Form 3160-5
(November 1994)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
MAY 01 2014
Farmington Field Office
Bureau of Land Management

FORM APPROVED
OMB No. 1004-0135
Expires July 31, 1996

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or reenter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE – Other instructions on reverse side

5. Lease Serial No.
Jicarilla Contract #9

6. If Indian, Allottee or Tribe Name
Jicarilla Apache Nation

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

1.
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
Jicarilla Apache A-21

2. Name of Operator
ELM RIDGE EXPLORATION CO LLC

9. API Well No.
30-039-31127

3a. Address
PO BOX 156 BLOOMFIELD NM 87413

3b. Phone No. *(include area code)*
505-632-3476 EXT 201

10. Field and Pool, or Exploratory Area
Lindr. Gal-Dak.W

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
1610' FNL X 899' FEL

"H" Sec.35-T25N-R05W

11. County or Parish, State
Rio Arriba, 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
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operations (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/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.)

Elm Ridge Exploration Co LLC did an acid job on this well. The job summary is attached.

OIL CONS. DIV DIST. 3
MAY 05 2014

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

Name *(Printed/Typed)* Amy Mackey — Title Sr. Regulatory Supervisor

Signature — Date May 1, 2014

THIS SPACE FOR FEDERAL OR STATE USE

Approved by — Title — Date

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

Title 18 U.S.C. Section 1001, makes 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.

(Instructions on reverse)

NMOCD

ACCEPTED FOR RECORD
MAY 02 2014
FARMINGTON FIELD OFFICE
BY:

ELM RIDGE EXPLORATION CO LLC - EBUS
DO NOT MAIL - 12225 GREENVILLE AVE
DALLAS, TX 75243

Jicarilla Apache A 21

High Rate Acid Job
Rio Arriba County, New Mexico

Sales Order: 901310970

Post Job Report

For: Monty Striegel
Date: Wednesday, April 30, 2014

HALLIBURTON

Table of Contents

1.0 EXECUTIVE SUMMARY

Monty Striegel
ELM RIDGE EXPLORATION CO LLC - EBUS
DO NOT MAIL - 12225 GREENVILLE AVE
DALLAS , TX 75243

Dear Monty Striegel,

Halliburton appreciates the opportunity to perform the stimulation treatment on the Jicarilla Apache A 21. A pre-job safety meeting was held where details of the job were discussed, potential safety hazards were reviewed, and environmental compliance procedures were outlined. Pump time was 13.55 min.

The proposed treatment for Elm Ridge Jicarilla Apache #21 consisted of:

- 6720 gal of 2% KCL Water.
- 6500 gal of 7.5%_MCA Acid.

The treatment actually pumped consisted of:

- 7346 gal of 2% KCL Water.
- 6652 gal of 7.5%_MCA Acid.

The average BH treating rate was 11.4 bpm and average WH pressure was 837 psi.
The total liquid load to recover is 13998 gal.

Halliburton is strongly committed to quality control on location. Before and after each job all chemicals, proppants, and fluid volumes are measured to assure the highest level of quality control. Tank fluid analysis, crosslink time, and break tests are performed before each job in order to optimize the performance of the treatment fluids.

Halliburton maintains a continuous quality improvement process and appreciates any comments or suggestions that you may have. Halliburton again thanks you for the opportunity to perform service work on this well. We hope to be your solutions provider for future projects.

Respectfully,

Robert Smith

2.0 WELL INFORMATION

2.1 Customer Information

Customer	ELM RIDGE EXPLORATION CO LLC - EBUS
Sales Order	901310970
Well Name	Jicarilla Apache
Rig Type	Land - Workover Rig
Interval	1
Well Number	A 21
Job Date	30-Apr-2014
County	Rio Arriba
State	New Mexico
UWI/API	30-039-31127-00
Lease Name	Jicarilla Apache
Latitude	0° 0' 0.0" N (0.000000°)
Longitude	0° 0' 0.0" E (0.000000°)
Country	United States of America
H2S Present	Unknown
Customer Representative	Monty Striegel
Halliburton Representative	Robert Smith

2.2 Perforation Intervals

Top MD ft	Bottom MD ft	Number of Shots	Perf Density spf	Perf Phasing °	Perf Diameter in
6355.0	6359.0	4	0.8	120	0.100
6382.0	6397.0	15	0.9	120	0.100
6489.0	6495.0	6	0.8	120	0.100
6505.0	6515.0	10	0.9	120	0.100
6530.0	6536.0	6	0.8	120	0.100
6542.0	6544.0	2	0.5	120	0.100

