

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, Aztec, 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 and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-101
Revised December 16, 2011

Permit

RCVD SEP 17 '12
OIL CONS. DIV.
DIST. 3

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address Bill Barrett Corporation 1099 18th Street, Suite 2300, Denver, CO 80202		² OGRID Number 287508
		³ API Number 30-045-35412
⁴ Property Code 39493	⁵ Property Name Selph State 2508-16	⁶ Well No 12H

⁷ Surface Location

UL - Lot H	Section 16	Township 25 N	Range 8 W	Lot Idn	Feet from 1650	N/S Line North	Feet From 250	E/W Line East	County San Juan
---------------	---------------	------------------	--------------	---------	-------------------	-------------------	------------------	------------------	--------------------

⁸ Pool Information

Will drill horizontal in the Tocito.

Additional Well Information

⁹ Work Type N	¹⁰ Well Type O	¹¹ Cable/Rotary R	¹² Lease Type S	¹³ Ground Level Elevation 6,591'
¹⁴ Multiple No	¹⁵ Proposed Depth 10,234' MD	¹⁶ Formation Tocito	¹⁷ Contractor	¹⁸ Spud Date upon approval
Depth to Ground water ≈ 88'		Distance from nearest fresh water well ≈ 2,200' NNE		Distance to nearest surface water ≈ 500'

¹⁹ Proposed Casing and Cement Program

(intermittent)

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Conductor	26"	16"	65	40'	Grout	GL
Surface	12-1/4"	9-5/8"	36	350'	210 sx	GL
Inter.	8-3/4"	7"	26	6,184'	830 sx	GL
Liner	6-1/8"	4-1/2"	11.6	5,809' TVD	None	
				10,234' MD		

Casing/Cement Program: Additional Comments

--

Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Pipe Rams	3,000	2,500	
Annular	3,000	2,500	

I hereby certify that the information given above is true and complete to the best of my knowledge and belief

I further certify that the drilling pit will be constructed according to NMOCD guidelines ☐, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Signature

Printed name Brian Wood

Title Consultant

E-mail Address brian@permitswest.com

Date Sept. 13, 2012 Phone (505) 466-8120

OIL CONSERVATION DIVISION

Approved By

Title SUPERVISOR DISTRICT # 3

Approved Date OCT 10 2012

Expiration Date OCT 10 2014

Hold C104

Hold C104

Conditions of Approval for Directional Survey and "As Drilled" plat

for Directional Survey and "As Drilled" plat

NOTIFY AZTEC OCD 24 HRS.

PRIOR TO CASING & CEMENT

OCT 10 2012 ea

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

DISTRICT II
811 S. First St., Artesia, N.M. 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, N.M. 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, N.M. 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 30-045-35412	² Pool Code 19859	³ Pool Name DUFERS POINT - GALLUP DAKOTA
⁴ Property Code 39493	⁵ Property Name SELPH STATE 2508-16	⁶ Well Number 12 H
⁷ GRID No. 287508	⁸ Operator Name BILL BARRETT CORPORATION	⁹ Elevation 6591

