Submit 3 Copies To Appropriate District Office
District I
1625 N French Dr , Hobbs, NM 88240
District II
1301 W. Grand Ave , Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
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
Jun 19, 2008

WELL API NO. **30-045-35126**	
5. Indicate Type of Lease STATE ☒ FEE ☐	
6. State Oil & Gas Lease No. B-10644-84	

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)

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

7. Lease Name or Unit Agreement Name **Mar Vista SWD**

8. Well Number **1**

2. Name of Operator
Burlington Resources Oil Gas Company LP

9. OGRID Number **14538**

3. Address of Operator
P.O. Box 4289, Farmington, NM 87499-4289

10. Pool name or Wildcat **Mesaverde SWD**

4. Well Location
Unit Letter **N** : **290** feet from the **South** line and **2490** feet from the **West** line
Section **2** Township **29N** Range **11W** NMPM **San Juan** County

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*
5692' GR

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

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
DOWNHOLE COMMINGLE ☐

OTHER: Step-Rate Test ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐

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 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Burlington Resources again requests permission to perform a step rate test on the subject well per the attached procedure and current wellbore schematic.

Notify NMOCD 24 hrs prior to beginning operations

RCVD JUL 19 '12
OIL CONS. DIV.
DIST. 3

See Attached Guidelines

Spud Date: 9-29-2010 Rig Released Date: 10-9-2010

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

SIGNATURE Denise Journey TITLE Regulatory Technician DATE 7/18/12

Type or print name DENISE JOURNEY E-mail address: Denise.Journey@conocophillips.com PHONE: 505-326-9556

For State Use Only

APPROVED BY: Brad Bell TITLE Deputy Oil & Gas Inspector, District #3 DATE 8/7/12
Conditions of Approval (if any):

AV

PC

Mar Vista SWD #1

API 3004535126
Unit N, 290' FSL, 2,490' FWL, Section 2, T29N-R11W
San Juan County, New Mexico

Treatment History

This SWD well was originally completed on January 6, 2011. The well was fracture treated on November 22, 2010 with 2406 bbls. KCl water and 35,371# of 16/30 mesh sand. Max. treating pressure – 4,346 psig, average treating pressure – 1,684 psig, average treating rate – 41.6 bpm, ISIP – 1,287 psig. A step rate test was conducted on December 29, 2010 as follows:

Rate, bpm	Step Volume, bbls.	Cumulative Volume, bbls.	Pressure, psig
0.5	13.9	13.9	310
1.0	15.3	29.2	422
1.5	21.7	50.9	580
2.0	29.7	80.6	741
2.5	37.9	118.5	926
3.0	39.0	157.5	1,040
3.5	49.4	206.9	1,135
4.0	57.5	264.4	1,284
4.5	66.3	330.7	1,410
5.0	75.0	405.7	1,510
5.5	78.7	484.4	1,657
ISIP			1,200

A second step rate test was conducted on January 6, 2011 as follows:

Rate, bpm	Step Volume, bbls.	Cumulative Volume, bbls.	Pressure, psig
0.7	11.7	11.7	340
1.0	15.4	27.1	462
1.5	24.0	51.1	650
2.0	30.8	81.9	865
2.5	36.5	118.4	986
3.0	42.9	161.3	1,102
3.5	53.7	215.0	1,250
4.0	62.0	277.0	1,370
4.5	71.0	348.0	1,435
5.0	76.0	424.0	1,580
5.5	83.0	507.0	1,650
6.0	90.0	597.0	1,745
ISIP			1,143

The second test above was used to justify the current maximum allowable surface injection pressure of 1,065 psig (NMOCD administrative order IPI-392 issued February 15, 2011).

On December 6, 2011 the well was fracture stimulated with 116,760 gallons 25# X-link gel, 60,060# 20/40 mesh and 308,990# 16/30 mesh sands. Max. treating pressure – 6,450 psig, average treating pressure – 5,890 psig, average treating rate – 45 bpm, ISIP – 4,732 psig.

A third step rate test was conducted on April 24, 2012 as follows:

Rate, bpm	Step Volume, bbls.	Cumulative Volume, bbls.	Pressure, psig
0.7	10.5	10.5	1,042
1.0	15.0	25.5	1,191
1.5	22.5	48.0	1,151
2.0	30.0	78.0	1,995
2.5	37.5	115.5	2,596
3.0	45.0	160.5	3,348
3.5	52.5	213.0	3,573
3.9	58.5	271.5	3,347
4.6	69.0	340.5	3,994
5.3	79.5	420.0	3,954
ISIP			1,150

These data were considered unusable due to the fact that a number of steps never reached a stabilized pressure. This was attributed to near-wellbore damage and is the reason this fourth test after an acid job is being recommended.

