



OLD-Mexico

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON

Governor

Joanna Prukop

Cabinet Secretary

February 14, 2006

Mark E. Fesmire, P.E.

Director

Oil Conservation Division

Southwestern Energy Production Company
2350 N. Sam Houston Parkway East – Suite 300
Houston, Texas 77032

Attention: J. Alan Grimsley
Alan_Grimsley@SWN.COM

30-015-34623

RECEIVED

FEB 21 2006

UUU-ARTCOM

Re: *Southwestern Energy Production Company's ("SwEPC") proposed development of the Cherry Canyon "4" Sand formation within a portion of the Karlsbad Corral "2" State Lease (New Mexico State Land Office Lease No. VO-3361) underlying a 120-acre "Project Area," more or less, comprising Lots 1, 2, and 3 of Section 2, Township 25 South, Range 29 East, NMPM, Undesignated Northwest Corral Canyon-Delaware Pool (96464) Eddy County, New Mexico, utilizing horizontal drainhole drilling techniques.*

Dear Mr. Grimsley:

Reference is hereby made to your application that was submitted to the New Mexico Oil Conservation Division's Santa Fe office on February 3, 2006 and assigned **administrative application reference No. pTDS0-603458143**, styled as an exception to the well location requirements of Division Rules 104.B (1) and 111.A (13) [see division Rule 111.C (2)].

As you know, the Northwest Corral Canyon-Delaware Pool and that area within one-mile of the pool boundaries [see Division Rule 104.A (2) (a)] are subject to the statewide rules and regulations, as promulgated by Rule 104.B (1), which provides for 40-acre oil spacing and proration units, or drilling units, and requires that wells be located no closer than 330 feet to the outer boundary of a single 40-acre oil spacing and proration unit.

It is my understanding that SwEPC intends to drill its Karlsbad Corral "2" Well No. 6-H from a surface location 790 feet from the North line and 2498 feet from the West line (Lot 3/Unit C) of Section 2, vertically to an approximate measured depth (MD) of 4,840 feet; kick-off to the east and build angle at a rate of 12 degrees per 100 feet until a 90 degree deviation off of vertical is achieved at an approximate measured depth of 5,402 feet (MD); and continue to drill horizontally for an approximate distance of 2,000 feet to a bottomhole location, or end-point, within the Cherry Canyon "4" Sand unit of the Delaware Mountain Group at a targeted subsurface location approximately 348 feet from the North line and 358 feet from the East line (Lot 1/Unit A) of Section 2. The top of the Undesignated Northwest Corral Canyon-Delaware Pool should be intercepted at an approximate depth of 3,200 feet. I further understand that the proposed 120-acre, more or less, "Project Area", pursuant to Division Rules 111.A (9) and C (3), will be established by combining three standard 40-acre, more or less, oil spacing and proration units in the Undesignated Northwest Corral Canyon-Delaware Pool.

However, the proposed path way of the proposed wellbore vertically from the entry point into the Delaware formation all the way to the bottom-hole location, or end point, is considered to be standard pursuant to Division Rules 104.B (1) and 111.A (13).

Southwestern Energy Production Company
Division Administrative Application Reference No. pTDS0-603458143

February 14, 2005

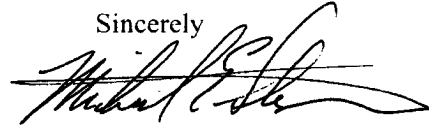
Page 2

Under Division Rules 111.A (7) and 111.C (1) your proposed horizontal directional drilling project can be processed at the Artesia district office of the Division.

I am therefore forwarding your request to the Division's district office in Artesia for processing. Please review Division Rules 111 and 104 in their entirety (see <http://www.emnrd.state.nm.us/OCD/default.htm>). After which you may contact the Division's Artesia district office at (505) 748-1283 for any additional instructions.

cc: [redacted]

Sincerely



Michael E. Stogner
Engineer

cc: New Mexico Oil Conservation Division - Artesia
New Mexico State Land Office - Santa Fe

Stogner, Michael, EMNRD

From: Alan_Grimsley@SWN.COM [Alan_Grimsley@SWN.COM]
To: Stogner, Michael, EMNRD
Cc:
Subject: Karlsbad Corral 2 #6-H NSL
Attachments:

Sent: Fri 2/10/2006 3:19 PM

Mr Stogner,

A NSL request was sent for the Karlsbad Corral 2 Well #6-H location on February 2, 2006.

If possible we would like a expeditiously answer to our request for the following reasons:

Patterson 495 is currently drilling the Karlsbad 11 #3-H well. The well is expected to TD in about 2 weeks. The rig is under contract to SWN for (1) additional well in the Corral Fly Area.

Our farm out interest in Section 2 require a well to be spudded prior to March 6, 2006.

If you need any further information, I can be contacted any of the below numbers.

Regards,
 Alan

Alan Grimsley
 Drilling Engineer
 Southwestern Energy Company
 Office: 281-618-4068
 Mobile: 713-492-1657
 email: Alan_Grimsley@swn.com

Notice: This e-mail may contain privileged and/or confidential information and is intended only for the addressee. If you are not the addressee or the person responsible for delivering it to the addressee, you may not copy or distribute this communication to anyone else. If you received this communication in error, please notify us immediately by telephone or return e-mail and promptly delete the original message from your system.

*Fri. 2-10-06
 3:09 PM
 Alan Grimsley
 left a voice
 mail message
 to expedite this
 appl.*

*afternoon 2-13-06
 Alan Grimsley
 called me for
 status of this appl.
 and to again
 request it be
 expedited.*



**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

February 2, 2006

2006 FEB 3 AM 10 44

Michael E. Stogner
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Dear Mr. Stogner:

Pursuant to Division Rule 104.F.(2), Southwestern Energy Production Company is requesting approval for of an unorthodox oil well location for the following well:

Well: Karlsbad Corral 2 Well No. 6-H
Location: 790 feet FNL & 2498 feet FWL
Well Unit: NE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 2, Township 25 South, Range 29 East, N.M.P.M., Eddy County, New Mexico

The well will be drilled to test the Cherry Canyon 4 formation (Corral Fly, Delaware Pool). The pool is spaced on 40 acres, with wells to be located no closer than 330 feet to a quarter-quarter section line and for the subject well an exception to this 330' requirement is requested. A form C-102 is attached as Exhibit A.

The proposed location is based on engineering reasons. The proposed well, Karlsbad Corral 2 #6-H, will be directionally drilled from an unorthodox surface location 790 feet from the North Line and 2498 feet from the West Line of Section 2 to a bottom hole location 348 feet from the North Line and 358 feet from the East line.

