

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

Form C-104
Revised August 1, 2011

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit one copy to appropriate District Office

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address Devon Energy Production Company, L.P. 333 West Sheridan, Oklahoma City, OK 73102		² OGRID Number 6137
		³ Reason for Filing Code/ Effective Date NW / 7/2/15
⁴ API Number 30-015-42552	⁵ Pool Name Los Medanos; Bone Spring	⁶ Pool Code 40295
⁷ Property Code 33079	⁸ Property Name Apache 24-23 Fed Com	⁹ Well Number 13H

II. ¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	24	22S	30E		970	South	330	East	Eddy

¹¹ Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	23	22S	30E		665	South	2288	East	Eddy
¹² Lse Code F	¹³ Producing Method Code F	¹⁴ Gas Connection Date 7/2/15	¹⁵ C-129 Permit Number	¹⁶ C-129 Effective Date	¹⁷ C-129 Expiration Date				

III. Oil and Gas Transporters

¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
035246	Shell Trading (US) Company P.O. Box 4604 Houston, TX 77210	Oil
036785	DCP Midstream P.O. Box 50020 Midland, TX 79710-0020	Gas

IV. Well Completion Data

²¹ Spud Date 2/5/15	²² Ready Date 7/2/15	²³ TD 16994	²⁴ PBSD 16813.5	²⁵ Perforations 10019 - 16792	²⁶ DHC, MC
²⁷ Hole Size	²⁸ Casing & Tubing Size	²⁹ Depth Set	³⁰ Sacks Cement		
17-1/2"	13-3/8"	583	720 sx ClC; Circ 251 sx		
12-1/4"	9-5/8"	3861	1930 sx Cement; Circ 555 sx		
8-3/4"	5-1/2"	16859	3295 sx Cement; Circ 227 sx		
	Tubing: 2-7/8"	9971			

V. Well Test Data

³¹ Date New Oil 7/7/15	³² Gas Delivery Date 7/7/15	³³ Test Date 7/7/15	³⁴ Test Length 24 hrs	³⁵ Tbg. Pressure 1000 psi	³⁶ Csg. Pressure 1750 psi
³⁷ Choke Size	³⁸ Oil 495 bbl	³⁹ Water 1957 bbl	⁴⁰ Gas 781 mcf		⁴¹ Test Method

⁴² I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature:

Lucretia Morris

Printed name:

Lucretia Morris

Title:

Regulatory Compliance Analyst

E-mail Address:

lucretia.morris@dmn.com

Date:

7/29/2015

Phone:

405-552-3303

OIL CONSERVATION DIVISION

Approved by:

RD Dade

Title:

District Supervisor

Approval Date:

8-11-15

Provide signature page for Survey

Pending BLM approvals will
subsequently be reviewed
and scanned

RD

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010**SUNDRY NOTICES AND REPORTS ON WELLS**
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.***SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		5. Lease Serial No. NMNM89051
2. Name of Operator DEVON ENERGY PRODUCTION CO LP		6. If Indian, Allottee or Tribe Name
Contact: LUCRETIA A MORRIS Email: Lucretia.Morris@dvn.com		7. If Unit or CA/Agreement, Name and/or No.
3a. Address 333 WEST SHERIDAN AVENUE OKLAHOMA CITY, OK 73102	3b. Phone No. (include area code) Ph: 405-552-3303	8. Well Name and No. APACHE 24-23 FED COM 13H
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 24 T22S R30E SESE 970FSL 330FEL		9. API Well No. 30-015-42552
		10. Field and Pool, or Exploratory LOS MEDANOS; BONE SPRING
		11. County or Parish, and State EDDY COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Drilling Operations
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

(2/5/15-2/8/15) Spud @ 16:30. TD 17-1/2? hole @ 583?. RIH w/ 13 jts 13-3/8? 48# H-40 ST&C csg, set @ 583?. Lead w/ 720 sx CIC cmt, yld 1.34 cu ft/sk. Displ w/ 84 bbls 8.34 ppg FW. Circ 251 sx cmt to surf. PT BOPE @ 250/5000 psi and PT I-BOP & lower Kelly valve @ 250/4000 psi, held each test for 10 min, OK. PT csg to 1211 psi, OK.

(2/11/15-2/14/15) TD 12-1/4? hole @ 3871?. RIH w/ 91 jts 9-5/8? 40# J-55 BT csg, set @ 3861.1?. Lead w/ 1500 sx Econocem cmt, yld 1.87 cu ft/sk. Tail w/ 430 sx Halcem, yld 1.33 cu ft/sk. Disp w/ 290 bbls FW. Circ 555 sx cmt to surf. PT csg to 2765 psi for 30 min, OK.

