

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0135
Expires: November 30, 2000

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.

5. Lease Serial No.
NMSF078089

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.
SCOTT FEDERAL 27-11 36 #1

9. API Well No.
30-045-30965-00-S1

10. Field and Pool, or Exploratory
WEST KUTZ

11. County or Parish, and State
SAN JUAN COUNTY, NM

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator
MARKWEST RESOURCES INC

Contact: CINDY BUSH
E-Mail: cbush@markwest.com

3a. Address
155 INVERNESS DRIVE WEST
ENGLEWOOD, CO 80111

3b. Phone No. (include area code)
Ph: 303.925.9283
Fx: 303.290.9309

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Sec 36 T27N R11W NWNW 870FNL 665FWL

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input checked="" type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> 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/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.)

FRTC RECOMPLETION & COMMINGLE W/PC

Comply to all NMOCD, BLM and MarkWest Resources rules and regulations. MOL & RU, set pump, pit, 2 frac tanks & equipment. All water to be 2% KCL water. If necessary, kill well with water. ND WH, NU BOP. TOH w/2-3/8" tbg. TIH w/3-7/8" bit & 4-1/2" csg scraper on 2-3/8" tbg to 2060'. TOH. Using wireline, set 4-1/2" CIBP @2048'. TIH w/2-3/8" tbg & tag BP @2048'. Spot 100 gals 15% HCL across lower FRTC pers (2030'-41') Use acid additives from step #8. TOH. Install WSI wellhead isol. tool & press. test cst to 3800 psi. Fill 2-400 bbls frac tanks with 2% KCL water. If necessary, filter all water to 25 microns. One tank is for gel and one tank for breakdown water. Usable gel water required for frac is 318 bbls. Perf Basal FRTC @2030-41'. Perf w/4-0.45" spf w/15 gr jets in 3-1/8" HSC guns which give a penetration of 11.19" in concrete. Total 44-0.45" holes. Breakdown through isolation tool (and attempt to balloff to 3800 psi) FRTC perfs down 4-1/2" csg w/1000 gal. 15% HCL acid and 100-7/8" 1.3 sp gr RCN perf balls. Max. pressure is 3800 psi. Run

NU DHC order 12-27-02

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

Electronic Submission #16373 verified by the BLM Well Information System
For MARKWEST RESOURCES INC, sent to the Farmington
Committed to AFMS for processing by Matthew Halbert on 12/12/2002 (03MXH0270SE)

Name (Printed/Typed) CINDY BUSH

Title AUTHORIZED REPRESENTATIVE

Signature (Electronic Submission)

Date 11/22/2002

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By /s/ Jim Lovato

Title

DEC 17 2002

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 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.

**** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ****

NMOCD

Additional data for EC transaction #16373 that would not fit on the form

32. Additional remarks, continued

junk basket on wireline to recover balls. Acid additives per 1000 gal: 2 gal CIA-5, Corrosion inhibitor. 5 gal I-1L, Iron Control. 1 gal PROSURF-2 Surfactant. Install wellhead isolation tool & prepare to frac. Frac Basal FRTC down 4-1/2" csg w/40,000 gal of 70 quality foam using 25# gel as the base fluid and 75,000# 20/40 Brady sand. Pump at 20 BPM. Monitor bottom hole and surface treating pressures, rate, foam, quality, and sand concentration with computer van. Sand to be tagged w/3 RA tracers. Max. pressure is 3800 psi and estimated treating pressure is 2020 psi.

Treat per the following schedule:

Stage	Foam Vol. (Gals)	Gel Vol.(Gals)	Sand Vol. (lbs)
Pad	10,000	3,000	---
1.0 ppg	5,000	1,500	5,000
2.0 ppg	10,000	3,000	20,000
3.0 ppg	10,000	3,000	30,000
4.0 ppg	5,000	1,500	20,000
Flush	0	1,360	0
Totals	40,000	12,000	75,000

Treat frac fluid w/the following additives per 1000 gal. Mix all on fly.

