

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-101
Revised June 10, 2003

Submit to appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address Reliance Energy, Inc. 6 Desta Drive, Suite 5500 Midland, Texas 79705		² OGRID Number 149441
³ Property Code 26570		³ API Number 30 - 005 - 63587
⁵ Property Name Willow Springs "20" State		⁶ Well No. 2

7 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	20	4S	25E		660	south	660	west	Chaves

8 Proposed Bottom Hole Location If Different

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/Sou
⁹ Proposed Pool 1 Pecos Slope Abo						

Cement to cover all oil, gas and water bearing zones.

¹¹ Work Type Code N	¹² Well Type Code G	¹³ Cable/Rotary R	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3882'
¹⁶ Multiple No	¹⁷ Proposed Depth 5800'	¹⁸ Formation Abo	¹⁹ Contractor	²⁰ Spud Date 8-1-2003

21 Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
14-3/4	11-3/4	42#	900	350	surface
11	8-5/8	24#	1900	350	1200
7-7/8	5-1/2	15.5#	4250	350	3000

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone.

Describe the blowout prevention program, if any. Use additional sheets if necessary.

Approximately 900' surface casing will be set and cemented to shut off gravel and cavings. 11" hole will be air drilled with intermediate casing at approximately 1900'. 7-7/8" hole will be drilled to TD w/ air; production casing will be set and cemented at TD. The Abo will be stimulated as needed.

BOP Program: 1000# BOP installed on 8-5/8" and tested daily; rotating head while air drilling.

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature:

Printed name: Laura Clepper

Title: Regulatory Analyst

E-mail Address: lclepper@reimid.com

Date: 7/2/2003

Phone: 432 683-4816

OIL CONSERVATION DIVISION

Approved by:

Title:

Approval Date:

Expiration Date:

Conditions of Approval:

Attached ☐

NOTIFY OCD SPUD & TIME
TO WITNESS 8 5/8" CASING

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State of New Mexico

Energy, Minerals, and Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, New Mexico 87505

Form C-102

Revised August 15, 2000

Submit to Appropriate District Office

State Lease - 4 copies

Fee Lease - 3 copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number		² Pool Code 82730	³ Pool Name
⁴ Property Code 26570	⁵ Property Name WILLOW SPRINGS "20" STATE		⁶ Well Number 2
⁷ OGRID No. 149441	⁸ Operator Name RELIANCE ENERGY, INC.		⁹ Elevation 3882'

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
M	20	4 SOUTH	25 EAST, N.M.P.M.		660'	SOUTH	660'	WEST	CHAVES

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 320/60	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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NO ALLOWABLE WELL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<div><p>¹⁶</p></div>	<p>¹⁷ OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Laura Clepper</i> Signature</p> <p>Laura Clepper Printed Name</p> <p>Regulatory Analyst Title</p> <p>7-2-2003 Date</p>
	<p>¹⁸ SURVEYOR CERTIFICATION</p> <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>JUNE 23, 2003 Date of Survey</p> <p>Signature and Seal of Professional Surveyor</p> <p><i>V. L. Bezner</i> Signature</p> <p>V. L. BEZNER Certification Number</p> <p>R.P.S. #7920 R.P.S. #</p> <p>JOB #88577 / 200 NE / E.U.O.</p>

**Reliance Energy, Inc.
6 Desta Drive, Suite 5500
Midland, Texas 79705**

July 25, 2003

Bryan Arrant
New Mexico Oil Conservation Division
1301 West Grand Avenue
Artesia, NM 88210

RE: APD Willow Springs 20 State 2
Sec. 20 T4S R25E
Pecos Slope Abo
Chaves County, New Mexico

Dear Bryan:

Based upon our research and present operations in this area, and to the best of my knowledge and belief, we have yet to encounter any H₂S in this field. Following this letter is a gas analysis from our well in Section 19.

Please do not hesitate to call, write or fax me for any further information that may be necessary as follows:

Phone: 432 683-4816
Mailing address in header
Fax 432 682-1250

Thank you.

Sincerely,


Laura Clepper

BENHAM NATURAL GAS SERVICE
PHONE : 915/335-9222 2317 FIELD, UNIT "J"

ODESSA, TX 79761

HYDROCARBON ANALYSIS

LABORATORY REPORT

DATE RECEIVED 01-17-03
DATE OF RUN 01-18-03

A SAMPLE OF GAS

FROM RELIANCE

OPERATOR CODE

STATION NUMBER

LEASE WILLOWSPRINGS 19-1

GAS TO AGAVA

PLANT ROSWELL

SECURED BY FARRIS BENHAM

EFFECTIVE DATE 02-01-03 SECURED DATE 01-15-03

LINE PRESSURE 110.0#

LINE TEMPERATURE 0.0°F

CHROMATOGRAPH ANALYSIS @ 14.65 PSIG & 60 DEG. F

	GAS VOL. OR MOL. %	GPM	GASOLINE CONTENT (G.P.M.)			
H2S			ICS+	GASOLINE	0.385	
H2O			100%	PROPANE	0.502	
HELIUM			EXCESS	BUTANES	0.305	
CARBON MONOXIDE			TOTAL		1.192	
OXYGEN			BTU DATA			
NITROGEN	6.76		REAL (WET)	1040	REAL (DRY)	1059
CARBON DIOXIDE	0.01		IDEAL (WET)	1038	IDEAL (DRY)	1056
METHANE	84.98		SPECIFIC GRAVITY			
ETHANE	4.50	1.197	MEASURED	0.0000		
PROPANE	1.83	0.502	IDEAL (CALC)	0.6575		
ISO-BUTANE	0.32	0.104	REAL (CALC)	0.6591		
N-BUTANE	0.64	0.201				
ISO-PENTANE	0.21	0.076				
N-PENTANE	0.23	0.083				
HEXANES	0.52	0.226				
HEPTANES						
OCTANES						
	100.00	2.389				

RUN BY: FARRIS BENHAM CHECKED: FARRIS BENHAM APPROVED: FARRIS BENHAM

ADDITIONAL DATA AND REMARKS :

COPIES TO :

- 1 - FILE
- 2 - RELIANCE