

Submit 3 Copies To Appropriate District  
Office  
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

Form C-103  
May 27, 2004

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



|                                                                                                     |  |
|-----------------------------------------------------------------------------------------------------|--|
| WELL API NO.<br><b>30 - 015 - 34205</b>                                                             |  |
| 5. Indicate Type of Lease<br>STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/> |  |
| 6. State Oil & Gas Lease No.                                                                        |  |
| 7. Lease Name or Unit Agreement Name<br><b>Esperanza "24"</b>                                       |  |
| 8. Well Number<br><b>001</b>                                                                        |  |
| 9. OGRID Number<br><b>233545</b>                                                                    |  |
| 10. Pool name or Wildcat<br><b>Carlsbad; Morrow, South (Pro Gas)</b>                                |  |

|                                                                                                                                                                                                                         |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| SUNDRY NOTICES AND REPORTS ON WELLS<br>(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)                  |  |
| 1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other                                                                                                                   |  |
| 2. Name of Operator<br><b>BOLD ENERGY, LP</b>                                                                                                                                                                           |  |
| 3. Address of Operator<br><b>415 W. Wall, Suite 500 Midland, Texas 79701</b>                                                                                                                                            |  |
| 4. Well Location<br>Unit Letter <b>F</b> : <b>1685</b> feet from the <b>North</b> line and <b>1935</b> feet from the <b>West</b> line<br>Section <b>24</b> Township <b>22S</b> Range <b>26E</b> NMPM County <b>Eddy</b> |  |
| 11. Elevation (Show whether DR, RKB, RT, GR, etc.)<br><b>3171' GR</b>                                                                                                                                                   |  |
| Pit or Below-grade Tank Application <input type="checkbox"/> or Closure <input type="checkbox"/>                                                                                                                        |  |
| Pit type _____ Depth to Groundwater _____ Distance from nearest fresh water well _____ Distance from nearest surface water _____                                                                                        |  |
| Pit Liner Thickness: _____ mil Below-Grade Tank: Volume _____ bbls; Construction Material _____                                                                                                                         |  |

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

|                                                |                                           |                                                                                    |                                          |
|------------------------------------------------|-------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------|
| NOTICE OF INTENTION TO:                        |                                           | SUBSEQUENT REPORT OF:                                                              |                                          |
| PERFORM REMEDIAL WORK <input type="checkbox"/> | PLUG AND ABANDON <input type="checkbox"/> | REMEDIAL WORK <input type="checkbox"/>                                             | ALTERING CASING <input type="checkbox"/> |
| TEMPORARILY ABANDON <input type="checkbox"/>   | CHANGE PLANS <input type="checkbox"/>     | COMMENCE DRILLING OPNS. <input type="checkbox"/>                                   | P AND A <input type="checkbox"/>         |
| PULL OR ALTER CASING <input type="checkbox"/>  | MULTIPLE COMPL <input type="checkbox"/>   | CASING/CEMENT JOB <input type="checkbox"/>                                         |                                          |
| OTHER: <input type="checkbox"/>                |                                           | OTHER: <b>MIDDLE MORROW COMPLETION (CONT.)</b> <input checked="" type="checkbox"/> |                                          |

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

**10/2/2007:** SITP = 2400 psi. SICP = 2400 psi. Blow pressure off well. Spot KCL mix water and POOH w/SN & tbg **10/3/2007:** TIH w/ JB & GR. Set CBP at 11,480'. Load casing & test CBP to 5,000 psi. Perforated Morrow w/ 3-1/8" csg guns 11,452' - 11,456' (4') w/ 4 spf 120° phased 0.43" EHD (16 shots). Broke down at 3,880 psi. Pumped 15 bbls 3% KCL water at 3 bpm & 3,500 psi. ISIP = 3,200 psi 5 min SIP = 2,500 psi 10 min SIP = 2,250 psi. 15 min SIP = 2,100 psi. Perforated 11,437' - 11,441' (4') w/ 4 spf 120° phased 0.43" EHD (16 shots) SICP = 580 psi. Bled off pressure. ND BOP. NU Frac Head. Wait on frac date. **10/6/2007:** MIRU HES Frac Equipment. Fracture stimulated Middle Morrow; 11,437' - 11,456' as follows: Placed 37,464 lbs 18/40 VersaProp in formation w/ 65Q CO2 / 30# PurGel at Qavg = 28.0 bpm Pavg = 7,763 psi. Screen out occurred with 3 ppa on formation. Left +/- 10,533 lbs of proppant in wellbore. ISIP = 10,142 psi. Immediately RD HES equipment from WH and began flowback. LTR = 581 bbls. Flowed back 205 bbls in 18 hours = 35.3% load recovery. Remaining LTR = 376 bbls. **10/7/2007:** RIH w/ mill & motor on 2" CT and drill out CBP's at 11,480' & 11,570' using 70Q foam. Spot KCL mix & POOH Remaining LTR from all stages = 1,088 bbls. **10/8/2007:** TIH w/ SN on 2-3/8" 4.7# L-80 tubing. SN at ND BOPE NU WH. Swab back 24 bbls and well kicked off. **10/9/2007:** Recovered additional 316 bbls flowing overnight. Total remaining load to recover from all stages = 679 bbls. **10/12/2007:** SI well at 6pm LR = 1,784 bbls out of 2,131 bbls. 84% recovery 347 bbls remaining to recover. **10/15/2007:** SITP = 1,850 psi SICP = 1,550 psi. **10/16/2007:** SITP = 2,060 psi. SICP = 1,900 psi. **10/18/2007:** Ran TechWell production survey. Tagged PBTD at 11,588'. Flowed well overnight. Total load recovered during flow period = 191 BW (93% load recovery). SIW. Wait on pipeline.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOC guidelines ☒, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

