

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 Rd., Aztec, NM 87410
Phone (505) 334-6178 Fax (505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3470 Fax (505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form C-101

August 1, 2011

Permit 141706

REC'D MAR 2 12
OIL CON. DIV.
DIST. 3

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

1 Operator Name and Address CONOCOPHILLIPS COMPANY 3401 E. 30th Street Farmington, NM 87402		2 OGRID Number 217817
		3 API Number 30-045-35340
4 Property Code 38763	5 Property Name CALLOWAY LS	6 Well No 002A

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
H	34	31N	11W		2485	N	900	E	SAN JUAN

8. Pool Information

BLANCO-MESAVERDE (PRORATED GAS)	72319
BASIN DAKOTA (PRORATED GAS)	71599

Additional Well Information

9 Work Type New Well	10 Well Type GAS	11 Cable/Rotary	12 Lease Type Private	13 Ground Level Elevation 5662
14 Multiple Y	15 Proposed Depth 6809	16 Formation Dakota Formation	17 Contractor	18 Spud Date
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

19. Proposed Casing and Cement Program

Type	Hole Size	Casing Type	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	12.25	9.625	32.3	200	144	0
Int1	8.75	7	23	4168	958	0
Prod	6.25	4.5	11.6	6809	364	4068

Casing/Cement Program: Additional Comments

This is a Type 3 well as indicated in the BR/COPC Master Drilling Plan. Cement volumes are indicated in cubic feet instead of sacks. The C144 will be submitted after the APD is approved

Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
DoubleRam	2000	2000	Schafer

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 ☐.

Printed Name: Arleen Kellywood
Title: Staff Regulatory Tech
Email Address: arleen.r.kellywood@conocophillips.com
Date: 3/1/12 Phone: 505 326 9517

OIL CONSERVATION DIVISIONApproved By: Charles X...Title: SUPERVISOR DISTRICT # 3Approved Date: MAR 07 2012 Expiration Date: MAR 07 2014

Conditions of Approval Attached

MAR 07 2012 CA

AV

Hold C104

for Directional Survey
and "As Drilled" plat

NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT

Hold C104
for Directional Survey
and "As Drilled" plat

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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form C-102
August 1, 2011

Permit 141706

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-045-35340	2 Pool Code 72319	3 Pool Name BLANCO-MESAVERDE (PRORATED GAS)
4 Property Code 38763	5 Property Name CALLOWAY LS	6 Well No 002A
7 OGRID No 217817	8 Operator Name CONOCOPHILLIPS COMPANY	9 Elevation 5662

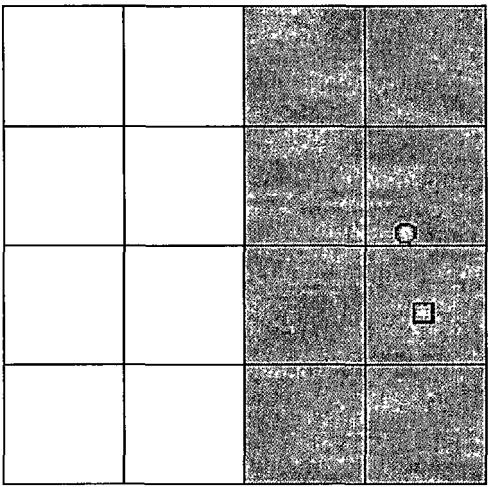
10. Surface Location

UL - Lot H	Section 34	Township 31N	Range 11W	Lot Idn	Feet From 2485	N/S Line N	Feet From 900	E/W Line E	County SAN JUAN
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11. Bottom Hole Location If Different From Surface

UL - Lot I	Section 34	Township 31N	Range 11W	Lot Idn	Feet From 1920	N/S Line S	Feet From 710	E/W Line E	County SAN JUAN
12 Dedicated Acres 320.00	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

	OPERATOR CERTIFICATION <i>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(s) 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.</i> E-Signed By: <i>Arlene Kellywood</i> Title: <i>Staff Regulatory Tech</i> Date: <i>3/1/12</i> SURVEYOR CERTIFICATION <i>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.</i> Surveyed By: Glen Russell Date of Survey: 8/18/2011 Certificate Number: 15703
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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form C-102
August 1, 2011

