



PHOENIX
TECHNOLOGY SERVICES

April 29, 2020

Oil Conservation Division
State of New Mexico
1625 N. French Drive
District 1 - Hobbs
Hobbs, New Mexico 88240

Attention: Regulatory Department

Re: Conoco Phillips
Zia Hills 19 Fed Com 108H
Lea County, NM
API #30-025-44235
Job No. 65859

Enclosed please find the Survey Data Certification, and the original Plat and one copy of the Survey Report performed on the above referenced well by Phoenix Technology Services, Inc. (P-5 No. 664171). Other information required by your office is as follows:

Name & Title of Surveyor	Drain Hole Number	Surveyed Depths		Dates Performed		Type of Survey
		From	To	Start	End	
Nathan Tatum	108H	1,223	21,644	3/9/20	4/6/20	MWD

A certified plat on which the bottom hole location is oriented both to the surface location and to the lease lines (or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Best Regards,

Brittany Carley

Brittany Carley
Operations Administrator

SURVEY DATA CERTIFICATION



PHOENIX
TECHNOLOGY SERVICES

Job #: 65859
Client: Conoco Phillips
County & State: Lea, NM
Well: Zia Hills 19 Federal Com 108H
API No: 30-025-44235
Proposed Direction: 176.83°

TIE-IN DATA

MD	TVD	INC	AZM	N/-S	E/-W	DATA SOURCE
1089.00 ft	1088.87 ft	0.72°	177.60°	14.01 S	7.25 E	Gyro
Data Source Company:						VES Survey International

SURVEY DATA

First Survey Date	First Survey Depth	INC	AZM
9-Mar-20	1,223 ft	0.47°	298.59°

Last Survey Date	Last Survey Depth	INC	AZM
6-Apr-20	21,644 ft	90.19°	179.90°

Survey Instrument Type
Velocity/UTX

Projected TD Survey Date	Projected TD Survey Depth	INC	AZM
6-Apr-20	21,697 ft	90.19°	179.90°

CORRECTION INFORMATION

Magnetic Declination Used	6.68 degrees
Grid Convergence Used	0.33 degrees

Corrected to True/Grid North
Grid North

Total Correction	6.35 degrees
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Nathan Tatum

TO THE BEST OF MY KNOWLEDGE, I
CERTIFY THIS SURVEY DATA TO BE TRUE
AND CORRECT.

Signature

6-Apr

Date

ConocoPhillips MCBU - Permian-Panhandle Gold Data

Planning - NM East State Zone - 3001

ZIA HILLS 19 Federal Com 108H

ZIA HILLS 19 Federal Com 108H

OH / 65859

Survey: Phoenix MWD Surveys

Standard Survey Report

07 April, 2020

ConocoPhillips

Survey Report

Company: ConocoPhillips MCBU - Permian-Panhandle Gold Data	Local Co-ordinate Reference: Well ZIA HILLS 19 Federal Com 108H
Project: Planning - NM East State Zone - 3001	TVD Reference: KB @ 3208.70ft (Nabors 894)
Site: ZIA HILLS 19 Federal Com 108H	MD Reference: KB @ 3208.70ft (Nabors 894)
Well: ZIA HILLS 19 Federal Com 108H	North Reference: Grid
Wellbore: OH / 65859	Survey Calculation Method: Minimum Curvature
Design: Surveys (Nabors 894)	Database: EDT 14 Central Planning

Project	Planning - NM East State Zone - 3001, Permian Basin - New Mexico - East/South East, Planning Project for Permian wells in NM Zone 3001		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		Using geodetic scale factor

Site	ZIA HILLS 19 Federal Com 108H		
Site Position:		Northing: 374,520.710 usft	Latitude: 32° 1' 41.494 N
From: Map		Easting: 689,805.640 usft	Longitude: 103° 43' 15.111 W
Position Uncertainty: 0.00 ft		Slot Radius: 13-3/16 "	Grid Convergence: 0.32 °

Well	ZIA HILLS 19 Federal Com 108H		
Well Position	+N-S 0.00 ft	Northing: 374,520.710 usft	Latitude: 32° 1' 41.494 N
	+E-W 0.00 ft	Easting: 689,805.640 usft	Longitude: 103° 43' 15.111 W
Position Uncertainty	0.00 ft	Wellhead Elevation: ft	Ground Level: 3,178.20 ft

Wellbore	OH / 65859				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2018	2/18/2020	6.82	59.74	47,558.70812745

Design	Surveys (Nabors 894)				
Audit Notes:					
Version: 1.0	Phase: ACTUAL	Tie On Depth:	0.00		
Vertical Section:	Depth From (TVD) (ft)	+N-S (ft)	+E-W (ft)	Direction (°)	
	0.00	0.00	0.00	176.83	

Survey Program	Date 4/7/2020			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
74.25	1,089.00	VES Gyro Surveys (OH / 65859)	GOOD GYRO	GOOD GYRO
1,089.00	21,697.00	Phoenix MWD Surveys (OH / 65859)	MWD+IFR1+MS_CoP	Fixed:v2:Eagleford, crustal dec + 3-axis corr.