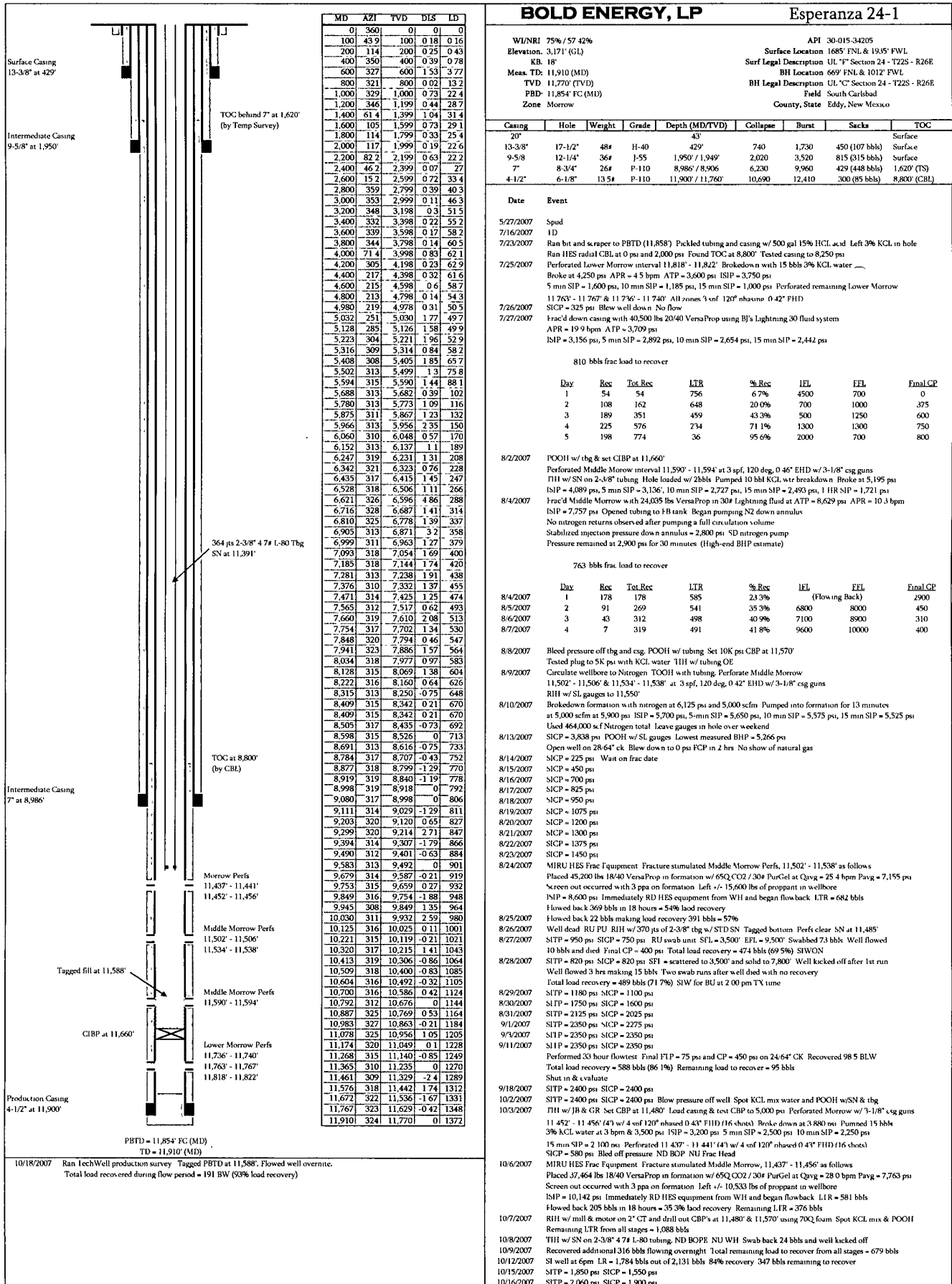
SIGNATURE Shannon L. Klier TITLE Operations Engineering Manager DATE 11 / 6 / 07

Type or print name Shannon L. Klier E-mail address: shannon.klier@boldenergy.com Telephone No. 432 / 686-1100

For State Use Only

FOR RECORDS ONLY

APPROVED BY: \_\_\_\_\_ TITLE \_\_\_\_\_ DATE NOV 08 2007  
Conditions of Approval (if any): \_\_\_\_\_



ESPERANZA 24-1

**LEASE & WELL**

SEC 4, T16S, R35E

LEA COUNTY, NEW MEXICO

(Give Unit, Section, Township and Range)

**OPERATOR**

BOLD ENERGY, LP 415 W. WALL, SUITE 500 MIDLAND, TEXAS 79701

ATTN: JOE CASTILLO

**DRILLING CONTRACTOR**

NABORS DRILLING USA, LP

The Undersigned hereby certifies that he is an authorized representative of the drilling contractor who drilled the above-described well and that he has conducted deviation tests and obtained the following results:

| <u>DEGREES @ DEPTH</u> | <u>DEGREES @ DEPTH</u> | <u>DEGREES @ DEPTH</u> | <u>DEGREES @ DEPTH</u> |
|------------------------|------------------------|------------------------|------------------------|
| 3/4 295                |                        |                        |                        |
| 3/4 386                |                        |                        |                        |
| 1 1/2 844              |                        |                        |                        |
| 1 1/4 1285             |                        |                        |                        |
| 1 3/4 1916             |                        |                        |                        |
| 2 2581                 |                        |                        |                        |
| 2 2895                 |                        |                        |                        |
| 1 1/2 3216             |                        |                        |                        |
| 1 1/2 3532             |                        |                        |                        |
| 1 1/4 3848             |                        |                        |                        |
| 1 4323                 |                        |                        |                        |
| 1 3/4 4823             |                        |                        |                        |
|                        |                        |                        |                        |
|                        |                        |                        |                        |
|                        |                        |                        |                        |