The well plan consists of drilling a vertical hole to the KOP (kick off point) at 4,840' MD/TVD. The hole will be directional drilled utilizing a build rate of 12°/100' to penetrate the Cherry Canyon 4 Sand at 5,727' MD / 5,402' TVD at 90° of angle with a 71° Azimuth. The Cherry Canyon 4 will be intersected at 612' FNL and 3020' FWL of Section 2 T25S R29E. The well will continue laterally (90°) and will be turned at $\pm 1^\circ/100'$ to reach an Azimuth of 90° at 7,395' MD / 5,402' TVD then continue laterally for $\pm 1,927'$ of lateral vertical displacement. The proposed BHL will be 348' FNL & 358' FEL of Section 2. The top of the Delaware will be intersected at $\pm 3200'$ MD/TVD at 790' FNL and 2,498' FWL of Section 2. A drilling prognosis, directional plot, and proposed survey report are attached as Exhibit B.

Production casing will be run and cemented to TD. The Cherry Canyon 4 Sand will be selectively perforated, with all perforations being placed in accordance of a standard location of Section 11 T25S R29E (greater than 330' from any lease line).

By placing the surface location at 790' FNL and 2498' FWL of Section 2, the maximum amount of reservoir rock in the Cherry Canyon 4 Sand in the producing area can be penetrated and produced.

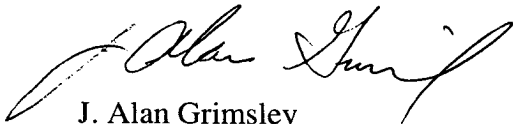
Furthermore, Southwestern Energy Production Company has gained access to the mineral interests to the Cherry Canyon formation in the Delaware Mountain Group of Section 11 and Section 2 via farmout agreements with EOG (Lease Serial No. 3633-2), and Devon Energy (Lease Serial No. V-3361), respectfully. Drilling commitment deadlines have been extended in both of these agreements, but require a new well to be drilled in Section 2 by March 6th. A land plat is attached as Exhibit C.

The Karlsbad Corral 2 #6-H is going to be drilled from Unit C through Unit B and TD in Unit A of Section 2, T25S, R29E in Eddy County, NM. The Karlsbad Corral 2 #3-H was drilled from Unit P through Units I and H and TD'd in Unit A. Since the two wells are going to TD in Unit A, it is proposed to change the current 160 acre proration unit for the Karlsbad Corral 2 #3-H to 240 acres and the two wells will share the depth bracket allowable for the unit. The depth bracket allowable for the 240 acres will be six times the 40 acre depth bracket allowable which is 107 BOPD since the TVD of the wells is +/- 5350' making the total allowable for the unit 642 BOPD. It is our understanding the once this unit is approved the allowable can be split anyway between the two wells. Please let us know if you need any additional information to approve this unit change.

Your timely approval of this unorthodox location is requested in order to meet the above mentioned farmout requirements.

If you have any questions, I can be reached at 281-618-4068.

Very truly yours,

A handwritten signature in black ink, appearing to read "J. Alan Grimsley", is written over a horizontal line.

J. Alan Grimsley
Southwestern Energy Production Co.

Attachments
CC: District 2

DISTRICT II
1301 W. GRAND AVENUE, ARTESIA, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1320 S. ST. FRANCIS DR., SANTA FE, NM 87505

OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102
Revised JUNE 10, 2003
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-015-34623	Pool Code	Pool Name
Property Code	Property Name KARLSBAD CORRAL 2	Well Number 6-H
OGRID No.	Operator Name SOUTHWESTERN ENERGY PRODUCTION COMPANY	Elevation 3064'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	2	25-S	29-E		790	NORTH	2498	WEST	EDDY

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
A	2	25-S	29-E		348	NORTH	358	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
120			

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

LOT 4
39.64

LOT 3
39.72

LOT 2
39.80

LOT 1
39.88

2498'

3044.6'
3063.9'
3048.7'
3058.8'

790'
600'
600'

#6H SURF.
#6H B.H.

A1
A2
A3

357'
288'
358'
646'

AVG. GRID. AZ 359°33'22"
HD = 4626.9'
(AS PLOTTED FROM DOWN HOLE REPORT)

GEODETIC COORDINATES
NAD 27 NME
SURFACE LOCATION
Y=423677.6 N
X=617029.7 E

LAT.=32°09'51.27" N
LONG.=103°57'18.49" W

BOTTOM HOLE LOCATION
Y=424107.6 N
X=619469.7 E

KARLSBAD CORRAL 2 #3H
GEODETIC COORDINATES
NAD 27 NME
SURFACE LOCATION
Y=419491.3 N
X=619193.9 E

BOTTOM HOLE LOCATION
Y=424117.3 N
X=619173.9 E

#3H SURF.
324'

OPERATOR CERTIFICATION

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

[Signature]
Signature
James Alan Grimsley
Printed Name
Drilling Engineer
Title
2/2/06
Date

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.

