Submit 1 Copy To Appropriate District Office	State of New Me	xico		Form C-103	
<u>District I</u> – (575) 393-6161	Energy, Minerals and Natu	Revised July 18, 2013 WELL API NO.			
1625 N. French Dr., Hobbs, NM 88240 <u>District II</u> – (575) 748-1283		30-025-41343			
811 S. First St., Artesia, NM 88210 <u>District III</u> – (505) 334-6178	OIL CONSERVATION 1220 South St. Fran	5. Indicate Type of Le	_		
1000 Rio Brazos Rd., Aztec, NM 87410	Santa Fe, NM 87		STATE State Oil & Gas Le	FEE	
<u>District IV</u> – (505) 476-3460 1220 S. St. Francis Dr., Santa Fe, NM			o. State on & Gas Le.	asc Ivo.	
87505 SUNDRY NOT	CES AND REPORTS ON WELLS		7. Lease Name or Uni	t Agreement Name	
	SALS TO DRILL OR TO DEEPEN OR PLU CATION FOR PERMIT" (FORM C-101) FC		CENTRO 11 VI CITI	. I Dam	
PROPOSALS.)			8. Well Number 170		
 Type of Well: Oil Well Name of Operator 	Gas Well Other HOBBS	OCD .	9. OGRID Number	4323	
CHEVRON U.S.A. INC.	DEC %	3 2013	3. OOKID Number	+323	
3. Address of Operator		0 2010	10. Pool name or Wild		
15 SMITH ROAD, MIDLAND, T	EXAS 79705 RECE	n/er	VACUUM; GRAYBU	RG SAN ANDRES	
4. Well Location Unit Letter: L 2490 f	eet from SOUTH line and 500 fee	-	lina		
Section 36	Township 17S	Range 34E		inty LEA	
Section 30	11. Elevation (Show whether DR,			y 2221	
	4001' GL			<u> </u>	
10 (1)	A CANADA THE AND	C.N.T. (**	D O4b D - 4		
12. Check A	Appropriate Box to Indicate N	ature of Notice,	Report or Other Dat	a	
NOTICE OF IN		SUB	SEQUENT REPO	RT OF:	
PERFORM REMEDIAL WORK	PLUG AND ABANDON	REMEDIAL WOR		ERING CASING	
TEMPORARILY ABANDON DULL OR ALTER CASING	CHANGE PLANS MULTIPLE COMPL	COMMENCE DRI		ND A	
DOWNHOLE COMMINGLE	MOLTIFLE COMPL	CASING/CEMEN	1306		
CLOSED-LOOP SYSTEM					
OTHER:			L NEW WELL	 	
	leted operations. (Clearly state all pork). SEE RULE 19.15.7.14 NMAC				
proposed completion or rec		2. Poi Multiple Coi	ipicuons. Attach went	ore diagram of	
	•				
11/04/2013: SPUD WELL . DRILI 11/06/2013: RAN 11.75" 42# H-40	· · · · · · · · · · · · · · · · · · ·	@ 1025 CV 195 DI	DI C CMT TO CIDE		
11/07/2013: RAN 11.73 42# H-40 11/07/2013: DRILL 1506-2600,321		@ 1055 SA. 165 DI	BLS CMT TO SUKF.		
11/09/2013: RAN 8 5/8" INTER C		X CMT. 21 BBLS (CMT TO SURF.		
11/10/2013: DRILL 3210-4018,481					
11/12/2013: RAN 5 ½" 17# J-55 PI RELEASE RIG.	ROD CSG – SET @ 5105'.CMT W	/875 SX CMT. 36	BBLS CMT TO SURF.		
RESERVE RIG.					
Smud Data	Die Deleses De	-4			
Spud Date:	Rig Release Da	ite:			
I hereby certify that the information	above is true and complete to the be	est of my knowledge	e and belief.	·· ·	
· R (5) , , ,				
SIGNATURE MISSEY	MKUL ON TITLE REGI	ULATORY SPECIA	ALIST DATE	12/17/2013	
Type or print name DENISE PINK	ERTON E-mail address	s: <u>leakejd@chevro</u>	n.com PHONE:	432-687-7375	
For State Use Only	()	1. 80	Ç		
APPROVED BY: Wash-la	thetahum TITLE LOW	ydiana OH	Ver DATE	12-26-13	
Conditions of Approval (if any):					
	WEST ON			•	

WFX-917



Drill
Drill and Suspend
Job Start Date: 11/2/2013

	See.	• •	Job Start Date: 11/2/2013 Job End Date: 11/13/2013
Well Name	Lease	Field Name	Business Unit
CENTRAL VACUUM UNIT 170	Central Vacuum Unit	Vacuum	Mid-Continent Mud Line Elevation (ft) Water Depth (ft)
Ground Elevation (ft) Original RKB (ft) 4,001.00 4,019.50	4,019.50, 9/24/2013		0.00 0.00
Report Start Date: 11/3/2013			
		Com	
R/D HP 356 from CVU 218 & prepare fo		We H&D 356 from CV/U 219 to CV	VU 170wi. All loads on location at 17:00 hrs.
Spot loads and continue R/U and prep to	•		VO 170W. All loads of location at 17.55 ms.
Report Start Date: 11/4/2013			
		Com	
Finish rigging up HP 356 on CVU 170wi. Nipple up Conductor, kill line, install turn		idress any issues.	1011/
Strap and test BHA for leaks at surface.		// -);j) U V C
Review JSA fo P/U BHA			<u> </u>
P/U BHA aand RIH to bttm @ 71'			
Drlg f/ 71' to 320'			
AROP =125 fph WOB = 5 - 7 kips			
TD RPM = 65-95			
Motor RPM = 121 GPM = 650			
SPP = 1000psi			
MW = 8.34 ppg pH = 9			
Report Start Date: 11/5/2013	 	Com	
Drlg f/ 320' to 1140'			
AROP =173 fph WOB = 5 – 7 kips			
TD RPM = 140			
Motor RPM = 165 GPM = 750			
SPP = 2400psi	,		
MW = 9.9 ppg pH = 9			
Lost Partial Returns @ 1140', mud was	static at flowline Pumped I CM	pill and continue to drill	
Drlg f/ 1140' to 1440'	statio at novimo, i ampos com	pin and continue to ann	
AROP = 67 fph			
WOB = 5 - 7 kips TD RPM = 140			
Motor RPM = 154			
GPM ≈ 704 SPP = 2400psi			
MW = 9.9 ppg			
pH = 9 Note: Staged pumps back up to drilling r	rate		
Circulate while changing out packing in			
Drlg f/ 1440' to 1506'			
AROP =33 fph WOB ≈ 5 – 7 kips			
TD RPM = 140			
Motor RPM = 154 GPM = 704			
SPP = 2400psi			
MW = 9.9 ppg pH = 9			
	ala Claan		
Pump 2 High Vis Sweeps & Circulate Ho Monitor Well On Trip Tank (Well Static)	ne clean		
TOH With 14 3/4" Surface Drilling Asser	nbly to surface, break bit & lay o	lown, tight spots @ 1177' & 955'	
Clean Rig Floor			
Rig Service			
PJSM with Chevron, Petro Safety & H&F	on rigging up H&P CRT		
R/U H&P CRT			
PJSM with H&P and Frank's for running			
Run 11.75" 42# H-40 surface casing to 1 Report Start Date: 11/6/2013	1020		



