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JUL 20 2012

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88201
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
NMOCD ARTESIA
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-40512		Pool Code 97279-SSSD	Scan No. 60 Draw 004	Pool Name RATTLESNAKE BONE SPRING
Property Code 38432	Property Name AGATE PWU "21"			Well Number 8H
GRID No. 6137	Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.			Elevation 3325.7

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
M	21	19 S	29 E		130	SOUTH	50	WEST	EDDY

11 Bottom Hole Location If Different From Surface

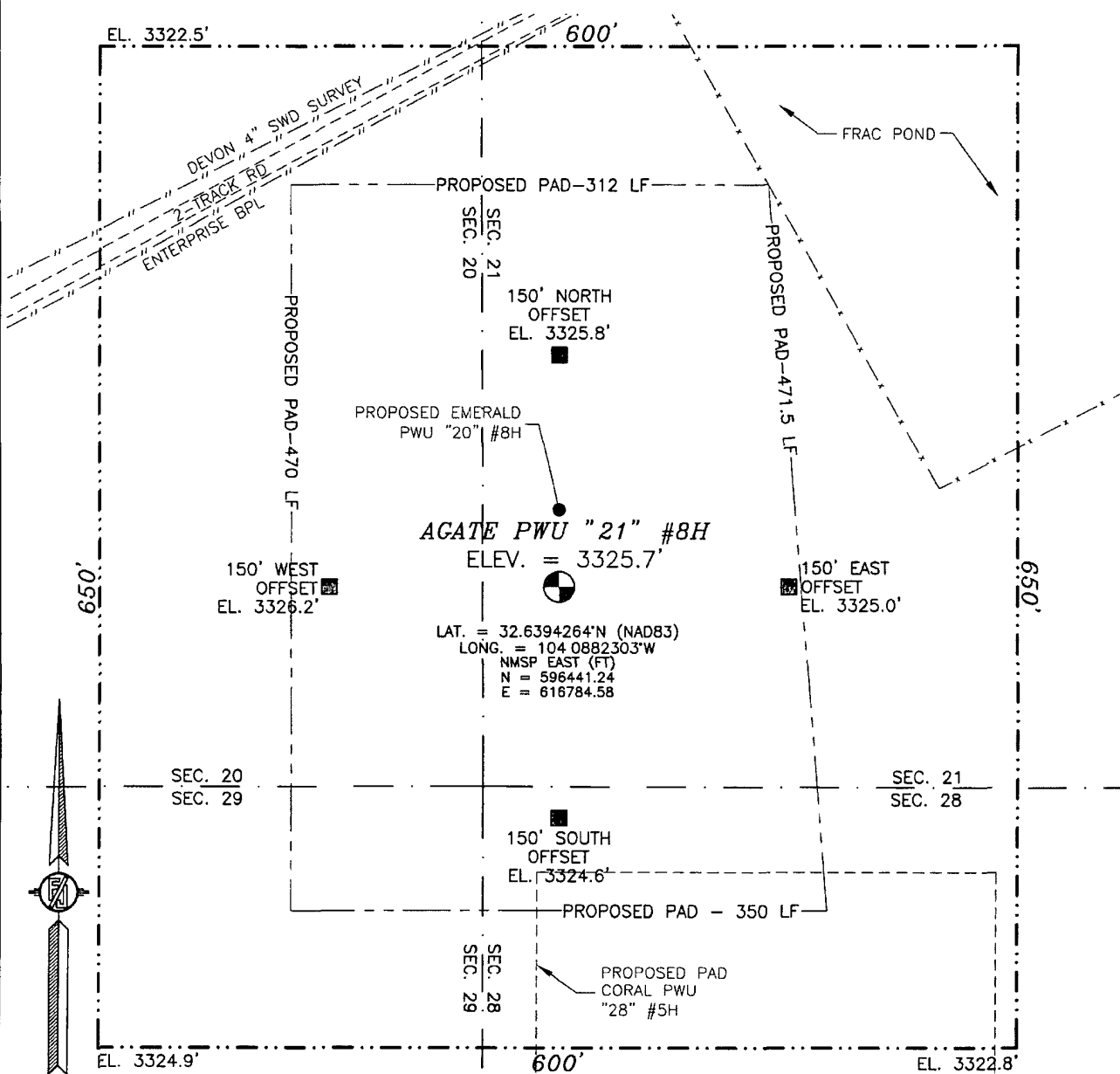
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	22	19 S	29 E		340	SOUTH	330	EAST	EDDY

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
320			

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 2. R 7/19/2012 Signature Date Printed Name Regulatory Specialist DAVID H. COOK	
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 1, 2012 Date of Survey <i>David H. Cook</i> Signature and Seal of Professional Surveyor Certificate Number, 7111000-PAKAMILLI-PLS 12797 NEW MEXICO LAND SURVEY NO. 970	

SECTION 21, 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 (AT DEVON PARKWAY SIGN) FOR APPROX. 1 MILE. GO WEST APPROX. 0.5 OF A MILE. VEER SOUTHWEST AND GO APPROX. 0.4 OF A MILE TO THE CORAL PWU "28" #5H WELL. LOCATION IS APPROX. 362 FT NORTHWEST OF WELL HEAD.

DEVON ENERGY PRODUCTION COMPANY, L.P.

AGATE PWU "21" #8H

LOCATED 130 FT. FROM THE SOUTH LINE
AND 50 FT. FROM THE WEST LINE OF

SECTION 21, TOWNSHIP 19 SOUTH,
RANGE 29 EAST, N.M.P.M.