(3/4/15-3/9/15) TD 8-3/4? hole @ 16994?. RIH w/ 388 jts 5-1/2? 17# P-110 GBDC csg, set @ 16859.1?. Open DVT, set bottom @ 4314.4?. 1st stage cmt lead w/ 945 sx Versacem cmt, yld 2.30 cu ft/sk. Tail w/ 1830 sx Versacem, yld 1.22 cu ft/sk. Displ w/ 300 bbls water. Circ 90 bbls cmt to surf. 2nd

14. I hereby certify that the foregoing is true and correct.

**Electronic Submission #295972 verified by the BLM Well Information System
For DEVON ENERGY PRODUCTION CO LP, sent to the Carlsbad**

Name (Printed/Typed) LUCRETIA A MORRIS	Title REGULATORY COMPLIANCE ANALYST
Signature (Electronic Submission)	Date 03/24/2015

THIS SPACE FOR FEDERAL OR STATE OFFICIAL APPROVAL

Approved By _____	Title _____
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office _____

Pending BLM approvals will
subsequently be reviewed
and scanned *AD*

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

Additional data for EC transaction #295972 that would not fit on the form

32. Additional remarks, continued

stage cmt lead w/ 420 sx Tuned Light, yld 3.49 cu ft/sk. Tail w/ 100 sx Halcem, yld 1.33 cu ft/sk.
Disp w/ 103 bbls water. Circ 8 sx cmt to surf. RR @ 22:00.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an
abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No. **BHL: NMNM89051**

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE – Other instructions on page 2.

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Devon Energy Production Company, L.P.

3a. Address

333 West Sheridan, Oklahoma City, OK 73102

3b. Phone No. (include area code)

405-228-4248

7. If Unit of CA/Agreement, Name and/or No.

8. Well Name and No.

Apache 24-23 Fed Com 13H

9. API Well No.

30-015-42552

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

970' FSL & 330' FEL Unit P, Sec 24, T22S, R30E

665' FSL & 2288' FEL Unit O, Sec 23, T22S, R30E

PP: 869' FSL & 372' FEL

10. Field and Pool or Exploratory Area

Los Medanos; Bone Spring

11. Country or Parish, State

Eddy, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Completion Report
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BLA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

4/27/15-7/2/15: MIRU WL & PT. TIH & ran CBL, found ETOC @ 680'. RIH w/ casing patch, set top @ 4302', btm @ 4322'. TIH w/ pump through frac plug and guns. Perf Wolfcamp, 10019'-16792', total 908 holes. Frac'd 10019'-16792' in 26 stages. Frac totals 39,343.5 gals 15% HCL, 1,288,000# Oklahoma #1 100 Mesh sand, 13,278,000# Ottawa Sand 30/50. ND frac, MIRU PU, NU BOP, DO plugs & CO. CHC, FWB, ND BOP. RIH w/313 jts 2-7/8" L-80 tbg, set @ 9971'. TOP.

14. I hereby certify that the foregoing is true and correct.

Name (Printed/Typed)

Lucretia Morris

Title **Regulatory Compliance Analyst**

Signature

Lucretia Morris

Date **7/29/2015**

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Office

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Pending BLM approvals will
subsequently be reviewed
and scanned *MD*

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

United States any false,

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other b. Type of Completion: ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resrv., Other: _____		5. Lease Serial No. BHL: NMNM89051
2. Name of Operator Devon Energy Production Company, L.P.		6. If Indian, Allottee or Tribe Name
3. Address 333 West Sheridan Ave, Oklahoma City, OK 73102		7. Unit or CA Agreement Name and No.
4. Location of Well (Report location clearly and in accordance with Federal requirements)* At surface 970' FSL & 330' FEL Unit P, Sec 24, T22S, R30E At top prod. interval reported below At total depth 665' FSL & 2288' FEL Unit O, Sec 23, T22S, R30E		8. Lease Name and Well No. Apache 24-23 Fed Com 13H 9. API Well No. 30-015-42552 10. Field and Pool or Exploratory Los Medanos; Bone Spring 11. Sec., T., R., M., on Block and Survey or Area Sec 24, T22S, R30E 12. County or Parish Eddy 13. State NM
14. Date Spudded 2/5/15	15. Date T.D. Reached 3/5/15	16. Date Completed ☐ D & A ☒ Ready to Prod. 7/2/15
17. Elevations (DF, RKB, RT, GL)* GL: 3408.9	18. Total Depth: MD 16994 TVD 9798.11	
19. Plug Back T.D.: MD TVD		20. Depth Bridge Plug Set: MD TVD
21. Type Electric & Other Mechanical Logs Run (Submit copy of each) CBL / Gamma Ray / CCL		
22. Was well cored? ☐ No ☐ Yes (Submit analysis) Was DST run? ☐ No ☐ Yes (Submit report) Directional Survey? ☐ No ☒ Yes (Submit copy)		

23. Casing and Liner Record (Report all strings set in well)									
Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17-1/2"	13-3/8" H-40	48#	0	583		720 sx CIC		0	251 sx
12-1/4"	9-5/8" J-55	40#	0	3861		1930 sx Cement		0	555 sx
8-3/4"	5-1/2" P-110	17#	0	16859	DV @ 4314	3295 sx Cement		4316	227 sx

24. Tubing Record									
Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	
2-7/8"	9971								

25. Producing Intervals				26. Perforation Record			
Formation	Top	Bottom		Perforated Interval	Size	No. Holes	Perf. Status
A) Wolfcamp	10019	16792		10019 - 16792		908	open
B)							
C)							
D)							