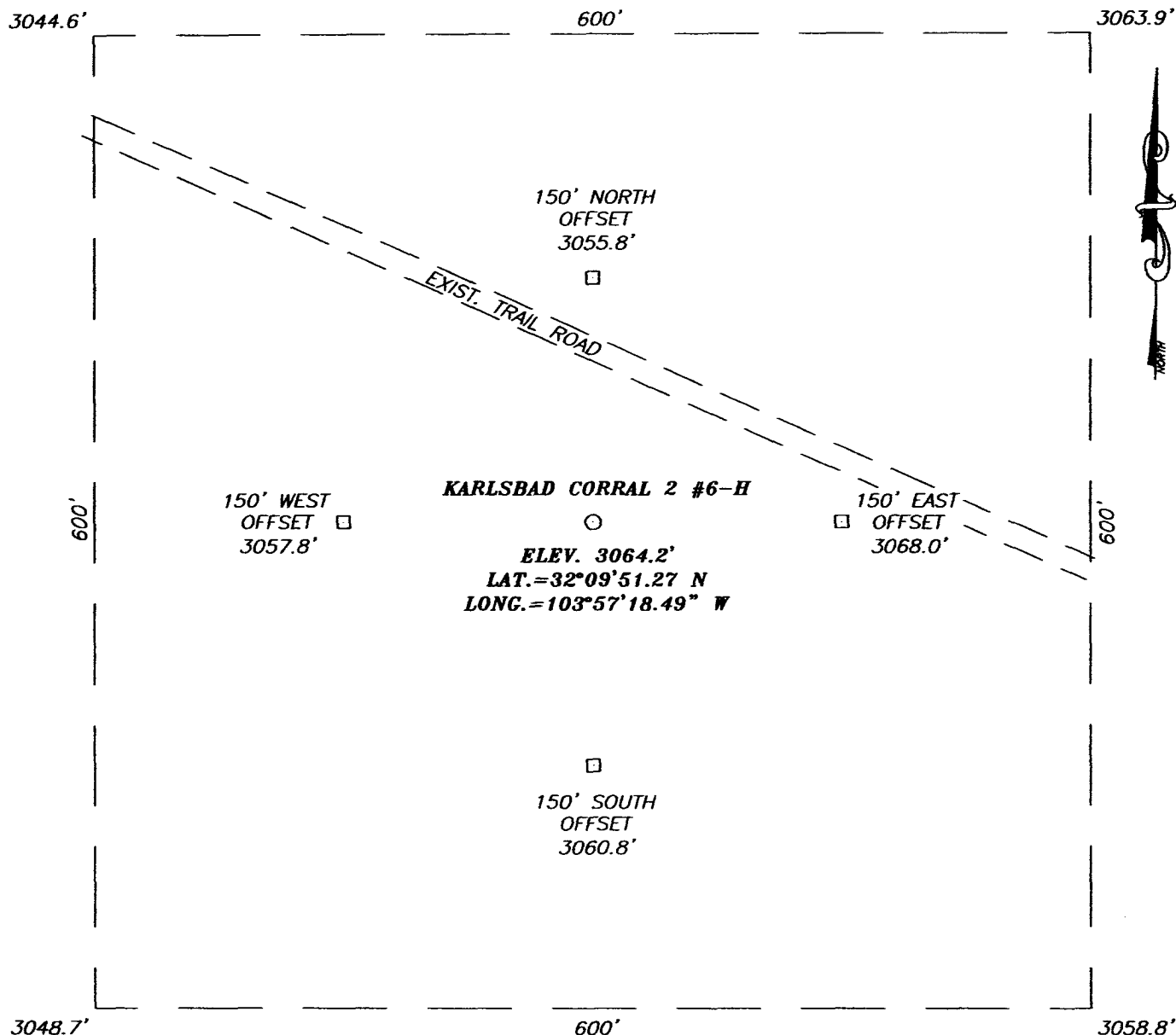
JANUARY 4, 2006

Date Surveyed LA REV: 1/25/06

[Signature]
Signature & Seal of
Professional Surveyor
NEW MEXICO
Gary A. Edison
06.11.001 E

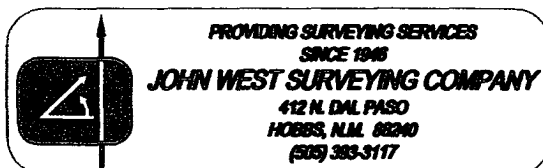
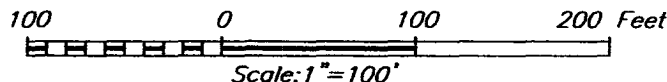
Certificate No. GARY EDISON 12641

SECTION 2, TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M.,
 EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF BUCK JACKSON RD. & TWIN WELLS ROAD GO WEST ON TWIN WELLS ROAD APPROX. 0.1 MILES. TURN LEFT @ EL PASO PIPELINES AND GO SOUTHWEST APPROX. 0.4 MILES. TURN RIGHT AND GO NORTHWEST APPROX. 0.6 MILES. VEER RIGHT AND CONTINUE NORTH APPROX. 1.3 MILES TO A "T" INTERSECTION. TURN LEFT AND GO WEST APPROX. 1.0 MILES. VEER RIGHT AND CONTINUE NORTHWEST APPROX. 0.7 MILES. VEER LEFT AND CONTINUE WEST-NORTHWEST APPROX. 0.9 MILES. TURN RIGHT AND FOLLOW TRAIL ROAD APPROX. 0.2 MILES. THIS LOCATION IS APPROX. 100 FEET SOUTH OF ROAD.

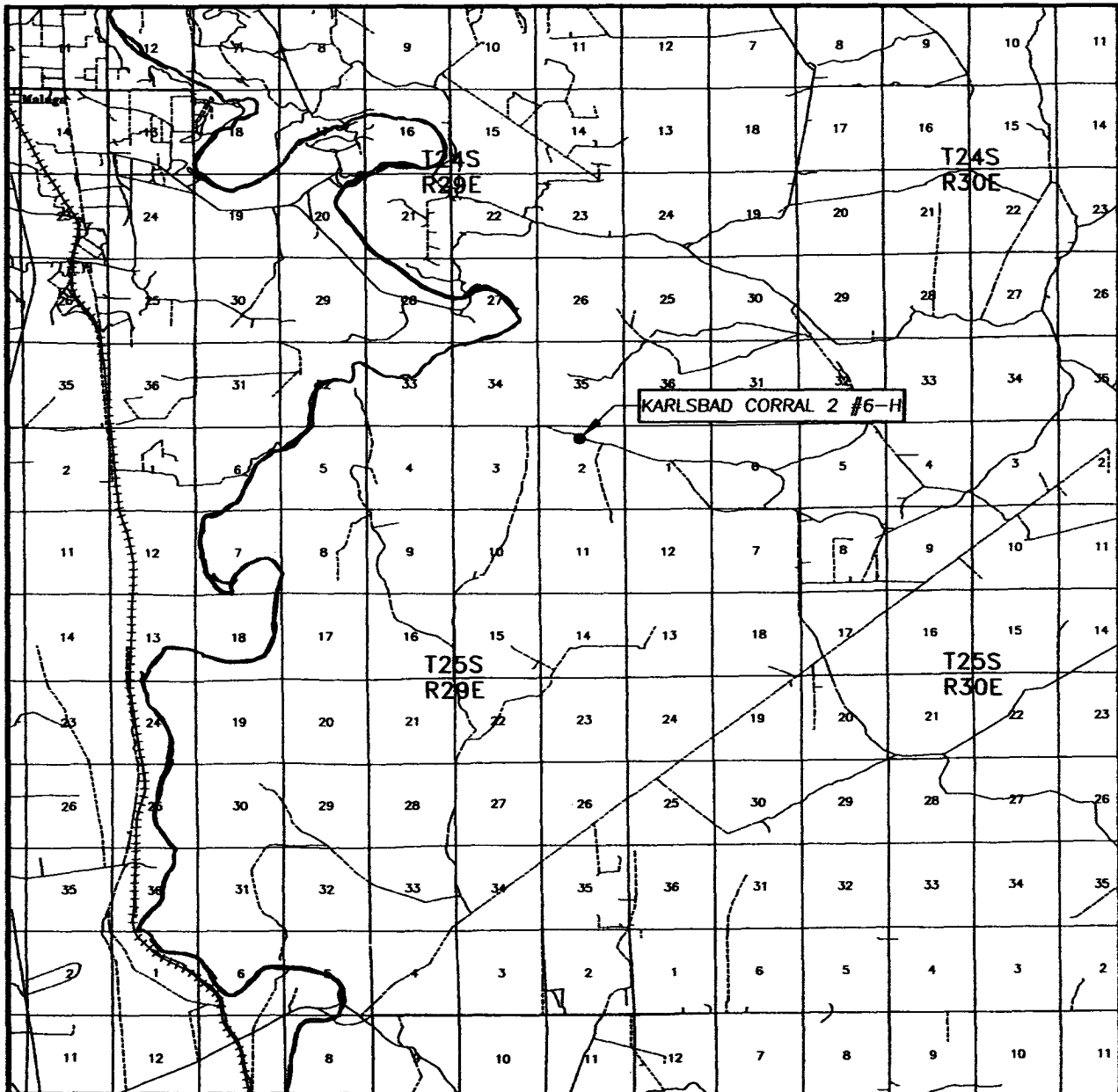


SOUTHWESTERN ENERGY PRODUCTION COMPANY

KARLSBAD CORRAL 2 #6-H WELL
 LOCATED 790 FEET FROM THE NORTH LINE
 AND 2498 FEET FROM THE WEST LINE OF SECTION 2,
 TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M.,
 EDDY COUNTY, NEW MEXICO.