Drill and Suspend Job Start Date: 11/2/2013 Job End Date: 11/13/2013

	OOD EIIG DUIC. 11/10/2010				
Name	Lease	Field Name	Business Unit		
NTRAL VACUUM UNIT 170	Central Vacuum Unit	Central Vacuum Unit Vacuum			
nd Elevation (ft) Original RKB (ft)	Current RKB Elevation		Mud Line Elevation (ft) Water Depth (ft)		
4,001.00 4,019.	50 4,019.50, 9/24/2013		0.00 0.0		

Com

Continue to run 11.75" 42# H-40 surface casing from 1025' to 1320"

Fill casing while changing out busted hose on pipe wrangler

Continue running 11.75" 42# H-40 surface casing from 1320' to 1506' (Precautionary Washed Down Last 2 Joints As Well Procedure)

Circulate 1 1/2 Casing Volume (While Circulating Held PJSM With Halliburton, Chevron & H&P Crew On Rigging Up & Pumping CMT Schdule

R/U Halliburton CMT Head & Circulating Iron

Test lines to 3000 psi, Cement per Halliburton pump schedule. Displace 175 bbls of FW. Bumped plug and held 1237 psi for 5 minutes (FCP=606 psi), test good. Checked floats, bled back 1 bbl. Full returns throughout the job. Returned 185 bbls of cement to surface.

	bbls	sacks	bpm	wt. (ppg)
Spacer	20	n/a	3	8.4
Lead	199	610	5	12.9
Tail	101	425	- 5	14.8
Spacer Lead Tail Disp.	175	n/a	5	8.4

PJSM, R/D Halliburton Iron, R/D Franks Power Tongs, Set Casing String On Bottom

Flush Lines, Remove Turnbuckles, Fill Up Line, Kill Line, Cut Conductor & 11 3/4" casing, L/D same, Dress Casing to weld on MB260 well head

Held Pre-Spud Meeting With All Rig Crews & Vendors For Upcoming Glass Lease (Tour Pusher Stayed @ Rig With Welder While Welding On Well Head.

PJSM, R/D H&P 11 3/4" CRT

PJSM, Install Space Spool, Stack & Choke Line, Torque Bolts With Mans Nipple Up Crew, Install Flowline, Fill Up Line, Accumulator Lines, Turn Buckles, Changed Out Saver Sub From NC 46 to XT-39

PJSM, R/U BOP Testing Equipment, Install Test Plug, Fill Stack With Water

Test Bottom Rams, Blind Rams, Choke Line, HCR, Kill Line, Floor Valves, Manuel IBOP, Hydraulic IBOP, Kelly Hose, Standpipe & choke manifold to 250psi low and 3000psi high, Test Hydrill 250psi low and 1500psi

Report Start Date: 11/7/2013

Con

Test Bottom Rams, Blind Rams, Choke Line, HCR, Kill Line, Floor Valves, Manuel IBOP, Hydraulic IBOP, Kelly Hose, Standpipe & choke manifold to 250psi low and 3000psi high, Test Hydrill 250psi low and 1500psi

R/D BOP Testers

P/U Intermediate BHA.

Make up 10.625" bit and TIH to1440' MD.

Perform CHevron Choke Drill.

Displace hole with 10# brine water

Drill out cement F/1463' to 1506'

Rotate Drill Intermediate hole f/ 1506' to 2600'

AROP =109 fph

WOB = 7-12 kips

TD RPM = 125

Motor RPM = 143

GPM = 650

SPP = 2100 psi

MW = 9.9 ppg in / 10.0 out

pH = 9

Report Start Date: 11/8/2013

Com

Rotate Drill Intermediate hole f/ 2,600' to 3,210'

AROP =102 fph

WOB = 10-12

TD RPM = 125

Motor RPM = 143

GPM = 650

SPP = 2100 psi

MW = 9.9 ppg in / 10 out

pH = 9

Pump 3 40 bbl HI Vis sweeps and circulate hole clean.

Check well for flow. Well static.

POOH for csg. Lubricate and inspect rig and Pull wear bushing. Lay down BHA tools.

Clean rig floor,

PJSM for R/U HP's CRT tool.

Rig up CRT tool, Calibrate and OD/ID csg collar/elevators.

PJSM for Running Casing

Run 8 5/8" csg to 3210'.