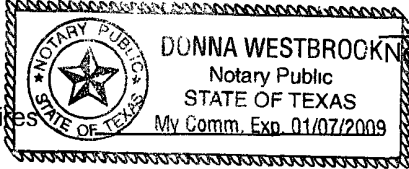
Drilling Contractor

Nabors Drilling USA, LP

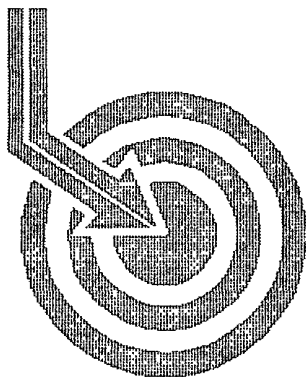
By

  
Keith Dunn-District Manager

Subscribed and sworn to before me this 17<sup>th</sup> day of September, 2007

 **DONNA WESTBROCK**  
Notary Public  
STATE OF TEXAS  
My Comm. Exp. 01/07/2009

My Commission Expires 01/07/2009 MIDLAND County TEXAS



# Scientific Drilling

RECEIVED

JUL 18 2007

## BOLD ENERGY

Field: Carlsbad  
Site: Eddy County, NM  
Well: Esperanza 24 #1  
Wellpath: VH - Job #32K0607455  
Survey: 06/04/07

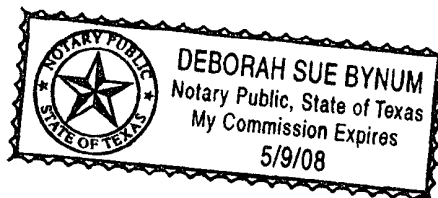
This survey is correct to the best of my knowledge  
and is supported by actual field data.

Deborah Sue Bynum.....Company Representative

Notorized this date 11<sup>th</sup> of July, 2007.

Deborah Sue Bynum

Notary Signature  
County of Midland  
State of Texas





# Scientific Drilling International Survey Report

Company: BOLD ENERGY  
Field: Carlsbad  
Site: Eddy County, NM  
Well: Esperanza 24 #1  
Wellpath: VH - Job #32K0607455

Date: 06/26/2007 Time: 21:09:05 Page: 1  
Co-ordinate(NE) Reference: Site: Eddy County, NM, Grid North  
Vertical (TVD) Reference: SITE 0.0  
Section (VS) Reference: Well (0.00N,0.00E,317.33Azi)  
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey: 06/04/07 Start Date: 06/04/2007  
KSRG 0'-04980'  
Company: Scientific Drilling Internatio Engineer: Pena w/GeoGyro  
Tool: Keeper;Keeper Gyro Tied-to: From Surface

