

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. NMSF-078089	
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME N/A	
2. NAME OF OPERATOR MarkWest Resources, Inc. (303) 290-8700		7. UNIT AGREEMENT NAME 29140 N/A	
3. ADDRESS AND TELEPHONE NO. 155 Inverness Dr. W, Suite 200, Englewood, Co. 80112		8. FARM OR LEASE NAME WELL NO. Scott Fed. 27-11-23 1	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements) At surface 1645' FNL & 360' FEL At proposed prod. zone Same		9. API WELL NO. 20-045 20892	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 10 air miles SSE of Bloomfield		10. FIELD AND POST OFFICE Basin Dakota	
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any) 1,645'		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA 23-27n-11w NMPM	
16. NO. OF ACRES IN LEASE 2,560		12. COUNTY OR PARISH 13. STATE San Juan NM	
17. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL DRILLING COMPLETED OR APPLIED FOR, ON THIS LEASE, FT. 39'		17. NO. OF ACRES ASSIGNED TO THIS WELL 320	
18. PROPOSED DEPTH 6,470'		20. ROTARY OR CABLE TOOLS Rotary	
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 6,133' ungraded		22. APPROX. DATE WORK WILL START* Dec. 1, 2001	

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	K-55 8-5/8"	24	320 160'	≈ 118 cu. ft. & to surface
7-7/8"	N-80 4-1/2"	11.6	6,470'	≈ 2,046 cu. ft. & to surface

This action is subject to technical and procedural review pursuant to 43 CFR 5133.3 and appeal pursuant to 43 CFR 5133.4.

On sited with Bill Liese. Archaeology consultant: CASA

Only other well in quarter-quarter is a MarkWest well.

Will apply for NSL (due to terrain) from OCD.

RECEIVED
BUREAU OF LAND MANAGEMENT
"GENERAL REG. DIV."
DEC 17 2001

cc: BLM, OCD (via BLM), Pippin, Stowe

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. *[Signature]* Consultant (505) 466-8120 10-28-01
SIGNED TITLE DATE
(This space for Federal or State office use)

PERMIT NO. APPROVAL DATE 12/17/01
Application approval 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.
CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY *[Signature]* TITLE AFM DATE 12/17/01
See Instructions On Reverse Side

MOCC

DISTRICT I
1825 N. French Dr., Hobbs, N.M. 88240

DISTRICT II
811 South First, Artesia, N.M. 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87506

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 15, 2000

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

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-30892		*Pool Code 71599	*Pool Name BASIN DAKOTA
*Property Code 29140	*Property Name SCOTT FEDERAL 27-11-23		*Well Number #29140-1
*OGRD No. 193195	*Operator Name MARKWEST RESOURCES, INC.		*Elevation 6133'

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
H	23	27-N	11-W		1645'	NORTH	360'	EAST	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
*Dedicated Acres 3.20					*Joint or Infill		*Consolidation Code		*Order No. NSL 4671

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

<p>16 CALC'D SEC. CORNER</p> <p>N 00-01 W 20 LINKS</p> <p>WITNESS CORNER FD 2 1/2" BC G.L.O. 1913</p> <p>DEC 2001</p>	S 89-52-00 W	5297.46'	SEC. CORNER FD 2 1/2" BC G.L.O. 1913	<p>1645'</p>	<p>2848.36'</p>	<p>S 00-15-03 W</p>	<p>1003'</p>	<p>360'</p>	<p>964'</p>	<p>321'</p>	
LAT. 36°33.8'N LONG. 107°57.9'W											
23		CALC'D CORNER		S 00-01 E 2.7 CHAINS		WITNESS CORNER FD 2 1/2" BC G.L.O. 1913					

17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Brian Wood

Signature

Printed Name BRIAN WOOD

Title CONSULTANT

Date OCT. 28, 2001

18 SURVEYOR CERTIFICATION

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

7-11-01

Date of Survey

[Signature]

