

# Scientific Drilling International

## Survey Report

Company: TEXACO E & P INC.  
Field: Wildcat  
Site: Lea County, NM  
Well: #1-H  
Wellpath: VH - Job #32K1101611

Date: 1/2/2002  
Co-ordinate(NE) Reference:  
Vertical (TVD) Reference:  
Section (VS) Reference:  
Survey Calculation Method:

Time: 13:23:43  
Page: 1  
Site: Lea County, NM, True North  
SITE 0.0 above Mean Sea Level  
Well (0.0E,0.0N,154.2Azi)  
Minimum Curvature

Survey: 11/14/01  
KSRG 0'-6593'

Start Date: 1/2/2002

Company: Scientific Drilling International  
Tool: Keeper

Engineer: Jeff Cossey

### Survey

| MD<br>ft | Incl<br>deg | Azim<br>deg | TVD<br>ft | VS<br>ft | N/S<br>ft | E/W<br>ft | ClsD<br>ft | ClsA<br>deg |
|----------|-------------|-------------|-----------|----------|-----------|-----------|------------|-------------|
| 0.0      | 0.00        | 0.00        | 0.0       | 0.0      | 0.0       | 0.0       | 0.0        | 0.00        |
| 100.0    | 0.27        | 144.44      | 100.0     | 0.2      | -0.2      | 0.1       | 0.2        | 144.44      |
| 200.0    | 0.29        | 148.11      | 200.0     | 0.7      | -0.6      | 0.4       | 0.7        | 145.72      |
| 300.0    | 0.30        | 83.73       | 300.0     | 1.1      | -0.8      | 0.8       | 1.1        | 134.38      |
| 400.0    | 0.45        | 69.65       | 400.0     | 1.2      | -0.6      | 1.4       | 1.6        | 113.42      |
| 500.0    | 0.41        | 58.22       | 500.0     | 1.2      | -0.3      | 2.1       | 2.1        | 97.97       |
| 600.0    | 0.33        | 60.34       | 600.0     | 1.1      | 0.0       | 2.7       | 2.7        | 89.21       |
| 700.0    | 0.28        | 70.99       | 700.0     | 1.1      | 0.3       | 3.1       | 3.1        | 85.29       |
| 800.0    | 0.25        | 58.97       | 800.0     | 1.1      | 0.5       | 3.6       | 3.6        | 82.78       |
| 900.0    | 0.17        | 67.78       | 900.0     | 1.1      | 0.6       | 3.9       | 3.9        | 80.93       |
| 1000.0   | 0.36        | 70.43       | 1000.0    | 1.2      | 0.8       | 4.3       | 4.4        | 79.74       |
| 1100.0   | 0.20        | 76.99       | 1100.0    | 1.2      | 0.9       | 4.8       | 4.9        | 79.05       |
| 1200.0   | 0.23        | 88.57       | 1200.0    | 1.4      | 1.0       | 5.2       | 5.2        | 79.34       |
| 1300.0   | 0.28        | 130.25      | 1300.0    | 1.7      | 0.8       | 5.5       | 5.6        | 81.61       |
| 1400.0   | 0.28        | 134.96      | 1400.0    | 2.1      | 0.5       | 5.9       | 5.9        | 85.29       |
| 1500.0   | 0.53        | 124.47      | 1500.0    | 2.8      | 0.1       | 6.5       | 6.5        | 89.54       |
| 1600.0   | 0.62        | 138.31      | 1600.0    | 3.7      | -0.6      | 7.2       | 7.2        | 94.88       |
| 1700.0   | 0.66        | 141.91      | 1700.0    | 4.8      | -1.5      | 7.9       | 8.0        | 100.54      |
| 1800.0   | 0.68        | 140.75      | 1800.0    | 5.9      | -2.4      | 8.6       | 9.0        | 105.43      |
| 1900.0   | 0.62        | 145.98      | 1900.0    | 7.0      | -3.3      | 9.3       | 9.9        | 109.46      |
