Form 3160 -3 (March 2012)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

ATS-13-58 OMB No. 1004-0137 Expires October 31, 2014

		Lease Seriai No.
١	NM	LC 029405 B
1		
ł	6	If Indian, Allotee or Tribe Name

APPLICATION FOR PERMIT TO	DRILL OF	REENTER RE	CEINED	N/A			
la. Type of work: DRILL REENTE	ER			7 If Unit or CA Agre N/A	ement, Name and No.		
ib. Type of Well: Oil Well Gas Well Other	Sin	ngle Zone Multi	ple Zone	8. Lease Name and N Ruby Federal #25	Vell No. 38653		
2. Name of Operator ConocoPhillips Company	<	21781	7>	9_API Well No.	5-41017		
3a. Address P.O. Box 51810 Midland, Texas 79710-1810	3b. Phone No. 432-688-69	(include area code) 913		10. Field and Pool, or I Maljamar; Yeso We			
 Location of Well (Report location clearly and in accordance with any At surface UL G, Sec. 17, T17S, R32E; 1990' FNL and 2 	-		XOD	11. Sec., T. R. M. or Bl Sec. 17, T17S, R32	-		
At proposed prod. zone UL G, Sec. 17, T17S, R32E; 2390	FNL and 15	701FEDCATIO	MC				
14. Distance in miles and direction from nearest town or post office* approximately 3 miles south of Maljamar, New Mexico				12. County or Parish Lea County	13. State NM		
15. Distance from proposed* location to nearest property or lease line, ft.	16. No. of a 1601.96	cres in lease	,	g Unit dedicated to this w ACRES	rell		
(Also to nearest drig. unit line, if any)							
 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 	Distance from proposed location* about 100' 19. Proposed Depth 20. BLM/BIA B ropoled for, on this lease, ft.						
El. Elevations (Show whether DF, KDB, RT, GL, etc.) 4022' GL	22. Approxim	nate date work will sta 2	rt*	23. Estimated duration 20 days			
	24. Attac	hments		<u> </u>			
he following, completed in accordance with the requirements of Onshore	e Oil and Gas (Order No.1, must be a	ttached to thi	s form:			
Well plat certified by a registered surveyor. A Drilling Plan.		4. Bond to cover t Item 20 above).	he operation	ns unless covered by an e	existing bond on file (see		
3. A Surface Use Plan (if the location is on National Forest System I SUPO must be filed with the appropriate Forest Service Office).	Lands, the	 Operator certific Such other site BLM. 		rmation and/or plans as	may be required by the		
25. Signature		(Printed/Typed) TAVO FEJER	VARY		Date 9 30 12		
Citle Regulatory Specialist					•		
Approved by (Signature) Is/ James A. Amos	Name	(Printed/Typed)			Date FEB 2 0 2013		
FIELD MANAGER	Office		CARLS	BAD FIELD OFFICE			
Application approval does not warrant or certify that the applicant holds onduct operations thereon. Conditions of approval, if any, are attached.	legal or equita	able title to those righ			title the applicant to		
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a critates any false, fictitious or fraudulent statements or representations as to	ime for any pe o any matter wi	rson knowingly and v	villfully to m	ake to any department or	agency of the United		
(Continued on page 2)				*(Instri	uctions on page 2)		

Roswell Controlled Water Basin

Approval Subject to General Requirements
& Special Stipulations Attached

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Drilling Plan ConocoPhillips Company Maljamar; Yeso, west

Ruby Federal #25

Lea County, New Mexico

1. Estimated tops of geological markers and estimated depths to water, oil, or gas formations:

The ranges of depths for the formation tops, thicknesses, and planned Total Depths for all the wells to be drilled under this Master Drilling Plan are presented in the table below.

The datum for these depths is RKB (which is 13' above Ground Level).

Formations	Top Depth FT TVD	Top Depths FT MD	Contents
Quaternary	Surface	Surface	Fresh Water
Rustler	769	769	Anhydrite
Salado (top of salt)	938	938	1962Salt
Tansill (base of salt)	1973	1973	Gas, Oil and Water
Yates	2149	2149	Gas, Oil and Water
Seven Rivers	2435	2436	Gas, Oil and Water
Queen	3077	3084	Gas, Oil and Water
Grayburg	3496	3507	Gas, Oil and Water
San Andres	3883	3898	Gas, Oil and Water
Glorieta	5336	5364	Gas, Oil and Water
Paddock	5442	5471	Gas, Oil and Water
Blinebry	5788	5820	Gas, Oil and Water
Tubb	6800	6842	Gas, Oil and Water
Deepest estimated perforation	6800	6842	Deepest estimated perf. is ~ Top of Tubb
Total Depth (maximum)	7000	7044	200' below deepest estimated perforation

All of the water bearing formations identified above will be protected by setting of the <u>8-5/8</u> surface casing <u>25' - 70' into the Rustler formation</u> and circulating of cement from casing shoe to surface in accordance with the provisions of Onshore Oil and Gas Order No. 2 and New Mexico Oil Conservation Division Title 19.

The targeted oil and gas bearing formations identified above will be protected by setting of the _____5-1/2" production casing _____10' off bottom of TD___ and circulating of cement from casing shoe to surface in accordance with the provisions of Onshore Oil and Gas Order No. 2 and New Mexico Oil Conservation Division Title 19.

2. Proposed casing program:

Type	Hole Size	Interval MD RKB (ft)		OD	Wt	Gr	Conn	MIY	Col	Jt Str	1	Safety Fa- lated per Co Corporate C	nocoPhillips	
	Туре	(in)	From	То	(inches)	(lb/ft)	Gi	Com	(psi)	(psi)	(klbs)	Burst DF	Collapse DF	Jt Str DF (Tension) Dry/Buoyant
	Cond	20	0	40' - 85' (30' - 75' BGL)	16	0.5" wali	В	Line Pipe	N/A	N/Å	N/A	NA	NA	NA
	Alt. Cond	20	0	40' – 85' (30' – 75' BGL)	13-3/8	48#	H-40	PE	1730	740	N/A	NA	NA	NA
e Y	Surf	12-1/4	0	794' -89 9' 8 50	8-5/8	24#	J-55	STC	2950	1370	244	1.22	5.68	2.08
	Prod	7-7/8	0	6989' – 7034'	5-1/2	17#	L-80	LTC	7740	6290	338	1.15	2.01	1.68

The casing will be suitable for H₂S Service.

The surface and production casing will be set approximately 10' off bottom and we will drill the hole with a 45' range uncertainty for casing set depth to fit the casing string so that the cementing head is positioned at the floor for the cement job.

The production casing will be set 155' to 200' below the deepest estimated perforation to provide rathole for the pumping completion and for the logs to get deep enough to log the interval of interest.

Casing Design (Safety) Factors - BLM Criteria:

Туре	Depth	Wt	MIY	Col	Jt Str	Drill Fluid	Burst	Collapse	Tensile-Dry	Tens-Bouy
Surface Casing	239850	24	2950	1370	244000	8.5	7.95	3.69	12.12	13.92
Production Casing	7034	17	7740	6290	338000	10	2.12	1.72	2.83	3.34

Casing Design (Safety) Factors - Additional ConocoPhillips Criteria:

ConocoPhillips casing design policy establishes Corporate Minimum Design Factors (see table below) and requires that service life load cases be considered and provided for in the casing design.

ConocoPhillips Corporate Criteria for Minimum Design Factors

	Burst	Collapse	Axial
Casing Design Factors	1.15	1.05	1.4

Type Surface Casing (8-5/6" 24# J-55 STC) Production Casing (5-1/2" 17# L-80 LTC)	Depth Wt 839 24 7034 17				Tensile 2.08 1.68	
Burst Design (Safety) Factors - ConocoPhill The meximum internal (burst) load on the Surface Casing maximum internal (burst) load on the Production Casing o (MAVVP) is the pressure that would fit ConocoPhillips Cor Surface Casing Test Pressure = Surface Rated Working Pressure = Surface Rated Working Pressure = Burface Casing Burst Design Factor = Burst Production Casing MAVVP for the Fracture	occurs when the surface ccurs during the fracture porate Criteria for Minimu 1000 psi 3000 psi st Rating / Maximun Press	stinulation where the maximum n Design Factors. ure during Casing Pressure Tes	allowable working pressure			
Surface Casing Burst Design Factor: Designed CSFG (Test Pressure + MWP): MPSP (CSFG - GG): MPSP (PPTD - GG): MPSP (0.375 x BHP): MPCS (CSFG): Bust Design Factor: Production Casing Burst Design Factor:	= 839 x = 7034 x = 0.375 x = 839 x] + 436)/(0.052 x 32.42 0.052 x 8.55 7034 x 0.052 0.052 x 32.42 2424 = 1.22	- 703.4 x 8.55	0.052) - = 1331 = 2424] = 1173	0.5 ≤ 32.42	
MPSP (SRWP) = MPSP (PPTD - GG) = MPSP (0.375 x BHP) = Burst Design Factor (Max. MPSP) = MAWP for the Fracture Stimulation =	= 7034 x = 0.375 x = 7740 /	0.052 x 8.55 7034 x 0.052 3000 = 2.58 1.15 = 6730	- 703.4 x 8.55	= 2424] = 1173		
Collapse Design (Safety) Factors — ConocoP The maximum collapse load on the Surface Casing occur job. The maximum collapse load on the production casing casing to surface, and therefore the external pressure pr outside of the casing which we estimate to be 8.55 ppg of Surface Casing Collapse Design Factor = Of	s when the pressure is re loccurs with the well is p offile on the production ca gradient. Ollapse Rating / (Cement C	umped off on production. We p sing should be equal to the pore Column Hydrostatic Pressure – C	an to cement the production pressure of the horizons or	the .		
Surface Casing Collapse Design Factor: Collapse Design Factor: Collapse Design Factor: Production Casing Collapse Design Factor: Collapse Design Factor: Collapse Design Factor:	: 1370 / · · · · · · · · · · · · · · · · · ·	300 x 0.052 241 = 5.68 8.55 x 0.052 3127 = 2.01	x 14.8) + (539	х 0.052 х	13.6) - 371
Joint Strength Design (Safety) Factors – Cor The maximum axial (tension) load occurs if casing were t Maximum Allowable Hookload = Joint Strength Reting / Ax Overpull Margin (Air Wt) = Maximum Allowable Hook Load Overpull Margin (Bouyant) = Maximum Allowable Hook Lo	oget stuck and pulled on t ial Design Factor - Air Wt of the String					
Surface Casing (Minimum Pipe Yield) Max Hookload (Air Wt) = Max Hookload (Bouyant) + Overpull = Tensile Design Factor = Actual Overpul! Margin to Satisfy COP min DF = Production Casing (Minimum Pipe Yield)	: 100,000 + (: 397000 / : 397000 /	20136 x 0.870 117523 = 3.38 1.40 - 175) = 117523 23 = 266048			
Max Hookload (Air Wt) = Max Hookload (Bouyant) + Overpull = Tensile Design Factor = Actual Overpull Margin to Satisfy COP min DF = Surface Casing (Minimum It Strength) Max Hookload (Air Wt) =	: 100,000 + (: 381000 / : 381000 /	119578 x 0.847 201322 = 1.89 1.40 - 1013) = 201322 22 = 170821			
Max Hookload (Bouyant) + Överpull = Tensile Design Factor = Actual Overpull Margin to Satisfy COP min DF = Surface Casing (Minimum It Strength) Max Hookload (Air Wt) =	100,000 + (244000 / 244000 / 119578	117523 = 2.08 1.40 - 1752		* .		
Max Hookload (Bouyant) + Overpull = Tensile Design Factor = Actual Overpull Margin to Salisfy COP min DF =	338000 /	119578 x 0.847 201322 = 1.68 1.40 - 10132) = 201322 22 = 140107			

3. Proposed cementing program:

16" or 13-3/8" Conductor:

Cement to surface with rathole mix, ready mix or Class C Neat cement. (Note: The gravel used in the cement is not to exceed 3/8" diameter) TOC at surface.

8-5/8" Surface Casing & Cementing Program: 8-5/8" 24# J-55 STC

The intention for the cementing program for the Surface Casing is to:

- Place the Tail Slurry from the casing shoe to 300' above the casing shoe,
- Bring the Lead Slurry to surface.

Spacer: 20 bbls Fresh Water

	Slurry	Inter Ft I		Weight ppg	Sx	Vol Cuft	Additives	Yield ft³/sx
Lead	Class C	Surface	494' – 539'	13.6	350	595	4%Bentonite 2%CaCl2 .125%Polyflake 0.2% antifoam Excess =230% based on gauge hole volume	1.70
Tail	Class C	494' – 539'	794' – 839'	14.8	200	268	1% CaCl2 Excess = 100% based on gauge hole volume	1.34

Displacement: Fresh Water.

Note: In accordance with the Pecos District Conditions of Approval, we will Wait on Cement (WOC) for a period of not less than 18 hrs after placement or until at least 500 psi compressive strength has been reached in both the Lead Slurry and Tail Slurry cements on the Surface Casing, whichever is greater.

5-1/2" Production Casing & Cementing Program: 5-1/2" 17# L-80 LTC

The intention for the cementing program for the Production Casing is to:

- Place the Tail Slurry from the casing shoe to a point approximately 200' above the top of the Paddock,
- Bring the Lead Slurry to surface.

Spacer: 20 bbls Fresh Water

	Slurry		rvals MD	Weight ppg	Sx	Vol Cuft	Additives	Yield ft ³ /sx
Lead	50:50 Poz/C	Surface	5200'	11.8	1000	2640	10% Bentonite 8 lbs/sx Salt 0.4% Fluid loss additive 0.125% LCM if needed Excess = 220% or more if needed based on gauge hole volume	2.64
Tail	Class H	5200'	6989' – 7034'	16.4	650	696	0.2% Fluid loss additive 0.3% Dispersant 0.15% Retarder 0.2% Antifoam Excess = 100% or more if needed based on gauge hole volume	1.07

Displacement: Fresh Water with approximately 250 ppm gluteraldehyde biocide.

Proposal for Option to Adjust Production Casing Cement Volumes:

The production casing cement volume presented above are estimates based on gauge 7-7/8" hole. We will adjust these volumes based on the caliper log data for each well and our trends for amount of cement returns to surface. Also, if no caliper log is available for any particular well, we would propose an option to possibly increase the production casing cement volume to account for any uncertainty in regard to the hole volume.

4. Pressure Control Equipment:

A <u>11" 3M</u> system will be installed, used, maintained, and tested accordingly as described in Onshore Oil and Gas Order No. 2.

Our BOP equipment will be:

- Rotating Head
- o Annular BOP, 11" 3M
- o Blind Ram, 11" 3M
- o Pipe Ram, 11" 3M

After nippling up, and every 30 days thereafter or whenever any seal subject to test pressure is broken followed by related repairs, blowout preventors will be pressure tested. BOP will be inspected and operated at least daily to insure good working order. All pressure and operating tests will be done by an independent service company and recorded on the daily drilling reports. BOP will be tested using a test plug to isolate BOP stack from casing. BOP test will include a low pressure test from 250 to 300 psi for a minimum of 10 minutes or until requirements of test are met, whichever is longer. Ram type preventers and associated equipment will be tested to the approved stack working pressure of 3000 psi isolated by test plug. Annular type preventers will be tested to 50 percent of rated working pressure, and therefore will be tested to 1500 psi. Pressure will be held for at least 10 minutes or until provisions of test are met, whichever is longer. Valve on casing head below test plug will be open during testing of BOP stack. BOP will comply with all provisions of Onshore Oil and Gas Order No. 2 as specified. See Attached BOPE Schematic. The BOPE may be configured to use flexible hose. Pressure test data and hose specification information will be provided in the variance request to BLM prior to site construction.

5. Proposed Mud System

The mud systems that are proposed for use are as follows:

DEPTH	TYPE	Density ppg	FV sec/qt	API Fluid Loss cc/30 min	рН	Vol bbl
0 – Surface Casing Point	Fresh Water or Fresh Water Native Mud	8.5 – 9.0	28 – 40	N.C.	N.C.	120 – 160
Surface Casing Point to TD	Brine (Saturated NaCl ₂)	10	29	N.C.	10 – 11	1250 - 2500
Conversion to Mud at TD	Brine Based Mud (NaCl ₂)	10	34 – 45	5 – 10	10 – 11	0 - 1250

Drilling mud containing H2S shall be degassed in accordance with API RP-49, item 5.14. The gases shall be piped into the flare system. Gas detection equipment and pit level flow monitoring equipment will be on location. ConocoPhillips Company will maintain sufficient mud and weighting material on location at all times.

Proposal for Option to Not Mud Up at TD:

FW, Brine, and Mud volume presented above are estimates based on gauge 12-1/4" or 7-7/8" holes. We will adjust these volume based on hole conditions. Also, we propose an option to not mud up leaving only brine in the hole.

6. Logging, Coring, and Testing Program: See COA a. No drill stem tosts will?

- a. No drill stem tests will be done
- b. Mud logging planned for the production hole section (optional).
- c. No whole cores are planned
- d. The open hole electrical logging program is planned to be as follows:
 - Total Depth to 2500': Resistivity, Density, and Gamma Ray
 - Total Depth to surface Casing Shoe: Caliper
 - Total Depth to surface, Gamma Ray and Neutron
 - Formation pressure data (XPT) on electric line if needed (optional)
 - Rotary Sidewall Cores on electric line if needed (optional)
 - BHC or Dipole Sonic if needed (optional)
 - Spectral Gamma Ray if needed (optional)

Abnormal Pressures and Temperatures:

- No abnormal pressures are expected to be encountered.
- Loss of circulation is a possibility in the horizons below the Top of Grayburg. We expect that normal Loss of Circulation Material will be successful in healing any such loss of circulation events.
 - The bottom hole pressure is expected to be 8.55 ppg gradient.
 - The expected Bottom Hole Temperature is 115 degrees F.
- The estimated H₂S concentrations and ROE calculations for the gas in the zones to be penetrated are presented in the table below for the various producing horizons in this area:

FORMATION / ZONE	H2S Gas Rate (PPM) (MCFD)		ROE 100 PPM	ROE 500 PPM
Grayburg / San Andres (from MCA)	14000	38	59	27
Yeso Group	400	433	34	15

ConocoPhillips will comply with the provisions of Oil and Gas Order # 6

8. Anticipated starting date and duration of operations:

Well pad and road constructions will begin as soon as all agency approvals are obtained. Anticipated date to drill these wells begin from late 2012 through the 2013 after receiving approval of the APD.