## Survey

| MD<br>ft | Incl<br>deg | Azim<br>deg | TVD<br>ft | VS<br>ft | N/S<br>ft | E/W<br>ft | DLS<br>deg/100ft | ClsD<br>ft | ClsA<br>deg |
|----------|-------------|-------------|-----------|----------|-----------|-----------|------------------|------------|-------------|
| 0.00     | 0.00        | 359.95      | 0.00      | 0.00     | 0.00      | 0.00      | 0.00             | 0.00       | 0.00        |
| 100.00   | 0.18        | 43.86       | 100.00    | 0.01     | 0.11      | 0.11      | 0.18             | 0.16       | 43.86       |
| 200.00   | 0.24        | 114.03      | 200.00    | -0.17    | 0.14      | 0.41      | 0.25             | 0.43       | 70.95       |
| 300.00   | 0.10        | 103.56      | 300.00    | -0.44    | 0.04      | 0.69      | 0.14             | 0.69       | 87.03       |
| 400.00   | 0.34        | 350.14      | 400.00    | -0.26    | 0.31      | 0.72      | 0.39             | 0.78       | 66.86       |
| 500.00   | 0.83        | 332.37      | 499.99    | 0.69     | 1.24      | 0.33      | 0.52             | 1.29       | 14.99       |
| 600.00   | 2.35        | 326.80      | 599.95    | 3.41     | 3.60      | -1.13     | 1.53             | 3.77       | 342.62      |
| 700.00   | 2.88        | 321.22      | 699.85    | 7.94     | 7.27      | -3.82     | 0.59             | 8.22       | 332.28      |
| 800.00   | 2.89        | 320.97      | 799.72    | 12.96    | 11.19     | -6.98     | 0.02             | 13.19      | 328.03      |
| 900.00   | 2.78        | 320.71      | 899.60    | 17.90    | 15.02     | -10.11    | 0.11             | 18.11      | 326.07      |
| 1000.00  | 2.15        | 329.32      | 999.51    | 22.15    | 18.51     | -12.60    | 0.73             | 22.39      | 325.76      |
| 1100.00  | 1.83        | 335.75      | 1099.44   | 25.50    | 21.58     | -14.21    | 0.39             | 25.84      | 326.64      |
| 1200.00  | 1.50        | 345.61      | 1199.40   | 28.17    | 24.31     | -15.19    | 0.44             | 28.67      | 327.99      |
| 1300.00  | 0.98        | 355.63      | 1299.38   | 29.99    | 26.43     | -15.58    | 0.56             | 30.68      | 329.47      |
| 1400.00  | 0.93        | 61.37       | 1399.37   | 30.47    | 27.67     | -14.94    | 1.04             | 31.44      | 331.64      |
| 1500.00  | 1.46        | 94.90       | 1499.35   | 29.33    | 27.95     | -12.95    | 0.86             | 30.81      | 335.13      |
| 1600.00  | 2.12        | 105.36      | 1599.30   | 26.82    | 27.35     | -9.90     | 0.73             | 29.09      | 340.10      |
| 1700.00  | 2.04        | 105.70      | 1699.23   | 23.74    | 26.38     | -6.40     | 0.08             | 27.15      | 346.35      |
| 1800.00  | 1.86        | 113.88      | 1799.17   | 20.73    | 25.24     | -3.21     | 0.33             | 25.44      | 352.76      |
| 1900.00  | 1.75        | 117.16      | 1899.12   | 17.81    | 23.89     | -0.36     | 0.15             | 23.89      | 359.12      |
| 2000.00  | 1.94        | 116.62      | 1999.07   | 14.79    | 22.43     | 2.51      | 0.19             | 22.57      | 6.38        |
| 2100.00  | 1.34        | 110.20      | 2099.03   | 12.17    | 21.27     | 5.12      | 0.63             | 21.88      | 13.53       |
| 2200.00  | 1.13        | 82.18       | 2199.01   | 10.57    | 21.00     | 7.19      | 0.63             | 22.20      | 18.90       |
| 2300.00  | 1.83        | 48.24       | 2298.98   | 9.98     | 22.20     | 9.36      | 1.09             | 24.09      | 22.86       |
| 2400.00  | 1.82        | 46.15       | 2398.93   | 9.98     | 24.36     | 11.70     | 0.07             | 27.02      | 25.65       |
| 2500.00  | 1.84        | 36.29       | 2498.88   | 10.32    | 26.75     | 13.79     | 0.32             | 30.10      | 27.27       |
| 2600.00  | 2.00        | 15.15       | 2598.82   | 11.56    | 29.73     | 15.20     | 0.72             | 33.39      | 27.07       |
| 2700.00  | 2.14        | 9.37        | 2698.76   | 13.64    | 33.26     | 15.96     | 0.25             | 36.89      | 25.63       |
| 2800.00  | 2.00        | 359.14      | 2798.69   | 16.09    | 36.85     | 16.24     | 0.39             | 40.26      | 23.78       |
| 2900.00  | 1.87        | 356.21      | 2898.63   | 18.66    | 40.22     | 16.10     | 0.16             | 43.32      | 21.82       |
| 3000.00  | 1.88        | 352.86      | 2998.58   | 21.26    | 43.47     | 15.79     | 0.11             | 46.25      | 19.96       |
| 3100.00  | 1.75        | 349.44      | 3098.53   | 23.89    | 46.60     | 15.31     | 0.17             | 49.05      | 18.18       |
| 3200.00  | 1.45        | 347.56      | 3198.49   | 26.28    | 49.34     | 14.75     | 0.30             | 51.50      | 16.65       |
| 3300.00  | 1.27        | 340.55      | 3298.46   | 28.39    | 51.62     | 14.11     | 0.24             | 53.51      | 15.29       |
| 3400.00  | 1.14        | 331.82      | 3398.44   | 30.37    | 53.54     | 13.27     | 0.22             | 55.16      | 13.92       |
| 3500.00  | 1.13        | 335.35      | 3498.42   | 32.27    | 55.32     | 12.39     | 0.07             | 56.69      | 12.63       |
| 3600.00  | 0.98        | 339.36      | 3598.40   | 34.00    | 57.01     | 11.68     | 0.17             | 58.20      | 11.58       |
| 3700.00  | 0.73        | 344.70      | 3698.39   | 35.36    | 58.43     | 11.21     | 0.26             | 59.49      | 10.86       |
| 3800.00  | 0.59        | 343.94      | 3798.39   | 36.39    | 59.54     | 10.90     | 0.14             | 60.53      | 10.37       |
| 3900.00  | 0.72        | 331.41      | 3898.38   | 37.46    | 60.58     | 10.46     | 0.19             | 61.48      | 9.79        |
| 4000.00  | 0.30        | 71.44       | 3998.38   | 37.96    | 61.22     | 10.40     | 0.83             | 62.10      | 9.65        |
| 4100.00  | 0.37        | 342.54      | 4098.38   | 38.15    | 61.61     | 10.56     | 0.47             | 62.51      | 9.72        |
| 4200.00  | 0.24        | 305.11      | 4198.37   | 38.64    | 62.04     | 10.29     | 0.23             | 62.88      | 9.41        |
| 4300.00  | 0.46        | 209.32      | 4298.37   | 38.72    | 61.81     | 9.92      | 0.54             | 62.60      | 9.12        |
| 4400.00  | 0.77        | 216.57      | 4398.37   | 38.47    | 60.92     | 9.32      | 0.32             | 61.63      | 8.70        |
| 4500.00  | 0.86        | 223.51      | 4498.36   | 38.30    | 59.83     | 8.40      | 0.13             | 60.42      | 8.00        |
| 4600.00  | 1.44        | 214.97      | 4598.34   | 37.98    | 58.26     | 7.17      | 0.60             | 58.70      | 7.01        |
| 4700.00  | 1.41        | 217.49      | 4698.31   | 37.50    | 56.25     | 5.70      | 0.07             | 56.54      | 5.78        |
| 4800.00  | 1.51        | 213.43      | 4798.27   | 36.97    | 54.18     | 4.22      | 0.14             | 54.34      | 4.46        |



Scientific  
Drilling

# Scientific Drilling International

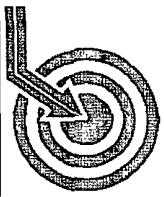
## Survey Report

Company: BOLD ENERGY  
Field: Carlsbad  
Site: Eddy County, NM  
Well: Esperanza 24 #1  
Wellpath: VH - Job #32K0607455

Date: 06/26/2007 Time: 21:09:05 Page: 2  
Co-ordinate(NE) Reference: Site: Eddy County, NM, Grid North  
Vertical (TVD) Reference: SITE 0.0  
Section (VS) Reference: Well (0.00N,0.00E,317.33Azi)  
Survey Calculation Method: Minimum Curvature Db: Sybase