The well currently injects a daily volume of 1,200-1,300 bpd at an injection pressure of ~985 psig. The injection history is summarized in the following table:

Month	Injected Volume, bbls.	Cumulative Injected, bbls.	Avg. Injection Pressure, psig
Jan. 2011	0	0	0
Feb. 2011	4,115	4,115	760
March 2011	12,755	16,870	1,013
April 2011	7,942	24,812	955
May 2011	4,290	29,102	815
June 2011	13,013	42,115	891
July 2011	12,648	54,763	970
August 2011	18,095	72,858	930
Sept. 2011	19,530	92,388	950
Oct. 2011	17,730	110,118	815
Nov. 2011	15,017	125,135	681
Dec. 2011	15,900	141,035	590
Jan. 2012	45,886	186,921	947

This step rate test is necessary to determine whether a new maximum allowable injection pressure can be justified as a result of the recent fracture treating operation.

ConocoPhillips
Mar Vista #1 SWD (MV)
Expense - Reservoir Stimulation

Lat 36° 44' 54.088" N **Long 107° 57' 38.689" N**

Prepared by: Doug Mussett **Date:** July 3, 2012
Peer Reviewed by: **Date:**
Supervisor: Chris Pierson

Twinned Location: No **Currently Surface Commingled:** No

Scope of Work: Set BHP gauges downhole Treat well with 15% HCl acid Resume normal injection operations for 2-3 days. Conduct step rate test. Pull BHP gauges. Return to normal injection operations.

Est. Rig Days: N/A **Area:** 3 **Route:** 303
Est. Uplift: N/A **Formation:** Cliff House

WELL DATA

API: 3004535126 **Spud Date:** 9/29/2010
LOCATION: Unit N, 290' FSL, 2490' FWL, Section 2, T29N-R11W, San Juan Co , NM

Artificial lift on well (type): N/A **Shut In Wellhead Pressure:** 600

Well Failure Date: N/A **Earthen Pit Required:** NO

H2S: **0 ppm**

Contacts	Name	Office #	Cell #
PE Production Engineer	Doug Mussett	#N/A	#N/A
PE Backup	Kody Martin	326-9724	320-4975
Corrosion Engineer	Deborah Pierson	326-9873	716-7749
SWD Supervisor	Robert Stuard	326-9708	215-4713
Spec	Len Gordon		320-5824
Area Foreman	Chris Neuenschwander	599-3474	320-1231

Well History/Justification

The Mar Vista #1 SWD well was completed in the Cliff House formation of the Mesa Verde group on January 6, 2011. Injection operations commenced on February 16, 2011 The original fracture treatment consisted of 101,052 gallons of 2% KCl water and 35,371# 16/30 sand Step rate tests were conducted before and after the frac work. These tests resulted in a maximum allowable surface injection pressure of 1,065 psig (NMOCD Administrative Order IPI-392).

Since this time, a fall off test and a third step rate test have been performed. The fall off test indicated local boundary effects. As a result, a more robust frac was implemented in December 2011 and consisted of 116,769 gallons of 25# crosslinked gel, 60,060# 20/40 and 308,990# 16/30 sand. Another step rate test was performed in April 2012. The test results were inconclusive as it was determined that near-wellbore damage was not allowing the pressure of the some of the early steps to stabilize. This acid treatment will remove this damage and allow for better data to be otained in the subsequent step rate test These data will be used to justify an increase in the allowable injection pressure.

The Mar Vista well has injected ~275,000 barrels of water to date.

ConocoPhillips
Mar Vista #1 SWD
Expense - Reservoir Stimulation

Lat 36° 44' 54.088" N **Long 107° 57' 38.689" N**

PROCEDURE

1. Hold pre-job safety meeting Comply with all NMOCD, BLM, and COPC safety and environmental regulations

2 COP operations will need to manage the onsite inventory to ensure there is enough storage capacity for the step rate test

3 RU slickline unit and set downhole pressure gauges using the TIC whiskered bomb hanger. GIH with tools past the bottom perforation at 3714' to 3745' (this is midway between the collars at 3726' and 3763') Pick up past the collar @ 3726' to engage the lower dog grabs Slack off on tools string and set at ~3720'. POOH and RD slickline unit.

