

District I
1625 N French Dr., Hobbs, NM 88240
District II
1301 W Grand Avenue, 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 & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505



Form C-102
Revised October 15, 2009
Submit and copy to appropriate District Office
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-015-40511		2 Pool Code 55510		3 Pool Name Rattlesnake Well, Bone Spring (S)	
4 Property Code 38432		5 Property Name AGATE PWU "21"		6 Well Number 7H	
7 UGRID No 6137		8 Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.		9 Elevation 3321.9	

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	20	19 S	29 E		1650	SOUTH	245	EAST	EDDY

11 Bottom Hole Location If Different From Surface

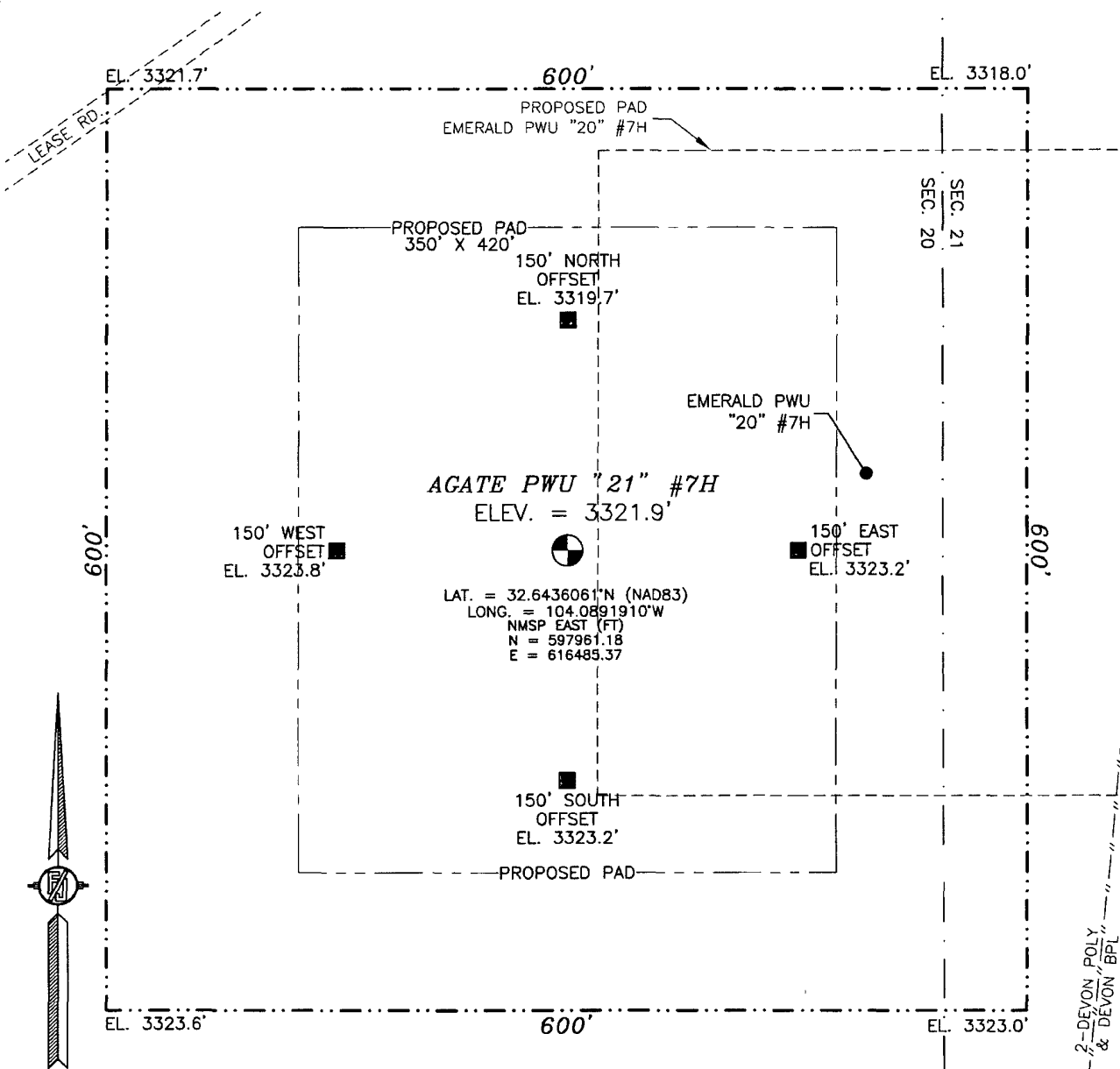
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	22	19 S	29 E		1650	SOUTH	330	EAST	EDDY

12 Dedicated Acres 320.00	13 Joint or Infill	14 Consolidation Code	15 Order No.
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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.