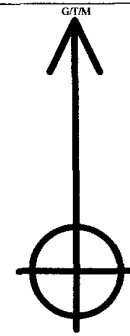
### Survey

| MD<br>ft | Incl<br>deg | Azim<br>deg | TVD<br>ft | VS<br>ft | N/S<br>ft | E/W<br>ft | DLS<br>deg/100ft | ClsD<br>ft | ClsA<br>deg |
|----------|-------------|-------------|-----------|----------|-----------|-----------|------------------|------------|-------------|
| 4900.00  | 1.44        | 222.78      | 4898.24   | 36.56    | 52.16     | 2.65      | 0.25             | 52.22      | 2.90        |
| 4980.00  | 1.67        | 219.07      | 4978.21   | 36.31    | 50.51     | 1.23      | 0.31             | 50.53      | 1.39        |



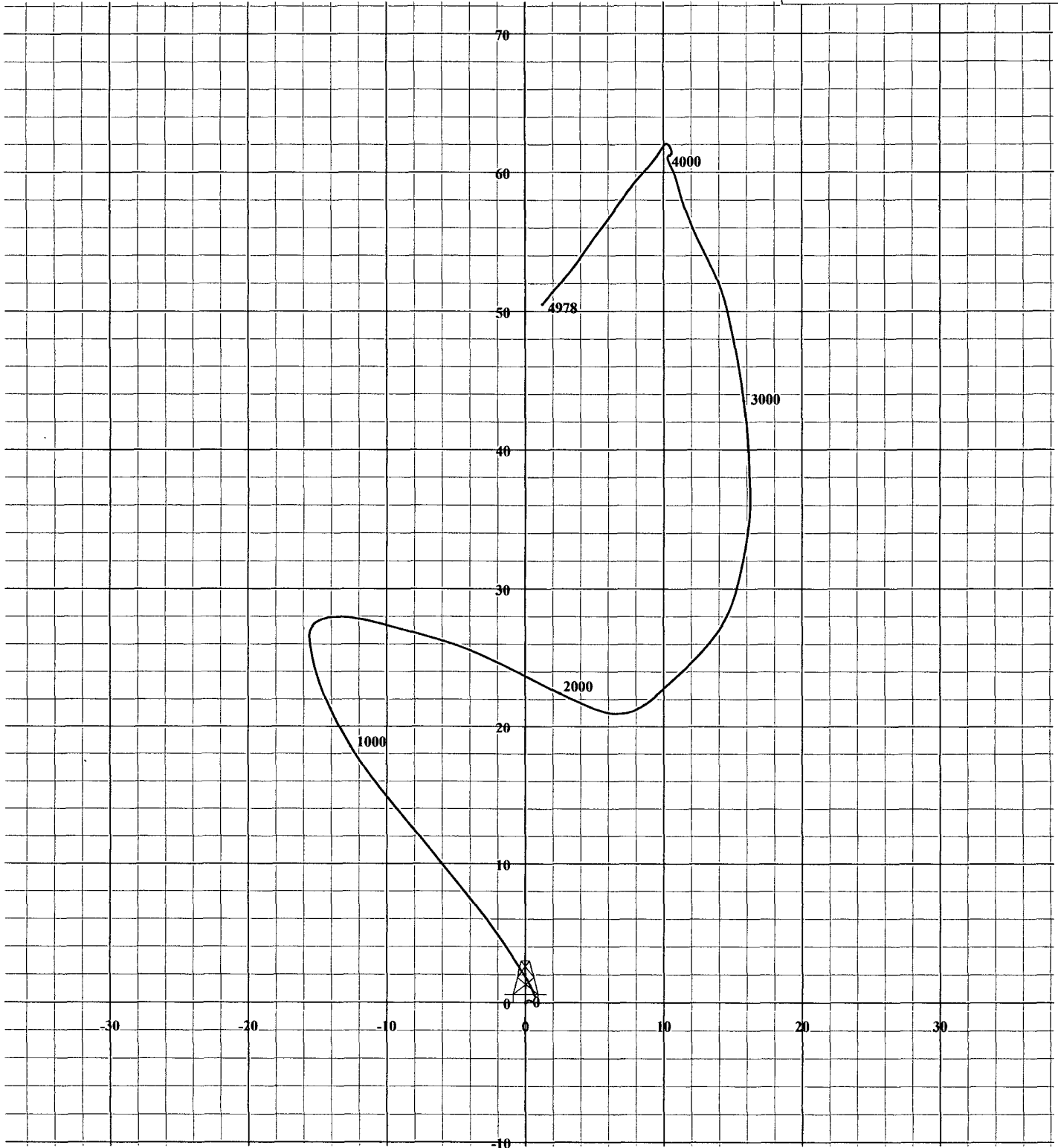
Scientific  
Drilling

Field: Carlsbad  
Site: Eddy County, NM  
Well: Esperanza 24 #1  
Wellpath: VH - Job #32K0607455  
Survey: 06/04/07



Azimuths to Grid North  
True North 0.00°  
Magnetic North 0.00°  
Magnetic Field  
Strength 0nT  
Dip Angle 0.00°  
Date 06/26/2007  
Model gr2000

South(-)/North(+) [10ft/in]



West(-)/East(+) [10ft/in]

# LEAM Drilling Systems, Inc.

## Survey Calculations

Job Number: D-3973-MD

**Operator:** Bold Energy      **Location:** Eddy County, New Mexico      **Lease/Well:** Esperanza #24-1  
**Calculation Method:** Minimum Curvature      **Proposed Azimuth:** 317.33      **Bearing:** N42.67W

