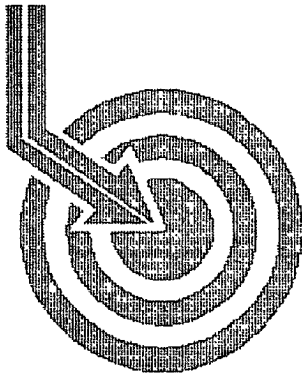




# Scientific Drilling

SUR: A-30--22s-37e, 742/N & 1294/E  
BHL: A-30-22s-37e, 628/N & 1030/E  
API # 30-025-38961

## ENCORE OPERATING

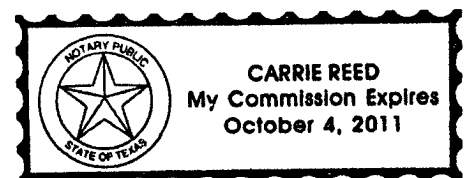
Field: Wildcat  
Site: Lea County, NM  
Well: Encore M State #1  
Wellpath: VH - Job #32K0708569/669  
Survey: 07/22/08 & 08/28/08

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

.....R. Wharton.....Company Representative

Notorized this date 16th of September, 2008.

Carrie Reed  
Notary Signature  
County of Midland  
State of Texas





# Scientific Drilling International Survey Report

|                                           |                                                     |                                         |                |
|-------------------------------------------|-----------------------------------------------------|-----------------------------------------|----------------|
| <b>Company:</b> ENCORE OPERATING          | <b>Date:</b> 09/16/2008                             | <b>Time:</b> 11:53:59                   | <b>Page:</b> 1 |
| <b>Field:</b> Wildcat                     | <b>Co-ordinate(NE) Reference:</b>                   | <b>Site:</b> Lea County, NM, True North |                |
| <b>Site:</b> Lea County, NM               | <b>Vertical (TVD) Reference:</b>                    | <b>SITE 0.0</b>                         |                |
| <b>Well:</b> Encore M State #1            | <b>Section (VS) Reference:</b>                      | <b>Well (0.00N,0.00E,63.87Azi)</b>      |                |
| <b>Wellpath:</b> VH - Job #32K0708569/669 | <b>Survey Calculation Method:</b> Minimum Curvature | <b>Db:</b> Sybase                       |                |

