Form 3160-3
(March 2012)

OCD Hobbs

HOBBS OCD
DEC 19 2016
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FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
SHL: NMNM0077004, NMNM073240
BHL: NMNM067111

6. If Indian, Allotee or Tribe Name

1a. Type of Work: [✓] DRILL [ ] REENTER

7. If Unit or CA Agreement, Name and No.

1b. Type of Well: [✓] Oil Well [ ] Gas Well [ ] Other [✓] Single Zone [ ] Multiple Zone

8. Lease Name and Well No. (317177)
Geronimo Federal Com #11H

2. Name of Operator
COG Operating LLC. (229137)

9. API Well No.
30-025-43503

3a. Address
2208 West Main Street
Artesia, NM 88210

3b. Phone No. *(include area code)*
575-748-6940

10. Field and Pool, or Exploratory (27220)
GEM; Bone Spring

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface 636' FSL & 411' FWL (SWSW) Section 19-T19S-R33E
At proposed prod. Zone 50' FSL & 330' FWL (SWSW) Section 31-T19S-R33E

11. Sec., T.R.M. or Blk and Survey or ~~Area~~
Section 19 - T19S - R33E

14. Distance in miles and direction from nearest town or post office*
Approximately 12 miles south of Maljamar

12. County or Parish
Lea County

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. Unit line, if any)
50'

16. No. of acres in lease
NMNM0077004: 802.25
NMNM073240: 308.56
NMNM067111: 321.72

17. Spacing Unit dedicated to this well
324.9

18. Distance from location* to nearest well, drilling, completed, applied for, on this lease, ft.
SHL: 615' BHL: 2312'

19. Proposed Depth
MD TVD
TVD: 20,837' MD: 10,000'

20. BLM/BIA Bond No. on file
NMB000740 &NMB000215

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3599.6' GL

22. Approximate date work will start*
10/1/2016

23. Estimated duration
30 days

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: Mayte Reyes
Name *(Printed/Typed)*: Mayte Reyes
Date: 7-13-2016

Title: Regulatory Analyst

Approved by *(Signature)*: Ty Bryson
Name *(Printed/Typed)*: Ty Bryson
Date: 12/12/2016

Title: ACTING FIELD MGR
Office: Carlsbad

Application approval does not warrant or certify that the applicant holds legan or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations theron.

Conditions of approval, if any, are attached.

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.

APPROVAL FOR TWO YEARS

Continued on page 2)

*(Instructions on page 2)

KZ 12/20/16

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

SEE ATTACHED FOR CONDITIONS OF APPROVAL

COG Operating LLC – Geronimo Federal Com 11H

1. Geologic Formations

TVD of target	10,000' EOL	Pilot hole depth	NA
MD at TD:	20,837'	Deepest expected fresh water:	185

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	1174	Water	
Top of Salt	1374	Salt	
Tansil	2701		
Yates	2926		
Capitan Reef	3336	Water	
Delaware	5179	Oil/Gas	
Bone Spring	7766	Oil/Gas	
1st Bone Spring	8886	Oil/Gas	
2nd Bone Spring	9626	Target	
3rd Bone Spring	10,386'	Oil/Gas	Not penetrating

2. Casing Program → SEE COA

Hole Size	Casing Interval From	Casing Interval To	Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
26"	0	~~1200~~ 1300'	20"	94	J55	STC	0.93	1.45	6.94
17.5"	0	~~2800~~ 3400'	13.375"	61	J55	LTC	1.06	1.48	3.48
12.25"	0	~~4500~~ 5000'	9.625"	40	J55	LTC	1.22	1.1	2.55
12.25"	~~4500~~ 5000'	5100	9.625"	40	L80	LTC	1.29	1.57	30.0
8.75"	0	20,837'	5.5"	17	P110	LTC	1.87	2.25	3.21
				BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet

SEE COA → Surface/Intrmd casing will be kept at least 1/3 full while running casing.to mitigate collapse. Intermediate burst based on 0.8 frac gradient at the shoe with Gas Gradient 0.1 psi/ft to surface. All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	Y
If yes, does production casing cement tie back a minimum of 50' above the Reef?	Y

