

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTOCD Hobbs
HOBBS OCDFORM APPROVED
OMB No 1004-0136
Expires July 31, 2010

AUG 02 2012

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work ☒ DRILL ☐ REENTER

RECEIVED

1b. Type of Well. ☒ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☒ Multiple Zone2. Name of Operator
CHEVRON U.S.A. INC.Contact: DENISE PINKERTON
E-Mail: leakejd@chevron.com

4323

3a. Address
15 SMITH ROAD
MIDLAND, TX 797053b. Phone No. (include area code)
Ph: 432-687-73755. Lease Serial No.
NMNM96855

6. If Indian, Allottee or Tribe Name

7. If Unit or CA Agreement, Name and No

8. Lease Name and Well No
CROSS BONES 1-29 2H

<39383>

9. API Well No.

30-025-40711

10. Field and Pool, or Exploratory
LUSK; BONE SPIRING, NORTH

<41450>

4. Location of Well (Report location clearly and in accordance with any State requirements *)

At surface 1980FSL 990FWL

Unit L

At proposed prod zone 1650FSL 330FEL

11. Sec., T, R, M., or Blk and Survey or Area

Sec 29 T18S R32E Mer NMP

14. Distance in miles and direction from nearest town or post office*
2412. County or Parish
LEA13. State
NM15. Distance from proposed location to nearest property or
lease line, ft (Also to nearest drig unit line, if any)
100'16. No. of Acres in Lease
560.0017. Spacing Unit dedicated to this well
40:00 16018. Distance from proposed location to nearest well, drilling,
completed, applied for, on this lease, ft
100'19. Proposed Depth
12031 MD
8500 TVD20. BLM/BIA Bond No on file
CA032921. Elevations (Show whether DF, KB, RT, GL, etc)
3699 GL

22. Approximate date work will start

23. Estimated duration

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form

- 1 Well plat certified by a registered surveyor
- 2 A Drilling Plan
- 3 A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).

- 4 Bond to cover the operations unless covered by an existing bond on file (see Item 20 above)
- 5 Operator certification
- 6 Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature
(Electronic Submission)Name (Printed/Typed)
DENISE PINKERTON Ph. 432-687-7375Date
06/20/2012Title
REGULATORY SPECIALISTApproved by (Signature)
/s/ Don PetersonName (Printed/Typed)
/s/ Don PetersonDate
JUL 26 2012Title
FIELD MANAGEROffice
CARLSBAD FIELD OFFICEApplication approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Electronic Submission #141081 verified by the BLM Well Information System
For CHEVRON U.S.A. INC., sent to the Hol Capitan Controlled Water Basin

K2 08/03/12

Approval Subject to General Requirements
& Special stipulations AttachedSEE ATTACHED FOR
CONDITIONS OF APPROVAL

AUG 4 2012

BLM 9 Point Drilling Plan

Chevron U.S.A.
Cross Bones 1 29-2H
Lea County, New Mexico
Section 29, Twp. 18S, Rge. 32E
1980' FSL and 990' FWL (SHL)
1650' FSL and 330' FEL (BHL)

(1) Formation Tops

<u>Formation</u>	<u>Depth</u>
Rustler	1,080'
Top of Salt	1,160'
Base of Salt	2,500'
Tansill	2,500'
Yates	2,650'
Seven Rivers	3,100'
Queen	3,675'
Cherry Canyon	4,850'
Brushy Canyon	5,230'
T/Bone Spring	6,730'
T/1 st Bone Spring Sand	8,160'
T/2 nd Bone Spring Sand	9,090'
Kick Off Point	7,635'
Lateral TD (MD)	12,031'
Lateral Landing TVD	8,350'
Lateral TD (TVD)	8,500'

(2) Zones Containing Oil, Gas, Water, and Other Minerals

<u>Formation</u>	<u>Depth</u>	<u>Properties</u>
Brushy Canyon	5,230'	Oil/Gas/Water
T/1 st Bone Spring Sand	8,160'	Oil/Gas/Water

Fresh water depth is above the Rustler. These sands will be protected by bringing surface casing cement to surface.

(3) Blow-Out Prevention

The wellhead system is a multi-bowl design. The initial BOP test will occur prior to drilling out the 13-3/8" casing shoe. All tests will be done with a third party testing service. The test pressures are 250/5,000 psi for rams and 250/3,500 psi for annular (70% of working pressure) for 10 minutes. BOPE stack will be tested every 14-21 days. Pipe rams will be operationally checked every 24 hours and blind rams will be operationally checked on each trip out of the hole. Upper and lower kelly cocks will be available at all times. A full opening stabbing valve and inside BOP with the appropriate connections will be on the drill floor at all times.

Surface Casing: 1,500 psi test pressure
Intermediate Casing: 1,500 psi test pressure
Casing Head: 13-3/8" SOW x 13-5/8" 3M
Casing Spool: 13-5/8" 3M x 11" 5M

Tubing Head: 11" 5M x 7-1/16" 10M
 BOPE: 13-5/8" 10M
 Annular: 13-5/8" 5M
 13-5/8" 5M Rotating head
 10M Choke Manifold

Chevron (operator) requests a variance if H&P 227 (rig name) is used to drill this well to use a co-flex line between the BOP and choke manifold.

Manufacturer: Continental ContiTech Beattie Co.

Serial Number: 62639

Length: 35'

Size: 3" ID

Ends - 3" coupling with 4-1/16" 10K API flange end

WP rating: 10,000 psi

Anchors required by manufacturer - No

(4) Casing Design

The operator proposes to drill a horizontal well in the 2nd Bone Spring. We will drill a 17-1/2" hole to 1,105' and 13-3/8", 48#, H-40 casing will be run and cemented to surface. After sufficient W.O.C. time, a 12-1/4" hole will be drilled to 3,000' and 9-5/8", 40#, K-55 casing will then be run and cemented to surface. After sufficient W.O.C. time, an 8-3/4" vertical hole will be drilled to KOP at 7,635' and OH logs will be run. Kick off @ +/-7,635' with an 8-3/4" bit to drill the build and lateral sections to 12,031' (MD) and 8,500' (TVD). A 5-1/2", 17#, HCP-110, CDC casing string will be installed and cemented in place. All casing is new.