	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Melanie Crawford 7/20/12 Signature Date Printed Name <i>Melanie Crawford</i> 18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. MAY 2 2012 Date of Survey <i>James H. O'Connell</i> Signature and Seal of Professional Surveyor Certificate Number: 11764, I. NEW MEXICO, PLS 12797 SURVEY NO. 072
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SECTION 20, TOWNSHIP 19 SOUTH, RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO



010 50 100 200
SCALE 1" = 100'

DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF CR 210 (OLD LOCO) AND CR 235 (CURRY COMB) GO SOUTHEAST ON CR 235 FOR APPROX. 0.2 OF A MILE. GO SOUTH-SOUTHEAST (DEVON PARKWAY SIGN) FOR APPROX. 0.3 OF A MILE. GO SOUTHWEST APPROX. 0.75 OF A MILE TO THE AGATE PWU "21" #3H. LOCATION IS APPROX. 350 FT SOUTHWEST OF SOUTHWEST CORNER PAD.

DEVON ENERGY PRODUCTION COMPANY, L.P.

AGATE PWU "21" #7H

LOCATED 1650 FT. FROM THE SOUTH LINE
AND 245 FT. FROM THE EAST LINE OF
SECTION 20, TOWNSHIP 19 SOUTH,
RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

MAY 2, 2012

SURVEY NO. 972

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

NOT TO SCALE

MAY 2, 2012

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

301 SOUTH CANAL
(575) 234-3341

A topographic map of the Agate PWU area. A black dot marks the location of '21' #7H. The map shows contour lines, roads, and geographical features like Burton Flat, Clayton Basin, and Crows Basin. A scale bar and a north arrow are present in the bottom right corner. The text 'AGATE PWU' and '"21" #7H' is printed in large, bold letters near the marked location.

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO
(575) 234-3341

301 SOUTH CANAL
(575) 234-3341

RECEIVED

JUL 23 2012

NMCCO **devon**

Project: Eddy County, NM (NAD 83)
Site: Agate PWU 21
Well: Agate PWU 21 7H
Wellbore: Wellbore #1
Plan: Plan #1
Rig: Cactus 126

SURFACE LOCATION

US State Plane 1983
New Mexico Eastern Zone
Elevation: GL 3321' + 25' KB@ 3346.90ft (Cactus 126)

Northing	Easting	Latitude	Longitude
597961.18	616485.37	32° 38' 36.982 N	104° 5' 21.088 W

CASING DETAILS

TVD	MD	Name
300.00	300.00	Surface Csg
3300.00	3300.00	Intermediate Csg
7131.00	17194.27	Production Csg

SECTION DETAILS

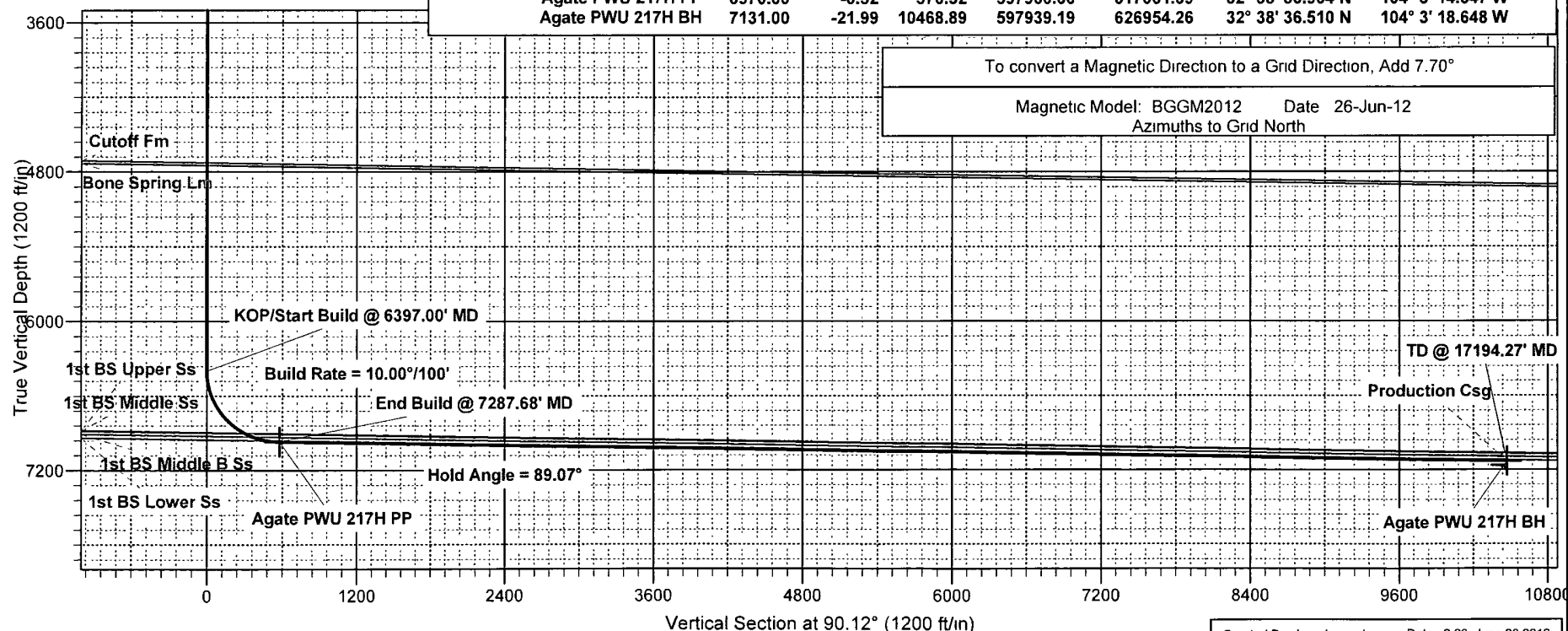
MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
6397.00	0.00	0.00	6397.00	0.00	0.00	0.00	0.00	0.00	KOP/Start Build
7287.68	89.07	90.12	6969.88	-1.18	563.64	10.00	90.12	563.64	End Build
17194.27	89.07	90.12	7131.00	-21.99	10468.89	0.00	0.00	10468.91	TD