EDDY COUNTY, STATE OF NEW MEXICO

MAY 1, 2012

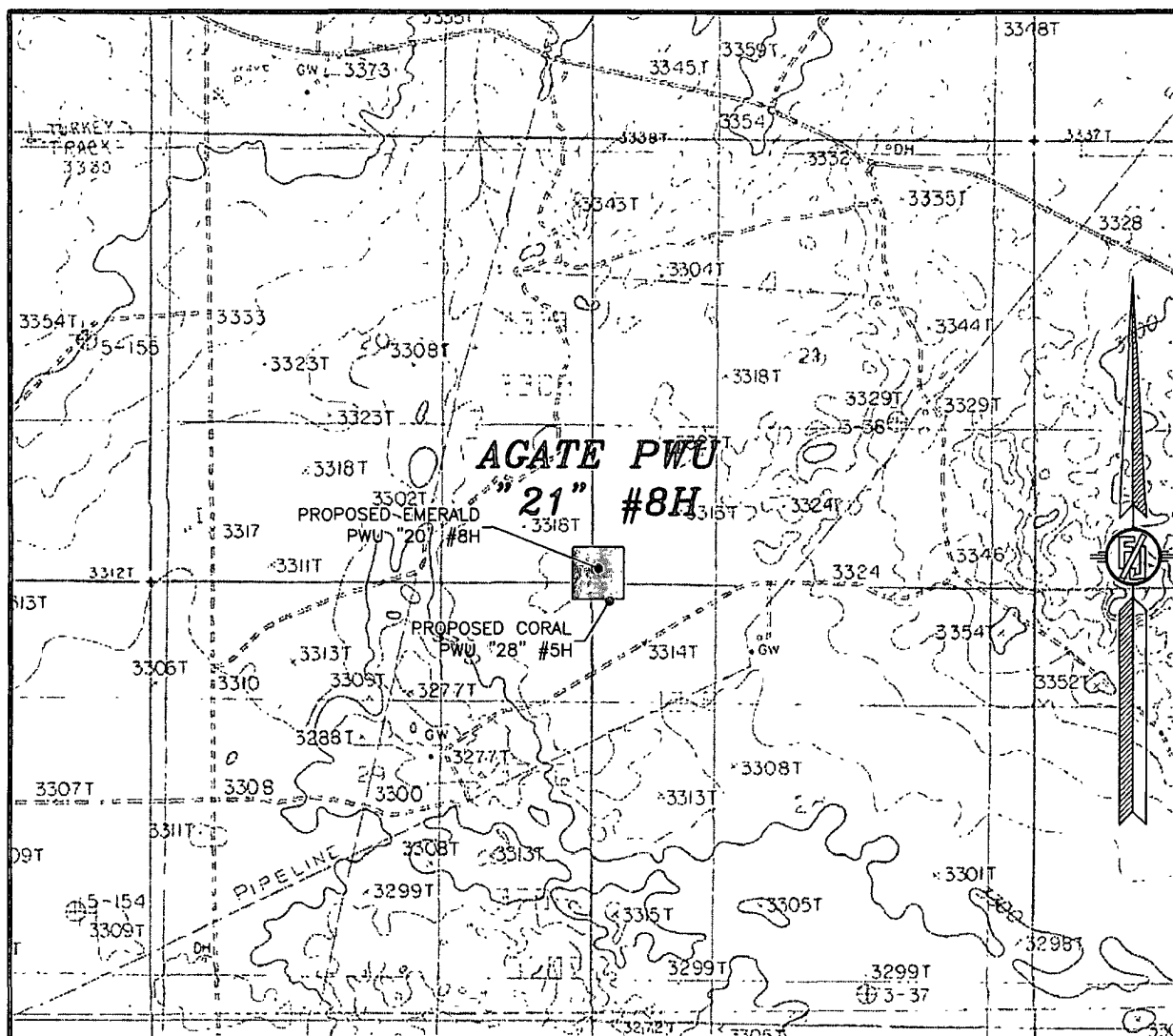
SURVEY NO. 970

MADRON SURVEYING, INC.

