Submit 1 Copy To Appropriate District Office
District I – (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II – (575) 748-1283
811 S. First St., Artesia, NM 88210
District III – (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV – (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Revised July 18, 2013

WELL API NO. 30-015-45744

5. Indicate Type of Lease STATE ☐ FEE ☒

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name: SHEPHERD 3-2-23-27 FEE

1. Type of Well: Oil Well ☐ Gas Well ☒ Other

8. Well Number 401H

2. Name of Operator: WPX ENERGY PERMIAN, LLC

9. OGRID Number 246289

3. Address of Operator: 3500 ONE WILLIAMS CENTER, MD: 35, TULSA, OK 74172

10. Pool name or Wildcat: PURPLE SAGE, WOLFCAMP (GAS)

4. Well Location
Unit Letter L : 2361 feet from the SOUTH line and 1195 feet from the WEST line
Section 3 Township 23S Range 27E NMPM County EDDY

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)* 3,138' RKB

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	P AND A	☐
PULL OR ALTER CASING	☐	MULTIPLE COMPL	☐	CASING/CEMENT JOB	☒		
DOWNHOLE COMMINGLE	☐						
CLOSED-LOOP SYSTEM	☐						
OTHER:	☐			OTHER:	☐		

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Please be advised that the 7" Casing/Cement job has been completed for the above mentioned well as follows:

Set 7" on 03/30/2019
Depth of Drilled Hole: 9,373'
Weight, Grade and Length: 29#, VA-XP-P110, 9,324'
Centralizers Used: 53
Setting Depth of Shoe: 9,349'
Top of Cement: 600'
Cemented Casing w/ 599 sx of 11.5 Lead & 206 sx of 15.6 Tail = TL of 805 sx
Tested Casing to 1500 psi for 30 minutes.

RECEIVED
APR 08 2019
DISTRICT II-ARTESIA O.C.D.

Spud Date: 03/12/2019 Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Lorri Kline Digitally signed by Lorri Kline DN: cn=Lorri Kline, o, ou, email=LORRI.KLINE@WPXENERGY.COM, c=US Date: 2019.04.01 09:43:45 -05'00' TITLE REGULATORY TECH II DATE 04/01/2019

Type or print name LORRI KLINE E-mail address: lorri.kline@wpxenergy.com PHONE: 539-573-3518

For State Use Only

APPROVED BY: [signature] TITLE Staff Mgr DATE 4/10/19

Conditions of Approval (if any):

Schlumberger

Cementing Service Report

Customer	Job Number
WPX Energy, Inc	2947001

Well	Location (legal)	Schlumberger Location	Job Start
Shepherd 3-2-23-27 FEE 401H	0631806771	Hobbs	Mar/30/2019

Field	Formation Name/Type	Deviation	Bit Size	Well MD	Well TVD
		3 deg	8.8 in	9373.7 ft	9014.0 ft

County	State/Province	BHP	BHST	BHCT	Pore Press. Gradient
Eddy	New Mexico	psi	165 degF	165 degF	lb/gal

Well Master	API/UWI
0631806771	30015457440000

Rig Name	Drilled For	Service Via
H&P 265	Oil & Gas	Land

Offshore Zone	Well Class	Well Type
	New	Development

Drilling Fluid Type	Max. Density	Plastic Viscosity
OBM	11.20 lb/gal	1.000 cP

Service Line	Job Type
Cementing	Cem Interm2 Casing

Max. Allowed Tub. Press	Max. Allowed Ann. Press	WH Connection
psi	psi	Single Cement head

Casing/Liner

Depth, ft	Size, in	Weight, lb/ft	Grade	Thread
2090.0	9.6	40.0	J55	BTC
9349.0	7.0	29.0	P110	BTC

Tubing/Drill Pipe

T/D	Depth, ft	Size, in	Weight, lb/ft	Grade	Thread

Perforations/Open Hole

Top, ft	Bottom, ft	shot/ft	No. of Shots	Total Interval
ft	ft			ft
ft	ft			Diameter
ft	ft			in

Service Instructions

LEAD: 599sx/265bbls/Yld2.49/Mw14.63/MW209bbls
TAIL: 206sx/45bbls/Yld1.23/Mw5.37/MW26
Spacer to surface: 10bbls

INTERMEDIATE 2: Provide service and equipment to cement 9,503' of 7" Intermediate Casing inside of 8 3/4"
Open Hole with 25% Excess of Tail and Lead. Top of Tail @ 8,253' (45 bbls). Top of Lead @ Surface (265.3 bbls). 30 bbls weighted MUDPUSH Express Spacer ahead.

