

State of Colorado  
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303)894-2100 Fax: (303)894-2109

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## SUNDRY NOTICE

Submit original plus one copy. This form is to be used for general, technical and environmental sundry information. For proposed or completed operations, describe in full on Technical Information Page (Page 2 of this form.) Identify well or other facility by API Number or by OGCC Facility ID. Operator shall send an informational copy of all sundry notices for wells located in High Density Areas to the Local Government Designee (Rule 603b.)

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COGCC/Rifle Office

Complete the Attachment  
Checklist

OP OGCC

1. OGCC Operator Number: 66571	4. Contact Name: Joan Proulx
2. Name of Operator: OXY USA WTP LP, Attn: Glenda Jones	Phone: 970-263-3641
3. Address: P.O. Box 27757	Fax: 970-263-3694
City: Houston State: TX Zip: 77227-7757	
5. API Number: 05-045-16017-00	OGCC Facility ID Number
6. Well/Facility Name: Cascade Creek	7. Well/Facility Number: 697-16-05
8. Location (Qtr/Qtr, Sec, Twp, Rng, Meridian): SWSE 9 6S 97W 6 PM	
9. County: Garfield	10. Field Name: Grand Valley
11. Federal, Indian or State Lease Number: N/A	

Survey Plat	
Directional Survey	
Surface Eqpmt Diagram	
Technical Info Page	X
Other	X

## General Notice

☐ **CHANGE OF LOCATION:** Attach New Survey Plat (a change of surface qtr/qtr is substantive and requires a new permit)

Change of Surface Footage from Exterior Section Lines:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change of Surface Footage to Exterior Section Lines:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change of Bottomhole Footage from Exterior Section Lines:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change of Bottomhole Footage to Exterior Section Lines:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Bottomhole location Qtr/Qtr, Sec, Twp, Rng, Mer \_\_\_\_\_

Latitude \_\_\_\_\_ Distance to nearest property line \_\_\_\_\_ Distance to nearest bldg, public rd, utility or RR \_\_\_\_\_

Longitude \_\_\_\_\_ Distance to nearest lease line \_\_\_\_\_ Is location in a High Density Area (rule 603b)? Yes/No ☐

Ground Elevation \_\_\_\_\_ Distance to nearest well same formation \_\_\_\_\_ Surface owner consultation date: \_\_\_\_\_

## GPS DATA:

Date of Measurement \_\_\_\_\_ PDOP Reading \_\_\_\_\_ Instrument Operator's Name \_\_\_\_\_

☐ **CHANGE SPACING UNIT**

Formation	Formation Code	Spacing order number	Unit Acreage	Unit configuration

☐ **Remove from surface bond**

Signed surface use agreement attached

☐ **CHANGE OF OPERATOR (prior to drilling):**Effective Date: \_\_\_\_\_  
Plugging Bond: ☐ Blanket ☐ Individual☐ **CHANGE WELL NAME**

NUMBER

From: \_\_\_\_\_  
To: \_\_\_\_\_  
Effective Date: \_\_\_\_\_☐ **ABANDONED LOCATION:**Was location ever built? ☐ Yes ☐ No  
Is site ready for inspection? ☐ Yes ☐ No  
Date Ready for inspection: \_\_\_\_\_☐ **NOTICE OF CONTINUED SHUT IN STATUS**Date well shut in or temporarily abandoned: \_\_\_\_\_  
Has Production Equipment been removed from site? ☐ Yes ☐ No  
MIT required if shut in longer than two years. Date of last MIT \_\_\_\_\_☐ **SPUD DATE:** \_\_\_\_\_☐ **REQUEST FOR CONFIDENTIAL STATUS** (6 mos from date casing set)☐ **SUBSEQUENT REPORT OF STAGE, SQUEEZE OR REMEDIAL CEMENT WORK**

\*submit cbl and cement job summaries

Method used	Cementing tool setting/perf depth	Cement volume	Cement top	Cement bottom	Date

☐ **RECLAMATION:** Attach technical page describing final reclamation procedures per Rule 1004.Final reclamation will commence on approximately \_\_\_\_\_ ☐ Final reclamation is completed and site is ready for inspection.

## Technical Engineering/Environmental Notice

☒ **Notice of Intent**

Approximate Start Date: 11/9/2011

☐ **Report of Work Done**

Date Work Completed: \_\_\_\_\_

Details of work must be described in full on Technical Information Page (Page 2 must be submitted.)

