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District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-101
Revised November 14, 2012

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address	2. OGRID Number
Apache Corporation: 303 Veterans Airpark Lane, Suite 3000 Midland, TX 79705	873
	3. API Number: 30-025-39899

4. Property Code	5. Property Name	6. Well No.
302374	V Laughlin	008

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
C	09	20S	37E		950	North	2310	West	Lea

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County

9. Pool Information

Pool Name	Pool Code
Skaggs; Drinkard & Monument; Tubb	57000/47090

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
P	O	R	P	3550'
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
N	6850'	Abo		11/27/2010

Depth to Ground water	Distance from nearest fresh water well	Distance to nearest surface water

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
S	17-1/2"	13-3/8"	48#	1197'	1010 sx Class C	Surface
Int 1	11"	8-5/8"	32#	4805'	1705 sx Class C	Surface
P	7-7/8"	5-1/2"	17#	7714'	925 sx Class C	Surface

Casing/Cement Program: Additional Comments

Apache would like to abandon the Abo and recomplete the Tubb and Drinkard per the attached procedure.

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer

DHC-HOB-512

Permit Expires 2 Years From Approval Date Unless Drilling Underway

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief.
I further certify that I have complied with 19.15.14.9 (A) NMAC ☐ and/or 19.15.14.9 (B) NMAC ☐, if applicable.
Signature:

Printed name: Fatima Vasquez

Title: Regulatory Tech I

E-mail Address: Fatima.Vasquez@apachecorp.com

Date: 02/05/2013 Phone: (432) 818-1015

OIL CONSERVATION DIVISION

Approved By:

Title: Petroleum Engineer

Approved Date: 02/19/13 Expiration Date: 02/19/15

Conditions of Approval Attached

Apache Corporation – V. Laughlin #8

Wellbore Diagram – Proposed

GL=3563'
KB=3574'
Spud:11/27/10

Date : 1/28/2013

API: 30-025-39899

R. Taylor

Surface Location

950' FNL & 2310' FWL,
Lot U Sec 9, T20S, R37E, Lea County, NM

Surface Casing
13-3/8" 48# H-40 @ 1197' w/ 850 sxs to surface

Hole Size =17-1/2"

Hole Size =11"

Intermediate Casing
8-5/8" 32# J-55 @ 4805' w/ 1705 sxs; topped w/ 15 bbls class C

TAC @ TBD
SN @ TBD

Hole Size =7-7/8"

TBD: Perf Tubb @ 6402-08; 6414-18; 6427-42; 6493-97; 6510-22 w/ 2/3 jspf (102 holes). Acidized w/ 3600 gal 15% NEFE; Frac'd w/ XX gal Slick water w/ XXk# 100 mesh and XX gal 15# XL w/ XXk# 20/40 white and RC Garnet

TBD: Perf Drinkard @ 6700-20; 6814-19; 6826-30; 6839-44 w/ 3 jspf (102 holes). Acidized w/ 3000 gal 15% NEFE; Frac'd w/ XX gal Slick water w/ XXk# 100 mesh and XX gal 15# XL w/ XXk# 20/40 white and RC Garnet

TBD: CIBP set @ 6850

5/12: Acidized 6928-7606 w/ 6,000 gal gelled 15% NEFE

1/11: Perf Abo Stage 5 @ 6928-32; 6940-52; 6958-63; 6968-70 w/ 2 jspf (54 holes) Acidized w/ 3000 gal 15% NEFE acid

1/11: Perf Abo Stage 4 @ 7091-94; 7097-7110; 7113-20; 7125-29; 7145-47; 7150-54; 7158-62; 7167-70; 7190-97 w/ 2 jspf (112 holes) Acidized w/ 6500 gal 15% NEFE acid

1/11: Perf Abo Stage 3 @ 7240-45; 7250-68; 7282-86; 7298-7305 w/ 4 jspf (152 holes) **Could not break down, communicated w/ stage 2**
5/12: Gas gun shot across 7250-68.

1/11: Perf Abo Stage 2 @ 7368-74; 7380-84; 7394-97; 7407-13 w/ 4 jspf (92 holes) **Could not break down, communicated w/ stage 3**
5/12: Fire Gas gun across 7380-84; 7407-13.