Survey																																																																																																				
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Measured Depth (ft)</th> <th>Inclination (°)</th> <th>Azimuth (°)</th> <th>Vertical Depth (ft)</th> <th>+N-S (ft)</th> <th>+E-W (ft)</th> <th>Vertical Section (ft)</th> <th>Dogleg Rate (°/100ft)</th> <th>Build Rate (°/100ft)</th> <th>Turn Rate (°/100ft)</th> </tr> </thead> <tbody> <tr> <td>1,089.00</td> <td>0.72</td> <td>177.60</td> <td>1,088.87</td> <td>-14.01</td> <td>7.25</td> <td>14.39</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> </tr> <tr> <td>1,223.00</td> <td>0.47</td> <td>298.59</td> <td>1,222.87</td> <td>-14.59</td> <td>6.80</td> <td>14.94</td> <td>0.78</td> <td>-0.19</td> <td>90.29</td> </tr> <tr> <td colspan="10">First Phoenix MWD Survey</td> </tr> <tr> <td>1,314.00</td> <td>0.56</td> <td>309.39</td> <td>1,313.87</td> <td>-14.13</td> <td>6.13</td> <td>14.44</td> <td>0.15</td> <td>0.10</td> <td>11.87</td> </tr> <tr> <td>1,405.00</td> <td>0.68</td> <td>350.81</td> <td>1,404.86</td> <td>-13.31</td> <td>5.70</td> <td>13.61</td> <td>0.50</td> <td>0.13</td> <td>45.52</td> </tr> <tr> <td>1,496.00</td> <td>0.78</td> <td>329.41</td> <td>1,495.85</td> <td>-12.25</td> <td>5.30</td> <td>12.52</td> <td>0.32</td> <td>0.11</td> <td>-23.52</td> </tr> <tr> <td>1,587.00</td> <td>0.88</td> <td>343.09</td> <td>1,586.84</td> <td>-11.04</td> <td>4.78</td> <td>11.29</td> <td>0.24</td> <td>0.11</td> <td>15.03</td> </tr> <tr> <td>1,677.00</td> <td>1.11</td> <td>347.39</td> <td>1,676.83</td> <td>-9.53</td> <td>4.39</td> <td>9.76</td> <td>0.27</td> <td>0.26</td> <td>4.78</td> </tr> <tr> <td>1,767.00</td> <td>0.65</td> <td>1.12</td> <td>1,766.82</td> <td>-8.17</td> <td>4.21</td> <td>8.39</td> <td>0.58</td> <td>-0.51</td> <td>15.26</td> </tr> </tbody> </table>	Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	1,089.00	0.72	177.60	1,088.87	-14.01	7.25	14.39	0.00	0.00	0.00	1,223.00	0.47	298.59	1,222.87	-14.59	6.80	14.94	0.78	-0.19	90.29	First Phoenix MWD Survey										1,314.00	0.56	309.39	1,313.87	-14.13	6.13	14.44	0.15	0.10	11.87	1,405.00	0.68	350.81	1,404.86	-13.31	5.70	13.61	0.50	0.13	45.52	1,496.00	0.78	329.41	1,495.85	-12.25	5.30	12.52	0.32	0.11	-23.52	1,587.00	0.88	343.09	1,586.84	-11.04	4.78	11.29	0.24	0.11	15.03	1,677.00	1.11	347.39	1,676.83	-9.53	4.39	9.76	0.27	0.26	4.78	1,767.00	0.65	1.12	1,766.82	-8.17	4.21	8.39	0.58	-0.51	15.26
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ConocoPhillips