*Units: English(ft)*

| <u>MeasDepth</u>                 | <u>CrsLen</u> | <u>Drift</u> | <u>Azimuth</u> | <u>Bearing</u> | <u>TVD</u> | <u>Vsect</u> | <u>NS(±)</u> | <u>EW(±)</u> | <u>Build</u> | <u>Turn</u> | <u>Dogleg</u> |
|----------------------------------|---------------|--------------|----------------|----------------|------------|--------------|--------------|--------------|--------------|-------------|---------------|
| Tie in from SDI Gyro ran 6-4-07. |               |              |                |                |            |              |              |              |              |             |               |
| 4980.00                          | 0.00          | 1.67         | 219.07         | S39.07W        | 4978.20    | 36.30        | 50.51        | 1.23         | 0.00         | 0.00        | 0.00          |
| Begin MWD surveys.               |               |              |                |                |            |              |              |              |              |             |               |
| 5032.00                          | 52.00         | 1.70         | 250.80         | S70.80W        | 5030.18    | 36.50        | 49.67        | 0.02         | 0.06         | 61.02       | 1.77          |
| 5128.00                          | 96.00         | 2.60         | 284.70         | N75.30W        | 5126.11    | 38.90        | 49.75        | -3.43        | 0.94         | 35.31       | 1.58          |
| 5223.00                          | 95.00         | 4.10         | 304.10         | N55.90W        | 5220.95    | 44.03        | 52.20        | -8.32        | 1.58         | 20.42       | 1.96          |
| 5316.00                          | 93.00         | 4.80         | 308.70         | N51.30W        | 5313.67    | 51.11        | 56.50        | -14.11       | 0.75         | 4.95        | 0.84          |
|                                  |               |              |                |                |            |              |              |              |              |             |               |
| 5408.00                          | 92.00         | 6.50         | 308.40         | N51.60W        | 5405.22    | 60.06        | 62.14        | -21.20       | 1.85         | -0.33       | 1.85          |
| 5502.00                          | 94.00         | 7.60         | 312.70         | N47.30W        | 5498.51    | 71.51        | 69.66        | -29.94       | 1.17         | 4.57        | 1.30          |
| 5594.00                          | 92.00         | 8.90         | 314.60         | N45.40W        | 5589.56    | 84.68        | 78.79        | -39.48       | 1.41         | 2.07        | 1.44          |
| 5688.00                          | 94.00         | 8.60         | 313.20         | N46.80W        | 5682.46    | 98.96        | 88.70        | -49.78       | -0.32        | -1.49       | 0.39          |
| 5780.00                          | 92.00         | 9.60         | 312.90         | N47.10W        | 5773.30    | 113.47       | 98.63        | -60.41       | 1.09         | -0.33       | 1.09          |
|                                  |               |              |                |                |            |              |              |              |              |             |               |
| 5875.00                          | 95.00         | 10.70        | 310.70         | N49.30W        | 5866.81    | 130.13       | 109.78       | -72.90       | 1.16         | -2.32       | 1.23          |
| 5966.00                          | 91.00         | 12.80        | 312.70         | N47.30W        | 5955.90    | 148.57       | 122.12       | -86.72       | 2.31         | 2.20        | 2.35          |
| 6060.00                          | 94.00         | 12.70        | 310.30         | N49.70W        | 6047.59    | 169.20       | 135.87       | -102.25      | -0.11        | -2.55       | 0.57          |
| 6152.00                          | 92.00         | 11.80        | 312.50         | N47.50W        | 6137.49    | 188.61       | 148.76       | -116.90      | -0.98        | 2.39        | 1.10          |
| 6247.00                          | 95.00         | 11.70        | 318.60         | N41.40W        | 6230.50    | 207.92       | 162.55       | -130.43      | -0.11        | 6.42        | 1.31          |
|                                  |               |              |                |                |            |              |              |              |              |             |               |
| 6342.00                          | 95.00         | 12.20        | 321.10         | N38.90W        | 6323.45    | 227.57       | 177.59       | -143.10      | 0.53         | 2.63        | 0.76          |
| 6435.00                          | 93.00         | 11.10        | 317.20         | N42.80W        | 6414.53    | 246.33       | 191.81       | -155.36      | -1.18        | -4.19       | 1.45          |
| 6528.00                          | 93.00         | 12.10        | 318.40         | N41.60W        | 6505.63    | 265.02       | 205.67       | -167.91      | 1.08         | 1.29        | 1.11          |