Drill

	Sui	mmary Report	Drill and Suspend Job Start Date: 11/2/2013 Job End Date: 11/13/2013
Well Name CENTRAL VACUUM UNIT 170	Lease Central Vacuum Unit	Field Name Vacuum	Business Unit Mid-Continent
Ground Elevation (ft) Original RKB (ft)	Current RKB Elevation	vacuum	Mud Line Elevation (ft) Water Depth (ft)
4,001.00 4,01	9.50 4,019.50, 9/24/2013		0.00
Report Start Date: 11/9/2013			
		Com	
	<u></u>	procedure, lay down tag joint & land hange	er,
Circulate 1 1/2 casing volumes (Max			
Continue to circulate while having P		NI	er usc
Shut pumps down r/u Halliburton C			
Valve on Hallliburton tanker truck for	or super flush was plug, cleaned o	out valve & resumed operation	
Perform cmt job as follows: Pressure test lines to 1500 psi Pump 10 bbls of spacer at 8.34 ppg Mix and pump 405.sxs (131.28 bbls) Mix and pump 190.sxs (45.68 bbls) Drop plug and displace cmt w/ 190.3 Bump plug with 500 psi over final cit Bleed off pressure – floats held.	 of type of cement lead at 12.9 p of type of cement tail at 14.8 ppg 33 bbls of 10 ppg fluid. 		3.34 ppg.
Details: Full returns throughout job, returned Final circulation pressure prior to bu Cmt in place at 0630 hrs			
R/D cementers			
Flush surface equipment, back out a	and lay down landing joint		
Review JSA & R/D CRT tool			
Set packoff and test to 1500 psi. Te	st ok.		
Install W/B			
Test casing to 1500psi for 30 min, to	•		
Perform choke drill and, and conduct how it works with every job that is perfectly that is perfectly the conduction of t	cted Hazard hunt with rig crew, C	hevron & Petro Safety, minor items found	and documented, reviewed four points of TIF and
M/U 7 7/8 bit, bit would not clear we			
While waiting on 7 3/4" bit, made up		k down	
Make up 7 3/4" Bit, BHA and TIH to		N down	
Install rotating head			
Continue TIH from 2800' to top of flo	oat collar @ 3124'		
Report Start Date: 11/10/2013			
Drill cement & float equipment from	3123' to 3210' (Float @ 3124' SI	Com	
 AROP = 57 FPH	3123 to 3210 (Float @ 3124°, Sf	noe @ 3204')	
WOB = 8-10 Klbs RPM = 25			
Motor RPM = 104			
GPM = 375			
SPP = 900 psi Torque = 2-3Kft*lbs			
Differential = 100 psi			
Drill 7 3/4" production hole section fr	rom 3210' to 4018 '		
AROP = 70 FPH WOB = 15-20 Klbs RPM = 85			

RPM = 85 Motor RPM = 104 GPM = 650 SPP = 2600psi Torque =5-6 Kft*lbs Differential = 300 psi

Displace clear 10 ppg with 11 ppg brine mud



Drill
Drill and Suspend
Job Start Date: 11/13/2013

		- •	•			: Date: 11/2/20 Date: 11/13/20	
Well Name CENTRAL VACUUM	A LINIT 170	Lease Central Vacuum Unit	Field Name Vacuum		Business Unit Mid-Continent		
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Vacaum		Mud Line Elevation (ft)	Water Depth (ft)	
4,001.00	4,019.50	4,019.50, 9/24/2013			0.00	<u>/</u> (0.00
7 1 T T 1 (1) (1) (1)	1547, 141, 11 8,54 0, 1	***	Com		36 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		· : ·
Drill 7 3/4" productio	n hole section from 4	1018' to 4816 '					
AROP = 94 FPH							
WOB = 15-20 Klbs							
RPM = 85 Motor RPM = 104							
GPM = 650							
SPP = 3400psi							
Torque =5-6 Kft*lbs Differential = 300 ps	i						
	<u> </u>						
Service pump #1		10.10L 10.0FL					
Drill 7 3/4" productio	n hole section from 4	1816' - 4885'					
AROP = 138 FPH							
WOB = 15-20 Klbs							
Motor RPM = 104							
GPM = 650							
SPP = 3500psi Torque =5-6 Kft*lbs							
Differential = 300 ps	i						
Report Start Date:							
		Jang et al.	Com Page 1 de Nove de 1	e national attack	in the second of		
	n hole section from 4			· · · · · · · · · · · · · · · · · · ·		<u> </u>	
AROP = 81 FPH							
WOB = 15-20 Klbs							
RPM = 85 Motor RPM = 104							
GPM = 650							
SPP = 3500psi							
Torque =5-6 Kft*lbs							
Differential = 300 ps	. <u></u>			,			
Work on #1 pump							
Drill 7 3/4	ction from 4966' - 51	4.51					
production note se	CHOH HOHI 4900 - 51	10					
					•		
AROP = 59.5 FPH WOB = 15-20 Klbs							
RPM = 85							
Motor RPM = 104							
GPM = 650 SPP = 3500psi							
Torque =5-6 Kft*lbs							
Differential = 300 ps	i						
Pump 2, 40 bbl HI-V	/IS Sweeps to surfac	e. Monitor return solids.					
Flow check - No flov			V - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 -				
Work on ST-80.							
POOH for production	n casing.						
Clean up rig floor.							
Pull wear bushing	· · · · · · · · · · · · · · · · · · ·						
PJSM R/U CRT tool	<u> </u>						
R/U HP CRT tool							
Run 5 1/2" 17# j-55							
Report Start Date:	11/12/2013						



Drill and Suspend Job Start Date: 11/2/2013 Job End Date: 11/13/2013

cmt

Run 5 ½" 17# J-55 LTC csg as follows:

Float Shoe

2 Shoe Jts

Float Collar

39 Joints

Marker Joint

8 Joints

ECP 80 Joints

Centralizer place10' above FS, 10' above FC. One every 4 jts to 3,484'. One per jt between marker jt and FC.

Tag bottom at 5,115'

Casing shoe landed at 5,105'

Top of FC at 5,027'

Circulate and condition mud 1.5 casing volume. L/D tag joint and land hanger.

PJSM withHalliburton Cementer and R/U cementing equipment.

Perform cmt job as follows:

Pressure test lines to 4000 psi

Pump 30 bbls of spacer at 12.3 ppg. Drop btm plug.

Mix and pump 420 sxs (126 bbls) of Econcem Class C of cement lead at 13.2 ppg.