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Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,862.00	0.54	15.44	1,861.82	-7.20	4.34	7.43	0.19	-0.12	15.07
1,956.00	0.52	4.59	1,955.81	-6.35	4.49	6.59	0.11	-0.02	-11.54
2,050.00	0.34	96.15	2,049.81	-5.95	4.80	6.21	0.67	-0.19	97.40
2,144.00	1.42	130.54	2,143.80	-6.74	5.97	7.06	1.23	1.15	36.59
2,238.00	1.62	139.60	2,237.76	-8.51	7.71	8.92	0.33	0.21	9.64
2,332.00	0.70	214.98	2,331.75	-9.99	8.24	10.43	1.70	-0.98	80.19
2,427.00	1.59	185.70	2,426.73	-11.78	7.78	12.19	1.09	0.94	-30.82
2,521.00	1.42	181.35	2,520.70	-14.24	7.62	14.64	0.22	-0.18	-4.63
2,615.00	1.09	182.37	2,614.67	-16.30	7.56	16.69	0.35	-0.35	1.09
2,708.00	0.87	177.14	2,707.66	-17.89	7.56	18.28	0.26	-0.24	-5.62
2,803.00	0.94	176.74	2,802.65	-19.39	7.64	19.78	0.07	0.07	-0.42
2,896.00	0.63	194.00	2,895.64	-20.64	7.56	21.03	0.42	-0.33	18.56
2,990.00	0.31	214.73	2,989.64	-21.35	7.29	21.72	0.38	-0.34	22.05
3,084.00	0.35	218.86	3,083.64	-21.79	6.96	22.14	0.05	0.04	4.39
3,177.00	0.14	164.76	3,176.63	-22.12	6.81	22.46	0.31	-0.23	-58.17
3,271.00	0.20	101.13	3,270.63	-22.26	7.01	22.61	0.20	0.06	-67.69
3,365.00	0.13	85.19	3,364.63	-22.28	7.27	22.65	0.09	-0.07	-16.96
3,459.00	0.02	101.89	3,458.63	-22.28	7.39	22.65	0.12	-0.12	17.77
3,553.00	0.22	97.54	3,552.63	-22.30	7.59	22.69	0.21	0.21	-4.63
3,646.00	0.54	120.69	3,645.63	-22.55	8.14	22.97	0.37	0.34	24.89
3,741.00	0.66	125.83	3,740.63	-23.10	8.97	23.56	0.14	0.13	5.41
3,835.00	0.91	128.18	3,834.62	-23.88	10.00	24.39	0.27	0.27	2.50
3,929.00	1.36	138.66	3,928.60	-25.18	11.32	25.76	0.53	0.48	11.15
4,023.00	1.01	120.72	4,022.58	-26.44	12.77	27.10	0.54	-0.37	-19.09
4,117.00	0.58	36.18	4,116.57	-26.48	13.76	27.20	1.19	-0.46	-89.94
4,211.00	1.03	351.80	4,210.56	-25.26	13.92	25.99	0.78	0.48	-47.21
4,305.00	0.91	343.96	4,304.55	-23.70	13.80	24.42	0.19	-0.13	-8.34
4,400.00	0.82	353.26	4,399.54	-22.30	13.31	23.00	0.18	-0.09	-9.79
4,494.00	0.87	15.27	4,493.53	-20.95	13.42	21.66	0.35	0.05	23.41
4,588.00	1.87	53.78	4,587.50	-19.35	14.84	20.14	1.39	1.06	40.97
4,682.00	3.98	71.43	4,681.38	-17.41	19.17	18.44	2.41	2.24	18.78
4,776.00	5.30	70.38	4,775.07	-14.91	26.36	16.34	1.41	1.40	-1.12
4,871.00	6.59	72.14	4,869.55	-11.76	35.68	13.72	1.37	1.36	1.85
4,965.00	7.68	79.38	4,962.83	-8.95	46.99	11.54	1.50	1.16	7.70
5,059.00	8.29	84.37	5,055.92	-7.13	59.90	10.43	0.98	0.65	5.31
5,154.00	8.86	90.51	5,149.85	-6.52	74.04	10.61	1.13	0.60	6.46
5,247.00	9.14	92.97	5,241.71	-6.97	88.57	11.86	0.51	0.30	2.65
5,342.00	8.92	92.98	5,335.53	-7.74	103.46	13.45	0.23	-0.23	0.01
5,436.00	8.55	92.22	5,428.44	-8.39	117.72	14.89	0.41	-0.39	-0.81
5,531.00	8.73	95.96	5,522.36	-9.42	131.95	16.70	0.62	0.19	3.94
5,625.00	9.28	98.02	5,615.21	-11.21	146.55	19.30	0.68	0.59	2.19
5,720.00	9.00	97.75	5,709.00	-13.28	161.50	22.19	0.30	-0.29	-0.28

