

**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT

<b>APPLICATION FOR PERMIT TO DRILL</b>						1. WELL NAME and NUMBER Vasquez 3-7C4								
2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>						3. FIELD OR WILDCAT ALTAMONT								
4. TYPE OF WELL Oil Well Coalbed Methane Well: NO						5. UNIT or COMMUNITIZATION AGREEMENT NAME								
6. NAME OF OPERATOR EP ENERGY E&P COMPANY, L.P.						7. OPERATOR PHONE 713 997-5038								
8. ADDRESS OF OPERATOR 1001 Louisiana, Houston, TX, 77002						9. OPERATOR E-MAIL maria.gomez@epenergy.com								
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) Fee			11. MINERAL OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>			12. SURFACE OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>								
13. NAME OF SURFACE OWNER (if box 12 = 'fee') Emilio H. Vasquez, Jr. - Successor Trustee						14. SURFACE OWNER PHONE (if box 12 = 'fee') 435-789-1301								
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee') 25451 Mackenzie Street, Laguna Hills, CA 92653						16. SURFACE OWNER E-MAIL (if box 12 = 'fee')								
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')			18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/>			19. SLANT VERTICAL <input checked="" type="checkbox"/> DIRECTIONAL <input type="checkbox"/> HORIZONTAL <input type="checkbox"/>								
20. LOCATION OF WELL		FOOTAGES		QTR-QTR		SECTION		TOWNSHIP		RANGE		MERIDIAN		
LOCATION AT SURFACE		1000 FSL 1000 FEL		SESE		7		3.0 S		4.0 W		U		
Top of Uppermost Producing Zone		1000 FSL 1000 FEL		SESE		7		3.0 S		4.0 W		U		
At Total Depth		1000 FSL 1000 FEL		SESE		7		3.0 S		4.0 W		U		
21. COUNTY DUCHESNE			22. DISTANCE TO NEAREST LEASE LINE (Feet) 1000			23. NUMBER OF ACRES IN DRILLING UNIT 640								
			25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 1700			26. PROPOSED DEPTH MD: 12300 TVD: 12300								
27. ELEVATION - GROUND LEVEL 5935			28. BOND NUMBER 400JU0708			29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE Duchesne City								
<b>Hole, Casing, and Cement Information</b>														
String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight				
Cond	17.5	13.375	0 - 650	54.5	J-55 ST&C	0.0	Class G	819	1.15	15.8				
Surf	12.25	9.625	0 - 2000	40.0	N-80 LT&C	0.0	Type V	221	3.18	11.0				
							Class G	195	1.3	14.3				
I1	8.75	7	0 - 9250	29.0	HCP-110 LT&C	10.6	Class G	538	1.91	12.5				
							Class G	292	1.64	13.0				
L1	6.125	5	9050 - 12300	18.0	HCP-110 LT&C	13.0	Class G	193	1.47	14.2				
<b>ATTACHMENTS</b>														
<b>VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES</b>														
<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER						<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN								
<input checked="" type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)						<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER								
<input type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)						<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP								
NAME Maria S. Gomez				TITLE Principal Regulatory Analyst				PHONE 713 997-5038						
SIGNATURE				DATE 07/21/2014				EMAIL maria.gomez@epenergy.com						
API NUMBER ASSIGNED 43013530640000				APPROVAL   Permit Manager										

**Vasquez 3-7C4  
Sec. 7, T3S, R4W  
DUCHESNE COUNTY, UT**

**EP ENERGY E&P COMPANY, L.P.**

**DRILLING PROGRAM**

**1. Estimated Tops of Important Geologic Markers**

<u>Formation</u>	<u>Depth</u>
Green River (GRRV)	4,302' TVD
Green River (GRTN1)	5,732' TVD
Mahogany Bench	6,187' TVD
L. Green River	7,322' TVD
Wasatch	9,152' TVD
T.D. (Permit)	12,300' TVD

**2. Estimated Depths of Anticipated Water, Oil, Gas or Mineral Formations:**

<u>Substance</u>	<u>Formation</u>	<u>Depth</u>
	Green River (GRRV)	4,302' MD / TVD
	Green River (GRTN1)	5,732' MD / TVD
	Mahogany Bench	6,187' MD / TVD
Oil	L. Green River	7,322' MD / TVD
Oil	Wasatch	9,152' MD / TVD

**3. Pressure Control Equipment: (Schematic Attached)**

A Diverter Stack on structural pipe from surface to 650' MD/TVD. A Diverter System from 650' MD/TVD to 2,000' MD/TVD on Conductor. A 10M BOP stack w/ rotating head, spacer spool, 5M annular, flex rams, blind rams & single w/ flex rams from 2,000' MD/TVD to 9,250' MD/TVD. A 10M BOP stack w/ rotating head, spacer spool, 5M annular, flex rams, blind rams & single w/ flex rams from 9,250' MD/TVD to TD (12,300' MD/TVD).

The BOPE and related equipment will meet the requirements of the 5M and 10M system.

**OPERATORS MINIMUM SPECIFICATIONS FOR BOPE:**

The surface casing will be equipped with a flanged casing head of 5M psi working pressure. An 11" 5M x 11" 10M spool, 11" x 10M psi BOP and 5M psi annular will be nipped up on the surface casing and tested to 250 psi low test / 3,000 psi high test for 10 minutes each prior to drilling out. The surface casing will be tested to 1,000 psi. for 30 mins. Intermediate casing will be tested to the

greater of 1,500 psi or 0.22 psi/ft. The choke manifold equipment, upper Kelly cock and floor safety valves will be tested to 5M psi. The annular preventer will be tested to 250 psi low test / 4,000 psi high test. The 10M BOP will be installed with rotating head, spacer spool, 5M annular, flex rams, blind rams & single w/ flex rams from surface shoe to TD. The BOPE will be hydraulically operated.

In addition, the BOP equipment will be tested after running intermediate casing, after any repairs to the equipment and at least once every 30 days. Pipe and blind rams will be activated on each trip, annular preventer will be activated weekly and weekly BOP drills will be held with each crew.

**Statement on Accumulator System and Location of Hydraulic Controls:**

Precision Rig # 404 is expected to be used to drill the proposed well. Operations will commence after approval of this application. Manual and/or hydraulic controls will be in compliance with 5M and 10M psi systems.

**Auxiliary Equipment:**

- A) Pason Gas Monitoring 2,000' - TD
- B) Mud logger with gas monitor – 2,000' to TD (12,300' MD/TVD)
- C) Choke manifold with one manual and one hydraulic operated choke
- D) Full opening floor valve with drill pipe thread
- E) Upper and lower Kelly cock
- F) Shaker, de-sander and centrifuge

4. **Proposed Casing & Cementing Program:**

Please refer to the attached Wellbore Diagram.

All casing will meet or exceed the following design safety factors:

- Burst = 1.00
- Collapse = 1.125
- Tension = 1.2 (including 100k# overpull)

Cement design calculations for intermediate and production hole will be based on minimum 10% excess over gauge hole volumes. Actual volumes pumped will be a minimum of 10% excess over caliper volume to designed tops of cement for any section logged. A minimum of 50% excess over gauge volume will be pumped on surface casing.

5. **Drilling Fluids Program:**

Proposed Mud Program:

Interval	Type	Mud Weight
Surface	Air	Air
Intermediate	WBM	9.0 – 10.6
Production	WBM	11.0 – 13.0

Anticipated mud weights are based on actual offset well bottom-hole pressure data. Mud weights utilized may be somewhat higher to allow for trip margin and to provide hole stability for running logs and casing.

Visual mud monitoring equipment will be utilized.

6. **Evaluation Program:**

Logs:

Mud Log: 2,000' MD/TVD – TD (12,300' MD/TVD)

Open Hole Logs: Gamma Ray, Neutron-Density, Resistivity, Sonic, from surface casing shoe to TD.

7. **Abnormal Conditions:**

Maximum anticipated bottomhole pressure calculated at 12,300' TVD equals approximately 8,315 psi. This is calculated based on a 0.676 psi/ft gradient (13.0 ppg mud density at TD).

Maximum anticipated surface pressure equals approximately 5,609 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/ft).

Maximum anticipated surface pressure based on frac gradient at 7" casing shoe is 0.8 psi/ft at 9,250' TVD = 7,400 psi

BOPE and casing design will be based on the lesser of the two MASPs which is 5,609 psi.

8. **OPERATOR REQUESTS THAT THE PROPOSED WELL BE PLACED ON CONFIDENTIAL STATUS.**



**DRILLING PROGRAM**

CASING PROGRAM	SIZE	INTERVAL		WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION
CONDUCTOR	13 3/8"	0	650	54.5	J-55	STC	2,740	1,130	514
SURFACE	9-5/8"	0	2000	40.00	N-80	LTC	5,750	3,090	737
INTERMEDIATE	7"	0	9250	29.00	HCP-110	LTC	11,220	9,750	797
PRODUCTION LINER	5'	9050	12300	18.00	HCP-110	STL	13,940	15,450	495

CEMENT PROGRAM		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
CONDUCTOR		650	Class G + 3% CACL2	819	100%	15.8 ppg	1.15
SURFACE	Lead	1,500	EXTENDACEM SYSTEM: Type V Cement + 5 lbm/sk Silicalite Compacted + 0.25 lbm/sk Kwik Seal + 0.125 lbm/sk Poly-E-Flake + 8% Bentonite + 0.3% D-AIR 5000	221	75%	11.0 ppg	3.18
	Tail	500	HALCEM SYSTEM: Class G Cement + 3 lbm/sk Silicalite Compacted + 1% Salt + 0.3% Econolite + 0.25 lbm/sk Poly-E-Flake + 0.25 lbm/sk Kwik Seal + 0.3% D-AIR 5000	195	50%	14.3 ppg	1.30
INTERMEDIATE	Lead	5,350	EXTENDACEM SYSTEM: Class G Cement + 6% Bentonite + 0.2% Econolite + 0.3% Versaset + 0.75% HR-5 + 0.3% Super CBL + 0.2% Halad-322 + 0.125 lb/sk Poly-E-Flake	538	30%	12.5 ppg	1.91
	Tail	2,400	EXPANDACEM SYSTEM: Class G Cement + 4% Bentonite + 0.25 Poly-E-Flake + 0.1% Halad-413 + 5 lb/sk Silicalite Compacted + 0.15% SA-1015 + 0.3% HR-5	292	30%	13.0 ppg	1.64
PRODUCTION LINER		3,250	EXTENDACEM SYSTEM: Class G Cement + 0.2% Super CBL + 0.55% SCR-100 + 0.3% Halad-413 + 0.125 lbm/sk Poly-E-Flake + 3 lbm/sk Silicalite Compacted + 20% SS-200 + 0.10% SA-1015	193	25%	14.2 ppg	1.47

FLOAT EQUIPMENT & CENTRALIZERS	
CONDUCTOR	PDC drillable guide shoe, 1 joint, PDC drillable float collar. Thread lock all float equipment. Install bow spring centralizers on the bottom 3 joints of casing.
SURFACE	PDC drillable guide shoe, 1 joint casing, PDC drillable float collar. Thread lock all float equipment. Install bow spring centralizers on the bottom 3 joints of casing & every 3rd joint thereafter.
INTERMEDIATE	PDC drillable 10M,P-110 float shoe, 1 joint, PDC drillable 10M, P-110 float collar. Thread lock all float equipment. Maker joint at 7,300'.
LINER	Float shoe, 1 joint, float collar, 1 joint, landing collar. Thread lock all FE. Maker joints every 1000'.

PROJECT ENGINEER(S): Brad MacAfee 713-997-6383

MANAGER: Bob Dodd

**EP ENERGY E&P COMPANY, L.P.**  
**VASQUEZ 3-7C4**  
**SECTION 7, T3S, R4W, U.S.B.&M.**

PROCEED NORTH ON PAVED STATE HIGHWAY 87 FROM THE INTERSECTION OF STATE HIGHWAY 87 WITH U.S. HIGHWAY 40 IN DUCHESNE, UTAH APPROXIMATELY 4.56 MILES TO AN INTERSECTION;

TURN RIGHT AND TRAVEL EAST ON GRAVEL ROAD 0.83 MILES TO THE BEGINNING OF THE PROPOSED ACCESS ROAD;

TURN LEFT AND FOLLOW ROAD FLAGS NORTH 0.14 MILE TO THE PROPOSED LOCATION;

TOTAL DISTANCE FROM DUCHESNE, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 5.53 MILES.

**CONFIDENTIAL**

# EP ENERGY E & P COMPANY, L.P.

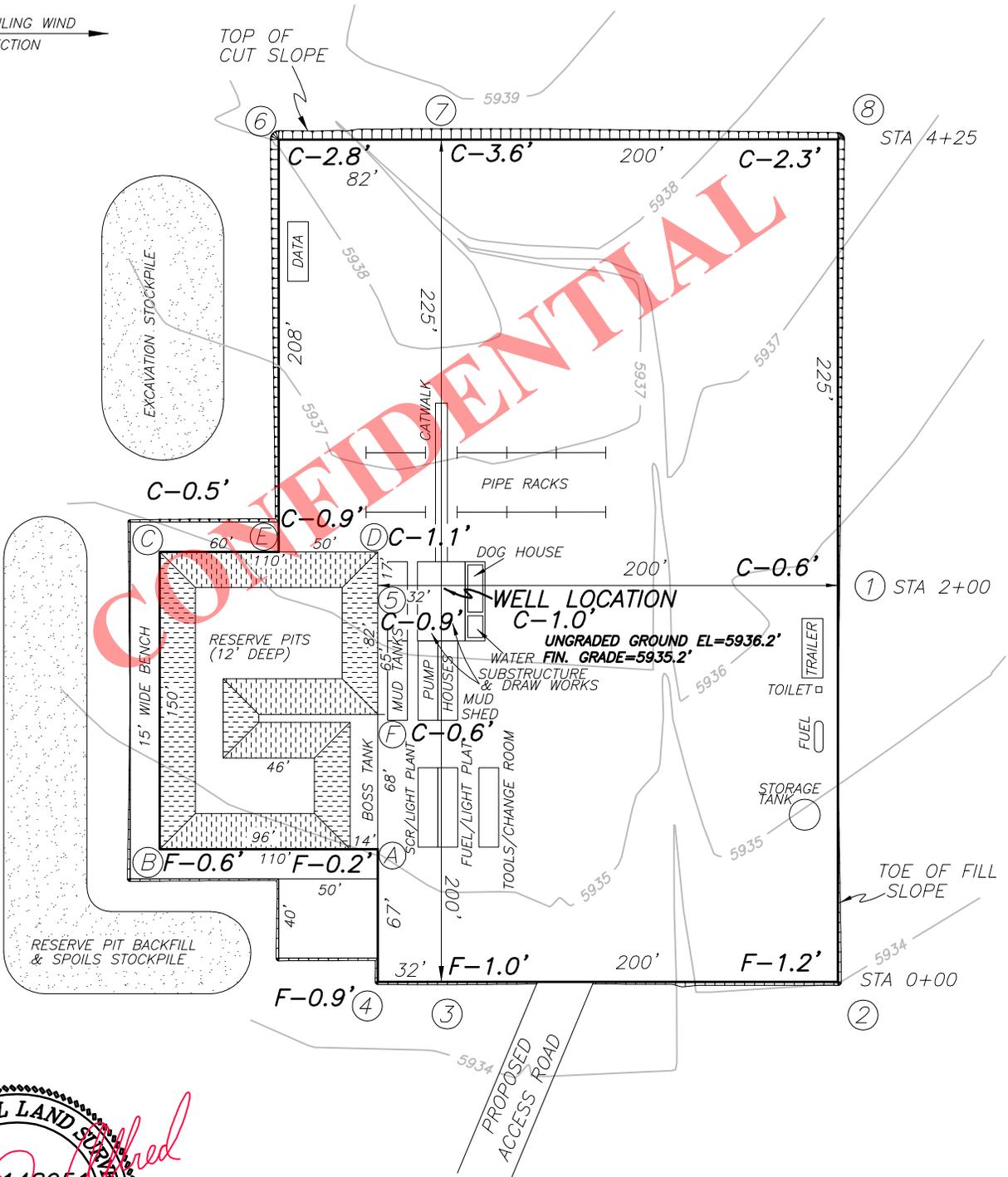
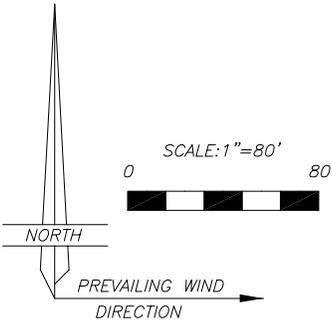
FIGURE #1

## LOCATION LAYOUT FOR

### VASQUEZ 3-7C4

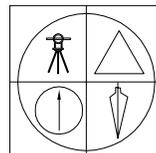
### SECTION 7, T3S, R4W, U.S.B.&M.

### 1000' FSL, 1000' FEL



13 MAY 2013

01-128-399



**JERRY D. ALLRED & ASSOCIATES**  
SURVEYING CONSULTANTS

1235 NORTH 700 EAST--P.O. BOX 975  
DUCHESNE, UTAH 84021  
(435) 738-5352

RECEIVED: July 21, 2014

# EP ENERGY E & P COMPANY, L.P.

FIGURE #2

## LOCATION LAYOUT FOR

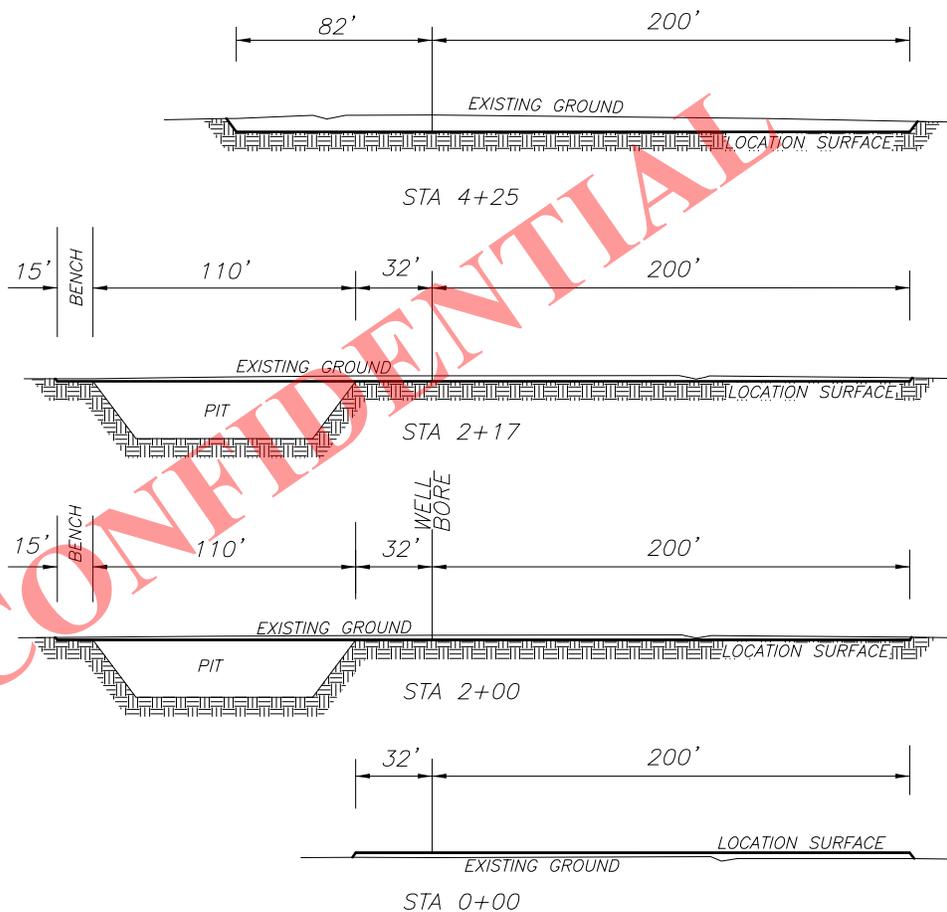
### VASQUEZ 3-7C4

SECTION 7, T3S, R4W, U.S.B.&M.

1000' FSL, 1000' FEL

X-SECTION  
SCALE  
1"=40'  
1"=80'

NOTE: ALL CUT/FILL  
SLOPES ARE 1½:1  
UNLESS OTHERWISE  
NOTED



APPROXIMATE QUANTITIES

TOTAL CUT (INCLUDING PIT) = 10,951 CU. YDS.

PIT CUT = 4572 CU. YDS.

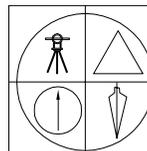
TOPSOIL STRIPPING: (6") = 2519 CU. YDS.

REMAINING LOCATION CUT = 3860 CU. YDS

TOTAL FILL = 1096 CU. YDS.

LOCATION SURFACE GRAVEL=1374 CU. YDS. (4" DEEP)

ACCESS ROAD GRAVEL=200 CU. YDS.



**JERRY D. ALLRED & ASSOCIATES**  
SURVEYING CONSULTANTS

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13 MAY 2013

01-128-399

RECEIVED: July 21, 2014

# EP ENERGY E & P COMPANY, L.P.

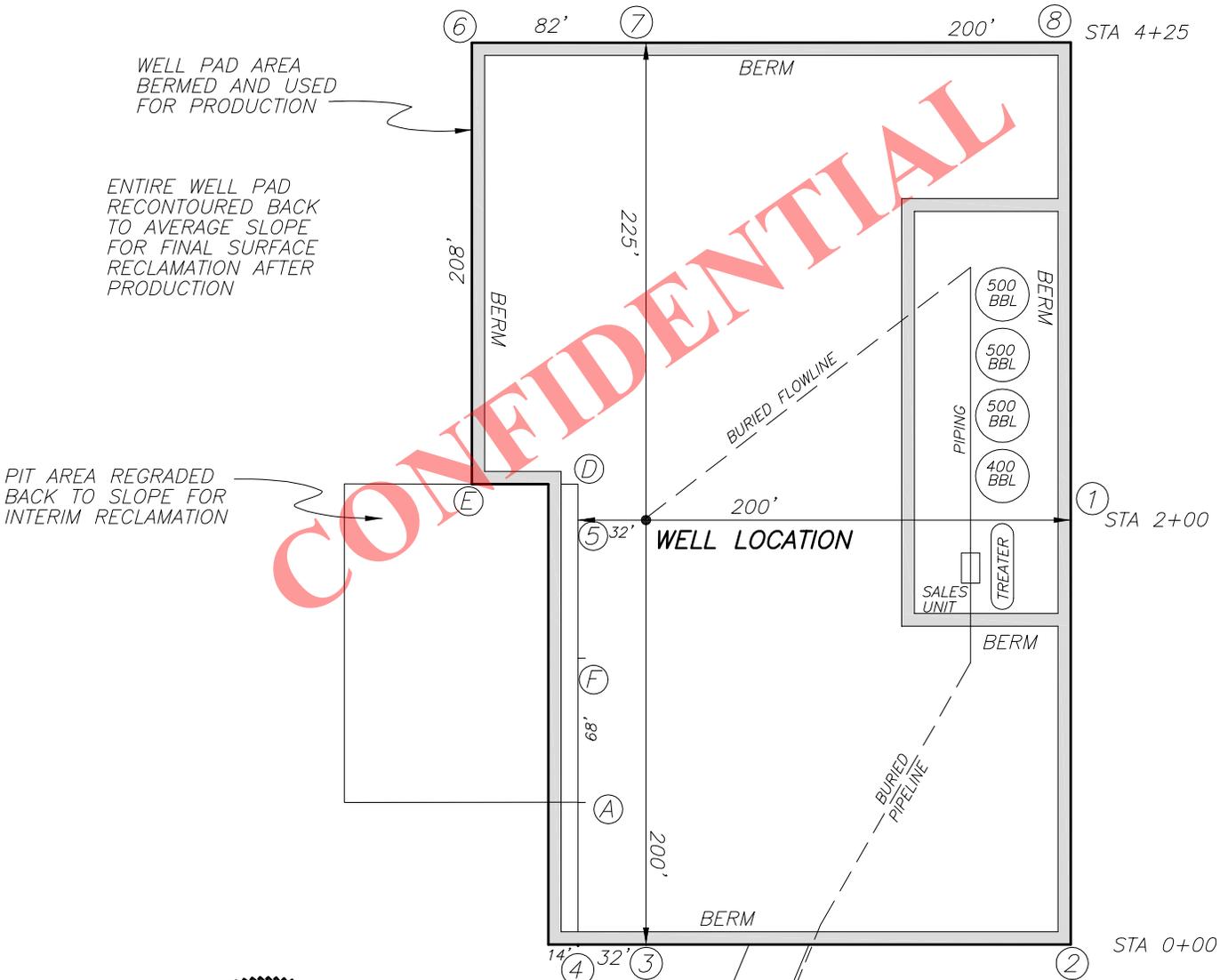
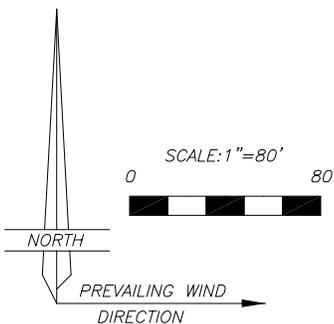
FIGURE #3

## LOCATION LAYOUT FOR

### VASQUEZ 3-7C4

SECTION 7, T3S, R4W, U.S.B.&M.