Treat Down	Displacement	Packer Type	Packer Depth
Casing	344.3 bbl	None	ft

Tubing Vol.	Casing Vol.	Annular Vol.	Openhole Vol.
bbl	347.5 bbl	254.0 bbl	bbl

Casing/Tubing Secured	1 Hole Vol. Circulated prior to Cement
[x]	[x]

Lift Pressure	7049 psi
Pipe Rotated	[ ]
Pipe Reciprocated	[ ]

No. Centralizers	Top Plugs	Bottom Plugs
	1	

Cement Head Type	Single

Job Scheduled For	Arrived on Location	Leave Location
Mar/29/2019 22:00	Mar/29/2019 22:00	Mar/30/2019 10:00

Casing Tools		Squeeze Job	
Shoe Type	Float	Squeeze Type	
Shoe Depth	9349.0 ft	Tool Type	
Stage Tool Type		Tool Depth	ft
Stage Tool Depth	ft	Tail Pipe Size	in
Collar Type	Float	Tail Pipe Depth	ft
Collar Depth	9268.3 ft	Sqz. Total Vol.	bbl

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate BPM	Density LB/G	Volume BBL	Message
03/30/2019	02:48:58	4	0.0	8.38	0.0	
03/30/2019	02:48:59	3	0.0	8.38	0.0	Start Job @ 02:00
03/30/2019	02:49:01	1	0.0	8.38	0.0	Safety Mtg @ 02:00
03/30/2019	02:49:16	5	0.0	8.38	0.0	Rig Down CRT @ 02:15
03/30/2019	02:49:42	3	0.0	8.38	0.0	Rig Up Head @ 02:30
03/30/2019	02:50:38	3	0.0	8.38	0.0	
03/30/2019	02:50:57	1	0.0	8.38	0.0	Open Well
03/30/2019	02:52:18	2	0.0	8.38	0.0	
03/30/2019	02:53:20	2	0.0	8.38	0.0	Flush-Load Line
03/30/2019	02:53:58	4	0.0	8.38	0.0	
03/30/2019	02:55:38	5	0.0	8.38	0.0	
03/30/2019	02:57:18	102	0.6	8.37	0.5	
03/30/2019	02:57:27	219	1.2	8.38	0.7	Pressure Test
03/30/2019	02:58:58	265	0.0	8.38	0.8	
03/30/2019	03:00:25	734	5.4	8.38	3.6	Remark
03/30/2019	03:00:38	367	6.2	8.38	4.9	
03/30/2019	03:02:18	2234	0.0	8.38	5.4	
03/30/2019	03:02:40	4076	0.0	8.38	5.4	Pressure Test Complete
03/30/2019	03:03:58	3977	0.0	8.38	5.4	
03/30/2019	03:05:38	206	0.0	8.38	5.4	
03/30/2019	03:07:18	262	0.0	8.38	5.4	

Well	Field	Job Start	Customer	Job Number
Shepherd 3-2-23-27 FEE 401H		Mar/30/2019	WPX Energy, Inc.	2947001

Date	Time 24-hr Clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
03/30/2019	03:08:58	257	0.0	8.38	5.4	
03/30/2019	03:10:38	243	0.0	8.38	5.4	
03/30/2019	03:12:18	535	4.4	10.24	12.5	
03/30/2019	03:13:58	495	4.4	10.55	19.8	
03/30/2019	03:15:38	483	4.4	10.58	29.3	
03/30/2019	03:17:18	504	4.5	11.32	36.8	
03/30/2019	03:17:28	484	4.5	11.42	37.5	End MPE/30bbls
03/30/2019	03:17:45	481	4.5	11.53	38.8	Begin Lead
03/30/2019	03:18:58	719	6.4	11.53	46.4	
03/30/2019	03:20:38	665	6.4	11.55	57.1	
03/30/2019	03:22:18	661	6.4	11.50	67.8	
03/30/2019	03:23:58	587	6.4	11.52	78.5	
03/30/2019	03:25:38	542	6.4	11.52	89.2	
03/30/2019	03:27:18	501	6.4	11.57	99.9	
03/30/2019	03:28:58	474	6.4	11.54	110.6	
03/30/2019	03:30:38	426	6.5	11.50	121.2	
03/30/2019	03:32:18	417	6.4	11.56	131.9	
03/30/2019	03:33:58	364	6.5	11.52	142.7	
03/30/2019	03:35:38	316	6.5	11.51	153.4	
03/30/2019	03:37:18	345	6.4	11.54	164.1	
03/30/2019	03:38:58	329	6.5	11.51	174.9	
03/30/2019	03:40:38	331	6.5	11.53	185.6	
03/30/2019	03:42:18	355	6.5	11.53	196.4	
03/30/2019	03:43:58	347	6.5	11.53	207.1	
03/30/2019	03:45:38	339	6.4	11.54	217.9	
03/30/2019	03:47:18	346	6.4	11.53	228.6	
03/30/2019	03:48:58	353	6.4	11.50	239.3	
03/30/2019	03:50:38	313	6.4	11.44	250.0	
03/30/2019	03:52:18	331	6.4	11.48	260.8	
03/30/2019	03:53:58	312	6.5	11.48	271.5	
03/30/2019	03:55:38	318	6.4	11.57	282.1	
03/30/2019	03:57:18	157	6.3	11.36	292.9	
03/30/2019	03:58:58	262	4.5	13.96	301.3	
03/30/2019	03:59:04	294	4.5	14.26	301.8	End Lead/6.5bbpm/265bbls
03/30/2019	03:59:30	380	4.5	15.05	303.7	Start Tail
03/30/2019	04:00:38	400	4.5	15.55	308.8	
03/30/2019	04:02:18	837	6.3	15.62	317.2	
03/30/2019	04:03:58	761	6.3	15.51	327.7	
03/30/2019	04:05:38	626	5.7	15.50	338.2	
03/30/2019	04:06:51	751	6.3	15.52	345.8	End Tail/6.3bpm/45bbls/750psi
03/30/2019	04:07:18	-3	0.0	15.62	346.4	
03/30/2019	04:08:58	-5	0.0	15.62	346.4	
03/30/2019	04:10:38	-6	0.0	15.62	346.4	
03/30/2019	04:12:06	-7	0.0	15.62	346.4	Drop Top Plug
03/30/2019	04:12:18	-4	0.0	15.62	346.4	
03/30/2019	04:12:25	-5	0.0	15.62	346.4	Start Displacement
03/30/2019	04:13:58	-6	0.0	15.63	346.4	
03/30/2019	04:15:38	100	4.5	9.27	349.0	
03/30/2019	04:17:18	84	4.3	9.05	356.2	
03/30/2019	04:18:58	91	4.5	8.69	363.6	
03/30/2019	04:20:38	217	6.6	8.60	373.3	
03/30/2019	04:22:18	205	6.5	8.39	384.1	
03/30/2019	04:23:58	191	5.0	8.38	394.1	
03/30/2019	04:25:38	472	6.4	11.14	404.7	