Attachments:

- Attachment # 1 BOP and Choke Manifold Schematic 3M System
- Attachment # 2 Diagram of Choke Manifold Equipment

Contact Information:

Program prepared by: James Chen Drilling Engineer, ConocoPhillips Company Phone (832) 486-2184 Cell (832) 768-1647 Date: 25 September 2012

(Date: 9/30/2012)

Page 6 of 8

ConocoPhillips MCBU

Buckeye Ruby Federal Ruby Federal 25

Original Hole

Plan: Actual Plan

Standard Planning Report - Geographic

24 September, 2012

Planning Report - Geographic

Database: **EDM Central Planning** Company: ConocoPhillips MCBU Project:

Buckeye

Ruby Federal Ruby Federal 25 Original Hole

Local Co-ordinate Reference:

Survey Calculation Method:

TVD Reference: MD Reference: North Reference: Site Ruby Federal

RKB @ 4035.0usft (PD 822) RKB @ 4035.0usft (PD 822)

Grid

Minimum Curvature

Actual Plan Design:

Project Map System: Geo Datum:

Site:

Well:

Wellbore:

Buckeye, Lea County, NM

US State Plane 1927 (Exact solution)

NAD 1927 (NADCON CONUS)

System Datum:

Map Zone: New Mexico East 3001

Ruby Federal, New Mexico, Southeast Site

Site Position: From: Position Uncertainty:

Lat/Long

Northing: Easting: Slot Radius: 666,097.48 usft 666,763.62 usft

8'

Latitude: Longitude:

32° 49' 48.040 N 103° 47' 25.559 W

Grid Convergence: 0.29

Well Ruby Federal 25, Directional Well Well Position

+N/-S +E/-W

2,304.7 usft 1,249.3 usft

3.5 usft

Northing: Easting:

668,402.22 usft 668,012.95 usft

Latitude: Longitude:

32° 50' 10.781 N 103° 47' 10.778 W

Position Uncertainty

3.5 usft

Wellhead Elevation:

usft

Ground Level:

4,022.0 usft

Wellbore Original Hole Magnetics Model Name Sample Date Declination Dip Angle Field Strength (nT) (°) (°) BGGM2012 7.67 60.64 48,823 9/21/2012

Design Actual Plan Audit Notes: Version: Phase: **PROTOTYPE** Tie On Depth: 0.0 Depth From (TVD) +E/-W Direction Vertical Section: +N/-S (usft) (usft) (°) (usft) 0.0 2,304.7 1,249.3 127.63

Measured			Vertical			Dogleg	Build	Turn		
Depth (usft)	Inclination (°)	Azimuth (°)	Depth (usft)	+N/-S (usft)	+E/-W (ușft)	Rate (°/100usft)	Rate (°/100usft)	Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	2,304.7	1,249.3	0.00	0.00	0.00	0.00	* **
1,973.0	0.00	0.00	1,973.0	2,304.7	1,249.3	0.00	0.00	0.00	0.00	
2,492.4	7.79	127.63	2,490.8	2,283.2	1,277.3	1.50	1.50	0.00	127.63	
6,236.2	7.79	127.63	6,200.0	1,973.3	1,679.2	0.00	0.00	0.00	0.00	Ruby Federal 25 (A
7,043.6	7.79	127.63	7,000.0	1,906.5	1,765.9	0.00	0.00	0.00	0.00	

Planning Report - Geographic

Database: Company: Project:

Site:

. EDM Central Planning

, ConocoPhillips MCBU

Buckeye

Ruby Federal Ruby Federal 25 Local Co-ordinate Reference:

Survey Calculation Method:

TVD Reference: MD Reference: North Reference:

Site Ruby Federal RKB @ 4035.0usft (PD 822) RKB @ 4035.0usft (PD 822)

Grid

, Minimum Curvature

Well: Original Hole Wellbore: Actual Plan Design:

leasured			Vertical			Map	Мар		
Depth (usft)	Inclination (°)	Azimuth (°)	Depth (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
						000 400 00	000.040.05		103° 47' 10.77
0.0	0.00	0.00	0.0	2,304.7	1,249.3	668,402.22	668,012.95	32° 50' 10.781 N 32° 50' 10.781 N	103 47 10.77 103° 47' 10.77
85.0	0.00	0.00	85.0	2,304.7	1,249.3	668,402.22	668,012.95	32 30 10.761 N	103 47 10.77
Conducto					4.040.0	000 400 00	200 040 05	000 501 40 704 N	4008 471 40 77
100.0	0.00	0.00	100.0	2,304.7	1,249.3	668,402.22	668,012.95	32° 50' 10.781 N	103° 47' 10.77
200.0	0.00	0.00	200.0	2,304.7	1,249.3	668,402.22	668,012.95	32° 50' 10.781 N	103° 47' 10.77
300.0	0.00	0.00	300.0	2,304.7	1,249.3	668,402.22	668,012.95	32° 50' 10.781 N	103° 47' 10.77
400.0	0.00	0.00	400.0	2,304.7	1,249.3	668,402.22	668,012.95	32° 50′ 10.781 N	103° 47′ 10.77
500.0	0.00	0.00	500.0	2,304.7	1,249.3	668,402.22	668,012.95	32° 50' 10.781 N	103° 47' 10.77
600.0	0.00	0.00	600.0	2,304.7	1,249.3	668,402.22	668,012.95	32° 50' 10.781 N	103° 47' 10.77
700.0	0.00	0.00	700.0	2,304.7	1,249.3	668,402.22	668,012.95	32° 50′ 10.781 N	103° 47′ 10.77
769.0	0.00	0.00	769.0	2,304.7	1,249.3	668,402.22	668,012.95	32° 50' 10.781 N	103° 47' 10.77
Rustler									
794.0	0.00	0.00	794.0	2,304.7	1,249.3	668,402.22	668,012.95	32° 50' 10.781 N	103° 47' 10.77
Surface					•				
800.0	0.00	0.00	800.0	2,304.7	1,249.3	668,402.22	668,012.95	32° 50′ 10.781 N	103° 47' 10.77
900.0	0.00	0.00	900.0	2,304.7	1,249.3	668,402.22	668,012.95	32° 50' 10.781 N	103° 47' 10.77
938.0	0.00	0.00	938.0	2,304.7	1,249.3	668,402.22	668,012.95	32° 50' 10.781 N	103° 47' 10.77
Salado									
1,000.0	0.00	0.00	1,000.0	2,304.7	1,249.3	668,402,22	668,012.95	32° 50′ 10.781 N	103° 47' 10.77
1,100.0	0.00	0.00	1,100.0	2,304.7	1,249.3	668,402.22	668,012.95	32° 50' 10.781 N	103° 47' 10.77
1,200.0	0.00	0.00	1,200.0	2,304.7	1,249.3	668,402.22	668,012.95	32° 50' 10.781 N	103° 47' 10.77
1,300.0	0.00	0.00	1,300.0	2,304.7	1,249.3	668,402.22	668,012.95	32° 50' 10.781 N	103° 47' 10.77
1,400.0	0.00	0.00	1,400.0	2,304.7	1,249.3	668,402.22	668,012.95	32° 50' 10.781 N	103° 47' 10.77
1,500.0	0.00	0.00	1,500.0	2,304.7	1,249.3	668,402.22	668,012.95	32° 50' 10.781 N	103° 47' 10.77
1,600.0	0.00	0.00	1,600.0	2,304.7	1,249.3	668,402.22	668,012.95	32° 50' 10.781 N	103° 47' 10.77
1,700.0	0.00	0.00	1,700.0	2,304.7	1,249.3	668,402.22	668,012.95	32° 50' 10.781 N	103° 47' 10.77
1,700.0	0.00	0.00	1,800.0	2,304.7	1,249.3	668,402.22	668,012.95	32° 50' 10.781 N	103° 47° 10.77
			1,800.0			668,402.22	668,012.95	32° 50' 10.781 N	103° 47' 10.77
1,900.0	0.00	0.00		2,304.7	1,249.3				
1,973.0	0.00	0.00	1,973.0	2,304.7	1,249.3	668,402.22	668,012.95	32° 50' 10.781 N	103° 47' 10.77
Tansill									
2,000.0	0.40	127.63	2,000.0	2,304.7	1,249.4	668,402.16	668,013.03	32° 50' 10.781 N	103° 47' 10.77
2,100.0	1.90	127.63	2,100.0	2,303.5	1,251.0	668,400.93	668,014.63	32° 50' 10.768 N	103° 47′ 10.75
2,149.1	2.64	127.63	2,149.0	2,302.3	1,252.5	668,399.74	668,016.17	32° 50' 10.757 N	103° 47' 10.74
Yates									
2,200.0	3.40	127.63	2,199.9	2,300.6	1,254.7	668,398.10	668,018.29	32° 50' 10.740 N	103° 47' 10.71
2,300.0	4.90	127.63	2,299.6	2,296.2	1,260.4	668,393.68	668,024.03	32° 50' 10.696 N	103° 47' 10.64
2,400.0	6.40	127.63	2,399.1	2,290.2	1,268.2	668,387.66	668,031.84	32° 50' 10.636 N	103° 47' 10.55
2,436.1	6.95	127.63	2,435.0	2,287.6	1,271.5	668,385.10	668,035.16	32° 50' 10.611 N	103° 47' 10.51
Seven Riv								•	
2,492.4	7.79	127.63	2,490.8	2,283.2	1,277.3	668,380.69	668,040.88	32° 50' 10.567 N	103° 47' 10.45
2,500.0	7.79	127.63	2,498.3	2,282.6	1,278.1	668,380.06	668,041.69	32° 50' 10.560 N	103° 47' 10.44
2,600.0	7.79	127.63	2,597.4	2,274.3	1,288.8	668,371.79	668,052.43	32° 50′ 10.478 N	103° 47′ 10.31
2,700.0	7.79	127.63	2,696.5	2,266.0	1,299.5	668,363.51	668,063.17	32° 50′ 10.396 N	103° 47' 10.19
2,800.0	7.79	127.63	2,795.6	2,257.8	1,310.3	668,355.23	668,073.90	32° 50' 10.313 N	103° 47' 10.06
2,900.0	7.79	127.63	2,894.6	2,249.5	1,321.0	668,346:96	668,084.64	32° 50′ 10.231 N	103° 47' 9.94
3,000.0	7.79	127,63	2,993.7	2,241.2	1,331.7	668,338.68	668,095.37	32° 50′ 10.148 N	103° 47' 9.81
3,084.1	7.79	127.63	3,077.0	2,234.2	1,340.8	668,331.72	668,104.40	32° 50' 10.079 N	103° 47' 9.71
Queen									
3,100.0	7.79	127.63	3,092,8	2,232.9	1,342.5	668,330.40	668,106.11	32° 50′ 10.066 N	103° 47′ 9.69
3,200.0	7.79	127.63	3,191.9	2,224.6	1,353.2	668,322.12	668,116.84	32° 50' 9.983 N	103° 47' 9.56
3,300.0	7.79	127.63	3,290.9	2,216.4	1,364.0	668,313.85	668,127.58	32° 50' 9.901 N	103° 47' 9.44
3,400.0	7.79	127.63	3,390.0	2,208.1	1,374.7	668,305.57	668,138.32	32° 50′ 9.818 N	103° 47' 9.31
3,500.0	7.79	127.63	3,489.1	2,200.1	1,374.7	668,297.29	668,149.05	32° 50' 9.736 N	103° 47′ 9.31

Planning Report - Geographic .

Database:

EDM Central Planning

Company:

ConocoPhillips MCBU

Project:

Buckeye

Site:

Ruby Federal

Well: Wellbore: Design: Ruby Federal 25 Original Hole Actual Plan Local Co-ordinate Reference:

TVD Reference:

MD Reference: North Reference:

Survey Calculation Method:

Site Ruby Federal

RKB @ 4035.0usft (PD 822) RKB @ 4035.0usft (PD 822)