1000' FSL, 1000' FEL



WELL PAD AREA BERMED AND USED FOR PRODUCTION

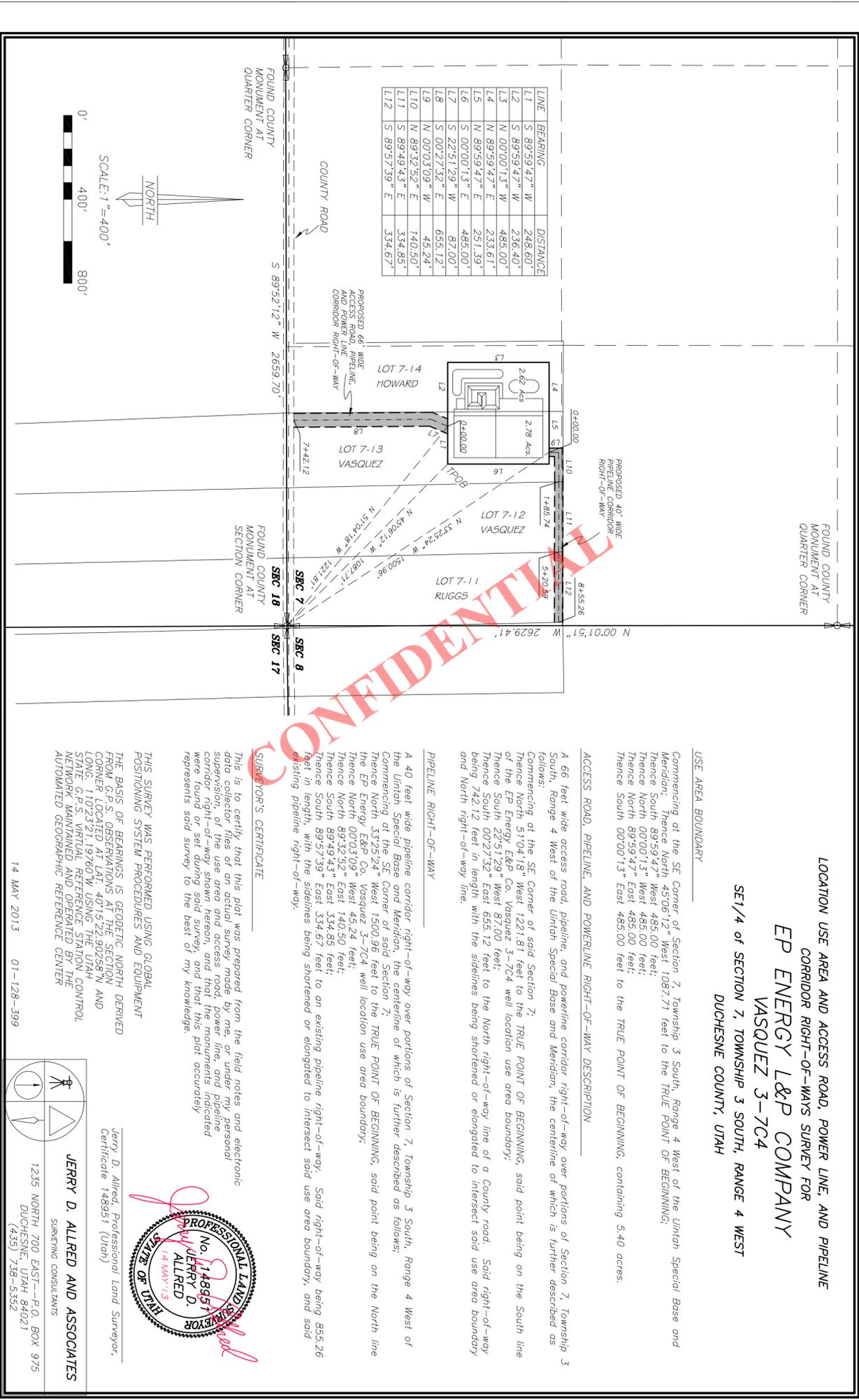
ENTIRE WELL PAD RECONTOURED BACK TO AVERAGE SLOPE FOR FINAL SURFACE RECLAMATION AFTER PRODUCTION

PIT AREA REGRADED BACK TO SLOPE FOR INTERIM RECLAMATION

CONFIDENTIAL

Jerry D. Allred

	<p><b>JERRY D. ALLRED &amp; ASSOCIATES</b> SURVEYING CONSULTANTS</p> <p>1235 NORTH 700 EAST--P.O. BOX 975 DUCHESNE, UTAH 84021 (435) 738-5352</p>
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LOCATION USE AREA AND ACCESS ROAD, POWER LINE, AND PIPELINE  
CORRIDOR RIGHT-OF-WAYS SURVEY FOR  
**EP ENERGY L&P COMPANY**  
VASQUEZ 3-7C4  
SE1/4 of SECTION 7, TOWNSHIP 3 SOUTH, RANGE 4 WEST  
DUCHESSNE COUNTY, UTAH

**USE AREA BOUNDARY**  
Commencing at the SE Corner of Section 7, Township 3 South, Range 4 West of the Uintah Special Base and Meridian. Thence North 45°06'12.0" West 1087.71 feet to the TRUE POINT OF BEGINNING;  
Thence South 89°59'47.7" West 485.00 feet;  
Thence North 00°00'13.3" East 485.00 feet;  
Thence North 89°59'47.7" East 485.00 feet to the TRUE POINT OF BEGINNING, containing 5.40 acres.

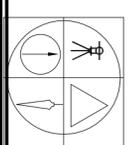
**ACCESS ROAD, PIPELINE, AND POWERLINE RIGHT-OF-WAY DESCRIPTION**  
A 66 feet wide access road, pipeline, and powerline corridor right-of-way over portions of Section 7, Township 3 South, Range 4 West of the Uintah Special Base and Meridian, the centerline of which is further described as follows:  
Commencing at the SE Corner of said Section 7,  
Thence North 51°04'18.1" West 221.81 feet to the TRUE POINT OF BEGINNING, said point being on the South line of the E. Energy E&P Co. Vasquez 3-7C4 well location use area boundary;  
Thence South 00°27'32.2" East 872.00 feet;  
Thence South 00°27'32.2" East 655.12 feet to the North right-of-way line of a County road. Said right-of-way being 742.12 feet in length with the sidelines being shortened or elongated to intersect said use area boundary and North right-of-way line.

**PIPELINE RIGHT-OF-WAY**  
A 40 feet wide pipeline corridor right-of-way over portions of Section 7, Township 3 South, Range 4 West of the Uintah Special Base and Meridian, the centerline of which is further described as follows:  
Commencing at the SE Corner of said Section 7,  
Thence North 51°04'18.1" West 1500.96 feet to the TRUE POINT OF BEGINNING, said point being on the North line of the E. Energy E&P Co. Vasquez 3-7C4 well location use area boundary;  
Thence North 00°03'09.9" West 45.24 feet;  
Thence North 89°32'52.2" East 140.50 feet;  
Thence South 89°49'43.3" East 334.85 feet;  
Thence South 89°57'39.9" East 334.67 feet to an existing pipeline right-of-way. Said right-of-way being 855.26 feet in length, with the sidelines being shortened or elongated to intersect said use area boundary, and said existing pipeline right-of-way.

**SURVEYOR'S CERTIFICATE**  
This is to certify that this plot was prepared from the field notes and electronic data collected by the surveyor and that the surveyor has supervised the field work and the preparation of this plot, and that the monuments indicated were found or set during said survey, and that this plot accurately represents said survey to the best of my knowledge.

THIS SURVEY WAS PERFORMED USING GLOBAL POSITIONING SYSTEM PROCEDURES AND EQUIPMENT  
THE BASIS OF BEARINGS IS GEODETIC NORTH DERIVED FROM G.P.S. OBSERVATIONS AT THE SECTION CORNER LOCATED AT LAT. 40°15'22.902588"N AND LONG. 110°23'21.19760"W USING THE UTAH STATE G.P.S. VIRTUAL REFERENCE STATION CONTROL NETWORK MAINTAINED AND OPERATED BY THE AUTOMATED GEORAPHIC REFERENCE CENTER

14 MAY 2013 01-128-399



**JERRY D. ALLRED AND ASSOCIATES**  
SURVEYING CONSULTANTS  
1235 NORTH 200 EAST--P.O. BOX 975  
DUCHESSNE, UTAH 84021  
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LOCATION USE AREA AND ACCESS ROAD, POWER LINE, AND PIPELINE  
CORRIDOR RIGHT-OF-WAYS SURVEY FOR  
**EP ENERGY L&P COMPANY**  
**VASQUEZ 3-7C4**  
SE1/4 of SECTION 7, TOWNSHIP 3 SOUTH, RANGE 4 WEST  
DUCHESNE COUNTY, UTAH

USE AREA BOUNDARY

Commencing at the SE Corner of Section 7, Township 3 South, Range 4 West of the Uintah Special Base and Meridian; Thence North 45°06'12" West 1087.71 feet to the TRUE POINT OF BEGINNING; Thence South 89°59'47" West 485.00 feet; Thence North 00°00'13" West 485.00 feet; Thence North 89°59'47" East 485.00 feet; Thence South 00°00'13" East 485.00 feet to the TRUE POINT OF BEGINNING, containing 5.40 acres.

ACCESS ROAD, PIPELINE, AND POWERLINE RIGHT-OF-WAY DESCRIPTION

A 66 feet wide access road, pipeline, and powerline corridor right-of-way over portions of Section 7, Township 3 South, Range 4 West of the Uintah Special Base and Meridian, the centerline of which is further described as follows:  
Commencing at the SE Corner of said Section 7;  
Thence North 51°04'18" West 1221.81 feet to the TRUE POINT OF BEGINNING, said point being on the South line of the EP Energy E&P Co. Vasquez 3-7C4 well location use area boundary;  
Thence South 22°51'29" West 87.00 feet;  
Thence South 00°27'32" East 655.12 feet to the North right-of-way line of a County road. Said right-of-way being 742.12 feet in length with the sidelines being shortened or elongated to intersect said use area boundary and North right-of-way line.

PIPELINE RIGHT-OF-WAY

A 40 feet wide pipeline corridor right-of-way over portions of Section 7, Township 3 South, Range 4 West of the Uintah Special Base and Meridian, the centerline of which is further described as follows;  
Commencing at the SE Corner of said Section 7;  
Thence North 33°25'24" West 1500.96 feet to the TRUE POINT OF BEGINNING, said point being on the North line the EP Energy E&P Co. Vasquez 3-7C4 well location use area boundary;  
Thence North 00°03'09" West 45.24 feet;  
Thence North 89°32'52" East 140.50 feet;  
Thence South 89°49'43" East 334.85 feet;  
Thence South 89°57'39" East 334.67 feet to an existing pipeline right-of-way. Said right-of-way being 855.26 feet in length, with the sidelines being shortened or elongated to intersect said use area boundary, and said existing pipeline right-of-way.

SURVEYOR'S CERTIFICATE

This is to certify that this plat was prepared from the field notes and electronic data collector files of an actual survey made by me, or under my personal supervision, of the use area and access road, power line, and pipeline corridor right-of-way shown hereon, and that the monuments indicated were found or set during said survey, and that this plat accurately represents said survey to the best of my knowledge.

THIS SURVEY WAS PERFORMED USING GLOBAL POSITIONING SYSTEM PROCEDURES AND EQUIPMENT

THE BASIS OF BEARINGS IS GEODETIC NORTH DERIVED FROM G.P.S. OBSERVATIONS AT THE SECTION CORNER LOCATED AT LAT. 40°15'22.90258"N AND LONG. 110°23'21.19760"W USING THE UTAH STATE G.P.S. VIRTUAL REFERENCE STATION CONTROL NETWORK MAINTAINED AND OPERATED BY THE AUTOMATED GEOGRAPHIC REFERENCE CENTER



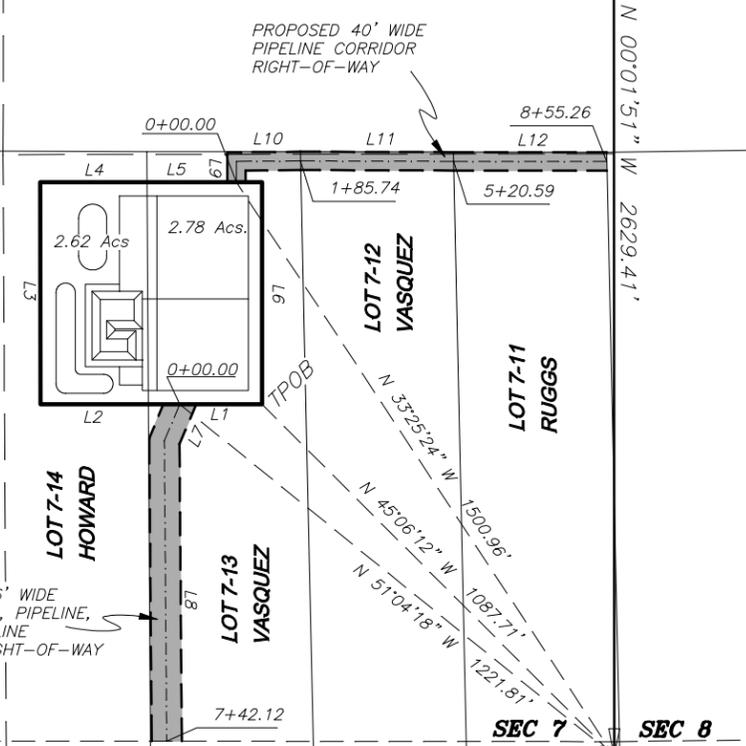
Jerry D. Allred, Professional Land Surveyor,  
Certificate 148951 (Utah)

**JERRY D. ALLRED AND ASSOCIATES**  
SURVEYING CONSULTANTS

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14 MAY 2013 01-128-399

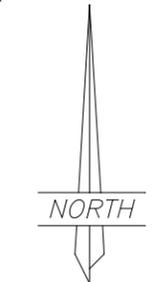
LINE	BEARING	DISTANCE
L1	S 89°59'47" W	248.60'
L2	S 89°59'47" W	236.40'
L3	N 00°00'13" W	485.00'
L4	N 89°59'47" E	233.61'
L5	N 89°59'47" E	251.39'
L6	S 00°00'13" E	485.00'
L7	S 22°51'29" W	87.00'
L8	S 00°27'32" E	655.12'
L9	N 00°03'09" W	45.24'
L10	N 89°32'52" E	140.50'
L11	S 89°49'43" E	334.85'
L12	S 89°57'39" E	334.67'



FOUND COUNTY MONUMENT AT QUARTER CORNER

S 89°52'12" W 2659.70'

FOUND COUNTY MONUMENT AT SECTION CORNER

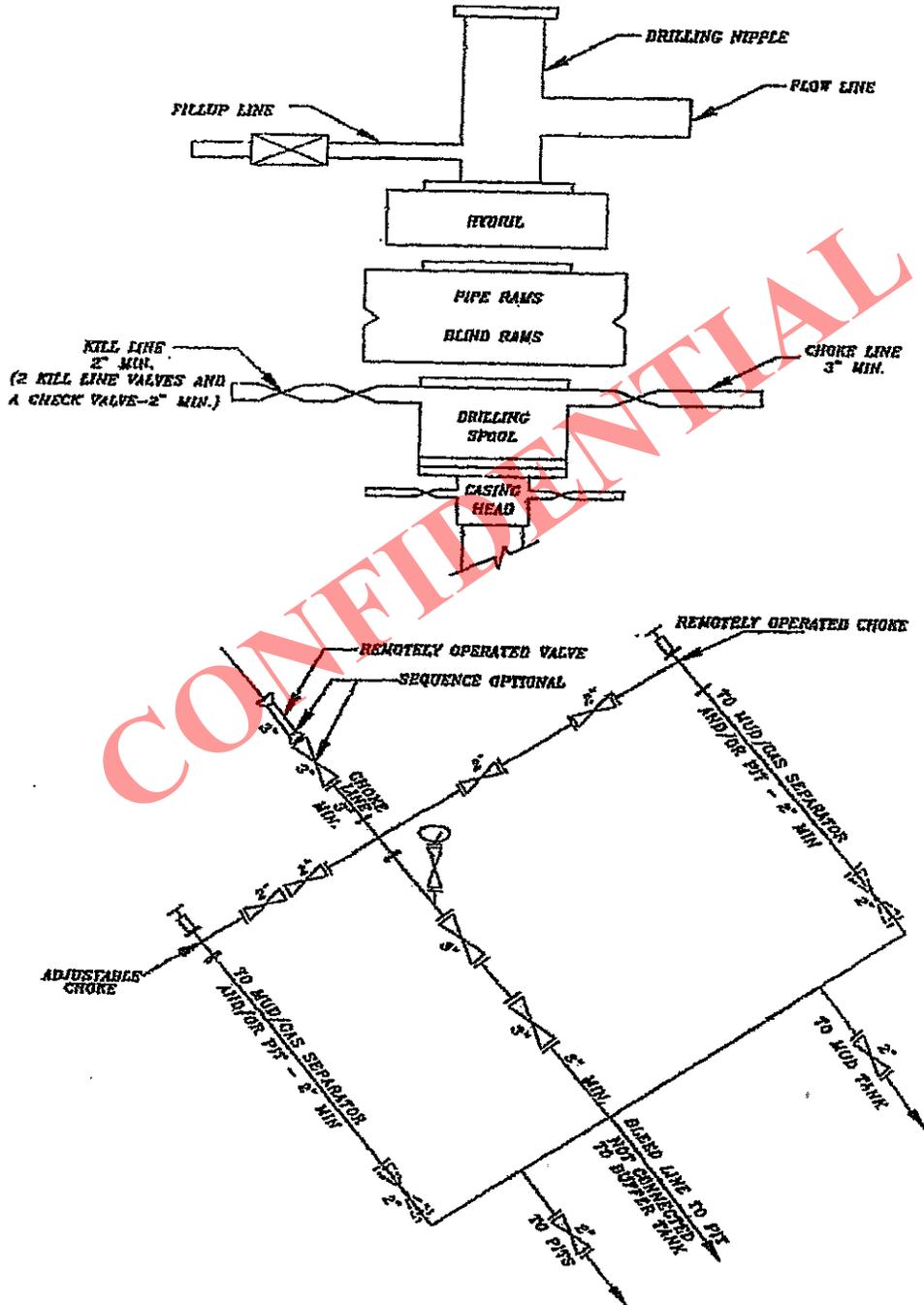


SCALE: 1"=400'

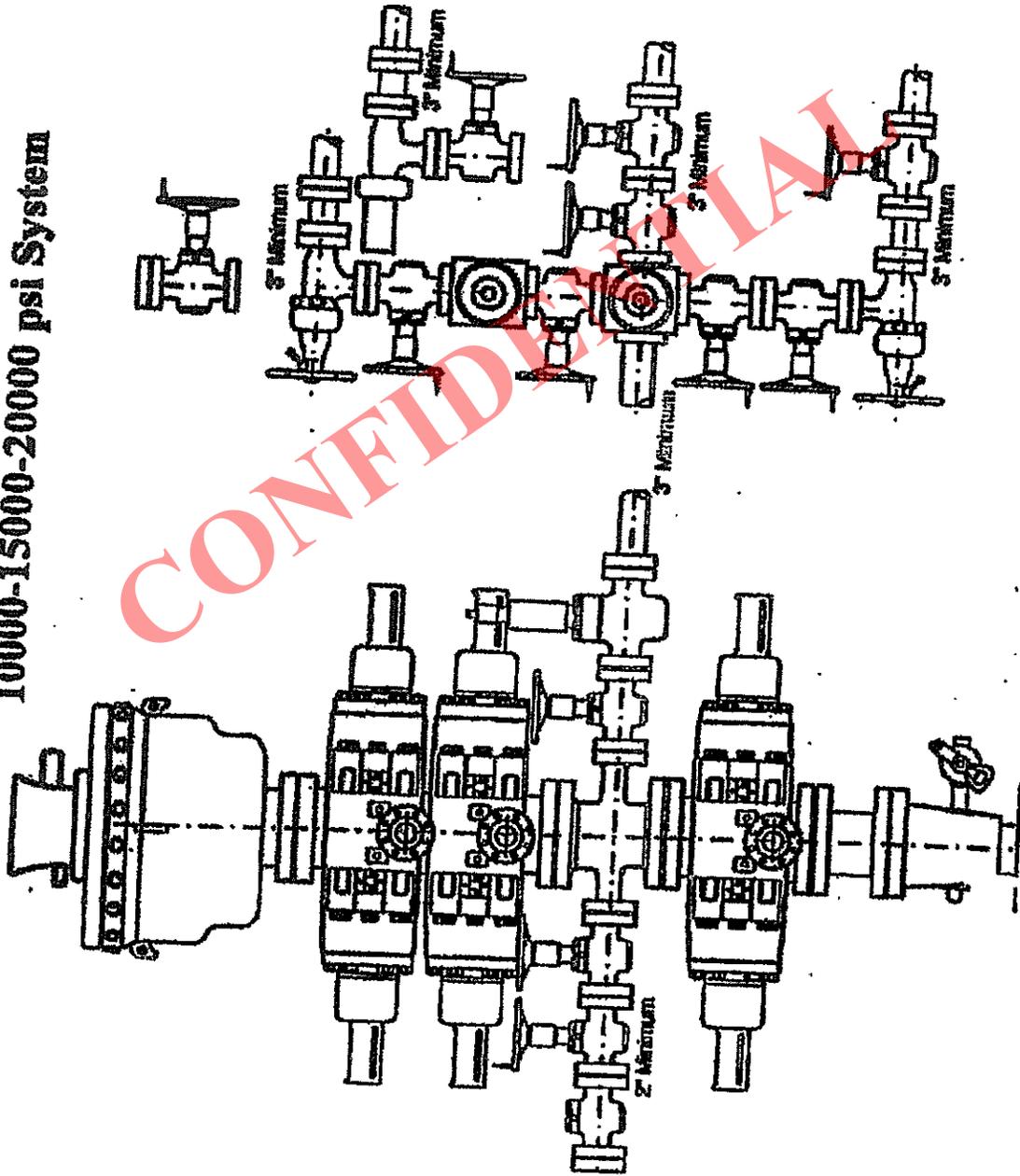


RECEIVED: July 21, 2014

# 5M BOP STACK and CHOKE MANIFOLD SYSTEM



10000-15000-20000 psi System

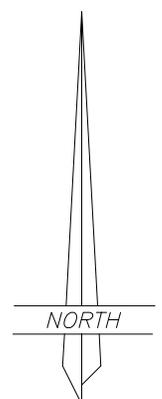
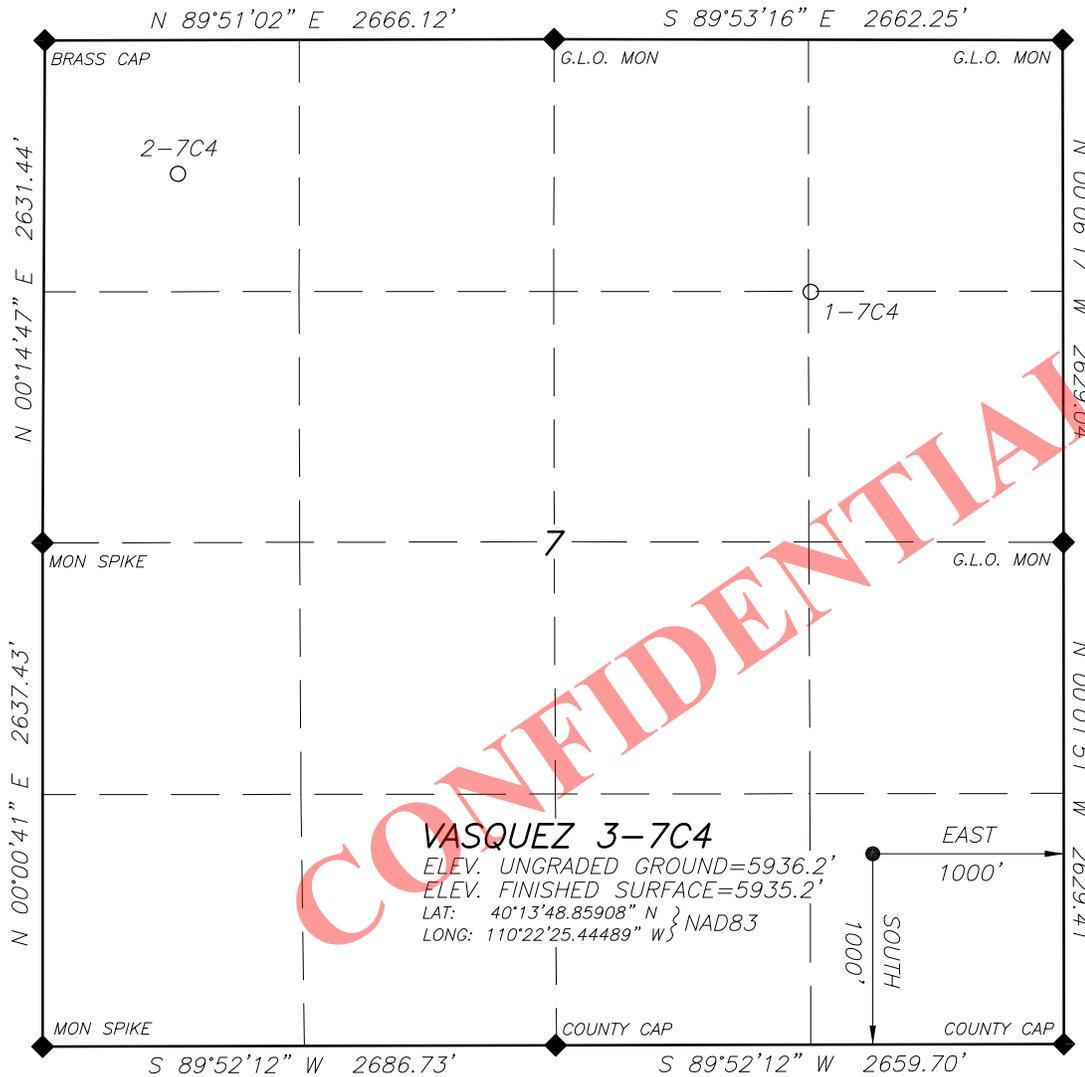