Hole Size	String	Csg Size	Wt	Grade	Conn	Depth	Burst	Collapse	Tension
17-1/2"	Surf	13-3/8"	48#	H-40	STC	1,105'	2.6	1.7	7.0
12-1/4"	Int	9-5/8"	40#	K-55	LTC	3,000'	1.7	2.0	2.3
8-3/4"	Prod	5-1/2"	17#	HC P-110	CDC	12,031'	3.7	2.3	2.5

(5) Cementing

The cement volumes are approximate and are calculated on the assumption that a gauge hole will be achieved.

The surface and intermediate casing strings will have centralizers on the bottom 3 joints of casing (a minimum of one centralizer per joint) and then every 3rd joint to surface. The production string will have centralizers on every joint in the lateral for the first 1,000' then every other joint through the horizontal to the base of the curve and every 3rd joint through the build section and every 4th joint into the intermediate casing shoe. The casing shoe will not be drilled out until a minimum of 500 psi compressive strength is achieved. *See CoA*

Casing	Slurry	Sacks	Density ppg	Yield ft ³ /sk	% Excess	TOC
13-3/8" Lead	ExtendaCem-C + 4% Gel + 2% CaCl	619	13.5	1.75	100%	Surface
13-3/8" Tail	HalCem-C + 2% CaCl	329	14.8	1.35	100%	800'
9-5/8" Lead	ExtendaCem-C + 4% Gel	587	13.5	1.72	50%	Surface
9-5/8" Tail	HalCem-C + 1% CaCl	223	14.8	1.34	50%	2,400'
5-1/2" Lead	EconoCem-HLH + 0.3% CFR-3 + 5% Salt + 5 lb/sk Kol + 0.5 lb/sk PhenoSeal	764	12.7	1.98	35%	2,500'
5-1/2" Tail	VersaCem-H + 0.4% GasStop + 0.3% CFR-3 + 0.2% HR-601 + 1 lb/sk Salt	1,393	14.4	1.24	35%	7,000'

(6) Circulating Medium

Visual monitoring will be used from surface to TD. Sufficient materials to maintain mud properties will be available on location while drilling. The cut brine will be mudded up for logging.

Interval	Mud Type	Density	Viscosity	Fluid Loss
0 - 1,105'	FW/Spud mud	8.6 - 8.9	32 - 36	NC
1,105 - 3,000'	Brine	10 - 10.1	28 - 30	NC
3,000 - 7,635'	Cut Brine	8.8 - 9.1	28 - 30	NC
Build/Lateral 7,635 - 12,031'	Cut Brine	8.8 - 9.1	28 - 30	NC

(7) Testing, Logging, and Coring *See CoA*

Logs: Quad Combo from KOP 7,635' to intermediate casing shoe at 3,000'. GR and Neutron Density will be run from KOP to surface.

DST's: None planned

Cores: None planned

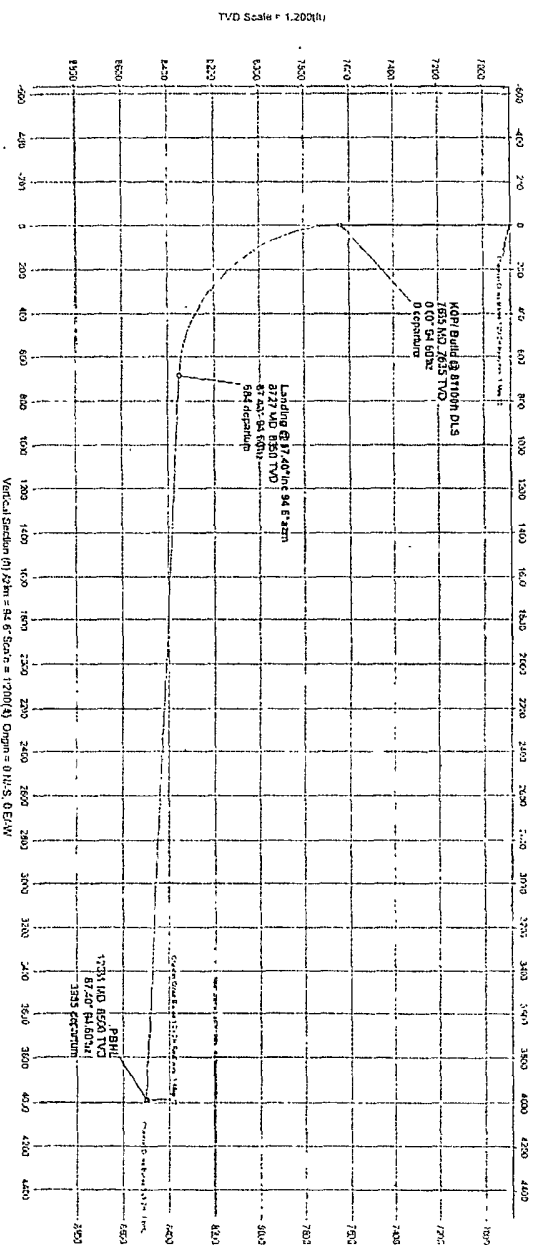
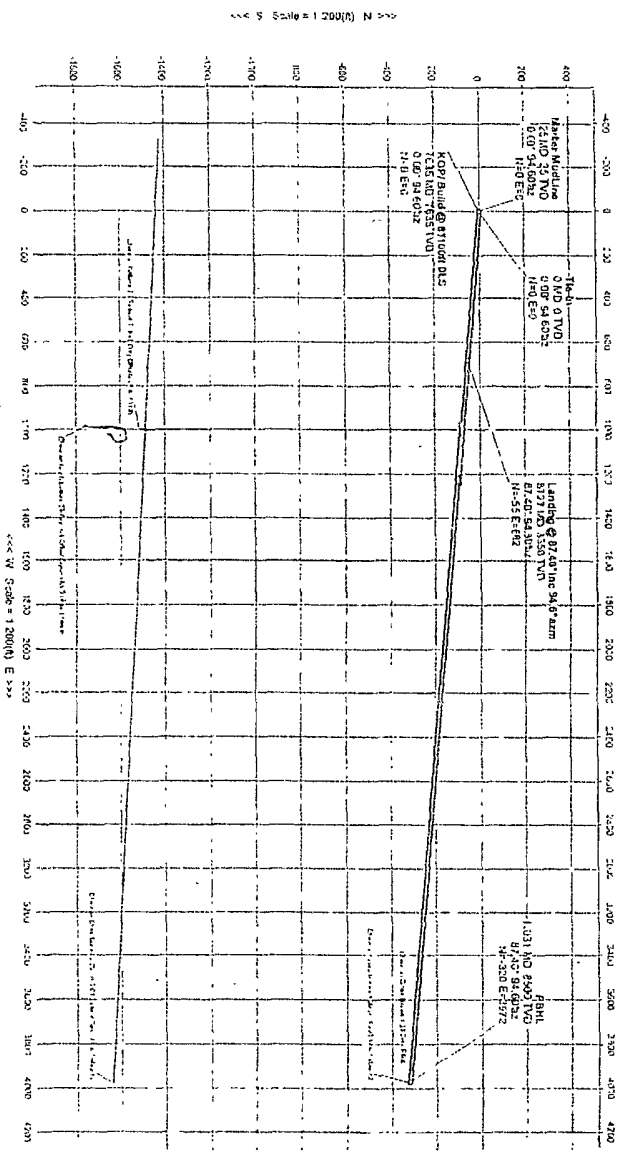
(8) Anticipated Pressures, Abnormal/Hazardous Drilling Conditions