Grid

Minimum Curvature

3,507.0 7.79 127.63 3,486.0 2,199.2 1,386.2 668,289.72 668,149.80 32*50*9.730 N 103*47* 3,600.0 7.79 127.63 3,588.2 2,191.5 1,396.2 668,289.02 668,159.79 32*50*9.854 N 103*47* 3,700.0 7.79 127.63 3,588.3 2,183.3 1,406.9 688,289.74 668,170.52 32*50*9.854 N 103*47* 3,807.6 7.79 127.63 3,883.0 2,166.9 1,428.1 668,289.02 668,191.73 32*50*9.489 N 103*47* 3,807.6 7.79 127.63 3,883.0 2,166.9 1,428.1 668,264.39 668,191.73 32*50*9.489 N 103*47* 3,807.6 7.79 127.63 3,883.0 2,166.9 1,428.1 668,264.39 668,191.73 32*50*9.489 N 103*47* 3,807.0 7.79 127.63 3,885.4 2,166.7 1,428.1 668,264.39 668,191.73 32*50*9.489 N 103*47* 4,000.0 7.79 127.63 3,885.4 2,166.7 1,428.1 668,264.39 668,191.73 32*50*9.480 N 103*47* 4,000.0 7.79 127.63 3,885.4 2,166.7 1,428.1 668,264.18 688,224.14 32*50*9.241 N 103*47* 4,000.0 7.79 127.63 4,182.6 2,181.4 1,483.1 668,264.18 688,224.20 32*50*9.480 N 103*47* 4,000.0 7.79 127.63 4,182.6 2,141.9 1,480.6 668,229.35 688,224.20 32*50*9.41 N 103*47* 4,000.0 7.79 127.63 4,280.6 2,183.3 1,482.1 688,221.08 688,224.20 32*50*9.676 N 103*47* 4,000.0 7.79 127.63 4,279.9 2,117.0 1,482.8 668,224.6 688,224.2 32*50*9.676 N 103*47* 4,000.0 7.79 127.63 4,479.9 2,117.0 1,482.8 668,204.5 688,224.5 688,247.5 32*50*8.994 N 103*47* 4,000.0 7.79 127.63 4,678.9 2,110.5 1,555.0 668,189.59 668,207.7 32*50*8.899 N 103*47* 4,000.0 7.79 127.63 4,678.9 2,100.5 1,555.0 668,189.59 668,209.35 52*50*8.899 N 103*47* 4,000.0 7.79 127.63 4,876.2 2,083.9 1,555.7 668,189.59 668,303.0 23*50*8.899 N 103*47* 5,000.0 7.79 127.63 5,341.8 2,065.1 1,567.7 6,681.81.3 668,303.0 82*50*7.7 8 32*50*8.899 N 103*47* 5,000.0 7.79 127.63 5,571.8 2,064.6 1,589.4 668,183.1 668,303.0 82*50*6.899 N 103*47* 5,000.0 7.79 127.63 5,586.0 2,067.7 1,586.6 668,173.1 668,303.0 83.34.1 32*50*8.899 N 103*47* 5,000.0 7.79 127.63 5,686.9 2,007.8 1,585.0 668,183.1 668,303.0 32*50*8.899 N 103*47* 5,000.0 7.79 127.63 5,686.9 2,007.8 1,585.0 668,185.20 668,303.3 32*50*8.899 N 103*47* 5,000.0 7.79 127.63 5,686.9 2,007.2 1,585.0 668,185.20 668,303.3 32*50*8.	leasured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Map Northing	Map Easting		
Gryburg 3,900.0 7,79 127.83 3,588.2 2,191.5 1,396.2 688,289.02 681,197.9 22*50*9.654 N 103*47*, 3,700.0 7,79 127.83 3,687.3 2,183.3 1,406.9 688,280.74 688,170.52 32*50*9.658 N 103*47*, 3,600.0 7,79 127.63 3,868.3 2,185.0 1,417.6 688,272.46 688,181.26 32*50*9.468 N 103*47*, 3,600.0 7,79 127.63 3,685.3 2,185.0 1,428.1 686,262.49 688,181.26 32*50*9.408 N 103*47*, 4,000.0 7,79 127.63 3,896.5 2,156.4 1,428.1 686,262.49 688,181.26 32*50*9.408 N 103*47*, 4,000.0 7,79 127.63 3,984.5 2,156.4 1,439.1 686,262.59 688,202.73 32*50*9.324 N 103*47*, 4,000.0 7,79 127.63 4,083.6 2,150.2 1,469.8 686,262.49 688,249.20 32*50*9.324 N 103*47*, 4,000.0 7,79 127.63 4,083.6 2,150.2 1,469.8 686,262.40 686,224.00 32*50*9.524 N 103*47*, 4,000.0 7,79 127.63 4,083.6 2,150.2 1,469.8 686,229.30 686,224.00 32*50*9.59 N 103*47*, 4,000.0 7,79 127.63 4,360.8 2,150.2 1,460.6 686,239.35 686,224.00 32*50*9.59 N 103*47*, 4,000.0 7,79 127.63 4,360.8 2,150.2 1,462.6 686,224.0 686,240.40 32*50*9.60 N 103*47*, 4,000.0 7,79 127.63 4,759.9 2,110.6 1,692.8 686,224.00 686,245.0 6	(usft)			(usft)	(usft)		(usft)	(usft)	Latitude	Longitude
3,000.0 7,79 127,63 3,588.2 2,191,5 1,396.2 688,280,74 688,719,72 32°50°,868 N 103°47°, 3,000.0 7,79 127,63 3,876.3 2,185.3 1,406.9 688,280.74 688,170.52 32°50°,871 N 103°47°, 3,000.0 7,79 127,63 3,883.0 2,156.8 1,428.1 688,281.26 32°50°,8408 N 103°47°, 5,000.0 7,79 127,63 3,885.4 2,168.7 1,428.1 688,281.8 688,191.73 32°50°,9408 N 103°47°, 4,000.0 7,79 127,63 3,985.5 2,188.4 1,439.1 688,285.9 1 688,202.73 32°50°,9408 N 103°47°, 4,000.0 7,79 127,63 3,985.5 2,188.4 1,439.1 688,285.9 1 688,202.73 32°50°,9408 N 103°47°, 4,000.0 7,79 127,63 4,083.6 2,141.9 1,460.6 689,247.33 668,214.7 32°50°,9408 N 103°47°, 4,000.0 7,79 127,63 4,182.6 2,141.9 1,460.6 689,247.33 668,214.7 32°50°,940° N 103°47°, 4,000.0 7,79 127,63 4,281.7 2,133.6 1,471.3 688,231.00 688,234.94 32°50°,945° N 103°47°, 4,000.0 7,79 127,63 4,281.7 2,133.6 1,471.3 688,231.00 688,234.94 32°50°,945° N 103°47°, 4,000.0 7,79 127,63 4,380.8 2,125.3 1,481.8 688,242.00 688,243.94 32°50°,945° N 103°47°, 4,000.0 7,79 127,63 4,380.8 2,125.3 1,481.8 688,241.0 688,243.94 32°50°,945° N 103°47°, 4,000.0 7,79 127,63 4,476.9 2,117.0 1,492.8 688,241.5 688,256.41 32°50°,841 N 103°47°, 4,000.0 7,79 127,63 4,476.9 2,116.0 1,503.5 668,206.25 668,266.41 32°50°,848° N 103°47°, 4,000.0 7,79 127,63 4,476.9 2,106.5 1,514.3 688,197.9 688,278° 8.3 25° 0.8 82.9 N 103°47°, 4,000.0 7,79 127,63 4,476.9 2,106.5 1,514.3 688,197.9 688,278° 8.3 25° 0.8 82.9 N 103°47°, 5,000.0 7,79 127,63 4,476.9 2,106.5 1,544.3 688,197.9 688,278° 8.3 25° 0.8 82.9 N 103°47°, 5,000.0 7,79 127,63 4,476.9 2,106.5 1,544.3 688,197.9 688,198.9 32° 50° 8,858 N 103°47°, 5,000.0 7,79 127,63 5,374.3 2,057.4 1,557.2 688,198.9 32° 50° 8,858 N 103°47°, 5,000.0 7,79 127,63 5,744.2 2,050.1 1,567.9 688,196.5 688,380.7 32° 50° 8,858 N 103°47°, 5,000.0 7,79 127,63 5,374.0 2,000.0 1,569.0 688,198.9 688,310.0 32° 50° 8,858 N 103°47°, 5,000.0 7,79 127,63 5,476.9 2,000.0 1,569.0 688,198.9 688,310.0 32° 50° 8,858 N 103°47°, 5,000.0 7,79 127,63 5,476.9 2,000.0 1,600.0 688,141.0 688,141.0 688,141.0 688,141.0 688,141.0 688,141.0 688,1	,		127.63	3,496.0	2,199.2	1,386.2	668,296.72	668,149.80	32° 50' 9.730 N	103° 47' 9.1
3.70.0 7.79 127.63 3,867.3 2,193.3 1,406.9 683,207.4 668,170.52 32°50°,450°N 103°47°, 3.807.6 7.79 127.63 3,863.0 2,156.6 1,426.1 668,264.39 668,191.73 32°50°,408 N 103°47°, 3.807.6 7.79 127.63 3,883.0 2,166.8 1,428.1 668,264.39 668,191.73 32°50°,408 N 103°47°, 3.800.0 7.79 127.63 3,885.4 2,156.7 1,428.4 668,264.39 668,191.73 32°50°,9408 N 103°47°, 4.000.0 7.79 127.63 3,885.4 2,156.7 1,428.4 668,264.39 668,207.3 32°50°,9408 N 103°47°, 4.000.0 7.79 127.63 4,083.6 2,150.2 1,449.8 668,265.91 668,207.3 32°50°,9408 N 103°47°, 4.000.0 7.79 127.63 4,083.6 2,150.2 1,449.8 668,265.91 668,207.3 32°50°,9408 N 103°47°, 4.000.0 7.79 127.63 4,488.6 2,150.2 1,449.8 668,234.93 568,247.0 32°50°,9408 N 103°47°, 4.000.0 7.79 127.63 4,281.7 2,133.6 1,471.3 668,231.08 668,242.0 32°50°,9408 N 103°47°, 4.000.0 7.79 127.63 4,281.7 2,133.6 1,482.1 668,231.08 668,249.2 32°50°,9408 N 103°47°, 4.000.0 7.79 127.63 4,579.9 2,110.8 1,492.8 668,249.0 668,249.6 32°50°,9408 N 103°47°, 4.000.0 7.79 127.63 4,579.9 2,110.8 1,503.5 668,240.9 668,246.67 32°50°,9408 N 103°47°, 4.000.0 7.79 127.63 4,678.0 2,100.5 1,514.3 668,107.07 668,251.8 32°50°,848 N 103°47°, 4.000.0 7.79 127.63 4,678.0 2,100.5 1,514.3 668,107.07 668,263.3 32°50°,868.4 N 103°47°, 4.000.0 7.79 127.63 4,678.0 2,100.5 1,514.3 668,107.07 668,288.2 32°50°,848 N 103°47°, 4.000.0 7.79 127.63 4,678.0 2,100.5 1,546.5 668,107.07 668,288.2 32°50°,848 N 103°47°, 5.000.0 7.79 127.63 5,574.3 2,007.4 1,557.2 668,168.60 668,303.5 32°50°,868.4 N 103°47°, 5.000.0 7.79 127.63 5,474.0 2,099.1 1,595.0 668,143.0 668,303.5 32°50°,849 N 103°47°, 5.000.0 7.79 127.63 5,440.0 2,036.7 1,597.0 668,134.14 668,300.0 32°50°,849 N 103°47°, 5.000.0 7.79 127.63 5,470.6 2,042.6 1,589.4 668,140.03 668,350.03 32°50°,849 N 103°47°, 5.000.0 7.79 127.63 5,470.0 2,046.0 1,599.0 668,141.0 668,300.0 32°50°,849 N 103°47°, 5.000.0 7.79 127.63 5,470.0 2,046.0 1,599.0 668,141.0 668,300.0 32°50°,849 N 103°47°, 5.000.0 7.79 127.63 5,400.0 2,040.0 1,593.3 1,600.0 1,600.0 668,134.1 668,300.0 32°50°,849 N 103°47°, 5.000.0 7.79 127.6										
3,890.0 7,79 127.63 3,883.0 2,150.9 1,428.1 658,272.46 668,181.26 32°50°9.489 N 103°47°1. San Andres 3,980.0 7,79 127.63 3,883.0 2,166.9 1,428.1 668,264.39 668,191.73 32°50°9.409 N 103°47°1. San Andres 3,980.0 7,79 127.63 3,894.5 2,168.7 1,428.4 668,264.13 668,191.73 32°50°9.409 N 103°47°1. 4,000.0 7,79 127.63 3,984.5 2,168.4 1,439.1 668,255.91 668,202.73 32°50°9.524 N 103°47°1. 4,000.0 7,79 127.63 4,083.6 2,150.2 1,449.9 668,255.91 668,202.73 32°50°9.524 N 103°47°1. 4,200.0 7,79 127.63 4,281.7 2,133.6 1,471.3 668,231.00 668,224.20 32°50°9.524 N 103°47°1. 4,300.0 7,79 127.63 4,380.8 2,125.3 1,482.1 668,221.00 668,245.67 32°50°9.159 N 103°47°1. 4,500.0 7,79 127.63 4,380.8 2,125.3 1,482.1 668,221.00 668,245.67 32°50°9.159 N 103°47°1. 4,500.0 7,79 127.63 4,380.8 2,125.3 1,482.1 668,221.00 668,245.67 32°50°9.159 N 103°47°1. 4,500.0 7,79 127.63 4,380.8 2,125.3 1,482.1 668,221.00 668,245.67 32°50°9.894 N 103°47°1. 4,500.0 7,79 127.63 4,570.8 2,100.5 1,514.3 668,191.97 668,271.6 32°50°8.894 N 103°47°1. 4,500.0 7,79 127.63 4,570.0 2,100.5 1,514.3 668,191.97 668,271.6 32°50°8.894 N 103°47°1. 4,900.0 7,79 127.63 4,470.0 2,005.7 1,545.5 668,189.09 668,262.8 32°50°8.6 840 N 103°47°1. 4,900.0 7,79 127.63 4,470.0 2,005.7 1,545.5 668,181.0 668,181.0 32°50°8.894 N 103°47°1. 5,000.0 7,79 127.63 5,336.0 2,045.5 1,585.6 688,181.0 668,340.0 33°25°0°8.894 N 103°47°1. 5,000.0 7,79 127.63 5,341.0 2,092.7 1,597.0 688,164.8 668,310.0 32°50°8.894 N 103°47°1. 5,000.0 7,79 127.63 5,341.0 2,092.7 1,597.0 688,164.8 668,320.8 32°50°8.894 N 103°47°1. 5,000.0 7,79 127.63 5,470.0 2,095.7 1,595.0 688,140.0 688,340.10 32°50°8.894 N 103°47°1. 5,000.0 7,79 127.63 5,470.0 2,095.7 1,595.0 688,160.0 688,340.10 32°50°8.894 N 103°47°1. 5,000.0 7,79 127.63 5,470.0 2,095.7 1,595.0 688,160.0 688,340.10 32°50°8.894 N 103°47°1. 5,000.0 7,79 127.63 5,470.0 2,095.7 1,595.0 688,160.0 368,340.10 32°50°8.894 N 103°47°1. 5,000.0 7,79 127.63 5,470.0 2,095.7 1,595.0 688,160.0 30°68,340.10 32°50°8.894 N 103°47°1. 5,000.0 7,79 127.63 5,470.0 2,										103° 47' 9.0
San Andres San An										103° 47' 8.9
San Andres								•		103° 47′ 8.8
3,900.0 77.9 127.63 3,885.4 2,166.7 1,428.4 668.264.18 668.192.00 32° 50° 9.406.N 103° 47° 1,400.0 7.79 127.63 4,083.6 2,150.2 1,449.8 668.247.63 668.213.47 32° 50° 9.241.N 103° 47° 1,400.0 7.79 127.63 4,281.7 2,141.9 1,460.6 668.293.93 668.224.20 32° 50° 9.676 N 103° 47° 1,400.0 7.79 127.63 4,281.7 2,133.6 1,471.3 668.21.6 668.223.6 688.244.6 32° 50° 9.676 N 103° 47° 1,400.0 7.79 127.63 4,281.7 2,133.6 1,471.3 668.222.80 688.244.6 32° 50° 9.994 N 103° 47° 1,400.0 7.79 127.63 4,479.9 2,117.0 1,492.8 668.222.80 688.245.6 7 32° 50° 9.076 N 103° 47° 1,400.0 7.79 127.63 4,479.9 2,117.0 1,492.8 668.222.80 688.245.6 7 32° 50° 9.994 N 103° 47° 1,400.0 7.79 127.63 4,479.9 2,117.0 1,492.8 668.222.80 688.245.6 7 32° 50° 9.994 N 103° 47° 1,400.0 7.79 127.63 4,578.9 2,118.8 1,503.5 668.206.2 5 688.256.1 32° 50° 8.994 N 103° 47° 1,400.0 7.79 127.63 4,678.0 2,100.5 1,514.3 668.179.7 688.277.8 32° 50° 8.820 N 103° 47° 1,400.0 7.79 127.63 4,678.0 2,100.5 1,514.3 668.179.7 688.277.8 32° 50° 8.864 N 103° 47° 1,400.0 7.79 127.63 4,678.0 2,100.5 1,514.3 668.179.5 688.28.8 2 32° 50° 8.864 N 103° 47° 1,500.0 7.79 127.63 4,675.3 2,005.7 1,546.5 668,173.14 668.310.9 32° 50° 8.499 N 103° 47° 1,500.0 7.79 127.63 4,975.3 2,005.7 1,546.5 668,173.14 668.310.9 32° 50° 8.499 N 103° 47° 1,500.0 7.79 127.63 4,975.3 2,005.7 1,546.5 668,173.14 668.310.9 32° 50° 8.499 N 103° 47° 1,500.0 7.79 127.63 5,500.0 7.79 127.63 5,364.1 1,557.9 668,164.8 683.30.0 83° 50° 8.499 N 103° 47° 1,500.0 7.79 127.63 5,364.0 2,045.5 1,585.6 668.143.0 683.42.30 32° 50° 8.499 N 103° 47° 1,500.0 7.79 127.63 5,420.0 2,045.5 1,585.6 668,143.1 683.30.0 32° 50° 8.499 N 103° 47° 1,500.0 7.79 127.63 5,420.0 2,045.5 1,585.6 668,145.3 668,343.3 32° 50° 8.499 N 103° 47° 1,500.0 7.79 127.63 5,686.8 2,005.8 1,586.8 1,589.4 668,140.0 668,349.18 32° 50° 8.998 N 103° 47° 1,500.0 7.79 127.63 5,686.8 2,000.0 7.79 127.63 5,686.8 2,000.0 7.79 127.63 5,686.8 2,000.0 7.79 127.63 5,686.8 2,000.0 7.79 127.63 5,686.8 2,000.0 1,693.9 1,693.4 668,140.0 668,343.7 32° 50° 8.898 N 103° 47° 1,500.0	3,897.6	7.79	127.63	3,883.0	2,166.9	1,428.1	668,264.39	668,191.73	32° 50' 9.408 N	103° 47' 8.6
4,000.0 7.79 127.63 3,884.5 2,158.4 1,439.1 668,255.91 688,202.73 32°50°3.24 N 103°47°7 4,200.0 7.79 127.63 4,808.6 2,159.2 1,449.8 668,247.3 668,230.2 32°50°9.159 N 103°47°6 4,200.0 7.79 127.63 4,808.6 2,141.9 1,460.6 668,239.35 688,224.20 32°50°9.159 N 103°47°6 4,400.0 7.79 127.63 4,808.8 2,175.0 1,492.8 668,231.0 668,245.67 32°50°8.959 N 103°47°6 4,400.0 7.79 127.63 4,879.9 2,117.0 1,492.8 668,245.2 668,256.41 32°50°8.919 N 103°47°6 4,500.0 7.79 127.63 4,579.9 2,108.8 1,503.5 668,265.2 668,265.41 32°50°8.919 N 103°47°6 4,500.0 7.79 127.63 4,579.9 2,108.8 1,503.5 668,265.2 668,265.41 32°50°8.919 N 103°47°6 4,500.0 7.79 127.63 4,579.9 2,108.8 1,503.5 668,265.2 668,265.41 32°50°8.919 N 103°47°6 4,500.0 7.79 127.63 4,579.0 2,108.8 1,503.5 668,265.2 668,267.7 88 32°50°8.747 N 103°47°7 4,500.0 7.79 127.63 4,579.0 2,108.8 1,503.5 668,265.2 668,267.7 88 32°50°8.747 N 103°47°7 4,500.0 7.79 127.63 4,579.0 2,108.8 1,503.5 668,268.179.7 668,288.2 32°50°8.640 N 103°47°7 4,500.0 7.79 127.63 4,975.3 2,075.7 1,546.5 668,181.41 668,299.35 32°50°8.499 N 103°47°7 5,000.0 7.79 127.63 5,074.3 2,075.7 1,546.5 668,181.41 668,299.35 32°50°8.499 N 103°47°7 5,000.0 7.79 127.63 5,074.3 2,075.7 1,546.5 668,181.41 668,310.0 32°50°8.491 N 103°47°7 5,000.0 7.79 127.63 5,074.3 2,057.4 1,557.2 668,181.40 668,340.1 32°50°8.399 N 103°47°6 5,300.0 7,79 127.63 5,275.2 2,056.8 1,567.9 668,165.58 668,331.56 32°50°8.399 N 103°47°6 5,300.0 7,79 127.63 5,275.2 2,056.8 1,567.6 668,143.0 668,340.1 32°50°8.199 N 103°47°6 5,300.0 7,79 127.63 5,542.0 2,036.7 1,597.0 668,134.10 668,340.1 32°50°8.199 N 103°47°6 5,300.0 7,79 127.63 5,542.0 2,036.7 1,597.0 668,134.10 668,340.1 32°50°8.919 N 103°47°6 5,300.0 7,79 127.63 5,470.0 2,036.7 1,597.0 668,134.10 668,340.3 32°50°8.199 N 103°47°6 5,300.0 7,79 127.63 5,470.0 2,036.7 1,597.0 668,134.10 668,340.3 32°50°8.199 N 103°47°6 5,300.0 7,79 127.63 5,686.8 2,000.0 7,79 127.63 5,686.8 2,000.0 7,79 127.63 5,686.8 2,000.0 1,300.0 1,300.0 1,300.0 1,300.0 1,300.0 1,300.0 1,300.0 1,300.0 1,300.0 1,300.0 1,300.0 1,300.0 1	San Andı	es						;		