Survey Date: 1/4/06	Sheet 1 of 1 Sheets
W.O. Number: 06.11.0011	Dr By: LA
Date: 1/13/06	Disk: CD#4
06110011	Scale: 1"=100'

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 2 TWP. 25-S RGE. 29-E

SURVEY N.M.P.M.

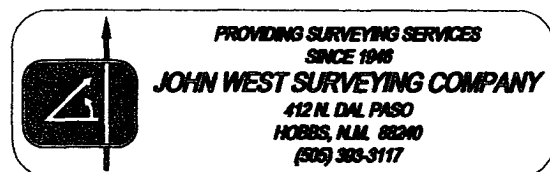
COUNTY EDDY

DESCRIPTION 790' FNL & 2498' FWL

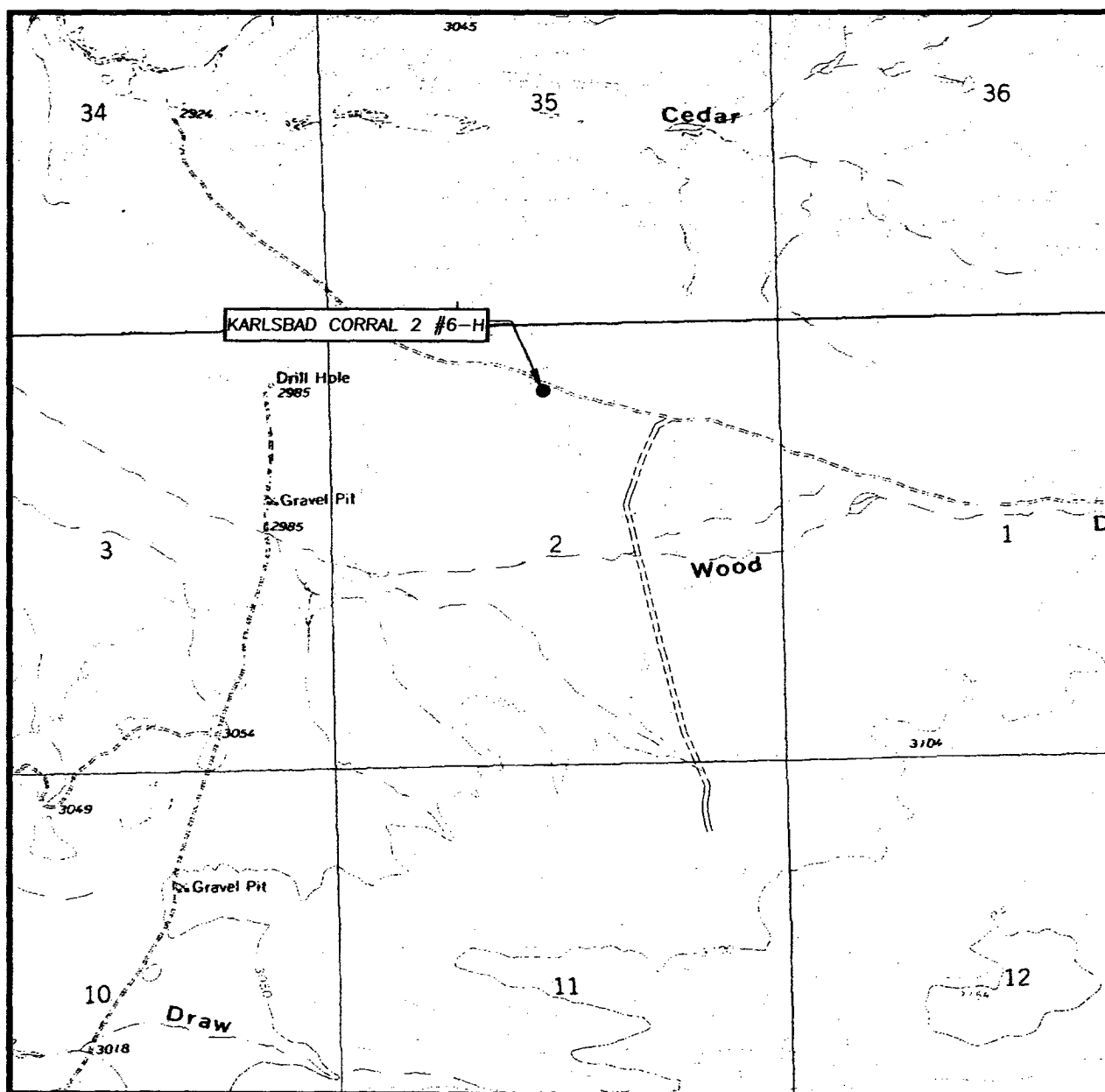
ELEVATION 3064'

OPERATOR SOUTHWESTERN ENERGY
PRODUCTION COMPANY

LEASE KARLSBAD CORRAL 2



LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
PIERCE CANYON, N.M. - 10'

SEC. 2 TWP. 25-S RGE. 29-E

SURVEY N.M.P.M.

COUNTY EDDY

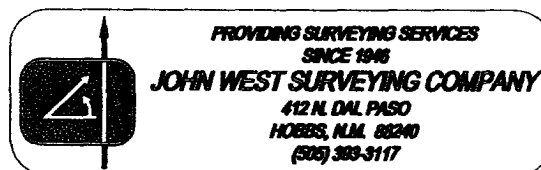
DESCRIPTION 790' FNL & 2498' FWL

ELEVATION 3064'

OPERATOR SOUTHWESTERN ENERGY
PRODUCTION COMPANY

LEASE KARLSBAD CORRAL 2

U.S.G.S. TOPOGRAPHIC MAP
PIERCE CANYON, N.M.