Normal pressures and temperatures are expected to TD. Maximum anticipated bottom hole pressure is approximately 4,000 psi. Maximum bottom hole temperature is anticipated to be 150 degrees.

The BLM has reports of H₂S from the Delaware within an 1/8 of a mile. H₂S detection and breathing equipment will be in operation after drilling out the surface shoe and until the 5-1/2" is cemented in place.

(9) Other Facets of the Proposal

Anticipated Start Date:	October 2012
Drilling Days:	40 days
Completion Days:	60 days



Drain By
Date Closed
Checked By
Toilet Date
Approved By
Aspirec Div

Mt. St. Elizabeth's
May 07 2012 01:57 PM



Chevron Cross Bones 1 29 2H Rev0 mnc 1-May-12 Proposal Report (Non-Def Plan)



Report Date: May 02, 2012 - 01 11 PM
 Client: Chevron
 Field: WM Lea County (NAD 27)
 Structure / Slot: Chevron Cross Bones 1 29 2H / Chevron Cross Bones 1 29 2H
 Well: Chevron Cross Bones 1 29 2H
 Borehole: Original Hole
 UWI / API#: Unknown / Unknown
 Survey Name: Chevron Cross Bones 1 29 2H Rev0 mnc 1-May-12
 Survey Date: May 01, 2012
 Tort / AHD / DD / ERD Ratio: 17 404 ' / 3984 775 ft / 5 693 / 0 469
 Coordinate Reference System: NAD27 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 42' 59 80932", W 103° 47' 35 11576"
 Location Grid N/E Y/X: N 624838 000 RUS, E 666073 300 RUS
 CRS Grid Convergence Angle: 0 29185035 '
 Grid Scale Factor: 0 999954068

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 94 569 ' (Grid North)
 Vertical Section Origin: 0 009 ft, 0 000 ft
 TVD Reference Datum: RKB
 TVD Reference Elevation: 3724.000 ft above
 Seabed / Ground Elevation: 3699.000 ft above
 Magnetic Declination: 7.705 '
 Total Field Strength: 48801 272 nT
 Magnetic Dip Angle: 60 548 '
 Declination Date: May 31, 2012
 Magnetic Declination Model: BGGM 2011
 North Reference: Grid North
 Grid Convergence Used: 0 292 '
 Total Corr Mag North->Grid North: 7 413 '
 Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Nothing (ft/US)	Easting (ft/US)	Latitude (N/S ° ° ' '')	Longitude (E/W ° ° ' '')
Tie-In	0.00	0.00	94.60	0.00	0.00	0.00	0.00	0.00	624838.00	666073.30	N 32 42 59 81	W 103 47 36 12
KOP/Build @ 8"/100ft DLS	7634.50	0.00	94.60	7634.50	0.00	0.00	0.00	0.00	624838.00	666073.30	N 32 42 59 81	W 103 47 36 12
Landing @ 87.46° inc 94.6° azimuth	8727.09	87.40	94.60	8350.00	683.75	-54.82	681.55	2.00	624783.16	666754.80	N 32 42 59 23	W 103 47 28 14
PBHL	12031.50	87.40	94.60	8500.00	3984.77	-319.52	3971.94	0.00	624518.50	670045.00	N 32 42 56 45	W 103 46 49 65

Survey Type: Non-Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95 000% Confidence 2.7955 sigma
 Survey Program:

Description	MD From (ft)	MD To (ft)	EQD Frq (ft)	Survey Tool Type	Borehole / Survey
	0.000	25.000	1/100.000	SLB_MWD-STD-Depth Only	Chevron Cross Bones 1 29 2H Rev0 mnc 1-May-12
	25.000	7500.000	1/100.000	SLB_MWD-STD	Chevron Cross Bones 1 29 2H Rev0 mnc 1-May-13
	7500.000	12031.495	1/100.000	SLB_MWD-STD	Chevron Cross Bones 1 29 2H Rev0 mnc 1-May-14