ConocoPhillips

Survey Report

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Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,815.00	9.02	98.52	5,802.83	-15.39	176.23	25.11	0.13	0.02	0.81
5,908.00	8.46	99.39	5,894.75	-17.59	190.19	28.08	0.62	-0.60	0.94
6,002.00	8.59	99.74	5,987.71	-19.90	203.93	31.15	0.15	0.14	0.37
6,096.00	8.15	100.45	6,080.71	-22.30	217.40	34.29	0.48	-0.47	0.76
6,189.00	7.93	98.65	6,172.79	-24.48	230.22	37.15	0.38	-0.24	-1.94
6,284.00	8.49	91.21	6,266.82	-25.59	243.71	39.03	1.26	0.59	-7.83
6,377.00	9.02	89.77	6,358.74	-25.71	257.87	39.93	0.62	0.57	-1.55
6,472.00	8.68	89.51	6,452.61	-25.62	272.48	40.65	0.36	-0.36	-0.27
6,566.00	8.73	92.15	6,545.52	-25.82	286.70	41.64	0.43	0.05	2.81
6,660.00	8.75	93.14	6,638.43	-26.48	300.97	43.09	0.16	0.02	1.05
6,754.00	8.74	93.53	6,731.34	-27.31	315.24	44.70	0.08	-0.01	0.41
6,849.00	8.53	94.88	6,825.26	-28.36	329.46	46.53	0.31	-0.22	1.42
6,943.00	7.97	95.99	6,918.29	-29.63	342.89	48.55	0.62	-0.60	1.18
7,036.00	7.83	97.21	7,010.41	-31.10	355.59	50.71	0.23	-0.15	1.31
7,130.00	7.81	98.38	7,103.53	-32.83	368.26	53.15	0.17	-0.02	1.24
7,224.00	7.39	101.29	7,196.71	-34.95	380.51	55.94	0.61	-0.45	3.10
7,318.00	6.55	101.98	7,290.01	-37.24	391.68	58.85	0.90	-0.89	0.73
7,411.00	6.50	102.92	7,382.41	-39.52	402.00	61.69	0.13	-0.05	1.01
7,505.00	7.07	98.30	7,475.75	-41.55	412.91	64.32	0.84	0.61	-4.91
7,599.00	7.05	99.14	7,569.04	-43.30	424.33	66.70	0.11	-0.02	0.89
7,693.00	6.11	93.47	7,662.42	-44.52	435.02	68.50	1.21	-1.00	-6.03
7,787.00	4.43	92.03	7,756.02	-44.95	443.64	69.41	1.79	-1.79	-1.53
7,879.00	3.04	98.64	7,847.82	-45.44	449.60	70.23	1.58	-1.51	7.18
7,973.00	1.67	96.50	7,941.74	-45.97	453.43	70.97	1.46	-1.46	-2.28
8,067.00	0.93	93.52	8,035.72	-46.17	455.55	71.29	0.79	-0.79	-3.17
8,161.00	0.99	101.15	8,129.70	-46.38	457.11	71.58	0.15	0.06	8.12
8,255.00	0.85	110.95	8,223.69	-46.78	458.58	72.07	0.22	-0.15	10.43
8,349.00	0.88	112.56	8,317.68	-47.31	459.87	72.67	0.04	0.03	1.71
8,442.00	0.70	113.40	8,410.67	-47.81	461.05	73.23	0.19	-0.19	0.90
8,536.00	0.49	114.84	8,504.67	-48.21	461.95	73.68	0.22	-0.22	1.53
8,630.00	0.65	136.92	8,598.66	-48.78	462.67	74.27	0.29	0.17	23.49
8,725.00	0.60	126.16	8,693.66	-49.45	463.44	75.00	0.13	-0.05	-11.33
8,819.00	0.20	11.82	8,787.65	-49.58	463.88	75.16	0.75	-0.43	-121.64
8,913.00	0.44	13.92	8,881.65	-49.07	464.00	74.65	0.28	0.26	2.23
9,007.00	0.25	51.53	8,975.65	-48.59	464.24	74.19	0.30	-0.20	40.01
9,101.00	0.19	72.92	9,069.65	-48.42	464.55	74.03	0.11	-0.06	22.76
9,195.00	0.65	79.99	9,163.65	-48.28	465.23	73.93	0.49	0.49	7.52
9,289.00	0.43	69.87	9,257.64	-48.07	466.08	73.77	0.25	-0.23	-10.77
9,383.00	0.41	96.18	9,351.64	-47.98	466.75	73.72	0.20	-0.02	27.99
9,477.00	0.55	96.55	9,445.64	-48.07	467.53	73.85	0.15	0.15	0.39
9,572.00	0.89	110.65	9,540.63	-48.38	468.87	74.22	0.40	0.36	14.84
9,667.00	0.70	120.66	9,635.62	-48.94	469.86	74.84	0.25	-0.20	10.54
9,760.00	0.66	141.25	9,728.61	-49.64	470.69	75.60	0.26	-0.04	22.14