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Agate PWU 217H PP	6970.00	-0.52	576.32	597960.66	617061.69	32° 38' 36.964 N	104° 5' 14.347 W
Agate PWU 217H BH	7131.00	-21.99	10468.89	597939.19	626954.26	32° 38' 36.510 N	104° 3' 18.648 W

To convert a Magnetic Direction to a Grid Direction, Add 7.70°

Magnetic Model: BGGM2012 Date 26-Jun-12
Azimuths to Grid North

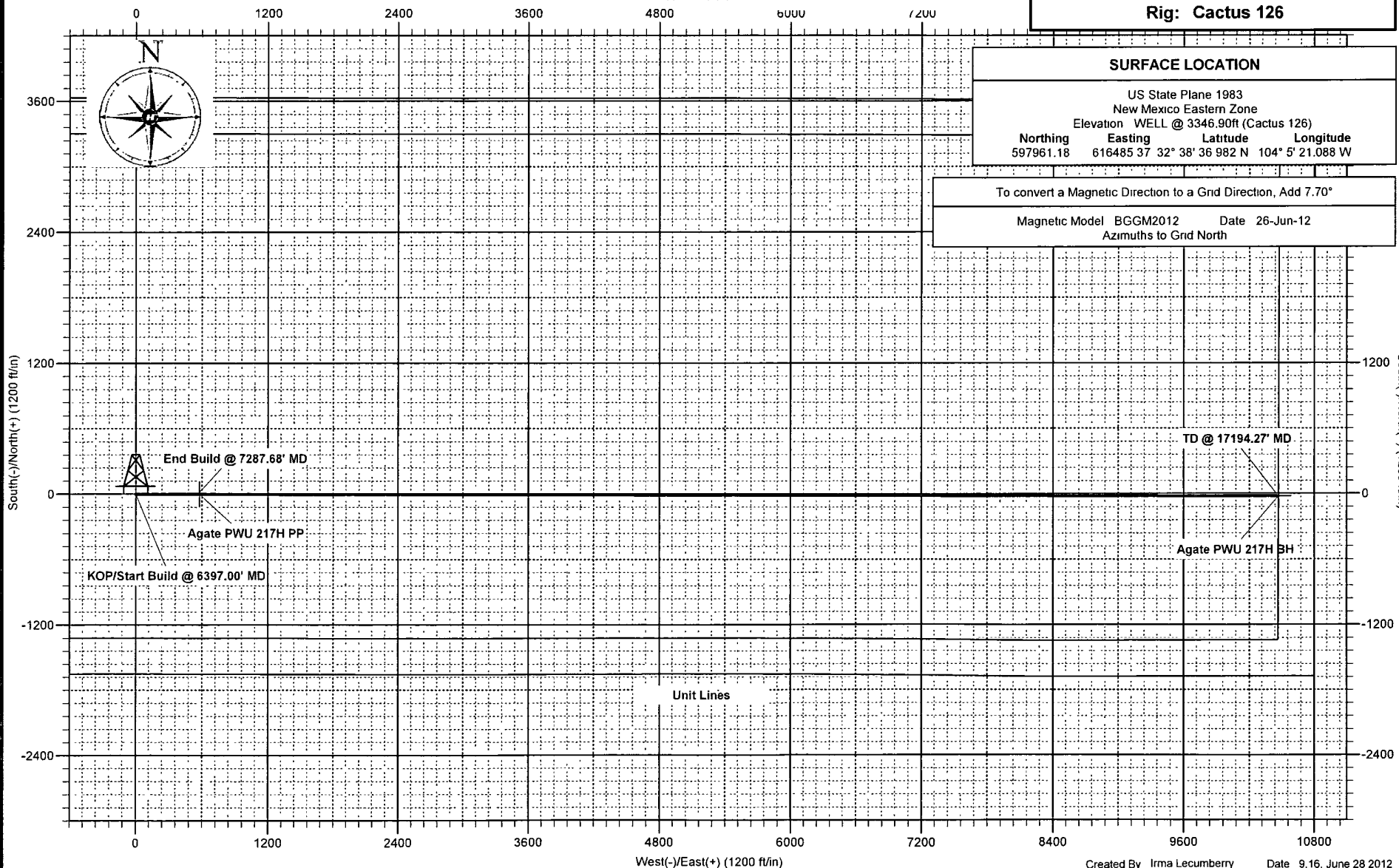


Created By	Irma Lecumberry	Date	9 06, June 28 2012
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Project: Eddy County, NM (NAD 83)
 Site: Agate PWU 21
 Well: Agate PWU 21 7H
 Wellbore: Wellbore #1
 Plan: Plan #1
 Rig: Cactus 126

West(-)/East(+) (1200 ft/in)



SURFACE LOCATION

US State Plane 1983
 New Mexico Eastern Zone
 Elevation WELL @ 3346.90ft (Cactus 126)
 Northing Easting Latitude Longitude
 597961.18 616485.37 32° 38' 36.982 N 104° 5' 21.088 W

To convert a Magnetic Direction to a Grd Direction, Add 7.70°

Magnetic Model BGGM2012 Date 26-Jun-12
 Azimuths to Grd North

Devon Energy Corporation

Eddy County, NM (NAD 83)

Agate PWU 21

Agate PWU 21 7H

Wellbore #1

Plan: Plan #1

Sperry Drilling Services Proposal Report

28 June, 2012

Well Coordinates 597,961.18 N, 616,485.37 E (32° 38' 36 98" N, 104° 05' 21.09" W)
Ground Level 3,321.90 ft

Local Coordinate Origin	Centered on Well Agate PWU 21 7H
Viewing Datum	GL 3321 9' + 25' KB @ 3346.90ft (Cactus 126)
TVDs to System	N
North Reference	Gnd
Unit System	API - US Survey Feet