¹⁰ Surface Location

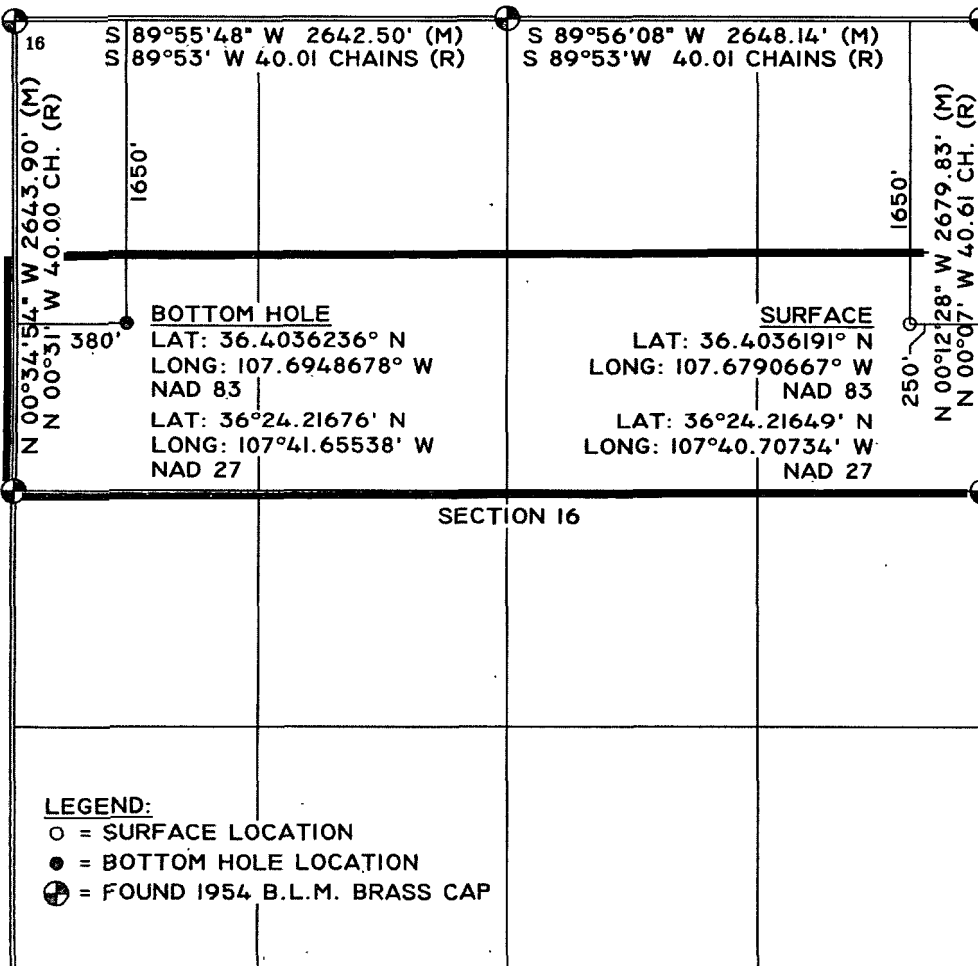
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	16	25 N	8 W		1650	NORTH	250	EAST	SAN JUAN

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
E	16	25 N	8 W		1650	NORTH	380	WEST	SAN JUAN

¹² Dedicated Acres 160	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
--------------------------------------	-------------------------------	----------------------------------	-------------------------

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.	
Signature <i>Brian Wood</i>	Date 9-13-12
Printed Name brian@permitswest.com	
E-mail Address	
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.	
Date of Survey 08/01/12	
Signature and Seal of Professional Surveyor <i>John A. Vukovich</i>	
Certificate Number 14831	



Bill Barrett Corporation

COMPANY DETAILS: BILL BARRETT CORP

Calculation Method: Minimum Curvature
Error System: ISCWSA
Scan Method: Closest Approach 3D
Error Surface: Elliptical Conic
Warning Method: Error Ratio

REFERENCE INFORMATION

Co-ordinate (N/E) Reference Well Selph State 2508-16H #12C, True North
Vertical (TVD) Reference KB @ 6604 0ft (Original Well Elev)
Section (VS) Reference Slot - (0 0N, 0 0E)
Measured Depth Reference KB @ 6604 0ft (Original Well Elev)
Calculation Method Minimum Curvature

WELL DETAILS: Selph State 2508-16H #12C

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0 0	0 0	1966256.37	2768488.16	36° 24' 13.029 N	107° 40' 44.640 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0 0	0 00	0 00	0 0	0 0	0 0	0 00	0 00	0 0	
2	5257 0	0 00	0 00	5257 0	0 0	0 0	0 00	0 00	0 0	
3	6162 0	90 50	270 00	5829 9	0 0	-578 0	10 00	270 00	578 0	
4	6163 4	90 50	270 03	5829 9	0 0	-579 4	2 00	90 00	579 4	
5	7384 1	90 50	270 03	5819 3	0 6	-1800 0	0 00	0 00	1800 0	
6	7399 1	90 20	270 03	5819 2	0 6	-1815 0	2 00	179 70	1815 0	
7	10234 0	90 20	270 03	5809 3	2 1	-4649 9	0 00	0 00	4649 9	2508-16H #12C PBHL