1/11: Perf Abo @ Stage 1 7522-26; 7540-44; 7547-50; 7565-77; 7592-94; 7596-7606 W/ 2 jspf (82 holes) **Could not break down**
5/12: Perf 7540-44; 7565-77; 7592-94 w/ 2 jspf (36 holes). Fire Gas Gun across 7540-44; 7565-77; 7592-94. Acidized w/ 2700 gal 15%. Communicated uphole

PBTD = 7,626'
MD =7,714'

Production Casing
5-1/2" 17# J-55 @ 7714' w/ 925 sxs to surface

V. Laughlin #8
API # 30-025-39899
Sec 9, T20S, R37E
Elevation: 3563' KB, 3574' GL
TD: 7,714'
PBTD: 7,626'
Casing Record: 13-3/8" 48# H-40 @ 1197' w/ 850 sxs
8-5/8" 32# J-55 @ 4805' w/ 1705 sxs
5-1/2" 14# J-55 @ 7,714' w/ 925 sxs

Perfs: Stage 1: 7522-26; 7540-44 (Twice); 7547-50; 7565-77 (Twice); 7592-94 (Twice);7596-7606 (118 holes)
Stage 2: 7368-74; 7380-84; 7394-97; 7407-13 (92 holes)
Stage 3: 7240-45; 7250-68; 7282-86; 7298-7305 (152 holes)
Stage 4: 7091-94; 7097-7110; 7113-20; 7125-29; 7145-47; 7150-54; 7167-70; 7190-97 (112 holes)
Stage 5: 6928-32; 6940-52; 6958-63; 6968-70 (54 holes)

Objective: Recomplete to Tubb and Drinkard and commingle production.

AFE: PA-13-3268

1. MIRU unit. Kill well as necessary. Unseat pump. POOH W/ rods and pump.
2. ND WH. NU BOP. Release TAC @ 6,828'. POOH w/ tubing and TAC.
3. PU and RIH w/ retrieving tool and latch and release RBP at 7,218'. TOH.
4. MIRU WL. NU lubricator. RIH w/ CIBP and 3-1/8" csg gun or equivalent perforator and set the CIBP at ± 6,850'. Perforate the Drinkard from as described below. (102 holes). **Correlate to Weatherford Compensated Neutron Photo-density Spectral Gamma Ray log dated 12/12/2012.**

Stage 1:	DRINKARD			
Perf Interval		Ft	JSPF (60° phasing)	Holes
6,700	6,720	20	3	60
6,814	6,819	5	3	15
6,826	6,830	4	3	12
6,839	6,844	5	3	15
				0
Total Perfs = 102 holes / 34 ft Net (144 ft Gross)				

5. RIH w/ SN + PKR on 3-1/2" P-110 work string. Spot ± 200 gallons acid across perforations. Set PRK above Drinkard (6700-6844) perforations at 6,650'.
6. MIRU acid services. Acidize down 3-1/2" WS w/ 3000 gals of 15% NEFE HCL w/ additives using 180 ball sealers to divert evenly spaced through the job as a max rate as a max rate but do not exceed 9,500 psi surface treating pressure. Displace to bottom perf with 59 bbls of flush. Surge balls.
7. Release PKR and TIH to knock balls off perforations. TOH and set PRK at 6,650'.
8. Prepare necessary clean 500 bbl frac tanks with water. Have service company test frac water for quality. Prepare necessary tanks for flowback. Spot tanks, sand support, etc. Prep for frac treatment.

9. MIRU Service Company. NU and test surface lines to 10,000 psi. Load backside as directed by Apache Representative. Max pressure to be **9,500 psi at surface**, set pressure alarms and pop-offs accordingly. Setup to monitor backside pressure and monitor throughout job. Load hole and establish rate and pressure. Frac the Drinkard perforations per recommendations.

Target Rate: 70 BPM Max Pressure: 9,500 psi

10. Kill well if necessary. Release PKR and TOH w/ PKR and tubing.

Stage II

11. MIRU WL. NU lubricator. RIH w/ CIBP on bottom of 3-1/8" csg gun or available equivalent perforator and set CIBP at ~ 6,600'.