Is well within the designated 4 string boundary.	Y
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H_20 gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	1400	13.5	1.75	9	12	Lead: Class C + 4% Gel + 2% CaCl2
	250	14.8	1.34	6.34	8	Tail: Class C + 2% CaCl2
1st Int	1400	13.5	1.75	9	12	Lead: Class C + 4% Gel + 2% CaCl2
	250	14.8	1.34	6.34	8	Tail: Class C + 1% CaCl2
2nd Int 1st stg	400	12.7	1.98	10.6	16	Lead: Econocem HLC 65:35:6 Blend
	250	14.8	1.34	6.34	8	Tail: Class C + 1% CaCl
2nd Int 2nd stg	450	13.5	1.75	9	12	Lead: Class C + 4% Gel
	100	14.8	1.34	6.34	8	Tail: Class C + 1% CaCl2
5.5 Prod	700	11.9	2.5	19	48	Lead: 50:50:10 H Blend
	2800	14.4	1.24	5.7	19	Tail: Versacem 50:50:2 Class H + 1% Salt

Low cement - SEE COA

Low cement - SEE COA

- Low cement - SEE COA

The DVT/ECP for the 2nd intermediate casing will be set @ 3100'.

Volumes subject to change from hole observations and/or fluid calipers.

Lab reports with the 500 psi comp strength time for the cement will be onsite for review.

Casing String	TOC	% Excess
Surface	0'	50%
1st Intermediate	0'	40%
2nd Intermediate	0'	40%
Production	~~4600'~~ 3286'	25% OH in Lateral (KOP to EOL) – 40% OH in Vertical - KOP then Tie In 500' Inside 9-5/8"

LD need 50' tie back above the Capitan Reef - SEE COA

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All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

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Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	Y
If yes, does production casing cement tie back a minimum of 50' above the Reef?	Y

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Casing String	TOC	% Excess
Surface	0'	50%
1st Intermediate	0'	40%
2nd Intermediate	0'	40%
Production	4600'	25% OH in Lateral (KOP to EOL) – 40% OH in Vertical - KOP then Tie In 500' Inside 9-5/8"

4. Pressure Control Equipment

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
17-1/2"	20"	2M	Annular	x	2000 psi
			Blind Ram		2M
			Pipe Ram		
			Double Ram		
			Other*		
12-1/4"	13-5/8"	2M	Annular	x	2000 psi
			Blind Ram		2M
			Pipe Ram		
			Double Ram		
			Other*		
8-3/4"	13-5/8"	3M	Annular	x	50% testing pressure
			Blind Ram	x	3M
			Pipe Ram	x	
			Double Ram		
			Other*		

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

X	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
	N — Are anchors required by manufacturer?
N	A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	Surf. Shoe	FW Gel	8.6-8.8	28-34	N/C
Surf csg	13-3/8" Int shoe	Saturated Brine	10.0-10.2	28-34	N/C
13-3/8"	9-5/8" csg pt	Fresh water	8.4-8.6	28-34	N/C
9-5/8" Int shoe	Lateral TD	Cut Brine	8.6 – 9.4	28-34	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring

6. Logging and Testing Procedures

Logging, Coring and Testing.	
Y	Will run GR/CNL from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
Y	No Logs are planned based on well control or offset log information.
N	Drill stem test? If yes, explain
N	Coring? If yes, explain

Additional logs planned		Interval
N	Resistivity	
N	Density	
Y	CBL	Production casing (If cement not circulated to surface)
Y	Mud log	Intermediate shoe to TD
N	PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	4700 psi at 10,000' TVD
Abnormal Temperature	NO 155 Deg. F.

No abnormal pressure or temperature conditions are anticipated. Sufficient mud materials to maintain mud properties and weight increase requirements will be kept on location at all times. Sufficient supplies of Paper/LCM for periodic sweeps to control seepage and losses will be maintained on location.