4,100.0 7,79 127,63 4,083,6 2,150.2 1,449.8 668,247.63 668,213.47 32°,50°,0241 N 103°,47°,470.0 7,79 127,63 4,810.7 2,133.6 1,471.3 668,231.08 668,24.94 32°,50°,076 N 103°,47°,470.0 7,79 127,63 4,281.7 2,133.6 1,471.3 668,231.08 668,24.94 32°,50°,076 N 103°,47°,470.0 7,79 127,63 4,479.9 2,117.0 1,492.8 668,224.80 668,245.67 32°,50°,8.99 N 103°,47°,470.0 7,79 127,63 4,479.9 2,117.0 1,492.8 668,241.52 668,265.61 32°,50°,8.99 N 103°,47°,470.0 7,79 127,63 4,679.9 2,108.8 1,503.5 668,205.25 668,206.51 32°,50°,8.29 N 103°,47°,470.0 7,79 127,63 4,679.9 2,108.8 1,503.5 668,205.25 668,206.55 32°,50°,8.29 N 103°,47°,470.0 7,79 127,63 4,679.0 2,108.8 1,503.5 668,206.25 668,206.25 682,67.15 32°,50°,8.29 N 103°,47°,470.0 7,79 127,63 4,679.0 2,108.8 1,503.5 668,206.25 668,206.25 32°,50°,8.29 N 103°,47°,470.0 7,79 127,63 4,879.2 2,083.9 1,535.7 668,181.41 668,309.3 32°,50°,8.49 N 103°,47°,5,000.0 7,79 127,63 4,879.3 2,075.7 1,546.5 668,181.41 668,310.9 32°,50°,8.29 N 103°,47°,5,000.0 7,79 127,63 5,743.2 2,067.4 1,557.2 668,164.86 668,320.82 32°,50°,8.49 N 103°,47°,5,000.0 7,79 127,63 5,744.2 0,509.1 1,567.2 668,164.86 668,320.82 32°,50°,8.49 N 103°,47°,5,364.1 7,79 127,63 5,364.0 2,065.1 1,567.2 668,164.86 668,320.82 32°,50°,8.19 N 103°,47°,5,364.1 7,79 127,63 5,364.0 2,045.5 1,585.6 668,148.31 668,349.30 32°,50°,8.19 N 103°,47°,5,364.1 7,79 127,63 5,364.0 2,046.5 1,585.6 668,148.31 668,349.30 32°,50°,8.19 N 103°,47°,5,364.1 7,79 127,63 5,364.0 2,046.5 1,585.6 688,148.31 668,349.30 32°,50°,8.19 N 103°,47°,5,364.1 7,79 127,63 5,364.0 2,046.5 1,589.4 668,148.31 668,349.30 32°,50°,8.19 N 103°,47°,5,364.1 7,79 127,63 5,536.0 2,045.5 1,586.6 688,148.30 668,349.30 32°,50°,8.19 N 103°,47°,5,364.1 7,79 127,63 5,536.0 2,045.6 1,589.4 668,148.31 668,349.30 32°,50°,8.19 N 103°,47°,5,360.0 7,79 127,63 5,686.9 2,045.5 1,589.4 668,140.3 668,140.3 668,349.3 32°,50°,8.19 N 103°,47°,5,360.0 7,79 127,63 5,686.9 2,045.5 1,589.4 668,140.3 668,140.3 668,349.5 32°,50°,8.19 N 103°,47°,5,360.0 7,79 127,63 5,686.9 2,007.8 1,686.9 668,05.5 3 668,349.9	3,900.0	7.79	127.63	3,885.4	2,166.7	1,428.4	668,264.18	668,192.00		103° 47' 8.6
4,200.0 7,79 127,63 4,182,6 2,141,9 1,460.6 668,239.35 668,224.20 32°,50°,819 N 103°,47°,6 4,300.0 7,79 127,63 4,280.7 2,133.6 1,471,3 688,231,08 688,234.94 32°,50°,90°, N 103°,47°,6 4,000.0 7,79 127,63 4,380.8 2,125.3 1,482.1 668,222.80 688,245.67 32°,50°,894 N 103°,47°,6 4,000.0 7,79 127,63 4,579,9 2,118.8 1,503.5 668,206.25 668,265.41 32°,50°,894 N 103°,47°,7 4,700.0 7,79 127,63 4,579,9 2,108.8 1,503.5 668,206.25 668,265.41 32°,50°,894 N 103°,47°,7 4,700.0 7,79 127,63 4,579,9 2,108.8 1,503.5 668,206.25 668,267,88 32°,50°,804 N 103°,47°,7 4,700.0 7,79 127,63 4,777,1 2,029.2 1,525.0 688,189.69 668,278,88 32°,50°,864 N 103°,47°,7 4,900.0 7,79 127,63 4,777,1 2,029.2 1,525.0 688,189.69 688,288,289.3 32°,50°,864 N 103°,47°,7 5,000.0 7,79 127,63 4,76°,3 2,075.7 1,546.5 668,173.14 688,310.99 32°,50°,869,N 103°,47°,7 5,000.0 7,79 127,63 5,074,3 2,007,4 1,557.2 668,164.8 668,320.9 32°,50°,841 N 103°,47°,7 5,000.0 7,79 127,63 5,074,3 2,007,4 1,557.2 668,164.8 668,310.99 32°,50°,849,N 103°,47°,7 5,000.0 7,79 127,63 5,074,3 2,007,4 1,557.2 668,164.8 668,310.9 32°,50°,841 N 103°,47°,7 5,000.0 7,79 127,63 5,774.4 2,059.1 1,567.9 668,165.58 668,131.56 32°,50°,841 N 103°,47°,7 5,000.0 7,79 127,63 5,774.6 2,004.5 1,585.6 668,143.00 668,349.18 32°,50°,8.19 N 103°,47°,5.400.0 7,79 127,63 5,747.6 2,045.6 1,589.4 668,140.03 668,349.18 32°,50°,8.19 N 103°,47°,5.400.0 7,79 127,63 5,747.6 2,042.6 1,589.4 668,140.03 668,349.18 32°,50°,8.19 N 103°,47°,5.400.0 7,79 127,63 5,470.6 2,038.7 1,597.0 668,140.03 668,349.18 32°,50°,8.19 N 103°,47°,5.400.0 7,79 127,63 5,470.6 2,038.8 1,598.6 688,140.0 668,341.4 668,360.67 32°,50°,8.19 N 103°,47°,5.400.0 7,79 127,63 5,569.5 2,000.4 1,632.4 668,165.9 2 668,381.6 32°,50°,8.19 N 103°,47°,5.200.0 7,79 127,63 5,569.5 2,000.4 1,632.4 668,105.24 668,381.6 32°,50°,8.19 N 103°,47°,5.200.0 7,79 127,63 5,569.5 2,000.0 1,600.0 7,79 127,63 5,569.5 2,000.0 1,600.0 1,79 127,63 5,569.5 2,000.0 1,633.5 668,000.0 1,79 127,63 6,669.6 1,999.9 1,653.8 668,000.0 1,79 127,63 6,669.6 1,999.9 1,653.8 668,000.0 1,79 127	4,000.0	7.79	127.63	3,984.5	2,158.4	1,439.1	668,255.91	668,202.73	32° 50' 9.324 N	103° 47' 8.5
4,300.0 7.79 127.63 4,281.7 2,133.6 1,471.3 688,231.08 688,234.94 32° 50° 9,076 N 103° 47° 4,400.0 7.79 127.63 4,380.8 2,125.3 1,482.1 668,222.0 686,256.7 32° 50° 8,994 N 103° 47° 4,600.0 7.79 127.63 4,479.9 2,117.0 1,492.8 668,214.52 668,256.1 32° 50° 8,994 N 103° 47° 4,600.0 7.79 127.63 4,678.0 2,100.5 1,514.3 668,197.9 668,267.15 32° 50° 8,929 N 103° 47° 4,600.0 7.79 127.63 4,678.0 2,100.5 1,514.3 668,197.9 668,267.15 32° 50° 8,929 N 103° 47° 4,600.0 7.79 127.63 4,678.0 2,100.5 1,514.3 668,197.9 668,286.27 8 32° 50° 8,674 N 103° 47° 4,600.0 7.79 127.63 4,678.2 2,039.9 1,555.7 668,181.1 668,280.62 32° 50° 8,684 N 103° 47° 5,000.0 7.79 127.63 4,678.2 2,039.9 1,555.7 668,181.1 668,280.92 32° 50° 8,684 N 103° 47° 5,000.0 7.79 127.63 4,771.3 2,067.4 1,557.2 668,164.6 668,209.5 32° 50° 8,694 N 103° 47° 5,000.0 7.79 127.63 5,173.4 2,055.1 1,557.9 668,164.6 668,310.09 32° 50° 8,494 N 103° 47° 5,300.0 7.79 127.63 5,173.4 2,055.1 1,557.9 668,164.8 668,310.09 32° 50° 8,494 N 103° 47° 5,364.1 7.79 127.63 5,373.0 2,045.5 1,556.9 668,140.03 668,342.30 32° 50° 8,334 N 103° 47° 6,364.1 7.79 127.63 5,370.0 2,045.5 1,585.6 668,140.03 668,340.3 32° 50° 8,252 N 103° 47° 6,400.0 7.79 127.63 5,400.0 2,045.5 1,585.6 668,140.03 668,340.3 32° 50° 8,199 N 103° 47° 6,500.0 7.79 127.63 5,400.0 2,045.5 1,585.6 668,140.03 668,340.3 32° 50° 8,199 N 103° 47° 6,500.0 7.79 127.63 5,400.0 2,045.5 1,585.6 668,140.03 668,340.3 32° 50° 8,199 N 103° 47° 6,500.0 7.79 127.63 5,600.0 7.79 127.63 6,600.0 7.79 127.63 6,600.0 7.79 127.63 6,600.0 7.79 127.63 6,600.0 7.79 127.63 6,600.0 7.79 127.63 6,600.0 7.79 127.63 6,600.0 7.79 127.63 6,60	4,100.0	7.79	127.63	4,083.6	2,150.2	1,449.8	668,247.63	668,213.47	32° 50' 9.241 N	103° 47' 8.4
4,400.0 7.79 127.63 4,380.8 2,125.3 1,482.1 6868,222.80 688,245.67 32° 50° 8.994 N 103° 47° 4,500.0 7.79 127.63 4,576.9 2,108.8 1,503.5 668,206.25 668,256.41 32° 50° 8.991 N 103° 47° 4,700.0 7.79 127.63 4,578.9 2,108.8 1,503.5 668,206.25 668,256.41 32° 50° 8.892 N 103° 47° 4,700.0 7.79 127.63 4,678.0 2,100.5 1,514.3 668,197.97 668,277.88 32° 50° 8.894 N 103° 47° 4,700.0 7.79 127.63 4,677.1 2,092.2 1,525.0 668,186.9 668,227.88 32° 50° 8.664 N 103° 47° 4,900.0 7.79 127.63 4,877.1 2,092.2 1,525.0 668,186.9 668,227.88 32° 50° 8.664 N 103° 47° 5,000.0 7.79 127.63 4,975.3 2,075.7 1,546.5 668,173.14 668,299.35 32° 50° 8.694 N 103° 47° 5,000.0 7.79 127.63 5,074.3 2,067.4 1,557.2 668,164.86 668,300.9 32° 50° 8.499 N 103° 47° 5,000.0 7.79 127.63 5,074.3 2,067.4 1,557.2 668,164.86 668,300.9 32° 50° 8.494 N 103° 47° 5,300.0 7.79 127.63 5,272.5 2,050.8 1,567.9 668,148.31 668,340.2 32° 50° 8.494 N 103° 47° 5,300.0 7.79 127.63 5,330.0 2,045.5 1,585.6 668,148.31 668,342.3 32° 50° 8.194 N 103° 47° 6,540.0 7.79 127.63 5,371.6 2,042.6 1,585.4 668,148.3 668,349.18 32° 50° 8.199 N 103° 47° 6,540.0 7.79 127.63 5,371.6 2,042.6 1,589.4 668,140.3 668,360.67 32° 50° 8.199 N 103° 47° 6,540.0 7.79 127.63 5,400.0 7.79 127.63 5,400.0 7.79 127.63 5,400.0 7.79 127.63 5,400.0 7.79 127.63 5,400.0 7.79 127.63 5,400.0 7.79 127.63 5,400.0 7.79 127.63 5,400.0 7.79 127.63 5,568.8 2,017.7 1,621.6 668,143.0 668,363.77 32° 50° 8.094 N 103° 47° 6,540.0 7.79 127.63 5,568.8 2,017.7 1,621.6 668,152.0 668,363.7 32° 50° 8.004 N 103° 47° 6,520.0 7.79 127.63 5,668.8 2,017.7 1,621.6 668,152.0 668,363.7 32° 50° 8.004 N 103° 47° 6,520.0 7.79 127.63 5,668.8 2,000.0 7.79 127.63 5,668.8 2,000.0 7.79 127.63 5,668.8 2,000.0 7.79 127.63 5,668.8 2,000.0 7.79 127.63 5,668.8 2,000.0 7.79 127.63 5,668.8 2,000.0 7.79 127.63 5,668.8 2,000.0 7.79 127.63 5,668.8 2,000.0 7.79 127.63 6,668.8 2,000.0 7.79 127.63 6,668.8 2,000.0 7.79 127.63 6,668.8 2,000.0 7.79 127.63 6,668.8 2,000.0 7.79 127.63 6,668.0 1,968.0 1,968.0 1,968.0 668,000.2 668,000.3 32° 50° 7,469 N 103° 47° 6,600.0 7	4,200.0	7.79	127.63	4,182.6	2,141.9	1,460.6	668,239.35	668,224.20	32° 50′ 9.159 N	103° 47' 8.3
4,500.0 7,79 127.63 4,479.9 2,117.0 1,492.8 688,246.52 688,256.41 32° 50° 8,911 N 103° 47° 476.00 7,79 127.63 4,578.9 2,108.8 1,503.5 688,269.5 682,267.18 32° 50° 8,929 N 103° 47° 4,000.0 7,79 127.63 4,678.0 2,100.5 1,514.3 668,197.97 668,277.88 32° 50° 8,747 N 103° 47° 4,000.0 7,79 127.63 4,678.0 2,100.5 1,514.3 668,197.97 668,289.82 32° 50° 8,644 N 103° 47° 4,000.0 7,79 127.63 4,676.2 2,039.9 1,535.7 668,181.41 668,289.93 32° 50° 8,648 N 103° 47° 4,000.0 7,79 127.63 4,000.0 7,79 127.63 5,000.0 7,79 127.63 5,000.0 7,79 127.63 5,000.0 7,79 127.63 5,000.0 7,79 127.63 5,000.0 7,79 127.63 5,000.0 7,79 127.63 5,000.0 7,79 127.63 5,000.0 7,79 127.63 5,000.0 7,79 127.63 5,000.0 7,79 127.63 5,000.0 7,79 127.63 5,000.0 7,79 127.63 5,000.0 7	4,300.0	7.79	127.63	4,281.7	2,133.6	1,471.3	668,231.08	668,234.94	32° 50' 9.076 N	103° 47' 8.1
4,600.0 7.79 127.63 4,578.9 2,108.8 1,503.5 668,206.25 668,267.15 32° 50′ 8,822 N 103° 47′ 4,700.0 7,79 127.63 4,676.0 2,100.5 1,514.3 668,196.9 668,277.88 32° 50′ 8,747 N 103° 47′ 4,900.0 7,79 127.63 4,777.1 2,092.2 1,525.0 668,181.41 668,289.62 32° 50′ 8,684 N 103° 47′ 4,900.0 7,79 127.63 4,876.2 2,083.9 1,535.7 668,181.41 668,293.53 32° 50′ 8,582 N 103° 47′ 5,000.0 7,79 127.63 4,975.3 2,075.7 1,546.5 668,173.14 668,310.09 32° 50′ 8,498 N 103° 47′ 5,000.0 7,79 127.63 5,074.3 2,067.4 1,557.2 668,164.66 668,320.82 32° 50′ 8,498 N 103° 47′ 5,200.0 7,79 127.63 5,774.4 2,059.1 1,567.9 668,156.58 668,315.63 668,320.82 32° 50′ 8,498 N 103° 47′ 5,300.0 7,79 127.63 5,336.0 2,045.5 1,585.6 668,143.00 668,349.18 32° 50′ 8,398 N 103° 47′ 6,300.0 7,79 127.63 5,336.0 2,045.5 1,585.6 668,143.00 668,349.18 32° 50′ 8,398 N 103° 47′ 6,5400.0 7,79 127.63 5,340.0 2,045.5 1,585.6 668,143.00 668,349.18 32° 50′ 8,198 N 103° 47′ 6,5400.0 7,79 127.63 5,442.0 2,036.7 1,597.0 668,144.14 668,360.67 32° 50′ 8,058 N 103° 47′ 6,5400.0 7,79 127.63 5,442.0 2,036.7 1,597.0 668,134.14 668,360.67 32° 50′ 8,058 N 103° 47′ 6,5500.0 7,79 127.63 5,442.0 2,036.7 1,597.0 668,134.14 668,360.67 32° 50′ 8,058 N 103° 47′ 6,5500.0 7,79 127.63 5,642.0 2,036.7 1,697.0 668,134.14 668,360.67 32° 50′ 8,058 N 103° 47′ 6,500.0 7,79 127.63 5,669.8 2,017.7 1,691.6 668,123.47 668,345.3 32° 50′ 8,004 N 103° 47′ 6,500.0 7,79 127.63 5,669.8 2,017.7 1,621.6 668,115.20 668,105.24 668,395.99 32° 50′ 7,823 N 103° 47′ 6,500.0 7,79 127.63 5,666.9 2,009.4 1,632.4 668,105.24 668,395.99 32° 50′ 7,823 N 103° 47′ 6,500.0 7,79 127.63 5,666.9 2,009.4 1,632.4 668,105.24 668,395.99 32° 50′ 7,823 N 103° 47′ 6,500.0 7,79 127.63 5,666.9 2,009.4 1,632.4 668,005.2 668,305.9 32° 50′ 7,823 N 103° 47′ 6,500.0 7,79 127.63 5,666.9 2,009.4 1,632.4 668,005.2 668,305.9 32° 50′ 7,823 N 103° 47′ 6,600.0 7,79 127.63 6,600.0 1,933 1,698.1 1,686.0 668,005.2 668,406.7 1 32° 50′ 7,675 N 103° 47′ 6,600.0 7,79 127.63 6,600.0 1,933 1,600.0 1,933 1,600.0 1,933 1,600.0 1,933 1,600.0 1,933 1,600.0 1,933 1,60	4,400.0	7.79	127.63	4,380.8	2,125.3	1,482.1	668,222.80	668,245.67	32° 50' 8.994 N	103° 47' 8.0
4,700.0 7.79 127.63 4,678.0 2,100.5 1,514.3 668,197.97 668,277.88 32° 50° 8,747 N 103° 47° 7,400.0 7,79 127.63 4,777.1 2,092.2 1,525.0 668,189.69 668,289.35 32° 50° 8,684 N 103° 47° 7,500.0 7,79 127.63 4,975.3 2,075.7 1,546.5 668,173.14 668,299.35 32° 50° 8,682 N 103° 47° 7,500.0 7,79 127.63 5,743 2,057.4 1,557.2 668,181.41 668,310.9 32° 50° 8,499 N 103° 47° 7,500.0 7,79 127.63 5,774.3 2,059.1 1,567.9 668,164.56 668,320.82 32° 50° 8,499 N 103° 47° 7,500.0 7,79 127.63 5,743 2,059.1 1,567.9 668,148.31 668,340.9 32° 50° 8,499 N 103° 47° 6,5364.1 7,79 127.63 5,364.1 2,059.1 1,567.9 668,148.31 668,340.9 32° 50° 8,499 N 103° 47° 6,5364.1 7,79 127.63 5,364.0 2,045.5 1,585.6 668,148.31 668,340.9 32° 50° 8,499 N 103° 47° 6,5364.1 7,79 127.63 5,371.6 2,042.6 1,589.4 668,140.30 668,349.18 32° 50° 8,199 N 103° 47° 6,5471.1 7,79 127.63 5,471.2 2,056.7 1,597.0 668,144.30 668,340.30 32° 50° 8,199 N 103° 47° 6,5471.1 7,79 127.63 5,474.0 2,036.7 1,597.0 668,144.14 668,360.67 32° 50° 8,111 N 103° 47° 6,5471.1 7,79 127.63 5,542.0 2,036.7 1,597.0 668,143.14 668,360.67 32° 50° 8,111 N 103° 47° 6,5500.0 7,79 127.63 5,689.8 2,017.7 1,621.6 668,145.24 668,363.67 32° 50° 8,000 N 103° 47° 6,500.0 7,79 127.63 5,689.8 2,017.7 1,621.6 668,145.24 668,363.67 32° 50° 8,000 N 103° 47° 6,500.0 7,79 127.63 5,689.8 2,017.7 1,621.6 668,145.24 668,399.9 32° 50° 7,823 N 103° 47° 6,500.0 7,79 127.63 5,689.8 2,017.7 1,621.6 668,145.24 668,399.9 32° 50° 7,823 N 103° 47° 6,500.0 7,79 127.63 5,680.8 2,001.2 1,643.1 668,090.37 668,406.71 32° 50° 7,823 N 103° 47° 6,600.0 7,79 127.63 5,686.9 2,001.2 1,643.1 668,090.37 668,406.71 32° 50° 7,823 N 103° 47° 6,600.0 7,79 127.63 6,665.1 1,996.3 1,655.8 668,090.37 668,406.71 32° 50° 7,820 N 103° 47° 6,600.0 7,79 127.63 6,665.1 1,996.3 1,675.3 668,090.37 668,406.71 32° 50° 7,550 N 103° 47° 6,600.0 7,79 127.63 6,665.1 1,996.3 1,675.3 668,000.0 668,406.70 668,406.9 32° 50° 7,550 N 103° 47° 6,600.0 7,79 127.63 6,665.1 1,996.3 1,996.8 1,996.8 668,007.8 668,406.9 32° 50° 7,550 N 103° 47° 6,600.0 7,79 127.63 6,665.5 1,99		7.79	127.63	4,479.9		1,492.8	668,214.52	668,256.41	32° 50′ 8.911 N	103° 47' 7.9