| 6621.00                          | 93.00         | 16.20        | 326.30         | N33.70W        | 6595.80    | 287.60       | 223.76       | -181.59      | 4.41         | 8.49        | 4.86          |
| 6716.00                          | 95.00         | 14.90        | 327.50         | N32.50W        | 6687.32    | 312.71       | 245.08       | -195.50      | -1.37        | 1.26        | 1.41          |
|                                  |               |              |                |                |            |              |              |              |              |             |               |
| 6810.00                          | 94.00         | 13.70        | 325.40         | N34.60W        | 6778.40    | 335.63       | 264.44       | -208.32      | -1.28        | -2.23       | 1.39          |
| 6905.00                          | 95.00         | 12.40        | 313.20         | N46.80W        | 6870.97    | 356.94       | 280.69       | -222.14      | -1.37        | -12.84      | 3.20          |
| 6999.00                          | 94.00         | 13.50        | 311.10         | N48.90W        | 6962.57    | 377.92       | 294.81       | -237.77      | 1.17         | -2.23       | 1.27          |
| 7093.00                          | 94.00         | 13.10        | 317.80         | N42.20W        | 7054.06    | 399.48       | 309.91       | -253.20      | -0.43        | 7.13        | 1.69          |
| 7185.00                          | 92.00         | 11.50        | 318.00         | N42.00W        | 7143.94    | 419.08       | 324.45       | -266.34      | -1.74        | 0.22        | 1.74          |
|                                  |               |              |                |                |            |              |              |              |              |             |               |
| 7281.00                          | 96.00         | 9.90         | 313.20         | N46.80W        | 7238.27    | 436.88       | 337.21       | -278.76      | -1.67        | -5.00       | 1.91          |
| 7376.00                          | 95.00         | 11.10        | 310.40         | N49.60W        | 7331.68    | 454.10       | 348.73       | -291.67      | 1.26         | -2.95       | 1.37          |
| 7471.00                          | 95.00         | 12.10        | 313.60         | N46.40W        | 7424.74    | 473.12       | 361.53       | -305.85      | 1.05         | 3.37        | 1.25          |
| 7565.00                          | 94.00         | 12.50        | 311.60         | N48.40W        | 7516.58    | 493.07       | 375.07       | -320.59      | 0.43         | -2.13       | 0.62          |
| 7660.00                          | 95.00         | 11.30        | 319.20         | N40.80W        | 7609.55    | 512.60       | 388.95       | -334.36      | -1.26        | 8.00        | 2.08          |
|                                  |               |              |                |                |            |              |              |              |              |             |               |
| 7754.00                          | 94.00         | 10.10        | 317.10         | N42.90W        | 7701.91    | 530.05       | 401.96       | -345.99      | -1.28        | -2.23       | 1.34          |
| 7848.00                          | 94.00         | 10.00        | 319.50         | N40.50W        | 7794.47    | 546.45       | 414.20       | -356.90      | -0.11        | 2.55        | 0.46          |
| 7941.00                          | 93.00         | 11.30        | 323.10         | N36.90W        | 7885.87    | 563.58       | 427.63       | -367.62      | 1.40         | 3.87        | 1.57          |
| 8034.00                          | 93.00         | 12.20        | 317.70         | N42.30W        | 7976.92    | 582.48       | 442.18       | -379.70      | 0.97         | -5.81       | 1.53          |
| 8128.00                          | 94.00         | 13.50        | 315.00         | N45.00W        | 8068.56    | 603.37       | 457.29       | -394.15      | 1.38         | -2.87       | 1.52          |
|                                  |               |              |                |                |            |              |              |              |              |             |               |
| 8222.00                          | 94.00         | 14.10        | 316.00         | N44.00W        | 8159.85    | 625.78       | 473.28       | -409.86      | 0.64         | 1.06        | 0.69          |
| 8315.00                          | 93.00         | 13.40        | 312.80         | N47.20W        | 8250.18    | 647.85       | 488.75       | -425.63      | -0.75        | -3.44       | 1.11          |
| 8409.00                          | 94.00         | 13.60        | 314.60         | N45.40W        | 8341.59    | 669.75       | 503.92       | -441.50      | 0.21         | 1.91        | 0.50          |
| 8505.00                          | 96.00         | 12.90        | 316.50         | N43.50W        | 8435.03    | 691.74       | 519.61       | -456.91      | -0.73        | 1.98        | 0.86          |
| 8598.00                          | 93.00         | 12.90        | 315.00         | N45.00W        | 8525.69    | 712.49       | 534.48       | -471.40      | 0.00         | -1.61       | 0.36          |