DRILLING PROGNOSIS
Southwestern Energy Production Company

WELL NAME: Karslbard Corral Fly 2 #6-H

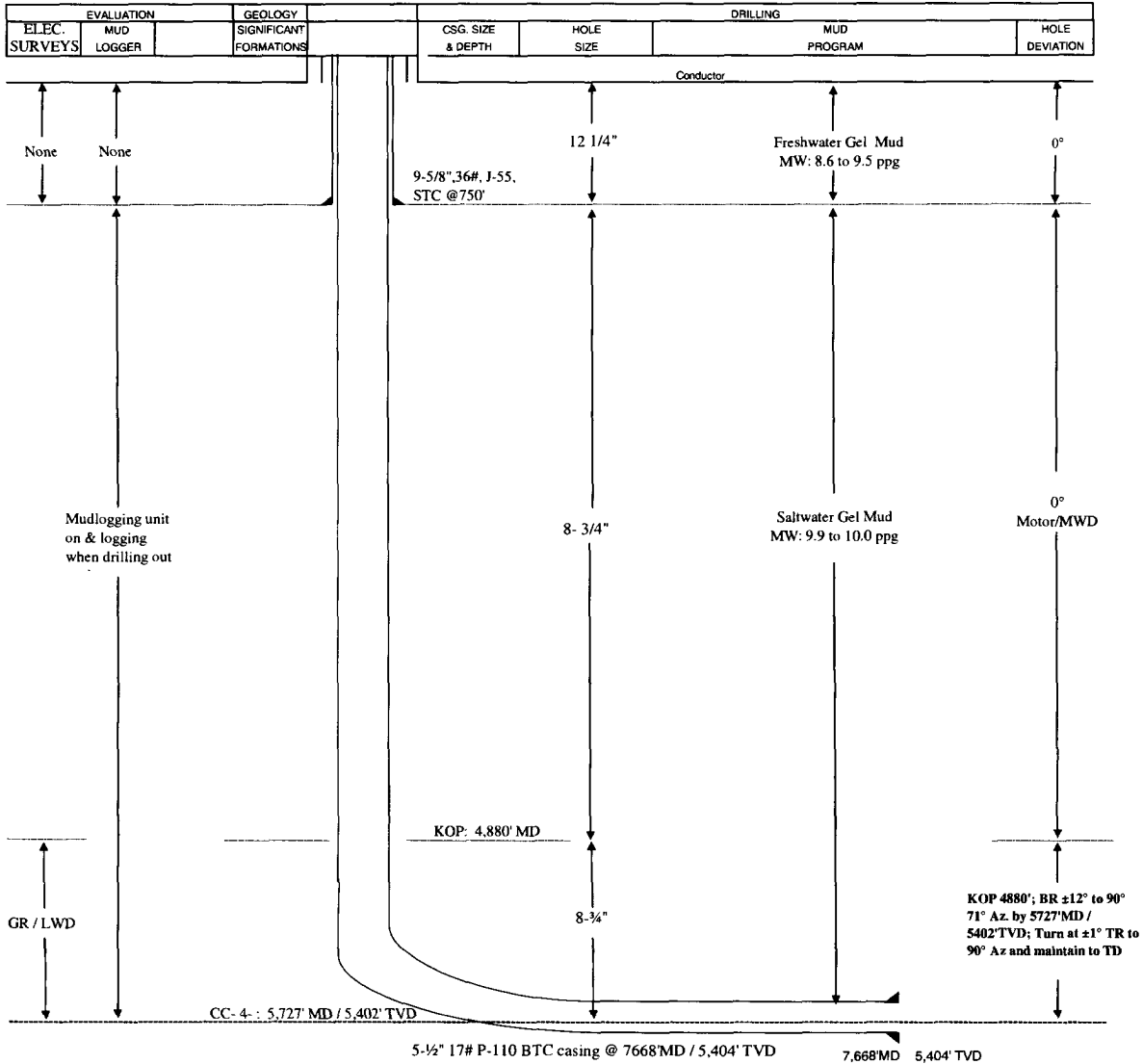
AFE NO.

LOCATION: Sec. 2, T25S, R29E
Eddy County NM
SL: 790' FNL 2498' FWL
BHL: 348' FNL 358' FEL
TGT ENTRY PT: 612' FNL 3020' FWL

PROSPECT: Corral Fly

OBJECTIVE: Cherry Canyon Sd, CC-4

EST. ELEVATION: GL 3064'; RKB $\pm 16''$



Southwestern Energy Production Co.