|                                                |                                   |
|------------------------------------------------|-----------------------------------|
| <b>Survey:</b> 07/22/08 & 08/28/08             | <b>Start Date:</b> 07/22/2008     |
| KSRG 0'-7000' & 7100'-11848'                   |                                   |
| <b>Company:</b> Scientific Drilling Internatio | <b>Engineer:</b> Madrid w/GeoGyro |
| <b>Tool:</b> Keeper;Keeper Gyro                | <b>Tied-to:</b> 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        | 0.00        | 0.00      | 0.00     | 0.00      | 0.00      | 0.00             | 0.00       | 0.00        |
| 100.00   | 0.46        | 129.24      | 100.00    | 0.17     | -0.25     | 0.31      | 0.46             | 0.40       | 129.24      |
| 200.00   | 0.09        | 90.41       | 200.00    | 0.40     | -0.51     | 0.70      | 0.39             | 0.87       | 125.98      |
| 300.00   | 0.63        | 6.02        | 300.00    | 0.77     | 0.04      | 0.84      | 0.63             | 0.84       | 87.42       |
| 400.00   | 0.46        | 343.38      | 399.99    | 1.13     | 0.97      | 0.78      | 0.27             | 1.24       | 38.81       |
| 500.00   | 0.49        | 341.86      | 499.99    | 1.25     | 1.76      | 0.53      | 0.03             | 1.84       | 16.80       |
| 600.00   | 0.46        | 344.67      | 599.98    | 1.39     | 2.55      | 0.29      | 0.04             | 2.57       | 6.53        |
| 700.00   | 0.43        | 340.90      | 699.98    | 1.51     | 3.30      | 0.06      | 0.04             | 3.30       | 1.10        |
| 800.00   | 0.50        | 341.35      | 799.98    | 1.61     | 4.06      | -0.20     | 0.07             | 4.07       | 357.20      |
| 900.00   | 0.49        | 344.80      | 899.97    | 1.75     | 4.89      | -0.45     | 0.03             | 4.91       | 354.73      |
| 1000.00  | 0.42        | 347.24      | 999.97    | 1.91     | 5.66      | -0.64     | 0.07             | 5.70       | 353.51      |
| 1100.00  | 0.42        | 343.15      | 1099.97   | 2.06     | 6.37      | -0.83     | 0.03             | 6.42       | 352.57      |
| 1200.00  | 0.57        | 351.77      | 1199.96   | 2.27     | 7.21      | -1.01     | 0.17             | 7.28       | 352.04      |
| 1300.00  | 0.62        | 13.54       | 1299.96   | 2.77     | 8.23      | -0.95     | 0.23             | 8.28       | 353.39      |
| 1400.00  | 0.66        | 17.54       | 1399.95   | 3.51     | 9.30      | -0.65     | 0.06             | 9.33       | 355.99      |
| 1500.00  | 0.79        | 21.45       | 1499.95   | 4.42     | 10.50     | -0.23     | 0.14             | 10.50      | 358.76      |
| 1600.00  | 0.79        | 24.31       | 1599.94   | 5.46     | 11.76     | 0.31      | 0.04             | 11.77      | 1.50        |
| 1700.00  | 0.83        | 23.78       | 1699.93   | 6.54     | 13.06     | 0.88      | 0.04             | 13.09      | 3.88        |
| 1800.00  | 0.87        | 30.02       | 1799.91   | 7.73     | 14.38     | 1.56      | 0.10             | 14.46      | 6.18        |
| 1900.00  | 0.88        | 33.20       | 1899.90   | 9.02     | 15.68     | 2.36      | 0.05             | 15.85      | 8.55        |
| 2000.00  | 1.12        | 38.92       | 1999.89   | 10.57    | 17.08     | 3.39      | 0.26             | 17.41      | 11.23       |
| 2100.00  | 1.59        | 50.48       | 2099.86   | 12.80    | 18.72     | 5.08      | 0.54             | 19.40      | 15.17       |
| 2200.00  | 1.77        | 54.26       | 2199.82   | 15.67    | 20.51     | 7.40      | 0.21             | 21.80      | 19.84       |