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
N	H2S is present
Y	H2S Plan attached

8. Other facets of operation

Is this a walking op? No
Will be presetting casing? No

Attachments

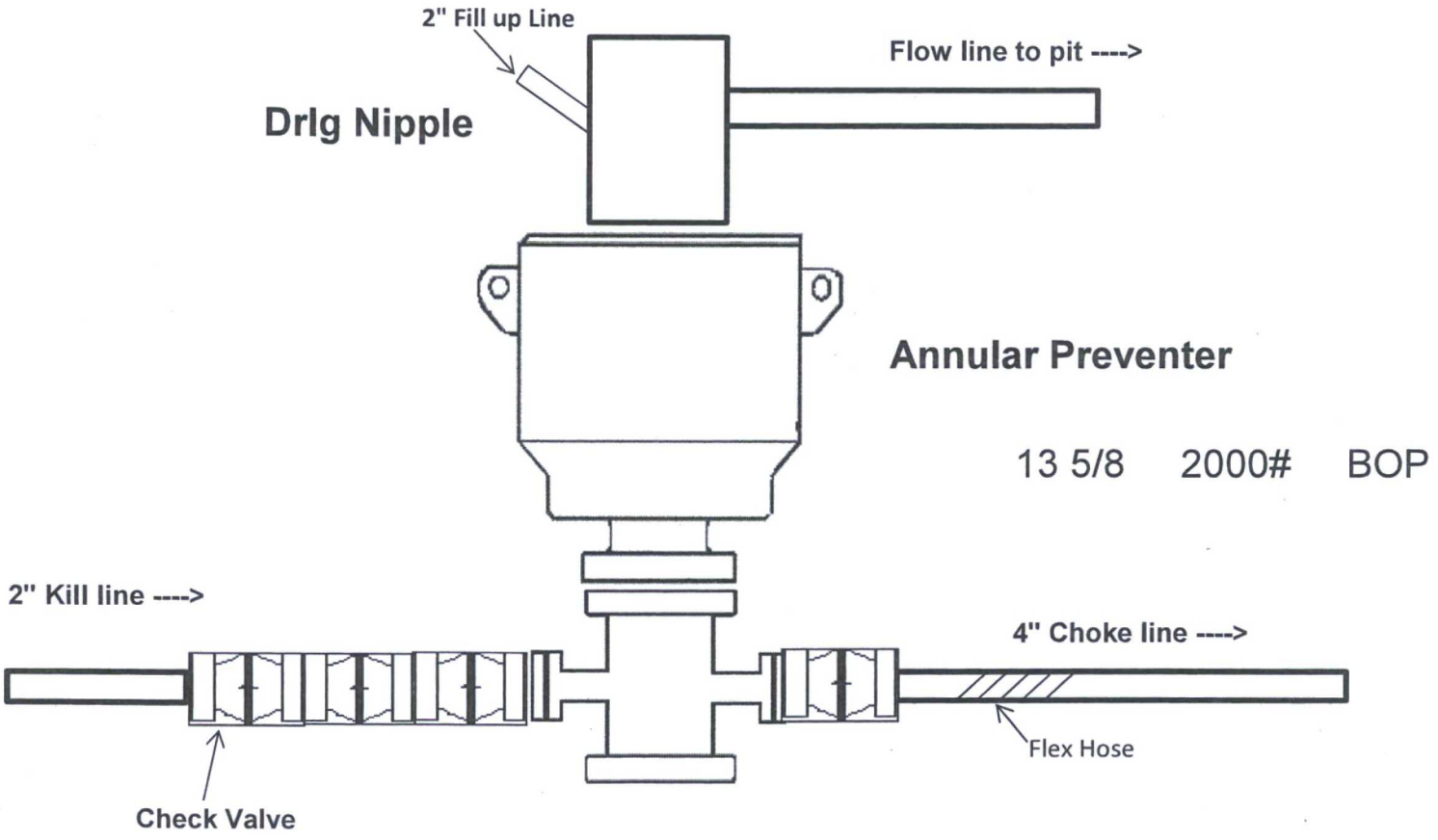
- Directional Plan
- Anti-collision Report
- Flex Hose Variance Report
- BOP & Choke Schematics
- C102 and supporting maps
- Rig plat
- H2S schematic
- H2S contingency plan
- Interim reclamation plat