12. Perforate the Tubb as described below. (102 holes). **Correlate to Weatherford Compensated Neutron Photo-density Spectral Gamma Ray log dated 12/12/2012.** POOH w/ perforator and RDMO WL.

Stage 2:	TUBB			
Perf Interval		Ft	JSPF (60° phasing)	Holes
6402	6408	6	2	12
6414	6418	4	3	12
6427	6442	15	2	30
6493	6497	4	3	12
6510	6522	12	3	36
Total Perfs = 102 holes / 41 ft Net (120 ft Gross)				

13. RIH w/ SN+ PKR on WS. Spot ± 200 gallons acid across perforations. Set PKR just above new perfs at ±6,350'

14. MIRU acid services. Acidize down 3-1/2" WS w/ 3600 gals of 15% NEFE HCL w/ additives using 180 ball sealers to divert evenly spaced through the job as a max rate as a max rate but do not exceed 9,500 psi surface treating pressure. Displace to bottom perf with 56 bbls of flush. Surge balls.

15. Release PKR and TIH to knock balls off perforations. TOH and set PRK at 6,350'.

16. MIRU Service Company. NU and test surface lines to 10,000 psi. Load backside as directed by Apache Representative. Max pressure to be **9,500 psi at surface**, set pressure alarms and pop-offs accordingly. Setup to monitor backside pressure and monitor throughout job. Load hole and establish rate and pressure. Frac the Drinkard perforations per recommendations. RDMO Service Company.

Target Rate: 70 BPM Max Pressure: 9,500 psi

17. Kill well if necessary. ND frac valve. Release PKR and TOH w/ PKR and tubing.

18. RU reverse unit. TIH w/ 4-3/4" bit, bit sub, and drill out the CIBP @ at 6,600'. Continue to CIBP at ± 6,850'. Check for sand fill and circulate hole clean. POOH.

19. RIH w/ production equipment as per the Monument office specifications.

20. RDMOPU. Return well to production and place into test for 10 days. Have chemical representative test fluids and put well on the appropriate chemical maintenance program.

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HOBBS OCD
FEB 04 2013

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

RECEIVED

[1] API Number	[2] Pool Code	[3] Pool Name
30-025-39899	47090	Monument; Tubb

[4] Property Code	[5] Property Name	[6] Well Number
302374	V Laughlin	008

[7] OGRID No.	[8] Operator Name	[9] Elevation
873	Apache Corporation: 303 Veterans Airpark Lane, Suite 3000 Midland, TX 79705	3550'

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	09	20S	37E		950	North	2310	West	Lea

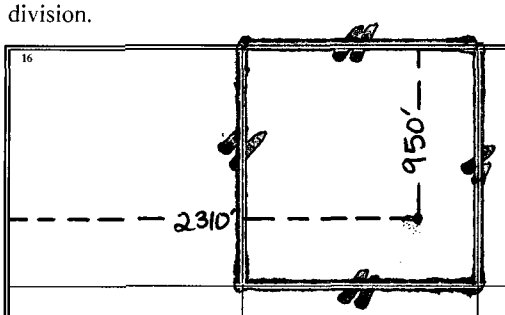
[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
40.00			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

16



[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

01/30/2013

Signature Date

Fatima Vasquez

Printed Name

Fatima.Vasquez@apachecorp.com

E-mail Address

[18] SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number

HOBBS OCD

FEB 04 2013

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WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-025-39899	57000	Skaggs; Drinkard

[4] Property Code	[5] Property Name	[6] Well Number
302374	V Laughlin	008

[7] OGRID No.	[8] Operator Name	[9] Elevation
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UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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40.00			

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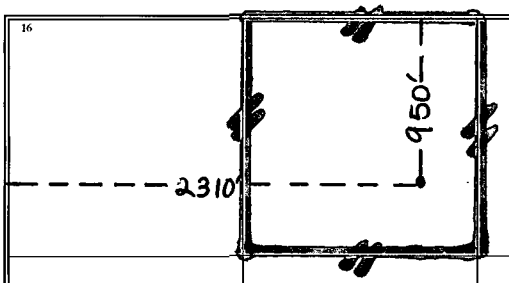
[16]



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Signature — Date: 01/30/2013

Fatima Vasquez
Printed Name

Fatima.Vasquez@apachecorp.com
E-mail Address

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Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number