Well	Field	Job Start	Customer	Job Number
Shepherd 3-2-23-27 FEE 401H		Mar/30/2019	WPX Energy, Inc.	2947001

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
03/30/2019	04:28:58	516	6.4	11.51	426.0	
03/30/2019	04:30:38	487	6.4	11.52	436.7	
03/30/2019	04:32:18	488	6.4	11.53	447.3	
03/30/2019	04:33:01	510	6.4	11.52	451.9	Remark
03/30/2019	04:33:02	492	6.4	11.52	452.0	Remark
03/30/2019	04:33:58	494	6.4	11.52	458.0	
03/30/2019	04:35:38	490	6.4	11.52	468.7	
03/30/2019	04:37:18	502	6.4	11.52	479.3	
03/30/2019	04:38:58	500	6.4	11.52	490.0	
03/30/2019	04:40:38	512	6.4	11.53	500.7	
03/30/2019	04:42:18	493	6.4	11.53	511.3	
03/30/2019	04:43:58	502	6.4	11.53	522.0	
03/30/2019	04:45:38	505	6.4	11.53	532.7	
03/30/2019	04:47:18	511	6.4	11.53	543.3	
03/30/2019	04:48:58	522	6.4	11.53	554.0	
03/30/2019	04:50:38	582	6.4	11.53	564.7	
03/30/2019	04:52:18	614	6.4	11.53	575.3	
03/30/2019	04:53:58	590	6.4	11.53	586.0	
03/30/2019	04:55:38	572	6.4	11.53	596.6	
03/30/2019	04:57:18	609	6.4	11.53	607.3	
03/30/2019	04:58:58	638	6.4	11.53	617.9	
03/30/2019	05:00:38	638	6.4	11.53	628.6	
03/30/2019	05:02:18	700	6.4	11.53	639.2	
03/30/2019	05:03:58	852	6.4	11.53	649.8	
03/30/2019	05:05:38	950	6.4	11.53	660.5	
03/30/2019	05:07:18	815	6.4	8.57	671.1	
03/30/2019	05:08:58	592	3.3	8.41	678.8	
03/30/2019	05:10:36	692	3.3	8.44	684.2	Bump Plug/2.2bpm/900-1400psi/344bbls
03/30/2019	05:10:38	678	3.3	8.44	684.3	
03/30/2019	05:12:18	712	3.3	8.41	689.8	
03/30/2019	05:13:36	831	3.3	8.40	694.2	Bleed Off/2bbls Back/Floats Hold
03/30/2019	05:13:58	1215	3.3	8.40	695.4	
03/30/2019	05:15:38	1483	0.0	8.40	696.0	
03/30/2019	05:17:18	588	0.0	8.39	696.0	
03/30/2019	05:17:37	-11	0.0	8.39	696.0	Job Complete/End Job
03/30/2019	05:18:58	1	0.0	8.40	696.0	