301 SOUTH CANAL
(575) 234-3341

CARLSBAD, NEW MEXICO

SECTION 21, TOWNSHIP 19 SOUTH, RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
LOCATION VERIFICATION MAP



USGS QUAD MAP:
ILLINOIS CAMP NE

NOT TO SCALE

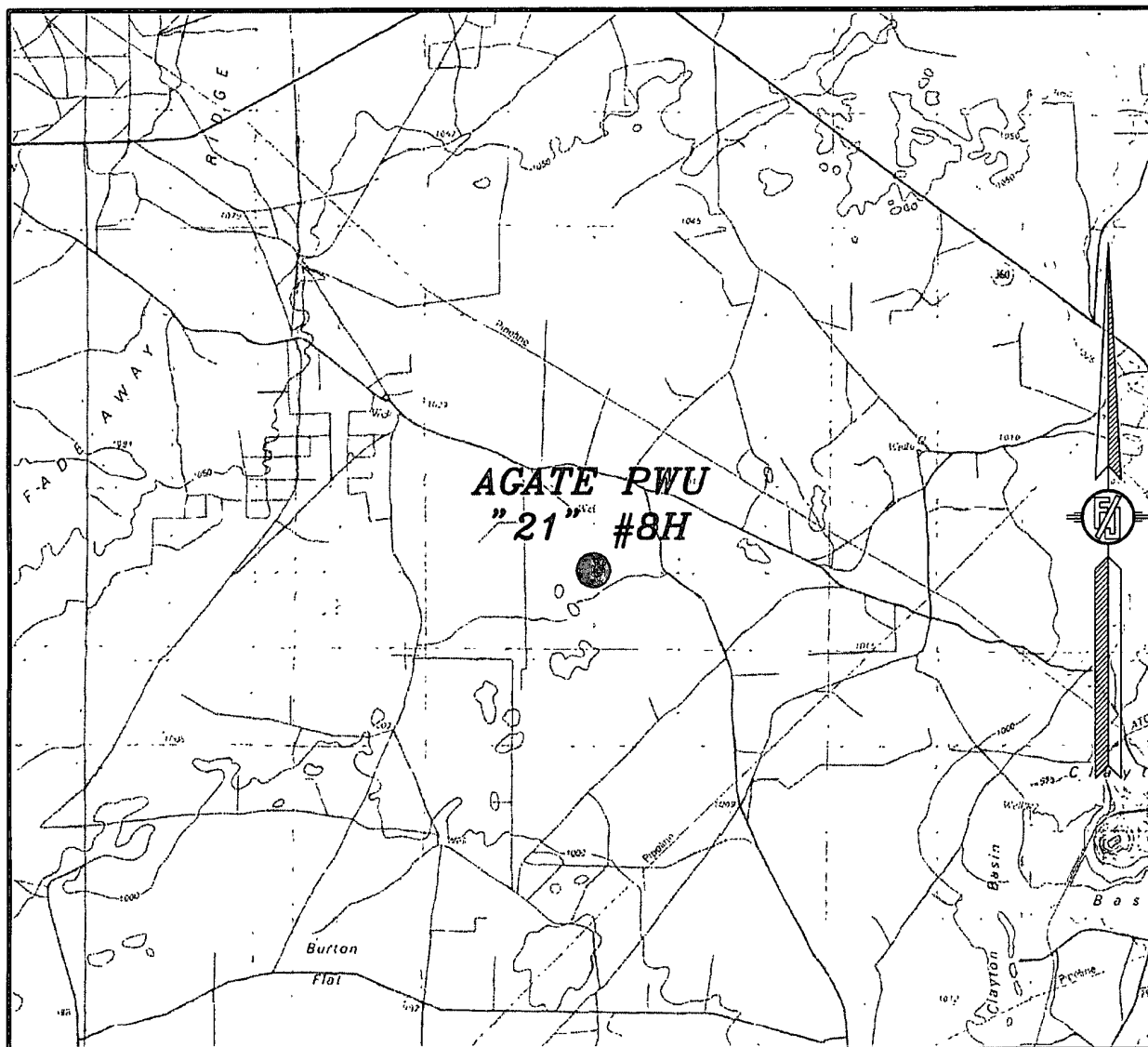
DEVON ENERGY PRODUCTION COMPANY, L.P.
AGATE PWU "21" #8H
LOCATED 130 FT. FROM THE SOUTH LINE
AND 50 FT. FROM THE WEST LINE OF
SECTION 21, TOWNSHIP 19 SOUTH,
RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

MAY 1, 2012

SURVEY NO. 970

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

SECTION 21, TOWNSHIP 19 SOUTH, RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
VICINITY MAP



NOT TO SCALE

DEVON ENERGY PRODUCTION COMPANY, L.P.

AGATE PWU "21" #8H

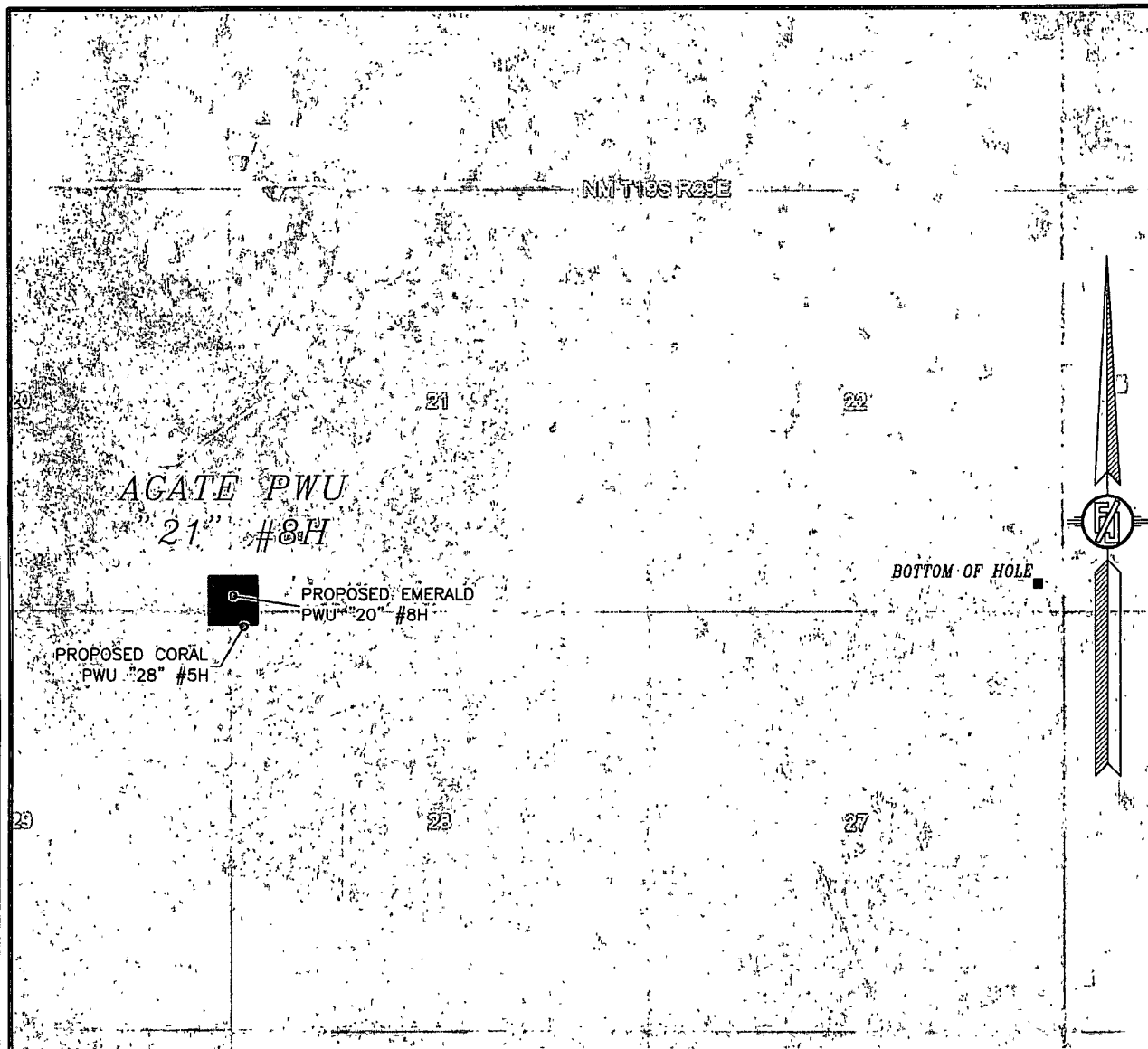
LOCATED 130 FT. FROM THE SOUTH LINE
AND 50 FT. FROM THE WEST LINE OF
SECTION 21, TOWNSHIP 19 SOUTH,
RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

MAY 1, 2012

SURVEY NO. 970

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

SECTION 21, TOWNSHIP 19 SOUTH, RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
AERIAL PHOTO



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
JUNE, 2011

DEVON ENERGY PRODUCTION COMPANY, L.P.