PROJECT DETAILS SAN JUAN COUNTY, NM

Geodetic System US State Plane 1983
Datum North American Datum 1983
Ellipsoid GRS 1980
Zone New Mexico Western Zone

WELLBORE TARGET DETAILS (LAT/LONG)

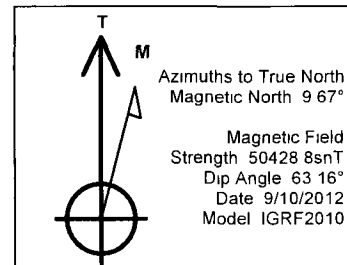
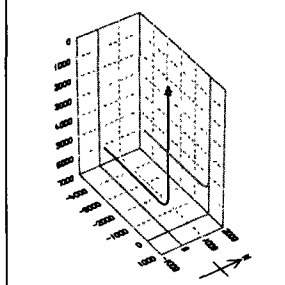
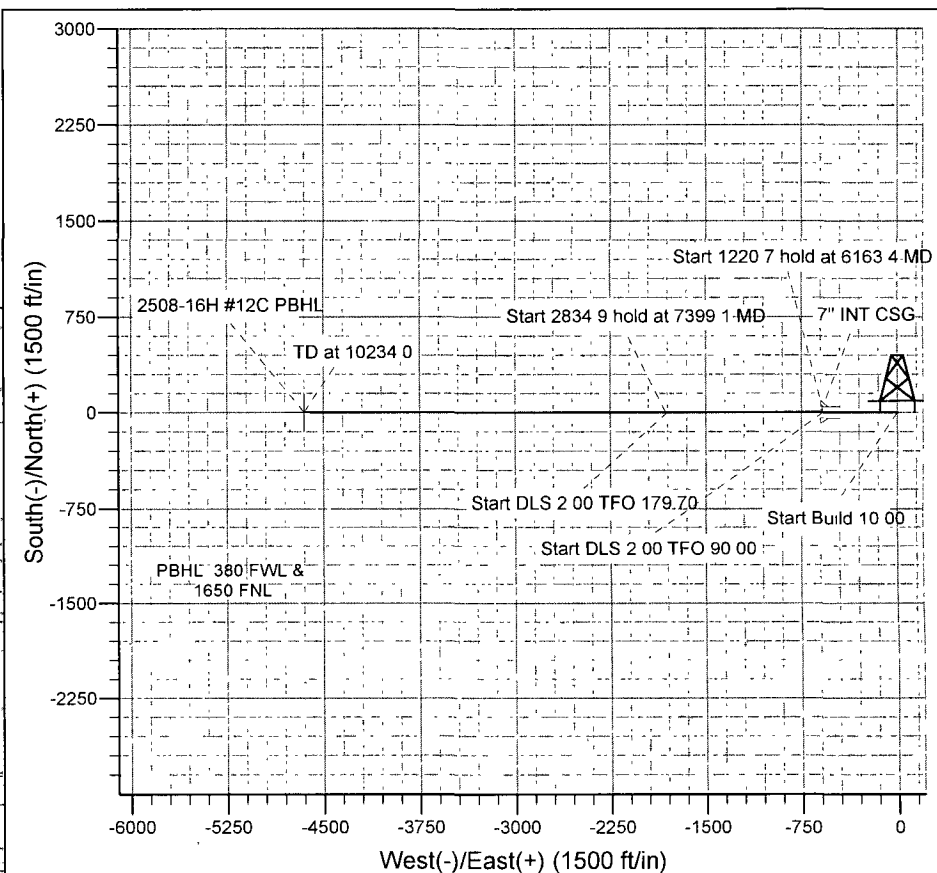
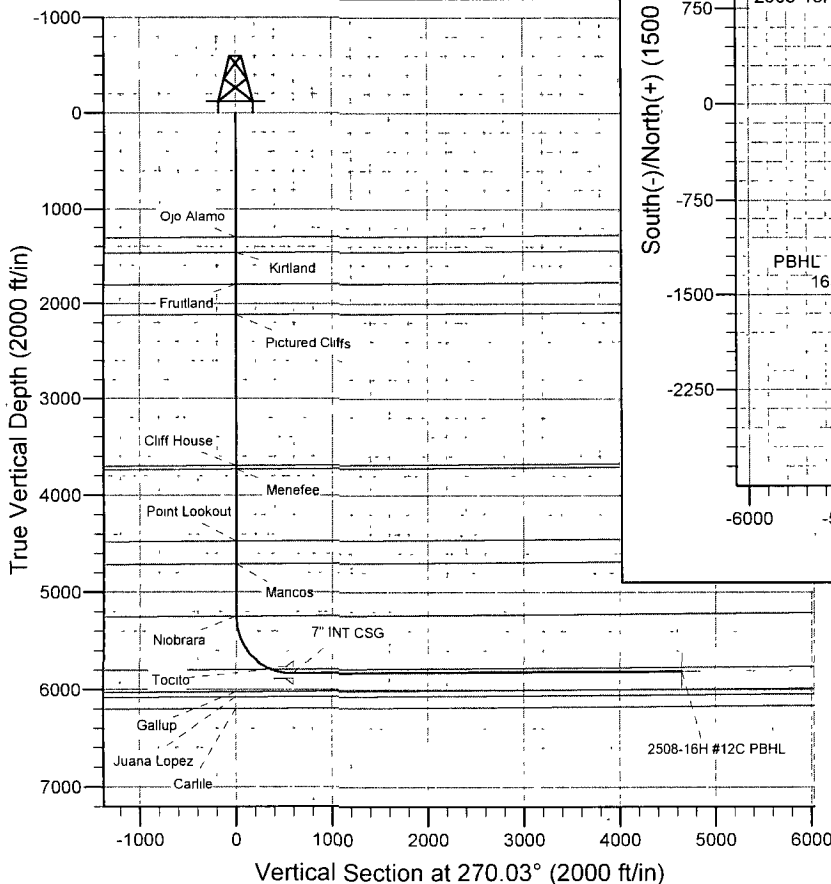
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
2508-16H #12C PBHL	5809 0	2 0	-4649 9	36° 24' 13.045 N	107° 41' 41.524 W	Point