27. Acid, Fracture, Treatment, Cement Squeeze, etc.		Amount and Type of Material
Depth Interval		
10019 - 16792		39,343.5 gals 15% HCl Acid, 1,288,000# Okla #1 100 Mesh, 13,278,000# Ottawa Sand 30/50

28. Production - Interval A									
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
7/2/15	7/7/15	24		495	781	1957			Flow
Choke Size	Tbg. Press. Flwg. SI	Csg. Press. SI	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
	1000psi	1750psi					1577.778		

28a. Production - Interval B									
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press. SI	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

*(See instructions and spaces for additional data on page 2)

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28b. Production - Interval C									
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						

28c. Production - Interval D									
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						

29. Disposition of Gas (Solid, used for fuel, vented, etc.)

SOLD

30. Summary of Porous Zones (Include Aquifers):				31. Formation (Log) Markers	
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.					
Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
Wolfcamp	11059			2nd Bone Spring SS Wolfcamp (estimated base of BSPG)	9612 11059

32. Additional remarks (include plugging procedure):

33. Indicate which items have been attached by placing a check in the appropriate boxes:

☒ Electrical/Mechanical Logs (1 full set req'd.)	☐ Geologic Report	☐ DST Report	☒ Directional Survey
☐ Sundry Notice for plugging and cement verification	☐ Core Analysis	☐ Other:	

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*

Name (please print) Lucretia Morris Title Regulatory Compliance Analyst

Signature Lucretia Morris Date 7/29/2015

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 3)

(Form 3160-4, page 2)