AGATE PWU "21" #8H

LOCATED 130 FT. FROM THE SOUTH LINE
AND 50 FT. FROM THE WEST LINE OF
SECTION 21, TOWNSHIP 19 SOUTH,
RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

MAY 1, 2012

SURVEY NO. 970

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

Devon Energy Corporation

HALLIBURTON | Sperry Drilling



Project: Eddy County, NM (NAD 83)
Site: Agate PWU 21
Well: Agate PWU 21 8H
Wellbore: Wellbore #1
Plan: Plan #1
Rig: Original Well Elev

SURFACE LOCATION

US State Plane 1983
 New Mexico Eastern Zone
 Elevation: GL 3325.7'+25'KB @ 3350.70ft (Cactus 126)
Northing **Easting** **Latitude** **Longitude**
 596441.24 616784.58 32° 38' 21.935 N 104° 5' 17.629 W

SECTION DETAILS

CASING DETAILS

TVD	MD	Name
300.00	300.00	Surface Csg
3200.00	3200.00	Intermediate Csg
7135.00	16900.34	Production Csg

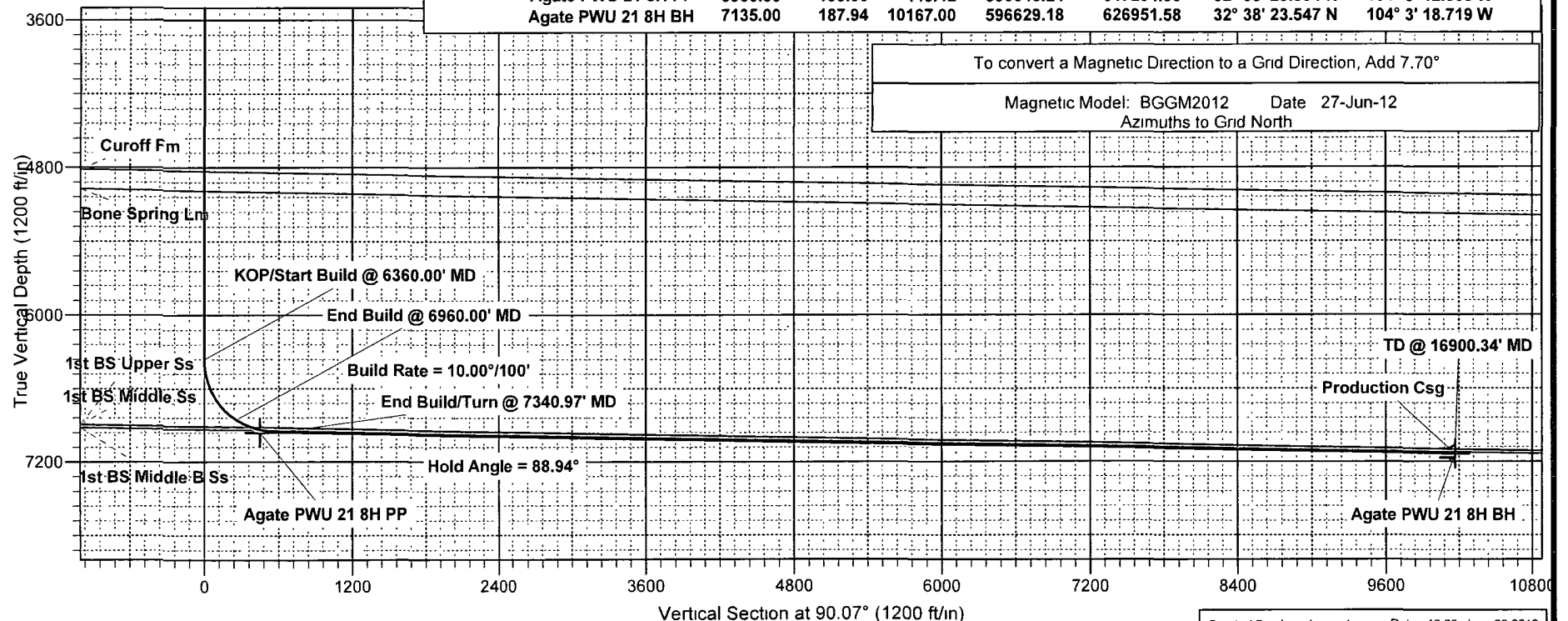
MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
6360.00	0.00	0.00	6360.00	0.00	0.00	0.00	0.00	0.00	KOP/Start Build
6960.00	60.00	64.00	6856.20	125.58	257.49	10.00	64.00	257.33	End Build
7340.97	88.94	90.07	6958.76	200.43	609.26	10.00	45.42	609.02	End Build/Turn
16900.34	88.94	90.07	7135.00	187.94	10167.00	0.00	0.00	10166.76	TD

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Agate PWU 21 8H PP	6960.00	199.00	449.42	596640.24	617234.00	32° 38' 23.894 N	104° 5' 12.368 W
Agate PWU 21 8H BH	7135.00	187.94	10167.00	596629.18	626951.58	32° 38' 23.547 N	104° 3' 18.719 W