Permit 141706

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-045-35340	2 Pool Code 71599	3 Pool Name BASIN DAKOTA (PRORATED GAS)
4 Property Code 38763	5 Property Name CALLOWAY LS	6 Well No 002A
7 OGRID No 217817	8 Operator Name CONOCOPHILLIPS COMPANY	9 Elevation 5662

10. Surface Location

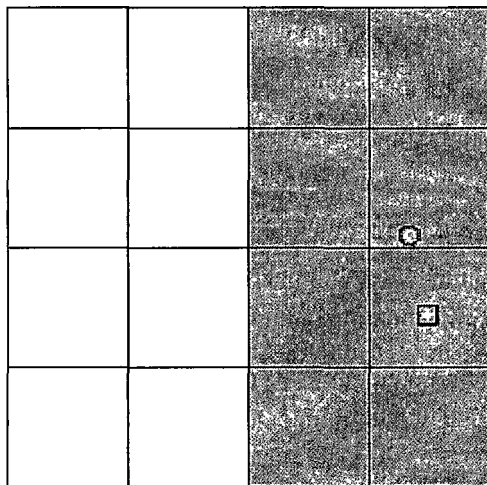
UL - Lot H	Section 34	Township 31N	Range 11W	Lot Idn	Feet From 2485	N/S Line N	Feet From 900	E/W Line E	County SAN JUAN
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11. Bottom Hole Location If Different From Surface

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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

**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(s) 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

E-Signed By:

Title: Staff Regulatory Tech

Date: 3/1/12

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.

Surveyed By: Glen Russell

Date of Survey: 8/18/2011

Certificate Number: 15703

Permit Conditions of Approval

Operator: CONOCOPHILLIPS COMPANY , 217817

Well: CALLOWAY LS #002A

API: 30-045-35340

OCD Reviewer	Condition
CPernn	Will require a directional survey and as drilled plat

Permit Comments

Operator: CONOCOPHILLIPS COMPANY , 217817

Well: CALLOWAY LS #002A

API:

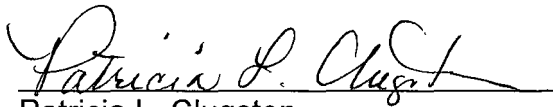
Created By	Comment	Comment Date
CPerrin	Please verify land and mineral type, is this a directional well?	1/13/2012
CPerrin	Please verify Basin Dakota bottom hole footages	2/1/2012
CPerrin	19 15 14 9 APPLICATIONS. An operator shall file a complete form C-101 and complete form C-102 with the division and meet the following requirements, if applicable A. an applicant for a permit to drill a well within the corporate limits of a city, town or village shall give notice to the duly constituted governing body of the city, town or village or its duly authorized agent and certify on form C-101 that it gave such notice; B. an applicant for a permit to drill in a quarter-quarter section containing an existing well or wells operated by another operator shall concurrently file a plat or o	2/1/2012

CERTIFICATION

Calloway LS 2A
UL H (SENE) Sec. 34, T31N, R11W
San Juan County, NM)

This Certification serves to state that in accordance with Oil Conservation Division Rule 19.15.15.12 B BP America Production Company, an Operator in the above referenced drillblock has entered into a Letter Agreement dated May 3, 2011 with the Applicant, ConocoPhillips Company, wherein BP America Production Company has agreed to allow ConocoPhillips Company "to propose, drill, test and operate" the above referenced well at the above referenced location. Please see attached signature page from the Letter Agreement. Based on this Letter Agreement actual notice has been given to BP America Production Company and therefore, the notice requirements have been fulfilled.

I hereby certify that the information given on this form is true to the best of my knowledge and belief.



Patricia L. Clugston
Senior Regulatory Specialist
ConocoPhillips, SJBU
(505) 326-9518

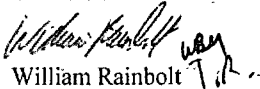
Letter Agreement – Delhi Taylor Operating Agreement
May 3, 2011

withheld. In the event COPC desires to change the bottom hole location from the Proposed Bottom Hole location, it will provide BP with a written notification explaining why the change is being requested and delineating the alternative bottom hole location. If BP does not object in writing to the alternative bottom hole location within thirty (30) days from its receipt of the change request, it will be conclusively presumed to be an approval of such alternative location.

Please evidence your consent and approval by forwarding one fully executed original of this Letter Agreement to the attention of Terry Ruby at the Letterhead address. Any questions may be directed to Mr. Ruby at 505-326-9519. Thank you for your consideration of this request. We will appreciate your favorable response by May 14, 2011.