Chevron Cross Bones 1 29 2H Rev0 mnc 1-May-12 Proposal Report (Non-Dot Plan)



Report Date: May 02, 2012 - 01:13 PM
Client: Chevron
Field: VM Lea County (NAD 83)
Structure / Slot: Chevron Cross Bones 1 29 2H / Chevron Cross Bones 1 29 2H
Well: Chevron Cross Bones 1 29 2H
Borehole: Original Hole
UWI / API#: Unknown / Unknown
Survey Name: Chevron Cross Bones 1 29 2H Rev0 mnc 1-May-12
Survey Date: May 01, 2012
Tort / AHD / ODI / ERO Ratio: 37.404' / 3864.775' / 5.693' / 0.468
Coordinate Reference System: NAD27 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 42' 59.8932", W 103° 47' 38.11576"
Location Grid N/E Y/X: Y 524858 000 NUS, E 666073 300 NUS
CRS Grid Convergence Angle: 3.29185035°
Grid Scale Factor: 3.99654058

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 64.596° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 3724.000 ft above
Seabed / Ground Elevation: 3599.000 ft above
Magnetic Declination: 7.705°
Total Field Strength: 48501.272 nT
Magnetic Dip Angle: 60.548°
Declination Date: May 01, 2012
Magnetic Declination Model: BGGM 2011
North Reference: Grid North
Grid Convergence Used: 0.292°
Total Corr Mag North to Grid North: 7.413°
Local Coord Referenced To: Structure Reference Point