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

Magnetic Model: BGGM2012 Date 27-Jun-12
 Azimuths to Grid North

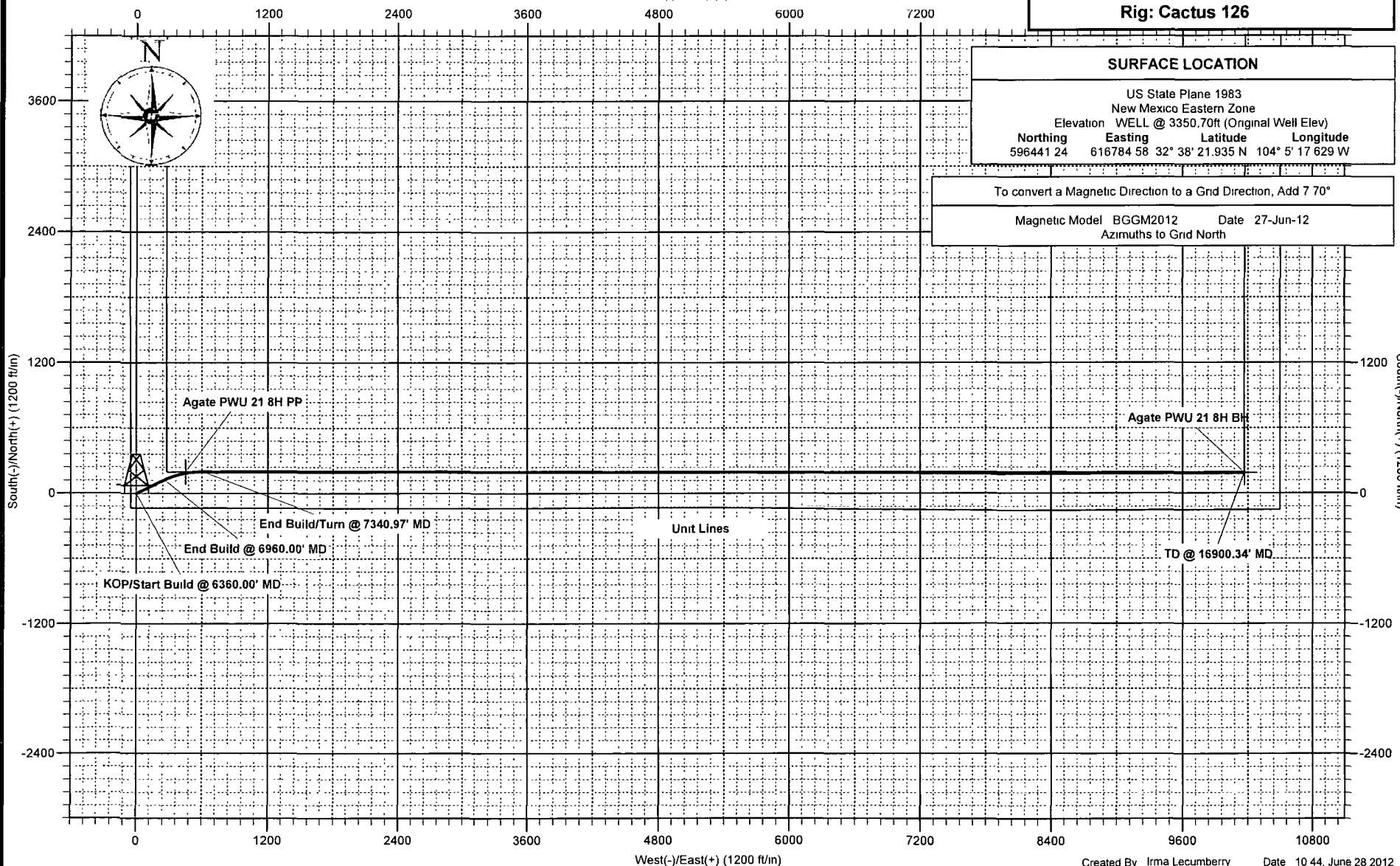


Created By Irma Lecumberry Date 10/28/2012



Project: Eddy County, NM (NAD 83)
 Site: Agate PWU 21
 Well: Agate PWU 21 8H
 Wellbore: Wellbore #1
 Plan: Plan #1
 Rig: Cactus 126

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



Devon Energy Corporation

Eddy County, NM (NAD 83)

Agate PWU 21

Agate PWU 21 8H

Wellbore #1

Plan: Plan #1

Sperry Drilling Services Proposal Report

28 June, 2012

Well Coordinates 596,441 24 N, 616,784 58 E (32° 38' 21 93" N, 104° 05' 17 63" W)
Ground Level 3,325 70 ft

Local Coordinate Origin

Centered on Well Agate PWU 21 8H

Viewing Datum

GL 3325 7' + 25'KB @ 3350 70ft (Cactus 126)