Mix and pump 455 sxs (83 bbls) of Corrosacem Class H of cement tail at 15.8 ppg.

Drop top plug and displace cmt w/ 116 bbls of FW fluid.

Bump plug with 600 psi over final circulating pressure.

Bled off pressure - floats held.

Details:

Returns throughout job

Final circulation pressure prior to bumping plug 2540 psi at 3 bpm

36 bbls of cmt to surface

Cmt in place at 1326 hrs.

R/D Halliburton cement equipment.

LD landing joint & RD H&P CRT

Clean pits, install BPV, packoff, and test to 5000psi

PJSM w/mann ND crew. Remove flow line, choke line, kill line, fill up line, trip nipple, accumulator lines, break bolts on BOP, spool, and LD.

Install tubing head & test to 4000 psi.

Clean pits. Begin R/D of H&P 356. Release Rig @ 0000 hrs.

Page 5/5

Report Printed: 12/17/2013



Casing Summary

•				
Well Name	Lease	Field Name	Business Unit	\neg
CENTRAL VACUUM UNIT 170	Central Vacuum Unit	Mid-Continent		
Ground Elevation (ft) Original RKB (ft)	Current RKB Elevation		Mud Line Elevation (ft) Water Depth (ft)	\neg
4,001.00 4,019.50	4,019.50, 9/24/2013		0.00 0.	00

Grour	nd Elevation (ft) Original RKI		Current RKB Ele						Mı	d Line Elevation		
	4,001.00	4,019.50	4,019.50, 9/	/24/2013					<u> </u>		0.00	0.0
Sur	face, Planned?-N, 1,506	ftKB		*								2 -
et D	epth (MD) (ftKB)	Set Tensi	on (kips)	String N	lominal OD (in)		String Min Drift (in)		ntralizers		Scratchers	
	1,	506				11 3/4	L	10		· · · · · · · · · · · · · · · · · · ·		
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade		Top Thread	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)	Len (ft)	P Burst (psi)	P Collapse (psi)
37	Casing Joint	11 3/4	11.094		H-40	ST&C	·	-5	1,463			
1	Float Collar	11 3/4	11.094	42.00	H-40	ST&C		1,463	1,464	1.37		
1	Casing Joint	11 3/4	11.094	42.00	H-40	ST&C		1,464	1,504	40.33		
1	Guide Shoe	11 3/4	11.094	42.00	H-40	ST&C		1,504	1,506	1.76		
nte	rmediate Casing 1, Plan	ned?-N. 3.	204ftKB		•	•	. Te -					
	epth (MD) (ftKB)	Set Tensi		String N	lominal OD (in)	8 5/8	String Min Drift (in)	Ce 27	ntralizers		Scratchers	
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade		Top Thread	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)	Len (ft)	P Burst (psi)	P Collapse
1	Casing Hanger	8 5/8				LT&C		18	19			7. (PO)
1	Pup Joint	8 5/8				LT&C		19	21	2.15		
36	Casing Joint	8 5/8	7.921	32.00	J-55	LT&C		21	1,435	1,414.21		
1	External Casing Packer	8 5/8	7.921	32.00	J-55	LT&C		1,435	1,460	24.75		
43	Casing Joint	8 5/8	7.921	32.00	J-55	LT&C		1,460	3,124	1,664.34		
1	Float Collar	8 5/8	7.921	32.00	J-55	LT&C		3,124	3,125	1.20		ı
2	Casing Joint	8 5/8	7.921	32.00	J-55	LT&C		3,125	3,202	77.12		
1	Float Shoe	8 5/8	7.921	32.00	J-55	LT&C		3,202	3,204	1.52	******	
Pro	duction Casing, Planned	1?-N. 5.105	ftKB		•				1. 1. 1.			
Set D	epth (MD) (ftKB)	Set Tensi		String N	lominal OD (in)	5 1/2	String Min Drift (in)	Ce 49	ntralizers		Scratchers	
Jts ·	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade .		Top Thread	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)	Len (ft)	P Burst (psi)	P Collapse (psi)
	Hanger	5 1/2	4.892	17.00	J-55	LT&C		18	19	1.00		
	Pup Joint	5 1/2	4.892	17.00	J-55	LT&C		19	21	2.65		
78	Casing Joint	5 1/2	4.892	17.00	J-55	LT&C		21	3,121	3,100.02		
1	External Casing Packer	5 1/2	4.892	17.00	J-55	LT&C	_	3,121	3,146	24.70		
8	Casing Joint	5 1/2	4.892	17.00	J-55	LT&C		3,146	3,471	325.55		
1	Marker	5 1/2	4.892	17.00	J-55	LT&C		3,471	3,484	12.10	·	
39	Casing Joint	5 1/2	4.892	17.00	J-55	LT&C		3,484	5,027	1,543.14		
1	Float Collar	5 1/2	4.892	17.00	J-55	LT&C		5,027	5,028	1 '		
2	Casing Joint	5 1/2	4.892	17.00	J-55	LT&C		5,028	5,104	75.79		
1	Float Shoe	5 1/2	4.892	17.00	J-55	LT&C		5,104	5,105	1.38		_