4,800.0 7,79 127.63 4,777.1 2,092.2 1,525.0 688,189.69 688,288.62 32*50*0.864*N 103*47*7 4,900.0 7,79 127.63 4,876.2 2,083.9 1,535.7 688,181.41 668,299.35 32*50*8.682*N 103*47*7 5,000.0 7,79 127.63 5,074.3 2,067.4 1,557.2 688,181.46 688,310.09 32*50*8.499*N 103*47*7 5,000.0 7,79 127.63 5,074.3 2,067.4 1,557.2 688,164.86 668,320.82 32*50*8.499*N 103*47*7 5,000.0 7,79 127.63 5,173.4 2,059.1 1,567.9 668,156.58 668,331.56 32*50*8.334*N 103*47*7 5,000.0 7,79 127.63 5,272.5 2,050.8 1,578.7 668,148.31 668,342.30 32*50*8.334*N 103*47*6 6,000.0 7,79 127.63 5,336.0 2,045.5 1,585.6 668,148.31 668,342.30 32*50*8.199*N 103*47*6 6,000.0 7,79 127.63 5,342.0 2,036.7 1,597.0 668,140.03 668,349.18 32*50*8.199*N 103*47*6 6,000.0 7,79 127.63 5,442.0 2,036.7 1,597.0 668,140.03 668,350.3 32*50*8.199*N 103*47*6 6,000.0 7,79 127.63 5,442.0 2,036.7 1,597.0 668,140.03 668,360.67 32*50*8.199*N 103*47*6 6,000.0 7,79 127.63 5,442.0 2,036.7 1,597.0 668,140.03 668,360.67 32*50*8.199*N 103*47*6 6,000.0 7,79 127.63 5,442.0 2,036.7 1,597.0 668,143.17 668,360.67 32*50*8.99*N 103*47*6 6,000.0 7,79 127.63 5,668.8 2,017.7 1,600.9 668,143.17 668,360.67 32*50*8.09*N 103*47*6 6,000.0 7,79 127.63 5,569.7 2,026.0 1,610.9 668,143.10 668,360.67 32*50*8.09*N 103*47*6 6,000.0 7,79 127.63 5,688.8 2,107.7 1,621.6 668,145.20 668,395.9 32*50*7.823*N 103*47*6 6,000.0 7,79 127.63 5,788.0 2,007.8 1,632.4 668,106.92 668,395.9 32*50*7.823*N 103*47*6 6,000.0 7,79 127.63 5,866.9 2,001.8 1,632.4 668,106.92 668,395.9 32*50*7.823*N 103*47*6 6,000.0 7,79 127.63 5,666.0 1,992.9 1,653.8 668,000.3 668,449.65 32*50*7.765*N 103*47*6 6,000.0 7,79 127.63 6,065.1 1,984.6 1,664.6 668,000.3 668,449.65 32*50*7.765*N 103*47*6 6,000.0 7,79 127.63 6,065.1 1,984.6 1,664.6 668,000.3 668,449.65 32*50*7.540*N 103*47*6 6,000.0 7,79 127.63 6,065.1 1,984.6 1,664.6 668,000.0 6,000.0 7,79 127.63 6,065.1 1,984.6 1,664.6 668,000.0 6,000.0 7,79 127.63 6,065.1 1,984.6 1,664.6 668,000.0 668,428.18 32*50*7.540*N 103*47*6 6,000.0 7,79 127.63 6,065.1 1,985.0 1,995.0 1,995.0 1,995.0 1,995.0 1,995.0 1,99	4,600.0	7.79	127.63	4,578.9	2,108.8	1,503.5	668,206.25	668,267.15	32° 50' 8.829 N	103° 47' 7.8
4,800.0 7,79 127.63 4,777.1 2,092.2 1,525.0 688,189.69 688,288.62 32*50*0.864*N 103*47*7 4,900.0 7,79 127.63 4,876.2 2,083.9 1,535.7 688,181.41 668,299.35 32*50*8.682*N 103*47*7 5,000.0 7,79 127.63 5,074.3 2,067.4 1,557.2 688,181.46 688,310.09 32*50*8.499*N 103*47*7 5,000.0 7,79 127.63 5,074.3 2,067.4 1,557.2 688,164.86 668,320.82 32*50*8.499*N 103*47*7 5,000.0 7,79 127.63 5,173.4 2,059.1 1,567.9 668,156.58 668,331.56 32*50*8.334*N 103*47*7 5,000.0 7,79 127.63 5,272.5 2,050.8 1,578.7 668,148.31 668,342.30 32*50*8.334*N 103*47*6 6,000.0 7,79 127.63 5,336.0 2,045.5 1,585.6 668,148.31 668,342.30 32*50*8.199*N 103*47*6 6,000.0 7,79 127.63 5,342.0 2,036.7 1,597.0 668,140.03 668,349.18 32*50*8.199*N 103*47*6 6,000.0 7,79 127.63 5,442.0 2,036.7 1,597.0 668,140.03 668,350.3 32*50*8.199*N 103*47*6 6,000.0 7,79 127.63 5,442.0 2,036.7 1,597.0 668,140.03 668,360.67 32*50*8.199*N 103*47*6 6,000.0 7,79 127.63 5,442.0 2,036.7 1,597.0 668,140.03 668,360.67 32*50*8.199*N 103*47*6 6,000.0 7,79 127.63 5,442.0 2,036.7 1,597.0 668,143.17 668,360.67 32*50*8.99*N 103*47*6 6,000.0 7,79 127.63 5,668.8 2,017.7 1,600.9 668,143.17 668,360.67 32*50*8.09*N 103*47*6 6,000.0 7,79 127.63 5,569.7 2,026.0 1,610.9 668,143.10 668,360.67 32*50*8.09*N 103*47*6 6,000.0 7,79 127.63 5,688.8 2,107.7 1,621.6 668,145.20 668,395.9 32*50*7.823*N 103*47*6 6,000.0 7,79 127.63 5,788.0 2,007.8 1,632.4 668,106.92 668,395.9 32*50*7.823*N 103*47*6 6,000.0 7,79 127.63 5,866.9 2,001.8 1,632.4 668,106.92 668,395.9 32*50*7.823*N 103*47*6 6,000.0 7,79 127.63 5,666.0 1,992.9 1,653.8 668,000.3 668,449.65 32*50*7.765*N 103*47*6 6,000.0 7,79 127.63 6,065.1 1,984.6 1,664.6 668,000.3 668,449.65 32*50*7.765*N 103*47*6 6,000.0 7,79 127.63 6,065.1 1,984.6 1,664.6 668,000.3 668,449.65 32*50*7.540*N 103*47*6 6,000.0 7,79 127.63 6,065.1 1,984.6 1,664.6 668,000.0 6,000.0 7,79 127.63 6,065.1 1,984.6 1,664.6 668,000.0 6,000.0 7,79 127.63 6,065.1 1,984.6 1,664.6 668,000.0 668,428.18 32*50*7.540*N 103*47*6 6,000.0 7,79 127.63 6,065.1 1,985.0 1,995.0 1,995.0 1,995.0 1,995.0 1,995.0 1,99	4,700.0	7.79	127.63	4,678.0	2,100.5	1,514.3	668,197.97	668,277.88	32° 50' 8.747 N	103° 47' 7.6
4,90.0 7,79 127.63 4,876.2 2,083.9 1,535.7 688,181.41 668,299.35 32° 50° 8.582 N 103° 47° 5,000.0 7,79 127.63 4,975.3 2,075.7 1,546.5 668,173.14 668,310.09 32° 50° 8.499 N 103° 47° 5,000.0 7,79 127.63 5,074.3 2,059.1 1,567.9 668,164.86 668,320.82 32° 50° 8.491 N 103° 47° 5,000.0 7,79 127.63 5,173.4 2,099.1 1,567.9 668,164.86 668,320.82 32° 50° 8.334 N 103° 47° 5,336.0 7,79 127.63 5,336.0 2,045.5 1,585.6 668,148.03 668,349.18 32° 50° 8.525 N 103° 47° 668,164.1 7,79 127.63 5,336.0 2,045.5 1,585.6 668,140.03 668,349.18 32° 50° 8.199 N 103° 47° 6,471.1 7,79 127.63 5,474.0 2,036.7 1,597.0 668,134.14 668,360.67 32° 50° 8.199 N 103° 47° 6,471.1 7,79 127.63 5,442.0 2,036.7 1,597.0 668,134.14 668,360.67 32° 50° 8.087 N 103° 47° 6,5471.1 7,79 127.63 5,470.6 2,034.3 1,600.1 668,131.75 668,363.77 32° 50° 8.087 N 103° 47° 6,560.0 7,79 127.63 5,568.8 2,017.7 1,621.6 668,115.20 668,365.24 32° 50° 7,922 N 103° 47° 6,580.0 7,79 127.63 5,668.8 2,017.7 1,621.6 668,115.20 668,365.24 32° 50° 7,922 N 103° 47° 6,580.0 7,79 127.63 5,668.8 2,017.7 1,621.6 668,105.29 668,395.18 32° 50° 7,800 N 103° 47° 6,580.0 7,79 127.63 5,767.9 2,009.4 1,632.4 668,105.29 668,395.18 32° 50° 7,800 N 103° 47° 6,580.0 7,79 127.63 5,668.9 2,001.2 1,643.1 668,098.64 668,406.71 32° 50° 7,757 N 103° 47° 6,600.0 7,79 127.63 5,666.9 2,001.2 1,643.1 668,098.64 668,406.71 32° 50° 7,757 N 103° 47° 6,000.0 7,79 127.63 6,966.0 1,992.9 1,653.8 668,093.7 668,417.45 32° 50° 7,757 N 103° 47° 6,000.0 7,79 127.63 6,966.0 1,992.9 1,653.8 668,093.7 668,417.45 32° 50° 7,757 N 103° 47° 6,000.0 7,79 127.63 6,065.1 1,984.6 1,664.6 668,005.7 26 668,406.7 1 32° 50° 7,552 N 103° 47° 6,000.0 7,79 127.63 6,665.1 1,984.6 1,664.6 668,005.5 668,005.3 668,417.45 32° 50° 7,552 N 103° 47° 6,000.0 7,79 127.63 6,660.0 1,992.9 1,653.8 668,005.2 668,005.3 668,418.8 22° 50° 7,552 N 103° 47° 6,000.0 7,79 127.63 6,660.0 1,992.9 1,653.8 668,000.0 668,000.0 32° 50° 7,427 N 103° 47° 6,000.0 7,79 127.63 6,660.0 1,992.9 1,653.8 668,000.0 668,000.0 32° 50° 7,345 N 103° 47° 6,000.0 7,79 127.63 6,660.0							668,189.69	668,288.62	32° 50' 8.664 N	103° 47' 7.5
5,000.0 7,79 127.63 4,975.3 2,075.7 1,546.5 668,173.14 668,310.09 32° 50° 8,499 N 103° 47° 5,100.0 7,79 127.63 5,074.3 2,067.4 1,557.2 668,164.66 668,320.82 32° 50° 8,417 N 103° 47° 5,200.0 7,79 127.63 5,173.4 2,059.1 1,567.9 668,165.6 668,321.56 32° 50° 8,334 N 103° 47° 5,364.1 7,79 127.63 5,272.5 2,050.8 1,578.7 668,148.31 668,342.30 32° 50° 8,252 N 103° 47° 6,364.1 7,79 127.63 5,272.5 2,050.8 1,578.7 668,148.31 668,342.30 32° 50° 8,199 N 103° 47° 6,366.1 7,79 127.63 5,371.6 2,045.6 1,589.4 668,140.03 668,349.18 32° 50° 8,199 N 103° 47° 6,471.1 7,79 127.63 5,470.6 2,036.7 1,597.0 668,134.14 668,360.67 32° 50° 8,199 N 103° 47° 6,471.1 7,79 127.63 5,470.6 2,034.3 1,600.1 668,134.15 668,360.67 32° 50° 8,111 N 103° 47° 6,471.1 7,79 127.63 5,569.7 2,026.0 1,610.9 668,123.47 668,363.77 32° 50° 8,094 N 103° 47° 6,500.0 7,79 127.63 5,669.7 2,026.0 1,610.9 668,123.47 668,363.77 32° 50° 8,094 N 103° 47° 6,580.0 7,79 127.63 5,669.8 2,007.8 1,632.4 668,105.24 668,365.24 32° 50° 7,922 N 103° 47° 6,580.0 7,79 127.63 5,767.9 2,007.8 1,632.4 668,105.24 668,395.9 32° 50° 7,922 N 103° 47° 6,580.0 7,79 127.63 5,767.9 2,007.8 1,632.4 668,105.24 668,369.1 32° 50° 7,922 N 103° 47° 6,580.0 7,79 127.63 5,660.9 2,007.8 1,632.4 668,105.24 668,398.16 32° 50° 7,922 N 103° 47° 6,580.0 7,79 127.63 5,660.9 2,007.8 1,632.4 668,105.24 668,398.16 32° 50° 7,922 N 103° 47° 6,580.0 7,79 127.63 5,660.9 2,007.8 1,634.5 668,093.7 668,406.7 1 32° 50° 7,575 N 103° 47° 6,000.0 7,79 127.63 6,666.9 2,007.2 1,643.1 668,092.9 668,395.9 32° 50° 7,592 N 103° 47° 6,000.0 7,79 127.63 6,666.9 1,920.9 1,653.8 668,000.9 668,428.18 32° 50° 7,592 N 103° 47° 6,000.0 7,79 127.63 6,666.9 1,930.9 1,679.2 668,000.0 7,79 127.63 6,666.9 1,930.9 1,679.2 668,000.0 7,79 127.63 6,666.9 1,930.9 1,679.2 668,000.0 7,79 127.63 6,666.9 1,930.9 1,679.2 668,000.0 7,79 127.63 6,666.9 1,930.9 1,679.2 668,000.0 7,79 127.63 6,666.9 1,930.9 1,679.2 668,000.0 7,79 127.63 6,666.9 1,930.9 1,930.9 1,679.2 668,000.0 7,79 127.63 6,665.5 1,930.9 1,930.9 1,730.9 668,000.0 668,428.18 32° 50° 7,0								668,299,35		103° 47' 7.4
5,100.0 7.79 127.63 5,074.3 2,067.4 1,557.2 668,164.86 668,320.82 32° 50° 8,417 N 103° 47′ 5,200.0 7.79 127.63 5,173.4 2,059.1 1,567.9 668,165.65 668,331.56 32° 50° 8,334 N 103° 47′ 5,300.0 7.79 127.63 5,272.5 2,050.8 1,578.7 668,148.30 668,342.03 32° 50° 8,252 N 103° 47′ 6,364.1 7.79 127.63 5,336.0 2,045.5 1,585.6 668,143.00 668,349.18 32° 50° 6,199 N 103° 47′ 6,5400.0 7.79 127.63 5,371.6 2,042.6 1,589.4 668,140.03 668,363.03 32° 50° 8,199 N 103° 47′ 6,5471.1 7.79 127.63 5,442.0 2,036.7 1,597.0 668,148.14 668,360.67 32° 50° 8,111 N 103° 47′ 6,5471.1 7.79 127.63 5,442.0 2,036.7 1,597.0 668,143.14 668,360.67 32° 50° 8,111 N 103° 47′ 6,500.0 7.79 127.63 5,442.0 2,036.7 1,597.0 668,134.14 668,360.67 32° 50° 8,111 N 103° 47′ 6,500.0 7.79 127.63 5,668.8 2,017.7 1,621.6 668,143.47 668,374.50 32° 50° 8,004 N 103° 47′ 6,500.0 7.79 127.63 5,668.8 2,017.7 1,621.6 668,145.2 668,145.2 668,395.9 32° 50′ 7,822 N 103° 47′ 6,500.0 7,79 127.63 5,668.8 2,017.7 1,621.6 668,145.2 668,145.2 668,395.9 32° 50′ 7,822 N 103° 47′ 6,500.3 7.79 127.63 5,668.8 2,007.8 1,634.4 668,105.9 2 668,395.9 32° 50′ 7,823 N 103° 47′ 6,500.0 7,79 127.63 5,668.8 2,007.8 1,634.4 668,105.9 2 668,395.9 32° 50′ 7,823 N 103° 47′ 6,500.0 7,79 127.63 5,668.9 2,001.8 1,634.4 668,006.9 668,406.7 1 32° 50′ 7,823 N 103° 47′ 6,000.0 7,79 127.63 5,666.9 1,992.9 1,655.8 668,000.3 668,406.7 1 32° 50′ 7,675 N 103° 47′ 6,000.0 7,79 127.63 6,000.1 1,973.3 1,679.2 668,000.0 668,408.8 32° 50′ 7,692 N 103° 47′ 6,000.0 7,79 127.63 6,005.1 1,984.6 1,664.6 68,009.0 668,408.0 32° 50′ 7,427 N 103° 47′ 6,000.0 7,79 127.63 6,005.1 1,984.6 1,664.6 68,005.5 668,406.7 1 32° 50′ 7,592 N 103° 47′ 6,000.0 7,79 127.63 6,005.1 1,984.6 1,664.6 68,005.5 668,408.9 32° 50′ 7,427 N 103° 47′ 6,000.0 7,79 127.6 6,000.0 1,973.3 1,679.2 668,000.0 668,408.0 32° 50′ 7,427 N 103° 47′ 6,000.0 7,79 127.6 6,000.0 1,973.3 1,679.2 668,000.0 668,408.0 32° 50′ 7,427 N 103° 47′ 6,000.0 7,79 127.6 6,000.0 1,973.3 1,679.2 668,000.0 668,408.0 32° 50′ 7,427 N 103° 47′ 6,000.0 7,79 127.6 6,669.0 1,923.2 1,744.2										103° 47' 7.3
5,200.0 7.79 127.63 5,173.4 2,059.1 1,567.9 668,156.58 668,331.56 32° 50° 8.334 N 103° 47′ 65° 5,364.1 7.79 127.63 5,272.5 2,050.8 1,576.7 668,148.31 668,342.30 32° 50° 8.252 N 103° 47′ 65° 5,364.1 7.79 127.63 5,360.0 2,045.5 1,585.6 668,143.00 668,349.18 32° 50° 8.199 N 103° 47′ 65° 668,148.00 7.79 127.63 5,371.6 2,042.6 1,589.4 668,140.03 668,353.03 32° 50° 8.169 N 103° 47′ 65° 6,471.1 7.79 127.63 5,442.0 2,036.7 1,597.0 668,134.14 668,360.67 32° 50° 8.181 N 103° 47′ 65° 6,471.1 7.79 127.63 5,442.0 2,036.7 1,597.0 668,134.14 668,360.67 32° 50° 8.087 N 103° 47′ 65° 6,500.0 7.79 127.63 5,569.7 2,026.0 1,610.9 668,123.47 668,363.77 32° 50° 8.087 N 103° 47′ 65° 6,500.0 7.79 127.63 5,569.7 2,026.0 1,610.9 668,123.47 668,374.50 32° 50′ 7.804 N 103° 47′ 65° 6,500.0 7.79 127.63 5,569.7 2,026.0 1,610.9 668,123.47 668,374.50 32° 50′ 7.804 N 103° 47′ 65° 6,500.0 7.79 127.63 5,569.7 2,009.4 1,632.4 668,106.92 668,395.98 32° 50′ 7.840 N 103° 47′ 65° 6,500.0 7.79 127.63 5,569.0 2,007.8 1,634.5 668,106.92 668,395.98 32° 50′ 7.804 N 103° 47′ 65° 6,500.0 7.79 127.63 5,566.9 2,007.8 1,634.5 668,106.92 668,395.98 32° 50′ 7.804 N 103° 47′ 66° 6,500.0 7.79 127.63 5,566.9 2,007.8 1,634.5 668,106.92 668,395.98 32° 50′ 7.804 N 103° 47′ 66° 6,000.0 7.79 127.63 5,966.0 1,992.9 1,653.8 668,090.37 668,417.45 32° 50′ 7.675 N 103° 47′ 66° 6,000.0 7.79 127.63 6,000.0 7.79 127.63 6,065.1 1,994.6 1,664.6 668,008.09.37 668,417.45 32° 50′ 7.675 N 103° 47′ 66° 6,000.0 7.79 127.63 6,000.0 1,973.3 1,675.2 668,073.81 668,488.92 32° 50′ 7.675 N 103° 47′ 66° 6,000.0 7.79 127.63 6,000.0 1,973.3 1,675.2 668,073.81 668,488.92 32° 50′ 7.692 N 103° 47′ 66° 6,000.0 7.79 127.63 6,600.0 1,973.3 1,675.2 668,000.0 668,428.10 32° 50′ 7.427 N 103° 47′ 66° 6,000.0 7.79 127.63 6,560.5 1,982.0 1,983.0 1,595.0 668,000.0 668,428.00 32° 50′ 7.427 N 103° 47′ 66° 6,000.0 7.79 127.63 6,560.5 1,982.0 1,983.0 1,789.0 668,000.0 668,600.3 32° 50′ 7.427 N 103° 47′ 66° 6,000.0 7.79 127.63 6,560.5 1,982.0 1,789.0 668,000.0 668,600.3 32° 50′ 7.427 N 103° 47′ 66° 6,000.0 7.79 12								·		103° 47' 7.1
5,300.0 7.79 127.63 5,360.0 2,045.5 1,585.6 668,148.31 668,342.30 32° 50′ 8.252 N 103° 47′ 6 100′ 60′ 60′ 60′ 60′ 60′ 60′ 60′ 60′ 60′								·		
5,364.1 7,79 127.63 5,336.0 2,045.5 1,585.6 668,143.00 668,349.18 32° 50′ 8.199 N 103° 47′ 6 Glorieta 5,400.0 7,79 127.63 5,371.6 2,042.6 1,589.4 668,140.03 668,353.03 32° 50′ 8.169 N 103° 47′ 6 5,471.1 7,79 127.63 5,442.0 2,036.7 1,597.0 668,134.14 668,360.67 32° 50′ 8.111 N 103° 47′ 6 Paddock 5,500.0 7,79 127.63 5,470.6 2,034.3 1,600.1 668,131.75 668,363.77 32° 50′ 8.087 N 103° 47′ 6 5,600.0 7,79 127.63 5,569.7 2,026.0 1,610.9 668,123.47 668,374.50 32° 50′ 8.087 N 103° 47′ 6 5,800.0 7,79 127.63 5,569.7 2,009.4 1,632.4 668,105.20 668,385.24 32° 50′ 7.840 N 103° 47′ 6 5,800.0 7,79 127.63 5,780.0 2,007.8 1,634.5 668,105.20 668,385.24 32° 50′ 7.840 N 103° 47′ 6 5,800.0 7,79 127.63 5,780.0 2,007.8 1,634.5 668,105.24 668,381.6 32° 50′ 7.823 N 103° 47′ 6 Blinebry 5,900.0 7,79 127.63 5,866.9 2,001.2 1,643.1 668,098.64 668,406.71 32° 50′ 7.757 N 103° 47′ 6 6,000.0 7,79 127.63 5,966.0 1,992.9 1,653.8 668,093.7 668,417.45 32° 50′ 7.592 N 103° 47′ 6 6,000.0 7,79 127.63 6,055.1 1,984.6 1,664.6 668,082.09 668,428.18 32° 50′ 7.592 N 103° 47′ 6 6,200.0 7,79 127.63 6,055.1 1,984.6 1,664.6 668,082.09 668,428.18 32° 50′ 7.592 N 103° 47′ 6 6,200.0 7,79 127.63 6,055.1 1,994.6 1,664.6 668,082.09 668,428.18 32° 50′ 7.592 N 103° 47′ 6 6,200.0 7,79 127.63 6,055.1 1,994.6 1,664.6 668,082.09 668,428.18 32° 50′ 7.592 N 103° 47′ 6 6,200.0 7,79 127.63 6,055.1 1,994.6 1,664.6 668,055.3 668,449.65 32° 50′ 7.480 N 103° 47′ 6 6,300.0 7,79 127.63 6,362.3 1,988.1 1,886.0 668,065.5 668,449.65 32° 50′ 7.480 N 103° 47′ 6 6,000.0 7,79 127.63 6,362.3 1,985.1 1,686.0 668,065.5 668,449.65 32° 50′ 7.480 N 103° 47′ 6 6,000.0 7,79 127.63 6,565.5 1,943.2 1,744.2 668,040.70 668,489.8 668,496.5 32° 50′ 7.480 N 103° 47′ 6 6,600.0 7,79 127.63 6,565.6 1,935.0 1,729.0 668,024.15 668,503.3 32° 50′ 7.098 N 103° 47′ 6 6,000.0 7,79 127.63 6,585.6 1,926.7 1,739.7 668,024.15 668,503.3 32° 50′ 7.098 N 103° 47′ 6 6,000.0 7,79 127.63 6,585.6 1,926.7 1,739.7 668,024.15 668,524.6 32° 50′ 6,931 N 103° 47′ 6 6,000.0 7,79 127.63 6,585.6 1,926.7 1,739.										