ConocoPhillips

Survey Report

Company:	ConocoPhillips MCBU - Permian-Panhandle Gold Data	Local Co-ordinate Reference:	Well ZIA HILLS 19 Federal Com 108H
Project:	Planning - NM East State Zone - 3001	TVD Reference:	KB @ 3208.70ft (Nabors 894)
Site:	ZIA HILLS 19 Federal Com 108H	MD Reference:	KB @ 3208.70ft (Nabors 894)
Well:	ZIA HILLS 19 Federal Com 108H	North Reference:	Grid
Wellbore:	OH / 65859	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Nabors 894)	Database:	EDT 14 Central Planning

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,855.00	0.32	181.47	9,823.61	-50.34	471.02	76.31	0.49	-0.36	42.34
9,949.00	0.72	251.27	9,917.61	-50.79	470.46	76.73	0.72	0.43	74.26
10,044.00	1.05	225.47	10,012.60	-51.59	469.27	77.46	0.54	0.35	-27.16
10,139.00	1.50	223.61	10,107.57	-53.10	467.79	78.89	0.48	0.47	-1.96
10,234.00	1.33	251.19	10,202.55	-54.36	465.89	80.04	0.73	-0.18	29.03
10,328.00	1.09	283.00	10,296.53	-54.51	463.99	80.08	0.75	-0.26	33.84
10,420.00	0.93	286.59	10,388.51	-54.10	462.42	79.59	0.19	-0.17	3.90
10,514.00	0.27	281.15	10,482.51	-53.84	461.47	79.27	0.70	-0.70	-5.79
10,608.00	0.48	140.31	10,576.50	-54.10	461.51	79.53	0.76	0.22	-149.83
10,703.00	0.51	140.24	10,671.50	-54.73	462.03	80.19	0.03	0.03	-0.07
10,797.00	0.55	169.97	10,765.50	-55.49	462.38	80.98	0.29	0.04	31.63
10,891.00	0.58	182.27	10,859.49	-56.41	462.44	81.90	0.13	0.03	13.09
10,984.00	0.68	167.74	10,952.49	-57.42	462.54	82.91	0.20	0.11	-15.62
11,079.00	0.82	165.42	11,047.48	-58.63	462.83	84.14	0.15	0.15	-2.44
11,157.00	1.81	171.32	11,125.46	-60.39	463.15	85.91	1.28	1.27	7.56
11,188.00	3.93	176.98	11,156.42	-61.93	463.28	87.46	6.89	6.84	18.26
11,219.00	6.63	175.63	11,187.28	-64.78	463.47	90.31	8.72	8.71	-4.35
11,251.00	9.04	176.94	11,218.98	-69.13	463.75	94.67	7.55	7.53	4.09
11,282.00	11.55	177.45	11,249.48	-74.67	464.02	100.21	8.10	8.10	1.65
11,329.00	15.65	179.69	11,295.15	-85.71	464.26	111.25	8.79	8.72	4.77
11,377.00	20.89	178.20	11,340.72	-100.75	464.57	126.29	10.96	10.92	-3.10
11,424.00	25.31	178.40	11,383.94	-119.18	465.11	144.71	9.41	9.40	0.43
11,471.00	29.20	180.36	11,425.71	-140.69	465.32	166.21	8.49	8.28	4.17
11,518.00	32.72	181.97	11,466.01	-164.86	464.81	190.31	7.69	7.49	3.43
11,565.00	35.35	181.85	11,504.96	-191.15	463.93	216.51	5.60	5.60	-0.26
11,612.00	38.65	183.35	11,542.49	-219.40	462.64	244.65	7.28	7.02	3.19
11,726.00	45.11	183.09	11,627.32	-295.34	458.37	320.24	5.67	5.67	-0.23
11,770.00	48.03	182.24	11,657.57	-327.26	458.90	352.02	6.78	6.64	-1.93
11,817.00	52.42	180.83	11,687.63	-363.36	455.94	388.01	9.62	9.34	-3.00
11,861.00	57.08	178.92	11,713.02	-399.28	458.04	423.88	11.17	10.59	-4.34
11,908.00	60.77	178.54	11,737.27	-439.51	456.93	464.11	7.88	7.85	-0.81
11,951.00	62.94	179.34	11,757.56	-477.42	457.63	502.00	5.31	5.05	1.86
11,998.00	64.24	179.34	11,778.46	-519.51	458.12	544.05	2.77	2.77	0.00
12,042.00	68.15	177.77	11,796.22	-559.75	459.14	584.28	9.47	8.89	-3.57
12,089.00	72.60	177.14	11,812.00	-603.96	461.11	628.54	9.55	9.47	-1.34
12,132.00	75.93	178.20	11,823.66	-645.31	462.79	669.91	8.10	7.74	2.47
12,179.00	80.22	179.54	11,833.37	-691.27	463.69	715.86	9.54	9.13	2.85
12,225.00	83.25	179.69	11,839.98	-736.79	463.99	761.32	6.59	6.59	0.33
12,319.00	85.21	179.14	11,849.43	-830.30	464.95	854.74	2.16	2.09	-0.59
12,413.00	88.22	180.26	11,854.82	-924.14	465.44	948.46	3.42	3.20	1.19
12,506.00	89.95	179.96	11,856.30	-1,017.12	465.26	1,041.29	1.89	1.86	-0.32
12,600.00	90.98	180.27	11,855.54	-1,111.12	465.07	1,135.13	1.14	1.10	0.33