Version 2003 16 Build 43I

HALLIBURTON

Plan Report for Agate PWU 21 7H - Plan #1

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)	Toolface Azimuth (°)
0 00	0.00	0 00	0 00	0.00	0 00	0.00	0.00	0.00	0 00	0.00
25 00	0 00	0 00	25 00	0.00	0 00	0.00	0.00	0.00	0 00	0.00
Rustler										
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0 00	0.00
Surface Csg										
391 00	0.00	0.00	391.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Salt										
1,082 00	0 00	0.00	1,082.00	0.00	0.00	0.00	0 00	0 00	0.00	0.00
Tansil Dolo										
1,264 00	0.00	0.00	1,264.00	0 00	0.00	0 00	0 00	0 00	0 00	0.00
Yates										
1,626 00	0 00	0 00	1,626.00	0 00	0.00	0.00	0.00	0.00	0.00	0 00
Seven Rivers										
1,977 00	0 00	0 00	1,977 00	0 00	0 00	0.00	0.00	0.00	0.00	0 00
Queen										
2,646 00	0 00	0 00	2,646 00	0 00	0.00	0 00	0.00	0.00	0.00	0 00
Grayburg										
2,677.00	0.00	0.00	2,677.00	0.00	0.00	0.00	0 00	0 00	0 00	0 00
San Andres										
3,300 00	0.00	0 00	3,300 00	0 00	0 00	0 00	0 00	0.00	0.00	0 00
Intermediate Csg										
3,342 00	0 00	0 00	3,342.00	0 00	0.00	0.00	0.00	0.00	0 00	0 00
Delaware										
4,727.00	0.00	0.00	4,727.00	0.00	0.00	0 00	0.00	0 00	0 00	0.00
Cutoff Fm										
4,747 00	0.00	0 00	4,747 00	0 00	0 00	0 00	0.00	0.00	0.00	0 00
Bone Spring Lm										
6,397 00	0.00	0 00	6,397 00	0 00	0 00	0 00	0.00	0 00	0.00	0.00
KOP/Start Build @ 6397.00' MD - Build Rate = 10.00°/100'										
6,400 00	0 30	90 12	6,400 00	0 00	0 01	0.01	10.00	10.00	0 00	90 12
6,500 00	10.30	90 12	6,499 45	-0 02	9 23	9.23	10.00	10.00	0 00	0 00
6,600 00	20.30	90 12	6,595 78	-0 07	35 59	35 59	10.00	10.00	0.00	0.00
6,700 00	30.30	90 12	6,686 07	-0 16	78.27	78.27	10.00	10.00	0.00	0.00
6,800 00	40.30	90 12	6,767.58	-0.29	135.98	135.98	10.00	10.00	0 00	0 00
6,900 00	50.30	90 12	6,837.83	-0.43	206.97	206.97	10.00	10.00	0.00	0 00
7,000 00	60.30	90 12	6,894.69	-0 61	289 08	289.08	10.00	10.00	0.00	0.00
7,010.57	61.36	90 12	6,899.84	-0 63	298 31	298.31	10.00	10.00	0.00	0.00
1st BS Upper Ss										
7,019 30	62.23	90 12	6,903 97	-0 64	306 00	306.00	10.00	10.00	0 00	0.00
1st BS Middle Ss										
7,084 29	68 73	90 12	6,930 93	-0 77	365.10	365 10	10.00	10.00	0 00	0 00
1st BS Middle B Ss										
7,100 00	70 30	90 12	6,936.42	-0.80	379 82	379 82	10.00	10 00	0.00	0.00
7,187 55	79.05	90 12	6,959 53	-0.97	464.17	464.17	10.00	10.00	0.00	0 00
1st BS Lower Ss										
7,200.00	80.30	90 12	6,961.77	-1 00	476.42	476 42	10.00	10.00	0.00	0 00
7,287.68	89.07	90 12	6,969 88	-1 18	563.64	563.64	10.00	10.00	0 00	0 00
End Build @ 7287.68' MD - Hold Angle = 89.07°										
7,300 00	89.07	90 12	6,970 08	-1 21	575.96	575.96	0.00	0.00	0 00	0.00
7,400 00	89.07	90 12	6,971.71	-1.42	675.94	675.94	0.00	0.00	0 00	0.00
7,500 00	89.07	90 12	6,973 34	-1.63	775.93	775.93	0.00	0.00	0.00	0 00
7,600.00	89.07	90 12	6,974 96	-1 84	875.91	875.92	0.00	0.00	0 00	0 00
7,700 00	89.07	90 12	6,976 59	-2 05	975.90	975.90	0.00	0.00	0 00	0 00
7,800 00	89.07	90 12	6,978.21	-2.26	1,075.89	1,075.89	0.00	0.00	0.00	0 00
7,900.00	89.07	90 12	6,979.84	-2 47	1,175 87	1,175.88	0.00	0.00	0.00	0 00
8,000.00	89 07	90 12	6,981.47	-2.68	1,275.86	1,275.86	0.00	0.00	0 00	0.00