Directional Survey

Well Name: APACHE 24-23 FED COM 13H

Sub-Division DELAWARE BASIN		Region DELAWARE BASIN WEST		Field Name LOS MEDANOS		County EDDY		State/Province NM					
Surface Legal Location Sec 24 22S 30E		API/UWI 3001542552		Latitude (°) 32° 22' 21.895" N		Longitude (°) 103° 49' 34.145" W		Orig KB Elevation (ft) 3,432.50		Ground Elev MSL (ft) 3,408.90		KB - GL (ft) 23.60	
Wellbores													
Wellbore Name OH		Parent Wellbore OH				SAP Well ID 37961				Vertical Section Direction (°) 267.43			
Kick Offs & Key Depths													
Date 2/18/2015				Type Kick Off						Top Depth (ftKB) 9,264.0			
Actual Deviation Survey MWD, Proposed? No				Definitive? Yes		Proposed? No		Proposed Deviation Survey					
Deviation Survey													
Date 2/6/2015				Description MWD									
MD Tie In (ftKB) 0.00		TVD Tie In (ftKB) 0.00		Inclination Tie In (°) 0.00		Azimuth Tie In (°) 0.00		NSTie In (ft) 0.00		EWTie In (ft) 0.00			
Survey Data													
Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	DLS (°/100ft)	Survey Tool	Survey Company			
2/6/2015	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	MWD	EXTREME			
2/6/2015	170.00	0.48	185.39	170.00	0.10	-0.71	-0.07	0.28	MWD	EXTREME			
2/6/2015	258.00	0.79	233.92	257.99	0.66	-1.43	-0.59	0.67	MWD	EXTREME			
2/6/2015	388.00	1.01	212.68	387.98	2.06	-2.93	-1.93	0.30	MWD	EXTREME			
2/6/2015	473.00	1.10	200.82	472.96	2.82	-4.32	-2.63	0.28	MWD	EXTREME			
2/6/2015	576.00	1.10	98.99	575.95	2.24	-5.40	-2.00	1.66	MWD	EXTREME			
2/6/2015	669.00	1.10	98.99	668.93	0.49	-5.68	-0.24	0.00	MWD	EXTREME			
2/6/2015	761.00	1.01	182.01	760.92	-0.31	-6.62	0.60	1.52	MWD	EXTREME			
2/6/2015	855.00	0.88	179.19	854.91	-0.22	-8.17	0.58	0.15	MWD	EXTREME			
2/6/2015	948.00	0.79	191.10	947.90	-0.04	-9.52	0.47	0.21	MWD	EXTREME			
2/6/2015	1,041.00	0.70	191.10	1,040.89	0.24	-10.70	0.24	0.10	MWD	EXTREME			
2/6/2015	1,133.00	0.70	187.28	1,132.89	0.47	-11.81	0.06	0.05	MWD	EXTREME			
2/6/2015	1,224.00	0.79	166.80	1,223.88	0.45	-12.98	0.13	0.31	MWD	EXTREME			
2/6/2015	1,319.00	0.79	163.42	1,318.87	0.17	-14.24	0.47	0.05	MWD	EXTREME			
2/6/2015	1,414.00	0.70	157.09	1,413.86	-0.19	-15.40	0.88	0.13	MWD	EXTREME			
2/9/2015	1,508.00	0.62	162.50	1,507.86	-0.52	-16.42	1.26	0.11	MWD	EXTREME			
2/9/2015	1,602.00	0.48	140.48	1,601.85	-0.89	-17.21	1.66	0.27	MWD	EXTREME			
2/9/2015	1,697.00	0.62	119.78	1,696.85	-1.56	-17.77	2.36	0.25	MWD	EXTREME			
2/9/2015	1,791.00	0.62	109.58	1,790.84	-2.46	-18.19	3.28	0.12	MWD	EXTREME			
2/10/2015	1,886.00	0.62	128.39	1,885.84	-3.33	-18.68	4.17	0.21	MWD	EXTREME			
2/10/2015	1,980.00	0.70	105.59	1,979.83	-4.26	-19.15	5.12	0.29	MWD	EXTREME			
2/10/2015	2,074.00	0.70	103.39	2,073.82	-5.35	-19.44	6.23	0.03	MWD	EXTREME			
2/10/2015	2,169.00	0.69	122.59	2,168.82	-6.38	-19.88	7.28	0.24	MWD	EXTREME			
2/10/2015	2,263.00	0.70	132.79	2,262.81	-7.25	-20.58	8.18	0.13	MWD	EXTREME			
2/10/2015	2,358.00	0.88	137.49	2,357.80	-8.12	-21.51	9.09	0.20	MWD	EXTREME			
2/10/2015	2,452.00	0.79	137.49	2,451.79	-9.00	-22.52	10.02	0.10	MWD	EXTREME			
2/10/2015	2,546.00	0.70	137.80	2,545.78	-9.78	-23.42	10.84	0.10	MWD	EXTREME			
2/10/2015	2,610.00	0.62	125.41	2,609.78	-10.31	-23.91	11.39	0.25	MWD	EXTREME			