Post Job Summary

Average Pump Rates, bbl/min				Volume of Fluid Injected, bbl			
Slurry	N2	Mud	Maximum Rate	Total Slurry	Mud	Spacer	N2
5.9			6.7	696.5	0.0	37.6	

Treating Pressure Summary, psi					Breakdown Fluid		
Maximum	Final	Average	Bump Plug to	Breakdown	Type	Volume	Density
4099	27	534	1400			bbl	lb/gal

Avg. N2 Percent	Designed Slurry Volume	Displacement	Mix Water Temp		
%	310.0 bbl	349.6 bbl	70 degF	Cement Circulated to Surface? ☐	Volume bbl
				Washed Thru Perfs ☐	To ft

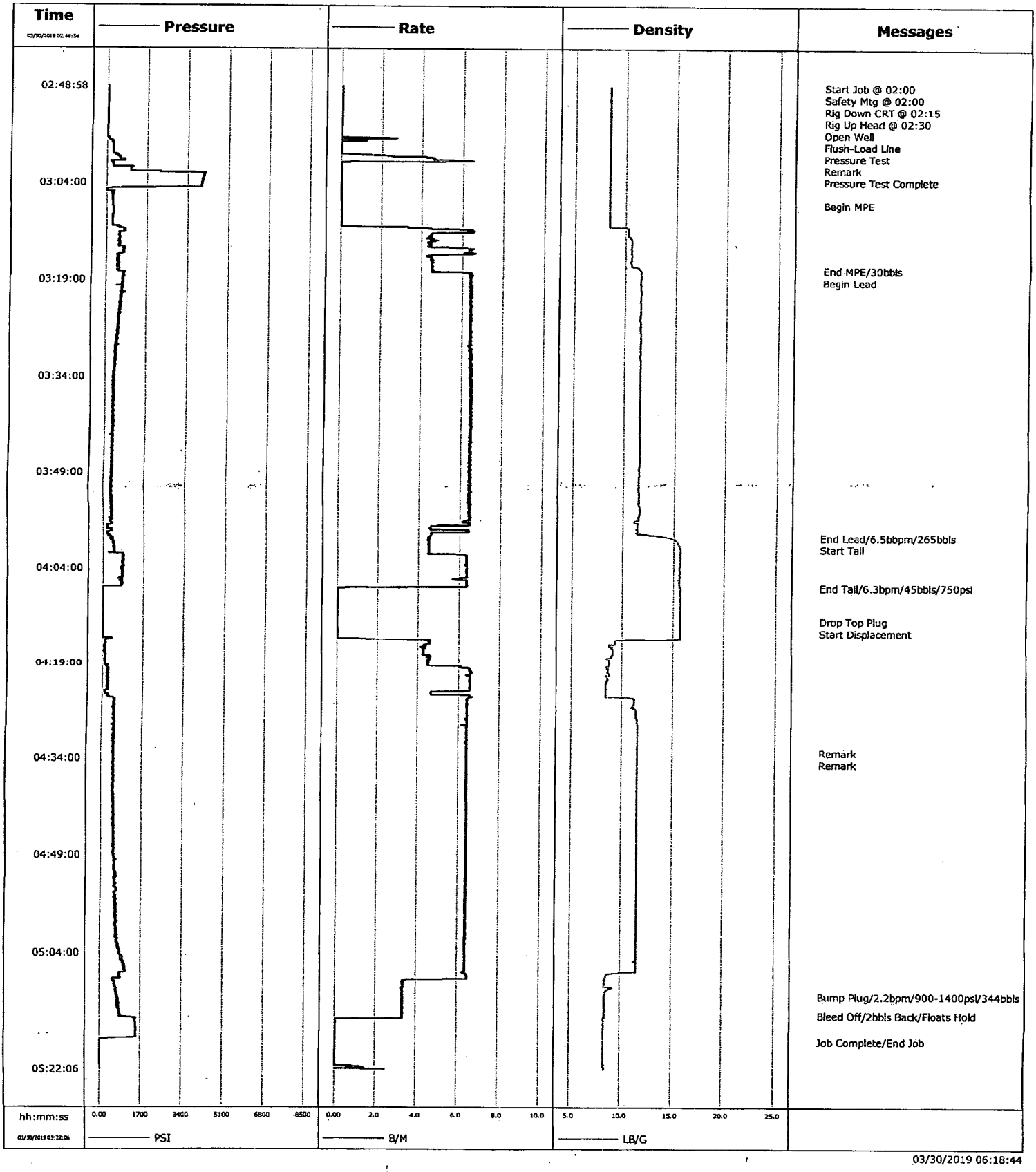
Customer or Authorized Representative	Schlumberger Supervisor		
	Jerry R McVay Jr	Circulation Lost ☐	Job Completed ☒
		-	-