Cement Summary

Production Casing Cement

CENTRAL VACUUM UNIT	170	Lease Central Vacui			Field Name Vacuum			Mid-C	Business Unit Mid-Continent		
Ground Elevation (ft) Original 4,001.00	1, 1							Mud Lin	e Elevation (ft) Wat 0.00	er Depth (ft)	
riginal Hole			er (State) (B.C.) Berker er ber is			Sec. 15 15 15	11 47 70 47 5 12 14 46 13 46 5 1				
/ellbore Name Original Hole		Directional Type Vertical			Kick Off Dep	th (ftKB)		Vertical S	Section Direction (°)	0	
Hole'S		A 4 1 . 4 1.	1 K 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Act To	op (ftKB)	mest there	(g) 1-45	प्रशित्त <u>रा</u> क्षेत्र हि	Act Btm (ftKB)		
		14 3/4					18.5			1,50	
		10 5/8				•	06.0			3,20	
IB-260, Vetco Grey on 1	1/2/2012 11:30	7 3/4	1.687 F. 15	30 K (85)	11,111,111		04.0	Walter Control of the	ej 8 dig yaz da saya	5,11	
ре	11012010 111.00	21.25 × 1016 ± 22	<u> Andrik Speed oo an oo a</u>	est, al luttura (18)	Install Date	Brand Art Const	<u> </u>		- 1985, to 11st of glassified	<u>e, h</u>	
IB-260	Mak	e, 23, 1873/2005/2005	, factor in Mo	del. The state of	1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	WP (psi)	3.3	11/3/2013 Service		SN 1.4%	
urface, Planned?-N, 1,50 asing Description	06ftKB Wellbore		Run Date		Set Depth (N	AD) (#KB)	TStink I	Up (ftKB)	Set Tension (I	(inc)	
urface	Original Hole			2013	Set Deptit (i		,506	ob (IIVD)	5.2	(ih2)	
entralizers O		, l			Scratchers				· · · · · · · · · · · · · · · · · · ·		
A Carlo Service April		1	1 3 2 C 2 A 2 C	LAN DE DO		Top Conn Sz	4.84 A.	Not be a second	Top Depth (MD)	Btm Depth (M	
Uts Casing Joint	i i kilitaa 1	OD (in)	್ಯ ಸID (in) 11,094	Wt (lb/ft) 42.00	Grade : :	1 1	Top Thread	1,467.74	(ftKB) -5	(ftKB) 1,4	
1 Float Collar		11 3/4	11.094	42.00			ST&C	1.37		1,4	
1 Casing Joint		11 3/4	11.094	42.00	H-40	;	ST&C	40.33	1,464	1,	
1 Guide Shoe		11 3/4	11.094	42.00	H-40	 ;	ST&C	1.76	1,504	1,9	
ntermediate Casing 1, Pl	anned?-N, 3,2	04ftKB		ing server and an Policy County Cour	5 / 1 / 1 / 1	y mestry meddir Partist (* 1800)				San	
asing Description Intermediate Casing 1	Wellbore Original Hole		Run Date 11/8/		Set Depth (f	ИD) (ftKB)	Stick (Up (ftKB)	Set Tension (1	kips)	
entralizers	To riginal Froid		11101	2010	Scratchers		,,201				
?7 ~~~ [및 제 기계 (왕 개최) : 독급 (1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	all-control reports	50° \$10° \$10° \$10° \$10° \$10° \$10° \$10° \$1	the section		Top Conn Sz	nymater in the		Top Depth (MD)	Btm Depth (M	
Jts Item Des		OD (in)	ID (in)	Wt (lb/ft)	Grade	(in)	Top Thread	Len (ft)	(ftKB)	(ftKB)	
1 Casing Hanger		8 5/8			1		_T&C) l 18 l		
4 Dun Inint								1.00			
1 Pup Joint		8 5/8	7 021	32.00	1.55		_T&C	2.15	19	1	
36 Casing Joint	rer	8 5/8 8 5/8	7.921 7.921	32.00			_T&C _T&C	2.15 1,414.21	5 19 1 21		
36 Casing Joint 1 External Casing Pack	сег	8 5/8 8 5/8 8 5/8	7.921	32.00	J-55	1	_T&C _T&C _T&C	2.15 1,414.21 24.75	5 19 1 21 5 1,435	1,4	
36 Casing Joint 1 External Casing Pack	cer	8 5/8 8 5/8		32.00 32.00	J-55 J-55	1	_T&C _T&C _T&C _T&C	2.15 1,414.21 24.75 1,664.34	5 19 1 21 5 1,435 4 1,460	1,4 3,	
36 Casing Joint 1 External Casing Pack 43 Casing Joint	er	8 5/8 8 5/8 8 5/8 8 5/8	7.921 7.921	32.00	J-55 J-55 J-55		_T&C _T&C _T&C	2.15 1,414.21 24.75	5 19 1 21 5 1,435 4 1,460 0 3,124	1,4 3, 3,	
36 Casing Joint 1 External Casing Pack 43 Casing Joint 1 Float Collar	cer	8 5/8 8 5/8 8 5/8 8 5/8 8 5/8	7.921 7.921 7.921	32.00 32.00 32.00	J-55 J-55 J-55 J-55	1	_T&C _T&C _T&C _T&C _T&C	2.15 1,414.21 24.75 1,664.34	5 19 1 21 5 1,435 4 1,460 0 3,124 2 3,125	1, 3, 3, 3,	
36 Casing Joint 1 External Casing Pack 43 Casing Joint 1 Float Collar 2 Casing Joint 1 Float Shoe roduction Casing, Plant	ned?-N, 5,105fi	8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 8 5/8	7.921 7.921 7.921 7.921 7.921	32.00 32.00 32.00 32.00 32.00	J-55 J-55 J-55 J-55 J-55		_T&C _T&C _T&C _T&C _T&C _T&C _T&C	2.15 1,414.21 24.75 1,664.3 ² 1.20 77.12 1.52	5 19 1 21 5 1,435 4 1,460 0 3,124 2 3,125 2 3,202	1, 3, 3, 3, 3, 3, 3, 3, 3, 3	
