

District I

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Ave., 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 and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form C-

APPLICATION FOR PERMIT TO DRILL

Operator Name and Address SOUTHWESTERN ENERGY PRODUCTION COMPANY 2350 N San Houston Pkwy E Houston, TX 77032		OGRID Number 148111
		API Number 30-015-33324
Property Code 33618	Property Name KARLSBAD CORRAL 2 STATE	Well No. 001H

Surface Location

UL or Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
O	2	25S	29E	O	330	S	1980	E	Eddy

Bottom Holes

Pool: CORRAL CANYON DELAWARE, NORTHWEST 96464									
UL or Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
J	2	25S	29E	J	2310	S	1980	E	Eddy

Work Type New Well	Well Type OIL	Cable/Rotary	Lease Type State	Ground Level Elevation 3053
Multiple N	Proposed Depth 7118	Formation Cherry Canyon	Contractor	Spud Date 03/31/2003

Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	12.25	9.625	36	700	275	0
Prod	8.75	7	23	5575	275	3500

Casing/Cement Program: Additional Comments

9.625 casing - cement w/ lead 125 sacks (35:65 Poz (fly Ash): Class C + 6% bwoc Bentonite + 2% bwoc Calcium Chloride + 0.25 lbs/sack Cello Flake + 106.5% fresh water, tail 150 sacks Class C + 2% bwoc Calcium Chloride + 56.4% fresh water. 7 casing - cement w/ lead 185 sacks (35:65) Poz (Fly Ash): Class C + 6% bwoc Bentonite + 5% bwow Sodium Chloride + 111.6% Fresh Water, tail w/ 90 sacks Class C + 1% bwoc FL-62 + 0.3% bwoc CD-32 + 3% bwow Sodium Chloride + 56.4% Fresh Water.

Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	5000	5000	

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

Electronically Signed By: Vonnie Cermin

Title: Production/Drilling Analyst

Date: 03/17/2004

Phone: 281-618-4739

OIL CONSERVATION DIVISION

Electronically Approved By: Bryan Arrant

Title: Geologist

Approval Date: 03/25/2004 Expiration Date: 03/25/2005

Conditions of Approval:
There are conditions. See Attached.

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Form C-

WELL LOCATION AND ACREAGE DEDICATION PLAT

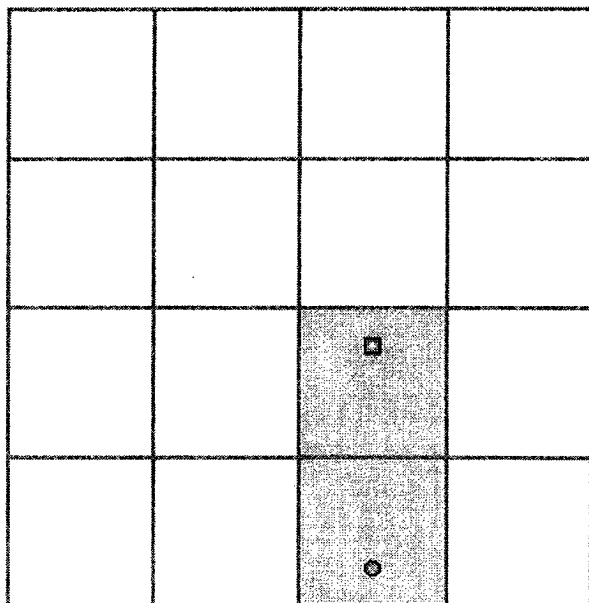
API Number 30-015-33324	Pool Name CORRAL CANYON DELAWARE,NORTHWEST	Pool Code 96464
Property Code 33618	Property Name KARLSBAD CORRAL 2 STATE	Well No. 001H
OGRID No. 148111	Operator Name SOUTHWESTERN ENERGY PRODUCTION COMPANY	Elevation 3053

Surface Location

UL or Lot O	Section 2	Township 25S	Range 29E	Lot Idn O	Feet From 330	N/S Line S	Feet From 1980	E/W Line E	County Eddy
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Bottom Hole Location If Different From Surface

UL or Lot J	Section 2	Township 25S	Range 29E	Lot Idn J	Feet From 2310	N/S Line S	Feet From 1980	E/W Line E	County Eddy
Dedicated Acres 80		Joint or Infill		Consolidation Code		Order No.			