Respectfully,

CONOCOPHILLIPS COMPANY


William Rainbolt
Attorney-in-Fact

AGREED TO AND ACCEPTED THIS 12th DAY OF MAY, 2011:
BP AMERICA PRODUCTION CO.

Name: Debra Bacon
Title: Attorney-in-Fact
JGB
SEM

ConocoPhillips or its affiliates **Planning Report - Geographic**

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well Calloway LS 2A
Company:	ConocoPhillips SJB	TVD Reference:	WELL @ 5677.0ft (Original Well Elev)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	WELL @ 5677 0ft (Original Well Elev)
Site:	Other Named Wells	North Reference:	True
Well:	Calloway LS 2A	Survey Calculation Method:	Minimum Curvature
Wellbore:	Calloway LS 2A		
Design:	Plan #1		

Project	San Juan Basin - New Mexico West Wells, New Mexico, Directional "S"		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico West 3003		Using geodetic scale factor

Site	Other Named Wells			
Site Position:		Northing:	2,063,826 04 ft	Latitude: 36° 40' 18 848 N
From:	Lat/Long	Easting:	504,691 02 ft	Longitude: 107° 49' 2 415 W
Position Uncertainty:	15 0 ft	Slot Radius:	6-1/8"	Grid Convergence: 0 01 °

Well	Calloway LS 2A, S-Shaped, MV/DK, Short Step Out			
Well Position	+N/-S	0 0 ft	Northing:	2,130,765 21 ft
	+E/-W	0 0 ft	Easting:	459,462 03 ft
Position Uncertainty		0 0 ft	Wellhead Elevation:	ft
			Ground Level:	5,662 0 ft

Wellbore	Calloway LS 2A				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	BGGM2011	9/22/2011	9 97	63 52	50,773

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0 0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0 0	0 0	0 0	166 34

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0 0	0 00	0 00	0 0	0 0	0 0	0 00	0 00	0 00	0 00	
1,200 0	0 00	0 00	1,200 0	0 0	0 0	0 00	0 00	0 00	0 00	
2,370 7	23 41	166 34	2,338 4	-229 2	55 7	2 00	2 00	0 00	166 34	
3,537.5	23 41	166 34	3,409 1	-679 7	165 2	0 00	0 00	0 00	0 00	
4,317 9	0 00	0 00	4,168 0	-832 5	202 4	3 00	-3 00	0 00	180 00	Calloway LS 2A - ICP
6,958.9	0 00	0 00	6,809.0	-832 5	202 4	0 00	0 00	0 00	0 00	Calloway LS 2A - PCF