# EP ENERGY E & P COMPANY, L.P.

## WELL LOCATION

### VASQUEZ 3-7C4

LOCATED IN THE SE¼ OF THE SE¼ OF SECTION 7 T3S, R4W, U.S.B.&M. DUCHESNE COUNTY, UTAH



SCALE: 1" = 1000'



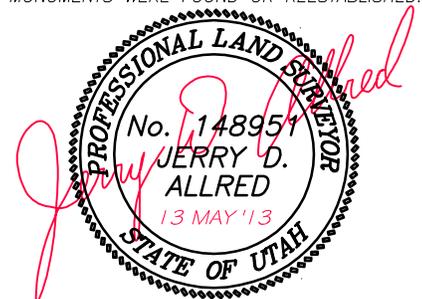
NOTE:  
 NAD27 VALUES FOR WELL POSITION:  
 LAT: 40.230282° N  
 LONG: 110.3730236° W

**LEGEND AND NOTES**

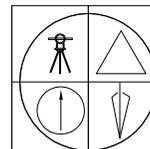
- ◆ CORNER MONUMENTS FOUND AND USED BY THIS SURVEY
- THE GENERAL LAND OFFICE (G.L.O.) PLAT WAS USED FOR REFERENCE AND CALCULATIONS AS WAS THE U.S.G.S. MAP
- THIS SURVEY WAS PERFORMED USING GLOBAL POSITIONING SYSTEM PROCEDURES AND EQUIPMENT
- THE BASIS OF BEARINGS IS GEODETIC NORTH DERIVED FROM G.P.S. OBSERVATIONS AT THE SECTION CORNER LOCATED AT LAT. 40°15'22.90258"N AND LONG. 110°23'21.19760"W USING THE UTAH STATE G.P.S. VIRTUAL REFERENCE STATION CONTROL NETWORK MAINTAINED AND OPERATED BY THE AUTOMATED GEOGRAPHIC REFERENCE CENTER
- BASIS OF ELEVATIONS: NAVD 88 DATUM USING THE UTAH REFERENCE NETWORK CONTROL SYSTEM

**SURVEYOR'S CERTIFICATE**

I HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FROM THE FIELD NOTES AND ELECTRONIC DATA COLLECTOR FILES OF AN ACTUAL SURVEY PERFORMED BY ME, OR UNDER MY PERSONAL SUPERVISION, DURING WHICH THE SHOWN MONUMENTS WERE FOUND OR REESTABLISHED.



JERRY D. ALLRED, PROFESSIONAL LAND SURVEYOR, CERTIFICATE NO. 148951 (UTAH)

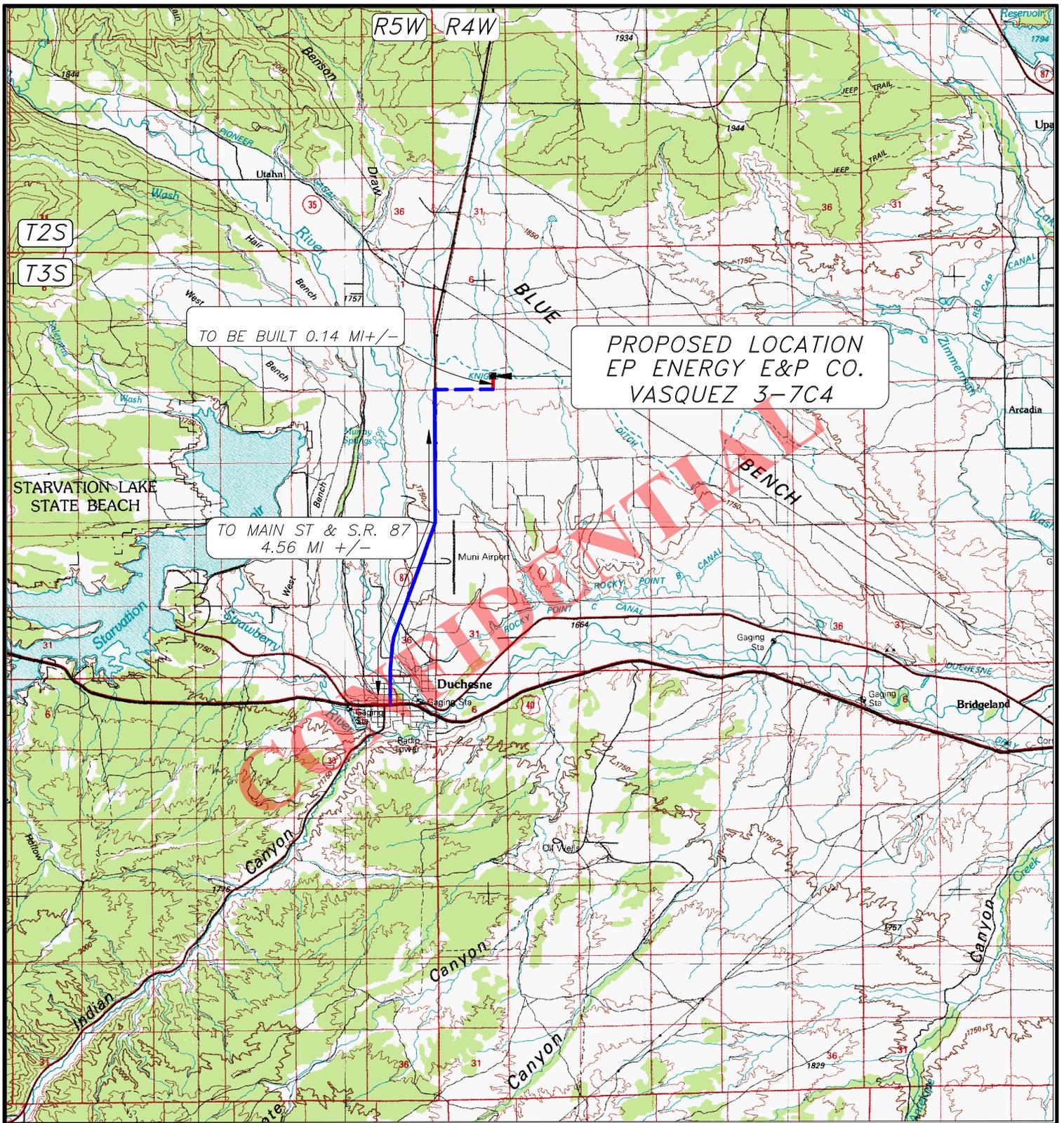


**JERRY D. ALLRED & ASSOCIATES**  
 SURVEYING CONSULTANTS

1235 NORTH 700 EAST--P.O. BOX 975  
 DUCHESNE, UTAH 84021  
 (435) 738-5352

13 MAY 2013 01-128-399

RECEIVED: July 21, 2014



PROPOSED LOCATION  
EP ENERGY E&P CO.  
VASQUEZ 3-7C4

TO BE BUILT 0.14 MI +/-

TO MAIN ST & S.R. 87  
4.56 MI +/-

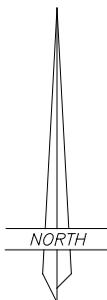
**LEGEND:**

PROPOSED WELL LOCATION

01-128-399

**JERRY D. ALLRED & ASSOCIATES**  
SURVEYING CONSULTANTS

1235 NORTH 700 EAST--P.O. BOX 975  
DUCHEсне, UTAH 84021  
(435) 738-5352



**EP ENERGY E & P COMPANY, L.P.**

VASQUEZ 3-7C4

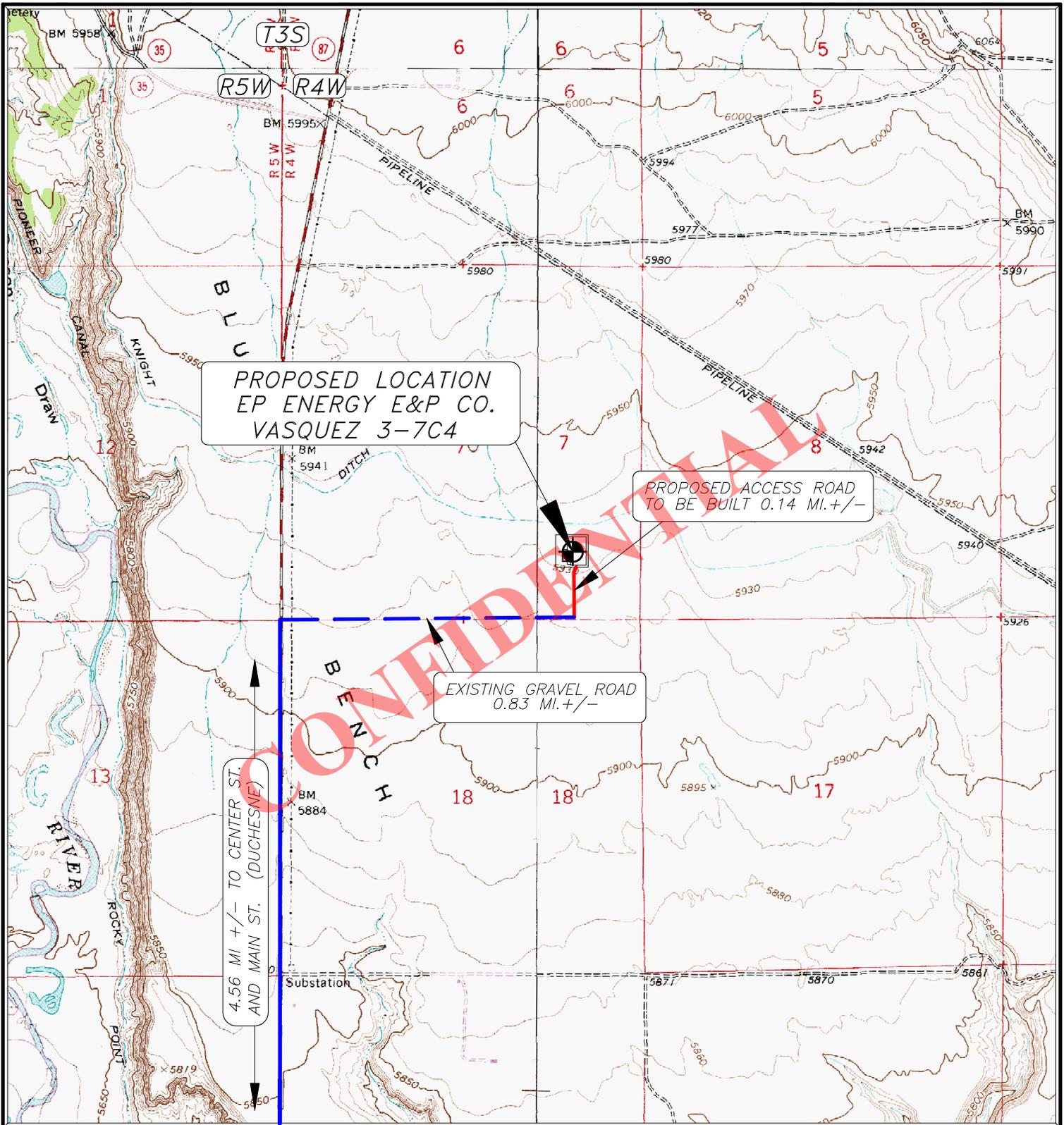
SECTION 7, T3S, R4W, U.S.B.&M.

1000' FSL 1000' FEL

**TOPOGRAPHIC MAP "A"**

SCALE; 1"=10,000'

13 MAY 2013



PROPOSED LOCATION  
EP ENERGY E&P CO.  
VASQUEZ 3-7C4

PROPOSED ACCESS ROAD  
TO BE BUILT 0.14 MI. +/-

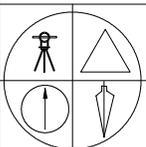
EXISTING GRAVEL ROAD  
0.83 MI. +/-

4.56 MI +/- TO CENTER ST.  
AND MAIN ST. (DUCHESENE)

**LEGEND:**

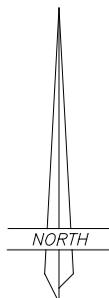
-  PROPOSED WELL LOCATION
-  PROPOSED ACCESS ROAD
-  EXISTING GRAVEL ROAD
-  EXISTING PAVED ROAD

01-128-399



**JERRY D. ALLRED & ASSOCIATES**  
SURVEYING CONSULTANTS

1235 NORTH 700 EAST--P.O. BOX 975  
DUCHESENE, UTAH 84021  
(435) 738-5352



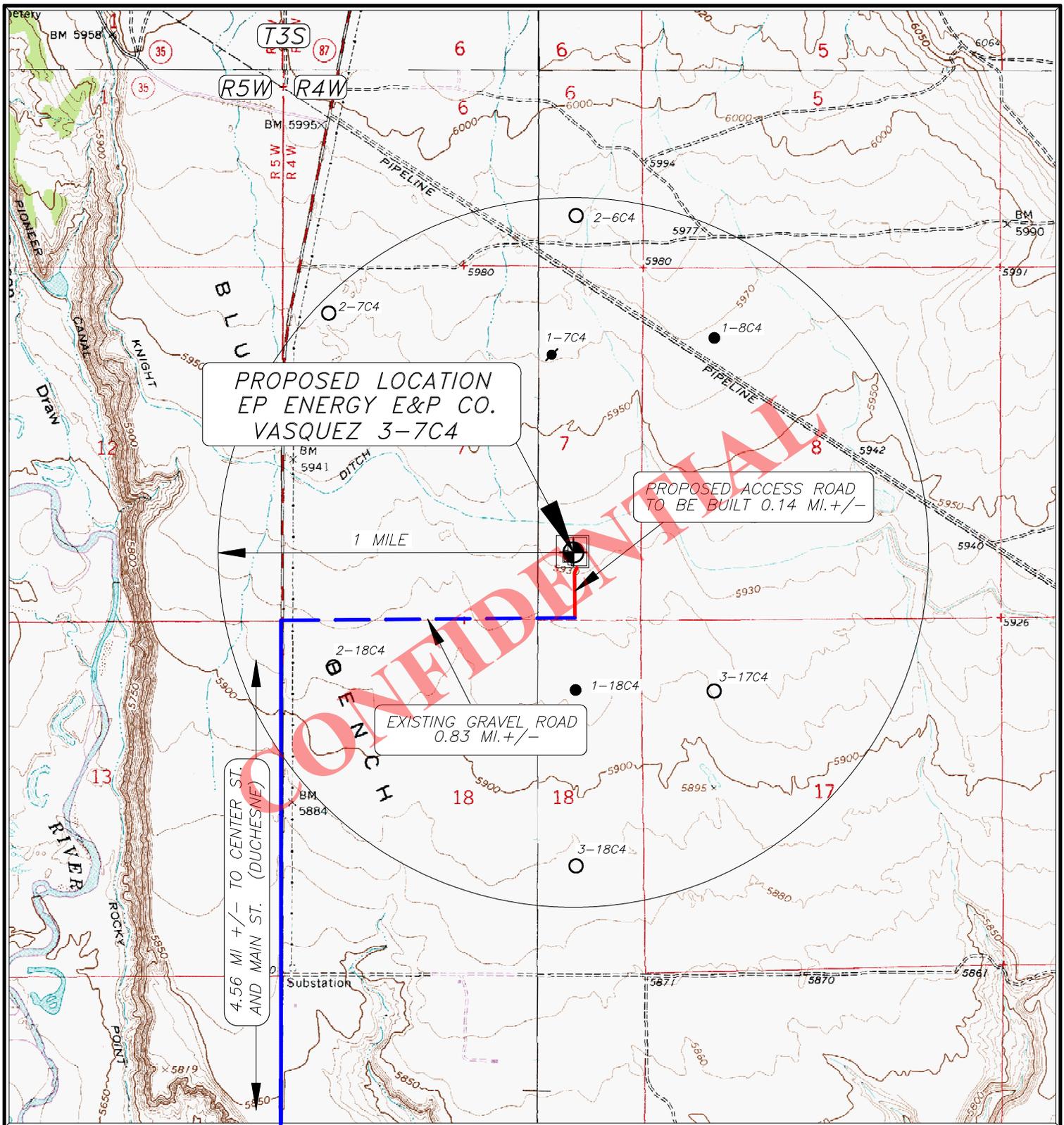
**EP ENERGY E & P COMPANY, L.P.**

VASQUEZ 3-7C4  
SECTION 7, T3S, R4W, U.S.B.&M.

1000' FSL 1000' FEL

**TOPOGRAPHIC MAP "B"**

SCALE: 1"=2000'  
13 MAY 2013



PROPOSED LOCATION  
EP ENERGY E&P CO.  
VASQUEZ 3-7C4

PROPOSED ACCESS ROAD  
TO BE BUILT 0.14 MI. +/-

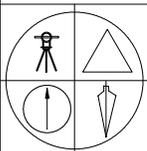
1 MILE

EXISTING GRAVEL ROAD  
0.83 MI. +/-

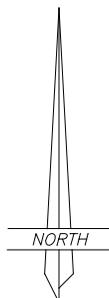
4.56 MI +/- TO CENTER ST.  
AND MAIN ST. (DUCHESE)

**LEGEND:**

-  PROPOSED WELL LOCATION
  -  OTHER WELLS AS LOCATED FROM SUPPLIED MAP
- 01-128-399



**JERRY D. ALLRED & ASSOCIATES**  
SURVEYING CONSULTANTS  
1235 NORTH 700 EAST--P.O. BOX 975  
DUCHESE, UTAH 84021  
(435) 738-5352



**EP ENERGY E & P COMPANY, L.P.**

VASQUEZ 3-7C4  
SECTION 7, T3S, R4W, U.S.B.&M.

1000' FSL 1000' FEL

**TOPOGRAPHIC MAP "C"**

SCALE: 1"=2000'  
13 MAY 2013

**AFFIDAVIT OF SURFACE USE AGREEMENT**

Allyson Johnstone personally appeared before me, and, being duly sworn, deposes and says:

1. My name is Allyson Johnstone. I am a Landman for EP Energy E&P Company, L.P., whose address is 1001 Louisiana St., Houston, Texas 77002 ("EP Energy").
2. EP Energy is the operator of the proposed Vasquez 3-7C4 well (the "Well") to be located in the Southeast Quarter of Section 07, Township 03 South, Range 04 West, U.S.B.&M., Duchesne County, Utah (the "Drillsite Location"). The surface owner of the Drillsite Location is Emilio H. Vasquez, Jr. Successor Trustee of the Emilio H. Vasquez Family Trust dated July 19, 1999, whose mailing address is 25451 Mackenzie Street, Laguna Hills, California 92653 (the "Surface Owner"). The Surface Owner's telephone number is (435) 789-1301.
3. EP Energy and the Surface Owner have entered into a Surface Use Agreement dated June 12, 2014 to cover any and all injuries or damages of every character and description sustained by the Surface Owner or Surface Owner's property as a result of operations associated with the drilling of the Well.

FURTHER AFFIANT SAYETH NOT.

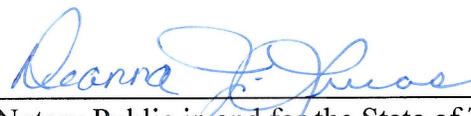
  
 Allyson Johnstone

CONFIDENTIAL

**ACKNOWLEDGMENT**

STATE OF TEXAS                   §  
   §  
 COUNTY OF HARRIS           §

Sworn to and subscribed before me on this 20th day of June, 2014, by Allyson Johnstone, as a Landman for EP Energy E&P Company, L.P., a Delaware limited partnership.

  
 \_\_\_\_\_  
 Notary Public in and for the State of Texas

My Commission Expires:



EP Energy E&P Company, L.P.

**Related Surface Information**

1. **Current Surface Use:**
  - Livestock Grazing and Oil and Gas Production.
  
2. **Proposed Surface Disturbance:**
  - The road will be crown and ditch. Water wings will be constructed on the access road as needed.
  - The topsoil will be windrowed and re-spread in the borrow area.
  - New road to be constructed will be approximately .14 miles in length and 66 feet wide.
  - All equipment and vehicles will be confined to the access road, pad and area specified in the APD.
  
3. **Location Of Existing Wells:**
  - Existing oil, gas wells within one (1) mile radius of proposed well are provided in EXHIBIT C.
  
4. **Location And Type Of Drilling Water Supply:**
  - Drilling water: Duchesne City Water
  
5. **Existing/Proposed Facilities For Productive Well:**
  - There are no existing facilities that will be utilized for this well.
  - A pipeline corridor .14 miles will parallel the proposed access road. The corridor will contain one 4 inch gas line and one 2 inch gas line and one 2 inch Salt Water disposal line. Rehabilitation of unneeded, previously disturbed areas will consist of backfilling and contouring the reserve pit area; backsloping and contouring all cut and fill slopes. These areas will be reseeded. Refer to plans for reclamation of surface for details.
  - Upgrade and maintain access roads and drainage control structures (e.g., culverts, drainage dips, ditching, etc.) as necessary to prevent soil erosion and accommodate safe, year-round traffic.
  
6. **Construction Materials:**
  - Native soil from road and location will be used for construction materials along with gravel and/or scoria road base material. In the event that conditions should necessitate graveling of all or part of the access road and location, surfacing materials will be purchased from commercial suppliers in the marketing area.
  
7. **Methods For Handling Waste Disposal:**
  - The reserve pit will be designed to prevent the collection of surface runoff and will be constructed with a minimum of ½ the total depth below the original ground surface on the lowest point with the pit. The pit will be lined with a 20-mil polyethylene to prevent leakage of fluids. The liner will be rolled into place and secured at the ends, i.e. buried on top of the pit berms. Prior to use, the reserve pit will be fenced on three sides; the fourth side will be fenced at the time the rig is removed. Drilling fluids, cuttings and produced water will be contained in the reserve pit (trash will be placed in the trash cage). Fluids in the reserve pit will be allowed to evaporate prior to pit burial.
  - Garbage and other trash will be contained in the portable trash cage and hauled off the location to an authorized disposal site. Any trash on the pad will be cleaned up prior to the rig moving off location and hauled to an authorized disposal site.
  - Sewage will be handled in Portable Toilets.
  - Produced water will be placed in the reserve pit for a period not to exceed ninety days after initial production. Any hydrocarbons produced during completion work will be contained in test tanks and removed from the location at a later date.
  - Water from the reserve pit may be used for drilling of additional wells. The water will be trucked along access roads as approved in pertinent APD's
  
8. **Ancillary Facilities:**
  - There will be no ancillary facilities associated with this project.