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
		Carlile
		Gallup
		Juana Lopez
		Ojo Alamo
		Kirtland
		Fruitland
		Pictured Cliffs
		Cliff House
		Menefee
		Point Lookout
		Mancos
		Niobrara
		Tocito

CASING DETAILS

TVD	MD	Name	Size
5829 7	6184 0	7" INT CSG	7



Bill Barrett Corp

Planning Report

Database:	Compass	Local Co-ordinate Reference:	Well Selph State 2508-16H #12C
Company:	BILL BARRETT CORP.	TVD Reference:	KB @ 6604 0ft (Original Well Elev)
Project:	SAN JUAN COUNTY, NM	MD Reference:	KB @ 6604 0ft (Original Well Elev)
Site:	Selph State 2508-16H #12C	North Reference:	True
Well:	Selph State 2508-16H #12C	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project:	SAN JUAN COUNTY, NM		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site:	Selph State 2508-16H #12C		
Site Position:		Northing:	1,966,256.37 ft
From:	Lat/Long	Easting:	2,768,488.16 ft
Position Uncertainty:	0.0 ft	Slot Radius:	"
		Latitude:	36° 24' 13.029 N
		Longitude:	107° 40' 44.640 W
		Grid Convergence:	0 09 °

Well:	Selph State 2508-16H #12C		
Well Position	+N/-S	0 0 ft	Northing: 1,966,256.37 ft
	+E/-W	0.0 ft	Easting: 2,768,488.16 ft
Position Uncertainty		0.0 ft	Wellhead Elevation: ft
			Latitude: 36° 24' 13.029 N
			Longitude: 107° 40' 44.640 W
			Ground Level: 6,591.0 ft