TVDs to System

N

North Reference

Grid

Unit System

API - US Survey Feet

Version 2003 16 Build. 431

HALLIBURTON

Plan Report for Agate PWU 21 8H - 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										
446 00	0 00	0 00	446 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00
Salado										
1,068 00	0 00	0 00	1,068 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00
Base of Salt										
1,151 00	0 00	0 00	1,151 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00
Tansil Dolo										
1,268 00	0 00	0 00	1,268 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00
Yates										
1,630 00	0 00	0 00	1,630 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00
Seven Rivers										
2,026 00	0 00	0 00	2,026 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00
Queen										
2,650 00	0 00	0 00	2,650 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00
Grayburg										
2,751 00	0 00	0 00	2,751 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00
San Andres										
3,200 00	0 00	0 00	3,200 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00
Intermediate Csg										
3,289 00	0 00	0 00	3,289 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00
Delaware										
4,831 00	0 00	0 00	4,831 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00
Curoff Fm										
4,991 00	0 00	0 00	4,991 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00
Bone Spring Lm										
6,360 00	0 00	0 00	6,360 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00
KOP/Start Build @ 6360.00' MD										
6,360 01	0 00	64 00	6,360 01	0 00	0 00	0 00	0 00	0 00	0 00	64 00
Build Rate = 10.00°/100'										
6,400 00	4 00	64 00	6,399 97	0 61	1 25	1 25	10 00	10 00	0 00	64 00
6,500 00	14 00	64 00	6,498 61	7 46	15 30	15 29	10 00	10 00	0 00	0 00
6,600 00	24 00	64 00	6,593 04	21 71	44 52	44 50	10 00	10 00	0 00	0 00
6,700 00	34 00	64 00	6,680 39	42 94	88 04	87 99	10 00	10 00	0 00	0 00
6,800 00	44 00	64 00	6,758 01	70 49	144 53	144 45	10 00	10 00	0 00	0 00
6,900 00	54 00	64 00	6,823 53	103 54	212 28	212 15	10 00	10 00	0 00	0 00
6,960 00	60 00	64 00	6,856 20	125 58	257 49	257 33	10 00	10 00	0 00	0 00
End Build @ 6960.00' MD										
7,000 00	62 85	67 20	6,875 33	140 08	289 47	289 30	10 00	7 12	8 00	45 42
7,100 00	70 24	74 55	6,915 16	169 93	376 06	375 85	10 00	7 39	7 35	43 89
7,105 66	70 67	74 94	6,917 05	171 33	381 20	380 99	10 00	7 56	6 95	40 95
1st BS Upper Ss										
7,112 11	71 16	75 39	6,919 16	172 89	387 10	386 88	10 00	7 58	6 91	40 82
1st BS Middle Ss										
7,200 00	77 91	81 23	6,942 61	189 97	469 97	469 74	10 00	7 68	6 65	40 68
7,200 44	77 94	81 26	6,942 70	190 03	470 40	470 17	10 00	7 76	6 45	39 11
1st BS Middle B Ss										
7,300 00	85 72	87 54	6,956 85	199 58	568 36	568 11	10 00	7 82	6 31	39 11
7,340 97	88 94	90 07	6,958 76	200 43	609 26	609 02	10 00	7 86	6 18	38.21
End Build/Turn @ 7340.97' MD - Hold Angle = 88.94°										
7,400 00	88 94	90 07	6,959 85	200 35	668 28	668 04	0 00	0 00	0 00	0 00
7,500 00	88 94	90 07	6,961 69	200 22	768 27	768 02	0 00	0 00	0 00	0 00
7,600 00	88 94	90 07	6,963 53	200 09	868 25	868 01	0 00	0 00	0 00	0 00