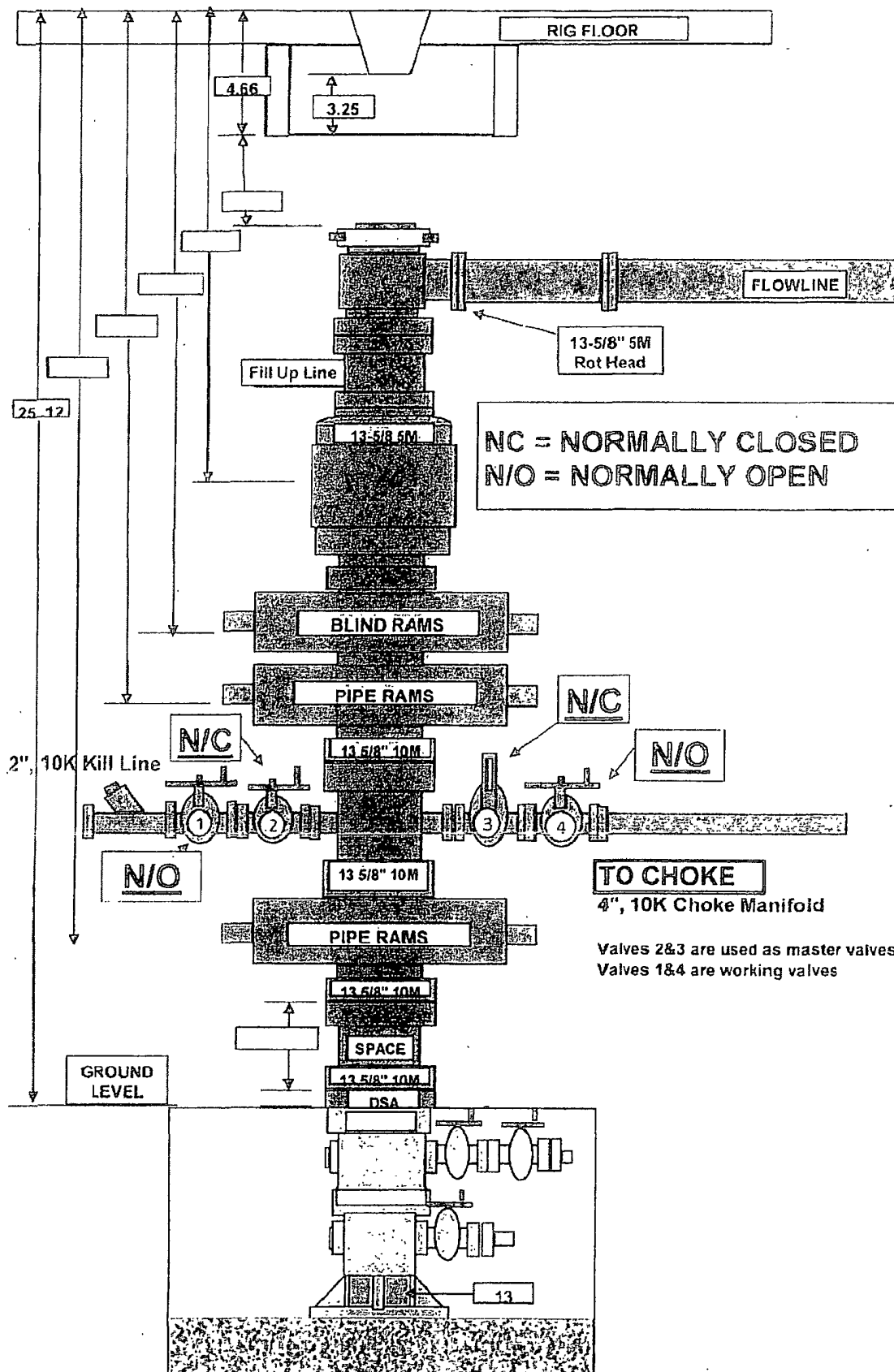
Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
Tie-In	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	624338.00	666073.30 N	32 42 59.81 W 103 47 38.12
Marker MudLine	25.00	0.00	94.60	25.00	0.00	0.00	0.00	0.00	624338.00	666073.30 N	32 42 59.81 W 103 47 38.12	
Tie-In on Pilot	7500.00	0.00	94.60	7500.00	0.00	0.00	0.00	0.00	624338.00	666073.30 N	32 42 59.81 W 103 47 38.12	
KOP/ Build @ 87/100R DLS	7634.50	0.00	94.60	7634.50	0.00	0.00	0.00	0.00	624338.00	666073.30 N	32 42 59.81 W 103 47 38.12	
	7700.00	5.24	94.60	7699.91	2.99	-0.24	2.98	8.00	624337.76	666076.28 N	32 42 59.81 W 103 47 38.09	
	7800.00	13.24	94.60	7798.53	18.04	-1.53	18.97	8.00	624336.47	666052.27 N	32 42 59.78 W 103 47 35.89	
	7900.00	21.24	94.60	7893.96	48.65	-3.90	48.49	8.00	624334.10	666121.79 N	32 42 59.77 W 103 47 35.55	
	8000.00	29.24	94.60	7984.34	91.25	-7.32	90.96	8.00	624330.68	666184.25 N	32 42 59.73 W 103 47 35.05	
	8100.00	37.24	94.60	8067.91	148.02	-11.71	145.55	8.00	624326.29	666218.64 N	32 42 59.69 W 103 47 34.41	
	8200.00	45.24	94.60	8143.05	211.88	-16.99	211.20	8.00	624321.01	666284.49 N	32 42 59.63 W 103 47 33.64	
	8300.00	53.24	94.60	8208.29	287.58	-23.06	286.64	8.00	624314.94	666359.92 N	32 42 59.57 W 103 47 32.76	
	8400.00	61.24	94.60	8262.36	371.59	-29.79	370.39	8.00	624308.21	666443.67 N	32 42 59.50 W 103 47 31.78	
	8500.00	69.24	94.60	8304.22	462.32	-37.07	460.93	8.00	624300.68	666524.10 N	32 42 59.42 W 103 47 30.72	
	8600.00	77.24	94.60	8333.04	557.99	-44.74	556.10	8.00	624293.26	666609.46 N	32 42 59.34 W 103 47 29.61	
	8700.00	85.24	94.60	8346.26	659.74	-52.66	654.63	8.00	624285.34	666727.39 N	32 42 59.26 W 103 47 28.46	
Landing @ 87.40° Inc 94.6° Azim	8727.06	87.40	94.60	8350.00	683.75	-54.82	681.55	8.00	624283.15	666754.60 N	32 42 59.23 W 103 47 28.14	
	8800.00	87.40	94.60	8353.31	756.61	-60.87	754.17	0.00	624277.34	666827.43 N	32 42 59.17 W 103 47 27.29	
	8900.00	87.40	94.60	8357.65	856.51	-66.68	853.75	0.00	624269.33	666927.09 N	32 42 59.09 W 103 47 26.13	
	9000.00	87.40	94.60	8362.38	956.40	-76.69	953.33	0.00	624261.32	667028.57 N	32 42 59.00 W 103 47 24.93	
	9100.00	87.40	94.60	8366.92	1056.30	-84.70	1052.90	0.00	624253.31	667126.14 N	32 42 58.92 W 103 47 23.80	
	9200.00	87.40	94.60	8371.46	1156.20	-92.71	1152.48	0.00	624245.30	667225.71 N	32 42 58.83 W 103 47 22.63	
	9300.00	87.40	94.60	8375.99	1256.10	-100.72	1252.05	0.00	624237.29	667325.27 N	32 42 58.75 W 103 47 21.47	
	9400.00	87.40	94.60	8380.53	1355.99	-108.73	1351.63	0.00	624229.28	667424.64 N	32 42 58.67 W 103 47 20.30	
	9500.00	87.40	94.60	8385.07	1455.89	-116.74	1451.20	0.00	624221.27	667524.41 N	32 42 58.58 W 103 47 19.14	
	9600.00	87.40	94.60	8389.61	1555.79	-124.75	1550.78	0.00	624213.26	667623.90 N	32 42 58.50 W 103 47 17.97	
	9700.00	87.40	94.60	8394.14	1655.68	-132.76	1650.35	0.00	624205.25	667723.53 N	32 42 58.41 W 103 47 16.81	
	9800.00	87.40	94.60	8398.68	1755.58	-140.77	1749.93	0.00	624197.24	667823.12 N	32 42 58.33 W 103 47 15.64	
	9900.00	87.40	94.60	8403.22	1855.48	-148.78	1849.50	0.00	624189.23	667922.69 N	32 42 58.24 W 103 47 14.48	
	10000.00	87.40	94.60	8407.76	1955.37	-156.79	1949.08	0.00	624181.22	668022.26 N	32 42 58.16 W 103 47 13.31	
	10100.00	87.40	94.60	8412.30	2055.27	-164.80	2048.65	0.00	624173.21	668121.83 N	32 42 58.07 W 103 47 12.15	
	10200.00	87.40	94.60	8416.84	2155.17	-172.81	2148.23	0.00	624165.20	668221.40 N	32 42 57.99 W 103 47 10.98	
	10300.00	87.40	94.60	8421.38	2255.07	-180.82	2247.80	0.00	624157.19	668320.97 N	32 42 57.91 W 103 47 9.82	
	10400.00	87.40	94.60	8425.92	2354.96	-188.83	2347.38	0.00	624149.18	668420.54 N	32 42 57.82 W 103 47 8.65	
	10500.00	87.40	94.60	8430.46	2454.86	-196.84	2446.95	0.00	624141.17	668520.10 N	32 42 57.74 W 103 47 7.49	
	10600.00	87.40	94.60	8434.99	2554.76	-204.85	2546.53	0.00	624133.16	668619.67 N	32 42 57.65 W 103 47 6.32	
	10700.00	87.40	94.60	8439.53	2654.65	-212.86	2646.11	0.00	624125.15	668719.24 N	32 42 57.57 W 103 47 5.16	
	10800.00	87.40	94.60	8444.07	2754.55	-220.87	2745.68	0.00	624117.14	668818.81 N	32 42 57.48 W 103 47 3.99	
	10900.00	87.40	94.60	8448.61	2854.45	-228.88	2845.26	0.00	624109.13	668918.38 N	32 42 57.40 W 103 47 2.83	
	11000.00	87.40	94.60	8453.16	2954.34	-236.89	2944.83	0.00	624101.12	669017.95 N	32 42 57.32 W 103 47 1.66	
	11100.00	87.40	94.60	8457.70	3054.24	-244.90	3044.41	0.00	624093.11	669117.52 N	32 42 57.23 W 103 47 0.50	
	11200.00	87.40	94.60	8462.24	3154.14	-252.91	3143.98	0.00	624085.10	669217.09 N	32 42 57.15 W 103 46 59.33	
	11300.00	87.40	94.60	8466.78	3254.03	-260.92	3243.56	0.00	624077.09	669316.66 N	32 42 57.06 W 103 46 58.17	
	11400.00	87.40	94.60	8471.32	3353.93	-268.93	3343.13	0.00	624069.08	669416.23 N	32 42 56.98 W 103 46 57.00	
	11500.00	87.40	94.60	8475.86	3453.83	-276.94	3442.71	0.00	624061.07	669515.80 N	32 42 56.89 W 103 46 55.84	
	11600.00	87.40	94.60	8480.40	3553.72	-284.95	3542.28	0.00	624053.06	669615.38 N	32 42 56.81 W 103 46 54.67	
	11700.00	87.40	94.60	8484.94	3653.62	-292.96	3641.86	0.00	624045.05	669714.93 N	32 42 56.73 W 103 46 53.51	
	11800.00	87.40	94.60	8489.48	3753.52	-300.97	3741.43	0.00	624037.04	669814.50 N	32 42 56.64 W 103 46 52.35	
	11900.00	87.40	94.60	8494.03	3853.41	-308.98	3841.01	0.00	624029.03	669914.07 N	32 42 56.56 W 103 46 51.18	
	12000.00	87.40	94.60	8498.57	3953.31	-317.00	3940.58	0.00	624021.02	670013.64 N	32 42 56.47 W 103 46 50.02	
PBHL	12031.50	87.40	94.60	8500.00	3984.77	-319.52	3971.94	0.00	624013.00	670045.00 N	32 42 56.45 W 103 46 49.65	