GERONIMO FED #11H 1 MILE WELLS

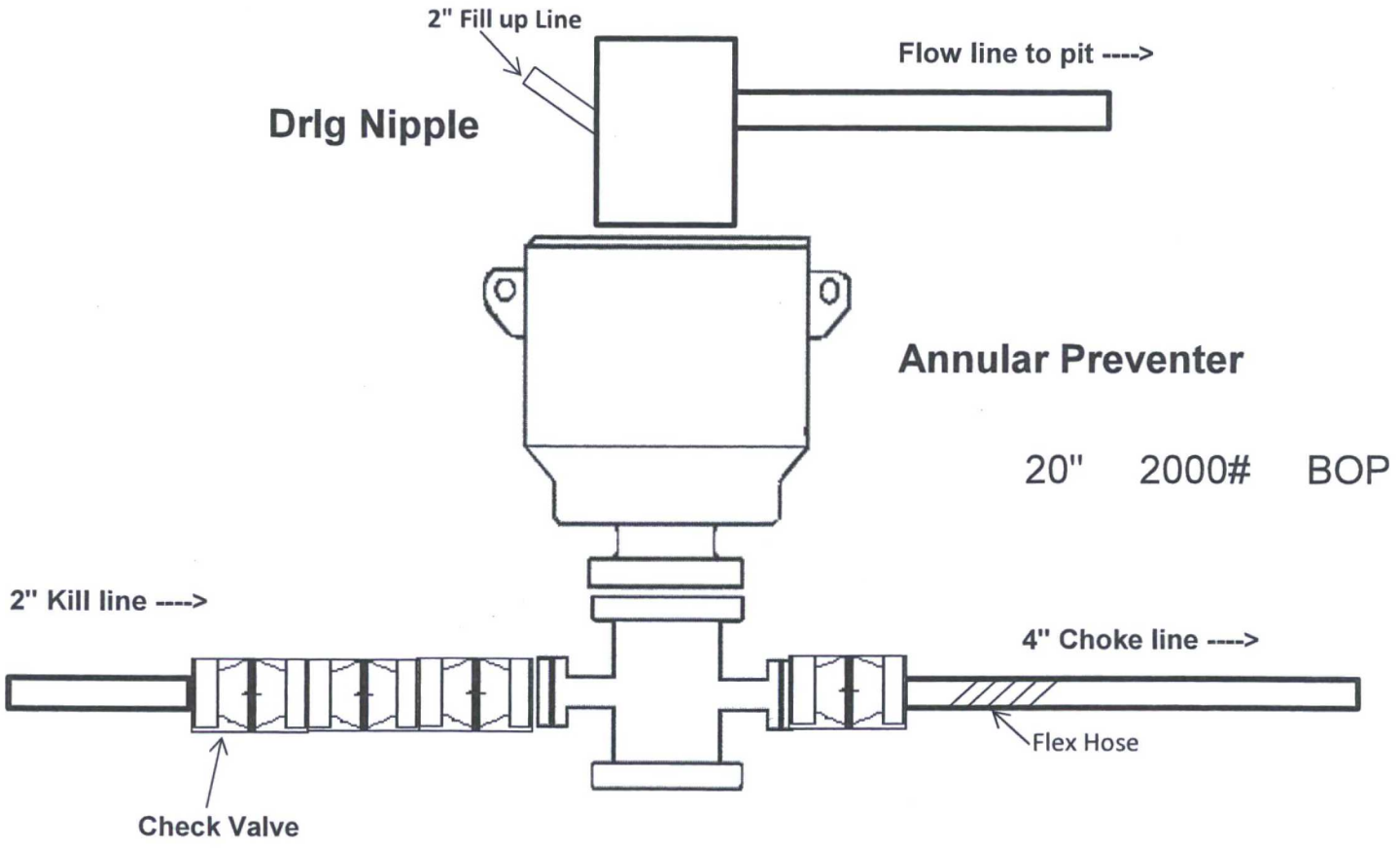
FID	Shape *	Operator	WELL_NAM	LATITUDE	LONGITUDI	API	SECTION	TOWNSHIP	RANGE	FTG_NS	NS_CD	FTG_EW	EW_CD	TVD_DEPTI	COMPL_ST	COUNTY	LAND_TYPI	PLUG_DATE
0	Point	TANDEM E	BIG CIRCLE	32.63941	-103.7122	3E+09	24	19.0S	32E	330	S	330	E	3175	Active	Lea	F	<Null>
1	Point	KEWANEE (	BIG CIRCLE	32.6376	-103.7122	3E+09	25	19.0S	32E	330	N	330	E	3172	Plugged	Lea	F	1/2/1900
2	Point	ANADARKC	SAUNDERS	32.65119	-103.7047	3E+09	19	19.0S	33E	660	N	1980	W	4300	Plugged	Lea	F	1/2/1900
3	Point	TANDEM E	SIGNAL RO	32.63668	-103.7004	3E+09	30	19.0S	33E	660	N	1980	E	3192	Active	Lea	F	<Null>
4	Point	HUDSON O	SIGNAL RO	32.63305	-103.7046	3E+09	30	19.0S	33E	1980	N	2004	W	3173	Plugged	Lea	F	1/2/1900
5	Point	TANDEM E	SIGNAL RO	32.63759	-103.7036	3E+09	30	19.0S	33E	330	N	2310	W	3135	Active	Lea	F	<Null>
6	Point	TANDEM E	SIGNAL RO	32.63759	-103.7079	3E+09	30	19.0S	33E	330	N	990	W	3126	Active	Lea	F	<Null>
7	Point	HUDSON O	SIGNAL RO	32.63759	-103.6971	3E+09	30	19.0S	33E	330	N	990	E	3005	Plugged	Lea	F	1/2/1900
8	Point	SINCLAIR C	CARDER FE	32.62942	-103.6961	3E+09	30	19.0S	33E	1980	S	660	E	5600	Plugged	Lea	F	1/2/1900
9	Point	TANDEM E	BIG CIRCLE	32.64033	-103.7165	3E+09	24	19.0S	32E	660	S	1650	E	3175	Active	Lea	F	<Null>
10	Point	MACK ENEI	FEDERAL 1!	32.6394	-103.7036	3E+09	19	19.0S	33E	330	S	2310	W	3060	Plugged	Lea	F	1/2/1900
11	Point	HUDSON O	SIGNAL RO	32.6258	-103.7004	3E+09	30	19.0S	33E	660	S	1980	E	3127	Plugged	Lea	F	1/2/1900
12	Point	JOHN H TRI	FEDERAL R	32.62308	-103.7015	3E+09	31	19.0S	33E	330	N	2310	E	710	Plugged	Lea	F	1/2/1900
13	Point	MANZANO	FEDERAL 3:	32.62306	-103.7012	3E+09	31	19.0S	33E	335	N	2223	E	3175	Plugged	Lea	F	5/7/1999
14	Point	MACK ENEI	COLLIER FE	32.6394	-103.7014	3E+09	19	19.0S	33E	330	S	2310	E	3142	Plugged	Lea	F	1/2/1900