Plan Report for Agate PWU 21 8H - 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 (°)
7,700 00	88 94	90 07	6,965 38	199 96	968 23	967 99	0 00	0 00	0 00	0 00
7,800 00	88 94	90 07	6,967 22	199 83	1,068 22	1,067 97	0 00	0 00	0 00	0 00
7,900 00	88 94	90 07	6,969 06	199 70	1,168 20	1,167 95	0 00	0 00	0 00	0 00
8,000 00	88 94	90 07	6,970 91	199 57	1,268 18	1,267 94	0 00	0 00	0 00	0 00
8,100 00	88 94	90 07	6,972 75	199 44	1,368 16	1,367 92	0 00	0 00	0 00	0 00
8,200 00	88 94	90 07	6,974 59	199 31	1,468 15	1,467 90	0 00	0 00	0 00	0 00
8,300 00	88 94	90 07	6,976 44	199 18	1,568 13	1,567 89	0 00	0 00	0 00	0 00
8,400 00	88 94	90 07	6,978 28	199 05	1,668 11	1,667 87	0 00	0 00	0 00	0 00
8,500 00	88 94	90 07	6,980 13	198 91	1,768 10	1,767 85	0 00	0 00	0 00	0 00
8,600 00	88 94	90 07	6,981 97	198 78	1,868 08	1,867 84	0 00	0 00	0 00	0 00
8,700 00	88 94	90 07	6,983 81	198 65	1,968 06	1,967 82	0 00	0 00	0 00	0 00
8,800 00	88 94	90 07	6,985 66	198 52	2,068 05	2,067 80	0 00	0 00	0 00	0 00
8,900 00	88 94	90 07	6,987 50	198 39	2,168 03	2,167 78	0 00	0 00	0 00	0 00
9,000 00	88 94	90 07	6,989 34	198 26	2,268 01	2,267 77	0 00	0 00	0 00	0 00
9,100 00	88 94	90 07	6,991 19	198 13	2,367 99	2,367 75	0 00	0 00	0 00	0 00
9,200 00	88 94	90 07	6,993 03	198 00	2,467 98	2,467 73	0 00	0 00	0 00	0 00
9,300 00	88 94	90 07	6,994 88	197 87	2,567 96	2,567 72	0 00	0 00	0 00	0 00
9,400 00	88 94	90 07	6,996 72	197 74	2,667 94	2,667 70	0 00	0 00	0 00	0 00
9,500 00	88 94	90 07	6,998 56	197 61	2,767 93	2,767 68	0 00	0 00	0 00	0 00
9,600 00	88 94	90 07	7,000 41	197 48	2,867 91	2,867 67	0 00	0 00	0 00	0 00
9,700 00	88 94	90 07	7,002 25	197 35	2,967 89	2,967 65	0 00	0 00	0 00	0 00
9,800 00	88 94	90 07	7,004 09	197 22	3,067 87	3,067 63	0 00	0 00	0 00	0 00
9,900 00	88 94	90 07	7,005 94	197 09	3,167 86	3,167 61	0 00	0 00	0 00	0 00
10,000 00	88 94	90 07	7,007 78	196 96	3,267 84	3,267 60	0 00	0 00	0 00	0 00
10,100 00	88 94	90 07	7,009 62	196 82	3,367 82	3,367 58	0 00	0 00	0 00	0 00
10,200 00	88 94	90 07	7,011 47	196 69	3,467 81	3,467 56	0 00	0 00	0 00	0 00
10,300 00	88 94	90 07	7,013 31	196 56	3,567 79	3,567 55	0 00	0 00	0 00	0 00
10,400 00	88 94	90 07	7,015 16	196 43	3,667 77	3,667 53	0 00	0 00	0 00	0 00
10,500 00	88 94	90 07	7,017 00	196 30	3,767 75	3,767 51	0 00	0 00	0 00	0 00
10,600 00	88 94	90 07	7,018 84	196 17	3,867 74	3,867 50	0 00	0 00	0 00	0 00
10,700 00	88 94	90 07	7,020 69	196 04	3,967 72	3,967 48	0 00	0 00	0 00	0 00
10,800 00	88 94	90 07	7,022 53	195 91	4,067 70	4,067 46	0 00	0 00	0 00	0 00
10,900 00	88 94	90 07	7,024 37	195 78	4,167 69	4,167 44	0 00	0 00	0 00	0 00
11,000 00	88 94	90 07	7,026 22	195 65	4,267 67	4,267 43	0 00	0 00	0 00	0 00
11,100 00	88 94	90 07	7,028 06	195 52	4,367 65	4,367 41	0 00	0 00	0 00	0 00
11,200 00	88 94	90 07	7,029 90	195 39	4,467 64	4,467 39	0 00	0 00	0 00	0 00
11,300 00	88 94	90 07	7,031 75	195 26	4,567 62	4,567 38	0 00	0 00	0 00	0 00
11,400 00	88 94	90 07	7,033 59	195 13	4,667 60	4,667 36	0 00	0 00	0 00	0 00
11,500 00	88 94	90 07	7,035 44	195 00	4,767 58	4,767 34	0 00	0 00	0 00	0 00
11,600 00	88 94	90 07	7,037 28	194 86	4,867 57	4,867 33	0 00	0 00	0 00	0 00
11,700 00	88 94	90 07	7,039 12	194 73	4,967 55	4,967 31	0 00	0 00	0 00	0 00
11,800 00	88 94	90 07	7,040 97	194 60	5,067 53	5,067 29	0 00	0 00	0 00	0 00
11,900 00	88 94	90 07	7,042 81	194 47	5,167 52	5,167 27	0 00	0 00	0 00	0 00
12,000 00	88 94	90 07	7,044 65	194 34	5,267 50	5,267 26	0 00	0 00	0 00	0 00
12,100 00	88 94	90 07	7,046 50	194 21	5,367 48	5,367 24	0 00	0 00	0 00	0 00
12,200 00	88 94	90 07	7,048 34	194 08	5,467 46	5,467 22	0 00	0 00	0 00	0 00
12,300 00	88 94	90 07	7,050 19	193 95	5,567 45	5,567 21	0 00	0 00	0 00	0 00
12,400 00	88 94	90 07	7,052 03	193 82	5,667 43	5,667 19	0 00	0 00	0 00	0 00
12,500 00	88 94	90 07	7,053 87	193 69	5,767 41	5,767 17	0 00	0 00	0 00	0 00
12,600 00	88 94	90 07	7,055 72	193 56	5,867 40	5,867 16	0 00	0 00	0 00	0 00
12,700 00	88 94	90 07	7,057 56	193 43	5,967 38	5,967 14	0 00	0 00	0 00	0 00
12,800 00	88 94	90 07	7,059 40	193 30	6,067 36	6,067 12	0 00	0 00	0 00	0 00
12,900 00	88 94	90 07	7,061 25	193 17	6,167 34	6,167 10	0 00	0 00	0 00	0 00
13,000 00	88 94	90 07	7,063 09	193 04	6,267 33	6,267 09	0 00	0 00	0 00	0 00
13,100 00	88 94	90 07	7,064 93	192 91	6,367 31	6,367 07	0 00	0 00	0 00	0 00
13,200 00	88 94	90 07	7,066 78	192 77	6,467 29	6,467 05	0 00	0 00	0 00	0 00
13,300 00	88 94	90 07	7,068 62	192 64	6,567 28	6,567 04	0 00	0 00	0 00	0 00
13,400 00	88 94	90 07	7,070 47	192 51	6,667 26	6,667 02	0 00	0 00	0 00	0 00
13,500 00	88 94	90 07	7,072 31	192 38	6,767 24	6,767 00	0 00	0 00	0 00	0 00
13,600 00	88 94	90 07	7,074 15	192 25	6,867 23	6,866 99	0 00	0 00	0 00	0 00