**OPERATOR CERTIFICATION**

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

Electronically Signed By: Vonnie Cermin

Title: Production/Drilling Analyst

Date: 03/17/2004

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.

Surveyed By: GARY EIDSON

Date of Survey: 01/30/2004

Certificate Number: 12641

Permit Comments

Operator: SOUTHWESTERN ENERGY PRODUCTION COMPANY, 148111

Well: KARLSBAD CORRAL 2 STATE #001H

User Name	Comment	Comment Date
VCERMIN	7118 MD & 5351 TVD	3/4/2004
BARRANT	Submit under seperate letter a h2s contingency plan OR if this area does not warrant such a plan per Rule 118 a letter stating so.	3/12/2004
BARRANT	Note fluid type(s) to be used in drilling of well.	3/12/2004
BARRANT	Submit a directional drilling plan.	3/12/2004
BARRANT	Note in detail in dialog box of the casing/cementing box the type of cement to be used, casing details,etc., etc.	3/12/2004
VCERMIN	Will submit via fax directional drilling plan.	3/12/2004
VCERMIN	Will submit under seperate letter a h2s contingency plan or a letter stating not warranted.	3/12/2004
VCERMIN	Faxed directinal drilling plan on 2/12/04. Mailed copy on 2/17/04. Mailed under seperate cover h2s contingency plan letter stating not warranted on 2/17/04. Please notify as soon as permit is approved.	3/17/2004
BARRANT	OCD received directional drill plan and h2s letter on 3/22/2004.	3/25/2004

Permit Conditions Of Approval

Operator: SOUTHWESTERN ENERGY PRODUCTION COMPANY , 148111

Well: KARLSBAD CORRAL 2 STATE #001H

OCD Reviewer	Condition
BARRANT	Cement to cover all oil, gas and water bearing zones.



**Southwestern Energy
Production Company**

A subsidiary of Southwestern Energy Company

2350 N. Sam Houston Parkway East
Suite 300
Houston, Texas 77032
(281) 618-4700 FAX: (281) 618-4757

March 17, 2004

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division-District 2
1301 W. Grand Avenue
Artesia, NM 88210

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MAR 22 2004
OCD-ARTESIA

Attn: Bryan Arrant

Re: Karlsbad Corral 2 #1-H
Sec. 2, T25S-R29E
Eddy County, NM

Dear Bryan:

This area does not warrant H2S contingency plan. Also, please find enclosed a copy of the directional drilling plan.

If you have any questions or need additional information, please feel free to contact me at 281-618-4739.

Sincerely,

Vonnie J. Cermin
Drilling/Production Technician

Enclosures

PathFinder Planning Report

Company: SOUTHWESTERN ENERGY & PRODUCTS Field: Eddy County, New Mexico Site: Karlsbad Corral "2" #1-H Well: Karlsbad Corral "2" #1-H Wellpath: Karlsbad Corral "2" #1-H	Date: 1/29/2004 Time: 09:13:24 Page: 1 Co-ordinate(NE) Reference: Well: Karlsbad Corral "2" #1-H Vertical (TVD) Reference: SITE 0.0 Section (VS) Reference: Well (0.00N,0.00E,0.00Azi) Plan: Plan #1 01/28/04
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Field: Eddy County, New Mexico Section 10 T-25-S & R28-E USA Map System: US State Plane Coordinate System 1927 Geo Datum: NAD27 (Clarke 1866) Sys Datum: Mean Sea Level	Map Zone: New Mexico, Eastern Zone Coordinate System: Well Centre Geomagnetic Model: igrf2000
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Site: Karlsbad Corral "2" #1-H
 T25S & R29E Section 2
 Eddy County, New Mexico

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OCD-ARTESIA

Site Position:	Northing:	Latitude:
From: Lease Line	Easting:	Longitude:
Position Uncertainty: 0.00 ft		North Reference: Grid
Ground Level: 0.00 ft		Grid Convergence: 0.18 deg