| 2300.00  | 2.00        | 60.20       | 2299.76   | 18.94    | 22.28     | 10.17     | 0.30             | 24.49      | 24.53       |
| 2400.00  | 2.15        | 61.44       | 2399.70   | 22.55    | 24.04     | 13.33     | 0.16             | 27.49      | 29.01       |
| 2500.00  | 2.44        | 65.34       | 2499.62   | 26.56    | 25.83     | 16.91     | 0.33             | 30.87      | 33.22       |
| 2600.00  | 2.50        | 65.62       | 2599.52   | 30.86    | 27.61     | 20.83     | 0.06             | 34.59      | 37.03       |
| 2700.00  | 2.52        | 64.82       | 2699.43   | 35.24    | 29.45     | 24.81     | 0.04             | 38.51      | 40.11       |
| 2800.00  | 2.43        | 65.40       | 2799.33   | 39.56    | 31.27     | 28.72     | 0.09             | 42.46      | 42.57       |
| 2900.00  | 2.42        | 65.32       | 2899.24   | 43.79    | 33.03     | 32.57     | 0.01             | 46.39      | 44.60       |
| 3000.00  | 2.23        | 72.90       | 2999.16   | 47.82    | 34.48     | 36.35     | 0.36             | 50.10      | 46.51       |
| 3100.00  | 2.07        | 75.23       | 3099.09   | 51.51    | 35.52     | 39.95     | 0.18             | 53.46      | 48.36       |
| 3200.00  | 1.88        | 76.85       | 3199.03   | 54.88    | 36.35     | 43.30     | 0.20             | 56.53      | 49.98       |
| 3300.00  | 1.72        | 73.47       | 3298.98   | 57.96    | 37.15     | 46.33     | 0.19             | 59.39      | 51.28       |
| 3400.00  | 1.53        | 69.54       | 3398.94   | 60.77    | 38.04     | 49.02     | 0.22             | 62.05      | 52.19       |
| 3500.00  | 1.59        | 69.80       | 3498.91   | 63.48    | 38.99     | 51.58     | 0.06             | 64.66      | 52.91       |
| 3600.00  | 1.36        | 66.55       | 3598.87   | 66.04    | 39.94     | 53.97     | 0.24             | 67.14      | 53.49       |
| 3700.00  | 1.26        | 66.97       | 3698.85   | 68.32    | 40.84     | 56.07     | 0.10             | 69.37      | 53.93       |
| 3800.00  | 1.18        | 61.94       | 3798.82   | 70.45    | 41.76     | 57.99     | 0.13             | 71.46      | 54.24       |
| 3900.00  | 0.96        | 59.07       | 3898.81   | 72.32    | 42.67     | 59.62     | 0.23             | 73.31      | 54.40       |
| 4000.00  | 0.69        | 49.50       | 3998.80   | 73.73    | 43.50     | 60.79     | 0.30             | 74.75      | 54.42       |
| 4100.00  | 0.61        | 44.43       | 4098.79   | 74.82    | 44.27     | 61.62     | 0.10             | 75.87      | 54.31       |
| 4200.00  | 0.85        | 24.60       | 4198.78   | 75.90    | 45.32     | 62.30     | 0.35             | 77.04      | 53.97       |
| 4300.00  | 0.85        | 16.38       | 4298.77   | 76.97    | 46.71     | 62.82     | 0.12             | 78.28      | 53.37       |
| 4400.00  | 0.85        | 10.48       | 4398.76   | 77.91    | 48.15     | 63.17     | 0.09             | 79.42      | 52.68       |
| 4500.00  | 0.97        | 10.35       | 4498.75   | 78.86    | 49.71     | 63.45     | 0.12             | 80.61      | 51.92       |
| 4600.00  | 1.08        | 19.87       | 4598.73   | 80.04    | 51.43     | 63.93     | 0.20             | 82.05      | 51.18       |
| 4700.00  | 1.11        | 20.66       | 4698.71   | 81.42    | 53.22     | 64.59     | 0.03             | 83.69      | 50.51       |
| 4800.00  | 1.15        | 19.91       | 4798.69   | 82.85    | 55.07     | 65.27     | 0.04             | 85.40      | 49.84       |