6.25 gal WGA-1A (25# Guar Gel)
1.0 gal PROSURF-1 (Non-ionic Surfactant)
0.5 gal PROSURF-2 (Fluid Recovery Surfactant)
0.5 gal B-3L (Enzyme Breaker)
0.5 gal B-4 (Oxidizer Breaker)

Shut in well for 4 hours for gel to break. Open well through choke manifold and monitor flow. Flow @20 bbl/hr or less, if sand is observed. TIH w/3-7/8" bit on 2-3/8" tbg & CO upper frac w/air/mist to BP @2010'. When wellbore is sufficiently clean, drill BP @2010'. Co lower FRTC frac w/air/mist to BP @2048'. When wellbore is sufficiently clean, drill BP @ 2048' & CO PC to PBTD 2150'. When wellbore is sufficiently clean, TOH and run after frac GR log (2150-1600'). Rabbit in hole w/2-3/8" 4.7# J-55 EUE tbg w/standard seating nipple one joint off bottom and again cleanout to PBTD 2150'. When wellbore is sufficiently clean, land tbg @2050'. If necessary, place pump-out plug in SN. NDBOP & NUWH. If necessary pump out plug & blow well around. Complete as a commingled FRTC/PC well.

1301 W. Grand Avenue, Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 87505

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-30965		² Pool Code	³ Pool Name BASIN FRUITLAND COAL
⁴ Property Code 002159	⁵ Property Name SCOTT FEDERAL 27-11-36		⁶ Well Number 27-11-36
⁷ OGRID No. 193195	⁸ Operator Name MARK WEST RESOURCES, INC.		⁹ Elevation 6494'

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
D	36	27N	11W		870'	north	665'	WEST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

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

¹² Dedicated Acres 320 Standup	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<div style="border: 1px solid black; width: 50px; height: 50px; margin: 5px; display: flex; align-items: center; justify-content: center;">870'</div> <div style="border: 1px solid black; width: 50px; height: 50px; margin: 5px; display: flex; align-items: center; justify-content: center;">665'</div>	LAT. 36° 32' 12"N LONG. 107° 57' 43"W	<h3>¹⁷ OPERATOR CERTIFICATION</h3> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Cindy Bush</i></p> <p>Signature</p> <p>CINDY BUSH</p> <p>Printed Name</p> <p>PROD. REG. & ENVIRON. COORDINATOR</p> <p>Title</p> <p>DECEMBER 13, 2002</p> <p>Date</p>	
		<h3>¹⁸ SURVEYOR CERTIFICATION</h3> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor:</p> <p>Certificate Number</p>	

MARKWEST RESOURCES INC.
SCOTT FED. 27-11-36-1 PC
D Sec. 36 – T27N – R11W, San Juan County, NM
870' FNL & 665' FWL

FRTC RECOMPLETION & COMMINGLE W/PC
Pertinent Data Sheet

Field: Kutz PC West **Elevation:** 6494' GL **ID:** 2193'
Spud Date: 3/30/02 **RIG:** Ludwick #1 5' KB **PBTD:** 2150'
Completion Date: 5/14/02

CASING PROGRAM:

<u>Hole Size</u>	<u>Csg Size</u>	<u>Wt. & Grade</u>	<u>Depth Set</u>	<u>Cement</u>	<u>TOC</u>
8-3/4"	7"	20# K-55	178'	75 sx	Circ. 6 bbls Cmt
6-1/4"	4-1/2"	10.5# K-55	2193'	448 cf	Circ. 19 bbls Cmt

Tubing Record:

2-3/8"	4.7# J-55	2048'	63 Jts
	1.78" "F" nipple @	2013'	

Formation Tops:

Ojo Alamo	1011'
Kirtland	1114'
Fruitland	1730'
Pictured Cliffs	2052'

Logging Record: Induction & Neutron/Density

Stimulation: Perf PC @ 2052', 54, 55', 56', 58', 59', 60', 61', 62', 64', 68', 69', 70', 71', 72', 73', 84', 85', 87', 90' w/1 0.29" spf. Total 20 holes. Fraced w/110,080# sand in 70Q foam w/25# gel as base fluid. Ave. 61 BPM @ 2308 psi.

Workover History: NONE

Production History: ISICP = 57psi @ 2014', 1st delivery – 6/7/02. PC capacity = 70 MCF/D.