ConocoPhillips or its affiliates

Planning Report - Geographic

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well Calloway LS 2A
Company:	ConocoPhillips SJBU	TVD Reference:	WELL @ 5677 0ft (Original Well Elev)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	WELL @ 5677 0ft (Original Well Elev)
Site:	Other Named Wells	North Reference:	True
Well:	Calloway LS 2A	Survey Calculation Method:	Minimum Curvature
Wellbore:	Calloway LS 2A		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
0 0	0 00	0 00	0 0	0 0	0 0	2,130,765 21	459,462 03	36° 51' 20 514 N	107° 58' 18 816 W
100 0	0 00	0 00	100 0	0 0	0 0	2,130,765 21	459,462 03	36° 51' 20 514 N	107° 58' 18 816 W
200 0	0 00	0 00	200 0	0 0	0 0	2,130,765 21	459,462 03	36° 51' 20 514 N	107° 58' 18 816 W
SCP									
300 0	0 00	0 00	300 0	0 0	0 0	2,130,765 21	459,462 03	36° 51' 20 514 N	107° 58' 18 816 W
400 0	0 00	0 00	400 0	0 0	0 0	2,130,765 21	459,462 03	36° 51' 20 514 N	107° 58' 18 816 W
500 0	0 00	0 00	500 0	0 0	0 0	2,130,765 21	459,462 03	36° 51' 20 514 N	107° 58' 18 816 W
600 0	0 00	0 00	600 0	0 0	0 0	2,130,765 21	459,462 03	36° 51' 20 514 N	107° 58' 18 816 W
700 0	0 00	0 00	700 0	0 0	0 0	2,130,765 21	459,462 03	36° 51' 20 514 N	107° 58' 18 816 W
781 0	0 00	0 00	781 0	0 0	0 0	2,130,765 21	459,462 03	36° 51' 20 514 N	107° 58' 18 816 W
Ojo Alamo									
800 0	0 00	0 00	800 0	0 0	0 0	2,130,765 21	459,462 03	36° 51' 20 514 N	107° 58' 18 816 W
857 0	0 00	0 00	857 0	0 0	0 0	2,130,765 21	459,462 03	36° 51' 20 514 N	107° 58' 18 816 W
Kirtland									
900 0	0 00	0 00	900 0	0 0	0 0	2,130,765 21	459,462 03	36° 51' 20 514 N	107° 58' 18 816 W
1,000 0	0 00	0 00	1,000 0	0 0	0 0	2,130,765 21	459,462 03	36° 51' 20 514 N	107° 58' 18 816 W
1,100 0	0 00	0 00	1,100 0	0 0	0 0	2,130,765 21	459,462 03	36° 51' 20 514 N	107° 58' 18 816 W
1,200 0	0 00	0 00	1,200 0	0 0	0 0	2,130,765 21	459,462 03	36° 51' 20 514 N	107° 58' 18 816 W
1,300 0	2 00	166 34	1,300 0	-1 7	0 4	2,130,763 52	459,462 44	36° 51' 20 497 N	107° 58' 18 811 W
1,400 0	4 00	166 34	1,399 8	-6 8	1 6	2,130,758 43	459,463 67	36° 51' 20 447 N	107° 58' 18 796 W
1,500 0	6 00	166 34	1,499 5	-15 2	3 7	2,130,749 96	459,465 71	36° 51' 20 363 N	107° 58' 18 770 W
1,600 0	8 00	166 34	1,598 7	-27 1	6 6	2,130,738 11	459,468 58	36° 51' 20 246 N	107° 58' 18 735 W
1,700 0	10 00	166 34	1,697 5	-42 3	10 3	2,130,722 91	459,472 25	36° 51' 20 096 N	107° 58' 18 690 W
1,718 8	10 38	166 34	1,716 0	-45 5	11 1	2,130,719 67	459,473 03	36° 51' 20 064 N	107° 58' 18 680 W
Fruitland									