ConocoPhillips

Survey Report

Company: ConocoPhillips MCBU - Permian-Panhandle Gold Data	Local Co-ordinate Reference: Well ZIA HILLS 19 Federal Com 108H	
Project: Planning - NM East State Zone - 3001	TVD Reference: KB @ 3208.70ft (Nabors 894)	
Site: ZIA HILLS 19 Federal Com 108H	MD Reference: KB @ 3208.70ft (Nabors 894)	
Well: ZIA HILLS 19 Federal Com 108H	North Reference: Grid	
Wellbore: OH / 65859	Survey Calculation Method: Minimum Curvature	
Design: Surveys (Nabors 894)	Database: EDT 14 Central Planning	

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
12,717.00	91.05	180.14	11,853.47	-1,228.10	464.65	1,251.91	0.13	0.06	-0.11
12,810.00	89.92	179.53	11,852.68	-1,321.09	464.92	1,344.78	1.38	-1.22	-0.66
12,905.00	90.05	179.33	11,852.70	-1,416.09	465.87	1,439.68	0.25	0.14	-0.21
12,999.00	90.32	179.86	11,852.40	-1,510.08	466.53	1,533.57	0.63	0.29	0.56
13,094.00	90.71	179.47	11,851.55	-1,605.08	467.09	1,628.45	0.58	0.41	-0.41
13,188.00	90.61	178.77	11,850.46	-1,699.06	468.53	1,722.37	0.75	-0.11	-0.74
13,282.00	90.82	178.34	11,849.29	-1,793.02	470.90	1,816.32	0.51	0.22	-0.46
13,376.00	89.38	177.33	11,849.13	-1,886.95	474.45	1,910.30	1.87	-1.53	-1.07
13,471.00	89.32	177.20	11,850.20	-1,981.84	478.98	2,005.29	0.15	-0.08	-0.14
13,565.00	88.93	177.43	11,851.64	-2,075.72	483.39	2,099.28	0.48	-0.41	0.24
13,659.00	88.38	177.69	11,853.85	-2,169.61	487.39	2,193.24	0.65	-0.59	0.28
13,752.00	88.89	178.55	11,856.06	-2,262.53	490.44	2,286.19	1.07	0.55	0.92
13,846.00	89.52	179.80	11,857.37	-2,356.51	491.79	2,380.10	1.49	0.67	1.33
13,941.00	90.27	180.54	11,857.54	-2,451.51	491.51	2,474.94	1.11	0.79	0.78
14,035.00	90.82	181.25	11,858.65	-2,545.49	490.04	2,568.70	0.96	0.59	0.76
14,129.00	90.18	181.01	11,855.83	-2,639.47	488.19	2,662.43	0.73	-0.68	-0.26
14,223.00	90.76	181.15	11,855.05	-2,733.45	486.42	2,756.17	0.63	0.62	0.15
14,316.00	91.18	181.00	11,853.48	-2,826.42	484.67	2,848.90	0.48	0.45	-0.16
14,410.00	90.87	180.83	11,851.80	-2,920.39	483.17	2,942.64	0.38	-0.33	-0.18
14,504.00	91.62	180.76	11,849.76	-3,014.36	481.87	3,036.40	0.80	0.80	-0.07
14,597.00	91.51	180.50	11,847.22	-3,107.32	480.84	3,129.16	0.30	-0.12	-0.28
14,690.00	92.27	180.41	11,844.15	-3,200.27	480.11	3,221.92	0.82	0.82	-0.10
14,789.00	92.36	180.12	11,836.51	-3,389.11	479.23	3,410.42	0.16	0.05	-0.15
15,068.00	91.56	179.29	11,830.05	-3,577.99	480.21	3,599.07	0.61	-0.42	-0.44
15,258.00	89.92	179.21	11,827.62	-3,765.98	482.67	3,786.88	0.87	-0.87	-0.04
15,444.00	90.24	180.71	11,827.36	-3,953.95	482.80	3,974.60	0.82	0.17	0.80
15,539.00	89.93	180.29	11,827.22	-4,048.95	481.97	4,069.40	0.55	-0.33	-0.44
15,633.00	90.18	180.05	11,827.13	-4,142.94	481.69	4,163.24	0.37	0.27	-0.26
15,821.00	89.65	177.76	11,827.41	-4,330.90	485.28	4,351.11	1.25	-0.28	-1.22
16,009.00	89.30	177.83	11,829.13	-4,518.75	492.52	4,539.07	0.19	-0.19	0.04
16,198.00	89.67	179.39	11,830.83	-4,707.68	497.10	4,727.97	0.85	0.20	0.83
16,385.00	91.10	179.74	11,829.57	-4,894.67	498.52	4,914.74	0.79	0.76	0.19
16,574.00	88.92	178.64	11,829.54	-5,083.63	501.19	5,103.57	1.29	-1.15	-0.58
16,668.00	90.81	179.94	11,829.76	-5,177.62	502.36	5,197.48	2.44	2.01	1.38
16,762.00	90.88	179.94	11,828.38	-5,271.61	502.45	5,291.33	0.07	0.07	0.00
16,951.00	88.41	176.28	11,829.55	-5,460.46	508.69	5,480.23	2.34	-1.31	-1.94
17,139.00	87.56	176.04	11,836.16	-5,647.92	521.27	5,668.10	0.47	-0.45	-0.13
17,328.00	87.96	175.88	11,843.54	-5,836.30	534.57	5,856.93	0.23	0.21	-0.08
17,421.00	87.53	177.04	11,847.20	-5,929.05	540.31	5,949.86	1.33	-0.46	1.25
17,516.00	88.82	178.82	11,850.23	-6,023.93	543.74	6,044.78	2.31	1.36	1.87
17,609.00	90.01	180.61	11,851.18	-6,118.92	544.20	6,137.66	2.31	1.28	1.92
17,703.00	89.98	181.41	11,851.19	-6,210.91	542.55	6,231.41	0.85	-0.03	0.85
17,891.00	90.65	180.77	11,850.15	-6,398.67	538.97	6,418.88	0.49	0.36	-0.34