Survey Type: Non-Dot Plan

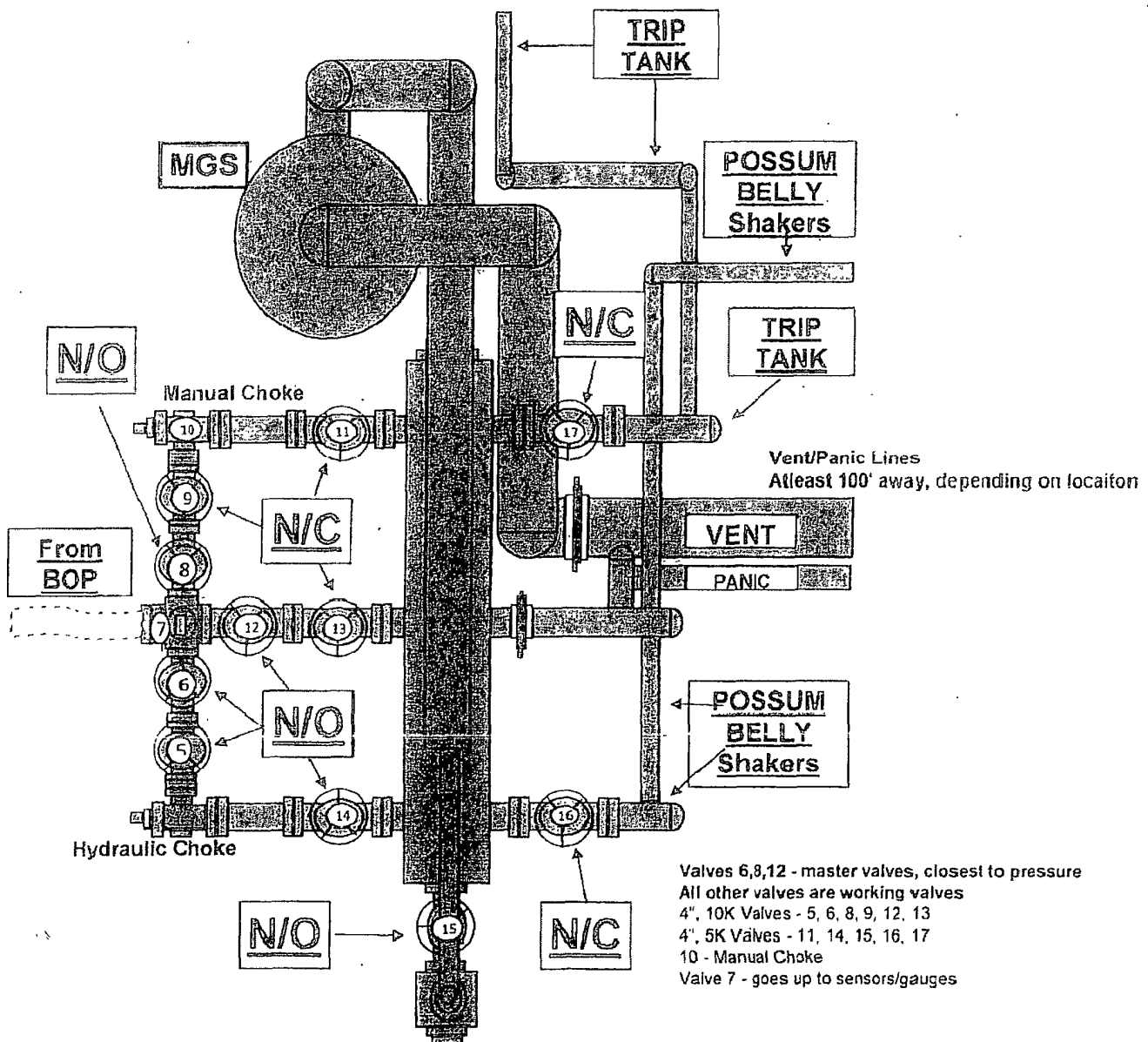
Survey Error Model: SCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	MD From (ft)	MD To (ft)	ECU Freq (ft)	Survey Tool Type	Borehole / Survey
	0.000	25.000	1/100.000	SLB_MWD-STD-Depth Only	Chevron Cross Bones 1 29 2H Rev0 mnc 1-May-12
	25.000	7500.000	1/100.000	SLB_MWD-STD	Chevron Cross Bones 1 29 2H Rev0 mnc 1-May-13
	7500.000	12031.495	1/100.000	SLB_MWD-STD	Chevron Cross Bones 1 29 2H Rev0 mnc 1-May-14