Plan Report for Agate PWU 21 8H - 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 (°)
13,700 00	88 94	90 07	7,076 00	192.12	6,967 21	6,966 97	0 00	0 00	0 00	0 00
13,800 00	88 94	90 07	7,077 84	191 99	7,067 19	7,066 95	0 00	0 00	0 00	0 00
13,900 00	88 94	90 07	7,079 68	191 86	7,167 17	7,166 93	0 00	0 00	0 00	0 00
14,000 00	88 94	90 07	7,081 53	191.73	7,267 16	7,266 92	0 00	0 00	0 00	0 00
14,100 00	88 94	90 07	7,083 37	191 60	7,367 14	7,366 90	0 00	0 00	0 00	0 00
14,200 00	88 94	90 07	7,085 21	191 47	7,467 12	7,466 88	0 00	0 00	0 00	0 00
14,300 00	88 94	90 07	7,087 06	191 34	7,567 11	7,566 87	0 00	0 00	0 00	0 00
14,400 00	88 94	90 07	7,088 90	191 21	7,667 09	7,666 85	0 00	0 00	0 00	0 00
14,500 00	88 94	90 07	7,090 75	191 08	7,767 07	7,766 83	0 00	0 00	0 00	0 00
14,600 00	88 94	90 07	7,092 59	190 95	7,867 05	7,866 82	0 00	0 00	0 00	0 00
14,700 00	88 94	90 07	7,094 43	190 81	7,967 04	7,966 80	0 00	0 00	0 00	0 00
14,800 00	88 94	90 07	7,096 28	190 68	8,067 02	8,066 78	0 00	0 00	0 00	0 00
14,900 00	88 94	90 07	7,098 12	190.55	8,167 00	8,166 76	0 00	0 00	0 00	0 00
15,000 00	88 94	90 07	7,099 96	190 42	8,266 99	8,266 75	0 00	0 00	0 00	0 00
15,100 00	88 94	90 07	7,101 81	190 29	8,366 97	8,366 73	0 00	0 00	0 00	0 00
15,200 00	88 94	90 07	7,103 65	190 16	8,466 95	8,466 71	0 00	0 00	0 00	0 00
15,300 00	88 94	90 07	7,105 50	190 03	8,566 93	8,566 70	0 00	0 00	0 00	0 00
15,400 00	88 94	90 07	7,107 34	189 90	8,666 92	8,666 68	0 00	0 00	0 00	0 00
15,500 00	88 94	90 07	7,109 18	189 77	8,766 90	8,766 66	0 00	0 00	0 00	0 00
15,600 00	88 94	90 07	7,111 03	189 64	8,866 88	8,866 65	0 00	0 00	0 00	0 00
15,700 00	88 94	90 07	7,112 87	189 51	8,966 87	8,966 63	0 00	0 00	0 00	0 00
15,800 00	88 94	90 07	7,114 71	189 38	9,066 85	9,066 61	0 00	0 00	0 00	0 00
15,900 00	88 94	90 07	7,116 56	189 25	9,166 83	9,166 59	0 00	0 00	0 00	0 00
16,000 00	88 94	90 07	7,118 40	189.12	9,266 82	9,266 58	0 00	0 00	0 00	0 00
16,100 00	88 94	90 07	7,120 24	188 99	9,366 80	9,366 56	0 00	0 00	0 00	0 00
16,200 00	88 94	90 07	7,122 09	188 85	9,466 78	9,466 54	0 00	0 00	0 00	0 00
16,300 00	88 94	90 07	7,123 93	188 72	9,566 76	9,566 53	0 00	0 00	0 00	0 00
16,400 00	88 94	90 07	7,125 78	188.59	9,666 75	9,666 51	0 00	0 00	0 00	0 00
16,500 00	88 94	90 07	7,127 62	188 46	9,766 73	9,766 49	0 00	0 00	0 00	0 00
16,600 00	88 94	90 07	7,129 46	188 33	9,866 71	9,866 48	0 00	0 00	0 00	0 00
16,700 00	88 94	90 07	7,131 31	188 20	9,966 70	9,966 46	0 00	0 00	0 00	0 00
16,800 00	88 94	90 07	7,133 15	188 07	10,066 68	10,066 44	0 00	0 00	0 00	0 00
16,900 00	88 94	90 07	7,134 99	187 94	10,166 66	10,166 42	0 00	0 00	0 00	0 00
16,900 34	88 94	90 07	7,135 00	187 94	10,167 00	10,166 76	0 00	0 00	0 00	0 00

TD @ 16900.34' MD

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	+E/-W (ft)	Comment
6,360 00	6,360 00	0.00	0 00	KOP/Start Build @ 6360 00' MD
6,360 01	6,360 01	0 00	0 00	Build Rate = 10 00°/100'
6,960 00	6,856 20	125 58	257 49	End Build @ 6960 00' MD
7,340 97	6,958 76	200 43	609 26	End Build/Turn @ 7340 97' MD
7,340 97	6,958 76	200 43	609 26	Hold Angle = 88 94°
16,900 34	7,135 00	187 94	10,167 00	TD @ 16900 34' MD

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin +N/-S (ft)	+E/-W (ft)	Start TVD (ft)
User	No Target (Freehand)	90 07	Slot	0 00	0 00	0 00

Plan Report for Agate PWU 21 8H - Plan #1

Survey tool program

From (ft)	To (ft)	Survey/Plan	Survey Tool
0.00	16,900.34	Plan #1	MWD

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
3,200.00	3,200.00	Intermediate Csg	9-5/8	12-1/4
16,900.34	7,135.00	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		1.06	90.07
446.00	446.00	Salado		1.06	90.07
1,068.00	1,068.00	Base of Salt		1.06	90.07
1,151.00	1,151.00	Tansil Dolo		1.06	90.07
1,268.00	1,268.00	Yates		1.06	90.07
1,630.00	1,630.00	Seven Rivers		1.06	90.07
2,026.00	2,026.00	Queen		1.06	90.07
2,650.00	2,650.00	Grayburg		1.06	90.07
2,751.00	2,751.00	San Andres		1.06	90.07
3,289.00	3,289.00	Delaware		1.06	90.07
4,831.00	4,831.00	Curoff Fm		1.06	90.07
4,991.00	4,991.00	Bone Spring Lm		1.06	90.07
7,105.66	6,910.00	1st BS Upper Ss		1.06	90.07
7,112.11	6,912.00	1st BS Middle Ss		1.06	90.07
7,200.44	6,934.00	1st BS Middle B Ss		1.06	90.07

Targets associated with this wellbore

Target Name	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Shape
Agate PWU 21 8H BH	7,135.00	187.94	10,167.00	Point
Agate PWU 21 8H PP	6,960.00	199.00	449.42	Point

North Reference Sheet for Agate PWU 21 - Agate PWU 21 8H - 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 3325 7' + 25'KB @ 3350 70ft (Cactus 126) Northing and Easting are relative to Agate PWU 21 8H

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 99991561

Grid Coordinates of Well 596,441.24 ft N, 616,784 58 ft E

Geographical Coordinates of Well 32° 38' 21 93" N, 104° 05' 17 63" W

Grid Convergence at Surface is 0 13°

Based upon Minimum Curvature type calculations, at a Measured Depth of 16,900 34ft

the Bottom Hole Displacement is 10,168 74ft in the Direction of 88 94° (Grid)

Magnetic Convergence at surface is -7 70° (27 June 2012, , BGGM2012)