Wellbore:	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010	9/10/2012	9 67
			Dip Angle
			(°)
			63.16
			Field Strength
			(nT)
			50,429

Design:	Design #1		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0 0	0 0	0 0
			Direction
			(°)
			270 03

Plan Sections:										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)	(°)	
0 0	0.00	0.00	0 0	0 0	0.0	0.00	0 00	0 00	0 00	
5,257.0	0 00	0 00	5,257 0	0.0	0 0	0 00	0 00	0.00	0 00	
6,162 0	90 50	270 00	5,829.9	0.0	-578 0	10 00	10 00	0 00	270 00	
6,163 4	90.50	270.03	5,829.9	0.0	-579.4	2 00	0.00	2.00	90.00	2508-16H #12C PB
7,384.1	90 50	270.03	5,819.3	0.6	-1,800 0	0.00	0 00	0 00	0.00	
7,399.1	90 20	270 03	5,819.2	0.6	-1,815 0	2.00	-2 00	0 01	179 70	
10,234 0	90 20	270.03	5,809.3	2.1	-4,649.9	0.00	0 00	0 00	0 00	2508-16H #12C PB

Bill Barrett Corp
Planning Report

Database:	Compass	Local Co-ordinate Reference:	Well Selph State 2508-16H #12C
Company:	BILL BARRETT CORP	TVD Reference:	KB @ 6604.0ft (Original Well Elev)
Project:	SAN JUAN COUNTY, NM	MD Reference:	KB @ 6604.0ft (Original Well Elev)
Site:	Selph State 2508-16H #12C	North Reference:	True
Well:	Selph State 2508-16H #12C	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned 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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,302.0	0.00	0.00	1,302.0	0.0	0.0	0.0	0.00	0.00	0.00
Ojo Alamo									
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,467.0	0.00	0.00	1,467.0	0.0	0.0	0.0	0.00	0.00	0.00
Kirtland									
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,798.0	0.00	0.00	1,798.0	0.0	0.0	0.0	0.00	0.00	0.00
Fruitland									
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,116.0	0.00	0.00	2,116.0	0.0	0.0	0.0	0.00	0.00	0.00
Pictured Cliffs									
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,697.0	0.00	0.00	3,697.0	0.0	0.0	0.0	0.00	0.00	0.00
Cliff House									
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,732.0	0.00	0.00	3,732.0	0.0	0.0	0.0	0.00	0.00	0.00
Menefee									
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00

