	Event ID	Density (lb/gal)	Pump Rate (bpm)	Pump Vol (bbls)	Pipe Pressure (psi)	Comments
1	11/3/2017 5:00	Mobilization	Callout		1					
2	11/3/2017 10:00	Mobilization	Arrive on Location		48					
3	11/3/2017 10:05	Operational	Spot Units	Cement Pump Truck	49					
4	11/3/2017 10:10	Operational	Rig Up	Cement Pump Truck	50					
5	11/3/2017 10:45	Operational	Prime Up	Cement Pump Truck	52					Baker Hughes Liner could not be set for that they are bringing another one from Oklahoma City and its going to take a few hours before we start with cement.
6	11/3/2017 13:30	Downtime	Equipment Issue		77					
7	11/4/2017 2:40	Operational	Rig Up		50					rig up iron to the baker hughes head
8	11/4/2017 2:51	Operational	Safety Meeting		53					Hold Steas Meeting
9	11/4/2017 3:03	Operational		Cement Pump Truck						start mixing the HIVIS SWEEP spacer into tanks
10	11/4/2017 3:14	Operational	Pressure Test	Cement Pump Truck	54				4000	
11	11/4/2017 3:22	Operational	Pump Spacer	Cement Pump Truck	56		5	25	700	
12	11/4/2017 3:27	Operational	Pump Tail Cement	Cement Pump Truck	60	13.6	6	40	700	
13	11/4/2017 3:37	Operational		Cement Pump Truck						shut down wash up to the pit
14	11/4/2017 3:51	Operational		Cement Pump Truck						Baker hughes dropped his plug
15	11/4/2017 3:53	Operational	Drop Top Plug		63					
16	11/4/2017 3:54	Operational	Pump Displacement	Cement Pump Truck	64		5.3	68	100	start with 8bbls of sugar water after plug and continue on with displacement customers orders
17	11/4/2017 3:56	Operational	Pump Displacement	Cement Pump Truck	64		5.5	10	110	10bbls gone
18	11/4/2017 3:57	Operational	Pump Displacement	Cement Pump Truck	64		4.9	20	420	20bbls gone
19	11/4/2017 4:00	Operational	Pump Displacement	Cement Pump Truck	64		4.2	30	550	30bbls gone
20	11/4/2017 4:03	Operational	Pump Displacement	Cement Pump Truck	64		3	41	2800	41bbls gone drilling pipe sheared casing plug @ 2800 PSI
21	11/4/2017 4:05	Operational	Pump Displacement	Cement Pump Truck	64		5	50	750	50bbls gone
22	11/4/2017 4:07	Operational	Pump Displacement	Cement Pump Truck	64		3.5	58	890	58bbls gone slow down rate to 3.5bpm to land the plug
23	11/4/2017 4:09	Operational	Land Plug	Cement Pump Truck	67				2000	landed plug @ 2000PSI final circulating pressure was 1000PSI hold pressure for a few minutes to make sure that the floats are holding
24	11/4/2017 4:11	Operational	Check Floats		68					got 1/2 bbl back to the tank
25	11/4/2017 4:14	Operational	3rd Party Operational		90					baker hughes is going to set the packer so we can start pumping to reverse out
26	11/4/2017 4:16	Operational	Other (See comments)	Cement Pump Truck	76		7.2	96	870	shut down pumped 96 bbls of water we reversed out all the HIVIS SWEEP and about 10bbls of hughes hand orders
27	11/4/2017 4:21	Operational	Other (See comments)	Cement Pump Truck	76		9	40	1150	40bbls gone
28	11/4/2017 4:27	Operational	End Pumping		69					shut down pumped 96 bbls of water we reversed out all the HIVIS SWEEP and about 10bbls of cement. Baker Hughes gave me the information

Customer Name Unit Petroleum Company
 Well Name Geesling 16 1HXL
 Job Type Liner

District Liberal
 Supervisor Hector Esqueda
 Engineer Kevin A.



Seq No.	Start Date/Time	Category	Event	Equipment	Event ID	Density (lb/gal)	Pump Rate (bpm)	Pump Vol (bbls)	Pipe Pressure (psi)	Comments
29	11/4/2017 4:31	Operational		Cement Pump Truck	53				1000	have the rig crew close in the annular rams to test the liner watch pressure for a few minutes and release pressure
30	11/4/2017 4:36	Operational	Safety Meeting		73					Hold AAR meeting
31	11/4/2017 4:50	Operational	Rig Down							
32	11/4/2017 6:00	Mobilization	Leave Location		74					Thank You





CEMENT MIXING WATER GUIDELINES

Company Name:

UNIT PETROLEUM COMPANY

Lease Name:

Geesling 16 # 1HXL

County

Reno

State

KS

Water Source:

TANK

Submitted By:

Hector Esqueda

Date:

10/3/2017

pH Level

7

Must be less than 8.5

Sulfates

400

Must be less than 1,000 PPM

Chlorides

0

Must be less than 3,000 PPM

Temperature

64

COMMENTS

Thank You

Customer Signature