**9. Surface Reclamation Plans:**

Backfilling of the pits will be done when dry. In the event of a dry hole, the location will be re-contoured, the topsoil will be distributed evenly over the entire location, and the seedbed prepared.

- Seed will be planted after September 15<sup>th</sup>, and prior to ground frost, or seed will be planted after the frost has left and before May 15<sup>th</sup>. Slopes to steep for machinery will be hand broadcast and raked with twice the specified amount of seed.
  1. The construction program and design are on the attached cut, fill and cross sectional diagrams.
  2. Prior to construction, all topsoil will be removed from the entire site and stockpiled. Topsoil for this site is the first 6 inches of soil materials.
  3. After the location has been reshaped and after redistributing the topsoil, the operator will rip and scarify the drilling platform and access road on the contour, to a depth of at least 12 inches.
- Rehabilitation will begin upon the completion of the drilling. Complete rehabilitation will depend on weather conditions and the amount of time required to dry the reserve pit.
  1. All rehabilitation work including seeding will be completed as soon as weather and the reserve pit conditions are appropriate.
  2. Landowner will be contacted for rehabilitation requirements.

**10. Surface Ownership:**

Emilio H. Vasquez, Jr. – Successor Trustee of the Emilio H. Vasquez Family Trust dated July 19, 1999  
25451 Mackenzie Street  
Laguna Hills, California 92653  
435-789-1301

**Other Information:**

- The surface soil consists of clay, and silt.
- Flora – vegetation consists of the following: Sagebrush, Juniper and prairie grasses.
- Fauna – antelope, deer, coyotes, raptors, small mammals, and domestic grazing animals.
- Current surface uses – Livestock grazing and mineral exploration and production.

• **Operator and Contact Persons:**

**Construction and Reclamation:**

EP Energy E&P Company, L.P.  
Wayne Garner  
PO Box 410  
Altamont, Utah 84001  
435-454-3394 – Office  
435-823-1490 – Cell

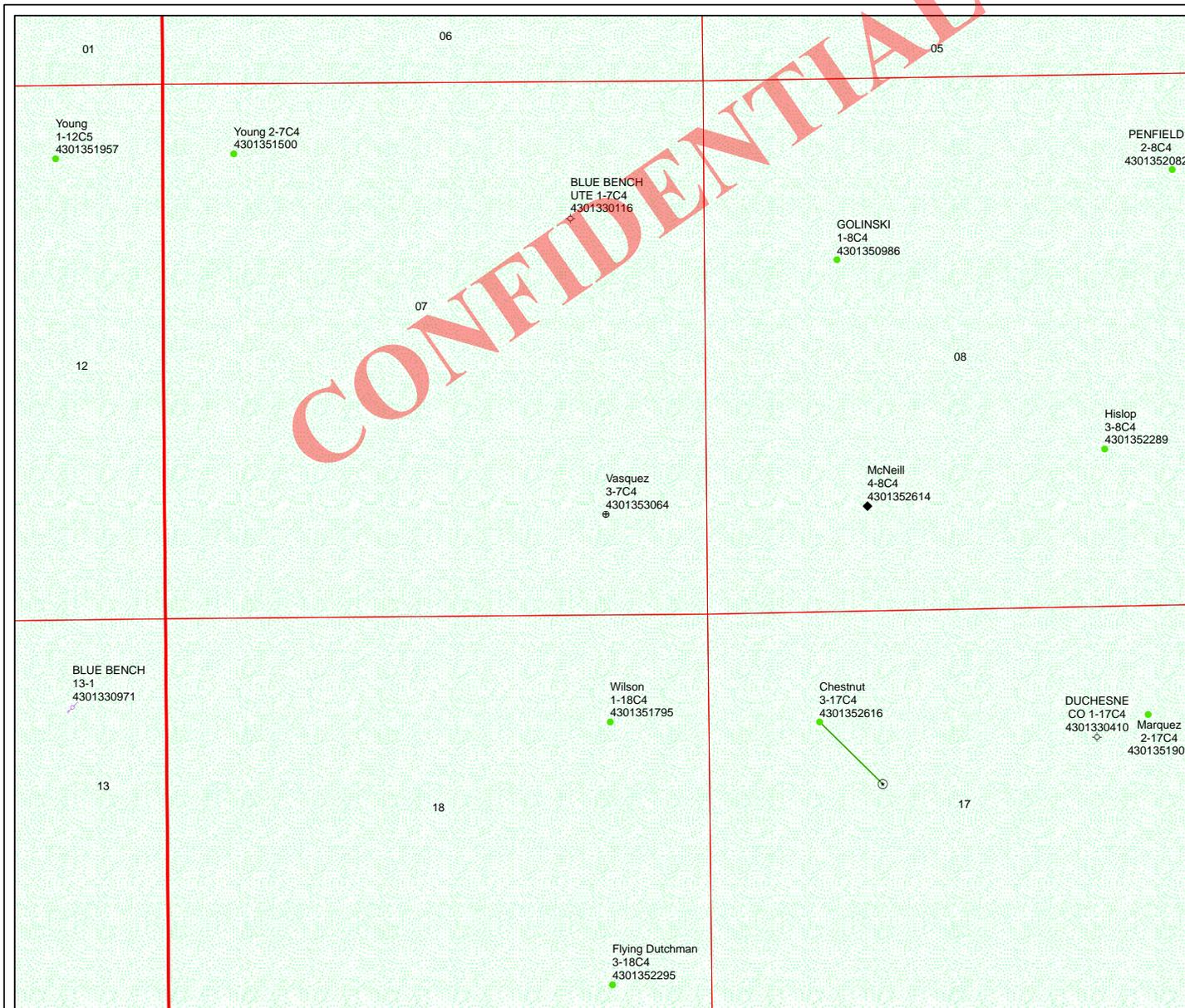
**Regarding This APD**

EP Energy E&P Company, L.P.  
Maria S. Gomez  
1001 Louisiana, Rm 2730D  
Houston, Texas 77002  
713-997-5038 – Office

**Drilling**

EP Energy E&P Company, L.P.  
Brad MacAfee – Drilling Engineer  
1001 Louisiana, Rm 2660D  
Houston, Texas 77002  
713-997-6383 – office  
281-813-0902 – Cell

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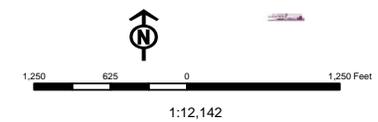


**API Number: 4301353064**  
**Well Name: Vasquez 3-7C4**

Township: T03.0S Range: R04.0W Section: 07 Meridian: U  
 Operator: EP ENERGY E&P COMPANY, L.P.

Map Prepared: 7/23/2014  
 Map Produced by Diana Mason

Wells Query		Units	
<b>Status</b>		<b>STATUS</b>	
◆ APD - Approved Permit		ACTIVE	
○ DRL - Spudded (Drilling Commenced)		EXPLORATORY	
↗ GRW - Gas Injection		GAS STORAGE	
★ GS - Gas Storage		NF PP OIL	
⊕ LOC - New Location		NF SECONDARY	
⊖ OPS - Operation Suspended		PI OIL	
⊘ PA - Plugged Abandoned		PP GAS	
⊙ PGW - Producing Gas Well		PP GEOTHERML	
● POW - Producing Oil Well		PP OIL	
⊙ SGW - Shut-in Gas Well		SECONDARY	
● SOW - Shut-in Oil Well		TERMINATED	
⊙ TA - Temp. Abandoned			
○ TW - Test Well		<b>Fields</b>	
○ WDW - Water Disposal		<b>STATUS</b>	
○ WW - Water Injection Well		Unknown	
● WSW - Water Supply Well		ABANDONED	
		ACTIVE	
		COMBINED	
		INACTIVE	
		STORAGE	
		TERMINATED	



Well Name	EP ENERGY E&P COMPANY, L.P. Vasquez 3-7C4 43013530640000			
String	Cond	Surf	I1	L1
Casing Size(")	13.375	9.625	7.000	5.000
Setting Depth (TVD)	650	2000	9250	12300
Previous Shoe Setting Depth (TVD)	0	650	2000	9250
Max Mud Weight (ppg)	8.3	8.3	10.6	13.0
BOPE Proposed (psi)	500	500	10000	10000
Casing Internal Yield (psi)	2730	5320	11220	13940
Operators Max Anticipated Pressure (psi)	8315			13.0

Calculations	Cond String	13.375	"
Max BHP (psi)	.052*Setting Depth*MW=	281	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	203	YES <input type="checkbox"/> diverter stack
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	138	YES <input type="checkbox"/>
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	138	NO <input type="checkbox"/> OK <input type="checkbox"/>
Required Casing/BOPE Test Pressure=		500	psi
*Max Pressure Allowed @ Previous Casing Shoe=		0	psi *Assumes 1psi/ft frac gradient

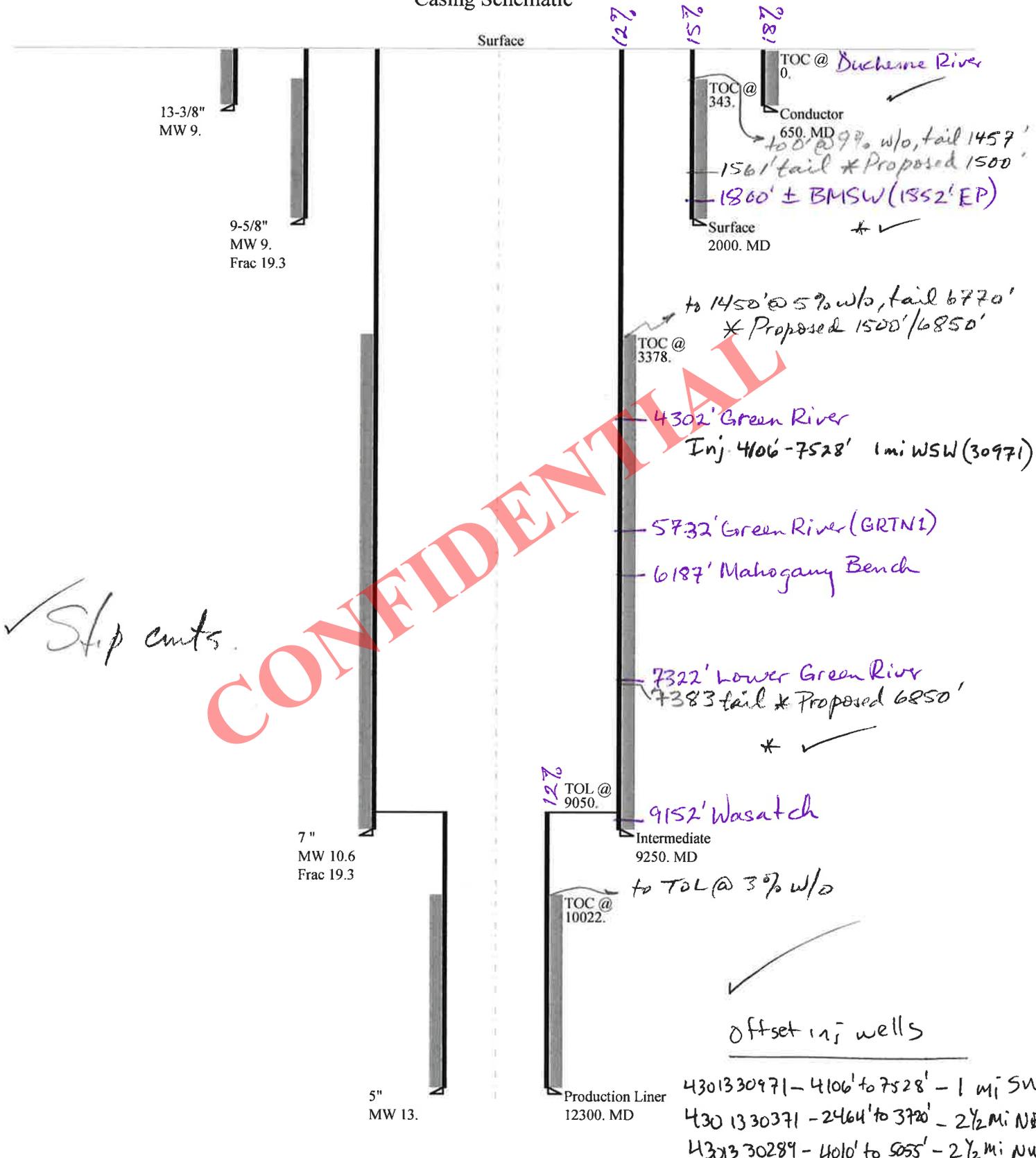
Calculations	Surf String	9.625	"
Max BHP (psi)	.052*Setting Depth*MW=	863	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	623	NO <input type="checkbox"/> diverter
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	423	YES <input type="checkbox"/> OK <input type="checkbox"/>
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	566	YES <input type="checkbox"/> OK <input type="checkbox"/>
Required Casing/BOPE Test Pressure=		2000	psi
*Max Pressure Allowed @ Previous Casing Shoe=		650	psi *Assumes 1psi/ft frac gradient

Calculations	I1 String	7.000	"
Max BHP (psi)	.052*Setting Depth*MW=	5099	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	3989	YES <input type="checkbox"/> 10M BOPE w/rotating head, spacer spool, 5M annular,
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	3064	YES <input type="checkbox"/> dbl rams, single w/flex rams
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	3504	NO <input type="checkbox"/> OK <input type="checkbox"/>
Required Casing/BOPE Test Pressure=		7854	psi
*Max Pressure Allowed @ Previous Casing Shoe=		2000	psi *Assumes 1psi/ft frac gradient

Calculations	L1 String	5.000	"
Max BHP (psi)	.052*Setting Depth*MW=	8315	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	6839	YES <input type="checkbox"/> 10M BOPE w/rotating head, spacer spool, 5M annular,
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	5609	YES <input type="checkbox"/> dbl rams, single w/flex rams
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	7644	YES <input type="checkbox"/> OK <input type="checkbox"/>
Required Casing/BOPE Test Pressure=		9758	psi
*Max Pressure Allowed @ Previous Casing Shoe=		9250	psi *Assumes 1psi/ft frac gradient

# 43013530640000 Vasquez 3-7C4

## Casing Schematic



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✓ Slip cuts.

Offset in wells

4301330971 - 4106' to 7528' - 1 mi SW

4301330371 - 2464' to 3720' - 2 1/2 mi NE

4301330289 - 4010' to 5055' - 2 1/2 mi NW

Well name:	<b>43013530640000 Vasquez 3-7C4</b>		
Operator:	<b>EP ENERGY E&amp;P COMPANY, LP.</b>		
String type:	Conductor	Project ID:	43-013-53064
Location:	DUCHESNE COUNTY		

**Design parameters:**

**Collapse**

Mud weight: 9.000 ppg  
 Design is based on evacuated pipe.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
 Surface temperature: 74 °F  
 Bottom hole temperature: 83 °F  
 Temperature gradient: 1.40 °F/100ft  
 Minimum section length: 100 ft

Cement top: Surface

**Burst**

Max anticipated surface pressure: 226 psi  
 Internal gradient: 0.120 psi/ft  
 Calculated BHP 304 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
 8 Round LTC: 1.70 (J)  
 Buttress: 1.60 (J)  
 Premium: 1.50 (J)  
 Body yield: 1.50 (B)

**Non-directional string.**

Tension is based on buoyed weight.  
 Neutral point: 563 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	650	13.375	54.50	J-55	ST&C	650	650	12.49	8065
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	304	1130	3.718	304	2730	8.98	30.7	514	16.74 J

Prepared by: Helen Sadik-Macdonald  
 Div of Oil, Gas & Mining

Phone: 801 538-5357  
 FAX: 801-359-3940

Date: September 30, 2014  
 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 650 ft, a mud weight of 9 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:	<b>43013530640000 Vasquez 3-7C4</b>		
Operator:	<b>EP ENERGY E&amp;P COMPANY, LP.</b>		
String type:	Surface	Project ID:	43-013-53064
Location:	DUCHESNE COUNTY		

**Design parameters:**

**Collapse**

Mud weight: 9.000 ppg  
 Design is based on evacuated pipe.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
 Surface temperature: 74 °F  
 Bottom hole temperature: 102 °F  
 Temperature gradient: 1.40 °F/100ft  
 Minimum section length: 100 ft  
 Cement top: 343 ft

**Burst**

Max anticipated surface pressure: 1,760 psi  
 Internal gradient: 0.120 psi/ft  
 Calculated BHP 2,000 psi  
 No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
 8 Round LTC: 1.70 (J)  
 Buttress: 1.60 (J)  
 Premium: 1.50 (J)  
 Body yield: 1.50 (B)

**Non-directional string.**

**Re subsequent strings:**

Next setting depth: 9,250 ft  
 Next mud weight: 10.600 ppg  
 Next setting BHP: 5,094 psi  
 Fracture mud wt: 19.250 ppg  
 Fracture depth: 2,000 ft  
 Injection pressure: 2,000 psi

Tension is based on buoyed weight.  
 Neutral point: 1,732 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	2000	9.625	40.00	N-80	LT&C	2000	2000	8.75	25448
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	935	3090	3.305	2000	5750	2.88	69.3	737	10.64 J

Prepared by: Helen Sadik-Macdonald  
 Div of Oil, Gas & Mining

Phone: 801 538-5357  
 FAX: 801-359-3940

Date: September 30, 2014  
 Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 2000 ft, a mud weight of 9 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:	<b>43013530640000 Vasquez 3-7C4</b>		
Operator:	<b>EP ENERGY E&amp;P COMPANY, LP.</b>		
String type:	Intermediate	Project ID:	43-013-53064
Location:	DUCHESNE COUNTY		

**Design parameters:**

**Collapse**

Mud weight: 10.600 ppg  
 Design is based on evacuated pipe.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
 Surface temperature: 74 °F  
 Bottom hole temperature: 204 °F  
 Temperature gradient: 1.40 °F/100ft  
 Minimum section length: 1,000 ft

Cement top: 3,378 ft

**Burst**

Max anticipated surface pressure: 5,600 psi  
 Internal gradient: 0.220 psi/ft  
 Calculated BHP 7,635 psi  
  
 No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
 8 Round LTC: 1.80 (J)  
 Buttress: 1.60 (J)  
 Premium: 1.50 (J)  
 Body yield: 1.60 (B)

**Non-directional string.**

**Re subsequent strings:**

Next setting depth: 12,300 ft  
 Next mud weight: 13.000 ppg  
 Next setting BHP: 8,306 psi  
 Fracture mud wt: 19.250 ppg  
 Fracture depth: 9,250 ft  
 Injection pressure: 9,250 psi

Tension is based on buoyed weight.  
 Neutral point: 7,766 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	9250	7	29.00	HCP-110	LT&C	9250	9250	6.059	104457
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	5094	9200	1.806	7635	11220	1.47	225.2	797	3.54 J

Prepared by: Helen Sadik-Macdonald  
 Div of Oil, Gas & Mining

Phone: 801 538-5357  
 FAX: 801-359-3940

Date: September 30, 2014  
 Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 9250 ft, a mud weight of 10.6 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:	<b>43013530640000 Vasquez 3-7C4</b>		
Operator:	<b>EP ENERGY E&amp;P COMPANY, LP.</b>		
String type:	Production Liner	Project ID:	43-013-53064
Location:	DUCHESNE COUNTY		

**Design parameters:****Collapse**

Mud weight: 13.000 ppg  
Design is based on evacuated pipe.

**Burst**

Max anticipated surface pressure: 5,600 psi  
Internal gradient: 0.220 psi/ft  
Calculated BHP: 8,306 psi

No backup mud specified.

**Minimum design factors:****Collapse:**

Design factor: 1.125

**Burst:**

Design factor: 1.00

**Tension:**

8 Round STC: 1.80 (J)  
8 Round LTC: 1.80 (J)  
Buttress: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.60 (B)

Tension is based on buoyed weight.  
Neutral point: 11,647 ft

**Environment:**

H2S considered? No  
Surface temperature: 74 °F  
Bottom hole temperature: 246 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 1,000 ft

Cement top: 10,022 ft

Liner top: 9,050 ft

**Non-directional string.**

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	3300	5	18.00	HCP-110	ST-L	12300	12300	4.151	261360
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	8306	15360	1.849	8306	13940	1.68	47.6	341	7.16 J

Prepared by: Helen Sadik-Macdonald  
Div of Oil, Gas & Mining

Phone: 801 538-5357  
FAX: 801-359-3940

Date: September 30, 2014  
Salt Lake City, Utah

**Remarks:**

For this liner string, the top is rounded to the nearest 100 ft. Collapse is based on a vertical depth of 12300 ft, a mud weight of 13 ppg. The Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

*Engineering responsibility for use of this design will be that of the purchaser.*

# ON-SITE PREDRILL EVALUATION

## Utah Division of Oil, Gas and Mining

**Operator** EP ENERGY E&P COMPANY, L.P.  
**Well Name** Vasquez 3-7C4  
**API Number** 43013530640000      **APD No** 10118      **Field/Unit** ALTAMONT  
**Location:** SESE      **Sec** 7      **Tw** 3.0S      **Rng** 4.0W      1000 FSL      1000 FEL  
**1/4, 1/4**  
**GPS Coord** 553273 4453501      **Surface Owner** Emilio H. Vasquez, Jr. - Successor  
**(UTM)**      **Trustee**

### Participants

Jared Thacker (EP Energy Construction); Heather Ivie and Kelsey Carter (Landman/women); Dennis Ingram (DOGM)

### Regional/Local Setting & Topography

The Vasquez 3-7C4 is proposed in northern Utah in the Uintah Basin, and access gained by driving 4.56 miles north of Duchesne from the US Highway 40 and 87 junction, then turn east on county road for 0.83 miles where the proposed access road with lead north for 0.14 miles. The surface topography at the well pad is nearly flat and void of vegetative cover, and doesn't have any drainage issues. Evidence of the old Blue Bench irrigation system can be seen along the eastern and southern border of this proposed well pad, although they are mostly filled in and nearly flat. A few scattered houses are found southwest of this site. The nearest landmarks to the west are Highway 87 and the Duchesne river just beyond that. To the north, east and south of this project site the surface topography is nearly flat and slopes to the south typical of Blue Bench.

### Surface Use Plan

**Current Surface Use**  
Residential

<b>New Road Miles</b>	<b>Well Pad</b>	<b>Src Const Material</b>	<b>Surface Formation</b>
0.14	<b>Width</b> 342 <b>Length</b> 425	Onsite	DUCHR

**Ancillary Facilities** N

### Waste Management Plan Adequate?

### Environmental Parameters

**Affected Floodplains and/or Wetlands** N

#### **Flora / Fauna**

Rabbit brush, nearly void of vegetation, open, flat;

Horned toad, rabbits, field mice.

#### **Soil Type and Characteristics**

Reddish in color, fine-grained sandy loam with some clays present

**Erosion Issues** N

**Sedimentation Issues** N**Site Stability Issues** N**Drainage Diversion Required?** N**Berm Required?** Y

Location

**Erosion Sedimentation Control Required?** N**Paleo Survey Run?** N **Paleo Potential Observed?** N **Cultural Survey Run?** N **Cultural Resources?** N**Reserve Pit****Site-Specific Factors****Site Ranking**

<b>Distance to Groundwater (feet)</b>	>200	0
<b>Distance to Surface Water (feet)</b>	>1000	0
<b>Dist. Nearest Municipal Well (ft)</b>	>5280	0
<b>Distance to Other Wells (feet)</b>	>1320	0
<b>Native Soil Type</b>	High permeability	20
<b>Fluid Type</b>	Fresh Water	5
<b>Drill Cuttings</b>	Normal Rock	0
<b>Annual Precipitation (inches)</b>		0
<b>Affected Populations</b>	30 to 50	30 to 50
<b>Presence Nearby Utility Conduits</b>	Unknown	10
	<b>Final Score</b>	43
		1 Sensitivity Level

**Characteristics / Requirements**

A reserve pit is proposed off the west side of the location in cut, measuring 110' wide by 150' long by 12' deep and having prevailing winds from the west.

**Closed Loop Mud Required?** **Liner Required?** Y **Liner Thickness** 20 **Pit Underlayment Required?**

**Other Observations / Comments**

Surface topography is nearly flat, residential to the southwest, surface nearly void of vegetation, two landowners with most of the surface disturbance and wellhead on the Vasquez property. The Vasquez contact number belongs to his lawyer who did not give out the landowner's home phone. However, he assured me that Emillio Vasquez would not travel from California for the presite but they would notify and invite him. The second landowner was not known until after the presite, but was contacted on August 18, 2014 and invited to a second presite if one was needed. Patricia Howard explained she did not need to visit the site and was told the wellhead and most of the location was on adjacent lands, with the reserve pit and

spoils on her lands. Patricia Howard didn't have any problem with the disturbance if EP Energy followed their landowner agreement.