Bill Barrett Corp

Planning Report

Database:	Compass	Local Co-ordinate Reference:	Well Selph State 2508-16H #12C
Company:	BILL BARRETT CORP	TVD Reference:	KB @ 6604.0ft (Original Well Elev)
Project:	SAN JUAN COUNTY, NM	MD Reference:	KB @ 6604.0ft (Original Well Elev)
Site:	Selph State 2508-16H #12C	North Reference:	True
Well:	Selph State 2508-16H #12C	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned 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)
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,472.0	0.00	0.00	4,472.0	0.0	0.0	0.0	0.00	0.00	0.00
Point Lookout									
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,708.0	0.00	0.00	4,708.0	0.0	0.0	0.0	0.00	0.00	0.00
Mancos									
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,244.0	0.00	0.00	5,244.0	0.0	0.0	0.0	0.00	0.00	0.00
Niobrara									
5,257.0	0.00	0.00	5,257.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	4.30	270.00	5,300.0	0.0	-1.6	1.6	10.00	10.00	0.00
5,400.0	14.30	270.00	5,398.5	0.0	-17.8	17.8	10.00	10.00	0.00
5,500.0	24.30	270.00	5,492.8	0.0	-50.8	50.8	10.00	10.00	0.00
5,600.0	34.30	270.00	5,579.9	0.0	-99.6	99.6	10.00	10.00	0.00
5,700.0	44.30	270.00	5,657.2	0.0	-162.9	162.9	10.00	10.00	0.00
5,800.0	54.30	270.00	5,722.3	0.0	-238.6	238.6	10.00	10.00	0.00
5,900.0	64.30	270.00	5,773.3	0.0	-324.5	324.5	10.00	10.00	0.00
5,946.6	68.96	270.00	5,791.8	0.0	-367.2	367.2	10.00	10.00	0.00
Tocito									
6,000.0	74.30	270.00	5,808.6	0.0	-417.9	417.9	10.00	10.00	0.00
6,100.0	84.30	270.00	5,827.1	0.0	-516.1	516.1	10.00	10.00	0.00
6,162.0	90.50	270.00	5,829.9	0.0	-578.0	578.0	10.00	10.00	0.00
6,163.4	90.50	270.03	5,829.9	0.0	-579.4	579.4	2.00	0.00	2.00
6,184.0	90.50	270.03	5,829.7	0.0	-600.0	600.0	0.00	0.00	0.00
7" INT CSG									
6,200.0	90.50	270.03	5,829.6	0.0	-616.0	616.0	0.00	0.00	0.00
6,300.0	90.50	270.03	5,828.7	0.1	-716.0	716.0	0.00	0.00	0.00
6,400.0	90.50	270.03	5,827.9	0.1	-815.9	815.9	0.00	0.00	0.00
6,500.0	90.50	270.03	5,827.0	0.2	-915.9	915.9	0.00	0.00	0.00
6,600.0	90.50	270.03	5,826.1	0.2	-1,015.9	1,015.9	0.00	0.00	0.00
6,700.0	90.50	270.03	5,825.2	0.3	-1,115.9	1,115.9	0.00	0.00	0.00
6,800.0	90.50	270.03	5,824.4	0.3	-1,215.9	1,215.9	0.00	0.00	0.00
6,900.0	90.50	270.03	5,823.5	0.4	-1,315.9	1,315.9	0.00	0.00	0.00
7,000.0	90.50	270.03	5,822.6	0.4	-1,415.9	1,415.9	0.00	0.00	0.00
7,100.0	90.50	270.03	5,821.8	0.5	-1,515.9	1,515.9	0.00	0.00	0.00
7,200.0	90.50	270.03	5,820.9	0.5	-1,615.9	1,615.9	0.00	0.00	0.00
7,300.0	90.50	270.03	5,820.0	0.6	-1,715.9	1,715.9	0.00	0.00	0.00
7,384.1	90.50	270.03	5,819.3	0.6	-1,800.0	1,800.0	0.00	0.00	0.00
7,399.1	90.20	270.03	5,819.2	0.6	-1,815.0	1,815.0	2.00	-2.00	0.01
7,400.0	90.20	270.03	5,819.2	0.6	-1,815.9	1,815.9	0.00	0.00	0.00
7,500.0	90.20	270.03	5,818.8	0.7	-1,915.9	1,915.9	0.00	0.00	0.00
7,600.0	90.20	270.03	5,818.5	0.7	-2,015.9	2,015.9	0.00	0.00	0.00
7,700.0	90.20	270.03	5,818.1	0.8	-2,115.9	2,115.9	0.00	0.00	0.00
7,800.0	90.20	270.03	5,817.8	0.8	-2,215.9	2,215.9	0.00	0.00	0.00