15	Point	ROBINSON	TONTO 001	32.62671	-103.7036	3E+09	30	19.0S	33E	990	S	2310	W	3077	Active	Lea	F	<Null>
16	Point	ROBINSON	TONTO 00:	32.62928	-103.7101	3E+09	30	19.0S	33E	1925	S	330	W	3095	Active	Lea	F	<Null>
17	Point	ROBINSON	TONTO 00!	32.62852	-103.7015	3E+09	30	19.0S	33E	1650	S	2310	E	3095	Active	Lea	F	<Null>
18	Point	ROBINSON	TONTO 00:	32.62852	-103.7058	3E+09	30	19.0S	33E	1650	S	1650	W	3073	Active	Lea	F	<Null>
19	Point	ROBINSON	TONTO 00-	32.62671	-103.7079	3E+09	30	19.0S	33E	990	S	990	W	3129	Plugged	Lea	F	########
20	Point	ROBINSON	TONTO 00(	32.6267	-103.6972	3E+09	30	19.0S	33E	990	S	990	E	3098	Active	Lea	F	<Null>
21	Point	ROBINSON	TONTO 00:	32.62852	-103.6972	3E+09	30	19.0S	33E	1650	S	990	E	3123	Active	Lea	F	<Null>
22	Point	GRACE PET	HI YO SILVE	32.62581	-103.7122	3E+09	25	19.0S	32E	660	S	330	E	3304	Plugged	Lea	F	6/13/1979
23	Point	ROBINSON	TONTO 01(	32.62943	-103.7058	3E+09	30	19.0S	33E	1980	S	1650	W	3100	Active	Lea	F	<Null>
24	Point	WALLEN PF	WALLEN TC	32.62564	-103.7036	3E+09	30	19.0S	33E	600	S	2310	W	570	Plugged	Lea	F	10/8/1980
25	Point	WALLEN PF	WALLEN CL	32.63035	-103.7144	3E+09	25	19.0S	32E	2310	S	990	E	3140	Plugged	Lea	F	1/2/1900
26	Point	SABER OIL	WEST TON	32.64398	-103.7261	3E+09	24	19.0S	32E	1980	S	660	W	13700	Active	Lea	F	<Null>
27	Point	MATADOR	FEDERAL 3(	32.62943	-103.6964	3E+09	30	19.0S	33E	1980	S	760	E	13712	Active	Lea	F	<Null>
28	Point	TANDEM E	FEDERAL 1!	32.63968	-103.7079	3E+09	19	19.0S	33E	430	S	990	W	3157	Active	Lea	F	<Null>
29	Point	MANZANO	FEDERAL 3:	32.61854	-103.6961	3E+09	31	19.0S	33E	1980	N	660	E	13653	Plugged	Lea	F	1/19/1996
30	Point	ROBINSON	TONTO 00!	32.62564	-103.7036	3E+09	30	19.0S	33E	600	S	2300	W	3086	Active	Lea	F	<Null>
31	Point	COLLIER EN	FALCON FE	32.6394	-103.6971	3E+09	19	19.0S	33E	330	S	990	E	3254	Plugged	Lea	F	1/2/1900
32	Point	ROBINSON	TONTO 011	32.62866	-103.7079	3E+09	30	19.0S	33E	1700	S	990	W	3088	Active	Lea	F	<Null>