Schlumberger

Cementing Job Report

CemCAT v1.7

Well	Shepherd 3-2-23-27 FEE 401H	**Client**	WPX Energy, Inc.
Field		**SIR No.**	2947001
Engineer	Jerry R McVay Jr	**Job Type**	Cem Interm2 Casing
Country	United States	**Job Date**	03/30/2019



Schlumberger

Laboratory Cement Test Report
HNM 2019-389-WPX-HP265-Shepherd 3-2-23-27 Fee 401H-Inter-FB Tail
Service Order Number: 2947001

LAR Name	: HNM 2019-389	Client	: WPX ENERGY	Location	: Hobbs-HNM-2003
Date	: Mar-26-2019	Well Name	: Shepherd 3-2-23-27 Fee 401H	Rig	: HP 265
String	: Intermediate				

Signatures

Report created by: Jaime Saravia

Design Input by: Danielle Willier

Job Type	: Primary	MD	: 9,503.00 ft	TVD	: 9,038.70 ft
BHST	: 165.00 °F	BHCT	: 152.00 °F	BHP	: 6,000.00 psi
Starting Temp	: 80.00 °F	Time To Temp	: 01:00 hr:mn	Heating Rate	: 0.00 °F/min
Starting Pressure	: 600.00 psi	Time To Pressure	: 01:00 hr:mn		

Composition

Slurry Density	: 15.60 lb/gal	Yield	: 1.23 ft³/sk	Mix Fluid	: 5.433 gal/sk
Solid Vol. Fraction	: 40.70 %	Slurry Type	: Tail	Mix Water	: 5.363 gal/sk

Code	Concentration	Sack Reference	Component	Blend Density	Lot Number
D909	100.00 % BVOB	Blend sack: 94 lb	Cement	197.28 lb/ft³	FB 8500
D065	0.10 % BWOB		Dispersant		10162018
D047	0.020 gal/sk VBWOB		Anti Foam		8R8B0017A1
D020	4.00 % BWOB		Extender		Bulk
D801 Spike	**0.050 gal/sk VBWOB**		Retarder		11J-26
Tap Water	5.363 gal/sk		Base Fluid		Tap

Rheology

S/N: 383				S/N: 383			
Surface (Configuration: R1B1 F1.0)				Downhole (Configuration: R1B1 F1.0)			
Temperature	70 °F			Temperature	152 °F		
(rpm)	Up (deg)	Down (deg)	Average (deg)	(rpm)	Up (deg)	Down (deg)	Average (deg)
300	201	201	201	300	160	160	160
200	159	155	157	200	135	125	130
100	108	105	106.5	100	95	88	91.5
60	85	83	84	60	76	72	74
30	61	63	62	30	58	58	58
6	28	39	33.5	6	38	42	40
3	21	32	26.5	3	26	36	31
10 sec Gel	34 deg - 36.19 lbf/100ft²			10 sec Gel	32 deg - 34.06 lbf/100ft²		
10 min Gel	61 deg - 64.93 lbf/100ft²			10 min Gel	59 deg - 62.8 lbf/100ft²		
Rheo. computed	PV: 170.4 cP, Ty: 38.9 lbf/100ft²			Rheo. computed	PV: 125.1 cP, Ty: 41.77 lbf/100ft²		
Conditioned at 152.00 °F and atmospheric pressure for 30 mins after reaching temperature							

Thickening Time S/N: 757

Set Conditions – Set Soft

Consistency	Time	Temp
POD Time	03:04 hr:mn	152 °F
30 Bc	03:24 hr:mn	152 °F
50 Bc	03:43 hr:mn	152 °F
70 Bc	03:56 hr:mn	152 °F

Free Fluid

(0%) 0 / 250mL in 2 hrs
At 152 °F and 0 deg inclination
Conditioned at 152.00 °F at ATM psi for 30 mins after reaching temperature
Sedimentation: None

Mud Balance S/N: 860210

Slurry Density Verified by Pressurized Fluid Balance: 15.60 lb/gal

Schlumberger

UCA Compressive Strength S/N: 868-L

Time	CS	Temp
02:40 hr:mn	50 psi	160 degF
04:25 hr:mn	500 psi	160 degF
24:00 hr:mn	1776 psi	160 degF