ConocoPhillips

Survey Report

Company: ConocoPhillips MCBU - Permian-Panhandle Gold Data Project: Planning - NM East State Zone - 3001 Site: ZIA HILLS 19 Federal Com 108H Well: ZIA HILLS 19 Federal Com 108H Wellbore: OH / 65859 Design: Surveys (Nabors 894)	Local Co-ordinate Reference: Well ZIA HILLS 19 Federal Com 108H TVD Reference: KB @ 3208.70ft (Nabors 894) MD Reference: KB @ 3208.70ft (Nabors 894) North Reference: Grid Survey Calculation Method: Minimum Curvature Database: EDT 14 Central Planning	
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Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
18,078.00	90.18	180.94	11,848.80	-6,585.84	536.18	6,805.41	0.27	-0.25	0.09
18,267.00	90.50	182.63	11,847.68	-6,774.74	530.29	6,793.70	0.91	0.17	0.89
18,456.00	90.38	181.12	11,846.23	-6,963.63	524.11	6,981.95	0.80	-0.06	-0.80
18,637.00	91.75	180.94	11,842.86	-7,144.58	520.86	7,162.43	0.76	0.76	-0.10
18,732.00	91.38	181.35	11,840.27	-7,239.51	518.96	7,257.13	0.58	-0.39	0.43
18,826.00	90.87	181.66	11,838.42	-7,333.46	516.49	7,350.80	0.63	-0.54	0.33
18,921.00	91.24	180.77	11,836.67	-7,428.42	514.48	7,445.50	1.01	0.39	-0.94
19,014.00	91.22	180.02	11,834.68	-7,521.39	513.83	7,538.30	0.81	-0.02	-0.81
19,203.00	91.27	178.18	11,830.57	-7,710.32	516.80	7,727.10	0.97	0.03	-0.97
19,295.00	90.70	177.61	11,828.99	-7,802.24	520.18	7,819.07	0.88	-0.62	-0.62
19,483.00	90.38	177.31	11,827.22	-7,990.05	528.51	8,007.05	0.23	-0.17	-0.16
19,672.00	90.72	177.04	11,825.40	-8,178.81	537.83	8,196.04	0.23	0.18	-0.14
19,766.00	90.78	178.56	11,824.17	-8,272.73	541.43	8,290.01	1.62	0.06	1.62
19,859.00	90.75	179.10	11,822.93	-8,365.70	543.33	8,382.95	0.58	-0.03	0.58
19,954.00	90.64	179.49	11,821.78	-8,460.69	544.50	8,477.85	0.43	-0.12	0.41
20,048.00	90.69	180.12	11,820.69	-8,554.68	544.82	8,571.72	0.67	0.05	0.67
20,235.00	90.50	179.58	11,818.74	-8,741.67	545.31	8,758.45	0.31	-0.10	-0.29
20,330.00	90.62	179.57	11,817.82	-8,836.66	546.02	8,853.33	0.13	0.13	-0.01
20,516.00	90.70	179.64	11,815.87	-9,022.64	547.30	9,039.10	0.06	0.04	0.04
20,610.00	90.70	179.62	11,814.52	-9,116.64	547.91	9,132.98	0.02	0.00	-0.02
20,704.00	90.87	179.28	11,813.24	-9,210.62	548.81	9,226.88	0.40	0.18	-0.36
20,893.00	90.73	179.35	11,810.60	-9,399.59	551.07	9,415.68	0.08	-0.07	0.04