H&P 227 BOP Stack



H&P #227 CHOKE MANIFOLD



N/C = NORMALLY CLOSED
N/O = NORMALLY OPEN



U. S. Steel Tubular Products

Product Information

5 1/2 17 lb (0.304) P110 HC

STAR SEAL - CDCTM

3/28/2012

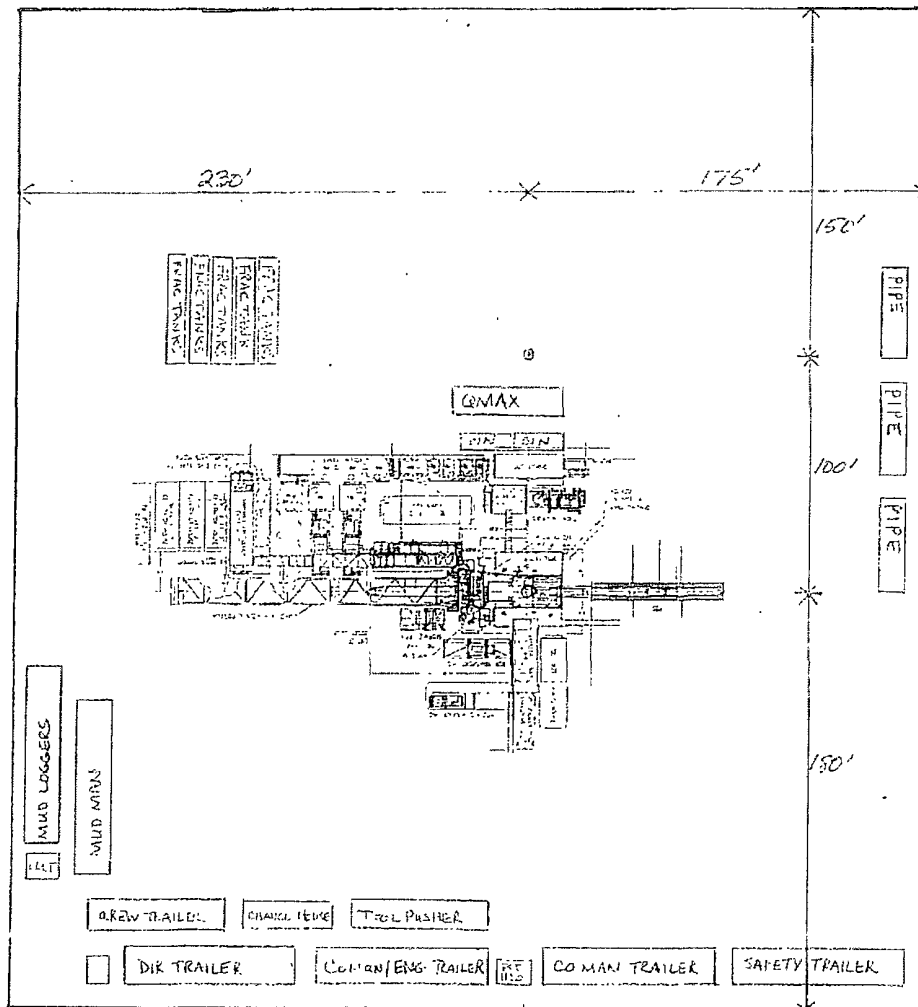
MECHANICAL PROPERTIES		Yield Strength	
Pipe Body	Minimum	110	ksi
	Maximum	140	ksi
		Tensile Strength	
(Couplings are Std API)	Minimum	125	ksi
PIPE PROPERTIES			
Dimensions, Nominal	Pipe Outside Diameter	5.500	in.
	Wall	0.304	in.
	Pipe Inside Diameter	4.892	in.
	Pipe Drift - API	4.767	in.
		Nominal Linear Weight, T&C	17.00
	Pipe Cross Sectional Area	4.962	sq. in.
Performance Properties	Minimum Pipe Body Yield Strength	546	1,000 lbs
	Minimum Collapse Pressure	8,730	psi
	Minimum Internal Yield Pressure	10,640	psi
CONNECTION PROPERTIES			
Dimensions, Nominal	Connection Outside Diameter	6.050	in.
	Connection Inside Diameter	4.892	in.
	Connection Drift - API	4.767	in.
	Makeup Loss	4.63	in.
	Critical Area	4.962	sq in.
	Joint Efficiency	100.0	%
Performance Properties	Joint Strength	568	1,000 lbs
	Compression Rating	341	1,000 lbs
	Minimum Collapse Pressure	8,730	psi
	Minimum Internal Yield Pressure	10,640	psi
	Maximum Uniaxial Bend Rating	57.2	deg/100 ft
	Connection Yield Torque	13,000	ft - lbs
Recommended Torque Values	Minimum Makeup Torque	8,500	ft - lbs
	Maximum Makeup Torque	10,500	ft - lbs
* Note. Verification of connection shoulder is required. Typical shoulder range		5,000 - 7,500	ft - lbs