1,800 0	12 00	166 34	1,795 6	-60 8	14 8	2,130,704 37	459,476 73	36° 51' 19 913 N	107° 58' 18 634 W
1,900 0	14 00	166 34	1,893 1	-82 7	20 1	2,130,682 50	459,482 01	36° 51' 19 696 N	107° 58' 18 569 W
2,000 0	16 00	166 34	1,989 6	-107 8	26 2	2,130,657 35	459,488 09	36° 51' 19 448 N	107° 58' 18 493 W
2,100 0	18 00	166 34	2,085 3	-136 2	33 1	2,130,628 93	459,494 95	36° 51' 19 167 N	107° 58' 18 408 W
2,200 0	20 00	166 34	2,179 8	-167 9	40 8	2,130,597 29	459,502 59	36° 51' 18 854 N	107° 58' 18 314 W
2,263 2	21 26	166 34	2,239 0	-189 5	46 1	2,130,575 63	459,507 82	36° 51' 18 640 N	107° 58' 18 249 W
Pictured Cliffs									
2,300 0	22 00	166 34	2,273 2	-202 7	49 3	2,130,562 46	459,511 01	36° 51' 18 510 N	107° 58' 18 210 W
2,370 7	23 41	166 34	2,338 4	-229 2	55 7	2,130,535 95	459,517 41	36° 51' 18 248 N	107° 58' 18 130 W
2,400 0	23 41	166 34	2,365 3	-240 5	58 5	2,130,524 62	459,520 15	36° 51' 18 136 N	107° 58' 18 097 W
2,434 6	23 41	166 34	2,397 0	-253 9	61 7	2,130,511 26	459,523 37	36° 51' 18 004 N	107° 58' 18 057 W
Lewis									
2,500 0	23 41	166 34	2,457 0	-279 1	67 9	2,130,485 99	459,529 48	36° 51' 17 754 N	107° 58' 17 981 W
2,600 0	23 41	166 34	2,548 8	-317 8	77 2	2,130,447 37	459,538 81	36° 51' 17 372 N	107° 58' 17 866 W
2,700 0	23 41	166 34	2,640 6	-356 4	86 6	2,130,408 75	459,548 14	36° 51' 16 990 N	107° 58' 17 750 W
2,800 0	23 41	166 34	2,732 3	-395 0	96 0	2,130,370 13	459,557 46	36° 51' 16 609 N	107° 58' 17 635 W
2,900 0	23 41	166 34	2,824 1	-433 6	105 4	2,130,331 51	459,566 79	36° 51' 16 227 N	107° 58' 17 519 W
3,000 0	23 41	166 34	2,915 9	-472 2	114 8	2,130,292 88	459,576 12	36° 51' 15 845 N	107° 58' 17 404 W
3,059 0	23 41	166 34	2,970 0	-495 0	120 3	2,130,270 10	459,581 63	36° 51' 15 620 N	107° 58' 17 336 W
Huerfano Bentonite									
3,100 0	23 41	166 34	3,007 6	-510 8	124 2	2,130,254 26	459,585 45	36° 51' 15 463 N	107° 58' 17 288 W
3,200 0	23 41	166 34	3,099 4	-549 4	133 6	2,130,215 64	459,594 78	36° 51' 15 081 N	107° 58' 17 173 W
3,300 0	23 41	166 34	3,191 2	-588 0	142 9	2,130,177 02	459,604 11	36° 51' 14 700 N	107° 58' 17 057 W
3,400 0	23 41	166 34	3,282 9	-626 6	152 3	2,130,138 40	459,613 44	36° 51' 14 318 N	107° 58' 16 942 W
3,425 1	23 41	166 34	3,306 0	-636 4	154 7	2,130,128 69	459,615 79	36° 51' 14 222 N	107° 58' 16 913 W
Chacra									
3,500 0	23 41	166 34	3,374 7	-665 3	161 7	2,130,099 77	459,622 77	36° 51' 13 936 N	107° 58' 16 826 W
3,537 5	23 41	166 34	3,409 1	-679 7	165 2	2,130,085 30	459,626 27	36° 51' 13 793 N	107° 58' 16 783 W