Karlsbad Corral 2 #6H

Eddy County, New Mexico

Plan #4 01-31-06

PATHFINDER
ENERGY SERVICES

SITE DETAILS

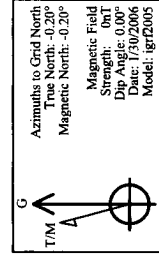
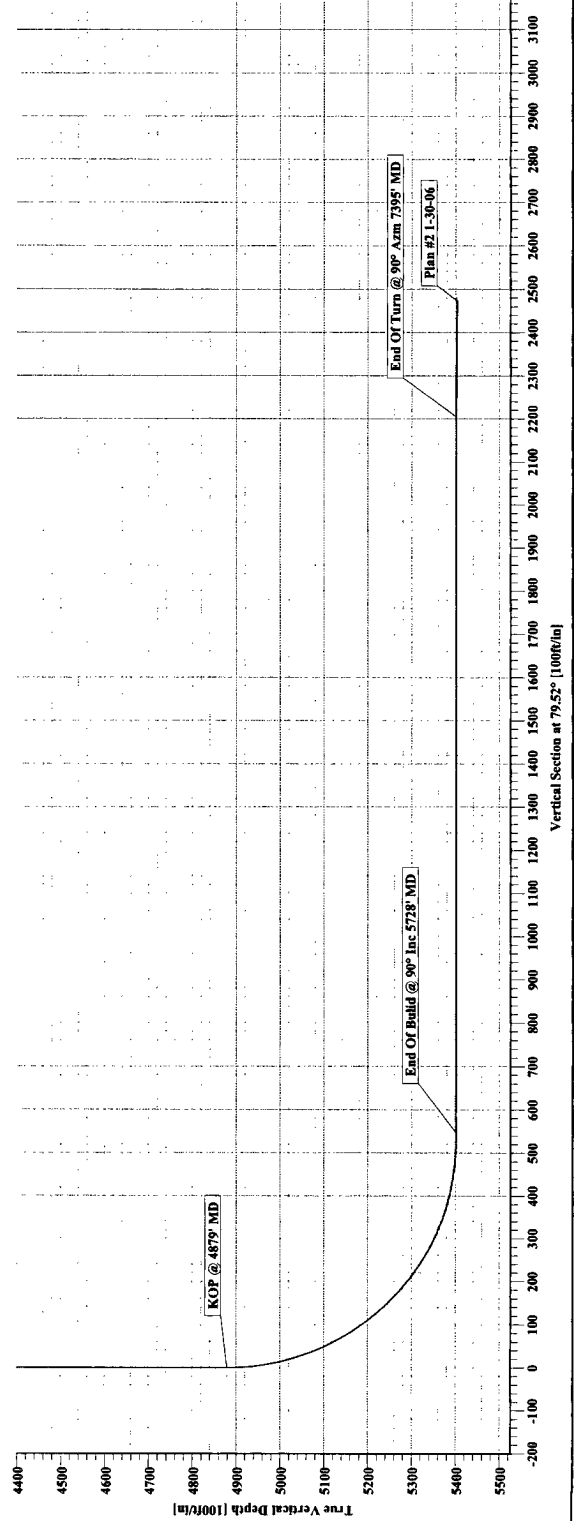
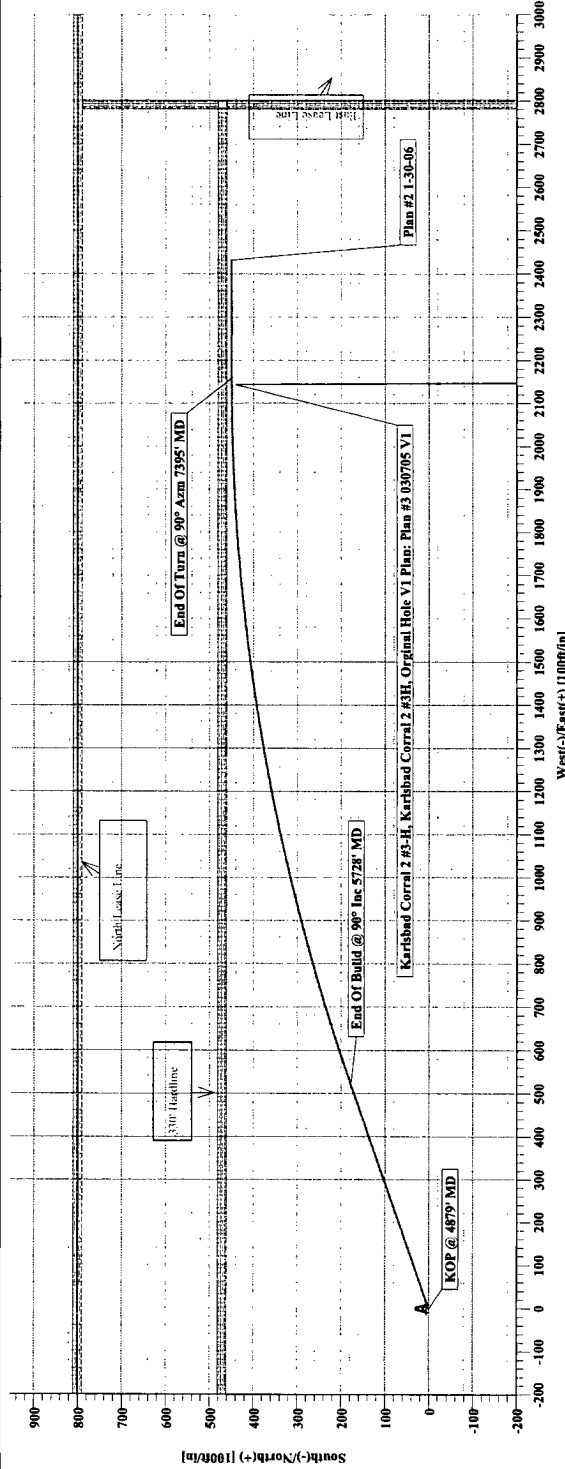
Karlsbad Corral 2 #6-H
Site Center Latitude: 32°09'51.270N
Longitude: 103°57'18.490W
Water Depth: 0.00
Magnetic Field: 0.00
Positional Convergence: 0.20

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	4879.00	0.00	0.00	4879.00	0.00	0.00	0.00	0.00	0.00	
3	5615.36	81.00	71.16	5393.46	141.89	415.85	11.00	71.16	434.72	
4	7227.86	90.00	71.16	5402.28	178.07	521.88	8.00	0.00	545.57	
5	7449.52	90.00	90.00	5402.28	144.72	2139.26	1.13	90.00	2242.84	PBIL
6	7665.87	89.28	89.88	5404.00	450.00	2432.00	0.27	-170.87	2471.28	PBIL

WELL DETAILS

Name	+N/-S	+E/-W	North	East	Latitude	Longitude	Slut
Karlsbad Corral 2 #6-h	0.00	0.00	423677.70	617030.04	32°09'51.270N	103°57'18.490W	N/A



FIELD DETAILS

Karlsbad Corral Section 2
Eddy County, New Mexico
Geodetic System: US State Plane Coordinate System 1927
Datum: NAD 83
Zone: New Mexico, Eastern Zone
Magnetic Model: Igr2005
System Datum: Mean Sea Level
Local North: Grid North

PathFinder

Planning Report - Geographic

Company: Southwestern Energy Production
Field: Karlsbad Corral Section 2
Site: Karlsbad Corral 2 #6-H
Well: Karlsbad Corral 2 #6-h
Wellpath: Plan #1 1-30-06

Date: 1/31/2006 **Time:** 11:00:16 **Page:** 1
Co-ordinate(NE) Reference: Well: Karlsbad Corral 2 #6-h, Grid North
Vertical (TVD) Reference: System: Mean Sea Level
Section (VS) Reference: Well (0.00N,0.00E,79.52Azi)
Plan: Plan #2-1-30-06

Field: Karlsbad Corral Section 2
 Eddy County, New Mexico

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: igrf2005

Site: Karlsbad Corral 2 #6-H

Site Position: Northing: 423677.70 ft Latitude: 32 9 51.270 N
From: Geographic Easting: 617030.04 ft Longitude: 103 57 18.490 W
Position Uncertainty: 0.00 ft North Reference: Grid
Ground Level: 0.00 ft Grid Convergence: 0.20 deg

Well: Karlsbad Corral 2 #6-h

Slot Name:

Well Position: +N/-S 0.00 ft Northing: 423677.70 ft Latitude: 32 9 51.270 N
 +E/-W 0.00 ft Easting: 617030.04 ft Longitude: 103 57 18.490 W
Position Uncertainty: 0.00 ft

Wellpath: Plan #1 1-30-06

Drilled From: Surface
Tie-on Depth: 0.00 ft
Above System Datum: Mean Sea Level
Declination: 0.00 deg
Mag Dip Angle: 0.00 deg
+E/-W **Direction**
 ft deg
 0.00 0.00 0.00 79.52

Current Datum: Mean Sea Level **Height** 0.00 ft
Magnetic Data: 1/30/2006
Field Strength: 0 nT
Vertical Section: Depth From (TVD) +N/-S
 ft ft
 0.00 0.00