Plan Report for Agate PWU 21 7H - Plan #1

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)	Toolface Azimuth (°)
8,100.00	89.07	90.12	6,983.09	-2.89	1,375.85	1,375.85	0.00	0.00	0.00	0.00
8,200.00	89.07	90.12	6,984.72	-3.10	1,475.83	1,475.84	0.00	0.00	0.00	0.00
8,300.00	89.07	90.12	6,986.35	-3.31	1,575.82	1,575.82	0.00	0.00	0.00	0.00
8,400.00	89.07	90.12	6,987.97	-3.52	1,675.81	1,675.81	0.00	0.00	0.00	0.00
8,500.00	89.07	90.12	6,989.60	-3.73	1,775.79	1,775.80	0.00	0.00	0.00	0.00
8,600.00	89.07	90.12	6,991.23	-3.94	1,875.78	1,875.78	0.00	0.00	0.00	0.00
8,700.00	89.07	90.12	6,992.85	-4.15	1,975.77	1,975.77	0.00	0.00	0.00	0.00
8,800.00	89.07	90.12	6,994.48	-4.36	2,075.75	2,075.76	0.00	0.00	0.00	0.00
8,900.00	89.07	90.12	6,996.10	-4.57	2,175.74	2,175.74	0.00	0.00	0.00	0.00
9,000.00	89.07	90.12	6,997.73	-4.78	2,275.73	2,275.73	0.00	0.00	0.00	0.00
9,100.00	89.07	90.12	6,999.36	-4.99	2,375.71	2,375.72	0.00	0.00	0.00	0.00
9,200.00	89.07	90.12	7,000.98	-5.20	2,475.70	2,475.71	0.00	0.00	0.00	0.00
9,300.00	89.07	90.12	7,002.61	-5.41	2,575.69	2,575.69	0.00	0.00	0.00	0.00
9,400.00	89.07	90.12	7,004.24	-5.62	2,675.67	2,675.68	0.00	0.00	0.00	0.00
9,500.00	89.07	90.12	7,005.86	-5.83	2,775.66	2,775.67	0.00	0.00	0.00	0.00
9,600.00	89.07	90.12	7,007.49	-6.04	2,875.65	2,875.65	0.00	0.00	0.00	0.00
9,700.00	89.07	90.12	7,009.12	-6.25	2,975.63	2,975.64	0.00	0.00	0.00	0.00
9,800.00	89.07	90.12	7,010.74	-6.46	3,075.62	3,075.63	0.00	0.00	0.00	0.00
9,900.00	89.07	90.12	7,012.37	-6.67	3,175.61	3,175.61	0.00	0.00	0.00	0.00
10,000.00	89.07	90.12	7,013.99	-6.88	3,275.59	3,275.60	0.00	0.00	0.00	0.00
10,100.00	89.07	90.12	7,015.62	-7.09	3,375.58	3,375.59	0.00	0.00	0.00	0.00
10,200.00	89.07	90.12	7,017.25	-7.30	3,475.57	3,475.57	0.00	0.00	0.00	0.00
10,300.00	89.07	90.12	7,018.87	-7.51	3,575.55	3,575.56	0.00	0.00	0.00	0.00
10,400.00	89.07	90.12	7,020.50	-7.72	3,675.54	3,675.55	0.00	0.00	0.00	0.00
10,500.00	89.07	90.12	7,022.13	-7.93	3,775.53	3,775.53	0.00	0.00	0.00	0.00
10,600.00	89.07	90.12	7,023.75	-8.14	3,875.51	3,875.52	0.00	0.00	0.00	0.00
10,700.00	89.07	90.12	7,025.38	-8.35	3,975.50	3,975.51	0.00	0.00	0.00	0.00
10,800.00	89.07	90.12	7,027.01	-8.56	4,075.48	4,075.49	0.00	0.00	0.00	0.00
10,900.00	89.07	90.12	7,028.63	-8.77	4,175.47	4,175.48	0.00	0.00	0.00	0.00
11,000.00	89.07	90.12	7,030.26	-8.98	4,275.46	4,275.47	0.00	0.00	0.00	0.00