2.3 Initial Fluid Position Pressures

Expected Bottom Hole Pressure	3000	psi
Reservoir Pressure	2860	psi
Reservoir Pressure Gradient	0.437	psi/ft
Closed-In WHP	0	psi
Fluid Free to Flow into Formation	Yes	
Surface Lines Full	No	
Fluid in Tubing	Brine	
Top of Fluid Depth	0.00	ft

2.4 Temperature Profile Information

Ambient Temperature	60.0	°F
Injected Fluid	60.0	°F
Proppant	60.0	°F

Earth Surface	60.0	°F
BH Static	163.0	°F
Gradient	1.3563	°F/(100*ft)

3.0 PUMPING SCHEDULE

3.1 Designed Pumping Schedule

Stage Number	Description	Flow Path	Fluid System	Clean Volume gal	Slurry Volume gal	Rate Stage Start bpm	Rate Stage End bpm
1	Pump-In	In	2% KCL Water	336	336	50.0	50.0
2	Acid Breakdown	In	7.5%_MCA Acid	6500	6500	50.0	50.0
3	Flush	In	2% KCL Water	6384	6384	50.0	50.0
4	Shut-In	In		0	0	0.0	0.0
Total				13220	13220		

3.2 Designed Pumping Schedule (continued)

Stage Number	Description	Stage Time min
1	Pump-In	0.16
2	Acid Breakdown	3.10
3	Flush	3.04
4	Shut-In	0.00
Total		6.30

4.0 ACTUAL STAGE SUMMARY

4.1 Stage Summary

Stage Number	Stage Time	Start Time	End Time	Time min	Pump Time min	Max Treat Pr psi	Max Slurry Rate bpm
1	30-Apr-14 10:13:45	10:12:34	30-Apr-14 10:13:45	1.20	1.05	33	16.9
2	30-Apr-14 10:22:04	10:13:46	30-Apr-14 10:22:04	8.32	8.32	1817	21.6
3	30-Apr-14 10:43:04	10:22:05	30-Apr-14 10:43:04	20.99	4.18	3133	54.7

Stage Number	Stage Time	Max Wellhead Rate bpm	Avg Treating Pressure psi	Avg Clean Rate bpm	Avg Slurry Rate bpm	Avg Wellhead Rate bpm	Avg Hydraulic Horsepower hp
1	30-Apr-14 10:13:45	16.9	20	13.6	13.6	13.6	7
2	30-Apr-14 10:22:04	21.6	260	19.0	19.0	19.0	121
3	30-Apr-14 10:43:04	54.7	2188	38.0	38.0	38.0	2039

Stage Number	Stage Time	Clean Volume gal	Slurry Volume gal	Wellhead Volume gal
1	30-Apr-14 10:13:45	663	663	601
2	30-Apr-14 10:22:04	6652	6652	6652
3	30-Apr-14 10:43:04	6683	6683	6683
Total		13998	13998	13936

5.0 PERFORMANCE HIGHLIGHTS

5.1 Job Summary

Start Time	30-Apr-14 09:42:26	
End Time	30-Apr-14 10:43:04	
Pump Time	13.55	min
Start Averaging Time	30-Apr-14 10:12:35	
End Averaging Time	30-Apr-14 10:43:04	
Max Treating Pressure	3133	psi
Max Slurry Rate	54.7	bpm
Max Wellhead Rate	54.7	bpm
Max Gel Rate	54.7	bpm
Max Acid Rate	21.6	bpm
Avg Treating Pressure	837	psi
Avg Clean Rate	24.5	bpm
Avg Slurry Rate	24.5	bpm
Avg Wellhead Rate	24.5	bpm
Avg Gel Rate	12.8	bpm
Avg Acid Rate	11.7	bpm
Avg Hydraulic Horsepower	502	hp
Clean Volume	13998	gal
Slurry Volume	13998	gal
Wellhead Volume	13936	gal
Gel Volume	7346	gal
Acid Volume	6652	gal
BH Max Treating Pressure	4528	psi
BH Avg Treating Pressure	3453	psi
BH Max Rate	54.8	bpm
BH Avg Rate	11.4	bpm
Load to Recover	13998	gal
Volumes Pumped	**Total**	**Units**
2% KCL Water	7346	gal
7.5% MCA Acid	6652	gal

Disclaimer: The average and maximum values (except volumes and bottom hole values) are based on the start and end averaging times.