# Scientific Drilling International Survey Report

|                                           |                                                                    |                       |                |
|-------------------------------------------|--------------------------------------------------------------------|-----------------------|----------------|
| <b>Company:</b> ENCORE OPERATING          | <b>Date:</b> 09/16/2008                                            | <b>Time:</b> 11:53:59 | <b>Page:</b> 2 |
| <b>Field:</b> Wildcat                     | <b>Co-ordinate(NE) Reference:</b> Site: Lea County, NM, True North |                       |                |
| <b>Site:</b> Lea County, NM               | <b>Vertical (TVD) Reference:</b> SITE 0.0                          |                       |                |
| <b>Well:</b> Encore M State #1            | <b>Section (VS) Reference:</b> Well (0.00N,0.00E,63.87Azi)         |                       |                |
| <b>Wellpath:</b> VH - Job #32K0708569/669 | <b>Survey Calculation Method:</b> Minimum Curvature                | <b>Db:</b> 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  | 1.11        | 20.87       | 4898.67   | 84.28    | 56.92     | 65.96     | 0.04             | 87.12      | 49.21       |
| 5000.00  | 1.13        | 22.93       | 4998.66   | 85.74    | 58.73     | 66.69     | 0.04             | 88.86      | 48.63       |
| 5100.00  | 1.11        | 22.51       | 5098.64   | 87.21    | 60.54     | 67.44     | 0.02             | 90.63      | 48.09       |
| 5200.00  | 1.18        | 25.59       | 5198.62   | 88.74    | 62.36     | 68.26     | 0.09             | 92.45      | 47.59       |
| 5300.00  | 1.13        | 25.51       | 5298.60   | 90.32    | 64.18     | 69.13     | 0.05             | 94.33      | 47.13       |
| 5400.00  | 1.22        | 24.23       | 5398.57   | 91.92    | 66.04     | 69.99     | 0.09             | 96.23      | 46.66       |
| 5500.00  | 1.14        | 24.94       | 5498.55   | 93.51    | 67.91     | 70.84     | 0.08             | 98.14      | 46.21       |
| 5600.00  | 1.15        | 23.70       | 5598.53   | 95.05    | 69.73     | 71.67     | 0.03             | 99.99      | 45.78       |
| 5700.00  | 1.13        | 27.68       | 5698.51   | 96.61    | 71.52     | 72.53     | 0.08             | 101.86     | 45.40       |
| 5800.00  | 1.32        | 26.85       | 5798.49   | 98.33    | 73.43     | 73.51     | 0.19             | 103.90     | 45.03       |
| 5900.00  | 1.42        | 25.06       | 5898.46   | 100.21   | 75.58     | 74.55     | 0.11             | 106.16     | 44.61       |
| 6000.00  | 1.47        | 27.85       | 5998.43   | 102.22   | 77.83     | 75.68     | 0.09             | 108.56     | 44.20       |
| 6100.00  | 1.33        | 29.99       | 6098.40   | 104.22   | 79.97     | 76.86     | 0.15             | 110.92     | 43.86       |
| 6200.00  | 1.34        | 37.17       | 6198.37   | 106.23   | 81.91     | 78.14     | 0.17             | 113.20     | 43.65       |
| 6300.00  | 1.33        | 44.53       | 6298.35   | 108.37   | 83.67     | 79.66     | 0.17             | 115.53     | 43.60       |
| 6400.00  | 1.50        | 46.10       | 6398.32   | 110.71   | 85.40     | 81.42     | 0.17             | 117.99     | 43.63       |
| 6500.00  | 1.64        | 49.64       | 6498.28   | 113.34   | 87.24     | 83.45     | 0.17             | 120.73     | 43.73       |
| 6600.00  | 1.66        | 47.87       | 6598.24   | 116.12   | 89.13     | 85.62     | 0.05             | 123.59     | 43.85       |
| 6700.00  | 1.81        | 51.00       | 6698.19   | 119.05   | 91.10     | 87.92     | 0.18             | 126.61     | 43.98       |
| 6800.00  | 1.78        | 49.24       | 6798.14   | 122.09   | 93.11     | 90.32     | 0.06             | 129.72     | 44.13       |
| 6900.00  | 1.64        | 47.82       | 6898.10   | 124.97   | 95.08     | 92.56     | 0.15             | 132.70     | 44.23       |
| 7000.00  | 1.87        | 45.59       | 6998.05   | 127.90   | 97.19     | 94.79     | 0.24             | 135.75     | 44.28       |