36 Casing Joint 1 External Casing Pack 43 Casing Joint 1 Float Collar 2 Casing Joint 1 Float Shoe Production Casing, Plann asing Description	ned?-N, 5,105ft	8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 8 5/8	7.921 7.921 7.921 7.921 7.921	32.00 32.00 32.00 32.00 32.00	J-55 J-55 J-55 J-55 J-55	I I I I I I I I I I I I I I I I I I I	_T&C _T&C _T&C _T&C _T&C _T&C _T&C	2.15 1,414.21 24.75 1,664.34 1.20 77.12 1.52	5 19 1 21 5 1,435 4 1,460 0 3,124 2 3,125 2 3,202 Set Tension (1,4 3, 3, 3,2 3,2	
36 Casing Joint 1 External Casing Pack 43 Casing Joint 1 Float Collar 2 Casing Joint 1 Float Shoe roduction Casing, Plant asing Description roduction Casing entralizers	ned?-N, 5,105fi	8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 8 5/8	7.921 7.921 7.921 7.921 7.921	32.00 32.00 32.00 32.00 32.00	J-55 J-55 J-55 J-55 J-55	I I I I I I I I I I I I I I I I I I I	_T&C _T&C _T&C _T&C _T&C _T&C _T&C	2.15 1,414.21 24.75 1,664.3 ² 1.20 77.12 1.52	5 19 1 21 5 1,435 4 1,460 0 3,124 2 3,125 2 3,202	1,4 3, 3, 3,2 3,2	
36 Casing Joint 1 External Casing Pack 43 Casing Joint 1 Float Collar 2 Casing Joint 1 Float Shoe roduction Casing, Plant asing Description roduction Casing entralizers	ned?-N, 5,105fl Wellbore Original Hole	8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 8 5/8	7.921 7.921 7.921 7.921 7.921 Run Date 11/12	32.00 32.00 32.00 32.00 32.00	J-55 J-55 J-55 J-55 J-55 Set Depth (N	MO) (ftKB)	_T&C _T&C _T&C _T&C _T&C _T&C _T&C _T&C	2.15 1,414.21 24.75 1,664.34 1.20 77.12 1.52	5 19 1 21 5 1,435 4 1,460 0 3,124 2 3,125 2 3,202 -17.6 Set Tension (1,4 3, 3, 3, 3,3 3,i	
36 Casing Joint 1 External Casing Pack 43 Casing Joint 1 Float Collar 2 Casing Joint 1 Float Shoe roduction Casing, Plant asing Description roduction Casing entralizers 9	ned?-N, 5,105ft	8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 8 5/8	7.921 7.921 7.921 7.921 7.921 Run Date 11/12	32.00 32.00 32.00 32.00 32.00 /2013	J-55 J-55 J-55 J-55 J-55 Set Depth (f	MD) (ftKB)	T&C _T&C _T&C _T&C _T&C _T&C _T&C _T&C _	2.15 1,414.21 24.75 1,664.34 1.20 77.12 1.52	5 19 1 21 5 1,435 4 1,460 0 3,124 2 3,125 2 3,202 -17.6 Set Tension ("Top Depth (MD)"	1,4 3, 3, 3, 3,3 3,i	
36 Casing Joint 1 External Casing Pack 43 Casing Joint 1 Float Collar 2 Casing Joint 1 Float Shoe Production Casing, Plant Pasing Description Production Casing Plant Periodic State	ned?-N, 5,105fl Wellbore Original Hole	8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 WKB	7.921 7.921 7.921 7.921 7.921 8un Date 11/12	32.00 32.00 32.00 32.00 32.00 /2013	J-55 J-55 J-55 J-55 Set Depth (N	MD) (ftKB) Top Conn Sz (in)	T&C T&C T&C T&C T&C T&C T&C T&C	2.15 1,414.21 24.75 1,664.34 1.20 77.12 1.52 Up (ffKB)	5 19 1 21 5 1,435 4 1,460 0 3,124 2 3,125 2 3,202 -17.6 Set Tension (Top Depth (MD) . (ftKB)	1,3,3,3,3,3,3,3,	
36 Casing Joint 1 External Casing Pack 43 Casing Joint 1 Float Collar 2 Casing Joint 1 Float Shoe roduction Casing, Plant asing Description roduction Casing entralizers 9 Uts Item Des 1 Hanger 1 Pup Joint	ned?-N, 5,105fl Wellbore Original Hole	8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 00 (in) 5 1/2	7.921 7.921 7.921 7.921 7.921 1.0 (in) 4.892 4.892	32.00 32.00 32.00 32.00 32.00 /2013	J-55 J-55 J-55 J-55 Set Depth (N Scratchers Grade J-55 J-55	MD) (ftKB) Top Conn Sz (in)	T&C T&C T&C T&C T&C T&C T&C T&C	2.15 1,414.21 24.75 1,664.34 1.20 77.12 1.52 Up (ffKB)	5 19 1 21 5 1,435 4 1,460 0 3,124 2 3,125 2 3,202 -17.6 Set Tension (Top Depth (MD) (ftKB) 0 18 5 19	1,3, 3,3,3,3,3,3,4,	
36 Casing Joint 1 External Casing Pack 43 Casing Joint 1 Float Collar 2 Casing Joint 1 Float Shoe roduction Casing, Plant asing Description roduction Casing tts Item Des 1 Hanger 1 Pup Joint 78 Casing Joint	ned?-N, 5,105fl Wellbore Original Hole	8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 1KB OD (in) 5 1/2 5 1/2	7.921 7.921 7.921 7.921 7.921 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.	32.00 32.00 32.00 32.00 32.00 /2013 /2013	J-55 J-55 J-55 J-55 Set Depth (N Scratchers J-55 J-55 J-55 J-55	MD) (ftKB) Top Conn Sz (in)	T&C T&C T&C T&C T&C T&C T&C T&C	2.15 1,414.21 24.75 1,664.34 1.20 77.12 1.52 Up (ffKB)	5 19 1 21 1,435 4 1,460 0 3,124 2 3,125 2 3,202 -17.6 Set Tension (-17.6 (IKKB) 18 5 19	1,	