Dennis Ingram  
Evaluator

8/12/2014  
Date / Time

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**Application for Permit to Drill  
Statement of Basis  
Utah Division of Oil, Gas and Mining**

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
10118	43013530640000	LOCKED	OW	P	No
<b>Operator</b>	EP ENERGY E&P COMPANY, L.P.		<b>Surface Owner-APD</b>	Emilio H. Vasquez, Jr. - Successor Trustee	
<b>Well Name</b>	Vasquez 3-7C4		<b>Unit</b>		
<b>Field</b>	ALTAMONT		<b>Type of Work</b>	DRILL	
<b>Location</b>	SESE 7 3S 4W U 1000 FSL (UTM) 553280E 4453500N		1000 FEL	GPS Coord	

**Geologic Statement of Basis**

EP proposes to set 650 feet of conductor and 2,000 feet of surface casing both of which will be cemented to surface. The surface and intermediate holes will be drilled utilizing fresh water mud. The estimated depth to the base of moderately saline ground water is 1,800 feet. A search of Division of Water Rights records indicates that there are 21 water wells within a 10,000 foot radius of the center of Section 7. Wells range between 35 and 500 feet in depth and are used for irrigation, stock watering, domestic, oil exploration and municipal. The deeper wells probably produce from the Duchesne River Formation with the shallower wells producing from alluvial sediments along the Duchesne River. The Duchesne River Formation is made up of sandstones with interbedded shales and is the most prominent fresh water aquifer in the area. The proposed casing and cement program should adequately protect ground water in this area. Production casing cement should be brought up to or above the base of the moderately saline ground water.

Brad Hill  
APD Evaluator

8/19/2014  
Date / Time

**Surface Statement of Basis**

The surface at the proposed Vasquez 3-7C4 is nearly flat and slopes gently toward the southeast, having only 2.8' of cut on the northwest corner and 1.2' fill at the southeastern corner. There aren't any drainage issues found at the project site, and therefore no diversions should be needed. Very sparse vegetative ground cover with fine-grained sandy loam for soils with some clays present. The operator shall install a 20 mil synthetic liner in the reserve pit to help contain the drilling fluids. A few scattered houses were noted six hundred or more feet to the southwest, and fencing (optional) should be adequate to keep the public out. Topsoil storage is not noted on the cut and fill sheet but should be placed either immediately off the east side of location between corners 8, 1, and 2.

A presite was done on the Vasquez 3-7C4 on August 12, 2014 to take input and address issues regarding the construction and drilling of this well. Two surface owners are shown as landowners of record and were therefore invited to the presite. EP Energy and the two landowners have entered into a surface damage and reclamation plan and have submitted proof of that to the Division.

Dennis Ingram  
Onsite Evaluator

8/12/2014  
Date / Time

**Conditions of Approval / Application for Permit to Drill**

<b>Category</b>	<b>Condition</b>
Pits	A synthetic liner with a minimum thickness of 20 mils shall be properly installed and maintained in the reserve pit.
Pits	The reserve pit should be located on the west side of the location.
Surface	The well site shall be bermed to prevent fluids from entering or leaving the pad.

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## WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 7/21/2014

API NO. ASSIGNED: 43013530640000

WELL NAME: Vasquez 3-7C4

OPERATOR: EP ENERGY E&amp;P COMPANY, L.P. (N3850)

PHONE NUMBER: 713 997-5038

CONTACT: Maria S. Gomez

PROPOSED LOCATION: SESE 07 030S 040W

Permit Tech Review: 

SURFACE: 1000 FSL 1000 FEL

Engineering Review: 

BOTTOM: 1000 FSL 1000 FEL

Geology Review: 

COUNTY: DUCHESNE

LATITUDE: 40.23024

LONGITUDE: -110.37372

UTM SURF EASTINGS: 553280.00

NORTHINGS: 4453500.00

FIELD NAME: ALTAMONT

LEASE TYPE: 4 - Fee

LEASE NUMBER: Fee

PROPOSED PRODUCING FORMATION(S): GREEN RIVER(LWR)-WASATCH

SURFACE OWNER: 4 - Fee

COALBED METHANE: NO

## RECEIVED AND/OR REVIEWED:

- PLAT
- Bond: STATE/FEE - 400JU0708
- Potash
- Oil Shale 190-5
- Oil Shale 190-3
- Oil Shale 190-13
- Water Permit: Duchesne City
- RDCC Review:
- Fee Surface Agreement
- Intent to Commingle

Commingling Approved

## LOCATION AND SITING:

- R649-2-3.
- Unit:
- R649-3-2. General
- R649-3-3. Exception
- Drilling Unit
- Board Cause No: Cause 139-90
- Effective Date: 5/9/2012
- Siting: 4 Wells Per 640 Acres
- R649-3-11. Directional Drill

Comments: Presite Completed

Stipulations: 5 - Statement of Basis - bhll  
8 - Cement to Surface -- 2 strings - hmacdonald  
12 - Cement Volume (3) - hmacdonald



GARY R. HERBERT  
Governor

SPENCER J. COX  
Lieutenant Governor

# State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

Division of Oil, Gas and Mining

JOHN R. HAZA  
Division Director

## Permit To Drill

\*\*\*\*\*

**Well Name:** Vasquez 3-7C4  
**API Well Number:** 43013530640000  
**Lease Number:** Fee  
**Surface Owner:** FEE (PRIVATE)  
**Approval Date:** 10/9/2014

### Issued to:

EP ENERGY E&P COMPANY, L.P., 1001 Louisiana, Houston, TX 77002

### Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 139-90. The expected producing formation or pool is the GREEN RIVER(LWR)-WASATCH Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

### Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

### General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

### Conditions of Approval:

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Cement volumes for the 13 3/8" and 9 5/8" casing strings shall be determined from actual hole diameters in order to place cement from the pipe setting depths back to the surface.

Cement volume for the 7" intermediate string shall be determined from actual hole diameter in order to place lead cement from the pipe setting depth back to 1500' MD and tail cement to 500' above the Lower Green River as indicated in the submitted drilling plan.

### Additional Approvals:

The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this

well:

- Any changes to the approved drilling plan - contact Dustin Doucet
- Significant plug back of the well - contact Dustin Doucet
- Plug and abandonment of the well - contact Dustin Doucet

**Notification Requirements:**

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well - contact Carol Daniels  
OR  
submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website  
at <http://oilgas.ogm.utah.gov>
- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to cementing or testing casing - contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program
  - contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well - contact Dan Jarvis

**Contact Information:**

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

- Carol Daniels 801-538-5284 - office
- Dustin Doucet 801-538-5281 - office  
801-733-0983 - after office hours
- Dan Jarvis 801-538-5338 - office  
801-231-8956 - after office hours

**Reporting Requirements:**

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) - due within 5 days of spudding the well
- Monthly Status Report (Form 9) - due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) - due prior to implementation
- Written Notice of Emergency Changes (Form 9) - due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) - due prior to implementation
- Report of Water Encountered (Form 7) - due within 30 days after completion
- Well Completion Report (Form 8) - due within 30 days after completion or plugging

**Approved By:**

**Approved by:**

A handwritten signature in black ink, appearing to read "J. Rogers", written in a cursive style.

For John Rogers  
Associate Director, Oil & Gas

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Carol Daniels <caroldaniels@utah.gov>

SESE 507 T03S R04W

**24 Hour Notice of Initial Spud on the following well. Vasquez 3-7CC4**

1 message

LANDRIG009 (Precision 406) <LANDRIG009@epenergy.com>

Wed, Nov 5, 2014 at 9:34 AM

To: "alexishuefner@utah.gov" <alexishuefner@utah.gov>, "MacAfee, Bradley D" <Brad.MacAfee@epenergy.com>, "caroldaniels@utah.gov" <caroldaniels@utah.gov>, "dennisingram@utah.gov" <dennisingram@utah.gov>, "Dodd, Robert W" <Robert.Dodd@epenergy.com>, "Morales, Lisa" <Lisa.Morales@epenergy.com>, "Mangum, Danny R (Contractor)" <danny.mangum@epenergy.com>, "Gomez, Maria S" <Maria.Gomez@epenergy.com>, "Derden, Roy Lynn (Contractor)" <Roy.Derden@epenergy.com>

11/05/2014

**Subject: 24 Hour Notice of Initial Spud on the following well.**

**Well Name: Vasquez 3-7CC4**

**API Well Number: 43013530640000**

**Field: Altamont**

**County: Duchesne**

**Mineral Owner: Fee**

11/05/2014

09:30 AM

**Leon Ross Drilling**

**Rig #35 Bucket Rig Will be Spudding in on the above well for EP Energy LLC.**

Thanks,

Lloyd Rowell / Morgan Harden

EP Energy / PD 406

713-997-1220 (Rig)

435-823-1764 (Cell)

---

THIS E-MAIL AND ANY MATERIALS TRANSMITTED WITH IT MAY CONTAIN CONFIDENTIAL OR PROPRIETARY MATERIAL FOR THE SOLE USE OF THE INTENDED RECIPIENT. ANY REVIEW, USE, DISTRIBUTION OR DISCLOSURE BY OTHERS IS STRICTLY PROHIBITED. IF YOU ARE NOT THE INTENDED RECIPIENT, OR AUTHORIZED TO RECEIVE THE INFORMATION FROM THE RECIPIENT, PLEASE NOTIFY THE SENDER BY REPLY E-MAIL AND DELETE ALL COPIES OF THIS MESSAGE.

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Carol Daniels <caroldaniels@utah.gov>

**Vasquez 3-7CC4 spud notice**

1 message

7 35 4W

LANDRIG009 (Precision 406) <LANDRIG009@epenergy.com>

Mon, Nov 10, 2014 at 12:39 PM

To: "alexishuefner@utah.gov" <alexishuefner@utah.gov>, "MacAfee, Bradley D" <Brad.MacAfee@epenergy.com>, "caroldaniels@utah.gov" <caroldaniels@utah.gov>, "dennisingram@utah.gov" <dennisingram@utah.gov>, "Dodd, Robert W" <Robert.Dodd@epenergy.com>, "Morales, Lisa" <Lisa.Morales@epenergy.com>, "Mangum, Danny R (Contractor)" <danny.mangum@epenergy.com>, "Gomez, Maria S" <Maria.Gomez@epenergy.com>, "Derden, Roy Lynn (Contractor)" <Roy.Derden@epenergy.com>

**Well Name: Vasquez 3-7CC4**

**API Well Number: 43013530640000**

**Field: Altamont**

**County: Duchesne**

**Mineral Owner: Fee**

Leon Ross Drilling rig 26 will spud the well on 11/11/2014. We plan on running and cementing 13-3/8" 54.5# J-55 STC Casing to +/- 600' within 24hrs.

Thanks,

Lloyd Rowell / Morgan Harden

EP Energy / PD 406

713-997-1220 (Rig)

435-823-1764 (Cell)

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Carol Daniels <caroldaniels@utah.gov>

*SESE SEC 07 T033 R04W FEE LEASE*

---

## 24hr Notice Run & Cement Production Liner Vasquez 3-7C4

1 message

---

LANDRIG009 (Precision 406) <LANDRIG009@epenergy.com>

Tue, Dec 16, 2014 at 6:04 AM

To: "alexishuefner@utah.gov" <alexishuefner@utah.gov>, "MacAfee, Bradley D" <Brad.MacAfee@epenergy.com>, "caroldaniels@utah.gov" <caroldaniels@utah.gov>, "dennisingram@utah.gov" <dennisingram@utah.gov>, "Dodd, Robert W" <Robert.Dodd@epenergy.com>, "Mangum, Danny R (Contractor)" <danny.mangum@epenergy.com>, "Gomez, Maria S" <Maria.Gomez@epenergy.com>, "Derden, Roy Lynn (Contractor)" <Roy.Derden@epenergy.com>

RE: EP ENERGY

VASQUEZ 3-7C4

API # 43013530640000

ALTAMONT FIELD

DUCHESNE COUNTY

We plan on running and cementing 5" 18# P-110HC STL Production Liner to +/- 11,906' within 24hrs .

Regards,

Tony Wilkerson / Bill Owen

EP Energy LLC

PD Rig 406

Rig: 713-997-1220

Cell: 435-823-1764

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THIS E-MAIL AND ANY MATERIALS TRANSMITTED WITH IT MAY CONTAIN CONFIDENTIAL OR PROPRIETARY MATERIAL FOR THE SOLE USE OF THE INTENDED RECIPIENT. ANY REVIEW, USE, DISTRIBUTION OR DISCLOSURE BY OTHERS IS STRICTLY PROHIBITED. IF YOU ARE NOT THE INTENDED RECIPIENT, OR AUTHORIZED TO RECEIVE THE INFORMATION FROM THE RECIPIENT, PLEASE NOTIFY THE SENDER BY REPLY E-MAIL AND DELETE ALL COPIES OF THIS MESSAGE.

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	5. LEASE DESIGNATION AND SERIAL NUMBER: Fee
	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	7. UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Oil Well	8. WELL NAME and NUMBER: Vasquez 3-7C4
2. NAME OF OPERATOR: EP ENERGY E&P COMPANY, L.P.	9. API NUMBER: 43013530640000
3. ADDRESS OF OPERATOR: 1001 Louisiana , Houston, TX, 77002	PHONE NUMBER: 713 997-5038 Ext
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1000 FSL 1000 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESE Section: 07 Township: 03.0S Range: 04.0W Meridian: U	9. FIELD and POOL or WILDCAT: ALTAMONT
	COUNTY: DUCHESNE
	STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: 1/2/2015	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input checked="" type="checkbox"/> OTHER	OTHER: <input type="text" value="Initial Completion"/>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

EP plans to complete into the Wasatch. Please see the attached for details.

Approved by the  
 Utah Division of  
 Oil, Gas and Mining

Date: \_\_\_\_\_

By: Debra K. Quist

<b>NAME (PLEASE PRINT)</b> Maria S. Gomez	<b>PHONE NUMBER</b> 713 997-5038	<b>TITLE</b> Principal Regulatory Analyst
<b>SIGNATURE</b> N/A	<b>DATE</b> 12/29/2014	

## **Vasquez 3-7C4**

### **Initial Completion**

**API # : 4301353064**

**The following precautions will be taken until the RCA for the Conover is completed:**

1. Review torque turning and running of the 7" and 5" liner of anomalies.
2. Test and chart casing for 30 minutes, noting pressure if any on surface casing.
3. Test all lubricators, valves and BOP's to working pressure.
4. A frac tree with BOP equipment will be utilized during the stimulation treatment.
5. Monitor the surface casing during frac:
  - a. Lay a flowline to the flow back tank and keep the valve open.
  - b. This line will remain in place until a wire line set retrievable packer is in place isolating the 5" casing from the 7" after the frac.
6. 2 7/8" tubing will be run to isolate the 7" casing during the flow back of the well.
7. Well pressure and annulus pressure would be monitored during this time until the well is ready for pump.

### **Completion Information (Wasatch Formation)**

- |                 |  |
|-----------------|--|
| <b>Stage #1</b> | RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~11419' – 11766' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~150000 # of Power Prop 30/50. Total clean water volume is 3675 gals. |
| <b>Stage #2</b> | RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~11044' – 11342' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~150000 # of Power Prop 30/50. Total clean water volume is 3669 gals. |
| <b>Stage #3</b> | RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~10703' – 10999' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~150000 # of Power Prop 30/50. Total clean water volume is 3663 gals. |
| <b>Stage #4</b> | RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~10399' – 10672' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~150000 # of TLC 30/50. Total clean water volume is 3657 gals.        |
| <b>Stage #5</b> | RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~10143' – 10369' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~150000 # of TLC 30/50. Total clean water volume is 3653 gals.        |

**Stage #6** RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~9862' – 10112' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~150000 # of TLC 30/50. Total clean water volume is 3648 gals.

**Stage #7** RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~9601' – 9828' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~150000 # of TLC 30/50. Total clean water volume is 3643 gals.

**Stage #8** RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~9346' – 9572' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~150000 # of TLC 30/50. Total clean water volume is 3639 gals.

### Stimulation Summary

	Top Perf	Btm. Perf	Gross Interval	Plug Depth	Net Perf Length	Total Shots	Perf Intervals	Type of Prop	Lbs of Prop	Lbs/ft	Lbs of 100 Mesh	Gals of HCL (15%)	BBLs of Clean H2O	BBLs of Slurry
Stage #1	11,419	11,766	347	NA	23	69	17	Power Prop 30/50	150,000	432	3,000	5,000	3,675	4,082
Stage #2	11,044	11,342	298	11,357	23	69	17	Power Prop 30/50	150,000	503	3,000	5,000	3,669	4,075
Stage #3	10,703	10,999	296	11,014	22	66	17	Power Prop 30/50	150,000	507	3,000	5,000	3,663	4,069
Stage #4	10,399	10,672	273	10,687	23	69	17	TLC 30/50	150,000	549	3,000	5,000	3,657	4,058
Stage #5	10,143	10,369	226	10,384	23	69	17	TLC 30/50	150,000	664	3,000	5,000	3,653	4,053
Stage #6	9,862	10,112	250	10,127	23	69	17	TLC 30/50	150,000	600	3,000	5,000	3,648	4,048
Stage #7	9,601	9,828	227	9,843	23	69	17	TLC 30/50	150,000	661	3,000	5,000	3,643	4,044
Stage #8	9,346	9,572	226	9,587	23	69	17	TLC 30/50	150,000	664	3,000	5,000	3,639	4,039
<b>Average per Stage</b>			<b>268</b>		<b>23</b>	<b>69</b>	<b>17</b>		<b>150,000</b>	<b>573</b>	<b>3,000</b>	<b>5,000</b>	<b>3,656</b>	<b>4,058</b>
<b>Totals per Well</b>			<b>2,143</b>		<b>183</b>	<b>549</b>	<b>136</b>		<b>1,200,000</b>		<b>24,000</b>	<b>40,000</b>	<b>29,247</b>	<b>32,468</b>

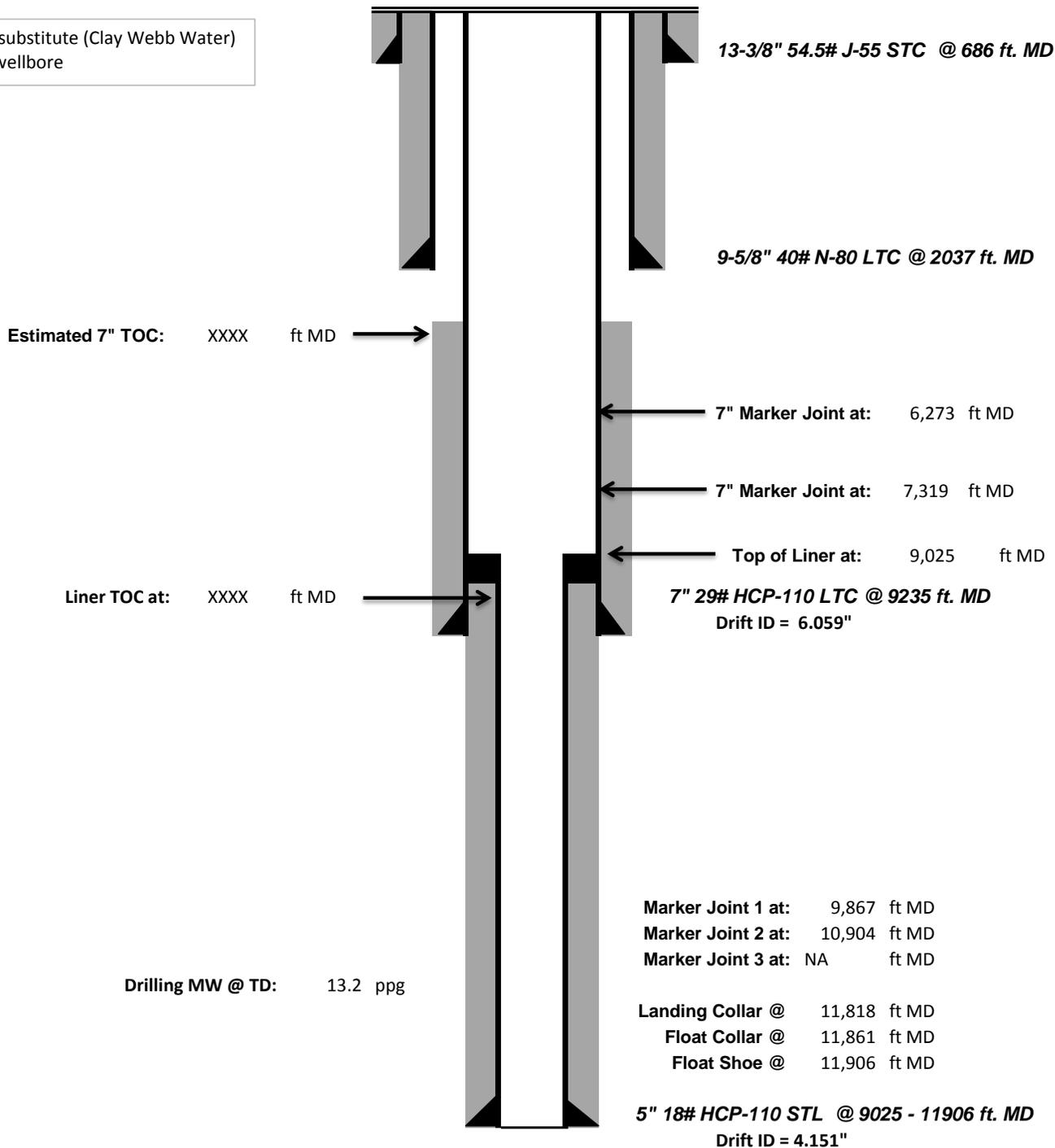


**Pre-Completion Wellbore Schematic**

Well Name: **Vasquez 3-7C4**  
 Company Name: **EP Energy**  
 Field, County, State: **Altamont, Duchesne, Utah**  
 Surface Location: **Lat: 40°13'48.85908" N Long: 110°22'25.445" W**  
 Producing Zone(s): **Wasatch**

Last Updated: **12/18/2014**  
 By: **David Gregory**  
 TD: **11,906**  
 API: **4301353064**  
 AFE: **160421**

8.43 ppg KCL substitute (Clay Webb Water) water in the wellbore



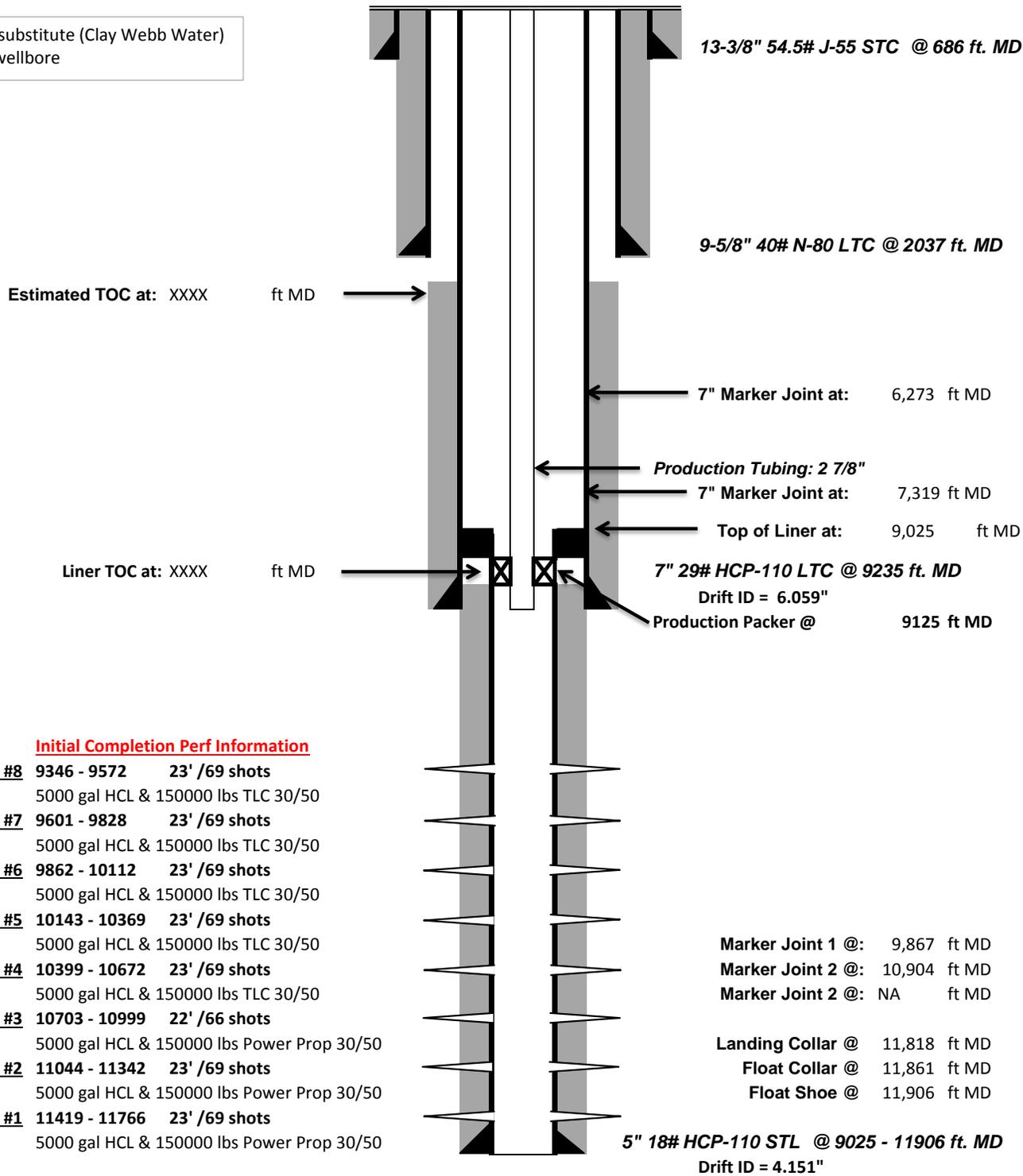


**Post-Completion Wellbore Schematic**

Well Name: **Vasquez 3-7C4**  
 Company Name: **EP Energy**  
 Field, County, State: **Altamont, Duchesne, Utah**  
 Surface Location: **Lat: 40°13'48.85908" N Long: 110°22'25.445" W**  
 Producing Zone(s): **Wasatch**