11,100.00	89.07	90.12	7,031.88	-9.19	4,375.44	4,375.45	0.00	0.00	0.00	0.00
11,200.00	89.07	90.12	7,033.51	-9.40	4,475.43	4,475.44	0.00	0.00	0.00	0.00
11,300.00	89.07	90.12	7,035.14	-9.61	4,575.42	4,575.43	0.00	0.00	0.00	0.00
11,400.00	89.07	90.12	7,036.76	-9.82	4,675.40	4,675.41	0.00	0.00	0.00	0.00
11,500.00	89.07	90.12	7,038.39	-10.03	4,775.39	4,775.40	0.00	0.00	0.00	0.00
11,600.00	89.07	90.12	7,040.02	-10.24	4,875.38	4,875.39	0.00	0.00	0.00	0.00
11,700.00	89.07	90.12	7,041.64	-10.45	4,975.36	4,975.37	0.00	0.00	0.00	0.00
11,800.00	89.07	90.12	7,043.27	-10.66	5,075.35	5,075.36	0.00	0.00	0.00	0.00
11,900.00	89.07	90.12	7,044.90	-10.87	5,175.34	5,175.35	0.00	0.00	0.00	0.00
12,000.00	89.07	90.12	7,046.52	-11.08	5,275.32	5,275.33	0.00	0.00	0.00	0.00
12,100.00	89.07	90.12	7,048.15	-11.29	5,375.31	5,375.32	0.00	0.00	0.00	0.00
12,200.00	89.07	90.12	7,049.77	-11.50	5,475.30	5,475.31	0.00	0.00	0.00	0.00
12,300.00	89.07	90.12	7,051.40	-11.71	5,575.28	5,575.30	0.00	0.00	0.00	0.00
12,400.00	89.07	90.12	7,053.03	-11.92	5,675.27	5,675.28	0.00	0.00	0.00	0.00
12,500.00	89.07	90.12	7,054.65	-12.13	5,775.26	5,775.27	0.00	0.00	0.00	0.00
12,600.00	89.07	90.12	7,056.28	-12.34	5,875.24	5,875.26	0.00	0.00	0.00	0.00
12,700.00	89.07	90.12	7,057.91	-12.55	5,975.23	5,975.24	0.00	0.00	0.00	0.00
12,800.00	89.07	90.12	7,059.53	-12.76	6,075.22	6,075.23	0.00	0.00	0.00	0.00
12,900.00	89.07	90.12	7,061.16	-12.97	6,175.20	6,175.22	0.00	0.00	0.00	0.00
13,000.00	89.07	90.12	7,062.79	-13.18	6,275.19	6,275.20	0.00	0.00	0.00	0.00
13,100.00	89.07	90.12	7,064.41	-13.39	6,375.18	6,375.19	0.00	0.00	0.00	0.00
13,200.00	89.07	90.12	7,066.04	-13.60	6,475.16	6,475.18	0.00	0.00	0.00	0.00
13,300.00	89.07	90.12	7,067.66	-13.81	6,575.15	6,575.16	0.00	0.00	0.00	0.00
13,400.00	89.07	90.12	7,069.29	-14.02	6,675.14	6,675.15	0.00	0.00	0.00	0.00
13,500.00	89.07	90.12	7,070.92	-14.23	6,775.12	6,775.14	0.00	0.00	0.00	0.00
13,600.00	89.07	90.12	7,072.54	-14.44	6,875.11	6,875.12	0.00	0.00	0.00	0.00
13,700.00	89.07	90.12	7,074.17	-14.65	6,975.09	6,975.11	0.00	0.00	0.00	0.00
13,800.00	89.07	90.12	7,075.80	-14.86	7,075.08	7,075.10	0.00	0.00	0.00	0.00
13,900.00	89.07	90.12	7,077.42	-15.07	7,175.07	7,175.08	0.00	0.00	0.00	0.00
14,000.00	89.07	90.12	7,079.05	-15.28	7,275.05	7,275.07	0.00	0.00	0.00	0.00