<input type="checkbox"/> Intent to Recomplete (submit form 2)	<input type="checkbox"/> Request to Vent or Flare	<input type="checkbox"/> E&P Waste Disposal
<input type="checkbox"/> Change Drilling Plans	<input type="checkbox"/> Repair Well	<input type="checkbox"/> Beneficial Reuse of E&P Waste
<input type="checkbox"/> Gross Interval Changed?	<input type="checkbox"/> Rule 502 variance requested	<input type="checkbox"/> Status Update/Change of Remediation Plans
<input checked="" type="checkbox"/> Casing/Cementing Program Change	<input checked="" type="checkbox"/> Other: Remediate Cement/Payadd Procedure for Spills and Releases	

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed:

Date: 11/8/2011 Email: joan\_proulx@oxy.com

Print Name: Joan Proulx

Title: Regulatory Analyst

COGCC Approved:

Title: NWA Engineer

Date: 11/08/11

CONDITIONS OF APPROVAL, IF ANY:

Please submit referenced "attached  
perforating spec sheet" at within a week (11/15)

TECHNICAL INFORMATION PAGE



FOR OGCC USE ONLY

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COGCC/Rifle Office

1. OGCC Operator Number:	66571	API Number:	05-045-16017-00
2. Name of Operator:	OXY USA WTP LP	OGCC Facility ID #	
3. Well/Facility Name:	Cascade Creek	Well/Facility Number:	697-16-05
4. Location (QtrQtr, Sec, Twp, Rng, Meridian):	SWSE 9 6S 97W 6 PM		

This form is to be completed whenever a Sundry Notice is submitted requiring detailed report of work to be performed or completed. This form shall be transmitted within 30 days of work completed as a "subsequent" report and must accompany Form 4, page 1.

5. **DESCRIBE PROPOSED OR COMPLETED OPERATIONS**

Oxy is seeking approval to remediate the cement and add additional payadds to the 697-16-05 well, utilizing slickwater fracs.

Proposed Procedure:

**COMPLETION PROCEDURE**

1. Prepare surface location for completion operations. Set and pull test anchors for workover rig as per API RP4G.
2. MIRU workover rig with power swivel.
3. Install and test 5M BOPE and rotating head.
4. POOH with tubing.
5. RIH with 3-7/8" bit, scraper and drill collars on 2-3/8" work string. Clean out fill to PBTD @ 8843' POOH.
6. MIRU WL. RIH with composite bridge plug and set at 7365' (25' above previous top perf). POOH w/ WL.
7. Pressure test casing to 5800 psi against pipe rams.

**Cement squeeze procedure to cement from 7140' to 6500'**

8. RU lubricator and test to 3,000 psi. RIH with 3-1/8" expendable scalloped HSC perforating guns w/ 3 SPF, 120 deg phasing, using Owen 3-1/8", 21 gram SDP Hero NT4 charges. Correlate CCL w/ SLB CBL dated 08/23/2009.

9. Shoot 1' of circulation perms at 7140'. POOH w/ WL.

10. Open surface casing valve and attempt to circulate up to surface. Notify engineer if circulation is established or returns are taken at surface.

11. RIH w/ WL set cement retainer. Set at 6950' (200' above squeeze holes). POOH w/ WL.

12. RIH w/ 2-3/8" workstring. Sting into retainer. Pull up into test mode and pressure test tubing. Establish injection into squeeze perms. Record rates and pressures.

**Note:** Do not exceed 1000 psi or 2 bbl per min while circulating.

13. Pump the following schedule for cement squeeze at 2 BPM. Be sure to catch surface sample for observation. (Design for 8.75" hole & 4 1/2" csg)

15 bbls fresh water spacer

220 sks / 55 bbls 15.8 ppg squeeze slurry (Detail provided at end of prog)

27 bbl fresh water flush

**Note:** Tubing volume at 6950' is 27 bbls. Once slurry is below retainer begin hesitation squeeze. Hesitate squeeze at 0.5 bbl increments every 45 minutes until 1500 psi squeeze pressure is achieved.

14. Sting out of retainer. Reverse circulate 2 tubing volumes & POOH.

15. MIRU WL. RIH with composite bridge plug and set at 4600'. POOH w/ WL.

16. Establish circulation down casing through casing leak at 4,383'. Record rates and pressures.

17. RIH w/ WL & set cement retainer at 4,000'. POOH. RDMOWL.

18. RIH w/ 2-3/8" workstring. Sting into retainer. Pull up into test mode and pressure test tubing. Establish injection into squeeze perms. Record rates and pressures.