Comments

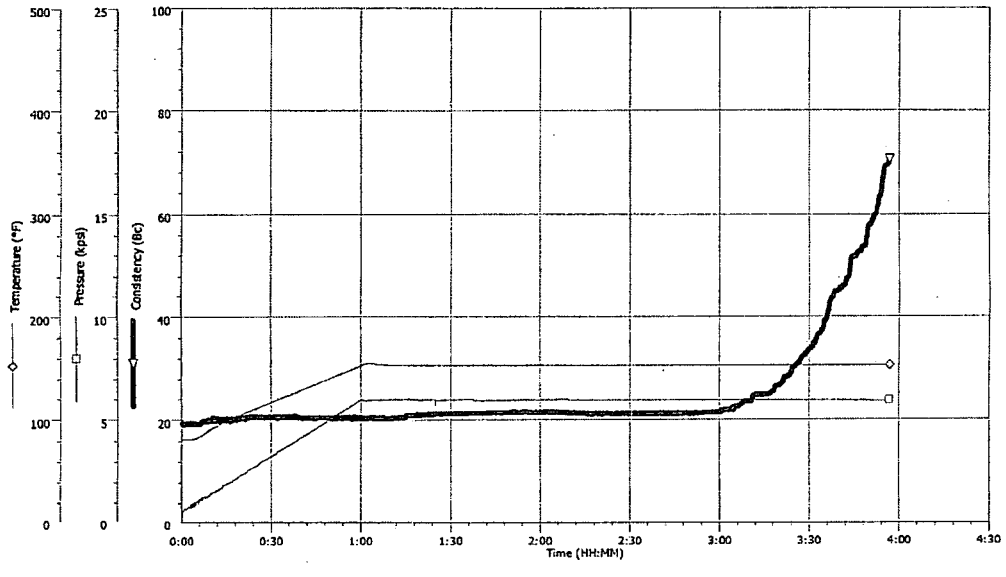
All slurries prepared and tested in accordance with API RB10B-2 unless otherwise noted
Time to Add Solids : 00:15 mn:sc
Vortex Quality: Good/visible

Thickening Time Graph

Instrument: Consistometer 1 757
Comments: .1% d065+ 4% D020+ .02gal/sk D047+ .05gal/sk D801

Test Start: 3/26/2019 11:22:20 AM

Test Stop: 3/26/2019 3:19:10 PM



CHANDLER ENGINEERING

Test File Name: CC1 HM 2019-389-WPX-HP265-Shepherd 3-2-23-27 Fee 401H-Inter-FB Tail Version 2
Printed: 3/26/2019 3:21:01 PM

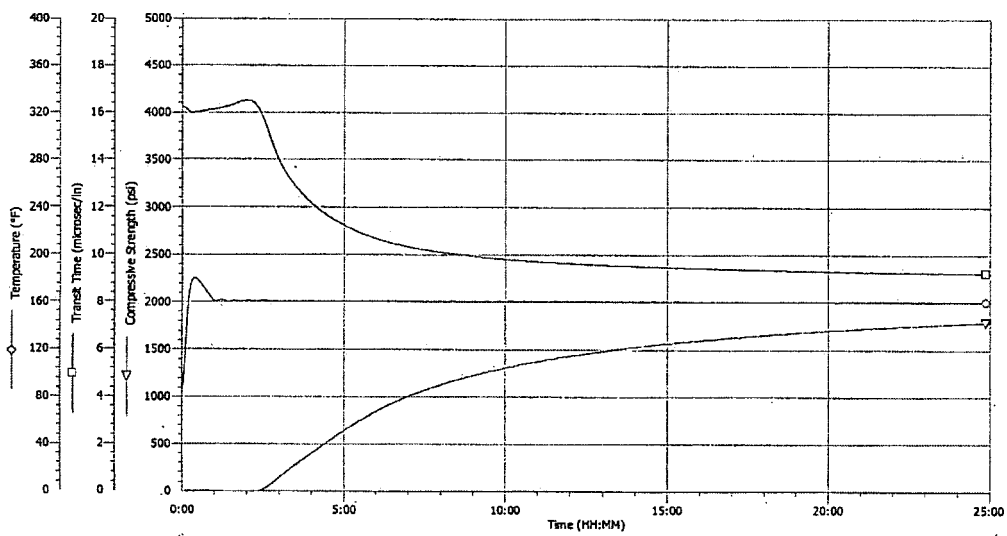
Page 1

UCA Graph

Density: 15.60
Intrument: UCA 0 S/N 944
Additives: 3 D020 + 0.1 D065 + 0.03 D601

Algorithm: Compressive strength type B (more than 14 lb/gal)

50 psi @ 2:40:00
500 psi @ 4:25:30
24hr: 1776 psi



SCHLUMBERGER

Comments:

Schlumberger

Laboratory Cement Test Report

HNM 2019-389-WPX-HP265-Shepherd 3-2-23-27 Fee 401H-Inter-FB Lead

Service Order Number: 2947001

LAR Name	: HNM 2019-389	Client	: WPX ENERGY	Location	: Hobbs-HNM-2003
Date	: Mar-26-2019	Well Name	: Shepherd 3-2-23-27 Fee 401H	Rig	: HP 265
String	: Intermediate				