2/10/2015	2,704.00	0.48	131.29	2,703.77	-10.99	-24.47	12.10	0.16	MWD	EXTREME			
2/10/2015	2,798.00	1.19	172.12	2,797.76	-11.36	-25.69	12.53	0.94	MWD	EXTREME			
2/10/2015	2,895.00	1.19	181.92	2,894.74	-11.38	-27.70	12.63	0.21	MWD	EXTREME			
2/10/2015	2,987.00	0.48	196.90	2,986.73	-11.18	-29.02	12.49	0.80	MWD	EXTREME			
2/10/2015	3,082.00	2.11	119.21	3,081.71	-12.53	-30.26	13.90	2.17	MWD	EXTREME			
2/10/2015	3,178.00	3.12	125.01	3,177.61	-16.10	-32.62	17.58	1.09	MWD	EXTREME			
2/10/2015	3,273.00	2.99	131.38	3,272.47	-19.93	-35.74	21.56	0.38	MWD	EXTREME			
2/10/2015	3,369.00	3.78	121.32	3,368.31	-24.36	-39.04	26.14	1.03	MWD	EXTREME			
2/10/2015	3,474.00	4.09	120.70	3,473.06	-30.37	-42.75	32.32	0.30	MWD	EXTREME			
2/11/2015	3,560.00	4.79	129.58	3,558.80	-35.59	-46.60	37.72	1.14	MWD	EXTREME			
2/11/2015	3,655.00	3.91	133.89	3,653.53	-40.77	-51.38	43.11	0.99	MWD	EXTREME			
2/11/2015	3,751.00	3.21	135.38	3,749.34	-44.82	-55.56	47.36	0.74	MWD	EXTREME			
2/11/2015	3,906.00	2.60	127.10	3,904.14	-50.43	-60.77	53.21	0.48	MWD	LEAM DRILLING SYSTEMS			
2/11/2015	4,001.00	2.20	127.40	3,999.06	-53.49	-63.17	56.38	0.42	MWD	LEAM DRILL			
2/11/2015	4,097.00	2.30	125.00	4,094.98	-56.43	-65.40	59.42	0.14	MWD	LEAM DRILL			
2/11/2015	4,192.00	2.20	128.10	4,189.91	-59.32	-67.62	62.42	0.17	MWD	LEAM DRILL			
2/11/2015	4,288.00	2.30	125.40	4,285.84	-62.24	-69.87	65.44	0.15	MWD	LEAM DRILL			
2/11/2015	4,383.00	1.90	114.80	4,380.77	-65.14	-71.64	68.42	0.59	MWD	LEAM DRILL			
2/11/2015	4,479.00	1.90	105.40	4,476.72	-68.07	-72.73	71.40	0.32	MWD	LEAM DRILL			
2/11/2015	4,574.00	1.70	104.80	4,571.67	-70.91	-73.50	74.28	0.21	MWD	LEAM DRILL			
2/11/2015	4,670.00	1.70	107.30	4,667.63	-73.61	-74.29	77.02	0.08	MWD	LEAM DRILL			
2/11/2015	4,765.00	1.50	108.60	4,762.59	-76.09	-75.11	79.54	0.21	MWD	LEAM DRILL			
2/11/2015	4,861.00	1.40	106.00	4,858.56	-78.38	-75.83	81.86	0.12	MWD	LEAM DRILL			
2/11/2015	4,957.00	1.30	107.30	4,954.54	-80.51	-76.48	84.03	0.11	MWD	LEAM DRILL			
2/11/2015	5,052.00	1.30	107.00	5,049.51	-82.54	-77.11	86.09	0.01	MWD	LEAM DRILL			
2/11/2015	5,148.00	1.20	102.30	5,145.49	-84.54	-77.65	88.11	0.15	MWD	LEAM DRILL			
2/11/2015	5,243.00	1.10	102.10	5,240.47	-86.38	-78.05	89.97	0.11	MWD	LEAM DRILL			
2/11/2015	5,339.00	1.10	103.30	5,336.45	-88.16	-78.45	91.77	0.02	MWD	LEAM DRILL			
2/11/2015	5,435.00	1.00	96.60	5,432.44	-89.87	-78.76	93.50	0.16	MWD	LEAM DRILL			
2/11/2015	5,530.00	1.00	100.30	5,527.42	-91.50	-79.01	95.14	0.07	MWD	LEAM DRILL			
2/11/2015	5,626.00	0.80	93.10	5,623.41	-92.98	-79.19	96.63	0.24	MWD	LEAM DRILL			
2/11/2015	5,722.00	0.70	105.20	5,719.40	-94.21	-79.38	97.87	0.19	MWD	LEAM DRILL			
2/11/2015	5,817.00	0.40	108.50	5,814.40	-95.07	-79.64	98.74	0.32	MWD	LEAM DRILL			
2/11/2015	5,913.00	0.60	119.30	5,910.39	-95.81	-79.99	99.50	0.23	MWD	LEAM DRILL			
2/11/2015	6,009.00	0.40	118.90	6,006.39	-96.52	-80.40	100.23	0.21	MWD	LEAM DRILL			
2/11/2015	6,104.00	0.60	124.10	6,101.39	-97.21	-80.84	100.93	0.22	MWD	LEAM DRILL			
2/11/2015	6,200.00	0.70	131.40	6,197.38	-98.03	-81.51	101.79	0.14	MWD	LEAM DRILLING SYSTEMS			
2/11/2015	6,295.00	0.80	156.20	6,292.37	-98.69	-82.50	102.49	0.35	MWD	LEAM DRILLING SYSTEMS			