Last Updated: **12/18/2014**  
 By: **David Gregory**  
 TD: **11,906**  
 API: **4301353064**  
 AFE: **160421**

8.43 ppg KCL substitute (Clay Webb Water) water in the wellbore



**Initial Completion Perf Information**

Stage #	Interval	Shots	Fluid
<b>Stage #8</b>	<b>9346 - 9572</b>	<b>23' /69 shots</b>	5000 gal HCL & 150000 lbs TLC 30/50
<b>Stage #7</b>	<b>9601 - 9828</b>	<b>23' /69 shots</b>	5000 gal HCL & 150000 lbs TLC 30/50
<b>Stage #6</b>	<b>9862 - 10112</b>	<b>23' /69 shots</b>	5000 gal HCL & 150000 lbs TLC 30/50
<b>Stage #5</b>	<b>10143 - 10369</b>	<b>23' /69 shots</b>	5000 gal HCL & 150000 lbs TLC 30/50
<b>Stage #4</b>	<b>10399 - 10672</b>	<b>23' /69 shots</b>	5000 gal HCL & 150000 lbs TLC 30/50
<b>Stage #3</b>	<b>10703 - 10999</b>	<b>22' /66 shots</b>	5000 gal HCL & 150000 lbs Power Prop 30/50
<b>Stage #2</b>	<b>11044 - 11342</b>	<b>23' /69 shots</b>	5000 gal HCL & 150000 lbs Power Prop 30/50
<b>Stage #1</b>	<b>11419 - 11766</b>	<b>23' /69 shots</b>	5000 gal HCL & 150000 lbs Power Prop 30/50

Marker Joint 1 @: 9,867 ft MD  
 Marker Joint 2 @: 10,904 ft MD  
 Marker Joint 2 @: NA ft MD  
 Landing Collar @ 11,818 ft MD  
 Float Collar @ 11,861 ft MD  
 Float Shoe @ 11,906 ft MD

**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

AMENDED REPORT  FORM 8  
(highlight changes)

<b>WELL COMPLETION OR RECOMPLETION REPORT AND LOG</b>		5. LEASE DESIGNATION AND SERIAL NUMBER:
1a. TYPE OF WELL: OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input type="checkbox"/> OTHER _____		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
b. TYPE OF WORK: NEW WELL <input type="checkbox"/> HORIZ. LATS. <input type="checkbox"/> DEEP-EN <input type="checkbox"/> RE-ENTRY <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> OTHER _____		7. UNIT or CA AGREEMENT NAME
2. NAME OF OPERATOR:		8. WELL NAME and NUMBER:
3. ADDRESS OF OPERATOR: CITY _____ STATE _____ ZIP _____ PHONE NUMBER: _____		9. API NUMBER:
4. LOCATION OF WELL (FOOTAGES) AT SURFACE:  AT TOP PRODUCING INTERVAL REPORTED BELOW:  AT TOTAL DEPTH:		10 FIELD AND POOL, OR WILDCAT
		11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
		12. COUNTY _____ 13. STATE <b>UTAH</b>

14. DATE SPUDDED:	15. DATE T.D. REACHED:	16. DATE COMPLETED: _____ ABANDONED <input type="checkbox"/> READY TO PRODUCE <input type="checkbox"/>	17. ELEVATIONS (DF, RKB, RT, GL):
18. TOTAL DEPTH: MD _____ TVD _____	19. PLUG BACK T.D.: MD _____ TVD _____	20. IF MULTIPLE COMPLETIONS, HOW MANY? *	21. DEPTH BRIDGE MD _____ PLUG SET: TVD _____
22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)		23. WAS WELL CORED? NO <input type="checkbox"/> YES <input type="checkbox"/> (Submit analysis) WAS DST RUN? NO <input type="checkbox"/> YES <input type="checkbox"/> (Submit report) DIRECTIONAL SURVEY? NO <input type="checkbox"/> YES <input type="checkbox"/> (Submit copy)	

**24. CASING AND LINER RECORD (Report all strings set in well)**

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED

**25. TUBING RECORD**

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)

26. PRODUCING INTERVALS					27. PERFORATION RECORD				
FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS	
(A)								Open <input type="checkbox"/>	Squeezed <input type="checkbox"/>
(B)								Open <input type="checkbox"/>	Squeezed <input type="checkbox"/>
(C)								Open <input type="checkbox"/>	Squeezed <input type="checkbox"/>
(D)								Open <input type="checkbox"/>	Squeezed <input type="checkbox"/>

**28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC. See attached for further information on #27 & #28.**

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL

29. ENCLOSED ATTACHMENTS: All logs are submitted to UDOGM by vendor.	30. WELL STATUS:
<input type="checkbox"/> ELECTRICAL/MECHANICAL LOGS <input type="checkbox"/> GEOLOGIC REPORT <input type="checkbox"/> DST REPORT <input type="checkbox"/> DIRECTIONAL SURVEY <input type="checkbox"/> SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION <input type="checkbox"/> CORE ANALYSIS <input type="checkbox"/> OTHER: _____	

**31. INITIAL PRODUCTION**

**INTERVAL A (As shown in item #26)**

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

**INTERVAL B (As shown in item #26)**

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

**INTERVAL C (As shown in item #26)**

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

**INTERVAL D (As shown in item #26)**

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

**32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)**

**33. SUMMARY OF POROUS ZONES (Include Aquifers):**

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

**34. FORMATION (Log) MARKERS:**

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)

**35. ADDITIONAL REMARKS (Include plugging procedure)**

**36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.**

NAME (PLEASE PRINT) \_\_\_\_\_ TITLE \_\_\_\_\_  
 SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

\* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

\*\* ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining Phone: 801-538-5340  
 1594 West North Temple, Suite 1210  
 Box 145801 Fax: 801-359-3940  
 Salt Lake City, Utah 84114-5801

**Attachment to Well Completion Report****Form 8 Dated February 7, 2015****Well Name: Vasquez 3-7C498****Items #27 and #28 Continued****27. Perforation Record**

<b>Interval (Top/Bottom – MD)</b>	<b>Size</b>	<b>No. of Holes</b>	<b>Perf. Status</b>
<b>10132'-10363'</b>	<b>.43</b>	<b>69</b>	<b>Open</b>
<b>9850'-10103'</b>	<b>.43</b>	<b>69</b>	<b>Open</b>
<b>9586'-9817'</b>	<b>.43</b>	<b>69</b>	<b>Open</b>
<b>9332'-9561'</b>	<b>.43</b>	<b>69</b>	<b>Open</b>

**28. Acid, Fracture, Treatment, Cement Squeeze, Etc.**

<b>Depth Interval</b>	<b>Amount and Type of Material</b>
<b>10394'-10669'</b>	<b>5000 gal 15% HCL acid, 3000# 100 mesh, 150620# 30/50 TLC</b>
<b>10132'-10363'</b>	<b>5000 gal 15% HCL acid, 3000# 100 mesh, 150180# 30/50 TLC</b>
<b>9850'-10103'</b>	<b>5000 gal 15% HCL acid, 3000# 100 mesh, 150580# 30/50 TLC</b>
<b>9586'-9817'</b>	<b>5000 gal 15% HCL acid, 3000# 100 mesh, 148020# 30/50 TLC</b>
<b>9332'-9561'</b>	<b>5000 gal 15% HCL acid, 3000# 100 mesh, 149600# 30/50 TLC</b>



**Company:** EP Energy **Job Number:** \_\_\_\_\_  
**Well:** Vasquez 3-7C4 **Mag Decl.:** \_\_\_\_\_  
**Location:** Duchesne, UT **Dir Driller:** \_\_\_\_\_  
**Rig:** Precision 406 **MWD Eng:** \_\_\_\_\_

**Calculation Method** Minimum Curvature  
**Proposed Azimuth** 0.00  
**Depth Reference** KB  
**Tie Into:** Gyro/MWD

Survey Number	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')		
							N/S (ft)	E/W (ft)	Distance (ft)	Direction Azimuth					
<b>Tie In</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>												
1	100.00	0.53	47.37	100.00	100.00	0.31	0.31	N	0.34	E	0.46	47.37	0.52	0.53	47.37
2	200.00	0.15	343.65	100.00	200.00	0.74	0.74	N	0.64	E	0.98	40.59	0.48	-0.38	296.28
3	300.00	0.35	160.65	100.00	300.00	0.58	0.58	N	0.70	E	0.91	50.24	0.49	0.20	-183.00
4	400.00	0.48	103.10	100.00	399.99	0.20	0.20	N	1.21	E	1.23	80.47	0.42	0.14	-57.55
5	500.00	0.57	57.07	100.00	499.99	0.38	0.38	N	2.04	E	2.07	79.50	0.42	0.09	-46.03
6	600.00	0.46	14.21	100.00	599.99	1.04	1.04	N	2.55	E	2.75	67.90	0.39	-0.11	-42.86
7	700.00	0.19	339.79	100.00	699.99	1.58	1.58	N	2.59	E	3.04	58.68	0.32	-0.27	325.58
8	800.00	0.25	320.83	100.00	799.98	1.90	1.90	N	2.40	E	3.06	51.62	0.10	0.06	-18.96
9	900.00	0.28	318.66	100.00	899.98	2.25	2.25	N	2.10	E	3.08	42.97	0.03	0.03	-2.17
10	1000.00	0.20	17.38	100.00	999.98	2.60	2.60	N	1.99	E	3.28	37.40	0.25	-0.08	-301.28
11	1100.00	0.29	291.17	100.00	1099.98	2.86	2.86	N	1.81	E	3.38	32.32	0.34	0.09	273.79
12	1200.00	0.40	249.04	100.00	1199.98	2.82	2.82	N	1.25	E	3.09	23.89	0.27	0.11	-42.13
13	1300.00	0.57	252.53	100.00	1299.98	2.55	2.55	N	0.46	E	2.59	10.17	0.17	0.17	3.49
14	1400.00	0.66	269.73	100.00	1399.97	2.40	2.40	N	0.59	W	2.47	346.31	0.20	0.09	17.20
15	1500.00	0.77	258.06	100.00	1499.96	2.26	2.26	N	1.81	W	2.90	321.29	0.18	0.11	-11.67
16	1600.00	0.81	258.80	100.00	1599.95	1.99	1.99	N	3.15	W	3.73	302.18	0.04	0.04	0.74
17	1700.00	1.00	258.15	100.00	1699.94	1.67	1.67	N	4.70	W	4.99	289.55	0.20	0.20	-0.64
18	1800.00	0.97	261.38	100.00	1799.93	1.36	1.36	N	6.39	W	6.53	282.05	0.07	-0.04	3.23
19	1900.00	0.92	273.02	100.00	1899.91	1.28	1.28	N	8.02	W	8.12	279.06	0.20	-0.05	11.64
20	1938.00	0.85	261.10	38.00	1937.91	1.25	1.25	N	8.60	W	8.69	278.28	0.52	-0.19	-31.36
21	2056.00	0.68	262.40	118.00	2055.90	1.02	1.02	N	10.16	W	10.21	275.76	0.14	-0.14	1.10
22	2152.00	0.57	248.02	96.00	2151.89	0.77	0.77	N	11.17	W	11.19	273.95	0.20	-0.11	-14.98
23	2248.00	1.56	337.84	96.00	2247.88	1.80	1.80	N	12.10	W	12.24	278.47	1.73	1.03	93.56
24	2344.00	1.21	328.28	96.00	2343.85	3.87	3.87	N	13.13	W	13.69	286.44	0.44	-0.36	-9.96
25	2440.00	2.19	339.12	96.00	2439.81	6.45	6.45	N	14.31	W	15.70	294.26	1.07	1.02	11.29
26	2536.00	1.84	329.49	96.00	2535.75	9.49	9.49	N	15.75	W	18.39	301.07	0.51	-0.36	-10.03
27	2633.00	2.28	0.77	97.00	2632.69	12.76	12.76	N	16.52	W	20.87	307.70	1.23	0.45	-338.89
28	2729.00	1.87	2.99	96.00	2728.62	16.24	16.24	N	16.41	W	23.08	314.70	0.44	-0.43	2.31
29	2825.00	1.39	354.44	96.00	2824.59	18.96	18.96	N	16.44	W	25.09	319.07	0.56	-0.50	366.09
30	2921.00	1.98	22.04	96.00	2920.55	21.66	21.66	N	15.93	W	26.88	323.66	1.03	0.61	-346.25
31	3017.00	1.66	16.66	96.00	3016.50	24.53	24.53	N	14.91	W	28.70	328.70	0.38	-0.33	-5.60
32	3113.00	0.71	33.03	96.00	3112.48	26.36	26.36	N	14.19	W	29.93	331.71	1.04	-0.99	17.05
33	3208.00	1.13	19.26	95.00	3207.46	27.73	27.73	N	13.56	W	30.87	333.95	0.50	0.44	-14.49
34	3304.00	0.45	320.05	96.00	3303.45	28.92	28.92	N	13.49	W	31.91	335.00	1.02	-0.71	313.32
35	3401.00	0.31	256.60	97.00	3400.45	29.15	29.15	N	13.99	W	32.33	334.37	0.43	-0.14	-65.41



**Company:** EP Energy  
**Well:** Vasquez 3-7C4  
**Location:** Duchesne, UT  
**Rig:** Precision 406

**Job Number:** \_\_\_\_\_  
**Mag Decl.:** \_\_\_\_\_  
**Dir Driller:** \_\_\_\_\_  
**MWD Eng:** \_\_\_\_\_

**Calculation Method** Minimum Curvature  
**Proposed Azimuth** 0.00  
**Depth Reference** KB  
**Tie Into:** Gyro/MWD

Survey Number	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates				Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
							N/S (ft)	E/W (ft)	Distance (ft)	Direction Azimuth					
36	3497.00	0.86	248.50	96.00	3496.45	28.82	28.82	N	14.91	W	32.45	332.65	0.58	0.57	-8.44
37	3593.00	3.70	247.38	96.00	3592.36	27.37	27.37	N	18.44	W	33.00	326.03	2.96	2.96	-1.17
38	3689.00	2.75	216.24	96.00	3688.22	24.32	24.32	N	22.66	W	33.24	317.02	2.04	-0.99	-32.44
39	3785.00	2.23	174.49	96.00	3784.13	20.60	20.60	N	23.84	W	31.51	310.83	1.92	-0.54	-43.49
40	3881.00	1.63	299.89	96.00	3880.11	19.42	19.42	N	24.85	W	31.54	308.01	3.58	-0.63	130.63
41	3978.00	3.21	351.43	97.00	3977.03	22.80	22.80	N	26.45	W	34.92	310.76	2.62	1.63	53.13
42	4074.00	3.04	350.16	96.00	4072.88	27.96	27.96	N	27.28	W	39.07	315.70	0.19	-0.18	-1.32
43	4170.00	2.77	21.71	96.00	4168.77	32.63	32.63	N	26.86	W	42.26	320.54	1.67	-0.28	-342.14
44	4265.00	2.59	23.47	95.00	4263.66	36.73	36.73	N	25.16	W	44.52	325.59	0.21	-0.19	1.85
45	4362.00	1.69	23.66	97.00	4360.59	40.05	40.05	N	23.71	W	46.54	329.37	0.93	-0.93	0.20
46	4458.00	1.09	41.37	96.00	4456.56	42.03	42.03	N	22.54	W	47.69	331.80	0.76	-0.63	18.45
47	4554.00	3.12	25.47	96.00	4552.50	45.07	45.07	N	20.81	W	49.65	335.22	2.18	2.11	-16.56
48	4651.00	2.03	18.78	97.00	4649.40	49.08	49.08	N	19.12	W	52.68	338.71	1.16	-1.12	-6.90
49	4746.00	0.95	0.77	95.00	4744.36	51.46	51.46	N	18.57	W	54.71	340.16	1.23	-1.14	-18.96
50	4843.00	1.78	10.69	97.00	4841.33	53.75	53.75	N	18.28	W	56.77	341.22	0.89	0.86	10.23
51	4939.00	1.23	355.31	96.00	4937.30	56.24	56.24	N	18.09	W	59.08	342.17	0.71	-0.57	358.98
52	5035.00	2.03	9.82	96.00	5033.26	58.94	58.94	N	17.88	W	61.60	343.12	0.93	0.83	-359.89
53	5129.00	1.15	0.19	94.00	5127.23	61.53	61.53	N	17.60	W	63.99	344.04	0.98	-0.94	-10.24
54	5225.00	0.49	304.97	96.00	5223.22	62.73	62.73	N	17.93	W	65.24	344.05	1.00	-0.69	317.48
55	5322.00	2.15	12.64	97.00	5320.19	64.74	64.74	N	17.87	W	67.16	344.57	2.08	1.71	-301.37
56	5418.00	1.53	2.41	96.00	5416.14	67.78	67.78	N	17.42	W	69.98	345.58	0.73	-0.65	-10.66
57	5514.00	0.59	243.78	96.00	5512.13	68.84	68.84	N	17.81	W	71.11	345.49	1.96	-0.98	251.43
58	5611.00	1.15	325.86	97.00	5609.12	69.42	69.42	N	18.81	W	71.93	344.84	1.26	0.58	84.62
59	5706.00	0.24	354.90	95.00	5704.11	70.41	70.41	N	19.36	W	73.02	344.63	1.00	-0.96	30.57
60	5802.00	2.03	41.83	96.00	5800.09	71.88	71.88	N	18.24	W	74.16	345.76	1.95	1.86	-326.11
61	5898.00	1.82	43.79	96.00	5896.04	74.25	74.25	N	16.05	W	75.96	347.80	0.23	-0.22	2.04
62	5994.00	2.10	64.96	96.00	5991.98	76.09	76.09	N	13.40	W	77.26	350.01	0.80	0.29	22.05
63	6090.00	0.92	61.11	96.00	6087.95	77.21	77.21	N	11.14	W	78.01	351.79	1.23	-1.23	-4.01
64	6186.00	0.18	102.55	96.00	6183.94	77.55	77.55	N	10.31	W	78.23	352.42	0.83	-0.77	43.17
65	6282.00	0.79	20.19	96.00	6279.94	78.14	78.14	N	9.94	W	78.77	352.75	0.82	0.64	-85.79
66	6378.00	2.16	329.65	96.00	6375.91	80.32	80.32	N	10.62	W	81.02	352.46	1.84	1.43	322.35
67	6474.00	1.46	331.07	96.00	6471.86	82.95	82.95	N	12.13	W	83.83	351.68	0.73	-0.73	1.48
68	6570.00	1.19	305.11	96.00	6567.83	84.59	84.59	N	13.54	W	85.67	350.91	0.68	-0.28	-27.04
69	6666.00	0.80	274.59	96.00	6663.82	85.22	85.22	N	15.02	W	86.53	350.00	0.67	-0.41	-31.79
70	6762.00	0.92	12.99	96.00	6759.81	86.03	86.03	N	15.52	W	87.41	349.78	1.36	0.13	-272.50
71	6859.00	0.23	357.64	97.00	6856.81	86.98	86.98	N	15.35	W	88.32	349.99	0.72	-0.71	355.31
72	6955.00	0.64	194.62	96.00	6952.81	86.65	86.65	N	15.49	W	88.03	349.86	0.90	0.43	-169.81



**Company:** EP Energy  
**Well:** Vasquez 3-7C4  
**Location:** Duchesne, UT  
**Rig:** Precision 406

**Job Number:** \_\_\_\_\_  
**Mag Decl.:** \_\_\_\_\_  
**Dir Driller:** \_\_\_\_\_  
**MWD Eng:** \_\_\_\_\_

**Calculation Method** Minimum Curvature  
**Proposed Azimuth** 0.00  
**Depth Reference** KB  
**Tie Into:** Gyro/MWD

Survey Number	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
							N/S (ft)	E/W (ft)	Distance (ft)	Direction Azimuth			
73	7051.00	1.02	188.84	96.00	7048.80	85.29	85.29 N	15.76 W	86.73	349.53	0.40	0.40	-6.02
74	7147.00	1.55	186.03	96.00	7144.77	83.15	83.15 N	16.03 W	84.68	349.09	0.56	0.55	-2.93
75	7243.00	1.69	164.10	96.00	7240.73	80.50	80.50 N	15.78 W	82.03	348.91	0.66	0.15	-22.84
76	7340.00	1.00	110.04	97.00	7337.71	78.84	78.84 N	14.59 W	80.17	349.52	1.41	-0.71	-55.73
77	7436.00	0.74	149.21	96.00	7433.70	78.02	78.02 N	13.48 W	79.17	350.19	0.66	-0.27	40.80
78	7532.00	1.42	177.02	96.00	7529.68	76.30	76.30 N	13.10 W	77.41	350.25	0.87	0.71	28.97
79	7628.00	1.84	151.84	96.00	7625.65	73.75	73.75 N	12.32 W	74.77	350.52	0.85	0.44	-26.23
80	7724.00	2.07	182.83	96.00	7721.59	70.66	70.66 N	11.67 W	71.62	350.62	1.11	0.24	32.28
81	7820.00	2.33	183.01	96.00	7817.52	66.98	66.98 N	11.86 W	68.02	349.96	0.27	0.27	0.19
82	7916.00	2.57	191.51	96.00	7913.43	62.92	62.92 N	12.39 W	64.13	348.86	0.45	0.25	8.85
83	8012.00	2.79	189.63	96.00	8009.33	58.51	58.51 N	13.21 W	59.98	347.27	0.25	0.23	-1.96
84	8108.00	2.84	191.60	96.00	8105.21	53.87	53.87 N	14.08 W	55.68	345.35	0.11	0.05	2.05
85	8205.00	3.21	192.70	97.00	8202.08	48.87	48.87 N	15.16 W	51.17	342.76	0.39	0.38	1.13
86	8301.00	2.83	201.90	96.00	8297.94	44.05	44.05 N	16.64 W	47.09	339.31	0.64	-0.40	9.58
87	8397.00	2.89	204.03	96.00	8393.82	39.64	39.64 N	18.51 W	43.75	334.97	0.13	0.06	2.22
88	8494.00	3.08	206.67	97.00	8490.69	35.08	35.08 N	20.67 W	40.72	329.49	0.24	0.20	2.72
89	8590.00	2.65	197.97	96.00	8586.57	30.66	30.66 N	22.52 W	38.04	323.71	0.64	-0.45	-9.06
90	8686.00	3.24	183.62	96.00	8682.45	25.84	25.84 N	23.37 W	34.84	317.88	0.98	0.61	-14.95
91	8782.00	2.53	176.43	96.00	8778.33	21.02	21.02 N	23.41 W	31.46	311.92	0.83	-0.74	-7.49
92	8879.00	2.31	178.50	97.00	8875.24	16.93	16.93 N	23.23 W	28.74	306.09	0.24	-0.23	2.13
93	8975.00	2.11	158.14	96.00	8971.17	13.36	13.36 N	22.52 W	26.18	300.68	0.84	-0.21	-21.21
94	9071.00	0.46	199.68	96.00	9067.14	11.35	11.35 N	21.99 W	24.75	297.31	1.87	-1.72	43.27
95	9167.00	0.61	265.80	96.00	9163.14	10.95	10.95 N	22.63 W	25.14	295.83	0.62	0.16	68.88
96	9173.00	0.72	252.28	6.00	9169.14	10.94	10.94 N	22.70 W	25.20	295.73	3.18	1.83	-225.33
97	9200.00	0.70	245.34	27.00	9196.14	10.82	10.82 N	23.01 W	25.42	295.18	0.33	-0.06	-25.72
98	9300.00	0.77	190.18	100.00	9296.13	9.90	9.90 N	23.68 W	25.67	292.69	0.68	0.07	-55.16
99	9400.00	1.15	168.10	100.00	9396.12	8.25	8.25 N	23.60 W	25.00	289.28	0.53	0.38	-22.08
100	9500.00	1.81	158.97	100.00	9496.08	5.80	5.80 N	22.82 W	23.55	284.26	0.69	0.65	-9.13
101	9600.00	2.49	167.36	100.00	9596.01	2.21	2.21 N	21.78 W	21.89	275.79	0.75	0.69	8.39
102	9700.00	2.83	164.18	100.00	9695.90	-2.29	2.29 S	20.63 W	20.76	263.68	0.37	0.34	-3.17
103	9800.00	2.81	161.94	100.00	9795.78	-6.99	6.99 S	19.20 W	20.43	249.98	0.11	-0.01	-2.24
104	9900.00	2.68	163.39	100.00	9895.67	-11.57	11.57 S	17.77 W	21.20	236.94	0.15	-0.14	1.45
105	10000.00	2.93	165.68	100.00	9995.55	-16.28	16.28 S	16.47 W	23.16	225.33	0.28	0.25	2.29
106	10100.00	2.85	171.47	100.00	10095.42	-21.22	21.22 S	15.47 W	26.26	216.09	0.30	-0.08	5.79
107	10200.00	3.27	174.02	100.00	10195.28	-26.52	26.52 S	14.80 W	30.37	209.17	0.43	0.41	2.55
108	10300.00	3.32	180.60	100.00	10295.11	-32.25	32.25 S	14.54 W	35.37	204.26	0.38	0.06	6.58
109	10400.00	3.01	177.50	100.00	10394.96	-37.77	37.77 S	14.45 W	40.44	200.94	0.36	-0.31	-3.10