FRTC RECOMPLETION & COMMINGLE W/PC
PROCEDURE

GENERAL

- * Prior to rig-up and commencement of operations, review the attached general wellsite stipulations.
- * All information concerning the workover operations of this well shall remain **confidential** and shall not be released without the written consent of MarkWest Resources.

MARKWEST RESOURCES INC.
SCOTT FED. 27-11 #36-1 PC
D Sec. 36 – T27N – R11W, San Juan County, NM
870' FNL & 665' FWL

1. Comply to all NMOCD, BLM, and Mark West Resources rules and regulations. MOL & RU, set pump, pit, 2 frac tanks & equipment. All water to be 2% KCL water.
2. If necessary, kill well with water. ND WH, NU BOP. TOH w/ 2-3/8" tbg.
3. TIH w/3-7/8" bit & 4-1/2" csg scraper on 2-3/8" tbg to 2060'. TOH.
4. Using wireline, set 4-1/2" CIBP @ 2048'.
5. TIH w/2-3/8" tbg & tag BP @ 2048'. Spot 100 gal 15% HCL across lower FRTC perms (2030'-41'). Use acid additives from step #8. TOH. Install WSI wellhead isol. tool & press. test csg to 3800 psi.
6. Fill 2-400 bbl frac tanks with 2% KCL water. If necessary, filter all water to 25 microns. One tank is for gel and one tank for breakdown water. Usable gel water required for frac is 318 bbls.
7. Perf Basal FRTC @ 2030'-41'. Perf w/4-0.45" spf w/15 gr jets in 3-1/8" HSC guns which give a penetration of 11.19" in concrete. Total 44-0.45" holes.
8. Breakdown through isolation tool (and attempt to balloff to 3800 psi) FRTC perms down 4-1/2" csg w/1000 gal. 15% HCL acid and 100-7/8" 1.3 sp gr RCN perf balls. Max. pressure is 3800 psi. Run junk basket on wireline to recover balls. Acid additives per 1000 gal:

2 gal CIA-5	Corrosion inhibitor
5 gal I-1L	Iron Control
1 gal PROSURF-2	Surfactant
9. Install wellhead isolation tool & prepare to frac. Frac Basal FRTC down 4-1/2" csg w/40,000 gal of 70 quality foam using 25# gel as the base fluid and 75,000# 20/40 Brady sand. Pump at 20 BPM. Monitor bottom hole and surface treating pressures, rate, foam quality, and sand concentration with computer van. Sand to be tagged w/3 RA tracers. Max. pressure is 3800 psi and estimated treating pressure is 2020 psi. Treat per the following schedule:

<u>Stage</u>	<u>Foam Vol.</u> <u>(Gals.)</u>	<u>Gel Vol.</u> <u>(Gals.)</u>	<u>Sand Vol.</u> <u>(lbs.)</u>
Pad	10,000	3,000	----
1.0 ppg	5,000	1,500	5,000
2.0 ppg	10,000	3,000	20,000
3.0 ppg	10,000	3,000	30,000
4.0 ppg	5,000	1,500	20,000
<u>Flush</u>	<u>0</u>	<u>1,360</u>	<u>0</u>
Totals	40,000	12,000	75,000

Treat frac fluid w/the following additives per 1000 gal. Mix all on fly.

6.25 gal WGA-1A	(25# Guar Gel)
1.0 gal PROSURF-1	(Non-ionic Surfactant)
0.5 gal PROSURF -2	(Fluid Recovery Surfactant)
0.5 gal B-3L	(Enzyme Breaker)
0.5 gal B-4	(Oxidizer Breaker)

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6.0 gal FA-1 (Foamer)
0.1# BIO-4 (Bacteriacide)