Pending BLM approvals will subsequently be reviewed and scanned

Provide signature page for Survey



Directional Survey

Well Name: APACHE 24-23 FED COM 13H

Sub-Division DELAWARE BASIN		Region DELAWARE BASIN WEST		Field Name LOS MEDANOS				County EDDY		State/Province NM		
Surface Legal Location Sec 24 22S 30E		API/UWI 3001542552		Latitude (°) 32° 22' 21.895" N		Longitude (°) 103° 49' 34.145" W		Orig KB Elevation (ft) 3,432.50		Ground Elev MSL (ft) 3,408.90		KB - GL (ft) 23.60
Survey Data												
Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	DLS (°/100ft)	Survey Tool	Survey Company		
2/11/2015	6,391.00	0.90	157.40	6,388.36	-99.19	-83.81	103.05	0.11	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	6,486.00	0.90	165.20	6,483.35	-99.60	-85.22	103.53	0.13	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	6,582.00	0.60	218.30	6,579.34	-99.43	-86.34	103.41	0.75	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	6,677.00	0.70	237.30	6,674.34	-98.61	-87.05	102.61	0.25	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	6,773.00	0.80	220.10	6,770.33	-97.65	-87.87	101.69	0.26	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	6,869.00	1.00	215.00	6,866.32	-96.68	-89.07	100.78	0.22	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	6,964.00	1.00	210.50	6,961.30	-95.72	-90.47	99.88	0.08	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	7,060.00	0.70	242.40	7,057.29	-94.73	-91.46	98.93	0.57	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	7,155.00	0.60	232.90	7,152.29	-93.80	-92.03	98.02	0.15	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	7,251.00	0.50	216.30	7,248.28	-93.12	-92.67	97.38	0.19	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	7,346.00	0.60	206.70	7,343.28	-92.62	-93.45	96.91	0.14	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	7,442.00	0.70	199.30	7,439.27	-92.15	-94.45	96.49	0.14	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	7,538.00	0.70	196.00	7,535.26	-91.75	-95.57	96.13	0.04	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	7,633.00	0.70	182.80	7,630.26	-91.51	-96.71	95.94	0.17	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	7,729.00	0.80	190.10	7,726.25	-91.31	-97.95	95.80	0.14	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	7,824.00	0.60	206.30	7,821.24	-90.92	-99.05	95.46	0.29	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	7,920.00	0.40	231.80	7,917.24	-90.41	-99.71	94.97	0.31	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	8,015.00	0.00	214.50	8,012.24	-90.14	-99.91	94.71	0.42	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	8,111.00	0.50	343.60	8,108.24	-90.04	-99.51	94.59	0.52	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	8,206.00	0.80	244.00	8,203.23	-89.33	-99.40	93.88	1.06	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	8,302.00	0.70	259.70	8,299.22	-88.13	-99.80	92.70	0.24	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	8,397.00	1.00	226.60	8,394.21	-86.93	-100.48	91.53	0.59	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	8,493.00	1.30	199.00	8,490.19	-85.90	-102.08	90.57	0.65	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	8,588.00	1.80	210.90	8,585.16	-84.68	-104.38	89.45	0.62	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	8,684.00	1.60	239.30	8,681.12	-82.67	-106.36	87.52	0.89	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	8,779.00	1.70	233.50	8,776.08	-80.33	-107.87	85.25	0.20	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	8,875.00	1.90	228.90	8,872.03	-77.90	-109.77	82.91	0.26	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	8,971.00	2.00	224.30	8,967.98	-75.43	-112.01	80.54	0.19	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	9,066.00	1.60	242.90	9,062.93	-73.02	-113.80	78.20	0.74	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	9,105.00	1.40	251.10	9,101.92	-72.06	-114.21	77.26	0.75	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	9,162.00	1.40	255.10	9,158.90	-70.71	-114.61	75.93	0.17	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	9,258.00	3.00	257.90	9,254.83	-67.09	-115.44	72.34	1.67	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	9,290.00	5.90	268.80	9,286.73	-64.62	-115.65	69.88	9.40	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	9,322.00	9.10	277.10	9,318.45	-60.48	-115.37	65.72	10.53	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	9,354.00	11.80	280.80	9,349.92	-54.80	-114.44	59.99	8.69	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	9,386.00	15.10	281.80	9,381.04	-47.58	-112.98	52.70	10.34	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	9,417.00	18.00	281.80	9,410.75	-39.03	-111.17	44.06	9.35	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	9,449.00	19.50	276.70	9,441.05	-28.96	-109.54	33.91	6.94	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	9,481.00	21.00	273.40	9,471.07	-17.99	-108.57	22.88	5.89	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	9,513.00	23.00	273.10	9,500.74	-6.06	-107.90	10.91	6.26	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	9,545.00	25.30	272.30	9,529.94	6.97	-107.28	-2.16	7.26	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	9,577.00	28.70	272.30	9,558.45	21.45	-106.70	-16.68	10.63	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	9,609.00	31.70	272.90	9,586.10	37.47	-105.97	-32.76	9.42	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	9,640.00	34.60	272.90	9,612.05	54.35	-105.11	-49.68	9.35	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	9,672.00	38.40	272.00	9,637.77	73.30	-104.30	-68.70	11.99	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	9,704.00	41.20	271.60	9,662.35	93.73	-103.66	-89.17	8.79	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	9,736.00	44.10	270.80	9,685.89	115.36	-103.21	-110.84	9.22	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	9,767.00	47.70	269.90	9,707.46	137.59	-103.08	-133.10	11.80	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	9,799.00	51.10	269.40	9,728.28	161.86	-103.23	-157.39	10.69	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	9,831.00	53.70	269.40	9,747.80	187.20	-103.50	-182.74	8.13	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	9,863.00	56.00	268.50	9,766.22	213.35	-103.98	-208.90	7.55	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	9,895.00	57.60	269.20	9,783.75	240.12	-104.52	-235.67	5.32	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	9,927.00	59.70	268.80	9,800.39	267.44	-104.99	-262.99	6.65	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	9,959.00	63.80	268.50	9,815.54	295.61	-105.66	-291.17	12.84	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	9,991.00	67.40	269.50	9,828.75	324.74	-106.16	-320.30	11.60	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	10,023.00	70.10	270.20	9,840.35	354.53	-106.24	-350.12	8.68	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	10,054.00	74.20	270.20	9,849.85	384.00	-106.14	-379.62	13.23	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	10,086.00	77.90	270.60	9,857.56	415.01	-105.92	-410.67	11.63	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	10,118.00	81.30	270.10	9,863.34	446.44	-105.73	-442.14	10.74	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	10,150.00	84.90	268.30	9,867.18	478.18	-106.17	-473.90	12.56	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	10,238.00	88.70	267.60	9,872.10	566.03	-109.32	-561.69	4.39	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	10,334.00	89.30	267.80	9,873.77	662.01	-113.17	-657.60	0.66	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	10,429.00	89.30	267.60	9,874.93	757.00	-116.98	-752.51	0.21	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	10,525.00	89.70	267.60	9,875.77	853.00	-121.00	-848.42	0.42	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	10,620.00	90.50	267.80	9,875.60	947.99	-124.81	-943.35	0.87	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	10,716.00	91.00	268.50	9,874.35	1,043.98	-127.91	-1,039.29	0.90	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	10,812.00	91.70	268.70	9,872.09	1,139.93	-130.26	-1,135.23	0.76	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	10,907.00	90.70	268.30	9,870.10	1,234.89	-132.74	-1,230.18	1.13	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	11,003.00	90.90	268.70	9,868.76	1,330.87	-135.26	-1,326.13	0.47	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	11,096.00	91.50	269.40	9,866.81	1,423.81	-136.80	-1,419.10	0.99	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	11,194.00	91.30	269.50	9,864.41	1,521.72	-137.74	-1,517.07	0.23	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	11,289.00	91.10	269.00	9,862.42	1,616.65	-138.98	-1,612.04	0.57	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	11,385.00	90.40	268.70	9,861.17	1,712.61	-140.91	-1,708.01	0.79	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	11,480.00	88.50	268.00	9,862.08	1,807.59	-143.64	-1,802.96	2.13	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	11,576.00	89.10	268.80	9,864.09	1,903.55	-146.32	-1,898.90	1.04	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	11,671.00	89.30	268.80	9,865.42	1,998.51	-148.31	-1,993.87	0.21	MWD	LEAM DRILLING SYSTEMS		
2/11/2015	11,767.00	89.30	268.80	9,866.59	2,094.48	-150.32	-2,089.84	0.00	MWD	LEAM DRILLING SYSTEMS		
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Report Printed: 7/28/2015												