Signatures

Report created by: James Barron
Design input by: Danielle Willier

Job Type	: Primary	MD	: 9,503.00 ft	TVD	: 9,038.70 ft
BHST	: 165.00 °F	BHCT	: 152.00 °F	BHP	: 6,000.00 psi
Starting Temp	: 80.00 °F	Time To Temp	: 01:00 hr:mn	Heating Rate	: 1.20 °F/min
Starting Pressure	: 600.00 psi	Time To Pressure	: 01:00 hr:mn		

Composition

Slurry Density	: 11.50 lb/gal	Yield	: 2.49 ft³/sk	Mix Fluid	: 14.660 gal/sk
Solid Vol. Fraction	: 20.99 %	Slurry Type	: Lead	Mix Water	: 14.630 gal/sk

Code	Concentration	Sack Reference	Component	Blend Density	Lot Number
D903	50.00 % BVOB	Blend sack: 84 lb	Cement	176.05 lb/ft³	FB - 8490
D035	50.00 % BVOB		Extender		FB - 8490
D079	0.25 % BWOB		Extender		61967
D047	0.020 gal/sk VBWOB		Anti Foam		8R8B0017A1
D020	9.00 % BWOB		Extender		Bulk
D013	0.60 % BWOB		Retarder		02K-08
D177 Spike	**0.010 gal/sk VBWOB**		Retarder		2018334AC
Tap Water	14.63 gal/sk		Base Fluid		Tap

Rheology

S/N: 383				S/N: 383			
Surface (Configuration: R1B1 F1.0)				Downhole (Configuration: R1B1 F1.0)			
Temperature	70 °F			Temperature	152 °F		
(rpm)	Up (deg)	Down (deg)	Average (deg)	(rpm)	Up (deg)	Down (deg)	Average (deg)
300	13	13	13	300	35	35	35
200	12	12	12	200	33	32	32.5
100	10	10	10	100	3	28	15.5
60	9	9	9	60	27	25	26
30	8	8	8	30	23	23	23
6	8	8	8	6	17	16	16.5
3	7	7	7	3	12	10	11
10 sec Gel	7 deg - 7.45 lbf/100ft²			10 sec Gel	12 deg - 12.77 lbf/100ft²		
10 min Gel	12 deg - 12.77 lbf/100ft²			10 min Gel	13 deg - 13.84 lbf/100ft²		
Rheo. computed	PV: 5.7 cP, Ty: 7.71 lbf/100ft²			Rheo. computed	PV: 19.7 cP, Ty: 16.28 lbf/100ft²		

Conditioned at 152.00 °F and atmospheric pressure for 30 mins after reaching temperature

Thickening Time S/N: 535

Set Conditions – Thick Gelled

Consistency	Time	Temp
POD Time	02:52 hr:mn	152 °F
30 Bc	03:10 hr:mn	152 °F
50 Bc	06:09 hr:mn	152 °F
70 Bc	06:09 hr:mn	152 °F

Free Fluid

(0%) 0 / 250mL in 2 hrs
At 0 °F and 0 deg inclination
Conditioned at 152.00 °F and ATM psi for 30 mins after reaching temperature
Sedimentation: None

Schlumberger

UCA Compressive Strength S/N: 711-R

Time	CS	Temp
12:49 hr:mn	50 psi	160 degF
41:15 hr:mn	500 psi	160 degF
24:00 hr:mn	224 psi	160 degF
72:00 hr:mn	703 psi	160 degF

Mud Balance S/N: 860210

Slurry Density Verified by Pressurized Fluid Balance: 11.50 lb/gal

Comments

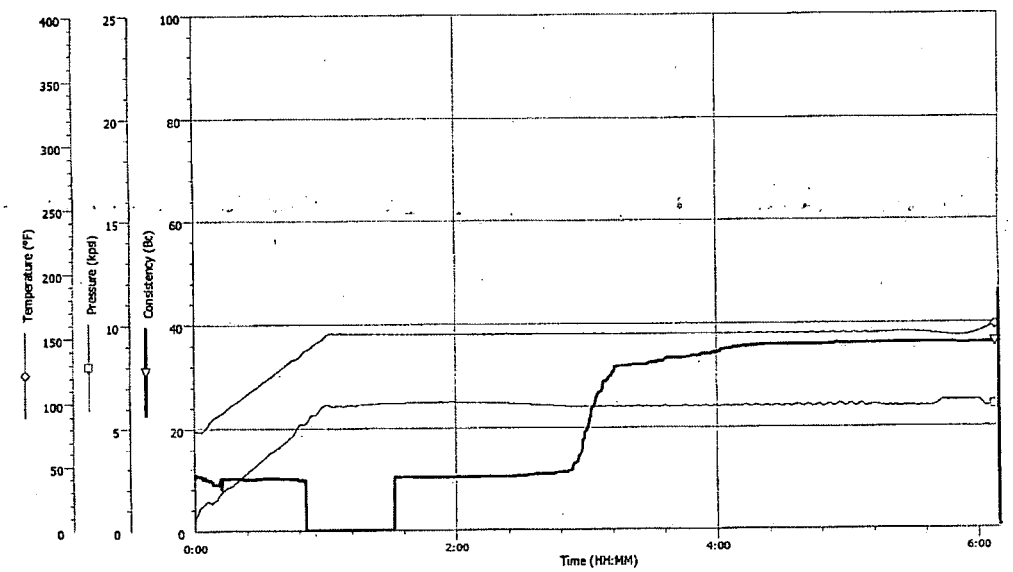
All slurries prepared and tested in accordance with API RB10B-2 unless otherwise noted