* STAR SEAL - CDC (Casing Drilling Connection) is a Modified API Fullress threaded and coupled connection designed for field proven in drilling with casing applications. Star Seal is a registered trademark of U. S. Steel Corporation. All material contained in this publication is for general information only. This material should not therefore, be used or relied upon for any specific application without independent competent professional examination and verification of its accuracy, suitability and applicability. Anyone making use of this material does so at their own risk and assumes any and all liability resulting from such use. U. S. Steel disclaims any and all expressed or implied warranties of fitness for any general or particular application. USS Product Data Sheet 2012 rev9 (February 14)

U. S. Steel Tubular Products, Inc. - 600 Grant Street, Pittsburgh, PA 15219

www.uss.com

EXHIBIT A



Cross Bore 2 29-1H
 Cross Bore 1 29-1H (100' north)
 Cross Bore 1-29 #2H

Operating & Maintenance Plan

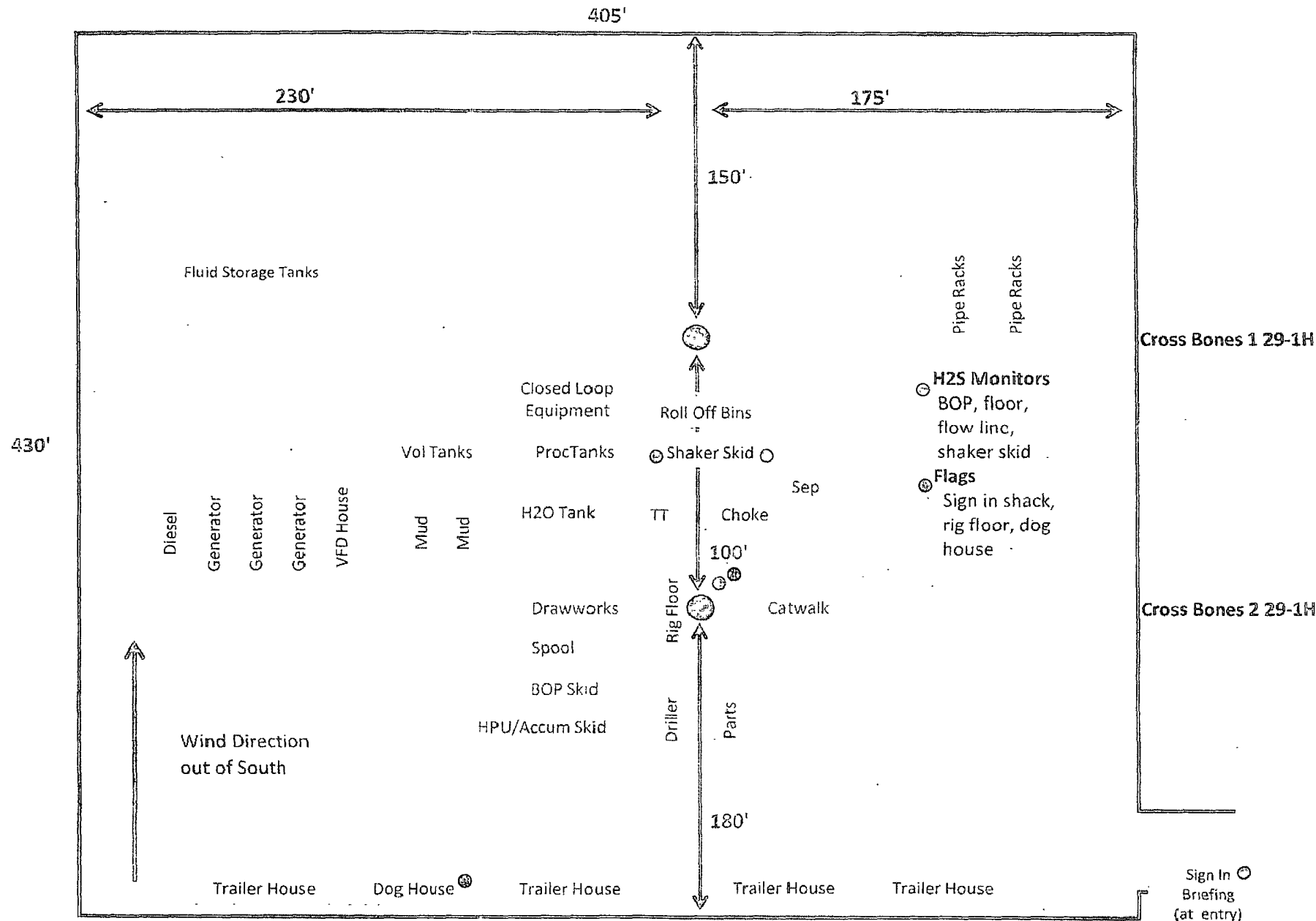
- Cuttings will be discharged from shaker into cuttings bins/tanks
- Cuttings bins/tanks will be monitored so that it will not be overfilled
- The cuttings bins/tanks will be visually inspected for fluid integrity on a daily basis
- Documentation of fluid inspection will be captured on daily reports

Closure Plan

- Drilled cuttings will be removed from the cuttings bins/tanks using a backhoe and placed in a suitable transport container if required. Boxes may be hauled off and replaced as needed.
- Drilled cuttings will be disposed of at a suitable off-location waste facility

Cross Bones 2 29-1H Location

*Not to Scale



Exhibit