19. Mix & pump running squeeze at 2.0 BPM according to the following squeeze program:

15 bbl freshwater spacer

40 sks / 11 bbls of squeeze slurry (Detail provided at end of prog)

16 bbl freshwater flush

**Note:** Tubing volume at 4000' is 15.5 bbls. Once slurry is below retainer begin hesitation squeeze.

20. Catch surface sample of cement slurry for observation.

21. Once cement is below retainer, hesitate squeeze at 0.5 bbl increments every 45 minutes until 1500 psi squeeze pressure is achieved.

22. If satisfactory squeeze pressure is not achieved then over-displace squeeze slurry 5 bbls and WOC. Re-squeeze perms per previous procedure.

23. After squeeze pressure is achieved, sting out of retainer.

24. POOH. WOC.

25. RIH with 3-7/8" bit and drill collars on 2-3/8" work string.

26. Drill out retainer at 6950'. Clean out well down to bridge plug at 7365'.

27. Pressure test casing to 5800 psi against pipe rams.

28. POOH. LD BHA.

29. PU posi-scraper set to drift for 4-1/2" 11.6 # casing. RIH scraping casing down to frac plug at 7365'.

Note any tight spots.

30. POOH. LD workstring.

31. RDMO workover rig.

32. MIRU Schlumberger and run cased hole CBL log.

33. RDMO e-line unit.

34. Clean location, prepare for frac ops.

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2. Name of Operator: OXY USA WTP LP OGCC Facility ID #  
3. Well/Facility Name: Cascade Creek Well/Facility Number: 697-16-05  
4. Location (QtrQtr, Sec, Twp, Rng, Meridian): SWSE 9 6S 97W 6 PM

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5. DESCRIBE PROPOSED OR COMPLETED OPERATIONS

Add-Pay Fracs

35. MIRU frac tanks and applicable manifolds, transfer pumps and lines, including additional ancillary poly line(s) to complement existing water distribution system.
36. Install frac tree consisting of (bottom to top) 7-1/16" 5M X 4-1/16" 10M frac mandrel and 4-1/16" 10M bottom master valve, 4-1/16" 10M frac cross with four 1-13/16" 10M wing valves, and 4-1/16" 10M top master valve. Test frac tree to 5800psi (75% of casing burst).
37. MIRU e-line unit and crane. RU lubricator and test to 3,000 psi. RIH with 3-1/8" expendable scalloped HSC perforating guns w/ 3 SPF, 120 deg phasing, using Owen 3-1/8", 21 gram SDP Hero NT4 charges, 0.37" EHD. RIH to below completion interval, log on depth and perforate the PA1 completion interval at depths specified in attached perforating spec sheet (correlate to specific CBL). RDMO e-line unit.
38. MIRU multi-well frac iron and flowback equipment and position to allow access by frac company. MIRU frac equipment, NU frac lines and test lines to 7,500 psig.
39. Verify number of open perms. Breakdown perms with 1000 gals of 10% HCl acid. Frac well using 30/50 sand in filtered produced water with additives mixed on the fly according to pump schedule. Note: Maximum pressure is 5500 psi!!!
40. MIRU e-line unit and crane. RU lubricator and test to 3,000 psi. RIH with 4-1/2" 11.6 #/ft Halliburton Obsidian composite frac plug. RIH and log on depth. Set composite frac plug at 7020'.
41. RIH with 3-1/8" expendable scalloped HSC perforating guns w/ 3 SPF, 120 deg phasing, using Owen 3-1/8", 21 gram SDP Hero NT4 charges, 0.37" EHD. RIH to below completion interval, log on depth and perforate the PA2 completion interval at depths specified in attached perforating spec sheet (correlate to specific CBL). RDMO e-line unit.
42. MIRU multi-well frac iron and flowback equipment and position to allow access by frac company. MIRU frac equipment, NU frac lines and test lines to 7,500 psig.
43. Verify number of open perms. Breakdown perms with 1000 gals of 10% HCl acid. Frac well using 30/50 sand in filtered produced water with additives mixed on the fly according to pump schedule. Note: Maximum pressure is 5500 psi!!!
44. Flow well back in accordance with Post Frac Flowback section of attached Flowback Operating Procedures dated 3/11/08.
45. MIRU workover rig and nitrogen unit. Test for flow. Remove frac tree and mandrel.
46. Install and test 5M BOPE.
47. RIH with bit on 2-3/8" 4.7 ppf upset, 8 rd, EUE tubing. Clean out frac plugs, sand and fill to top of bridge plug at 7365'. POOH.
48. RIH with tubing and land it at 7149'.
49. Remove BOPE and install production tree. RDMO pulling unit.
50. Flowback and test pay-add interval in accordance with Post Frac Flowback section of attached Flowback Operating Procedures dated 3/11/08 until production is well established.
51. MIRU workover rig with power swivel. Test for flow. Remove production tree.
52. Install and test 5M BOPE and rotating head.
53. RIH with bit and pump off bit sub, 1 jt of 2-3/8" tubing, 2-3/8" OD x 1.81" ID "F" nipple and 2-3/8" 4.7 ppf upset, 8 rd, EUE tubing. Clean out frac plug, sand and fill to PBTD of 7945' using produced water and N2.
54. Land tubing at 7485'. Pump off bit and unload well with N2. Flow back well in accordance with Post Clean-Out Flowback section of attached Flowback Operating Procedures dated 3/11/08.
55. Remove BOPE and install production tree.
56. RDMO workover rig.
57. Clean up location and turn well over to production and report in Open Wells.