Plan: Plan #2 1-30-06

Date Composed: 1/30/2006
Version: 1
Tied-to: From Surface

Principal: Yes

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	
4879.00	0.00	0.00	4879.00	0.00	0.00	0.00	0.00	0.00	0.00	
5615.36	81.00	71.16	5393.46	141.89	415.85	11.00	11.00	0.00	71.16	
5727.86	90.00	71.16	5402.28	178.07	521.88	8.00	8.00	0.00	0.00	
7395.12	90.00	90.00	5402.28	449.72	2159.26	1.13	0.00	1.13	90.00	
7667.87	89.28	89.88	5404.00	450.00	2432.00	0.27	-0.27	-0.04	-170.87	PBHL

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
4800.00	0.00	0.00	4800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4879.00	0.00	0.00	4879.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Section 2 : Start Build 11.00

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
5000.00	13.31	71.16	4998.91	4.52	13.24	13.84	11.00	11.00	0.00	0.00
5200.00	35.31	71.16	5180.06	30.94	90.69	94.80	11.00	11.00	0.00	0.00
5400.00	57.31	71.16	5317.37	77.36	226.72	237.01	11.00	11.00	0.00	0.00
5600.00	79.31	71.16	5390.83	137.00	401.52	419.74	11.00	11.00	0.00	0.00
5615.36	81.00	71.16	5393.46	141.89	415.85	434.72	11.00	11.00	0.00	0.00

PathFinder

Planning Report - Geographic

Company: Southwestern Energy Production
 Field: Karlsbad Corral Section 2
 Site: Karlsbad Corral 2 #6-H
 Well: Karlsbad Corral 2 #6-h
 Wellpath: Plan #1 1-30-06

Date: 1/31/2006 Time: 11:00:16 Page: 2
 Co-ordinate(NE) Reference: Well: Karlsbad Corral 2 #6-h, Grid North
 Vertical (TVD) Reference: System: Mean Sea Level
 Section (VS) Reference: Well (0.00N,0.00E,79.52Azi)
 Plan: Plan #2 1-30-06

Section 3 : Start Build 8.00

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
5727.86	90.00	71.16	5402.28	178.07	521.88	545.57	8.00	8.00	0.00	0.00

Section 4 : Start DLS 1.13 TFO 90.00

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
5728.00	90.00	71.16	5402.28	178.11	522.01	545.70	0.00	0.00	0.00	0.00
5800.00	90.00	71.98	5402.28	200.88	590.32	617.01	1.13	0.00	1.13	90.00
6000.00	90.00	74.24	5402.28	259.00	781.67	815.74	1.13	0.00	1.13	90.00
6200.00	90.00	76.50	5402.28	309.53	975.17	1015.21	1.13	0.00	1.13	90.00
6400.00	90.00	78.76	5402.28	352.38	1170.51	1215.08	1.13	0.00	1.13	90.00
6600.00	90.00	81.02	5402.28	387.51	1367.39	1415.07	1.13	0.00	1.13	90.00
6800.00	90.00	83.28	5402.28	414.84	1565.50	1614.84	1.13	0.00	1.13	90.00
7000.00	90.00	85.54	5402.28	434.34	1764.54	1814.10	1.13	0.00	1.13	90.00
7200.00	90.00	87.80	5402.28	445.97	1964.19	2012.54	1.13	0.00	1.13	90.00
7395.00	90.00	90.00	5402.28	449.72	2159.14	2204.92	1.13	0.00	1.13	90.00
7395.12	90.00	90.00	5402.28	449.72	2159.26	2205.04	1.13	0.00	1.13	90.00

Section 5 : Start DLS 0.27 TFO -170.87

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
7400.00	89.99	90.00	5402.28	449.72	2164.14	2209.84	0.27	-0.27	-0.04	-170.87
7600.00	89.46	89.91	5403.25	449.88	2364.13	2406.53	0.27	-0.27	-0.04	-170.87
7667.87	89.28	89.88	5404.00	450.00	2432.00	2473.28	0.27	-0.27	-0.04	-170.87

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	← Latitude → Deg Min Sec		← Longitude → Deg Min Sec	
4800.00	0.00	0.00	4800.00	0.00	0.00	423677.70	617030.04	32	9	51.270 N	103 57 18.490 W
4879.00	0.00	0.00	4879.00	0.00	0.00	423677.70	617030.04	32	9	51.270 N	103 57 18.490 W
5000.00	13.31	71.16	4998.91	4.52	13.24	423682.22	617043.28	32	9	51.314 N	103 57 18.336 W
5200.00	35.31	71.16	5180.06	30.94	90.69	423708.65	617120.73	32	9	51.573 N	103 57 17.434 W
5400.00	57.31	71.16	5317.37	77.36	226.72	423755.06	617256.76	32	9	52.028 N	103 57 15.849 W
5600.00	79.31	71.16	5390.83	137.00	401.52	423814.71	617431.56	32	9	52.612 N	103 57 13.813 W
5615.36	81.00	71.16	5393.46	141.89	415.85	423819.59	617445.89	32	9	52.660 N	103 57 13.646 W
5727.86	90.00	71.16	5402.28	178.07	521.88	423855.77	617551.92	32	9	53.014 N	103 57 12.411 W
5728.00	90.00	71.16	5402.28	178.11	522.01	423855.82	617552.05	32	9	53.014 N	103 57 12.410 W
5800.00	90.00	71.98	5402.28	200.88	590.32	423878.58	617620.36	32	9	53.237 N	103 57 11.614 W
6000.00	90.00	74.24	5402.28	259.00	781.67	423936.70	617811.71	32	9	53.806 N	103 57 9.386 W
6200.00	90.00	76.50	5402.28	309.53	975.17	423987.23	618005.21	32	9	54.299 N	103 57 7.132 W
6400.00	90.00	78.76	5402.28	352.38	1170.51	424030.09	618200.55	32	9	54.716 N	103 57 4.858 W
6600.00	90.00	81.02	5402.28	387.51	1367.39	424065.21	618397.43	32	9	55.057 N	103 57 2.566 W
6800.00	90.00	83.28	5402.28	414.84	1565.50	424092.54	618595.54	32	9	55.321 N	103 57 0.260 W
7000.00	90.00	85.54	5402.28	434.34	1764.54	424112.04	618794.57	32	9	55.506 N	103 56 57.944 W
7200.00	90.00	87.80	5402.28	445.97	1964.19	424123.67	618994.22	32	9	55.615 N	103 56 55.621 W
7395.00	90.00	90.00	5402.28	449.72	2159.14	424127.43	619189.18	32	9	55.645 N	103 56 53.353 W
7395.12	90.00	90.00	5402.28	449.72	2159.26	424127.43	619189.30	32	9	55.645 N	103 56 53.351 W
7400.00	89.99	90.00	5402.28	449.72	2164.14	424127.43	619194.18	32	9	55.645 N	103 56 53.295 W
7600.00	89.46	89.91	5403.25	449.88	2364.13	424127.58	619394.17	32	9	55.639 N	103 56 50.968 W
7667.87	89.28	89.88	5404.00	450.00	2432.00	424127.70	619462.04	32	9	55.638 N	103 56 50.178 W