5.2 Job Stage Log

Time	Description	Comment	Treating Pressure psi	Clean Rate bpm	Job Clean Vol gal
30-Apr-14 10:12:34	Stage 1	Pump-In	1	6.7	8
10:13:46	Stage 2	Acid Breakdown	29	14.4	663
10:22:04	Stage 3	Flush	1187	13.8	7315

5.3 Job Event Log

Stage Number	Event Number	Time	Description	Comment	Treating Pressure psi	Clean Rate bpm	Job Clean Vol gal
	1	30-Apr-14 09:42:26	Start Job	Starting Job	2	0.0	0
	2	09:49:16	Prime Pumps		204	3.3	388
	3	09:53:25	Pressure Test		5923	0.0	418
	4	09:55:09	Other	bleed off psi	5653	0.0	418
	5	10:10:23	Other	opened to well	1	0.0	0
1		10:12:34	Stage 1	Pump-In	1	6.7	8
		10:12:35	Start Averaging	Start Avg Trt 1	1	11.6	8
2		10:13:46	Stage 2	Acid Breakdown	29	14.4	663
	6	10:14:48	Other	rate and psi	88	21.2	1563
	7	10:20:10	Other	slow rate	68	17.9	6321
	8	10:21:06	Other	psi	1795	11.4	6831
	9	10:21:11	Break Formation		1813	11.4	6879
3		10:22:04	Stage 3	Flush	1187	13.8	7315

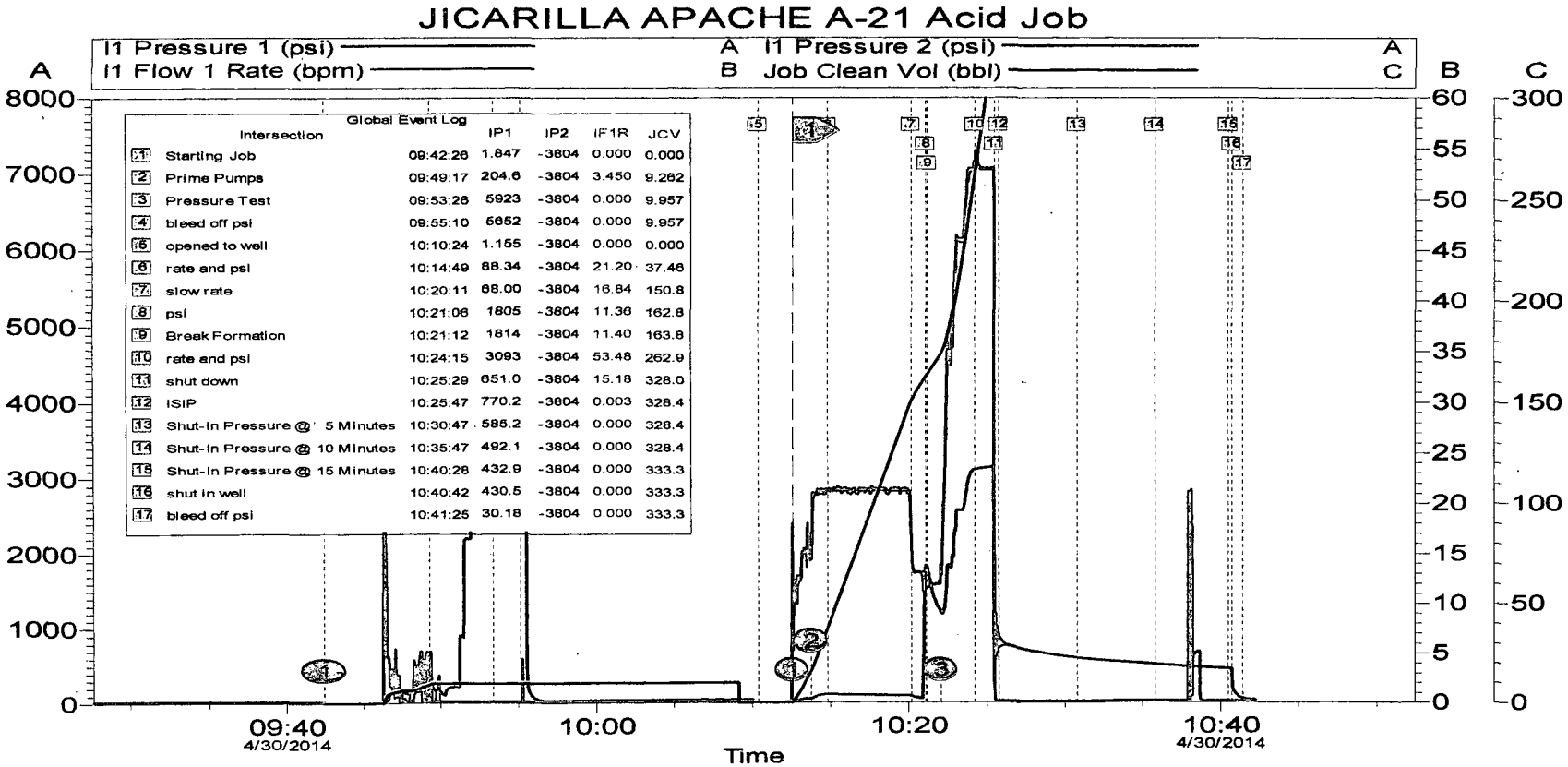
Stage Number	Event Number	Time	Description	Comment	Treating Pressure psi	Clean Rate bpm	Job Clean Vol gal
	10	10:24:14	Other	rate and psi	3092	53.5	11031
	11	10:25:29	Other	shut down	1250	41.6	13772
	12	10:25:46	ISIP		793	0.0	13793
	13	10:30:47	Shut-In Pressure @ 5 Minutes		585	0.0	13793
	14	10:35:46	Shut-In Pressure @ 10 Minutes		492	0.0	13793
	15	10:40:28	Shut-In Pressure @ 15 Minutes		433	0.0	13998
	16	10:40:42	Other	shut in well	431	0.0	13998
	17	10:41:24	Other	bleed off psi	30	0.0	13998
		10:43:04	End Averaging	End Avg Trt 1	6	0.0	13998
	18	10:43:17	End Job	Ending Job	6	0.0	13998