| 2000.0   | 0.34        | 128.66      | 2000.0    | 7.8      | -3.9      | 9.9       | 10.6       | 111.73      |
| 2100.0   | 0.30        | 104.06      | 2099.9    | 8.3      | -4.2      | 10.3      | 11.1       | 111.99      |
| 2200.0   | 0.58        | 69.20       | 2199.9    | 8.5      | -4.1      | 11.1      | 11.8       | 110.15      |
| 2300.0   | 0.80        | 57.63       | 2299.9    | 8.4      | -3.5      | 12.1      | 12.6       | 106.12      |
| 2400.0   | 1.00        | 50.64       | 2399.9    | 8.1      | -2.6      | 13.4      | 13.6       | 100.90      |
| 2500.0   | 1.13        | 51.10       | 2499.9    | 7.7      | -1.4      | 14.8      | 14.9       | 95.41       |
| 2600.0   | 1.32        | 47.47       | 2599.9    | 7.2      | 0.0       | 16.4      | 16.4       | 90.03       |
| 2700.0   | 1.33        | 47.47       | 2699.9    | 6.5      | 1.6       | 18.2      | 18.2       | 85.10       |
| 2800.0   | 1.23        | 42.12       | 2799.8    | 5.8      | 3.1       | 19.7      | 20.0       | 80.97       |
| 2900.0   | 0.88        | 39.76       | 2899.8    | 5.0      | 4.5       | 20.9      | 21.4       | 77.81       |
| 3000.0   | 0.68        | 44.96       | 2999.8    | 4.5      | 5.5       | 21.8      | 22.5       | 75.79       |
| 3100.0   | 0.72        | 49.54       | 3099.8    | 4.2      | 6.4       | 22.7      | 23.6       | 74.38       |
| 3200.0   | 0.64        | 64.86       | 3199.8    | 4.0      | 7.0       | 23.7      | 24.7       | 73.55       |
| 3300.0   | 0.31        | 105.63      | 3299.8    | 4.2      | 7.2       | 24.5      | 25.5       | 73.69       |
| 3400.0   | 0.55        | 67.56       | 3399.8    | 4.4      | 7.3       | 25.2      | 26.2       | 73.89       |
| 3500.0   | 0.37        | 82.50       | 3499.8    | 4.5      | 7.5       | 26.0      | 27.0       | 73.88       |
| 3600.0   | 0.08        | 92.31       | 3599.8    | 4.7      | 7.5       | 26.4      | 27.4       | 74.03       |
| 3700.0   | 0.08        | 93.41       | 3699.8    | 4.7      | 7.5       | 26.5      | 27.5       | 74.12       |
| 3800.0   | 0.11        | 127.93      | 3799.8    | 4.9      | 7.5       | 26.6      | 27.7       | 74.33       |
| 3900.0   | 0.37        | 187.25      | 3899.8    | 5.2      | 7.1       | 26.7      | 27.6       | 75.10       |
| 4000.0   | 0.44        | 193.90      | 3999.8    | 5.8      | 6.4       | 26.5      | 27.3       | 76.44       |
| 4100.0   | 0.56        | 197.02      | 4099.8    | 6.4      | 5.6       | 26.3      | 26.9       | 78.06       |
| 4200.0   | 0.94        | 204.28      | 4199.8    | 7.3      | 4.3       | 25.8      | 26.2       | 80.45       |
| 4300.0   | 1.19        | 204.68      | 4299.7    | 8.5      | 2.7       | 25.1      | 25.2       | 83.95       |
| 4400.0   | 1.28        | 204.85      | 4399.7    | 9.9      | 0.7       | 24.2      | 24.2       | 88.34       |
| 4500.0   | 1.35        | 202.98      | 4499.7    | 11.4     | -1.4      | 23.2      | 23.3       | 93.45       |
| 4600.0   | 1.32        | 201.96      | 4599.7    | 12.9     | -3.6      | 22.3      | 22.6       | 99.04       |
| 4700.0   | 1.23        | 213.39      | 4699.6    | 14.2     | -5.5      | 21.3      | 22.0       | 104.51      |