Directional Survey

Well Name: APACHE 24-23 FED COM 13H

Sub-Division DELAWARE BASIN		Region DELAWARE BASIN WEST		Field Name LOS MEDANOS				County EDDY		State/Province NM			
Surface Legal Location Sec 24 22S 30E		API/UWI 3001542552		Latitude (°) 32° 22' 21.895" N		Longitude (°) 103° 49' 34.145" W		Orig KB Elevation (ft) 3,432.50		Ground Elev MSL (ft) 3,408.90		KB - GL (ft) 23.60	
Survey Data													
Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	DLS (°/100ft)	Survey Tool	Survey Company			
2/11/2015	11,862.00	89.40	269.90	9,867.67	2,189.42	-151.40	-2,184.83	1.16	MWD	LEAM DRILLING SYSTEMS			
2/11/2015	11,958.00	90.00	269.40	9,868.17	2,285.35	-151.99	-2,280.82	0.81	MWD	LEAM DRILLING SYSTEMS			
2/11/2015	12,053.00	91.70	269.20	9,866.76	2,380.28	-153.15	-2,375.80	1.80	MWD	LEAM DRILLING SYSTEMS			
2/11/2015	12,149.00	93.30	269.00	9,862.57	2,476.15	-154.65	-2,471.70	1.68	MWD	LEAM DRILLING SYSTEMS			
2/11/2015	12,244.00	92.90	268.50	9,857.44	2,570.98	-156.72	-2,566.53	0.67	MWD	LEAM DRILLING SYSTEMS			
2/11/2015	12,340.00	93.50	268.00	9,852.08	2,666.82	-159.65	-2,662.34	0.81	MWD	LEAM DRILLING SYSTEMS			
2/11/2015	12,435.00	92.70	268.10	9,846.94	2,761.68	-162.88	-2,757.14	0.85	MWD	LEAM DRILLING SYSTEMS			
2/11/2015	12,529.00	90.80	267.30	9,844.07	2,855.63	-166.65	-2,851.02	2.19	MWD	LEAM DRILLING SYSTEMS			
2/11/2015	12,624.00	90.70	267.40	9,842.83	2,950.62	-171.04	-2,945.91	0.15	MWD	LEAM DRILLING SYSTEMS			
2/11/2015	12,719.00	90.00	267.60	9,842.24	3,045.61	-175.18	-3,040.82	0.77	MWD	LEAM DRILLING SYSTEMS			
2/11/2015	12,813.00	90.30	268.00	9,842.00	3,139.61	-178.79	-3,134.75	0.53	MWD	LEAM DRILLING SYSTEMS			
2/11/2015	12,907.00	90.30	268.00	9,841.51	3,233.61	-182.07	-3,228.69	0.00	MWD	LEAM DRILLING SYSTEMS			
2/11/2015	13,002.00	90.80	268.50	9,840.59	3,328.59	-184.97	-3,323.64	0.74	MWD	LEAM DRILLING SYSTEMS			
2/11/2015	13,097.00	91.30	268.80	9,838.85	3,423.55	-187.21	-3,418.60	0.61	MWD	LEAM DRILLING SYSTEMS			
2/11/2015	13,191.00	91.60	269.00	9,836.47	3,517.49	-189.02	-3,512.55	0.38	MWD	LEAM DRILLING SYSTEMS			
2/11/2015	13,285.00	92.00	269.20	9,833.52	3,611.41	-190.49	-3,606.49	0.48	MWD	LEAM DRILLING SYSTEMS			
2/11/2015	13,380.00	92.30	269.40	9,829.96	3,706.29	-191.65	-3,701.42	0.38	MWD	LEAM DRILLING SYSTEMS			
2/11/2015	13,474.00	93.10	269.70	9,825.53	3,800.12	-192.39	-3,795.31	0.91	MWD	LEAM DRILLING SYSTEMS			
2/11/2015	13,568.00	92.70	269.00	9,820.77	3,893.94	-193.45	-3,889.18	0.86	MWD	LEAM DRILLING SYSTEMS			
2/11/2015	13,663.00	92.30	268.10	9,816.63	3,988.84	-195.86	-3,984.06	1.04	MWD	LEAM DRILLING SYSTEMS			
2/11/2015	13,757.00	92.80	268.50	9,812.45	4,082.73	-198.64	-4,077.93	0.68	MWD	LEAM DRILLING SYSTEMS			
2/11/2015	13,851.00	93.40	268.70	9,807.37	4,176.57	-200.93	-4,171.76	0.67	MWD	LEAM DRILLING SYSTEMS			
2/11/2015	13,945.00	93.80	268.70	9,801.46	4,270.36	-203.06	-4,265.55	0.43	MWD	LEAM DRILLING SYSTEMS			
2/11/2015	14,040.00	92.90	268.30	9,795.91	4,365.18	-205.55	-4,360.35	1.04	MWD	LEAM DRILLING SYSTEMS			
2/11/2015	14,134.00	91.90	268.70	9,791.98	4,459.08	-208.00	-4,454.24	1.15	MWD	LEAM DRILLING SYSTEMS			