**Company:** EP Energy      **Job Number:** \_\_\_\_\_  
**Well:** Vasquez 3-7C4      **Mag Decl.:** \_\_\_\_\_  
**Location:** Duchesne, UT      **Dir Driller:** \_\_\_\_\_  
**Rig:** Precision 406      **MWD Eng:** \_\_\_\_\_

**Calculation Method** Minimum Curvature  
**Proposed Azimuth** 0.00  
**Depth Reference** KB  
**Tie Into:** Gyro/MWD

Survey Number	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')		
							N/S (ft)	E/W (ft)	Distance (ft)	Direction Azimuth					
110	10500.00	3.11	185.42	100.00	10494.82	-43.09	43.09	S	14.59	W	45.49	198.71	0.43	0.10	7.92
111	10600.00	2.81	187.68	100.00	10594.68	-48.21	48.21	S	15.18	W	50.55	197.47	0.32	-0.30	2.26
112	10700.00	2.78	184.77	100.00	10694.57	-53.06	53.06	S	15.71	W	55.34	196.49	0.14	-0.02	-2.91
113	10800.00	2.67	185.75	100.00	10794.45	-57.80	57.80	S	16.14	W	60.01	195.60	0.12	-0.11	0.98
114	10900.00	2.81	192.22	100.00	10894.34	-62.51	62.51	S	16.89	W	64.75	195.12	0.34	0.15	6.47
115	11000.00	2.89	186.13	100.00	10994.21	-67.42	67.42	S	17.68	W	69.70	194.70	0.31	0.07	-6.10
116	11100.00	3.14	185.07	100.00	11094.08	-72.64	72.64	S	18.19	W	74.89	194.06	0.25	0.25	-1.06
117	11200.00	2.93	180.89	100.00	11193.94	-77.92	77.92	S	18.47	W	80.08	193.34	0.30	-0.21	-4.18
118	11300.00	3.14	187.14	100.00	11293.80	-83.19	83.19	S	18.85	W	85.30	192.77	0.39	0.21	6.25
119	11400.00	2.83	185.37	100.00	11393.66	-88.35	88.35	S	19.42	W	90.46	192.40	0.32	-0.31	-1.77
120	11500.00	2.89	180.04	100.00	11493.54	-93.33	93.33	S	19.66	W	95.38	191.89	0.27	0.07	-5.34
121	11600.00	2.67	192.02	100.00	11593.42	-98.13	98.13	S	20.14	W	100.18	191.60	0.62	-0.23	11.98
122	11700.00	2.62	188.05	100.00	11693.31	-102.67	102.67	S	20.95	W	104.78	191.53	0.19	-0.05	-3.97
123	11729.00	2.90	187.36	29.00	11722.28	-104.05	104.05	S	21.13	W	106.17	191.48	0.98	0.97	-2.39
124	11906.00	2.90	187.36	177.00	11899.05	-112.93	112.93	S	22.28	W	115.10	191.16	0.00	0.00	0.00

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9  5. LEASE DESIGNATION AND SERIAL NUMBER: Fee
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
1. TYPE OF WELL Oil Well		7. UNIT or CA AGREEMENT NAME:
2. NAME OF OPERATOR: EP ENERGY E&P COMPANY, L.P.		8. WELL NAME and NUMBER: Vasquez 3-7C4
3. ADDRESS OF OPERATOR: 1001 Louisiana, Houston, TX, 77002		9. API NUMBER: 43013530640000
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1000 FSL 1000 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESE Section: 07 Township: 03.0S Range: 04.0W Meridian: U		9. FIELD and POOL or WILDCAT: ALTAMONT
		COUNTY: DUCHESNE
		STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: <b>8/16/2016</b>	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Please see attached recompletion procedure along before and post WBD's.

**Approved by the**  
**August 08, 2016**  
**Oil, Gas and Mining**

Date: \_\_\_\_\_  
 By:       D. K. Quist      

NAME (PLEASE PRINT) Linda Renken	PHONE NUMBER 713 997-5138	TITLE Sr. Regulatory Analyst
SIGNATURE N/A	DATE 8/1/2016	

## Vasquez 3-7 C4 - Recom Summary Procedure

- POOH with co-rod, pump & tubing. Inspect/Repair/Re-furbish as needed. Replace any bad tubing and joints of rods.
- Set 15k CBP for 5" 18# casing @ 9,310' w/ 15' cement dump bailed on plug. Test casing to frac pressure.
- Stage 1:
  - Perforate new LGR interval from **9,016' - 9,252'**.
  - Prop Frac perforations with **130,000** lbs 30/50 prop (w/ **8,000** lbs 100 mesh & **8,000** gals 15% HCl acid) (Stage 1 Recom).
- Stage 2:
  - RIH with 7" CBP & set @ **8,725'**.
  - Perforate new LGR interval from **8,512' - 8,710'**.
  - Acid Frac Perforations with **20,000** gals 15% HCl acid (Stage 2 Recom).
- Stage 3:
  - RIH with 7" CBP & set @ **8,345'**.
  - Perforate new LGR interval from **8,146' - 8,330'**.
  - Prop Frac perforations with **100,000** lbs 30/50 prop (w/ **8,000** lbs 100 mesh & **8,000** gals 15% HCl acid) (Stage 3 Recom).
- Stage 4:
  - RIH with 7" CBP & set @ **8,105'**.
  - Perforate new LGR interval from **8,012' - 8,090'**.
  - Prop Frac perforations with **45,000** lbs 30/50 prop (w/ **5,000** lbs 100 mesh & **6,000** gals 15% HCl acid) (Stage 4 Recom).
- Clean out well drilling up (4) 7" CBPs at 8,105', 8,345', and 8,725', leaving cement and 5" 15k CBP @ 9,310' w/ 15' CMT. Top perf BELOW plugs @ 9,332'.
- RIH w/ production tubing and rods.
- Clean location and resume production.

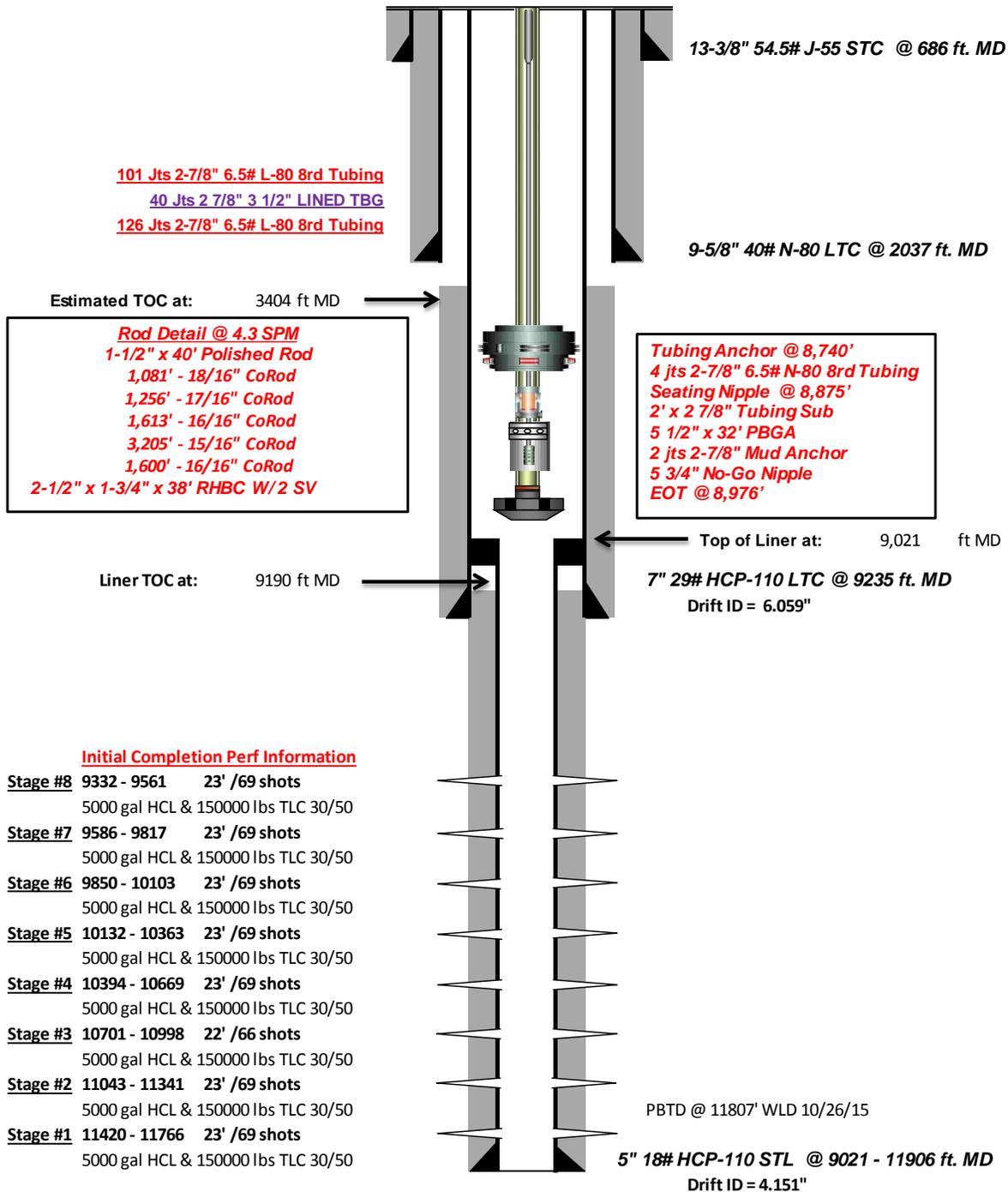
**Current WBS**



**Current TL Pumping Wellbore Schematic**

Well Name: Vasquez 3-7C4  
 Company Name: EP Energy  
 Field, County, State: Altamont, Duchesne, Utah  
 Surface Location: Lat: 40°13'48.85908" N Long: 110°22'25.445" W  
 Producing Zone(s): Wasatch

Last Updated: 5/15/2016  
 By: Tomova  
 TD: 11,906  
 API: 4301353064  
 AFE: \_\_\_\_\_



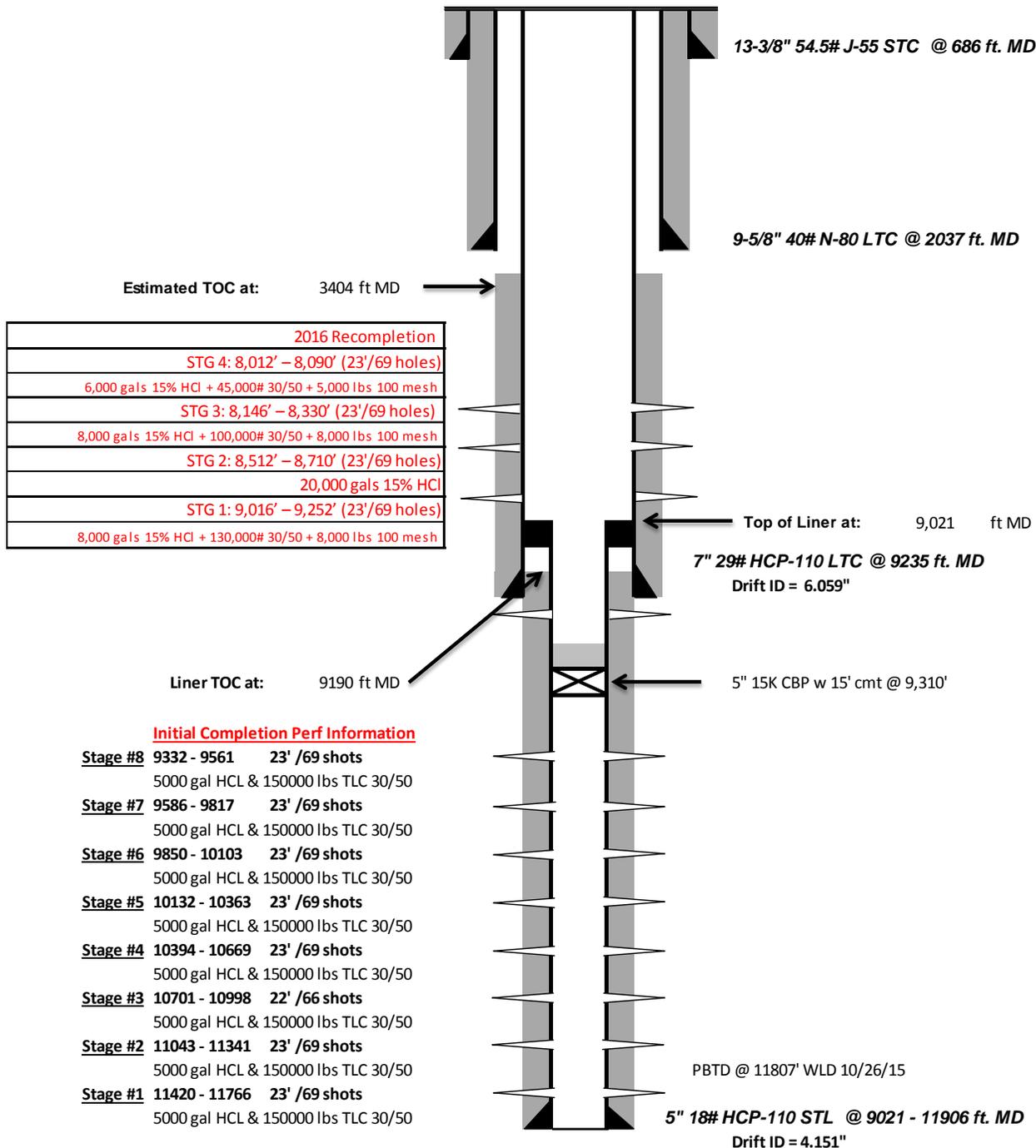
**Proposed WBS**



**Proposed Recom Wellbore Schematic**

Well Name: Vasquez 3-7C4  
 Company Name: EP Energy  
 Field, County, State: Altamont, Duchesne, Utah  
 Surface Location: Lat: 40°13'48.85908" N Long: 110°22'25.445" W  
 Producing Zone(s): Wasatch

Last Updated: 7/31/2016  
 By: Fondren  
 TD: 11,906  
 API: 4301353064  
 AFE: \_\_\_\_\_



**Initial Completion Perf Information**

<b>Stage #8</b>	<b>9332 - 9561</b>	<b>23' /69 shots</b>
5000 gal HCL & 150000 lbs TLC 30/50		
<b>Stage #7</b>	<b>9586 - 9817</b>	<b>23' /69 shots</b>
5000 gal HCL & 150000 lbs TLC 30/50		
<b>Stage #6</b>	<b>9850 - 10103</b>	<b>23' /69 shots</b>
5000 gal HCL & 150000 lbs TLC 30/50		
<b>Stage #5</b>	<b>10132 - 10363</b>	<b>23' /69 shots</b>
5000 gal HCL & 150000 lbs TLC 30/50		
<b>Stage #4</b>	<b>10394 - 10669</b>	<b>23' /69 shots</b>
5000 gal HCL & 150000 lbs TLC 30/50		
<b>Stage #3</b>	<b>10701 - 10998</b>	<b>22' /66 shots</b>
5000 gal HCL & 150000 lbs TLC 30/50		
<b>Stage #2</b>	<b>11043 - 11341</b>	<b>23' /69 shots</b>
5000 gal HCL & 150000 lbs TLC 30/50		
<b>Stage #1</b>	<b>11420 - 11766</b>	<b>23' /69 shots</b>
5000 gal HCL & 150000 lbs TLC 30/50		



## Vasquez 3-7 C4 - Recom Summary Procedure

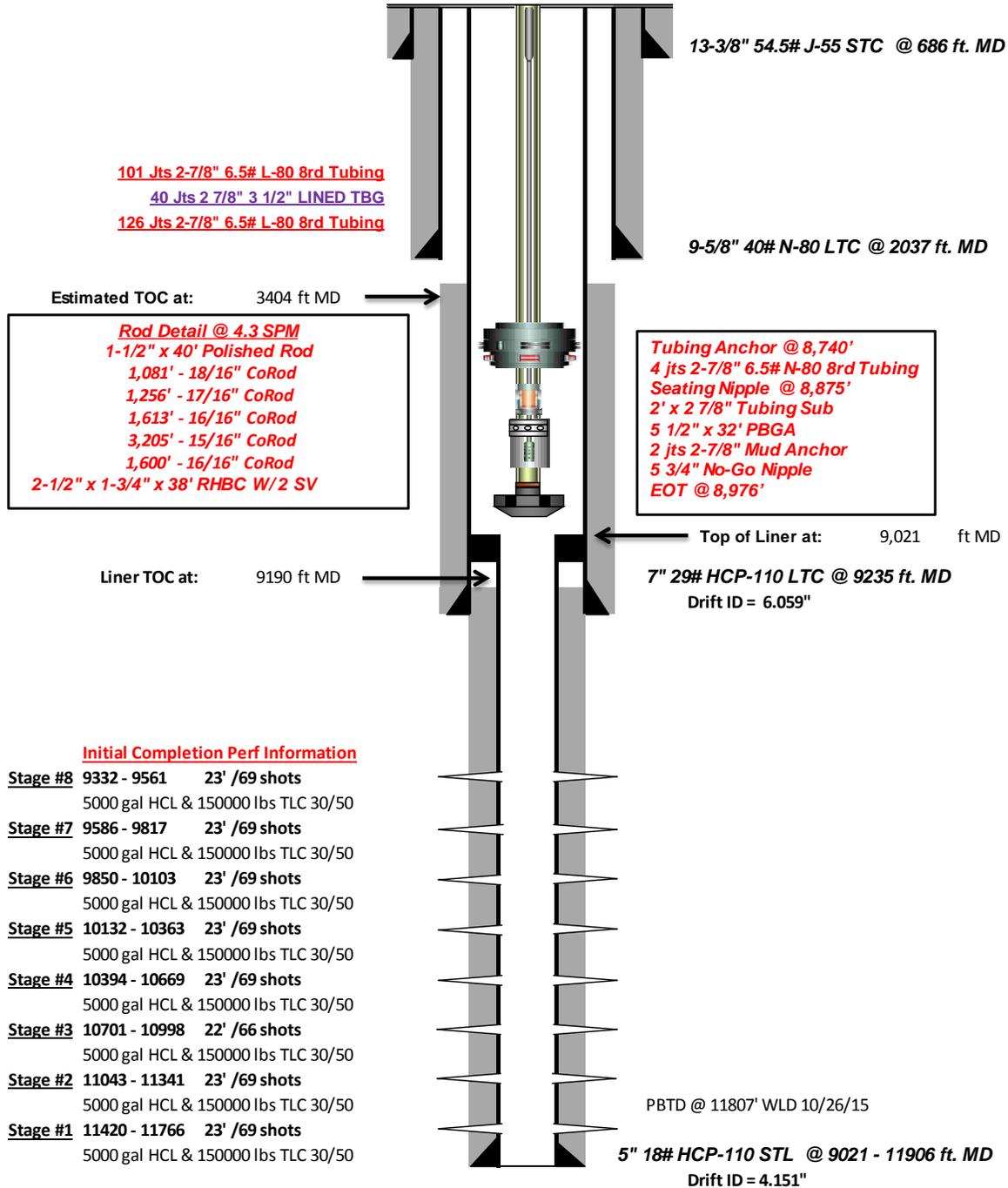
- POOH with co-rod, pump & tubing. Inspect/Repair/Re-furbish as needed. Replace any bad tubing and joints of rods.
- Set 15k CBP for 5" 18# casing @ 9,310' w/ 15' cement dump bailed on plug. Test casing to frac pressure.
- Stage 1:
  - Perforate new LGR interval from **9,016' - 9,250'**.
  - Prop Frac perforations with **130,000** lbs 30/50 prop (w/ **8,000** lbs 100 mesh & **8,000** gals 15% HCl acid) (Stage 1 Recom).
- Stage 2:
  - RIH with 7" CBP & set @ **8,717'**.
  - Perforate new LGR interval from **8,593' - 8,702'**.
  - Acid Frac Perforations with **12,500** gals 15% HCl acid (Stage 2 Recom).
- Stage 3:
  - RIH with 7" CBP & set @ **8,556'**.
  - Perforate new LGR interval from **8,526' - 8,541'**.
  - Acid Frac Perforations with **3,000** gals 15% HCl acid (Stage 3 Recom).
- Stage 4:
  - RIH with 7" CBP & set @ **8,340'**.
  - Perforate new LGR interval from **8,148' - 8,325'**.
  - Prop Frac perforations with **105,000** lbs 30/50 prop (w/ **8,000** lbs 100 mesh & **8,000** gals 15% HCl acid) (Stage 4 Recom).
- Stage 5:
  - RIH with 7" CBP & set @ **8,101'**.
  - Perforate new LGR interval from **8,012' - 8,086'**.
  - Prop Frac perforations with **45,000** lbs 30/50 prop (w/ **5,000** lbs 100 mesh & **6,000** gals 15% HCl acid) (Stage 5 Recom).
- Clean out well drilling up (4) 7" CBPs at 8,101', 8,340', 8,556' and 8,717', leaving cement and 5" 15k CBP @ 9,290' w/ 15' CMT. Top perf BELOW plugs @ 9,332'.
- RIH w/ production tubing and rods.
- Clean location and resume production.