depths?

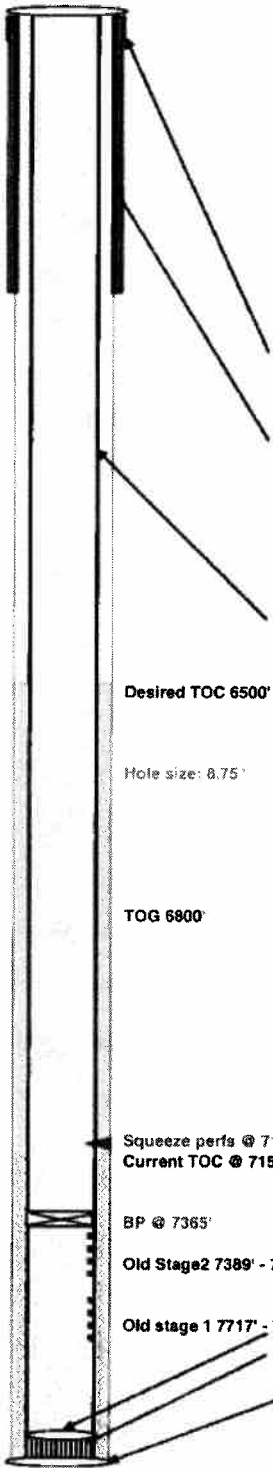
please provide

OXY USA WTP LP  
Well Bore Schematic  
No scale

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COGCC/Rifle Office



Well Name Cascade Creek 697-16-05  
API No. 05-045-16017-00  
Diagram Date 10/14/2011  
Surface Location 320' FSL & 2240' FEL SWSE SEC 9 T6S R97W 6 PM  
GPS Coordinates Latitude 39.531099 Longitude -108.223408  
Btm Hole Loc. 1533' FNL & 2874' FEL SEC 16 T6S R97W 6 PM  
Field Grand Valley, #31290  
County Garfield  
State Colorado  
Lease No. Fee Lease  
G.L. Elevation 8279'  
K.B. Elevation 8303'

Conductor	@ 84' GL	2 jts 16" 55# .250" wall	
Cement w/	4 yds	Redimix Concrete	
Casing	1500'	73 jts. of 9.625", 38#, Br. J-55, LTC	
Cement w/	1025 sxs Lead	Versacem cement wt 12.3, yield 2.34, 12.71 gal/sk	
	175 sxs Tail	Versacem, wt 12.8, yield 2.08, 10.75 gal/sk	
	300 sxs Top-out	G neat cement, wt 15.8, yield 1.15, 5 gal/sk	
Casing	7983'	240 jts. 4-1/2" 11.6# 8r N-80 LTC	
Cement w/	489 sxs Lead	Premium Lite cement, wt 11.8, 2.64 yield	
	818 sxs Tail	Premium Lite cement, wt 12.5, 2.15 yield	
Tubing	7658'	244 jts 2.375" L-80 4.7#/ft. 8rd. EUE	7600.46
		2.375" F-Nipple	0.84
		1 jt 2.375" L-80 EUE 8rd TBG	31.42
		Pop off bit sub	0.64
		Tbg hanger	0.92
		KB	24.00
		EOT	7658.28

Stage	Formation	Footage	Shots
Stage 1	Williams Fork	7717' - 7817'	21
Stage 2	Williams Fork	7389' - 7650'	24