ConocoPhillips or its affiliates

Planning Report - Geographic

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well Calloway LS 2A
Company:	ConocoPhillips SJB	TVD Reference:	WELL @ 5677 0ft (Original Well Elev)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	WELL @ 5677 0ft (Original Well Elev)
Site:	Other Named Wells	North Reference:	True
Well:	Calloway LS 2A	Survey Calculation Method:	Minimum Curvature
Wellbore:	Calloway LS 2A		
Design:	Plan #1		

Planned Survey.									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
3,600 0	21 54	166 34	3,466 9	-703 0	170 9	2,130,062 07	459,631 88	36° 51' 13 563 N	107° 58' 16 714 W
3,700 0	18 54	166 34	3,560 8	-736 2	179 0	2,130,028 77	459,639 92	36° 51' 13 234 N	107° 58' 16 614 W
3,800 0	15 54	166 34	3,656 4	-764 7	185 9	2,130,000 30	459,646 80	36° 51' 12 953 N	107° 58' 16 529 W
3,900 0	12 54	166 34	3,753 4	-788 3	191 6	2,129,976 72	459,652 49	36° 51' 12 720 N	107° 58' 16 458 W
3,993 4	9 74	166 34	3,845 0	-805 8	195 9	2,129,959 20	459,656 73	36° 51' 12 546 N	107° 58' 16 406 W
Mass. Cliff House									
4,000 0	9 54	166 34	3,851 5	-806 9	196 1	2,129,958 12	459,656 99	36° 51' 12 536 N	107° 58' 16 403 W
4,100 0	6 54	166 34	3,950 6	-820 5	199 4	2,129,944 53	459,660 27	36° 51' 12 401 N	107° 58' 16 362 W
4,167 8	4 50	166 34	4,018 0	-826 8	201 0	2,129,938 19	459,661 80	36° 51' 12 339 N	107° 58' 16 343 W
Menefee									
4,200 0	3 54	166 34	4,050 2	-829 0	201 5	2,129,935 99	459,662 33	36° 51' 12 317 N	107° 58' 16 337 W
4,300 0	0 54	166 34	4,150 1	-832 5	202 4	2,129,932 54	459,663 17	36° 51' 12 283 N	107° 58' 16 326 W
4,317 9	0 00	0 00	4,168 0	-832 5	202 4	2,129,932 46	459,663 19	36° 51' 12 282 N	107° 58' 16 326 W
ICP - Calloway LS 2A - ICP									
4,400 0	0 00	0 00	4,250 1	-832 5	202 4	2,129,932 46	459,663.19	36° 51' 12 282 N	107° 58' 16 326 W
4,500 0	0 00	0 00	4,350 1	-832 5	202 4	2,129,932 46	459,663.19	36° 51' 12 282 N	107° 58' 16 326 W
4,600 0	0 00	0 00	4,450 1	-832 5	202 4	2,129,932 46	459,663.19	36° 51' 12 282 N	107° 58' 16 326 W
4,666 9	0 00	0 00	4,517 0	-832 5	202 4	2,129,932 46	459,663.19	36° 51' 12 282 N	107° 58' 16 326 W
Pt. Lookout									
4,700 0	0 00	0 00	4,550.1	-832 5	202 4	2,129,932 46	459,663 19	36° 51' 12 282 N	107° 58' 16 326 W
4,800 0	0 00	0 00	4,650.1	-832 5	202 4	2,129,932 46	459,663 19	36° 51' 12 282 N	107° 58' 16 326 W
4,900 0	0 00	0 00	4,750 1	-832 5	202 4	2,129,932 46	459,663.19	36° 51' 12 282 N	107° 58' 16 326 W
4,998 9	0 00	0 00	4,849 0	-832 5	202 4	2,129,932 46	459,663 19	36° 51' 12 282 N	107° 58' 16 326 W
Mancos									
5,000.0	0 00	0 00	4,850 1	-832 5	202 4	2,129,932 46	459,663 19	36° 51' 12 282 N	107° 58' 16 326 W
5,100 0	0 00	0 00	4,950 1	-832 5	202 4	2,129,932 46	459,663 19	36° 51' 12 282 N	107° 58' 16 326 W
5,200 0	0 00	0 00	5,050 1	-832 5	202 4	2,129,932.46	459,663 19	36° 51' 12 282 N	107° 58' 16 326 W
5,300 0	0 00	0 00	5,150 1	-832 5	202 4	2,129,932 46	459,663 19	36° 51' 12 282 N	107° 58' 16 326 W
5,400 0	0 00	0 00	5,250 1	-832 5	202 4	2,129,932 46	459,663 19	36° 51' 12 282 N	107° 58' 16 326 W
5,500 0	0 00	0 00	5,350 1	-832 5	202 4	2,129,932 46	459,663.19	36° 51' 12 282 N	107° 58' 16 326 W
5,600 0	0 00	0 00	5,450 1	-832.5	202 4	2,129,932 46	459,663 19	36° 51' 12 282 N	107° 58' 16 326 W
5,700 0	0 00	0 00	5,550 1	-832 5	202 4	2,129,932 46	459,663 19	36° 51' 12 282 N	107° 58' 16 326 W
5,800 0	0 00	0 00	5,650 1	-832 5	202 4	2,129,932 46	459,663 19	36° 51' 12 282 N	107° 58' 16 326 W
5,900 0	0 00	0 00	5,750 1	-832 5	202 4	2,129,932 46	459,663 19	36° 51' 12 282 N	107° 58' 16 326 W
5,928 9	0 00	0 00	5,779 0	-832 5	202 4	2,129,932.46	459,663 19	36° 51' 12 282 N	107° 58' 16 326 W
Upper Gallup									
6,000 0	0 00	0 00	5,850 1	-832 5	202 4	2,129,932 46	459,663 19	36° 51' 12 282 N	107° 58' 16 326 W
6,100 0	0 00	0 00	5,950.1	-832 5	202 4	2,129,932 46	459,663 19	36° 51' 12 282 N	107° 58' 16 326 W
6,200 0	0 00	0 00	6,050.1	-832 5	202 4	2,129,932 46	459,663 19	36° 51' 12 282 N	107° 58' 16 326 W
6,300 0	0 00	0 00	6,150 1	-832 5	202 4	2,129,932 46	459,663 19	36° 51' 12 282 N	107° 58' 16 326 W
6,400 0	0 00	0 00	6,250 1	-832 5	202 4	2,129,932 46	459,663.19	36° 51' 12 282 N	107° 58' 16 326 W
6,500 0	0 00	0 00	6,350 1	-832 5	202 4	2,129,932 46	459,663.19	36° 51' 12 282 N	107° 58' 16 326 W
6,600 0	0 00	0 00	6,450 1	-832 5	202 4	2,129,932 46	459,663 19	36° 51' 12 282 N	107° 58' 16 326 W
6,670 9	0 00	0 00	6,521 0	-832 5	202 4	2,129,932.46	459,663 19	36° 51' 12 282 N	107° 58' 16 326 W
Greenhorn									
6,700 0	0 00	0 00	6,550 1	-832 5	202 4	2,129,932 46	459,663 19	36° 51' 12 282 N	107° 58' 16 326 W
6,725 9	0 00	0 00	6,576 0	-832 5	202 4	2,129,932 46	459,663 19	36° 51' 12 282 N	107° 58' 16 326 W
Graneros									
6,782 9	0 00	0 00	6,633.0	-832 5	202 4	2,129,932.46	459,663 19	36° 51' 12 282 N	107° 58' 16 326 W
Two Wells									
6,800 0	0 00	0 00	6,650 1	-832 5	202 4	2,129,932 46	459,663 19	36° 51' 12 282 N	107° 58' 16 326 W
6,863 9	0 00	0 00	6,714.0	-832 5	202 4	2,129,932 46	459,663 19	36° 51' 12 282 N	107° 58' 16 326 W
Paguete									