# LEAM Drilling Systems, Inc.

## Survey Calculations

Job Number: D-3973-MD

**Operator:** Bold Energy      **Location:** Eddy County, New Mexico      **Lease/Well:** Esperanza #24-1  
**Calculation Method:** Minimum Curvature      **Proposed Azimuth:** 317.33      **Bearing:** N42.67W

**Units:** English(ft)

| <u>MeasDepth</u>                | <u>CrsLen</u> | <u>Drift</u> | <u>Azimuth</u> | <u>Bearing</u> | <u>TVD</u> | <u>Vsect</u> | <u>NS(±)</u> | <u>EW(±)</u> | <u>Build</u> | <u>Turn</u> | <u>Dogleg</u> |
|---------------------------------|---------------|--------------|----------------|----------------|------------|--------------|--------------|--------------|--------------|-------------|---------------|
| 8691.00                         | 93.00         | 12.20        | 313.20         | N46.80W        | 8616.46    | 732.66       | 548.55       | -485.90      | -0.75        | -1.94       | 0.86          |
| 8784.00                         | 93.00         | 11.80        | 317.00         | N43.00W        | 8707.43    | 751.97       | 562.23       | -499.55      | -0.43        | 4.09        | 0.95          |
| 8877.00                         | 93.00         | 10.60        | 318.30         | N41.70W        | 8798.66    | 770.04       | 575.58       | -511.72      | -1.29        | 1.40        | 1.32          |
| 8919.00                         | 42.00         | 10.10        | 318.50         | N41.50W        | 8839.98    | 777.58       | 581.22       | -516.73      | -1.19        | 0.48        | 1.19          |
| 8998.00                         | 79.00         | 10.10        | 319.00         | N41.00W        | 8917.75    | 791.43       | 591.63       | -525.87      | 0.00         | 0.63        | 0.11          |
|                                 |               |              |                |                |            |              |              |              |              |             |               |
| 9080.00                         | 82.00         | 10.10        | 316.60         | N43.40W        | 8998.48    | 805.81       | 602.28       | -535.53      | 0.00         | -2.93       | 0.51          |
| 9111.00                         | 31.00         | 9.70         | 314.00         | N46.00W        | 9029.02    | 811.13       | 606.07       | -539.27      | -1.29        | -8.39       | 1.94          |
| 9203.00                         | 92.00         | 10.30        | 319.60         | N40.40W        | 9119.62    | 827.09       | 617.72       | -550.18      | 0.65         | 6.09        | 1.24          |
| 9299.00                         | 96.00         | 12.90        | 319.90         | N40.10W        | 9213.65    | 846.37       | 632.46       | -562.65      | 2.71         | 0.31        | 2.71          |
| 9394.00                         | 95.00         | 11.20        | 313.80         | N46.20W        | 9306.56    | 866.18       | 646.96       | -576.14      | -1.79        | -6.42       | 2.23          |
|                                 |               |              |                |                |            |              |              |              |              |             |               |
| 9490.00                         | 96.00         | 10.60        | 312.00         | N48.00W        | 9400.83    | 884.27       | 659.32       | -589.43      | -0.63        | -1.88       | 0.72          |
| 9583.00                         | 93.00         | 10.60        | 312.60         | N47.40W        | 9492.24    | 901.32       | 670.83       | -602.08      | 0.00         | 0.65        | 0.12          |
| 9679.00                         | 96.00         | 10.40        | 314.40         | N45.60W        | 9586.64    | 918.77       | 682.87       | -614.77      | -0.21        | 1.87        | 0.40          |
| 9753.00                         | 74.00         | 10.60        | 314.80         | N45.20W        | 9659.40    | 932.24       | 692.34       | -624.37      | 0.27         | 0.54        | 0.29          |
| 9849.00                         | 96.00         | 8.80         | 316.40         | N43.60W        | 9754.02    | 948.40       | 703.88       | -635.70      | -1.88        | 1.67        | 1.90          |
|                                 |               |              |                |                |            |              |              |              |              |             |               |
| 9945.00                         | 96.00         | 10.10        | 307.70         | N52.30W        | 9848.72    | 964.05       | 714.35       | -647.43      | 1.35         | -9.06       | 2.01          |
| 10030.00                        | 85.00         | 12.30        | 310.90         | N49.10W        | 9932.10    | 980.39       | 724.83       | -660.17      | 2.59         | 3.76        | 2.69          |
| 10125.00                        | 95.00         | 12.40        | 316.40         | N43.60W        | 10024.90   | 1000.65      | 738.84       | -674.85      | 0.11         | 5.79        | 1.24          |
| 10221.00                        | 96.00         | 12.20        | 314.90         | N45.10W        | 10118.70   | 1021.09      | 753.47       | -689.15      | -0.21        | -1.56       | 0.39          |
| 10320.00                        | 99.00         | 13.60        | 316.60         | N43.40W        | 10215.20   | 1043.18      | 769.31       | -704.55      | 1.41         | 1.72        | 1.47          |
|                                 |               |              |                |                |            |              |              |              |              |             |               |
| 10413.00                        | 93.00         | 12.80        | 318.90         | N41.10W        | 10305.74   | 1064.41      | 785.02       | -718.84      | -0.86        | 2.47        | 1.03          |
| 10509.00                        | 96.00         | 12.00        | 317.60         | N42.40W        | 10399.50   | 1085.02      | 800.40       | -732.56      | -0.83        | -1.35       | 0.88          |
| 10604.00                        | 95.00         | 11.70        | 316.00         | N44.00W        | 10492.48   | 1104.53      | 814.62       | -745.91      | -0.32        | -1.68       | 0.47          |
| 10700.00                        | 96.00         | 12.10        | 316.10         | N43.90W        | 10586.41   | 1124.32      | 828.88       | -759.65      | 0.42         | 0.10        | 0.42          |
| 10792.00                        | 92.00         | 12.10        | 312.10         | N47.90W        | 10676.37   | 1143.56      | 842.29       | -773.49      | 0.00         | -4.35       | 0.91          |
|                                 |               |              |                |                |            |              |              |              |              |             |               |
| 10887.00                        | 95.00         | 12.60        | 325.40         | N34.60W        | 10769.19   | 1163.74      | 857.50       | -786.76      | 0.53         | 14.00       | 3.03          |
| 10983.00                        | 96.00         | 12.40        | 327.20         | N32.80W        | 10862.92   | 1184.26      | 874.78       | -798.29      | -0.21        | 1.88        | 0.46          |
| 11078.00                        | 95.00         | 13.40        | 324.60         | N35.40W        | 10955.52   | 1205.23      | 892.33       | -810.20      | 1.05         | -2.74       | 1.22          |
| 11174.00                        | 96.00         | 13.50        | 320.00         | N40.00W        | 11048.89   | 1227.46      | 909.98       | -823.84      | 0.10         | -4.79       | 1.12          |
| 11268.00                        | 94.00         | 12.70        | 315.20         | N44.80W        | 11140.44   | 1248.75      | 925.72       | -838.18      | -0.85        | -5.11       | 1.44          |
|                                 |               |              |                |                |            |              |              |              |              |             |               |
| 11365.00                        | 97.00         | 12.70        | 310.10         | N49.90W        | 11235.07   | 1269.98      | 940.15       | -853.85      | 0.00         | -5.26       | 1.16          |
| 11461.00                        | 96.00         | 10.40        | 309.30         | N50.70W        | 11329.12   | 1289.03      | 952.44       | -868.63      | -2.40        | -0.83       | 2.40          |
| 11576.00                        | 115.00        | 12.40        | 317.50         | N42.50W        | 11441.86   | 1311.66      | 968.12       | -885.00      | 1.74         | 7.13        | 2.23          |
| 11672.00                        | 96.00         | 10.80        | 322.00         | N38.00W        | 11535.89   | 1330.93      | 982.81       | -897.51      | -1.67        | 4.69        | 1.91          |
| 11767.00                        | 95.00         | 10.40        | 322.50         | N37.50W        | 11629.27   | 1348.34      | 996.62       | -908.21      | -0.42        | 0.53        | 0.43          |
| 11862.00                        | 95.00         | 9.30         | 323.70         | N36.30W        | 11722.87   | 1364.51      | 1009.61      | -917.97      | -1.16        | 1.26        | 1.18          |
| STRAIGHTLINE PROJECTION TO BIT. |               |              |                |                |            |              |              |              |              |             |               |
| 11910.00                        | 48.00         | 9.30         | 323.70         | N36.30W        | 11770.24   | 1372.22      | 1015.86      | -922.56      | 0.00         | 0.00        | 0.00          |