4. Set the data collection interval at 2 seconds for the first 72 hours and at 5 second intervals thereafter. The schedule of events is as follows:

	Event	Collection Interval
Day 1 - Monday	Set gauges in am / Acid job in pm	2 Seconds
Day 2 - Tuesday	Shut in well / Monitor pressures	2 Seconds
Day 3 - Wednesday	Shut in well / Monitor pressures	2 Seconds
Day 4 - Thursday	Resume injection operations	5 Seconds
Day 5 - Friday	Resume injection operations	5 Seconds
Day 6 - Saturday	Resume injection operations	5 Seconds
Day 7 - Sunday	Shut in well / Monitor pressures	5 Seconds
Day 8 - Monday	Conduct step rate test	5 Seconds
Day 9 - Tuesday	Shut in well / Monitor pressures	5 Seconds
Day 10 - Wednesday	Shut in well / Monitor pressures	5 Seconds
Day 11 - Thursday	Pull pressure gauges	Total data points = 250,560

5. RU acid crew Matrix acidize the well with 5000 gallons 15% HCl acid at a rate not to exceed 1 4 bpm Treat acid with an iron control agent, corrosion inhibitor and surfactant Flush acid with 7500 gallons of fresh water at the same rate. Do not exceed a surface treating pressure of 1065 psig. RD acid crew

6. Shut well in to monitor pressures for 48 hours, then resume normal injection operations for 3 days Shut in well at least 24 hours prior to the start of the step rate test <u>Notify the NMOCD 24 hours prior to the beginning of the test.</u>

7. RU pumping service company to perform step rate test. RU pressure recorders on the tubing, casing and bradenhead. A continuous plot of injection rate vs surface pressure will need to be displayed to determine the breakover pressure. Test all lines and lubricator to 5000 psig This will be the maximum allowable pressure.

8. Note the initial shut in pressures on the tubing, casing and bradenhead. Continue to record these pressures at each rate change. The test will be discontinued if the casing pressure rises above 250 psig or if the bradenhead pressure increases any amount above its starting pressure.

9. Commence the step rate test with an initial pump rate of ½ bpm with filtered water. Hold this rate and all subsequent rates for a minimum of 15 minutes The rates (in bpm) will increase by ½ bpm increments until a surface pressure of 5,000 psig is reached, all of the fluid has been pumped or at least 3 data points past the fracture pressure have been recorded. The final rate should be maintained for 30 minutes to improve the quality of the fall off data.