| 7100.00  | 1.81        | 52.87       | 7098.00   | 131.00   | 99.28     | 97.21     | 0.24             | 138.95     | 44.40       |
| 7200.00  | 1.87        | 58.79       | 7197.95   | 134.17   | 101.08    | 99.86     | 0.20             | 142.09     | 44.65       |
| 7300.00  | 2.02        | 59.38       | 7297.89   | 137.55   | 102.82    | 102.78    | 0.15             | 145.38     | 44.99       |
| 7400.00  | 2.03        | 61.30       | 7397.83   | 141.08   | 104.57    | 105.85    | 0.07             | 148.79     | 45.35       |
| 7500.00  | 2.13        | 62.33       | 7497.76   | 144.71   | 106.28    | 109.05    | 0.11             | 152.27     | 45.73       |
| 7600.00  | 2.14        | 63.31       | 7597.69   | 148.43   | 107.99    | 112.36    | 0.04             | 155.84     | 46.14       |
| 7700.00  | 2.24        | 64.40       | 7697.62   | 152.25   | 109.67    | 115.79    | 0.11             | 159.48     | 46.56       |
| 7800.00  | 2.47        | 66.48       | 7797.53   | 156.36   | 111.37    | 119.53    | 0.25             | 163.37     | 47.02       |
| 7900.00  | 4.02        | 80.66       | 7897.37   | 161.87   | 112.80    | 124.96    | 1.73             | 168.35     | 47.93       |
| 8000.00  | 4.62        | 76.37       | 7997.09   | 169.16   | 114.32    | 132.34    | 0.68             | 174.88     | 49.18       |
| 8100.00  | 4.62        | 72.66       | 8096.76   | 177.07   | 116.47    | 140.10    | 0.30             | 182.19     | 50.26       |
| 8200.00  | 4.21        | 72.95       | 8196.47   | 184.67   | 118.75    | 147.45    | 0.41             | 189.32     | 51.15       |
| 8300.00  | 4.10        | 72.55       | 8296.20   | 191.83   | 120.89    | 154.37    | 0.11             | 196.07     | 51.93       |
| 8400.00  | 3.75        | 73.76       | 8395.97   | 198.59   | 122.88    | 160.92    | 0.36             | 202.47     | 52.63       |
| 8500.00  | 3.22        | 74.04       | 8495.78   | 204.57   | 124.57    | 166.76    | 0.53             | 208.15     | 53.24       |
| 8600.00  | 1.80        | 87.50       | 8595.69   | 208.78   | 125.41    | 171.03    | 1.53             | 212.08     | 53.75       |
| 8700.00  | 0.36        | 115.98      | 8695.67   | 210.41   | 125.34    | 172.88    | 1.49             | 213.54     | 54.06       |
| 8800.00  | 0.24        | 140.23      | 8795.67   | 210.65   | 125.04    | 173.30    | 0.17             | 213.70     | 54.19       |
| 8900.00  | 0.46        | 133.89      | 8895.66   | 210.84   | 124.60    | 173.72    | 0.22             | 213.78     | 54.35       |
| 9000.00  | 0.76        | 142.13      | 8995.66   | 211.11   | 123.80    | 174.42    | 0.31             | 213.89     | 54.63       |
| 9100.00  | 0.82        | 126.97      | 9095.65   | 211.57   | 122.85    | 175.39    | 0.22             | 214.14     | 54.99       |
| 9200.00  | 0.62        | 126.86      | 9195.64   | 212.14   | 122.09    | 176.40    | 0.20             | 214.53     | 55.31       |
| 9300.00  | 0.65        | 106.20      | 9295.63   | 212.80   | 121.61    | 177.38    | 0.23             | 215.06     | 55.57       |
| 9400.00  | 0.90        | 111.36      | 9395.62   | 213.75   | 121.16    | 178.65    | 0.26             | 215.86     | 55.85       |
| 9500.00  | 0.90        | 111.29      | 9495.61   | 214.82   | 120.59    | 180.12    | 0.00             | 216.76     | 56.20       |
| 9600.00  | 0.89        | 107.22      | 9595.60   | 215.91   | 120.08    | 181.59    | 0.06             | 217.70     | 56.53       |
| 9700.00  | 0.74        | 102.06      | 9695.59   | 216.98   | 119.71    | 182.96    | 0.17             | 218.65     | 56.80       |
| 9800.00  | 0.73        | 90.84       | 9795.58   | 218.06   | 119.57    | 184.23    | 0.14             | 219.63     | 57.02       |
| 9900.00  | 0.73        | 70.05       | 9895.57   | 219.26   | 119.78    | 185.47    | 0.26             | 220.78     | 57.15       |
| 10000.00 | 0.95        | 75.57       | 9995.56   | 220.71   | 120.20    | 186.87    | 0.23             | 222.19     | 57.25       |