20,987.00	90.81	179.80	11,809.33	-9,493.58	551.76	9,509.56	0.49	0.09	0.48
21,081.00	90.58	179.51	11,808.19	-9,587.57	552.33	9,603.44	0.39	-0.24	-0.31
21,174.00	90.75	179.76	11,807.12	-9,680.58	552.92	9,696.32	0.33	0.18	0.27
21,268.00	90.87	179.82	11,805.79	-9,774.55	553.27	9,790.19	0.14	0.13	0.06
21,363.00	90.76	179.52	11,804.43	-9,869.54	553.81	9,885.08	0.34	-0.12	-0.32
21,457.00	90.67	179.45	11,803.26	-9,963.53	554.66	9,978.96	0.12	-0.10	-0.07
21,551.00	90.10	179.66	11,802.63	-10,057.52	555.39	10,072.85	0.65	-0.61	0.22
21,644.00	90.19	179.90	11,802.39	-10,150.52	555.75	10,165.72	0.28	0.10	0.26
Final Phoenix MWD Survey									
21,697.00	90.19	179.90	11,802.22	-10,203.52	555.84	10,218.65	0.00	0.00	0.00
Projection to TD									

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
11,599.92	11,533.00	9 5/8"	9-5/8	12-1/4
21,736.00		5 1/2"	5-1/2	8-1/2

ConocoPhillips

Survey Report

Company:	ConocoPhillips MCBU - Permian-Panhandle Gold Data	Local Co-ordinate Reference:	Well ZIA HILLS 19 Federal Com 108H
Project:	Planning - NM East State Zone - 3001	TVD Reference:	KB @ 3208.70ft (Nabors 894)
Site:	ZIA HILLS 19 Federal Com 108H	MD Reference:	KB @ 3208.70ft (Nabors 894)
Well:	ZIA HILLS 19 Federal Com 108H	North Reference:	Grid
Wellbore:	OH / 65859	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Nabors 894)	Database:	EDT 14 Central Planning

Survey Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,223.00	1,222.87	-14.59	6.80	First Phoenix MWD Survey
21,644.00	11,802.39	-10,150.52	555.75	Final Phoenix MWD Survey
21,697.00	11,802.22	-10,203.52	555.84	Projection to TD

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Artesia, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
4 Property Code	5 Property Name	6 Well Number
7 OGRID No.	8 Operator Name	9 Elevation

ZIA HILLS 19 FEDERAL COM

ConocoPhillips Company

108H

3177.6'

"Surface Location

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
2	19	26S	32E		2627	NORTH	529	WEST	LEA

"Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
2	31	26S	32E		50	SOUTH	990	WEST	LEA

11 Dedicated Acres	12 Joint or Infill	13 Consolidation Code	14 Order No.
323.93			

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.