36 Casing Joint 1 External Casing Pack 43 Casing Joint 1 Float Collar 2 Casing Joint 1 Float Shoe roduction Casing, Plant asing Description roduction Casing entralizers 9 Its Item Des 1 Hanger 1 Pup Joint	ned?-N, 5,105fl Wellbore Original Hole	8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 00 (in) 5 1/2	7.921 7.921 7.921 7.921 7.921 1.0 (in) 4.892 4.892	32.00 32.00 32.00 32.00 32.00 /2013	J-55 J-55 J-55 J-55 J-55 Set Depth (# Scratchers Grade J-55 J-55 J-55 J-55	MD) (ftKB) Top Conn Sz (in)	T&C T&C T&C T&C T&C T&C T&C T&C	2.15 1,414.21 24.75 1,664.34 1.20 77.12 1.52 Up (fiKB)	5 19 1 21 1,435 4 1,460 0 3,124 2 3,125 2 3,202 -17.6 Set Tension (-17.6 HKB) 18 5 19 2 21 3,121	1,4 3, 3, 3,3 3,4 3,7 8kips)	
36 Casing Joint 1 External Casing Pack 43 Casing Joint 1 Float Collar 2 Casing Joint 1 Float Shoe roduction Casing, Plant asing Description roduction Casing entralizers 9 Its Item Des 1 Hanger 1 Pup Joint 78 Casing Joint 1 External Casing Pack	ned?-N, 5,105fl Wellbore Original Hole	8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 1KB OP (in) 5 1/2 5 1/2 5 1/2	7.921 7.921 7.921 7.921 7.921 7.921 7.921 4.892 4.892 4.892	32.00 32.00 32.00 32.00 32.00 /2013 /2013 /7.00 17.00 17.00	J-55 J-55 J-55 J-55 J-55 Set Depth (N Scratchers J-55 J-55 J-55 J-55 J-55 J-55		T&C T&C T&C T&C T&C T&C T&C T&C	2.15 1,414.21 24.75 1,664.34 1.20 77.12 1.52 Up (ffKB)	5 19 1 21 5 1,435 4 1,460 0 3,124 2 3,125 2 3,202 -17.6 Set Tension (-17.6 HKB) 19 2 2 1 3,121 5 3,146	1,4 3, 3,3,3,3,3,4 3,4 Btm Depth (M (ftKB)	
36 Casing Joint 1 External Casing Pack 43 Casing Joint 1 Float Collar 2 Casing Joint 1 Float Shoe roduction Casing, Plant asing Description roduction Casing entralizers 9 Its Item Des 1 Hanger 1 Pup Joint 78 Casing Joint 1 External Casing Pack 8 Casing Joint 1 Marker	ned?-N, 5,105fl Wellbore Original Hole	8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 1KB OD (in) 5 1/2 5 1/2 5 1/2 5 1/2	7.921 7.921 7.921 7.921 7.921 7.921 1.1/12 Run Date 11/12 4.892 4.892 4.892 4.892	32.00 32.00 32.00 32.00 32.00 72013 77.00 17.00 17.00 17.00	J-55 J-55 J-55 J-55 Set Depth (N Scratchers J-55 J-55 J-55 J-55 J-55 J-55 J-55 J-	MD) (flkB) 5 Top Conn Sz (in) I	T&C T&C T&C T&C T&C T&C T&C T&C	2.15 1,414.21 24.75 1,664.34 1.20 77.12 1.52 Up (flKB) Len (fl) 1.00 2.65 3,100.02 24.70 325.55	5 19 1 21 5 1,435 4 1,460 0 3,124 2 3,125 2 3,202 -17.6 Set Tension (-17.6 INTERPLETATION (INTERPLETATION (IN	1,4 3, 3,3,3,3,3,3,4 3,4 3,4 3,4 3,4	
36 Casing Joint 1 External Casing Pack 43 Casing Joint 1 Float Collar 2 Casing Joint 1 Float Shoe Production Casing, Plant asing Description Production Casing entralizers 9 Jts Item Des 1 Hanger 1 Pup Joint 78 Casing Joint 1 External Casing Pack 8 Casing Joint	ned?-N, 5,105fl Wellbore Original Hole	8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 1KB OD (in) 5 1/2 5 1/2 5 1/2 5 1/2 5 1/2	7.921 7.921 7.921 7.921 7.921 7.921 7.921 4.892 4.892 4.892 4.892 4.892 4.892 4.892	32.00 32.00 32.00 32.00 32.00 72013 77.00 17.00 17.00 17.00 17.00	J-55 J-55 J-55 J-55 Set Depth (N Scratchers Grade J-55 J-55 J-55 J-55 J-55 J-55 J-55 J-5	MD) (ftKB) 5 Top Conn Sz (in) I	T&C T&C T&C T&C T&C T&C T&C T&C	2.15 1,414.21 24.75 1,664.34 1.20 77.12 1.52 Up (fikB) Len (fi) 1.00 2.65 3,100.02 24.70 325.55 12.10	5 19 1 21 5 1,435 4 1,460 0 3,124 2 3,125 2 3,202 -17.6 Set Tension ((fKB) 0 18 5 19 2 21 0 3,121 5 3,146 0 3,471 4 3,484	1,4 3,3,3,3,3,3,4 3,6 8tm Depth (M (ftKB) 3,3,3,4 3,4 5,6	
36 Casing Joint 1 External Casing Pack 43 Casing Joint 1 Float Collar 2 Casing Joint 1 Float Shoe Production Casing, Plant Casing Description Production Casing Centralizers 1 Hanger 1 Pup Joint 78 Casing Joint 1 External Casing Pack 8 Casing Joint 1 Marker 39 Casing Joint	ned?-N, 5,105fl Wellbore Original Hole	8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 8 5/8 1KB OD (in) 5 1/2 5 1/2 5 1/2 5 1/2 5 1/2 5 1/2 5 1/2	7.921 7.921 7.921 7.921 7.921 7.921 7.921 4.892 4.892 4.892 4.892 4.892 4.892 4.892 4.892 4.892	32.00 32.00 32.00 32.00 32.00 72013 77.00 17.00 17.00 17.00 17.00 17.00	J-55 J-55 J-55 J-55 J-55 J-55 J-55 J-55	MD) (fixB) 5 Top Conn Sz (in) I	T&C T&C T&C T&C T&C T&C T&C T&C	2.15 1,414.21 24.75 1,664.34 1.20 77.12 1.52 Up (flKB) Len (fl) 2.65 3,100.02 24.70 325.55 12.10 1,543.14	5 19 1 21 5 1,435 4 1,460 0 3,124 2 3,125 2 3,202 -17.6 Set Tension (-17.6 (fKB) 0 18 5 19 2 21 0 3,121 5 3,146 0 3,471 4 3,484 0 5,027	kips) Btm Depth (M	