# Scientific Drilling International Survey Report

Company: ENCORE OPERATING Date: 09/16/2008 Time: 11:53:59 Page: 3  
Field: Wildcat Co-ordinate(NE) Reference: Site: Lea County, NM, True North  
Site: Lea County, NM Vertical (TVD) Reference: SITE 0.0  
Well: Encore M State #1 Section (VS) Reference: Well (0.00N,0.00E,63.87Azi)  
Wellpath: VH - Job #32K0708569/669 Survey Calculation Method: Minimum Curvature Db: Sybase

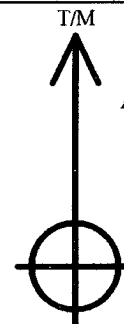
## Survey

| MD<br>ft | Incl<br>deg | Azlm<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 |
|----------|-------------|-------------|-----------|----------|-----------|-----------|------------------|------------|-------------|
| 10100.00 | 1.19        | 78.67       | 10095.55  | 222.52   | 120.61    | 188.69    | 0.25             | 223.94     | 57.41       |
| 10200.00 | 1.00        | 79.34       | 10195.53  | 224.37   | 120.98    | 190.57    | 0.19             | 225.72     | 57.59       |
| 10300.00 | 1.23        | 87.09       | 10295.51  | 226.19   | 121.19    | 192.50    | 0.27             | 227.47     | 57.81       |
| 10400.00 | 1.34        | 73.08       | 10395.48  | 228.33   | 121.59    | 194.69    | 0.33             | 229.53     | 58.01       |
| 10500.00 | 1.91        | 78.34       | 10495.44  | 231.10   | 122.26    | 197.44    | 0.59             | 232.23     | 58.23       |
| 10600.00 | 2.48        | 73.74       | 10595.37  | 234.85   | 123.21    | 201.15    | 0.60             | 235.88     | 58.51       |
| 10700.00 | 3.08        | 70.19       | 10695.25  | 239.65   | 124.72    | 205.75    | 0.62             | 240.60     | 58.78       |
| 10800.00 | 1.91        | 65.74       | 10795.15  | 243.99   | 126.32    | 209.80    | 1.19             | 244.89     | 58.95       |
| 10900.00 | 1.99        | 67.16       | 10895.10  | 247.38   | 127.68    | 212.92    | 0.09             | 248.26     | 59.05       |
| 11000.00 | 1.69        | 64.53       | 10995.05  | 250.59   | 128.98    | 215.85    | 0.31             | 251.45     | 59.14       |
| 11100.00 | 1.98        | 94.07       | 11095.00  | 253.56   | 129.50    | 218.90    | 0.98             | 254.34     | 59.39       |
| 11200.00 | 2.30        | 88.27       | 11194.93  | 256.88   | 129.43    | 222.63    | 0.39             | 257.52     | 59.83       |
| 11300.00 | 1.59        | 79.07       | 11294.87  | 260.05   | 129.76    | 226.00    | 0.77             | 260.60     | 60.14       |
| 11400.00 | 1.79        | 66.76       | 11394.83  | 262.95   | 130.64    | 228.80    | 0.41             | 263.47     | 60.27       |
| 11500.00 | 2.49        | 77.40       | 11494.76  | 266.62   | 131.73    | 232.35    | 0.80             | 267.09     | 60.45       |
| 11600.00 | 2.41        | 86.08       | 11594.66  | 270.68   | 132.35    | 236.57    | 0.38             | 271.07     | 60.78       |
| 11700.00 | 3.72        | 113.46      | 11694.52  | 274.73   | 131.20    | 241.64    | 1.93             | 274.96     | 61.50       |
| 11800.00 | 5.82        | 126.23      | 11794.17  | 279.18   | 126.91    | 248.71    | 2.34             | 279.22     | 62.97       |
| 11848.00 | 5.85        | 132.06      | 11841.93  | 281.22   | 123.83    | 252.49    | 1.24             | 281.22     | 63.87       |