Plan Report for Agate PWU 21 7H - Plan #1

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)	Toolface Azimuth (°)
14,100.00	89.07	90.12	7,080.68	-15.49	7,375.04	7,375.06	0.00	0.00	0.00	0.00
14,200.00	89.07	90.12	7,082.30	-15.70	7,475.03	7,475.04	0.00	0.00	0.00	0.00
14,300.00	89.07	90.12	7,083.93	-15.91	7,575.01	7,575.03	0.00	0.00	0.00	0.00
14,400.00	89.07	90.12	7,085.55	-16.12	7,675.00	7,675.02	0.00	0.00	0.00	0.00
14,500.00	89.07	90.12	7,087.18	-16.33	7,774.99	7,775.00	0.00	0.00	0.00	0.00
14,600.00	89.07	90.12	7,088.81	-16.54	7,874.97	7,874.99	0.00	0.00	0.00	0.00
14,700.00	89.07	90.12	7,090.43	-16.75	7,974.96	7,974.98	0.00	0.00	0.00	0.00
14,800.00	89.07	90.12	7,092.06	-16.96	8,074.95	8,074.96	0.00	0.00	0.00	0.00
14,900.00	89.07	90.12	7,093.69	-17.17	8,174.93	8,174.95	0.00	0.00	0.00	0.00
15,000.00	89.07	90.12	7,095.31	-17.38	8,274.92	8,274.94	0.00	0.00	0.00	0.00
15,100.00	89.07	90.12	7,096.94	-17.59	8,374.91	8,374.92	0.00	0.00	0.00	0.00
15,200.00	89.07	90.12	7,098.57	-17.80	8,474.89	8,474.91	0.00	0.00	0.00	0.00
15,300.00	89.07	90.12	7,100.19	-18.01	8,574.88	8,574.90	0.00	0.00	0.00	0.00
15,400.00	89.07	90.12	7,101.82	-18.22	8,674.87	8,674.89	0.00	0.00	0.00	0.00
15,500.00	89.07	90.12	7,103.44	-18.43	8,774.85	8,774.87	0.00	0.00	0.00	0.00
15,600.00	89.07	90.12	7,105.07	-18.64	8,874.84	8,874.86	0.00	0.00	0.00	0.00
15,700.00	89.07	90.12	7,106.70	-18.85	8,974.83	8,974.85	0.00	0.00	0.00	0.00
15,800.00	89.07	90.12	7,108.32	-19.06	9,074.81	9,074.83	0.00	0.00	0.00	0.00
15,900.00	89.07	90.12	7,109.95	-19.27	9,174.80	9,174.82	0.00	0.00	0.00	0.00
16,000.00	89.07	90.12	7,111.58	-19.48	9,274.79	9,274.81	0.00	0.00	0.00	0.00
16,100.00	89.07	90.12	7,113.20	-19.69	9,374.77	9,374.79	0.00	0.00	0.00	0.00
16,200.00	89.07	90.12	7,114.83	-19.90	9,474.76	9,474.78	0.00	0.00	0.00	0.00
16,300.00	89.07	90.12	7,116.46	-20.11	9,574.75	9,574.77	0.00	0.00	0.00	0.00
16,400.00	89.07	90.12	7,118.08	-20.32	9,674.73	9,674.75	0.00	0.00	0.00	0.00
16,500.00	89.07	90.12	7,119.71	-20.53	9,774.72	9,774.74	0.00	0.00	0.00	0.00
16,600.00	89.07	90.12	7,121.34	-20.74	9,874.70	9,874.73	0.00	0.00	0.00	0.00
16,700.00	89.07	90.12	7,122.96	-20.95	9,974.69	9,974.71	0.00	0.00	0.00	0.00
16,800.00	89.07	90.12	7,124.59	-21.16	10,074.68	10,074.70	0.00	0.00	0.00	0.00
16,900.00	89.07	90.12	7,126.21	-21.37	10,174.66	10,174.69	0.00	0.00	0.00	0.00
17,000.00	89.07	90.12	7,127.84	-21.58	10,274.65	10,274.67	0.00	0.00	0.00	0.00
17,100.00	89.07	90.12	7,129.47	-21.79	10,374.64	10,374.66	0.00	0.00	0.00	0.00
17,194.27	89.07	90.12	7,131.00	-21.99	10,468.89	10,468.91	0.00	0.00	0.00	0.00