Glorieta S,400.0 7.79 127.63 5,371.6 2,042.6 1,589.4 668,140.03 368,353.03 32° 50′ 8.169 N 103° 47′ 6 5,471.1 7.79 127.63 5,442.0 2,036.7 1,597.0 668,134.14 668,360.67 32° 50′ 8.169 N 103° 47′ 6 7,471.1 7.79 127.63 5,442.0 2,036.7 1,597.0 668,131.75 668,360.67 32° 50′ 8.097 N 103° 47′ 6 7,500.0 7.79 127.63 5,569.7 2,026.0 1,610.9 668,123.47 668,374.50 32° 50′ 8.004 N 103° 47′ 6 7,700.0 7.79 127.63 5,668.8 2,017.7 1,621.6 668,115.20 668,385.24 32° 50′ 7.922 N 103° 47′ 6 7,820.3 7.79 127.63 5,767.9 2,009.4 1,632.4 668,106.92 668,395.98 32° 50′ 7.823 N 103° 47′ 6 7,820.3 7.79 127.63 5,768.0 2,007.8 1,634.5 668,106.92 668,395.98 32° 50′ 7.823 N 103° 47′ 6 7,900.0 7.79 127.63 5,866.9 2,001.2 1,643.1 668,098.64 668,406.71 32° 50′ 7.757 N 103° 47′ 6 7,900.0 7.79 127.63 5,966.0 1,992.9 1,653.8 668,093.7 668,417.45 32° 50′ 7.757 N 103° 47′ 6 7,900.0 7.79 127.63 6,065.1 1,994.6 1,664.6 668,098.20 668,428.18 32° 50′ 7.592 N 103° 47′ 6 7,900.0 7.79 127.63 6,164.2 1,976.3 1,675.3 668,078.81 668,438.92 32° 50′ 7.480 N 103° 47′ 6 7,900.0 7.79 127.63 6,263.3 1,958.1 1,686.0 668,055.3 668,442.80 32° 50′ 7.480 N 103° 47′ 6 7,900.0 7.79 127.63 6,263.3 1,959.8 1,696.8 668,057.8 668,409.9 32° 50′ 7.480 N 103° 47′ 6 7,900.0 7.79 127.63 6,360.3 1,959.8 1,696.8 668,057.26 668,609.9 32° 50′ 7.480 N 103° 47′ 6 7,900.0 7.79 127.63 6,560.5 1,943.2 1,718.2 668,040.70 668,481.86 32° 50′ 7.480 N 103° 47′ 6 7,000.0 7.79 127.63 6,560.5 1,943.2 1,718.2 668,040.70 668,481.86 32° 50′ 7.480 N 103° 47′ 6 7,000.0 7.79 127.63 6,560.5 1,943.2 1,718.2 668,040.70 668,481.86 32° 50′ 7.480 N 103° 47′ 6 7,000.0 7.79 127.63 6,560.5 1,943.2 1,718.2 668,000.6 668,501.80 32° 50′ 7.098 N 103° 47′ 6 6,800										
5,400.0 7.79 127.63 5,371.6 2,042.6 1,589.4 668,140.03 668,353.03 32° 50° 8.169 N 103° 47° 65° 5,471.1 7.79 127.63 5,442.0 2,036.7 1,597.0 668,134.14 668,360.67 32° 50° 8.111 N 103° 47° 67° 67° 680.00 7.79 127.63 5,470.6 2,034.3 1,600.1 668,131.75 668,363.77 32° 50° 8.097 N 103° 47° 67° 67° 680.00 7.79 127.63 5,669.7 2,026.0 1,610.9 668,123.47 668,374.50 32° 50° 8.097 N 103° 47° 67° 68,000 7.79 127.63 5,668.8 2,017.7 1,621.6 668,113.75 668,365.24 32° 50° 8.004 N 103° 47° 67° 6,800.0 7.79 127.63 5,668.8 2,017.7 1,621.6 668,116.9 668,123.47 668,395.98 32° 50° 7.840 N 103° 47° 67° 6,800.0 7.79 127.63 5,668.8 2,017.7 1,621.6 668,116.9 668,105.24 668,395.98 32° 50° 7.840 N 103° 47° 67° 6,800.0 7.79 127.63 5,668.0 2,007.8 1,634.5 668,105.24 668,395.98 32° 50° 7.830 N 103° 47° 67° 6,800.0 7.79 127.63 5,866.0 1,992.9 1,653.8 668,092.0 668,428.18 32° 50° 7.675 N 103° 47° 68° 6,200.0 7.79 127.63 6,665.1 1,984.6 1,664.6 668,082.0 668,428.18 32° 50° 7.675 N 103° 47° 68° 6,236.2 7.79 127.63 6,664.2 1,976.3 1,675.3 668,073.81 668,438.92 32° 50° 7.480 N 103° 47° 68° 6,236.2 7.79 127.63 6,260.0 1,973.3 1,675.3 668,070.82 668,428.0 32° 50° 7.480 N 103° 47° 68° 6,200.0 7.79 127.63 6,260.0 1,973.3 1,675.3 668,070.82 668,428.0 32° 50° 7.480 N 103° 47° 68° 6,200.0 7.79 127.63 6,263.3 1,968.1 1,686.0 668,065.53 668,428.0 32° 50° 7.480 N 103° 47° 68° 6,500.0 7.79 127.63 6,362.3 1,968.1 1,686.0 668,057.26 668,428.0 32° 50° 7.480 N 103° 47° 68° 6,500.0 7.79 127.63 6,461.4 1,951.5 1,707.5 668,048.98 668,471.13 32° 50° 7.262 N 103° 47° 68° 6,500.0 7.79 127.63 6,565.5 1,943.2 1,718.2 668,040.70 668,481.86 32° 50° 7.380 N 103° 47° 68° 6,600.0 7.79 127.63 6,565.6 1,926.7 1,739.7 668,040.0 668,481.86 32° 50° 7.180 N 103° 47° 68° 6,600.0 7.79 127.63 6,565.6 1,932.2 1,744.2 668,020.69 668,503.33 32° 50° 7.080 N 103° 47° 68° 6,841.7 7.79 127.63 6,565.6 1,926.7 1,739.7 668,000.6 668,500.8 32° 50° 7.080 N 103° 47° 68° 6,841.7 7.79 127.63 6,956.8 1,990.1 1,761.2 668,000.6 668,500.8 32° 50° 6,850 N 103° 47° 68° 6,841.7 7.79 127.63 6,956.8 1,990.5 1		7.70	121.00	0,000.0	2,040.0	1,000.0	000,740.00	000,040.10	02 00 0.100 11	100 41 0.0
5,471.1 7.79 127.63 5,442.0 2,036.7 1,597.0 668,134.14 668,360.67 32° 50' 8.111 N 103° 47' 67 Paddock 5,500.0 7.79 127.63 5,470.6 2,034.3 1,600.1 668,131.75 668,363.77 32° 50' 8.087 N 103° 47' 67 5,600.0 7.79 127.63 5,668.8 2,017.7 1,621.6 668,115.20 668,385.24 32° 50' 8.004 N 103° 47' 6 5,800.0 7.79 127.63 5,668.8 2,017.7 1,621.6 668,115.20 668,385.24 32° 50' 7.922 N 103° 47' 6 5,800.0 7.79 127.63 5,767.9 2,009.4 1,632.4 668,106.92 668,395.98 32° 50' 7.823 N 103° 47' 6 6,800.3 7.79 127.63 5,767.9 2,009.4 1,632.4 668,106.92 668,398.16 32° 50' 7.823 N 103° 47' 6 6,800.3 7.79 127.63 5,866.9 2,001.2 1,643.1 668,105.24 668,398.16 32° 50' 7.575 N 103° 47' 6 6,000.0 7.79 127.63 5,966.0 1,992.9 1,653.8		7.70	107.63	E 271 C	2.042.6	1 500 4	669 140 03	669 353 03	220 EOLO 400 M	1029 4716 9
Paddock 5,500.0 7.79 127.63 5,470.6 2,034.3 1,600.1 668,131.75 668,363.77 32° 50′ 8.087 N 103° 47′ 6 5,500.0 7.79 127.63 5,569.7 2,026.0 1,610.9 668,123.47 668,365.24 32° 50′ 8.004 N 103° 47′ 6 5,800.0 7.79 127.63 5,668.8 2,017.7 1,621.6 668,115.20 668,385.24 32° 50′ 7.922 N 103° 47′ 6 5,800.0 7.79 127.63 5,767.9 2,009.4 1,632.4 668,106.92 668,395.98 32° 50′ 7.840 N 103° 47′ 6 6,800.0 7.79 127.63 5,768.0 2,007.8 1,634.5 668,105.24 668,398.16 32° 50′ 7.823 N 103° 47′ 6 6,900.0 7.79 127.63 5,866.9 2,001.2 1,643.1 668,098.64 668,406.71 32° 50′ 7.675 N 103° 47′ 6 6,000.0 7.79 127.63 5,866.9 1,992.9 1,653.8 668,093.37 668,417.45 32° 50′ 7.575 N 103° 47′ 6 6,000.0 7.79 127.63 6,065.1 1,984.6 1,664.6 668,082.09 668,428.18 32° 50′ 7.592 N 103° 47′ 6 6,200.0 7.79 127.63 6,164.2 1,976.3 1,675.3 668,073.81 668,438.92 32° 50′ 7.510 N 103° 47′ 6 6,300.0 7.79 127.63 6,200.0 1,973.3 1,679.2 668,073.81 668,442.80 32° 50′ 7.497 N 103° 47′ 6 6,300.0 7.79 127.63 6,263.3 1,959.8 1,686.0 668,055.53 668,440.03 32° 50′ 7.497 N 103° 47′ 6 6,400.0 7.79 127.63 6,560.5 1,959.8 1,686.0 668,057.26 668,460.39 32° 50′ 7.345 N 103° 47′ 6 6,000.0 7.79 127.63 6,560.5 1,943.2 1,718.2 668,045.73 668,040.39 32° 50′ 7.345 N 103° 47′ 6 6,000.0 7.79 127.63 6,659.6 1,935.0 1,729.0 668,032.43 668,492.60 32° 50′ 7.098 N 103° 47′ 6 6,000.0 7.79 127.63 6,659.6 1,935.0 1,729.0 668,032.43 668,492.60 32° 50′ 7.098 N 103° 47′ 6 6,000.0 7.79 127.63 6,659.6 1,935.0 1,729.0 668,032.43 668,492.60 32° 50′ 7.098 N 103° 47′ 6 6,000.0 7.79 127.63 6,659.6 1,935.0 1,729.0 668,032.43 668,503.33 32° 50′ 7.098 N 103° 47′ 6 6,000.0 7.79 127.63 6,659.6 1,935.0 1,729.0 668,002.69 668,503.83 32° 50′ 6.981 N 103° 47′ 6						•	· ·	· ·		
5,500.0 7.79 127.63 5,470.6 2,034.3 1,600.1 668,131.75 668,363.77 32° 50′ 8.087 N 103° 47′ 6 5,600.0 7.79 127.63 5,569.7 2,026.0 1,610.9 668,123.47 668,374.50 32° 50′ 6.004 N 103° 47′ 6 5,700.0 7.79 127.63 5,569.8 2,017.7 1,621.6 668,115.20 668,385.24 32° 50′ 7.922 N 103° 47′ 6 5,800.0 7.79 127.63 5,768.9 2,009.4 1,632.4 668,106.92 668,395.98 32° 50′ 7.840 N 103° 47′ 6 5,820.3 7.79 127.63 5,788.0 2,007.8 1,632.4 668,105.24 668,398.16 32° 50′ 7.823 N 103° 47′ 6 5,820.3 7.79 127.63 5,866.9 2,001.2 1,643.1 668,098.64 668,406.71 32° 50′ 7.757 N 103° 47′ 6 6,000.0 7.79 127.63 5,966.0 1,992.9 1,653.8 668,090.37 668,417.45 32° 50′ 7.657 N 103° 47′ 6 6,100.0 7.79 127.63 6,065.1 1,984.6 1,664.6 668,082.09 668,428.18 32° 50′ 7.592 N 103° 47′ 6 6,200.0 7.79 127.63 6,065.1 1,984.6 1,664.6 668,082.09 668,428.18 32° 50′ 7.592 N 103° 47′ 6 6,200.0 7.79 127.63 6,200.0 1,973.3 1,675.3 668,073.81 668,438.92 32° 50′ 7.510 N 103° 47′ 6 6,300.0 7.79 127.63 6,200.0 1,973.3 1,679.2 668,070.82 668,442.80 32° 50′ 7.480 N 103° 47′ 6 6,300.0 7.79 127.63 6,263.3 1,968.1 1,686.0 668,055.3 668,449.65 32° 50′ 7.480 N 103° 47′ 6 6,400.0 7.79 127.63 6,362.3 1,958.8 1,698.8 668,057.26 668,469.39 32° 50′ 7.345 N 103° 47′ 6 6,500.0 7.79 127.63 6,362.3 1,959.8 1,698.8 668,057.26 668,449.65 32° 50′ 7.427 N 103° 47′ 6 6,500.0 7.79 127.63 6,560.5 1,943.2 1,771.5 668,048.98 668,471.13 32° 50′ 7.262 N 103° 47′ 6 6,500.0 7.79 127.63 6,560.5 1,943.2 1,771.8 2 668,040.70 668,481.86 32° 50′ 7.098 N 103° 47′ 6 6,800.0 7.79 127.63 6,550.5 1,943.2 1,718.2 668,040.70 668,032.43 668,492.60 32° 50′ 7.098 N 103° 47′ 6 6,800.0 7.79 127.63 6,550.5 1,943.2 1,731.7 668,024.15 668,507.82 32° 50′ 6,981 N 103° 47′ 6 6,800.0 7.79 127.63 6,550.5 1,943.2 1,731.7 668,024.15 668,040.70 668,524.81 32° 50′ 6,981 N 103° 47′ 6 6,800.0 7.79 127.63 6,550.5 1,943.2 1,731.7 668,024.15 668,007.82 32° 50′ 7.098 N 103° 47′ 6 6,800.0 7.79 127.63 6,550.5 1,943.2 1,731.7 668,024.15 668,004.70 668,524.81 32° 50′ 6,981 N 103° 47′ 4 6,800.0 7.79 127.63 6,950.6 1,935.0 1,733.7 668,004.78 668,		7.79	127.03	5,442.0	2,036.7	1,597.0	000,134.14	000,300.07	32 30 8.111 19	103 47 6.7
5,600.0 7.79 127.63 5,569.7 2,026.0 1,610.9 668,123.47 668,374.50 32° 50' 8.004 N 103° 47' 6 5,700.0 7.79 127.63 5,668.8 2,017.7 1,621.6 668,115.20 668,385.24 32° 50' 7.922 N 103° 47' 6 5,800.0 7.79 127.63 5,767.9 2,009.4 1,632.4 668,106.92 668,395.98 32° 50' 7.840 N 103° 47' 6 5,820.3 7.79 127.63 5,788.0 2,007.8 1,634.5 668,105.24 668,398.16 32° 50' 7.823 N 103° 47' 6 5,800.0 7.79 127.63 5,866.9 2,001.2 1,643.1 668,098.64 668,406.71 32° 50' 7.675 N 103° 47' 6 6,000.0 7.79 127.63 5,966.0 1,992.9 1,653.8 668,090.37 668,417.45 32° 50' 7.675 N 103° 47' 6 6,200.0 7.79 127.63 6,065.1 1,984.6 1,664.6 668,092.09 668,428.18 32° 50' 7.592 N 103° 47' 6 6,200.0 7.79 127.63 6,164.2 1,976.3 1,675.3 668,073.81 668,488.92 32° 50' 7.510 N 103° 47' 6 6,300.0 7.79 127.63 6,200.0 1,973.3 1,679.2 668,073.81 668,442.80 32° 50' 7.480 N 103° 47' 6 6,400.0 7.79 127.63 6,200.0 1,973.3 1,679.2 668,075.26 668,442.80 32° 50' 7.480 N 103° 47' 6 6,400.0 7.79 127.63 6,362.3 1,968.1 1,686.0 668,065.53 668,442.80 32° 50' 7.480 N 103° 47' 6 6,400.0 7.79 127.63 6,620.3 1,959.8 1,698.8 668,057.26 668,442.80 32° 50' 7.480 N 103° 47' 6 6,600.0 7.79 127.63 6,560.5 1,943.2 1,718.2 668,040.70 668,481.86 32° 50' 7.180 N 103° 47' 6 6,600.0 7.79 127.63 6,560.5 1,943.2 1,718.2 668,040.70 668,481.86 32° 50' 7.180 N 103° 47' 6 6,600.0 7.79 127.63 6,650.5 1,943.2 1,718.2 668,040.70 668,481.86 32° 50' 7.180 N 103° 47' 6 6,800.0 7.79 127.63 6,650.5 1,943.2 1,718.2 668,040.70 668,481.86 32° 50' 7.015 N 103° 47' 6 6,800.0 7.79 127.63 6,650.5 1,943.2 1,718.2 668,040.70 668,481.86 32° 50' 7.015 N 103° 47' 6 6,800.0 7.79 127.63 6,650.5 1,943.2 1,718.2 668,040.70 668,481.86 32° 50' 7.015 N 103° 47' 6 6,800.0 7.79 127.63 6,650.5 1,943.2 1,718.2 668,040.70 668,481.86 32° 50' 7.015 N 103° 47' 6 6,800.0 7.79 127.63 6,650.5 1,943.2 1,718.2 668,040.70 668,481.86 32° 50' 7.015 N 103° 47' 6 6,800.0 7.79 127.63 6,650.5 1,943.2 1,718.2 668,000.0 668,524.81 32° 50' 6,933 N 103° 47' 4 6,800.0 7.79 127.63 6,850.5 1,943.2 1,744.2 668,000.0 668,524.81 32° 50' 6,933 N 103° 47' 4 6,										
5,700.0 7.79 127.63 5,688.8 2,017.7 1,621.6 668,115.20 668,385.24 32° 50′ 7.922 N 103° 47′ 65,800.0 7.79 127.63 5,767.9 2,009.4 1,632.4 668,105.92 668,395.98 32° 50′ 7.840 N 103° 47′ 65,800.3 7.79 127.63 5,768.0 2,007.8 1,634.5 668,105.24 668,398.16 32° 50′ 7.823 N 103° 47′ 67 68 68,000.0 7.79 127.63 5,866.9 2,001.2 1,643.1 668,098.64 668,406.71 32° 50′ 7.767 N 103° 47′ 67 68,000.0 7.79 127.63 5,966.0 1,992.9 1,653.8 668,090.37 668,417.45 32° 50′ 7.675 N 103° 47′ 68,100.0 7.79 127.63 6,005.1 1,984.6 1,664.6 668,082.09 668,428.18 32° 50′ 7.592 N 103° 47′ 68,200.0 7.79 127.63 6,164.2 1,976.3 1,675.3 668,073.81 668,438.92 32° 50′ 7.510 N 103° 47′ 68,200.0 7.79 127.63 6,200.0 1,973.3 1,679.2 668,070.82 668,428.18 32° 50′ 7.427 N 103° 47′ 68,300.0 7.79 127.63 6,263.3 1,968.1 1,686.0 668,065.53 668,449.65 32° 50′ 7.427 N 103° 47′ 68,400.0 7.79 127.63 6,263.3 1,968.1 1,686.0 668,065.53 668,449.65 32° 50′ 7.427 N 103° 47′ 68,400.0 7.79 127.63 6,461.4 1,951.5 1,707.5 668,048.98 668,471.13 32° 50′ 7.345 N 103° 47′ 68,600.0 7.79 127.63 6,560.5 1,943.2 1,718.2 668,040.70 668,481.86 32° 50′ 7.082 N 103° 47′ 68,600.0 7.79 127.63 6,650.5 1,943.2 1,718.2 668,040.70 668,481.86 32° 50′ 7.080 N 103° 47′ 68,600.0 7.79 127.63 6,650.5 1,943.2 1,718.2 668,040.70 668,481.86 32° 50′ 7.080 N 103° 47′ 68,600.0 7.79 127.63 6,650.5 1,943.2 1,718.2 668,040.70 668,481.86 32° 50′ 7.080 N 103° 47′ 68,600.0 7.79 127.63 6,650.6 1,935.0 1,729.0 668,032.43 668,492.60 32° 50′ 7.080 N 103° 47′ 68,600.0 7.79 127.63 6,650.6 1,935.0 1,729.0 668,032.43 668,492.60 32° 50′ 7.098 N 103° 47′ 68,600.0 7.79 127.63 6,650.6 1,935.0 1,729.0 668,032.43 668,492.60 32° 50′ 7.098 N 103° 47′ 68,600.0 7.79 127.63 6,650.6 1,935.0 1,729.0 668,032.43 668,492.60 32° 50′ 7.098 N 103° 47′ 68,600.0 7.79 127.63 6,650.6 1,935.0 1,729.0 668,032.43 668,492.60 32° 50′ 7.098 N 103° 47′ 48,600.0 7.79 127.63 6,850.8 1,910.1 1,750.4 668,000.6 668,001.8 132° 50′ 6,893.N 103° 47′ 48,600.0 7.79 127.63 6,850.8 1,910.1 1,761.2 668,004.78 668,528.46 32° 50′ 6,882.0 N 103° 47′ 48,600.0 7.79										
5,800.0 7.79 127.63 5,767.9 2,009.4 1,632.4 668,106.92 668,395.98 32° 50′ 7.840 N 103° 47′ 65,820.3 7.79 127.63 5,788.0 2,007.8 1,634.5 668,105.24 668,398.16 32° 50′ 7.823 N 103° 47′ 67′ 67′ 67′ 67′ 67′ 67′ 67′ 67′ 67′ 6										