**Scientific  
Drilling**

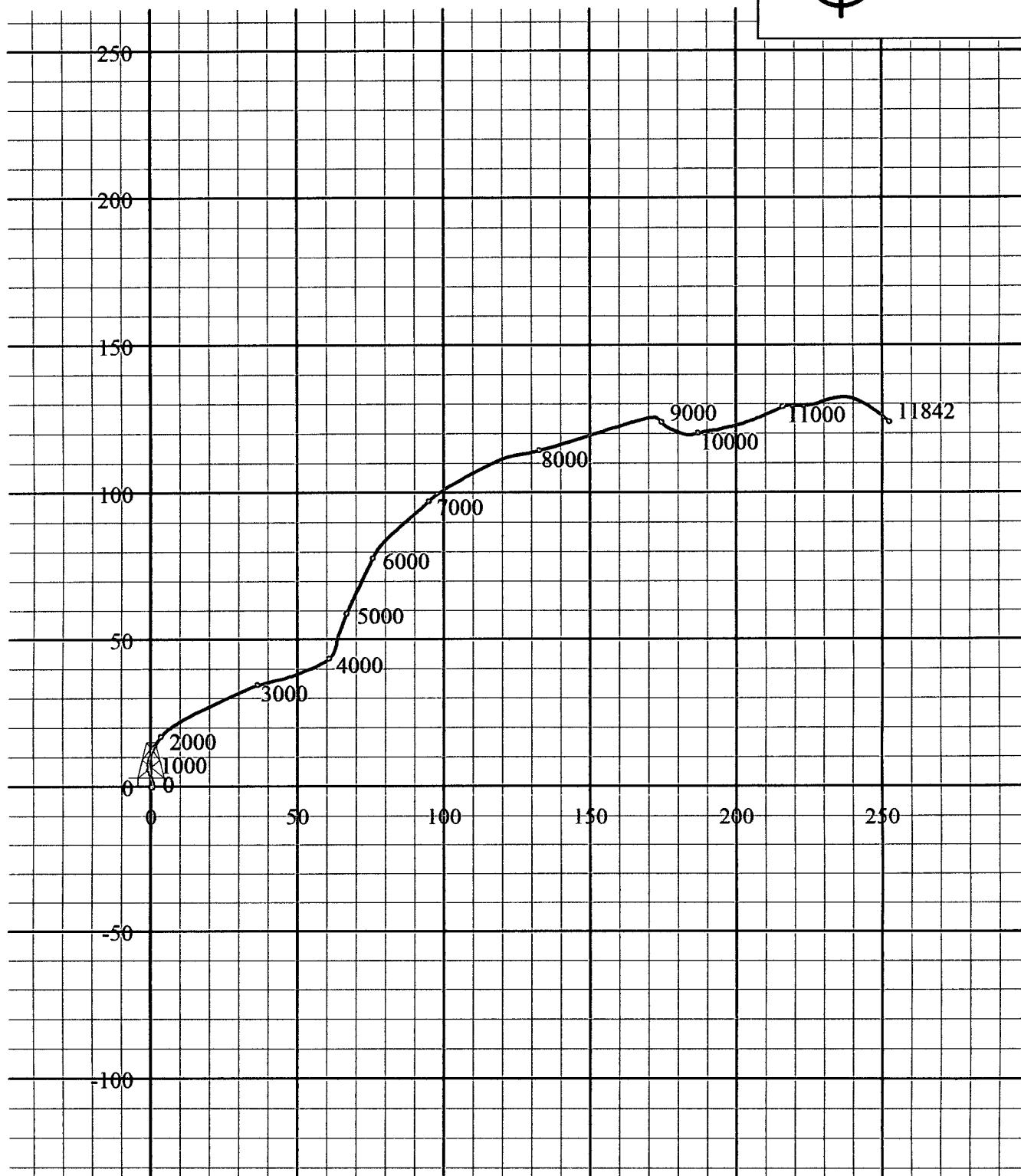
Field: Wildcat  
Site: Lea County, NM  
Well: Encore M State #1  
Wellpath: VH - Job #32K0708569/669  
Survey: 07/22/08 & 08/28/08



Azimuths to True North  
Magnetic North: 0.00°

Magnetic Field  
Strength: 0nT  
Dip Angle: 0.00°  
Date: 08/20/2008  
Model: igrf2000

South(-)/North(+) [50ft/in]



West(-)/East(+) [50ft/in]