10. Shut down pumps and record the surface ISIP for 15 minutes. Shut in well. RD and release pumping service company.

11. Monitor bottom hole pressures for a minimum of 48 hours

12 RU slickline unit and recover BHP gauges

13. Turn well over to operations and re-establish injection operations

Current Schematic - Version 1

ConocoPhillips

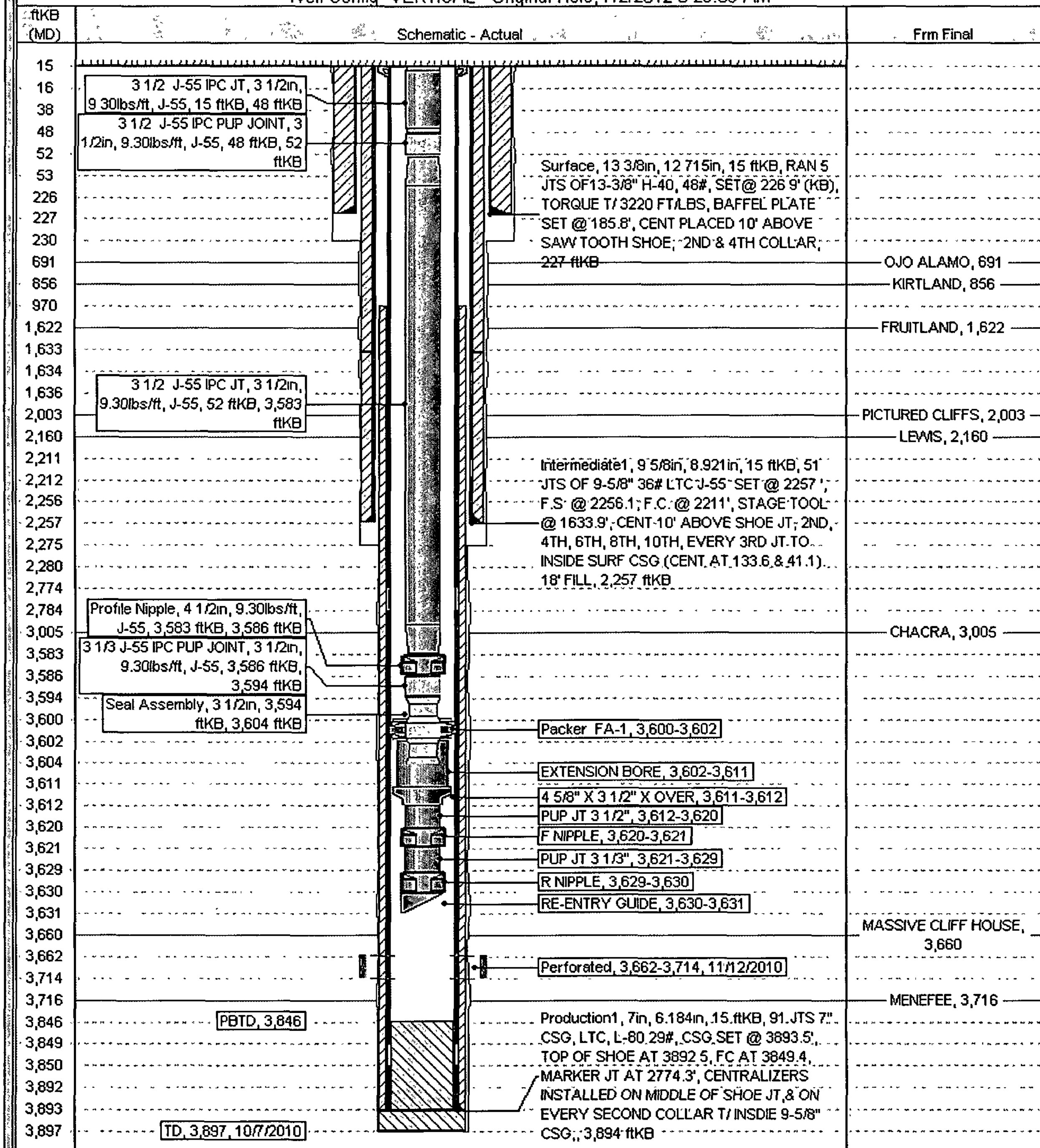
Well Name: MAR VISTA #1 SWD

API / UWI	Surface Legal Location	Field Name	License No.	State/Province	Well Configuration Type
3004535126	002-029N-011W-N	BLANCO MESAVERDE		NEW MEXICO	VERTICAL

Edit

Ground Elevation (ft)	Original KB/RT Elevation (ft)	KB-Ground Distance (ft)	KB-Casing Flange Distance (ft)	KB-Tubing Hanger Distance (ft)
5,693 00	5,708 00	15 00		

Well Config VERTICAL - Original Hole, 7/2/2012 8 29:39 AM



Report Printed: 7/2/2012

Guidelines for conducting step-rate tests

The operator must submit a written procedure and rig-up diagram to the OCD at least 24 hours before starting the test. The procedure will contain the following information:

> A description of the mechanical configuration of the well.
> The history of injection pressures and volumes.
> The history of any fracture treatments and pressures especially ISIP.

A bottom hole pressure recorder will be required for wells deeper than 2000' and injection rates greater than 1 BPM.

A pressure gauge and recorder of the appropriate range will be used during the test.

Wells currently injecting must be shut-in at least 24 hours before the test unless the shut-in pressures indicate that the well has not adequately stabilized and a longer time is necessary.

Starting pump rates and pressures must be lower than the current rates and pressures if the well is currently injecting and there must be at least 3 steps below the .2psi/ft gradient and 3 steps above the break-over point. Wells that are not fractured should not be tested at pressures that exceed the fracture gradient.

Pumping equipment must be able to pump at the rates and pressures needed for the test.

Rate changes will be .5bpm or smaller unless the OCD witness determines that bigger rate changes are necessary due to small incremental increases in pressure.

Each step will be at least 15 minutes in duration unless otherwise determined by the OCD. Step duration must not be changed during the test.

The operator must have enough water on hand for the test.

The casing and bradenhead pressures will be monitored during the test.

All wellhead equipment must be rated for the anticipated pressures.