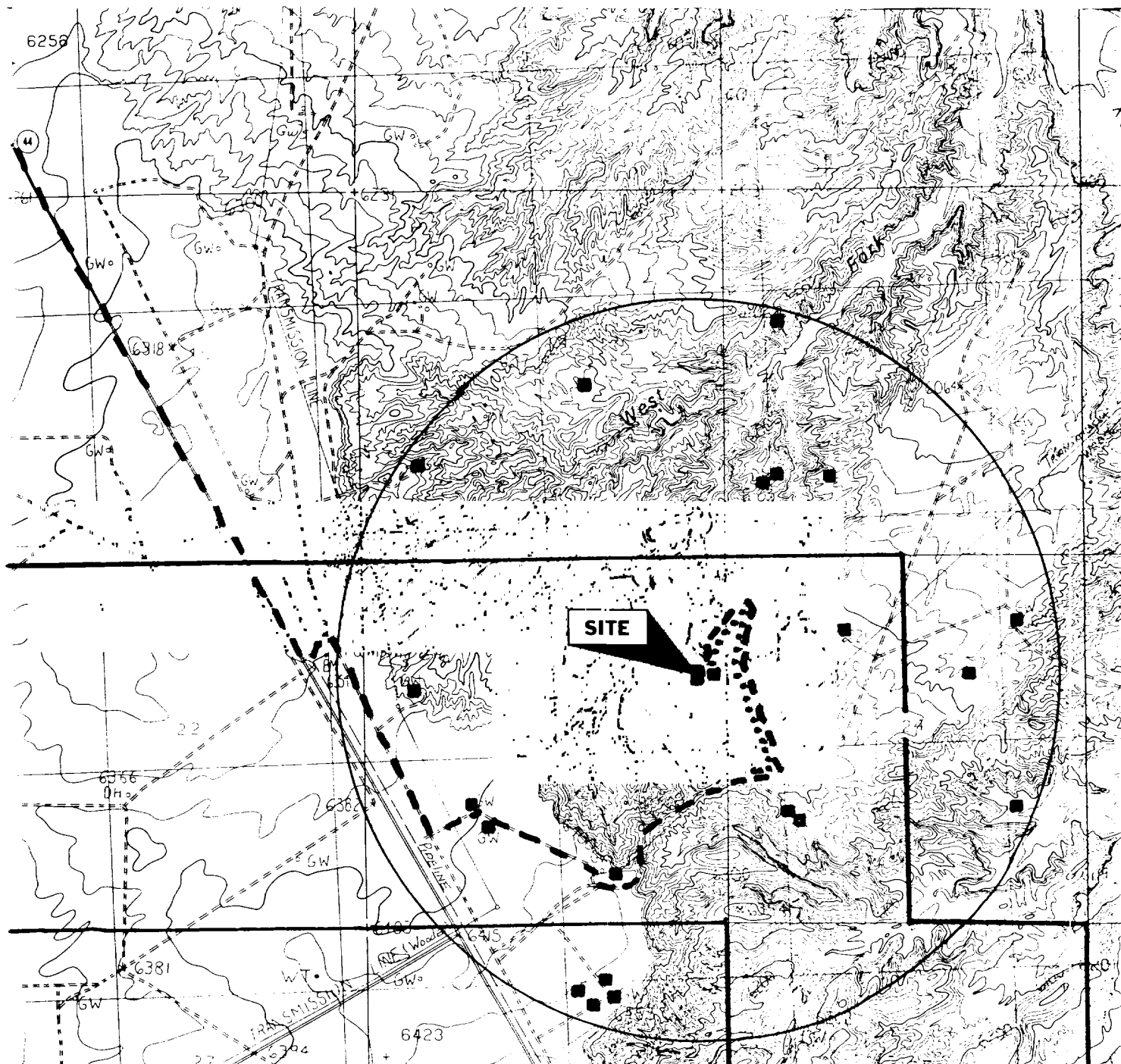
Signature and Seal of Professional Surveyor