Cement Summary

Production Casing Cement

							Proc	luction Casil	ig Cement
Well Name CENTRAL VACUUM UNIT 170	Lease Central Vacu	ıum Unit		Field Name Vacuum			Business Uni Mid-Conti		
Ground Elevation (ft) Original RKB (ft) 4,001.00 4	Current RKB Elev ,019.50 4,019.50, 9/2						Mud Line Elev	vation (ft) Water D	epth (ft) 0.00
Production Casing Cement, Ca	eing 11/12/2013 11:	10	, 1 A 3 1,14 ,		1 - 1145-40	⊭ત્ર સૃત્વિક્ષ પ્રસ્	ja sayaja.	gradien in der der	
Cementing Start Date		Cementing Er		<u>arte di ute a fil</u>		Wellbore	(Art., 11 company)	<u> Market si kiti kikit</u>	<u> Biller (G. Carle)</u>
11/12/2013 Evaluation Method	Cement Evaluation	n Results	11/12	2/2013		Original Hole			
Returns to Surface	36 bbls ceme		to surface			***			
Perform cmt job as follows: Pressure test lines to 4000 psi Pump 30 bbls of spacer at 12.3 p Mix and pump 420 sxs (126 bbls Mix and pump 455 sxs (83 bbls) Drop top plug and displace cmt v Bump plug with 600 psi over fina Bled off pressure – floats held. Details: Returns throughout job Final circulation pressure prior to 36 bbls of cmt to surface) ofEconcem Class C of CorrosacemClass I v/ 116 bbls of FW fluid Il circulating pressure.	H of cemen d.	t tail at 15.8 ppg.						
Cmt in place at 1326 hrs.	記録の「Transation」(1)(TELL AND WARREN	ryjek makili rigjesi	54. 5 Sart. 30	en in grafe, a kiri	313		+ 77.40
1,18.5-5,105.0ftKB Top Depth (ftKB)	Bottom Depth (ftKB)		Full Return?	Vol Cement Ret (bbl)	Top Plug?			ttom Plug?	
18.5 Initial Pump Rate (bbl/min)	Final Pump Rate (bbl/min)	5,105.0	Y Avg Pump Rate (bbl/i	36.0	Final Pump Pre	Y Assure (nsi)	Ph	N ig Bump Pressure (psi	
7	, ,	3		2	·		2,540.0		3,140.0
Pipe Reciprocated?	Reciprocation Stroke Length	(ft)	Reciprocation Rate (s	spm)	Pipe Rotated?	N	Pip	e RPM (rpm)	
Depth Tagged (MD) (ftKB)	Tag Method		Depth Plug Drilled Ou	ut To (ftKB)	Drill Out Diameter (in)		Dri	Drill Out Date	
Spacer (1947) (1949)			11.5 - 21.393		areas Bea				
Fluid Type Spacer	Fluid Description Tuned Spacer III		Quantity (sacks)		Class		Vo	lume Pumped (bbl)	
Estimated Top (ftKB)	Estimated Bottom Depth (ftk	B)	Percent Excess Pumped (%)		Yield (ft²/sack)		Flu	Fluid Mix Ratio (gal/sack)	
Free Water (%)	Density (lb/gal)		Zero Gel Time (lbf/10	Oft²)	Thickening Tim	e (hr)	1st	Compressive Strength	ı (psi)
				The state of the s					
いがたためがないがっている境が終Add Table		ar little	<u>(1.1) </u>	/pe	Seliteria i esegas se	<u>Al Agrich, literactors</u>	* * * * *	્Conc િક્િં <u>ં</u> ે	
Lead							edia ja	áli, szeszet	
Fluid Type Lead	Fluid Description		Quantity (sacks)	420	Class C	•	Vo	lume Pumped (bbl)	125.6
Estimated Top (ftKB) 18.5	Estimated Bottom Depth (ftk	(B) 3,100.0	Percent Excess Pum	ped (%) 30.0	Yield (ft³/sack)		1.68	uid Mix Ratio (gal/sack)	8.43
Free Water (%)	Density (lb/gal)		Zero Gel Time (lbf/10		Thickening Tim	e (hr)		t Compressive Strengt	
Cement Fluid Additives		13.20	The state of the s				<u>, 1</u>		
TANK TANK TANK AND	jaran giriya.	2.15 15 -1.	ti dan di salah	ype			iggiliya.	Conc	
Tail	Stage Berling Commence	1 21 1 4 5 7			¢aran, e∌√ez		20 A 10 A 10		
Fluid Type	Fluid Description	\$***	Quantity (sacks)		Class		Vo	lume Pumped (bbl)	
Tail Estimated Top (ftKB)	Estimated Bottom Depth (ftk	(B)	Percent Excess Pum	455 ped (%)	H Yield (ft³/sack)		FIL	uid Mix Ratio (gal/sack)	83.0
3,100.0 Free Water (%)	Density (lb/gal)	5,105.0	Zero Gel Time (lbf/10	30.0	Thickening Tim	e (hr)	1.00	t Compressive Strengt	3.46
Cement Fluid Additives	also see a ranger e e	15.80	and the second of the second o	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	Service engage group	State St	1 30 1 20 1	5880 F 10 38 JS	S. Brender a
Centerit Fidia Additives	, , , , , , , , , , , , , , , , , ,	e de la compania		ype			AND THE PARTY	<u>foliation to the file file</u> grConcile to the foliation	
Displacement Fluid Type	Fluid Description	(- 1 4 1 2 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	Quantity (sacks)		Class			lume Pumped (bbl)	<u> </u>
Displacement	Fresh Water		,					,	116.0
Estimated Top (ftKB)	Estimated Bottom Depth (ftk	(B)	Percent Excess Pum	ped (%)	Yield (ft³/sack)		Flu	uid Mix Ratio (gal/sack)	
Free Water (%)	Density (lb/gal)		Zero Gel Time (lbf/10	Oft²)	Thickening Tim	e (hr)	1s	t Compressive Strengt	h (psi)
Cement Fluid Additives									94 42 B. H.
		\$14554	ui i mwaka	ype () () () () () () () () () (2738. L 3 P	rati (takiri	(San galler	Conc	43 <mark>444</mark> .454.4
		1							
									1