Well: Karlsbad Corral "2" #1-H	Slot Name:
Well Position: +N/-S 0.00 ft Northing: 424513.85 ft	Latitude: 32 9 59.999 N
+E/-W 0.00 ft Easting: 603144.47 ft	Longitude: 104 0 0.000 W
Position Uncertainty: 0.00 ft	

Wellpath: Karlsbad Corral "2" #1-H	Drilled From: Surface
Current Datum: SITE	Tie-on Depth: 0.00 ft
Magnetic Data: 1/28/2004	Above System Datum: Mean Sea Level
Field Strength: 49431 nT	Declination: 8.81 deg
Vertical Section: Depth From (TVD)	Mag Dip Angle: 60.30 deg
ft	+N/-S
ft	+E/-W
ft	Direction
ft	deg
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00

Plan: Plan #1 01/28/04	Date Composed: 1/28/2004
Principal: Yes	Version: 1
	Tied-to: From Surface

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4859.00	0.00	0.00	4859.00	0.00	0.00	0.00	0.00	0.00	0.00	
5548.91	81.00	0.00	5341.00	411.67	0.00	11.74	11.74	0.00	0.00	
5575.00	81.00	0.00	5345.08	437.44	0.00	0.00	0.00	0.00	0.00	
5650.50	90.00	0.00	5351.00	512.63	0.00	11.92	11.92	0.00	0.00	
7117.87	90.00	0.00	5351.00	1980.00	0.00	0.00	0.00	0.00	0.00	PBHL KC "2" #1-H

Section 1 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4859.00	0.00	0.00	4859.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Section 2 : Start Build 11.74

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
5548.91	81.00	0.00	5341.00	411.67	0.00	411.67	11.74	11.74	0.00	0.00

Section 3 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
5575.00	81.00	0.00	5345.08	437.44	0.00	437.44	0.00	0.00	0.00	0.00

PathFinder

Planning Report

Company: SOUTHWESTERN ENERGY & PRODUCTI
Field: Eddy County, New Mexico
Site: Karlsbad Corral "2" #1-H
Well: Karlsbad Corral "2" #1-H
Wellpath: Karlsbad Corral "2" #1-H

Date: 1/29/2004 **Time:** 09:13:24 **Page:** 2
Co-ordinate(NE) Reference: Well: Karlsbad Corral "2" #1-H
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,0.00Azi)
Plan: Plan #1 01/28/04

Section 4 : Start Build 11.92

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
5650.50	90.00	0.00	5351.00	512.63	0.00	512.63	11.92	11.92	0.00	0.00

Section 5 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
7117.87	90.00	0.00	5351.00	1980.00	0.00	1980.00	0.00	0.00	0.00	0.00

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment

Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	← Latitude → Deg Min Sec	← Longitude → Deg Min Sec
PBHL KC "2" #1-H			5351.00	1980.00	0.00	426493.85	603144.47	32 10 19.594 N	103 59 59.929 W

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Southwestern Energy
Production Company
Karlsbad Corral "2" #1-H
Eddy County, New Mexico
Plan #1 01/29/04

PATHFINDER
ENERGY SERVICES

SECTION DETAILS									
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	4859.00	0.00	0.00	4859.00	0.00	0.00	0.00	0.00	0.00
3	5548.91	81.00	0.00	5341.00	411.67	0.00	11.74	0.00	411.67
4	5575.00	81.00	0.00	5345.08	437.44	0.00	0.00	0.00	437.44
5	5650.50	90.00	0.00	5351.00	512.63	0.00	11.92	0.00	512.63
6	7117.87	90.00	0.00	5351.00	1980.00	0.00	0.00	0.00	1980.00

PBHL KC "2" #1-H

Surface Hole Location
330' FSL & 1980' FEL
Section 2, T25S R29E
Eddy County, New Mexico

Proposed Bottom Hole Location
2310' FSL & 1980' FEL
Section 2, T25S & R29E
Eddy County, New Mexico

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OCD-ARTESIA

TARGET DETAILS				
Name	TVD	+N/-S	+E/-W	Shape
PBHL KC "2" #1-H	5351.00	1980.00	0.00	Point