**Current Pumping Wellbore Schematic**

Well Name: Vasquez 3-7C4  
 Company Name: EP Energy  
 Field, County, State: Altamont, Duchesne, Utah  
 Surface Location: Lat: 40°13'48.85908" N Long: 110°22'25.445" W  
 Producing Zone(s): Wasatch

Last Updated: 5/15/2016  
 By: Tomova  
 TD: 11,906  
 API: 4301353064  
 AFE: \_\_\_\_\_

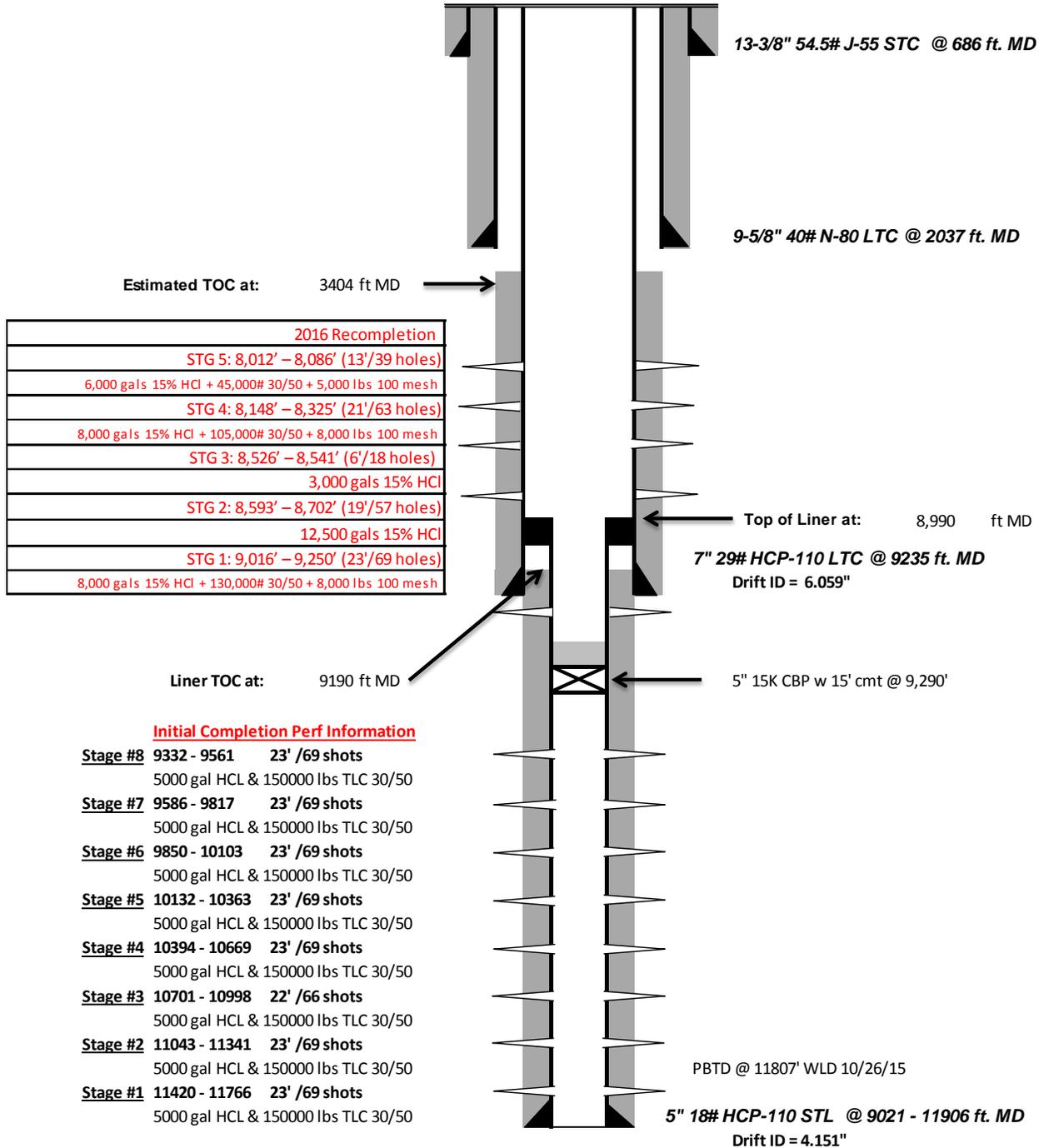




**Proposed Recom Wellbore Schematic**

Well Name: Vasquez 3-7C4  
 Company Name: EP Energy  
 Field, County, State: Altamont, Duchesne, Utah  
 Surface Location: Lat: 40°13'48.85908" N Long: 110°22'25.445" W  
 Producing Zone(s): Wasatch

Last Updated: 8/7/2016  
 By: Fondren  
 TD: 11,906  
 API: 4301353064  
 AFE: \_\_\_\_\_



**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

AMENDED REPORT  FORM 8  
(highlight changes)

5. LEASE DESIGNATION AND SERIAL NUMBER:

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT or CA AGREEMENT NAME

8. WELL NAME and NUMBER:

9. API NUMBER:

10 FIELD AND POOL, OR WILDCAT

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:

12. COUNTY

13. STATE

UTAH

**WELL COMPLETION OR RECOMPLETION REPORT AND LOG**

1a. TYPE OF WELL: OIL WELL  GAS WELL  DRY  OTHER \_\_\_\_\_

b. TYPE OF WORK: NEW WELL  HORIZ. LATS.  DEEP-EN  RE-ENTRY  DIFF. RESVR.  OTHER \_\_\_\_\_

2. NAME OF OPERATOR:

3. ADDRESS OF OPERATOR: CITY STATE ZIP PHONE NUMBER:

4. LOCATION OF WELL (FOOTAGES)  
AT SURFACE:  
  
AT TOP PRODUCING INTERVAL REPORTED BELOW:  
  
AT TOTAL DEPTH:

14. DATE SPUDDED: 15. DATE T.D. REACHED: 16. DATE COMPLETED: ABANDONED  READY TO PRODUCE  17. ELEVATIONS (DF, RKB, RT, GL):

18. TOTAL DEPTH: MD TVD 19. PLUG BACK T.D.: MD TVD 20. IF MULTIPLE COMPLETIONS, HOW MANY? \* 21. DEPTH BRIDGE MD PLUG SET: TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each) 23. WAS WELL CORED? NO  YES  (Submit analysis)  
WAS DST RUN? NO  YES  (Submit report)  
DIRECTIONAL SURVEY? NO  YES  (Submit copy)

**24. CASING AND LINER RECORD (Report all strings set in well)**

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED

**25. TUBING RECORD**

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)

**26. PRODUCING INTERVALS**

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)
(A)				
(B)				
(C)				
(D)				

**27. PERFORATION RECORD**

INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
			Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
			Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
			Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
			Open <input type="checkbox"/> Squeezed <input type="checkbox"/>

**28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.**

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL

**29. ENCLOSED ATTACHMENTS:**

- ELECTRICAL/MECHANICAL LOGS       GEOLOGIC REPORT       DST REPORT       DIRECTIONAL SURVEY  
 SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION       CORE ANALYSIS       OTHER: \_\_\_\_\_

**30. WELL STATUS:**

**31. INITIAL PRODUCTION**

**INTERVAL A (As shown in item #26)**

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

**INTERVAL B (As shown in item #26)**

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

**INTERVAL C (As shown in item #26)**

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

**INTERVAL D (As shown in item #26)**

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

**32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)**

**33. SUMMARY OF POROUS ZONES (Include Aquifers):**

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

**34. FORMATION (Log) MARKERS:**

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)

**35. ADDITIONAL REMARKS (Include plugging procedure)**

**36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.**

NAME (PLEASE PRINT) \_\_\_\_\_ TITLE \_\_\_\_\_  
 SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

\* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

\*\* ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining Phone: 801-538-5340  
 1594 West North Temple, Suite 1210  
 Box 145801 Fax: 801-359-3940  
 Salt Lake City, Utah 84114-5801



## CENTRAL DIVISION

ALTAMONT FIELD  
VASQUEZ 3-7C4  
VASQUEZ 3-7C4  
RECOMPLETE LAND

### **Operation Summary Report**

Disclaimer: Although the information contained in this report is based on sound engineering practices, the copyright owner(s) does (do) not accept any responsibility whatsoever, in negligence or otherwise, for any loss or damage arising from the possession or use of the report whether in terms of correctness or otherwise. The application, therefore, by the user of this report or any part thereof, is solely at the user's own risk.

**1 General****1.1 Customer Information**

Company	CENTRAL DIVISION
Representative	
Address	

**1.2 Well Information**

Well	VASQUEZ 3-7C4		
Project	ALTAMONT FIELD	Site	VASQUEZ 3-7C4
Rig Name/No.		Event	RECOMPLETE LAND
Start date	9/30/2016	End date	10/13/2016
Spud Date/Time	12/3/2014	UWI	VASQUEZ 3-7C4
Active datum	KB @5,952.2usft (above Mean Sea Level)		
Afe No./Description	167199/56940 / VASQUEZ 3-7C4		

**2 Summary****2.1 Operation Summary**

Date	Time Start-End	Duration (hr)	Phase	Activity Code	Sub	OP Code	MD from (usft)	Operation
9/30/2016	10:00 10:30	0.50	WOR	28		P		TGSM ( CO ROD OPERATIONS )
	10:30 16:00	5.50	WOR	39		P		WORK PUMP OFF SEAT UN ABLE TO FLUSH, L/D P ROD AND SUBS POOH W/ 1081 #8, 1256' # 7, 1613 #6, 3205' #5, 1600' #6 L/D ON/OFF TOOL, STAB SUB, 2 1/2" x 1 1/2" x 38' INSERT PUMP. WHILE PUMPING DOWN CASING W/ HOT 2% KCL, RE ATTEMPT TO FLUSH W/ 70 BBLS SUCCESSFUL. RDMOL W/ CO ROD
	16:00 18:30	2.50	MIRU	01		P		SPOT IN RU, BWD, TEMPORARY LAND TUBING W/ PERF SUB, NU AND TEST BOPS, AS PER SOP, RU WORK FLOOR RELEASE TAC, L/D PER SUB, RE LAND HAGER BARRIER 1, SET PIPE RAMS BARRIER 2, SHUT CASING VALVE W/ NIGHT CAPS, INSTALL AND SHUT TIW VALVE. INSTALL NIGHT CAP. CREW TRAVEL.
10/1/2016	6:00 7:30	1.50	WOR	28		P		CT TGSM & JSA ( SCANNING PROCEDURES )
	7:30 11:30	4.00	WOR	39		P		SCAN OUT W/ TUBING SEND 18 BLUE JTS 2 7/8" TO YARD, STAND BACK YELLOW BAND TUBING.
	11:30 17:30	6.00	WLWORK	26		P		RU WIRELINE ATTEMPT TO TEST BLINDS LEAKED PERFORMED 500 PSI HIGH 200 LOW TEST, RIH W/ 6" GR TO 8990' AND 4 1/8" GR TO 9295'. WIRE LINE SET 15K MAGNA CBP TO 9290' AND DUMP BAIL 15' CEMENT ON TOP. BARRIERS ARE AS FOLLOWS, 15K CBP, 15' CEMENT, BLIND RAMS SHUT AND LOCKED, CASING VALVES SHUT AND NIGHT CAPPED.
10/2/2016	6:00 7:30	1.50	WOR	28		P		CT TGSM & JSA ( NU & TESTING PROCEDURES )
	7:30 11:30	4.00	WOR	16		P		FILL CASING W/ BBLS, INSTALL 2 WAY CHECK, ND BOP, NU AND TEST CASING TO 8K, TEST STACK AS PER SOP. SHUT 3 VALVES ON STACK, INSTALL NIGHT CAP, SHUT AND NIGHT CAP CASING VALVES.
10/3/2016	6:00 6:00	24.00	WOR	18		P		HEAT FRAC WATER
10/4/2016	6:00 7:30	1.50	WOR	28		P		CT TGSM & JSA ( PERFORATING AND RU FRAC EQUIPMENT )
	7:30 9:30	2.00	MIRU	01		P		MIRU WIRE LINE EQUIPMENT, PRESSURE TEST LUBE AS PER SOP
	9:30 14:00	4.50	STG01	21		P		RIH STARTED PERFORATING STAGE 1 GUN WENT OPEN, POOH REPAIR, RIH STARTED PERFORATING GUN OPEN, RIH

## 2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity Code	Sub	OP Code	MD from (usft)	Operation
	14:00 15:30	1.50	STG01	21		P		RU WIRELINE. PERFORATED STAGE # 1 FROM 9250' TO 9016'. ALL PERFS CORRELATED TO CUTTERS WIRELINE CEMENT BOND/GAMMA RAY/CCL LOG DATED 12/31/2014 23 NET FT. 69 SHOTS. USING 3 1/8" GUNS, 22.7 GM CHARGES, 3 SPF, 120 PHASING. STARTING PRESSURE 1000 PSI. FINAL PRESSURE 800 PSI. RD WIRELINE SHUT IN WELL, CLOSED AND LOCKED FRAC VALVES. CLOSED CSG VALVES AND INSTALLED NIGHT CAPS.
	15:30 17:30	2.00	MIRU	01		P		MIRU FRAC EQUIPMENT
10/5/2016	6:00 7:00	1.00	STG01	28		P		TGSM AND JSA ( FRAC OPERATIONS ) CONTINUE PREP FOR FRAC
	7:00 8:30	1.50	STG01	18		N		OFF LOAD AND STIRRING ACID. PRESSURE TESTING MULTIPLE TIMES
	8:30 12:30	4.00	STG01	35		P		SIP @ 339 PSIG, BREAK DOWN STAGE 1 PERFS 10.1 BPM @ 4,178 PSIG, TREAT STAGE 1 W/ 8000 GAL 15% HCL FLUSH TO BOTTOM PERF MAX RATE @ 40.2 BPM @ 5,035 PSI. ISIP @ 3080 F.G 77. 5 MIN 2854 TREAT STAGE 1 PERFS W/ 8000# 100 MESH IN 1/2 PPG STAGE AND 29,840 # WHITE 30/50 IN .5-1.5 PPG PRESSURE CLIMBED, PUMPS KICKED OUT ATTEMPT FLUSH TO FLUUSH AT LOWER RATE W/ NO SUCCESS. FLOW BACK 400 BBLs ONN 24/64 CHOKE, FLUSH & RE ATTEMPT 1/2 PPG STAGE STARTED TO CLIMB FLUSHED. AVE HP @ 8818 . FLUID TO RECOVER 4222 BBLs. SWI TOT WIRE LINE.
	12:30 15:00	2.50	STG02	21		P		RU WIRELINE. SET 7" CBP @ 8717', PERFORATED STAGE # 2 FROM 8702' TO 8593'. ALL PERFS CORRELATED TO CUTTERS WIRELINE CEMENT BOND/GAMMA RAY/CCL LOG DATED 12/31/2014 19 NET FT. 57 SHOTS. USING 3 1/8" GUNS, 22.7 GM CHARGES, 3 SPF, 120 PHASING. STARTING PRESSURE 2900 PSI. FINAL PRESSURE 2500 PSI. TOT FRAC CREW
	15:00 16:30	1.50	STG02	35		P		SIP @ 784, BREAAK DOWN STAGE 2 @ 4233 PSI @ 30.5 BPM, TREAT W/ 12,500 GAL 15% HCL W/ 76 BALLS FOR DIVERSION IN 4 DROPS, OVER FLUSH BOTTOM PERF. ISDP @ 1813, F.G .643 5/ 1244 10/ 1080 15/ 984 AVE RATE 27.5, MAX RATE 48.8, AVE PRES @ 3359 MAX PRES @ 5708. AVE HP @ 2264, 674 BBLs TO RECOVER. SWI, TOT WIRE LINE
	15:30 17:30	2.00	STG03	21		P		RU WIRELINE. SET 7" CBP @ 8340 PERFORATED STAGE # 3 FROM 8702' TO 8593'. ALL PERFS CORRELATED TO CUTTERS WIRELINE CEMENT BOND/GAMMA RAY/CCL LOG DATED 12/31/2014 19 NET FT. 57 SHOTS. USING 3 1/8" GUNS, 22.7 GM CHARGES, 3 SPF, 120 PHASING. STARTING PRESSURE 800 PSI. FINAL PRESSURE 600 PSI.
	17:30 20:30	3.00	STG03	35		P		SIP @ 545 PSIG, BREAK DOWN STAGE 3 PERFS 9.6 BPM @ 2202 PSIG, TREAT STAGE 3 PERFS W/ 8000 GAL 15% HCL. AVE RATE @ 40.1 BPM, AVE PSI @ 2086 OVER FLUSH TO BTM PERF. ISIP @ 1578 F.G 63. 5 MIN 1339. 10 MIN 1149, TREAT STAGE 3 PERFS W/ 7840# 100 MESH IN 1/2 PPG STAGE AND 105,110 # WHITE 30/50 IN .5-3 PPG FLUSH TO TOP PERF ISDP @ 1890, 602 F.G, AVG RATE 70 BPM, MAX RATE 72.8 BPM, AVE PRES 2309, MAX PRES 1890. AVE HORSE POWER 3437. 3437 BBLs FLUID TO RECOVER SHUT IN WELL, CLOSED AND LOCKED FRAC VALVES. CLOSED CSG VALVES AND INSTALLED NIGHT CAPS. CREW TRAVEL.
10/6/2016	6:00 6:30	0.50	STG04	28		P		TGSM & JSA ( FRAC AND STACK OPERATIONS )
	6:30 10:00	3.50	STG04	21		P		RU WIRELINE. SET 7" CBP @ 8101', PERFORATED STAGE # 4 FROM 8086' TO 8012'. ALL PERFS CORRELATED TO CUTTERS WIRELINE CEMENT BOND/GAMMA RAY/CCL LOG DATED 12/31/2014 13 NET FT. 39 SHOTS. USING 3 1/8" GUNS, 22.7 GM CHARGES, 3 SPF, 120 PHASING. STARTING PRESSURE 300 PSI. FINAL PRESSURE 300 PSI. TOT FRAC CREW.

## 2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity Code	Sub	OP Code	MD from (usft)	Operation
	10:00 10:30	0.50	STG04	35		P		SIP @ 284, BREAAK DOWN STAGE 3 @ 3233 PSI @ 30.5 BPM, TREAT W/ 9000 GAL 15% HCL W/ 51 BALLS FOR DIVERSION IN 3 DROPS, OVER FLUSH BOTTOM PERF. ISDP @ 1717, F.G .646 5/ 1386 10/ 1203 AVE RATE 24.4, MAX RATE 64.1 AVE PRES @ 2608 MAX PRES @ 6513. AVE HP @ 1560, 567 BBLS TO RECOVER. SWI.
	10:30 13:30	3.00	RDMO	02		P		RDMO FRAC EQUIPMENT
	13:30 13:30	0.00	FB	23		P		OPEN 575 PSI ON 12/64 CHOKE FLOWED BACK TOTAL OF 583 BBLS CURRENT PRESSURE @ 275 PSI W/ 90% OIL CUT.
10/7/2016	6:00 7:30	1.50	WOR	28		P		CT TGSM & JSA ( PUMPING OPERATIONS )
	7:30 12:30	5.00	WOR	06		P		BULL HEAD 309 BBLS BRINE WATER, ND STACK AND NU & TEST BOP AND HYDRILL. AS PER SOP
	12:30 19:30	7.00	WOR	40		P		RIH W/ 214 JTS SCANNED YELLOW BAND, PU 28 JTS TAG AND DRILL CBP @ 8156 SLM, CIH W/ 8 JTS TAG AND DRILL CBP @ 8384' SLM, CIRCULATE CLEAN PULL ABOVE PERFS. CASING BARRIERS PIPE RAMS CLOSED AND LOCKED, HYDRILL CLOSED. CASING VALVES SHUT AND BULL PLUGGED. TUBING BARRIERS TIW INSTALLED AND SHUT W/ NIGHT CAP INSTALLED. CT
10/8/2016	6:00 7:30	1.50	WOR	28		P		CT TGSM & JSA ( DRILLING CBPS )
	7:30 17:30	10.00	WOR	40		P		RIH TAG CBP REMAINS OF 2ND PLUG @ 8856' DRILL UP REMAINS CIH TO 8861' SLM TAG 3RD PLUG DRILL UP PUSH TO LINER TOP W/ JT# 277 @ 9034'. SLM. DRILL UP PLUG REMAINS, PULL ABOVE PERFS. HOOK UP FLOW BACK LINES. TOT FLOW BACK
10/9/2016	6:00 6:00	24.00	FB	23		P		FLOW WELL AS INSTRUCTED
10/10/2016	6:00 6:00	24.00	FB	23		P		FLOW WELL AS INSTRUCTED
10/11/2016	7:00 8:30	1.50	WOR	28		P		CT TGSM & JSA ( PUMP OPERATIONS )
	8:30 12:30	4.00	WOR	39		P		KILL WELL W/ 300 BBLS BRINE WATER, COOH W/ 6" BIT
	12:30 20:00	7.50	WOR	39		P		PUMU & RIH W/ 4 1/8" BIT, BIT SUB, 11 JTS 2 3/8" 8RD, X/O TO 2 7/8", RIH W/ 267 JTS 2 7/8" TAG LINER TOP, RU SWIVEL. BREAK CIRCULATION, DRILL ON CBP AND PUSH TO 9,302' SLM. CLEAN OUT TO PBTD @ 9,305' SLM, 9275' WLM. CIRCULATE WELL CLEAN, LAY DOWN TUBING NEEDED FOR PRODUCTION. CASING BARRIERS PIPE RAMS CLOSED AND LOCKED, HYDRILL CLOSED. CASING VALVES SHUT AND BULL PLUGGED. TUBING BARRIERS TIW INSTALLED AND SHUT W/ NIGHT CAP INSTALLED. CT
10/12/2016	6:00 7:00	1.00	WOR	28		P		CT HOLD SAFETY MTG ON UDSING STOP WORK AUTHORITY, WRITE & REVIEW JSA'S
	7:00 8:30	1.50	WOR	15		P		CIRC WELL BORE W/ 225 BBLS BRINE WTR
	8:30 11:30	3.00	WOR	39		P		TOOH W/ 234 JTS 2-7/8" EUE L-80 TBG, 2-7/8" X 2-3/8" EUE X OVER, LD 11 JTS 2-3/8" TBG, BIT SUB & 4-1/8" BIT, FLUSHING TBG AS NEEDED
	11:30 18:30	7.00	WOR	39		P		MU & RIH W/ 5-3/4" SOLID NO-GO, 2 JTS 2-7/8" EUE L-80 TBG, 5-1/2" PBGA W/ DIP TUBE, 2' X 2-7/8" EUE N-80 TBG SUB, 2' X 2-7/8" EUE N-80 TBG SUB, MECH P.S.N., RU HYDRO TEST EQUIP RIH TESTING W/ , 2-78" X 2-1/2" X 40' PUMP BBL, 4' X 2-7/8" EUE N-80 TBG SUB, 4 JTS 2-7/8" EUE L-80 TBG, KLX 1/4 TURN 7" TAC, 116 JTS 2-7/8" EUE L-80 TBG, 3-1/2" EUE X 2-7/8" EUE X OVER, 40 JTS 3-1/2" EUE N-80 LINED TBG, 2-7/8" EUE X 3-1/2" EUE X OVER & 101 JTS 2-7/8" EUE L-80 TBG, TESTING 2-7/8" TBG TO 8500 PSI & 3-1/2" TBG TO 8000 PSI FOUND NO LEAKS, 4 JTS 3-1/2" TBG WOULDNT DRIFT, RD HYDRO TEST EQUIP, SECURE WELL CLOSE & LOCK PIPE RAMS BARRIER 1, CLOSE HYDRILL BARRIER 2, CLOSE & NIGHT CAP TIW VALVE BARRIER 1 & 2, CLOSE & NIGHT CAP CSG VALVES BARRIER 1 & 2, SDFN
10/13/2016	6:00 7:30	1.50	WOR	28		P		CT TGSM & JSA ( ND PROCEDURES )

## 2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity Code	Sub	OP Code	MD from (usft)	Operation
	7:30 13:30	6.00	RDMO	02		P		BWD, SET TAC @ 8419', PSN @ 8599', EOT @ 8703'. TEMPORARY LAND TUBING, ND BOP, PULL PUP JT, & NU B FLANGE. MU PUMP T AND FLOW LINES, RACK OUT PUMP AND LINES. RDMOL TO 3-22 A1E
10/14/2016	6:00 7:30	1.50	WOR	28		P		CT TGSM & JSA ( CO ROD OPERATIONS )
	7:30 8:30	1.00	WOR	06		P		FLUSH TUBING W/ KCL DROP S/V FLUSH 55 BBLS DID NOT FILL. ( PUMP 10 GAL CORROSION INHIBITOR )
	8:30 11:30	3.00	WOR	39		P		PUMU & RIH W/ 5" PLUNGER, 40' P ROD, 2' 7/8" SUB, 2 5/16" O.D LEFT HANDED ON/OFF TOOL, 2' 7/8" SUB, 1600' SE6, 3205' SE5, 1613' SE6, 1256' SE7, 926' SE8, WELD ON PIN, SPACE OUT W/ SUBS, FILL AND TEST W/ 2 BBLS, L/S TO 1000 PSI, GOOD TEST W/ GOOD PUMP ACTION. RD SLIDE UNIT TOTP.