5.4 ISIP

Time	Description	Treating Pressure psi
10:25:46	ISIP	793
10:30:47	Shut-In Pressure @ 5 Minutes	585
10:35:46	Shut-In Pressure @ 10 Minutes	492
10:40:28	Shut-In Pressure @ 15 Minutes	433

6.0 ATTACHMENTS

6.1 JICARILLA APACHE A-21 Acid Job whole job

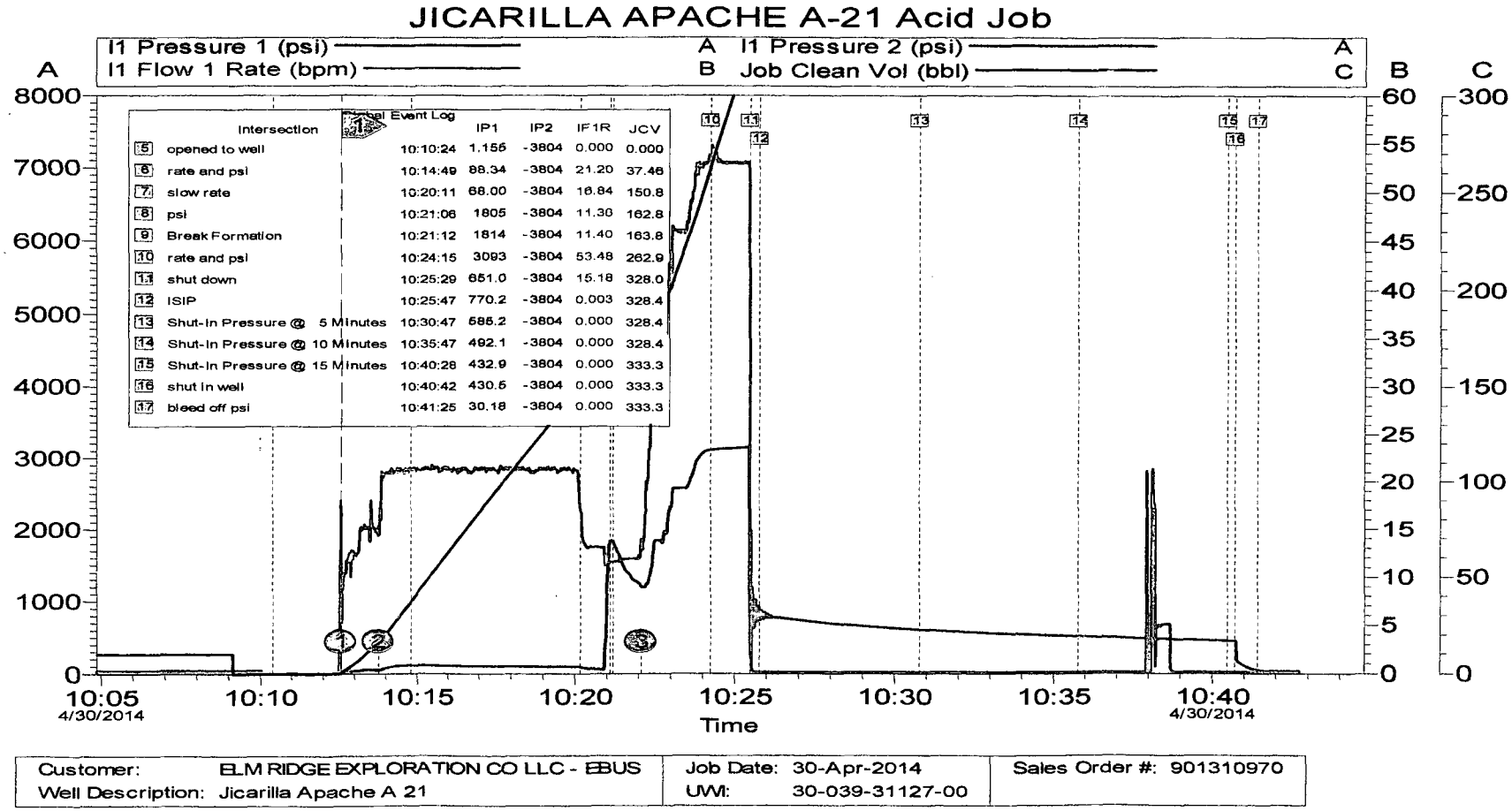


Global Event Log

Intersection		IP1	IP2	IF1R	JCV
1	Starting Job	09:42:26	1.847	-3804	0.000	0.000
2	Prime Pumps	09:49:17	204.6	-3804	3.450	9.262
3	Pressure Test	09:53:26	5923	-3804	0.000	9.957
4	bleed off psi	09:55:10	5652	-3804	0.000	9.957
5	opened to well	10:10:24	1.155	-3804	0.000	0.000
6	rate and psi	10:14:49	88.34	-3804	21.20	37.46
7	slow rate	10:20:11	88.00	-3804	16.84	150.8
8	psi	10:21:06	1805	-3804	11.36	162.8
9	Break Formation	10:21:12	1814	-3804	11.40	163.8
10	rate and psi	10:24:15	3093	-3804	53.48	262.9
11	shut down	10:25:29	651.0	-3804	15.18	328.0
12	ISIP	10:25:47	770.2	-3804	0.003	328.4
13	Shut-In Pressure @ 5 Minutes	10:30:47	586.2	-3804	0.000	328.4
14	Shut-In Pressure @ 10 Minutes	10:35:47	492.1	-3804	0.000	328.4
15	Shut-In Pressure @ 15 Minutes	10:40:28	432.9	-3804	0.000	333.3
16	shut in well	10:40:42	430.5	-3804	0.000	333.3