Time to Add Solids : 00:12 mn:sc

Vortex Quality: good/visible
Motor pause for 01:00 hr:mn @ 5:09: Pin Sheared
Test Approved By: U. Upke, SC

Thickening Time Graph

Instrument: Consistometer 0 535
Test Start: 3/25/2019 7:30:57 PM
Test Stop: 3/26/2019 1:46:11 AM
Comments: .25% D079 + 9% D020 + .6% D013 + .02 gal/sk D047 + .01 gal/sk D177



CHANDLER ENGINEERING

Test File Name: CC0 HNM 2019-389-WPX-HP265-Shepherd 3-2-23-27 Fee 401H-Inter-FB Lead Version 2
Printed: 3/26/2019 4:11:19 AM

Page 1

LAR: HNM 2019-389
Fluid: 11.5 ppg Lead

Page 2

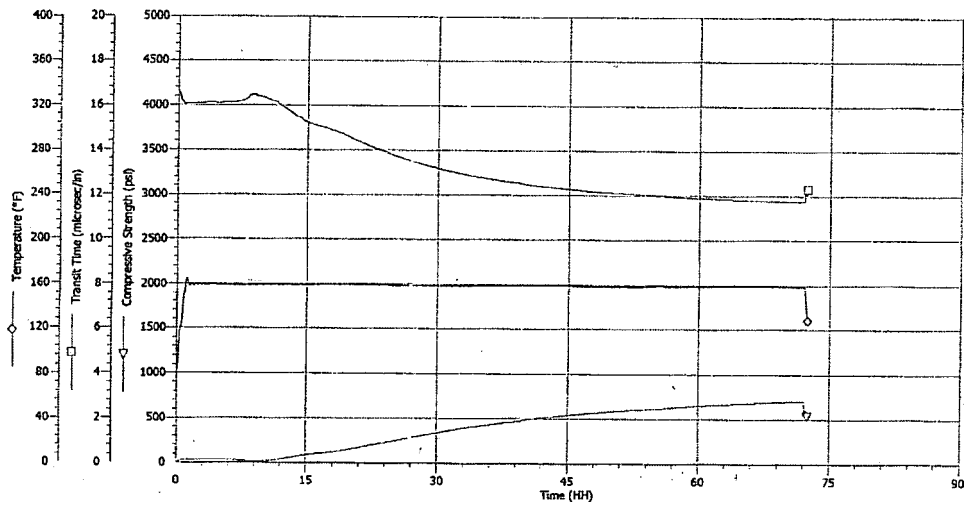
Schlumberger

UCA Graph

BHST: 180 BHCT: 135
Density: 11.6
Intrument: UCA-9 SN903

Algorithm Compressive strength type A (less than 14 lb/gal)

50 psi: 12:49:00
500 psi: 41:15:22
24hr: 234 psi
72hr: 703 psi



SCHLUMBERGER
Midland, TX District Laboratory

LAR: I NM 2019-389
Fluid: 11.5 ppg Lead

WPX Energy, Inc. - Shepherd 3-2-23-27 Fee 401H										
Pump Schedule					Spike per every 10 BBL tank					
Pre-Flush to clean Line and Pump - 10bbl					B389	D177	D801			
CONFIRM VALVE ALIGNMENT BEFORE PROCEEDING										
Pressure Test @ 4000 PSI			Rate	Time						
CONFIRM VALVE ALIGNMENT BEFORE PROCEEDING										
30	BBLS	MPE @ 10.5 PPG	6	5.0	.65lbs					
266	BBLS	LEAD @ 11.5 PPG	6	44.3		.3gal				
599sx	Yld2.49	Mix Water: 209bbls	Mw14.63							
45	BBLS	TAIL @ 15.6 PPG	6	7.5			3.96gal			
206sx	Yld1.23	Mix Water: 26bbls	Mw5.37							
CONFIRM VALVE ALIGNMENT BEFORE PROCEEDING										
DROP PLUG/WASH LINES				10.0						
CONFIRM VALVE ALIGNMENT BEFORE PROCEEDING										
344.3	BBLS	DISPLACEMENT								
322.3	BBLS	OBM	6	53.7						
20.0	BBLS	OBM	3	6.7						
			Hours	2.1						

Do Not Over Displace!

Volume of Shoe Jt. 3.2 BBLS