33	Point	CIMAREX E	STATE HH (	32.61856	-103.7133	3E+09	36	19.0S	32E	1980	N	660	E	9899	Active	Lea	S	<Null>
34	Point	ROBINSON	TONTO 00!	32.6289	-103.6995	3E+09	30	19.0S	33E	1790	S	1710	E	3120	Active	Lea	F	<Null>
35	Point	GRACE PET	WEST TON	32.63086	-103.7261	3E+09	25	19.0S	32E	2480	S	660	W	4950	Plugged	Lea	F	1/2/1900
36	Point	KAISER-FR/	FEDERAL 3(	32.63034	-103.7047	3E+09	30	19.0S	33E	2310	S	1980	W	13802	Active	Lea	F	<Null>
37	Point	WALLEN PF	WALLEN 1!	32.64303	-103.7079	3E+09	19	19.0S	33E	1650	S	990	W	3185	Plugged	Lea	F	1/2/1900
38	Point	ENDURANC	MAVERICK	32.64031	-103.7047	3E+09	19	19.0S	33E	660	S	1980	W	13800	Active	Lea	F	<Null>
39	Point	MEWBOUF	MCKAMEY	32.63078	-103.7261	3E+09	25	19.0S	32E	2450	S	660	W	13850	Active	Lea	F	<Null>
40	Point	COG OPER/	GERONIMC	32.62218	-103.709	3E+09	31	19.0S	33E	660	N	660	W	10564	Active	Lea	P	<Null>
41	Point	COG OPER/	GERONIMC	32.61855	-103.709	3E+09	31	19.0S	33E	1980	N	660	W	13770	Active	Lea	F	<Null>
42	Point	COG OPER/	GERONIMC	32.62218	-103.7092	3E+09	31	19.0S	33E	660	N	585	W	3250	Active	Lea	P	<Null>
43	Point	GEORGE A	PALADIN FI	32.64757	-103.7093	3E+09	19	19.0S	33E	1980	N	560	W	7750	Active	Lea	F	<Null>
44	Point	COG OPER/	GERONIMC	32.62217	-103.7058	3E+09	31	19.0S	33E	660	N	1650	W	10500	Active	Lea	P	<Null>
45	Point	DEVON ENI	GERONIMC	32.61855	-103.7047	3E+09	31	19.0S	33E	1980	N	1980	W	10295	Plugged	Lea	F	1/18/2002
46	Point	SABER OIL	ANDAWAY	32.62581	-103.7133	3E+09	25	19.0S	32E	660	S	660	E	7920	Active	Lea	F	<Null>
47	Point	CHESAPEAI	FEDERAL 3:	32.62289	-103.7015	3E+09	31	19.0S	33E	400	N	2310	E	9400	Plugged	Lea	F	########
48	Point	WAGNER C	GERONIMC	32.61925	-103.709	3E+09	31	19.0S	33E	1725	N	660	W	7900	Plugged	Lea	F	8/15/2012
49	Point	COG OPER/	GERONIMC	32.61855	-103.7092	3E+09	31	19.0S	33E	1980	N	585	W	3250	Active	Lea	F	<Null>