5,820.3 7.79 127.63 5,788.0 2,007.8 1,634.5 668,105.24 668,398.16 32° 50' 7.823 N 103° 47' 6 Blinebry 5,900.0 7.79 127.63 5,866.9 2,001.2 1,643.1 668,098.64 668,406.71 32° 50' 7.675 N 103° 47' 6 6,000.0 7.79 127.63 5,966.0 1,992.9 1,653.8 668,092.09 668,428.18 32° 50' 7.675 N 103° 47' 6 6,100.0 7.79 127.63 6,065.1 1,984.6 1,664.6 668,082.09 668,428.18 32° 50' 7.592 N 103° 47' 6 6,200.0 7.79 127.63 6,065.1 1,984.6 1,664.6 668,082.09 668,428.18 32° 50' 7.592 N 103° 47' 6 6,200.0 7.79 127.63 6,065.1 1,984.6 1,664.6 668,082.09 668,438.92 32° 50' 7.592 N 103° 47' 6 6,200.0 7.79 127.63 6,260.0 1,973.3 1,675.3 668,070.82 668,442.80 32° 50' 7.480 N 103° 47' 6 6,300.0 <t< td=""><td>•</td><td></td><td></td><td></td><td></td><td></td><td></td><td>,</td><td></td><td>103° 47' 6.4</td></t<>	•							,		103° 47' 6.4
Sinebry Sine										103° 47' 6.3
5,900.0 7.79 127.63 5,866.9 2,001.2 1,643.1 668,098.64 668,406.71 32° 50′ 7.757 N 103° 47′ 6 6,000.0 7.79 127.63 5,966.0 1,992.9 1,653.8 668,090.37 668,417.45 32° 50′ 7.675 N 103° 47′ 6 6,100.0 7.79 127.63 6,065.1 1,984.6 1,664.6 668,082.09 668,428.18 32° 50′ 7.592 N 103° 47′ 6 6,200.0 7.79 127.63 6,164.2 1,976.3 1,675.3 668,073.81 668,438.92 32° 50′ 7.510 N 103° 47′ 6 6,236.2 7.79 127.63 6,200.0 1,973.3 1,679.2 668,070.82 668,442.80 32° 50′ 7.480 N 103° 47′ 6 6,300.0 7.79 127.63 6,263.3 1,968.1 1,686.0 668,065.53 668,449.65 32° 50′ 7.427 N 103° 47′ 6 6,400.0 7.79 127.63 6,362.3 1,959.8 1,696.8 668,057.26 668,460.39 32° 50′ 7.345 N 103° 47′ 6 6,500.0 7.79 127.63 6,461.4 1,951.5 1,707.5 668,048.98 668,471.13 32° 50′ 7.262 N 103° 47′ 6 6,500.0 7.79 127.63 6,560.5 1,943.2 1,718.2 668,040.70 668,481.86 32° 50′ 7.180 N 103° 47′ 6 6,700.0 7.79 127.63 6,650.6 1,935.0 1,729.0 668,032.43 668,492.60 32° 50′ 7.098 N 103° 47′ 6 6,800.0 7.79 127.63 6,650.6 1,926.7 1,739.7 668,024.15 668,503.33 32° 50′ 7.098 N 103° 47′ 6 6,800.0 7.79 127.63 6,800.0 1,923.2 1,744.2 668,020.69 668,507.82 32° 50′ 7.098 N 103° 47′ 6 6,800.0 7.79 127.63 6,800.0 1,923.2 1,744.2 668,020.69 668,507.82 32° 50′ 6,981 N 103° 47′ 6 6,900.0 7.79 127.63 6,800.0 1,923.2 1,744.2 668,020.69 668,507.82 32° 50′ 6,981 N 103° 47′ 6 6,900.0 7.79 127.63 6,800.0 1,923.2 1,744.2 668,000.69 668,524.81 32° 50′ 6,981 N 103° 47′ 6 6,900.0 7.79 127.63 6,956.8 1,910.1 1,761.2 668,001.87 668,524.81 32° 50′ 6,850 N 103° 47′ 6 7,004.0 7.79 127.63 6,956.8 1,910.1 1,761.2 668,004.78 668,524.81 32° 50′ 6,852 N 103° 47′ 4 7,004.0 7.79 127.63 6,956.8 1,910.1 1,764.8 668,004.78 668,524.81 32° 50′ 6,852 N 103° 47′ 4 7,004.0 7.79 127.63 6,950.5 1,907.3 1,764.8 668,004.78 668,528.46 32° 50′ 6,852 N 103° 47′ 4 7,004.0 7.79 127.63 6,950.5 1,907.3 1,764.8 668,004.78 668,528.46 32° 50′ 6,852 N 103° 47′ 4 7,004.0 7.79 127.63 6,950.5 1,907.3 1,764.8 668,004.78 668,528.46 32° 50′ 6,852 N 103° 47′ 4 7,004.0 7.79 127.63 6,950.5 1,907.3 1,764.8 668,004.78 668,528.46 32° 50′ 6,852 N 103° 47′ 4	5,820.3	7.79	127.63	5,788.0	2,007.8	1,634.5	668,105.24	668,398.16	32° 50' 7.823 N	103° 47' 6.2
6,000.0 7.79 127.63 5,966.0 1,992.9 1,653.8 668,090.37 668,417.45 32° 50′ 7.675 N 103° 47′ 6 6,100.0 7.79 127.63 6,065.1 1,984.6 1,664.6 668,082.09 668,428.18 32° 50′ 7.592 N 103° 47′ 6 6,200.0 7.79 127.63 6,164.2 1,976.3 1,675.3 668,073.81 668,438.92 32° 50′ 7.510 N 103° 47′ 6 6,200.0 7.79 127.63 6,200.0 1,973.3 1,679.2 668,070.82 668,428.0 32° 50′ 7.480 N 103° 47′ 6 6,300.0 7.79 127.63 6,263.3 1,968.1 1,686.0 668,065.53 668,442.80 32° 50′ 7.427 N 103° 47′ 6 6,400.0 7.79 127.63 6,362.3 1,959.8 1,696.8 668,057.26 668,460.39 32° 50′ 7.345 N 103° 47′ 6 6,500.0 7.79 127.63 6,461.4 1,951.5 1,707.5 668,048.98 668,471.13 32° 50′ 7.262 N 103° 47′ 6 6,500.0 7.79 127.63 6,560.5 1,943.2 1,718.2 668,040.70 668,481.86 32° 50′ 7.180 N 103° 47′ 6 6,600.0 7.79 127.63 6,659.6 1,935.0 1,729.0 668,032.43 668,492.60 32° 50′ 7.098 N 103° 47′ 6 6,800.0 7.79 127.63 6,659.6 1,935.0 1,729.0 668,032.43 668,492.60 32° 50′ 7.098 N 103° 47′ 6 6,800.0 7.79 127.63 6,659.6 1,926.7 1,739.7 668,024.15 668,503.33 32° 50′ 7.015 N 103° 47′ 6 6,800.0 7.79 127.63 6,800.0 1,923.2 1,744.2 668,020.69 668,507.82 32° 50′ 6.981 N 103° 47′ 6 6,800.0 7.79 127.63 6,800.0 1,923.2 1,744.2 668,020.69 668,507.82 32° 50′ 6.981 N 103° 47′ 6 6,800.0 7.79 127.63 6,950.8 1,907.3 1,764.8 668,004.78 668,528.46 32° 50′ 6.822 N 103° 47′ 4 7,004.0 7.79 127.63 6,950.8 1,910.1 1,761.2 668,004.78 668,528.46 32° 50′ 6.822 N 103° 47′ 4 7,004.0 7.79 127.63 6,950.8 1,907.3 1,764.8 668,004.78 668,528.46 32° 50′ 6.822 N 103° 47′ 4 7,004.0 7.79 127.63 6,950.8 1,907.3 1,764.8 668,004.78 668,528.46 32° 50′ 6.822 N 103° 47′ 4 7,004.0 7.79 127.63 6,950.8 1,907.3 1,764.8 668,004.78 668,528.46 32° 50′ 6.822 N 103° 47′ 4 7,004.0 7.79 127.63 6,950.8 1,907.3 1,764.8 668,004.78 668,528.46 32° 50′ 6.822 N 103° 47′ 4 7,004.0 7.79 127.63 6,950.8 1,907.3 1,764.8 668,004.78 668,528.46 32° 50′ 6.822 N 103° 47′ 4 7,004.0 7.79 127.63 6,950.8 1,907.3 1,764.8 668,004.78 668,528.46 32° 50′ 6.822 N 103° 47′ 4 7,004.0 7.79 127.63 6,950.8 1,907.3 1,764.8 668,004.78 668,528.46 32° 50′ 6.822 N 103° 47′ 4 7	•									
6,100.0 7.79 127.63 6,065.1 1,984.6 1,664.6 668,082.09 668,428.18 32° 50′ 7.592 N 103° 47′ 5 6,200.0 7.79 127.63 6,164.2 1,976.3 1,675.3 668,073.81 668,438.92 32° 50′ 7.510 N 103° 47′ 5 6,236.2 7.79 127.63 6,200.0 1,973.3 1,679.2 668,070.82 668,442.80 32° 50′ 7.480 N 103° 47′ 5 6,300.0 7.79 127.63 6,263.3 1,968.1 1,686.0 668,065.53 668,449.65 32° 50′ 7.427 N 103° 47′ 5 6,400.0 7.79 127.63 6,362.3 1,959.8 1,696.8 668,057.26 668,449.65 32° 50′ 7.345 N 103° 47′ 5 6,500.0 7.79 127.63 6,461.4 1,951.5 1,707.5 668,048.98 668,471.13 32° 50′ 7.262 N 103° 47′ 5 6,500.0 7.79 127.63 6,560.5 1,943.2 1,718.2 668,040.70 668,481.86 32° 50′ 7.180 N 103° 47′ 5 6,600.0 7.79 127.63 6,659.6 1,935.0 1,729.0 668,032.43 668,492.60 32° 50′ 7.098 N 103° 47′ 5 6,800.0 7.79 127.63 6,659.6 1,935.0 1,729.0 668,032.43 668,492.60 32° 50′ 7.098 N 103° 47′ 5 6,800.0 7.79 127.63 6,659.6 1,926.7 1,739.7 668,024.15 668,503.33 32° 50′ 7.015 N 103° 47′ 5 6,841.7 7.79 127.63 6,800.0 1,923.2 1,744.2 668,020.69 668,507.82 32° 50′ 6,981 N 103° 47′ 5 7 105 105 105 105 105 105 105 105 105 105	5,900.0		127.63	5,866.9	2,001.2	1,643.1	668,098.64	668,406.71	32° 50' 7.757 N	103° 47' 6.1
6,200.0 7.79 127.63 6,164.2 1,976.3 1,675.3 668,073.81 668,438.92 32° 50′ 7.510 N 103° 47′ 5 6,236.2 7.79 127.63 6,200.0 1,973.3 1,679.2 668,070.82 668,442.80 32° 50′ 7.480 N 103° 47′ 5 6,300.0 7.79 127.63 6,263.3 1,968.1 1,686.0 668,065.53 668,449.65 32° 50′ 7.427 N 103° 47′ 5 6,400.0 7.79 127.63 6,362.3 1,959.8 1,696.8 668,057.26 668,460.39 32° 50′ 7.345 N 103° 47′ 5 6,500.0 7.79 127.63 6,461.4 1,951.5 1,707.5 668,048.98 668,471.13 32° 50′ 7.262 N 103° 47′ 5 6,500.0 7.79 127.63 6,560.5 1,943.2 1,718.2 668,040.70 668,481.86 32° 50′ 7.180 N 103° 47′ 5 6,700.0 7.79 127.63 6,659.6 1,935.0 1,729.0 668,032.43 668,492.60 32° 50′ 7.098 N 103° 47′ 5 6,800.0 7.79 127.63 6,758.6 1,926.7 1,739.7 668,024.15 668,503.33 32° 50′ 7.015 N 103° 47′ 5 6,841.7 7.79 127.63 6,800.0 1,923.2 1,744.2 668,020.69 668,507.82 32° 50′ 6.981 N 103° 47′ 5 7 104b			127.63	5,966.0					32° 50' 7.675 N	103° 47' 6.0
6,236.2 7.79 127.63 6,200.0 1,973.3 1,679.2 668,070.82 668,442.80 32° 50′ 7.480 N 103° 47′ 5 6,300.0 7.79 127.63 6,263.3 1,968.1 1,686.0 668,065.53 668,449.65 32° 50′ 7.427 N 103° 47′ 5 6,400.0 7.79 127.63 6,362.3 1,959.8 1,696.8 668,057.26 668,460.39 32° 50′ 7.345 N 103° 47′ 5 6,500.0 7.79 127.63 6,461.4 1,951.5 1,707.5 668,048.98 668,471.13 32° 50′ 7.262 N 103° 47′ 5 6,500.0 7.79 127.63 6,560.5 1,943.2 1,718.2 668,040.70 668,481.86 32° 50′ 7.180 N 103° 47′ 5 6,700.0 7.79 127.63 6,659.6 1,935.0 1,729.0 668,032.43 668,492.60 32° 50′ 7.098 N 103° 47′ 5 6,800.0 7.79 127.63 6,758.6 1,926.7 1,739.7 668,024.15 668,503.33 32° 50′ 7.015 N 103° 47′ 5 6,841.7 7.79 127.63 6,800.0 1,923.2 1,744.2 668,020.69 668,507.82 32° 50′ 6.981 N 103° 47′ 5 7 10 10 10 10 10 10 10 10 10 10 10 10 10					:		•			103° 47' 5.9
6,300.0 7.79 127.63 6,263.3 1,968.1 1,686.0 668,065.53 668,449.65 32° 50' 7.427 N 103° 47' 5 6,400.0 7.79 127.63 6,362.3 1,959.8 1,696.8 668,057.26 668,460.39 32° 50' 7.345 N 103° 47' 5 6,500.0 7.79 127.63 6,461.4 1,951.5 1,707.5 668,048.98 668,471.13 32° 50' 7.262 N 103° 47' 5 6,600.0 7.79 127.63 6,560.5 1,943.2 1,718.2 668,040.70 668,481.86 32° 50' 7.180 N 103° 47' 5 6,700.0 7.79 127.63 6,659.6 1,935.0 1,729.0 668,032.43 668,492.60 32° 50' 7.098 N 103° 47' 5 6,800.0 7.79 127.63 6,758.6 1,926.7 1,739.7 668,024.15 668,503.33 32° 50' 7.015 N 103° 47' 5 6,841.7 7.79 127.63 6,800.0 1,923.2 1,744.2 668,020.69 668,507.82 32° 50' 6.981 N 103° 47' 5 6,900.0 7.79 127.63 6,800.0 1,923.2 1,744.2 668,020.69 668,507.82 32° 50' 6.981 N 103° 47' 5 7 7 7 7 7 7 127.63 6,857.7 1,918.4 1,750.4 668,015.87 668,514.07 32° 50' 6.933 N 103° 47' 4 7 7 7 7 7 127.63 6,956.8 1,910.1 1,761.2 668,007.60 668,528.46 32° 50' 6.822 N 103° 47' 4 7 7 7 7 7 127.63 6,950.5 1,907.3 1,764.8 668,004.78 668,528.46 32° 50' 6.822 N 103° 47' 4 7 7 7 7 7 127.63 6,990.5 1,907.3 1,764.8 668,004.78 668,528.46 32° 50' 6.822 N 103° 47' 4 7 7 7 7 7 7 127.63 6,990.5 1,907.3 1,764.8 668,004.78 668,528.46 32° 50' 6.822 N 103° 47' 4 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7										103° 47' 5.8
6,400.0 7.79 127.63 6,362.3 1,959.8 1,696.8 668,057.26 668,460.39 32° 50′ 7.345 N 103° 47′ 5 6,500.0 7.79 127.63 6,461.4 1,951.5 1,707.5 668,048.98 668,471.13 32° 50′ 7.262 N 103° 47′ 5 6,600.0 7.79 127.63 6,560.5 1,943.2 1,718.2 668,040.70 668,481.86 32° 50′ 7.180 N 103° 47′ 5 6,700.0 7.79 127.63 6,659.6 1,935.0 1,729.0 668,032.43 668,492.60 32° 50′ 7.098 N 103° 47′ 5 6,800.0 7.79 127.63 6,758.6 1,926.7 1,739.7 668,024.15 668,503.33 32° 50′ 7.015 N 103° 47′ 5 6,841.7 7.79 127.63 6,800.0 1,923.2 1,744.2 668,020.69 668,507.82 32° 50′ 6.981 N 103° 47′ 5 7 10 10 10 10 10 10 10 10 10 10 10 10 10									32° 50' 7.480 N	103° 47' 5.7
6,500.0 7.79 127.63 6,461.4 1,951.5 1,707.5 668,048.98 668,471.13 32° 50′ 7.262 N 103° 47′ 5 6,600.0 7.79 127.63 6,560.5 1,943.2 1,718.2 668,040.70 668,481.86 32° 50′ 7.180 N 103° 47′ 5 6,700.0 7.79 127.63 6,659.6 1,935.0 1,729.0 668,032.43 668,492.60 32° 50′ 7.098 N 103° 47′ 5 6,800.0 7.79 127.63 6,758.6 1,926.7 1,739.7 668,024.15 668,503.33 32° 50′ 7.015 N 103° 47′ 5 6,841.7 7.79 127.63 6,800.0 1,923.2 1,744.2 668,020.69 668,507.82 32° 50′ 6.981 N 103° 47′ 5 7 10 10 10 10 10 10 10 10 10 10 10 10 10							•		32° 50′ 7.427 N	103° 47' 5.6
6,600.0 7.79 127.63 6,560.5 1,943.2 1,718.2 668,040.70 668,481.86 32° 50′ 7.180 N 103° 47′ 5 6,700.0 7.79 127.63 6,659.6 1,935.0 1,729.0 668,032.43 668,492.60 32° 50′ 7.098 N 103° 47′ 5 6,800.0 7.79 127.63 6,800.0 1,923.2 1,744.2 668,024.15 668,503.33 32° 50′ 7.015 N 103° 47′ 5 6,841.7 7.79 127.63 6,800.0 1,923.2 1,744.2 668,020.69 668,507.82 32° 50′ 6.981 N 103° 47′ 5 7 10 10 10 10 10 10 10 10 10 10 10 10 10				6,362.3		1,696.8	668,057.26	668,460.39		103° 47' 5.5
6,700.0 7.79 127.63 6,659.6 1,935.0 1,729.0 668,032.43 668,492.60 32° 50' 7.098 N 103° 47' 5 6,800.0 7.79 127.63 6,800.0 1,923.2 1,744.2 668,024.15 668,503.33 32° 50' 7.015 N 103° 47' 5 6,841.7 7.79 127.63 6,800.0 1,923.2 1,744.2 668,020.69 668,507.82 32° 50' 6.981 N 103° 47' 5 7 10 10 10 10 10 10 10 10 10 10 10 10 10						•		668,471.13		103° 47' 5.4
6,800.0 7.79 127.63 6,758.6 1,926.7 1,739.7 668,024.15 668,503.33 32° 50' 7.015 N 103° 47' 5 6,841.7 7.79 127.63 6,800.0 1,923.2 1,744.2 668,020.69 668,507.82 32° 50' 6.981 N 103° 47' 5 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6,600.0	7.79	127.63	6,560.5	1,943.2	1,718.2	668,040.70	668,481.86	32° 50' 7.180 N	103° 47' 5.3
6,841.7 7.79 127.63 6,800.0 1,923.2 1,744.2 668,020.69 668,507.82 32° 50′ 6.981 N 103° 47′ 5 Tubb 6,900.0 7.79 127.63 6,857.7 1,918.4 1,750.4 668,015.87 668,514.07 32° 50′ 6.933 N 103° 47′ 4 7 ,000.0 7.79 127.63 6,956.8 1,910.1 1,761.2 668,007.60 668,524.81 32° 50′ 6.850 N 103° 47′ 4 7 ,034.0 7.79 127.63 6,990.5 1,907.3 1,764.8 668,004.78 668,528.46 32° 50′ 6.822 N 103° 47′ 4 Production	6,700.0	7.79		6,659.6	1,935.0	1,729.0		668,492.60	32° 50' 7.098 N	103° 47' 5.1
Tubb 6,900.0 7.79 127.63 6,857.7 1,918.4 1,750.4 668,015.87 668,514.07 32° 50' 6.933 N 103° 47' 4 7,000.0 7.79 127.63 6,956.8 1,910.1 1,761.2 668,007.60 668,524.81 32° 50' 6.850 N 103° 47' 4 7,034.0 7.79 127.63 6,990.5 1,907.3 1,764.8 668,004.78 668,528.46 32° 50' 6.822 N 103° 47' 4 Production	6,800.0	7.79	127.63	6,758.6	1,926.7	1,739.7	668,024.15	668,503.33	32° 50' 7.015 N	103° 47' 5.0
6,900.0 7.79 127.63 6,857.7 1,918.4 1,750.4 668,015.87 668,514.07 32° 50' 6.933 N 103° 47' 4 7,000.0 7.79 127.63 6,956.8 1,910.1 1,761.2 668,007.60 668,524.81 32° 50' 6.850 N 103° 47' 4 7,034.0 7.79 127.63 6,990.5 1,907.3 1,764.8 668,004.78 668,528.46 32° 50' 6.822 N 103° 47' 4 Production	6,841.7	7.79	127.63	6,800.0	1,923.2	1,744.2	668,020.69	668,507.82	32° 50' 6.981 N	103° 47' 5.0
6,900.0 7.79 127.63 6,857.7 1,918.4 1,750.4 668,015.87 668,514.07 32° 50' 6.933 N 103° 47' 4 7,000.0 7.79 127.63 6,956.8 1,910.1 1,761.2 668,007.60 668,524.81 32° 50' 6.850 N 103° 47' 4 7,034.0 7.79 127.63 6,990.5 1,907.3 1,764.8 668,004.78 668,528.46 32° 50' 6.822 N 103° 47' 4 Production	Tubb									
7,000.0 7.79 127.63 6,956.8 1,910.1 1,761.2 668,007.60 668,524.81 32° 50' 6.850 N 103° 47' 4 7,034.0 7.79 127.63 6,990.5 1,907.3 1,764.8 668,004.78 668,528.46 32° 50' 6.822 N 103° 47' 4 Production		7.79	127.63	6.857.7	1,918.4	1,750.4	668,015,87	668,514,07	32° 50' 6.933 N	103° 47′ 4.9
7,034.0 7.79 127.63 6,990.5 1,907.3 1,764.8 668,004.78 668,528.46 32° 50' 6.822 N 103° 47' 4 Production							·			103° 47' 4.8
Production							•			103° 47' 4.7
			127.63	7,000.0	1,906.5	1,765.9	668,003.99	668,529.49	32° 50' 6.814 N	103° 47' 4.7