Bill Barrett Corp

Planning Report

Database:	Compass	Local Co-ordinate Reference:	Well Selph State 2508-16H #12C
Company:	BILL BARRETT CORP	TVD Reference:	KB @ 6604 0ft (Original Well Elev)
Project:	SAN JUAN COUNTY, NM	MD Reference:	KB @ 6604 0ft (Original Well Elev)
Site:	Selph State 2508-16H #12C	North Reference:	True
Well:	Selph State 2508-16H #12C	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned 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)
7,900.0	90.20	270.03	5,817.4	0.9	-2,315.9	2,315.9	0.00	0.00	0.00
8,000.0	90.20	270.03	5,817.1	0.9	-2,415.9	2,415.9	0.00	0.00	0.00
8,100.0	90.20	270.03	5,816.7	1.0	-2,515.9	2,515.9	0.00	0.00	0.00
8,200.0	90.20	270.03	5,816.4	1.0	-2,615.9	2,615.9	0.00	0.00	0.00
8,300.0	90.20	270.03	5,816.0	1.1	-2,715.9	2,715.9	0.00	0.00	0.00
8,400.0	90.20	270.03	5,815.7	1.1	-2,815.9	2,815.9	0.00	0.00	0.00
8,500.0	90.20	270.03	5,815.3	1.2	-2,915.9	2,915.9	0.00	0.00	0.00
8,600.0	90.20	270.03	5,815.0	1.2	-3,015.9	3,015.9	0.00	0.00	0.00
8,700.0	90.20	270.03	5,814.6	1.3	-3,115.9	3,115.9	0.00	0.00	0.00
8,800.0	90.20	270.03	5,814.3	1.3	-3,215.9	3,215.9	0.00	0.00	0.00
8,900.0	90.20	270.03	5,813.9	1.4	-3,315.9	3,315.9	0.00	0.00	0.00
9,000.0	90.20	270.03	5,813.6	1.5	-3,415.9	3,415.9	0.00	0.00	0.00
9,100.0	90.20	270.03	5,813.2	1.5	-3,515.9	3,515.9	0.00	0.00	0.00
9,200.0	90.20	270.03	5,812.9	1.6	-3,615.9	3,615.9	0.00	0.00	0.00
9,300.0	90.20	270.03	5,812.5	1.6	-3,715.9	3,715.9	0.00	0.00	0.00
9,400.0	90.20	270.03	5,812.2	1.7	-3,815.9	3,815.9	0.00	0.00	0.00
9,500.0	90.20	270.03	5,811.8	1.7	-3,915.9	3,915.9	0.00	0.00	0.00
9,600.0	90.20	270.03	5,811.5	1.8	-4,015.9	4,015.9	0.00	0.00	0.00
9,700.0	90.20	270.03	5,811.1	1.8	-4,115.9	4,115.9	0.00	0.00	0.00
9,800.0	90.20	270.03	5,810.8	1.9	-4,215.9	4,215.9	0.00	0.00	0.00
9,900.0	90.20	270.03	5,810.4	1.9	-4,315.9	4,315.9	0.00	0.00	0.00
10,000.0	90.20	270.03	5,810.1	2.0	-4,415.9	4,415.9	0.00	0.00	0.00
10,100.0	90.20	270.03	5,809.8	2.0	-4,515.9	4,515.9	0.00	0.00	0.00
10,200.0	90.20	270.03	5,809.4	2.1	-4,615.9	4,615.9	0.00	0.00	0.00
10,234.0	90.20	270.03	5,809.3	2.1	-4,649.9	4,649.9	0.00	0.00	0.00
2508-16H #12C PBHL									

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
6,184.0	5,829.7	7" INT CSG	7	8-3/4

Bill Barrett Corp
Planning Report

Database:	Compass	Local Co-ordinate Reference:	Well Selph State 2508-16H #12C
Company:	BILL BARRETT CORP	TVD Reference:	KB @ 6604.0ft (Original Well Elev)
Project:	SAN JUAN COUNTY, NM	MD Reference:	KB @ 6604.0ft (Original Well Elev)
Site:	Selph State 2508-16H #12C	North Reference:	True
Well:	Selph State 2508-16H #12C	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,302.0	1,302.0	Ojo Alamo		-0 35	270.00
1,467.0	1,467.0	Kirtland		-0 35	270.00
1,798.0	1,798.0	Fruitland		-0 35	270.00
2,116.0	2,116.0	Pictured Cliffs		-0 35	270.00
3,697.0	3,697.0	Cliff House		-0.35	270.00
3,732.0	3,732.0	Menefee		-0.35	270.00
4,472.0	4,472.0	Point Lookout		-0.35	270.00
4,708.0	4,708.0	Mancos		-0.35	270.00
5,244.0	5,244.0	Niobrara		-0 35	270.00
5,946.6	5,794.0	Tocito		-0 35	270.00
	6,021.0	Gallup		-0 35	270.00
	6,075.0	Juana Lopez		-0.35	270.00
	6,196.0	Carlile		-0 35	270.00