10. Rig down isolation tool & rig up wireline lubricator. Set 4-1/2" plastic BP @ 2010'.
11. Install WSI wellhead isolation tool & pressure test csg & BP to 3800 psi.
12. Fill 2-400 bbl frac tanks with 2% KCL water. If necessary, filter all water to 25 microns. One tank is for gel and one tank for breakdown water. Usable gel water required for frac is 363 bbls.
13. TIH w/2-3/8" tbg & tag BP @ 2010'. CO sand fill, if necessary w/water. Spot 200 gal 15% HCL acid across upper FRTC perfs (1820'-1992').
14. Perf upper FRTC @ 1820'-22', 1865'-69', 1878'-82', 1886'-88', 1906'-10', 1918'-20', 1932'-34', 1968'-70', 1988'-92'. Perf w/2-0.45" spf w/15 gr jets in 3-1/8" HSC guns which give a penetration of 11.19" in concrete. Total 52-0.45" holes.
15. Breakdown through isolation tool (and attempt to balloff to 3800 psi) upper FRTC perfs down 4-1/2" csg w/1000 gal. 15% HCL acid and 100-7/8" 1.3 sp gr RCN perf balls. Max. pressure is 3800 psi. Run junk basket on wireline to recover balls. Acid additives per 1000 gal:

2 gal CIA-5	Corrosion inhibitor
5 gal I-1L	Iron Control
1 gal PROSURF-2	Surfactant
16. Install wellhead isolation tool & prepare to frac. Frac upper FRTC down 4-1/2" csg w/50,000 gal of 70 quality foam using 25# gel as the base fluid and 110,000# 20/40 Brady sand. Pump at 30 BPM. Monitor bottom hole and surface treating pressures, rate, foam quality, and sand concentration with computer van. Sand to be tagged w/3 RA tracers. Max. pressure is 3800 psi and estimated treating pressure is 3000 psi. Treat per the following schedule:

<u>Stage</u>	<u>Foam Vol.</u> <u>(Gals.)</u>	<u>Gel Vol.</u> <u>(Gals.)</u>	<u>Sand Vol.</u> <u>(lbs.)</u>
Pad	10,000	3,000	—
1.0 ppg	5,000	1,500	5,000
2.0 ppg	10,000	3,000	20,000
3.0 ppg	15,000	4,500	45,000
4.0 ppg	10,000	3,000	40,000
Flush	(1,139)	(342)	0
Totals	50,000	15,000	110,000

Treat frac fluid w/the following additives per 1000 gal. Mix all on fly.

6.25 gal WGA-1A	(25# Guar Gel)
1.0 gal PROSURF-1	(Non-ionic Surfactant)
0.5 gal PROSURF -2	(Fluid Recovery Surfactant)
0.5 gal B-3L	(Enzyme Breaker)
0.5 gal B-4	(Oxidizer Breaker)
6.0 gal FA-1	(Foamer)
0.1# BIO-4	(Bacteriacide)

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870' FNL & 665' FWL

17. Shut-in well for 4 hours for gel to break. Open well through choke manifold and monitor flow. Flow @ 20 bbl/hr. or less, if sand is observed.
18. TIH w/3-7/8" bit on 2-3/8" tbg & CO upper frac w/air/mist to BP @ 2010'.
19. When wellbore is sufficiently clean, drill BP @ 2010'.
20. CO lower FRTC frac w/air/mist to BP @ 2048'. When wellbore is sufficiently clean, drill BP @ 2048' & CO PC to PBTD 2150'.
21. When wellbore is sufficiently clean, TOH and run after frac GR log (2150-1600').
22. Rabbit in hole w/2-3/8" 4.7# J-55 EUE tbg w/standard seating nipple one joint off bottom and again cleanout to PBTD 2150'. When wellbore is sufficiently clean, land tbg @ 2050'. If necessary, place pump-out plug in SN.
23. NDBOP & NUWH. If necessary, pump out plug & blow well around. Complete as a commingled FRTC/PC well.

EQUIPMENT & VENDORS LIST

ITEM:	VENDOR	PHONE #
RIG:	A-PLUS WELL SERVICES	505-325-2627
PETR. ENGR.:	MIKE PIPPIN	505-327-4573 505-330-0495
RIG SUPERVISOR:	MIKE CONFER	505-599-7461 505-330-2022
STIMULATION COMPANY:	AMERICAN ENERGY	505-325-4192
CASED WIRELINE:	BASIN	505-327-5244
TRUCKING:	C & J	505-325-7770
FRAC TANKS:	C & J	505-325-7770
WATER	C & J TRUCKING	505-325-7770
AIR PACKAGE	MOBILE AIR SERVICE	505-324-6712
WELLHEAD:	WSI	505-326-0308

Scott Fed. 27-11 #36-1 PC

Current