PathFinder

Planning Report - Geographic

Company: Southwestern Energy Production
Field: Karlsbad Corral Section 2
Site: Karlsbad Corral 2 #6-H
Well: Karlsbad Corral 2 #6-h
Wellpath: Plan #1 1-30-06

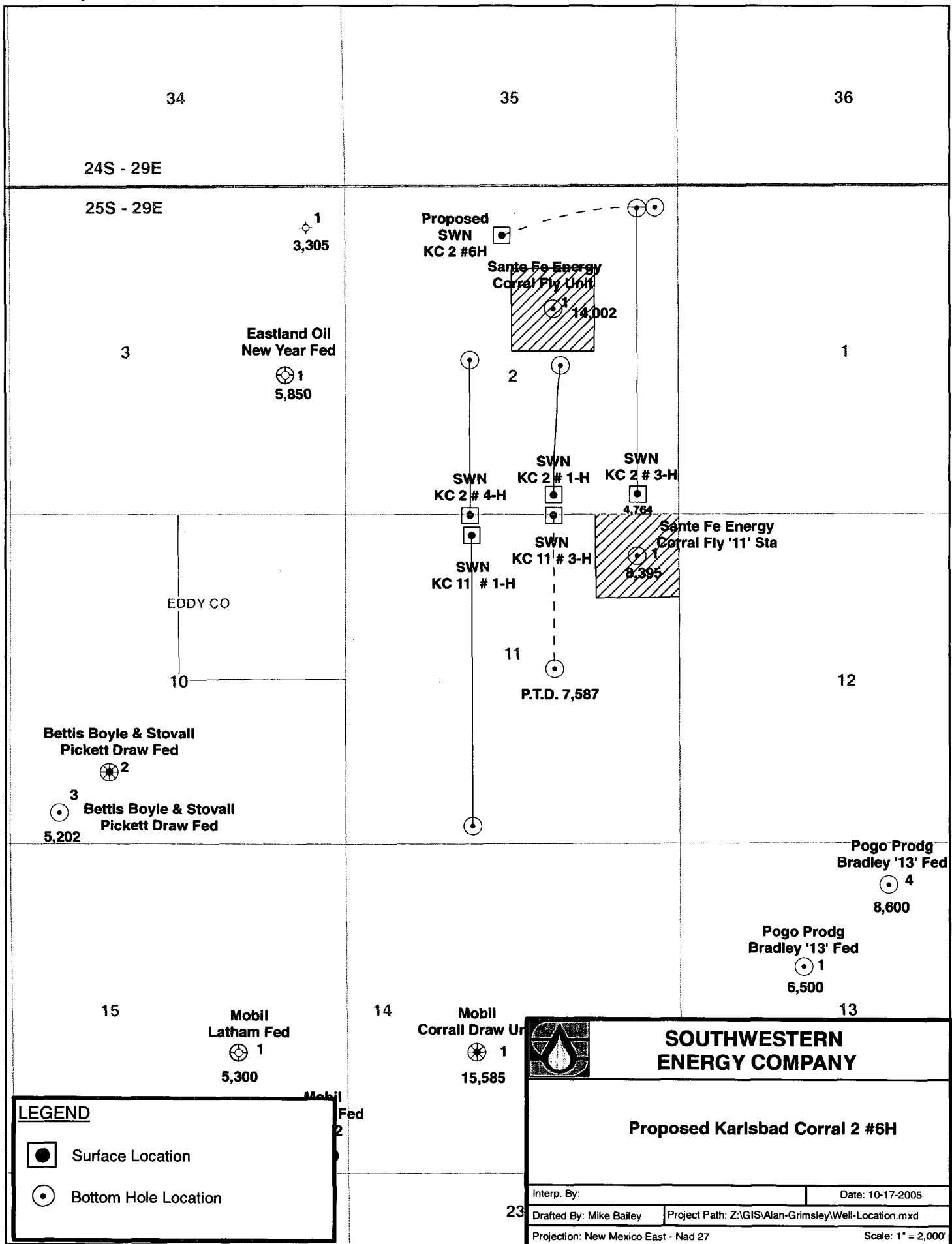
Date: 1/31/2006 **Time:** 11:00:16 **Page:** 3
Co-ordinate(NE) Reference: Well: Karlsbad Corral 2 #6-h, Grid North
Vertical (TVD) Reference: System: Mean Sea Level
Section (VS) Reference: Well (0.00N,0.00E,79.52Azi)
Plan: Plan #2 1-30-06

Targets

Name	Description		TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<--- Latitude --->			<--- Longitude --->		
	Dip.	Dir.						Deg	Min	Sec	Deg	Min	Sec
PBHL			5404.00	450.00	2432.00	424127.70	619462.04	32	9	55.638 N	103	56	50.178 W

Annotation

MD ft	TVD ft	
4879.00	4879.00	KOP @ 4879' MD
5728.00	5402.28	End Of Bulid @ 90° Inc 5728' MD
7395.00	5402.28	End Of Turn @ 90° Azm 7395' MD
7668.00	0.00	PBHL Karlsbad Corral 2# 6-H



34

35

36

24S - 29E

25S - 29E

1
3,305

Proposed
SWN
KC 2 #6H

Santa Fe Energy
Corral Fly Unit
14,002

3

Eastland Oil
New Year Fed
1
5,850

1

SWN
KC 2 #4-H

SWN
KC 2 #1-H

SWN
KC 2 #3-H
4,764

SWN
KC 11 #1-H

SWN
KC 11 #3-H
8,395

Santa Fe Energy
Corral Fly '11' Sta

EDDY CO

11

P.T.D. 7,587

12

Bettis Boyle & Stovall
Pickett Draw Fed

2

3
Bettis Boyle & Stovall
Pickett Draw Fed
5,202

Pogo Prodg
Bradley '13' Fed

4
8,600

Pogo Prodg
Bradley '13' Fed
1
6,500

15

Mobil
Latham Fed
1
5,300

14

Mobil
Corral Draw Ur
1
15,585

13



**SOUTHWESTERN
ENERGY COMPANY**

Proposed Karlsbad Corral 2 #6H

Interp. By:

Date: 10-17-2005

Drafted By: Mike Bailey

Project Path: Z:\GIS\Alan-Grimsley\Well-Location.mxd

Projection: New Mexico East - Nad 27

Scale: 1" = 2,000'