Planning Report - Geographic

Database:

. EDM Central Planning

Company:

ConocoPhillips MCBU

Buckeye Project:

Site: Well:

Ruby Federal Ruby Federal 25 Original Hole · Wellbore: Design: Actual Plan

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference: Site Ruby Federal RKB @ 4035.0usft (PD 822)

RKB @ 4035.0usft (PD 822)

Grid

Survey Calculation Method: Minimum Curvature

Targets		,	-					••	
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir.	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Ruby Federal 25 (Alt. Mi - plan hits target cent - Point	0.00 er	0.00	6,200.0	1,973.3	1,679.2	668,070.8 2	668,442.80	32° 50′ 7.480 N	103° 47' 5.760 W
Ruby Federal 25 (Origini - plan misses target c - Circle (radius 150.0)	•	0.00 8usft at 548	5,442.0 5.2usft MD (1,973.3 5455.9 TVD, 2	1,679.2 2035.5 N, 1598	668,070.82 8.6 E)	668,442.80	32° 50' 7.480 N	103° 47' 5.760 W

Casing Points		•	•	•			
	Measured Depth (usft)	Vertical Depth (usft)		Name	Casing Diameter (")	Hole Diameter (")	
	85.0	85.0	Conductor		16	20	
	794.0	794.0	Surface		8-5/8	12-1/4	
	7,034.0	6,990.5	Production		5-1/2	7-7/8	

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
7,043.6	7,000.0	TD		0.00	
5,471.1	5,442.0	Paddock		0.00	
6,841.7	6,800.0	Tubb		0.00	
5,820.3	5,788.0	Blinebry		0.00	
2,436.1	2,435.0	Seven Rivers		0.00	
2,149.1	2,149.0	Yates	•	0.00	
1,973.0	1,973.0	Tansill		0.00	
769.0	769.0	Rustler		0.00	
938.0	938.0	Salado		0.00	
3,507.0	3,496.0	Grayburg		0.00	
3,084.1	3,077.0	Queen		0.00	
3,897.6	3,883.0	San Andres		0.00	
5,364.1	5,336.0	Glorieta		0.00	

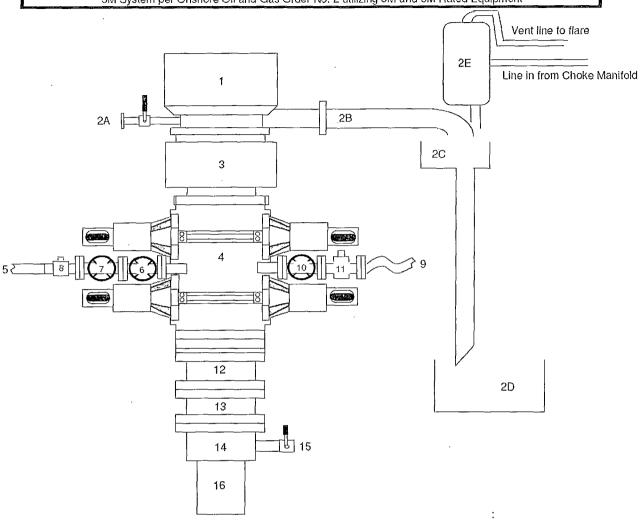
Attachment # 1

15

16

Surface Casing

BLOWOUT PREVENTER ARRANGEMENT 3M System per Onshore Oil and Gas Order No. 2 utilizing 3M and 5M Rated Equipment



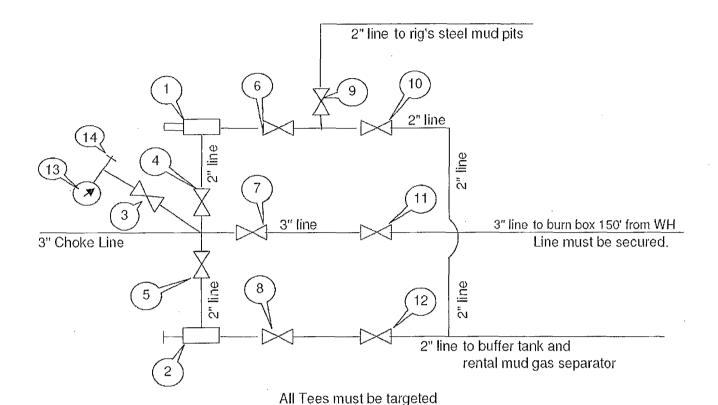
ltem	Description
1	Rotating Head, 11"
2A	Fill up Line and Valve
2B	Flow Line (10")
2C	Shale Shakers and Solids Settling Tank
2D	Cuttings Bins for Zero Discharge
2E	Rental Mud Gas Separator with vent line to flare and return line to mud system
3	Annular BOP (11", 3M)
4	Double Ram (11", 3M, equipped with Blind Rams and Pipe Rams)
5	Kill Line (2" flexible hose, 3000 psi WP)
6	Kill Line Valve, Inner (3-1/8", 3000 psi WP)
7	Kill Line Valve, Outer (3-1/8", 3000 psi WP)
8	Kill Line Check Valve (2-1/16", 3000 psi WP
9	Choke Line (5M Stainless Steel Coflex Line, 3-1/8" 3M API Type 6B, 3000 psi WP)
10	Choke Line Valve, Inner (3-1/8", 3000 psi WP)
11	Choke Line Valve, Outer, (Hydraulically operated, 3-1/8", 3000 psi WP)
12	Adapter Flange (11" 5M to 11" 3M)
13	Spacer Spool (11", 5M)
14	Casing Head (11" 5M)

Ball Valve and Threaded Nipple on Casing Head Outlet, 2" 5M

Submitted by: James Chen, Drilling Engineer, Mid-Continent Business Unit, ConocoPhillips Company, 25-Sep-2012

CHOKE MANIFOLD ARRANGEMENT

3M System per Onshore Oil and Gas Order No. 2 utilizing 3M and 5M Equipment



1.	- · · ·
ltem	Description
1162111	Describition

- 1 Remote Controlled Hydraulically Operated Adjustable Choke, 2-1/16", 3M
- 2 Manual Adjustable Choke, 2-1/16", 3M
- 3 Gate Valve, 2-1/16", 5M
- 4 Gate Valve, 2-1/16" 5M
- 5 Gate Valve, 2-1/16" 5M
- 6 Gate Valve, 2-1/16" 5M
- 7 Gate Valve, 3-1/8" 3M
- 8 Gate Valve, 2-1/16" 5M
- 9 Gate Valve, 2-1/16" 5M
- 10 Gate Valve, 2-1/16" 5M
- 11 Gate Valve, 3-1/8" 3M
- 12 Gate Valve, 2-1/16" 5M
- 13 Pressure Gauge
- 14 2" hammer union tie-in point for BOP Tester

We will test each valve to 3000 psi from the upstream side.

Drawn by:

Steven O. Moore

Chief Drilling Engineer, Mid-Continent Business Unit, ConocoPhillips Company

Date: 25-Sept-2012

Closed Loop System Design, Operating and Maintenance, and Closure Plan

ConocoPhillips Company Well: Ruby Federal #25

Location: Sec. 17, T17S, R32E

Date: 09-25-12

ConocoPhillips proposes the following plan for design, operating and maintenance, and closure of our proposed closed loop system for the above named well:

1. We propose to use a closed loop system with steel pits, haul-off bins, and frac tanks for containing all cuttings, solids, mud, water, brine, and liquids. We will not dig a pit, nor will we use a drying pad, nor will we build an earth pit above ground level, nor will we dispose of or bury any waste on location.

All drilling waste and all drilling fluids (fresh water, brine, mud, cuttings, drill solids, cement returns, and any other liquid or solid that may be involved) will be contained on location in the rig's steel pits or in hauloff bins or in frac tanks as needed. The intent is as follows:

- We propose to use the rigs' steel pits for containing and maintaining the drilling fluids.
- We propose to remove cuttings and drilled solids from the mud by using solids control equipment and to contain such cuttings and drilled solids on location in haul-off bins.
- We propose that any excess water that may need to be stored on location will be stored in tanks.

The closed loop system components will be inspected daily by each tour and any need repairs will be made immediately. Any leak in the system will be repaired immediately, and any spilled liquids and/or solids will be cleaned immediately, and the area where any such spill occurred will be remediated immediately.

2. Cuttings and solids will be removed from location in haul-off bins by an authorized contractor and disposed of at an authorized facility. For this well, we propose the following disposal facility:

Controlled Recovery Inc, 4507 West Carlsbad Hwy, Hobbs, NM 88240, P.O. Box 388; Hobbs, New Mexico 88241 Toll Free Phone: 877.505.4274, Local Phone Number: 432.638.4076

The physical address for the plant where the disposal facility is located is Highway 62/180 at mile marker 66 (33 miles East of Hobbs, NM and 32 miles West of Carlsbad, NM).

The Permit Number for CRI is R9166

A photograph showing the type of haul-off bins that will be used is attached.

- 3. Mud will be transported by vacuum truck and disposed of at Controlled Recovery Inc at the facility described above.
- 4. Fresh Water and Brine will be hauled off by vacuum truck and disposed of at an authorized salt water disposal well. We propose the following for disposal of fresh water and brine as needed:
 - Nabors Well Services Company, 3221 NW County Rd; Hobbs, NM 88240, PO 5208 Hobbs, NM, 88241, Permit SWD 092. (Well Location: Section 3, T19S R37E)
 - Basic Energy Services, P.O. Box 1869; Eunice, NM 88231 Phone Number: 575.394.2545, Facility located at Hwy 18, Mile Marker 19; Eunice, NM.

James Chen Drilling Engineer Office: 832.486.2184 Cell: 832.678.1647

SPECIFICATIONS

Heavy Duty Split Metal Rolling Lid

FLOOR : 3/16 PL one piece CROSS MEMBER: 3 x 4.1; channel 16 on

WALLS: 3/16" PL solid welded with tubing top, inside liner hooks

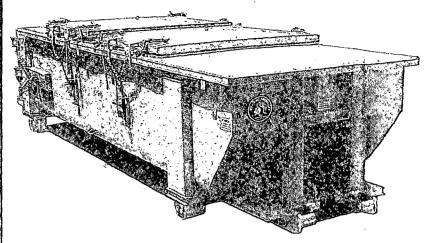
top, inside liner hooks
DOOR: 3/16" PL with tubing frame
FRONT: 3/16" PL slant formed
PICK UP: Standard cable with 2" x 6" x 1/4"
rails, guisset at each crossmember.
WHEELS: 10 DIA x 9 long with rease fittings.
DOOR LATCH: 3 Independent ratcher
binders: with chains: vertical second/latch a
GASKETS: Extruded rubber seal with metaloretainers.

retainers
WELDS: All welds continuous except substructure crossmembers
FINISH: Coated inside and out with direction

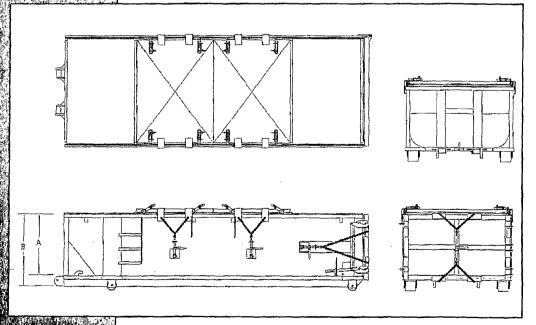
metal, rust inhibiting acrylic enamelycolor coats
HYDROTESTING: Full capacity static tests
DIMEN SIONS. 22-11 long (2146 linside),
99' wide (88 inside), see drawing for height
OPTIONS: Steel grittplast and special paint. OPTIONS:: Steel grindlast and Ampliro II, Heil and Dino pickup ROOF: '3/16' PL roof panels with tubing and channel support frame LIDS: (2) 68' x 90' metal folling/lids spring

ROLLERS 4" V-groove rollers with delrif Bearings and grease fittings ORENING. (2) 60" x-82" openings, with 8" divider centered on container. LATCH: (2) independent ratchet, binders with chains per lid.

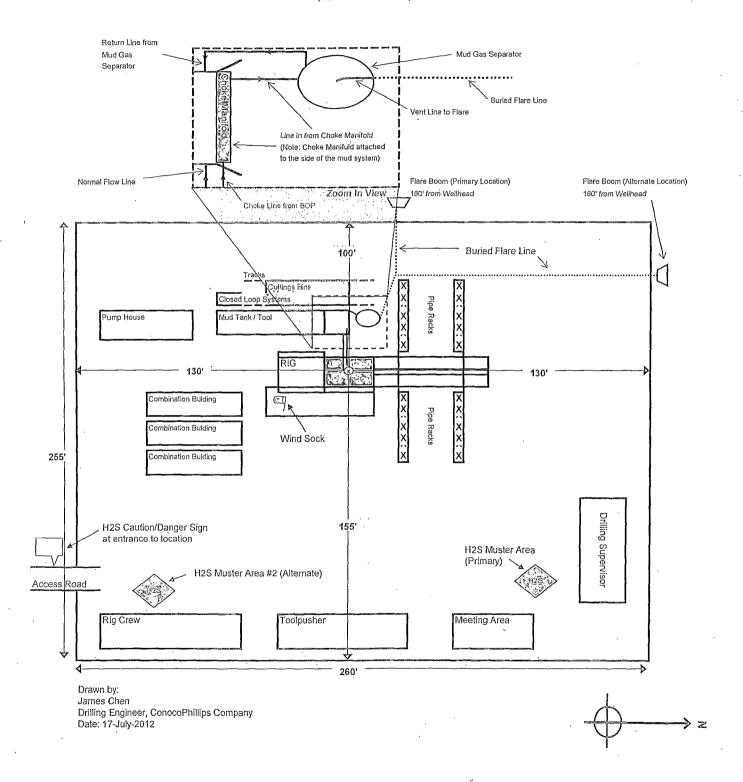
e indi, ASKETS: Extruded rubber eal with metal retainers.



CONT.	Α	В
20 YD	41	53
20 YD 25 YD	53	65
30 YD	65	77



Location Schematic and Rig Layout for Closed Loop System Precision #822 (PICTURE NOT TO SCALE)



Request for Variance ConocoPhillips Company

Lease Number: NM LC 029405 B

Well: Ruby Federal #25

Location: Sec. 17, T17S, R32E

Date: 09-30-12

Request:

ConocoPhillips Company respectfully requests a variance to install a flexible choke line instead of a straight choke line prescribed in the Onshore Order No. 2, III.A.2.b Minimum standards and enforcement provisions for choke manifold equipment. This request is made under the provision of Onshore Order No. 2, IV Variances from Minimum Standard. The rig to be used to drill this well is equipped with a flexible choke line if the requested variance is approved and determined that the proposed alternative meets the objectives of the applicable minimum standards.

Justifications:

The applicability of the flexible choke line will reduce the number of target tees required to make up from the choke valve to the choke manifold. This configuration will facilitate ease of riq up and BOPE Testing.

Attachments:

- Attachment # 1 Specification from Manufacturer
- Attachment # 2 Mill & Test Certification from Manufacturer

Contact Information:

Program prepared by: James Chen Drilling Engineer, ConocoPhillips Company Phone (832) 486-2184 Cell (832) 768-1647 Date: 30 September 2012









Reliance Eliminator Choke & Kill

This hose can be used as a choke hose which connects the BOP stack to the bleed-off manifold or a kill hose which connects the mud stand pipe to the BOP kill valve.

The Reliance Eliminator Choke & Kill hose contains a specially bonded compounded cover that replaces rubber covered Asbestos, Fibreglass and other fire retardant materials which are prone to damage. This high cut and gouge resistant cover overcomes costly repairs and downtime associated with older designs.

The Reliance Eliminator Choke & Kill hose has been verified by an independent engineer to meet and exceed EUB Directive 36 (700°C for 5 minutes).

Мол	n. (D	Non	n OD	We	ight	Min Be	nd Radius	Max	WP
in.	mm.	iņ.	mm	lb/ft	kg/m	in.	mm.	psi	Mpa
.3	76.2	5.11	129.79	14.5	21.46	48	1219.2	5000	34.47
3-1/2	88.9	5.79	147.06	20.14	29.80	54	1371.6	5000	34.47



Fittings	Flanges	Hammer Unions	Other
RC4X5055	R35 - 3-1/8 5000# API Type 6B	All Union Configurations	LP Threaded Connectio
RC3X5055	R31 - 3-1/8 3000# API Type 6B		Graylock
RC4X5575			Custom Ends
			•



2030 E. 8th Street, Suite B • Greeley, CO 80631 Ph: (970) 346-3751 • Fax: (970) 353-3168 • Toll Free: (856) 771-9739

TEST CERTIFICATE

Customer: P.O. #:

PRECISION DRILLING

RIG 822 27792

Invoice #: Material:

Description:

3 1/2" FIREGUARD 3 1/2" X 10' 3 1/2" FLANGE R31

Coupling 1: "Serial:

" Quality:

3 1/2" FLOATING R31

Coupling 2: " Serial:

" Quality: Working Pressure: 3000

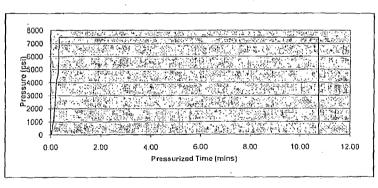
Test Pressure:

Duration (mins):

7500

10

Cert No.: 27792 Date: 9/21/2012



Conducted By:

FLORES M, Test Technician

✓ Acceptable

Not Acceptable