ROY A. RUSH
NEW MEXICO
REGISTERED PROFESSIONAL LAND SURVEYOR
8894

Certificate Number

MarkWest Resources, Inc.
 Scott Federal 27-11 23-1
 Surface: 1645' FNL & 360' FEL
 Sec. 23, T. 27 N., R. 11 W.
 San Juan County, New Mexico

PAGE 11



PROPOSED WELL: ■
 EXISTING WELL: ■
 LEASE: └
 PROPOSED GAS LINE: ...
 EXISTING ROAD: - - -

PERMITS WEST INC.
 PROVIDING PERMITS for LAND USERS

3. PRESSURE CONTROL

Maximum expected pressure is $\approx 1,000$ psi. The drilling contract has not yet been awarded, thus the exact BOP model to be used is not yet known. A typical 11" 3,000 psi model is on PAGE 3.

BOP equipment and all accessories will meet or exceed BLM requirements in 43 CFR Part 3160 for a 3,000 psi system. A 3,000 psi double ram hydraulic BOP will be used. Accumulator system capacity will be sufficient to close all BOPE with a 50% safety factor. Fill, kill, and choke manifold lines will be 2". Accessories will include upper and lower Kelly cocks with handles, stabbing valve to fit drill pipe on floor at all times, string float at bit, 3,000 psi choke manifold with 2" adjustable and 2" positive chokes, and pressure gauge. BOPs will be tested every 24 hours. Tests will be recorded on IADC log.

4. CASING & CEMENT

Hole Size	O.D.	Weight (lb/ft)	Grade	Age	Connection	GL Setting Depth
12-1/4"	8-5/8"	24	K-55	New	ST&C	3,200'
7-7/8"	4-1/2"	11.6	N-80	New	ST&C	6,470'

Surface casing will be cemented to the surface with ~~≈ 118~~ ²⁶⁵ cu. ft. (≈ 100 sx) Class B + 1/4 lb/sk cello-flake + 2% CaCl_2 . Yield = ~~1.18~~ cu. ft./sk. Weight = 15.2 lb/gal. Volume = 100% excess. A guide shoe and insert float will be used. WOC = 12 hours. Surface casing will be tested to 1,500 psi for 30 minutes.

Production casing will be cemented to the surface. Volumes are calculated at 28% excess. If cement does not circulate to surface, then a temperature survey will be run to determine the actual cement top as needed. WOC = 12 hours. Test to 2,000 psi.

UNITED STATES
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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.

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

5. Lease Serial No. **NMSF-078089**

6. If Indian, Allottee or Tribe Name **N/A**

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

8. Well Name and No. **SCOTT FED. 27-11 23 1**

9. API Well No. **30-045-**

10. Field and Pool, or Exploratory Area
BASIN DAKOTA

11. County or Parish, State
SAN JUAN, NM

SUBMIT IN TRIPLICATE - Other Instructions on reverse side

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

MARKWEST RESOURCES, INC. 155 INVERNESS DRV. W, #200

3a. Address

ENGLEWOOD, CO. 80112

3b. Phone No. (include area code)

(303) 290-8700

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

1645' FNL & 360' FEL 22-27n-11w

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 checked="" 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 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 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/BLA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat 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.)

Will double surface casing length (from 160' to 320') and double cement volume (from 118 cubic feet to 236 cubic feet).

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

Name (Printed/Typed)

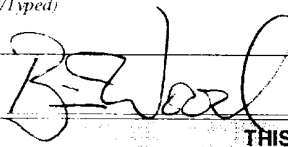
BRIAN WOOD

Title

CONSULTANT

(505) 466-8120

Signature



Date

12-12-01

cc: BLM (&OCD), Pippin, Stowe

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

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.

Title

Date

12/17/01

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.

BLM/OC