17	bleed off psi	10:41:25	30.18	-3804	0.000	333.3

Customer: ELM RIDGE EXPLORATION CO LLC - EBUS	Job Date: 30-Apr-2014	Sales Order #: 901310970
Well Description: Jicarilla Apache A 21	UWI: 30-039-31127-00	

6.2 JICARILLA APACHE A-21 Acid Job



Intersection Event Log

Intersection		IP1	IP2	IF1R	JCV
5	opened to well	10:10:24	1.155	-3804	0.000	0.000
6	rate and psi	10:14:49	88.34	-3804	21.20	37.46
7	slow rate	10:20:11	68.00	-3804	16.84	150.8
8	psi	10:21:06	1805	-3804	11.30	162.8
9	Break Formation	10:21:12	1814	-3804	11.40	163.8
10	rate and psi	10:24:15	3093	-3804	53.48	262.9
11	shut down	10:25:29	651.0	-3804	15.18	328.0
12	ISIP	10:25:47	770.2	-3804	0.003	328.4
13	Shut-In Pressure @ 5 Minutes	10:30:47	585.2	-3804	0.000	328.4
14	Shut-In Pressure @ 10 Minutes	10:35:47	492.1	-3804	0.000	328.4
15	Shut-In Pressure @ 15 Minutes	10:40:28	432.9	-3804	0.000	333.3
16	shut in well	10:40:42	430.5	-3804	0.000	333.3
17	bleed off psi	10:41:25	30.18	-3804	0.000	333.3

Customer: ELM RIDGE EXPLORATION CO LLC - EBUS	Job Date: 30-Apr-2014	Sales Order #: 901310970
Well Description: Jicarilla Apache A 21	UWI: 30-039-31127-00	