ConocoPhillips or its affiliates

Planning Report - Geographic

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well Calloway LS 2A
Company:	ConocoPhillips SJB	TVD Reference:	WELL @ 5677.0ft (Original Well Elev)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	WELL @ 5677 0ft (Original Well Elev)
Site:	Other Named Wells	North Reference:	True
Well:	Calloway LS 2A	Survey Calculation Method:	Minimum Curvature
Wellbore:	Calloway LS 2A		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
6,897.9	0.00	0.00	6,748.0	-832.5	202.4	2,129,932.46	459,663.19	36° 51' 12.282 N	107° 58' 16.326 W
Cubero									
6,900.0	0.00	0.00	6,750.1	-832.5	202.4	2,129,932.46	459,663.19	36° 51' 12.282 N	107° 58' 16.326 W
6,958.9	0.00	0.00	6,809.0	-832.5	202.4	2,129,932.46	459,663.19	36° 51' 12.282 N	107° 58' 16.326 W
Prod TD - PCP - Calloway LS 2A - PCP									

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
Calloway LS 2A - ICP	0.00	0.00	4,168.0	-832.5	202.4	2,129,932.46	459,663.19	36° 51' 12.282 N	107° 58' 16.326 W
- plan hits target center									
- Point									
Calloway LS 2A - PCP	0.00	0.00	6,809.0	-832.5	202.4	2,129,932.46	459,663.19	36° 51' 12.282 N	107° 58' 16.326 W
- plan hits target center									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
200.0	200.0	SCP	9-5/8	12-1/4	
4,317.9	4,168.0	ICP	7	8-3/4	
6,958.9	6,809.0	PCP	4-1/2	6-1/4	

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Planning Report - Geographic

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well Calloway LS 2A
Company:	ConocoPhillips SJB	TVD Reference:	WELL @ 5677 0ft (Original Well Elev)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	WELL @ 5677 0ft (Original Well Elev)
Site:	Other Named Wells	North Reference:	True
Well:	Calloway LS 2A	Survey Calculation Method:	Minimum Curvature
Wellbore:	Calloway LS 2A		
Design:	Plan #1		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,993.4	3,845.0	Mass Cliff House		0.00	
6,958.9	6,809.0	Prod TD		0.00	
4,167.8	4,018.0	Menefee		0.00	
857.0	857.0	Kirtland		0.00	
2,263.2	2,239.0	Pictured Cliffs		0.00	
2,434.6	2,397.0	Lewis		0.00	
3,425.1	3,306.0	Chacara		0.00	
5,928.9	5,779.0	Upper Gallup		0.00	
3,059.0	2,970.0	Huerfanto Bentonite		0.00	
4,666.9	4,517.0	Pt Lookout		0.00	
4,998.9	4,849.0	Mancos		0.00	
1,718.8	1,716.0	Fruitland		0.00	
781.0	781.0	Ojo Alamo		0.00	
6,782.9	6,633.0	Two Wells		0.00	
6,897.9	6,748.0	Cubero		0.00	
6,863.9	6,714.0	Paguate		0.00	
6,725.9	6,576.0	Graneros		0.00	
6,670.9	6,521.0	Greenhorn		0.00	