2/11/2015	14,229.00	92.90	268.50	9,788.00	4,553.98	-210.32	-4,549.12	1.07	MWD	LEAM DRILLING SYSTEMS			
2/27/2015	14,379.00	95.90	267.80	9,776.49	4,703.51	-215.15	-4,698.59	2.05	MWD	LEAM DRILLING SYSTEMS			
2/27/2015	14,474.00	90.90	267.80	9,770.86	4,798.31	-218.79	-4,793.32	5.26	MWD	LEAM DRILLING SYSTEMS			
2/27/2015	14,571.00	90.20	268.10	9,769.93	4,895.30	-222.26	-4,890.25	0.79	MWD	LEAM DRILLING SYSTEMS			
2/27/2015	14,667.00	90.10	268.50	9,769.68	4,991.29	-225.11	-4,986.21	0.43	MWD	LEAM DRILLING SYSTEMS			
2/27/2015	14,762.00	90.10	268.70	9,769.51	5,086.27	-227.43	-5,081.18	0.21	MWD	LEAM DRILLING SYSTEMS			
2/27/2015	14,857.00	89.90	269.00	9,769.51	5,181.24	-229.33	-5,176.16	0.38	MWD	LEAM DRILLING SYSTEMS			
2/27/2015	14,952.00	90.00	269.00	9,769.59	5,276.20	-230.99	-5,271.15	0.11	MWD	LEAM DRILLING SYSTEMS			
2/27/2015	15,047.00	90.50	269.20	9,769.18	5,371.16	-232.48	-5,366.13	0.57	MWD	LEAM DRILLING SYSTEMS			
2/27/2015	15,142.00	90.30	268.10	9,768.52	5,466.14	-234.72	-5,461.10	1.18	MWD	LEAM DRILLING SYSTEMS			
3/2/2015	15,236.00	89.10	267.30	9,769.01	5,560.13	-238.49	-5,555.02	1.53	MWD	LEAM DRILLING SYSTEMS			
3/2/2015	15,331.00	89.30	267.10	9,770.33	5,655.12	-243.13	-5,649.90	0.30	MWD	LEAM DRILLING SYSTEMS			
3/3/2015	15,425.00	89.80	267.10	9,771.07	5,749.12	-247.89	-5,743.78	0.53	MWD	LEAM DRILLING SYSTEMS			
3/3/2015	15,520.00	88.20	268.10	9,772.73	5,844.10	-251.87	-5,838.68	1.99	MWD	LEAM DRILLING SYSTEMS			
3/3/2015	15,615.00	86.40	268.70	9,777.20	5,938.97	-254.52	-5,933.53	2.00	MWD	LEAM DRILLING SYSTEMS			
3/3/2015	15,709.00	87.40	268.70	9,782.29	6,032.81	-256.65	-6,027.37	1.06	MWD	LEAM DRILLING SYSTEMS			
3/3/2015	15,803.00	87.80	268.00	9,786.22	6,126.72	-259.35	-6,121.24	0.86	MWD	LEAM DRILLING SYSTEMS			
3/3/2015	15,895.00	89.30	267.10	9,788.55	6,218.68	-263.28	-6,213.13	1.90	MWD	LEAM DRILLING SYSTEMS			
3/3/2015	15,989.00	89.80	266.70	9,789.29	6,312.68	-268.37	-6,306.99	0.68	MWD	LEAM DRILLING SYSTEMS			
3/3/2015	16,084.00	89.30	266.50	9,790.04	6,407.66	-274.00	-6,401.82	0.57	MWD	LEAM DRILLING SYSTEMS			
3/4/2015	16,176.00	89.30	266.50	9,791.16	6,499.64	-279.62	-6,493.64	0.00	MWD	LEAM DRILLING SYSTEMS			
3/4/2015	16,273.00	89.10	266.20	9,792.52	6,596.62	-285.79	-6,590.43	0.37	MWD	LEAM DRILLING SYSTEMS			
3/4/2015	16,367.00	89.20	266.40	9,793.91	6,690.59	-291.86	-6,684.22	0.24	MWD	LEAM DRILLING SYSTEMS			
3/4/2015	16,462.00	89.40	266.00	9,795.07	6,785.56	-298.15	-6,779.01	0.47	MWD	LEAM DRILLING SYSTEMS			
3/4/2015	16,556.00	89.50	266.00	9,795.97	6,879.53	-304.71	-6,872.77	0.11	MWD	LEAM DRILLING SYSTEMS			
3/4/2015	16,650.00	89.50	266.00	9,796.79	6,973.49	-311.26	-6,966.54	0.00	MWD	LEAM DRILLING SYSTEMS			
3/4/2015	16,745.00	89.90	265.80	9,797.29	7,068.46	-318.06	-7,061.30	0.47	MWD	LEAM DRILLING SYSTEMS			
3/4/2015	16,805.00	89.80	266.00	9,797.45	7,128.44	-322.35	-7,121.14	0.37	MWD	LEAM DRILLING SYSTEMS			
3/4/2015	16,994.00	89.80	266.00	9,798.11	7,317.38	-335.53	-7,309.68	0.00	BIT	LEAM DRILLING SYSTEMS			

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Report Printed: 7/28/2015