TD @ 17194.27' MD

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
6,397.00	6,397.00	0.00	0.00	KOP/Start Build @ 6397.00' MD
6,397.00	6,397.00	0.00	0.00	Build Rate = 10.00°/100'
7,287.68	6,969.88	-1.18	563.64	End Build @ 7287.68' MD
7,287.68	6,969.88	-1.18	563.64	Hold Angle = 89.07°
17,194.27	7,131.00	-21.99	10,468.89	TD @ 17194.27' MD

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin		Start TVD (ft)
				+N/-S (ft)	+E/-W (ft)	
User	No Target (Freehand)	90.12	Slot	0.00	0.00	0.00

Survey tool program

From (ft)	To (ft)	Survey/Plan	Survey Tool
0.00	17,194.27	Plan #1	MWD

Plan Report for Agate PWU 21 7H - Plan #1

Casing Details

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
300.00	300.00	Surface Csg	13-3/8	17-1/2
3,300.00	3,300.00	Intermediate Csg	9-5/8	12-1/4
17,194.27	7,131.00	Production Csg	5-1/2	8-3/4

Formation Details

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
25.00	25.00	Rustler		0.93	90.12
391.00	391.00	Salt		0.93	90.12
1,082.00	1,082.00	Tansil Dolo		0.93	90.12
1,264.00	1,264.00	Yates		0.93	90.12
1,626.00	1,626.00	Seven Rivers		0.93	90.12
1,977.00	1,977.00	Queen		0.93	90.12
2,646.00	2,646.00	Grayburg		0.93	90.12
2,677.00	2,677.00	San Andres		0.93	90.12
3,342.00	3,342.00	Delaware		0.93	90.12
4,727.00	4,727.00	Cutoff Fm		0.93	90.12
4,747.00	4,747.00	Bone Spring Lm		0.93	90.12
7,010.57	6,895.00	1st BS Upper Ss		0.93	90.12
7,019.30	6,899.00	1st BS Middle Ss		0.93	90.12
7,084.29	6,925.00	1st BS Middle B Ss		0.93	90.12
7,187.55	6,952.00	1st BS Lower Ss		0.93	90.12

Targets associated with this wellbore

Target Name	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Shape
Agate PWU 217H BH	7,131.00	-21.99	10,468.89	Point
Agate PWU 217H PP	6,970.00	-0.52	576.32	Point

North Reference Sheet for Agate PWU 21 - Agate PWU 21 7H - Wellbore #1

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to Grid North Reference.

Vertical Depths are relative to GL 3321.9' + 25' KB @ 3346.90ft (Cactus 126). Northing and Easting are relative to Agate PWU 21 7H

Coordinate System is US State Plane 1983, New Mexico Eastern Zone using datum North American Datum 1983, ellipsoid GRS 1980

Projection method is Transverse Mercator (Gauss-Kruger)

Central Meridian is -104 33°, Longitude Origin 0° 0' 0.000 E°, Latitude Origin 0° 0' 0.000 N°

False Easting 541,337.50ft, False Northing 0 00ft, Scale Reduction 0.99991556

Gnd Coordinates of Well 597,961.18 ft N, 616,485 37 ft E

Geographical Coordinates of Well 32° 38' 36.98" N, 104° 05' 21.09" W

Gnd Convergence at Surface is 0 13°

Based upon Minimum Curvature type calculations, at a Measured Depth of 17,194.27ft

the Bottom Hole Displacement is 10,468 91ft in the Direction of 90.12° (Grid).

Magnetic Convergence at surface is -7.70° (26 June 2012, , BGGM2012)