50	Point	COG OPER/	GERONIMC	32.61855	-103.7049	3E+09	31	19.0S	33E	1980	N	1905	W	3150	Active	Lea	F	<Null>
51	Point	WAGNER C	GERONIMC	32.62217	-103.706	3E+09	31	19.0S	33E	660	N	1575	W	3250	Plugged	Lea	F	4/22/2013
52	Point	ROBINSON	TONTO 01	32.62525	-103.7047	3E+09	30	19.0S	33E	460	S	1980	W	9450	Plugged	Lea	F	12/9/2011
53	Point	BC OPERAT	STATE HH (	32.62219	-103.7133	3E+09	36	19.0S	32E	660	N	660	E	7900	Active	Lea	S	<Null>
54	Point	BC OPERAT	STATE HH (	32.61855	-103.7123	3E+09	36	19.0S	32E	1980	N	350	E	7911	TA	Lea	S	<Null>
55	Point	WAGNER C	GERONIMC	32.61573	-103.708	3E+09	31	19.0S	33E	2275	S	960	W	8200	Plugged	Lea	F	8/27/2012
56	Point	COG OPER/	PRONGHOI	32.65212	-103.7166	3E+09	24	19.0S	32E	330	N	1650	E	3500	Active	Lea	F	<Null>
57	Point	GEORGE A	PALADIN FI	32.65174	-103.7058	3E+09	19	19.0S	33E	460	N	1650	W	7780	Active	Lea	F	<Null>
58	Point	ENDURANC	GUNSMOK	32.6512	-103.7133	3E+09	24	19.0S	32E	660	N	660	E	7852	Active	Lea	F	<Null>
59	Point	GEORGE A	PALADIN FI	32.6521	-103.7003	3E+09	19	19.0S	33E	330	N	1980	E	7858	Active	Lea	F	<Null>
60	Point	GEORGE A	PALADIN FI	32.65119	-103.709	3E+09	19	19.0S	33E	660	N	660	W	7850	Active	Lea	F	<Null>
61	Point	GEORGE A	PALADIN FI	32.64847	-103.7003	3E+09	19	19.0S	33E	1650	N	1980	E	7850	Active	Lea	F	<Null>
62	Point	GEORGE A	PALADIN FI	32.64847	-103.7047	3E+09	19	19.0S	33E	1650	N	1980	W	7850	Active	Lea	F	<Null>
63	Point	NEARBURC	DIAMONDI	32.62672	-103.7133	3E+09	25	19.0S	32E	990	S	660	E	13850	Active	Lea	F	<Null>
64	Point	NEARBURC	DIAMONDI	32.64047	-103.7176	3E+09	24	19.0S	32E	710	S	1980	E	13830	Active	Lea	F	<Null>
65	Point	MEWBOUF	FEDERAL 3	32.62217	-103.6972	3E+09	31	19.0S	33E	660	N	990	E	5520	Active	Lea	F	<Null>
66	Point	ENDURANC	PALADIN FI	32.6521	-103.7036	3E+09	19	19.0S	33E	330	N	2310	W	0		Lea	F	<Null>
67	Point	SAMSON R	MONGOOS	32.63691	-103.726	3E+09	25	19.0S	32E	661	N	661	W	0		Lea	F	<Null>
68	Point	CIMAREX E	STATE HH (	32.61507	-103.7176	3E+09	36	19.0S	32E	1980	S	1980	E	13840	Active	Lea	S	<Null>
69	Point	MEWBOUF	NORTE 19 I	32.64867	-103.6961	3E+09	19	19.0S	33E	1650	N	710	E	13760	Active	Lea	F	<Null>
70	Point	CIMAREX E	STATE HH (	32.61782	-103.7125	3E+09	36	19.0S	32E	2310	N	330	E	0	New (Not c	Lea	S	<Null>
71	Point	CIMAREX E	STATE HH (	32.62325	-103.7169	3E+09	36	19.0S	32E	331	N	1700	E	0	New (Not c	Lea	S	<Null>
72	Point	BC OPERAT	GAY NINET	32.61403	-103.7188	3E+09	36	19.0S	32E	1547	S	2280	E	10009	New (Not c	Lea	F	<Null>

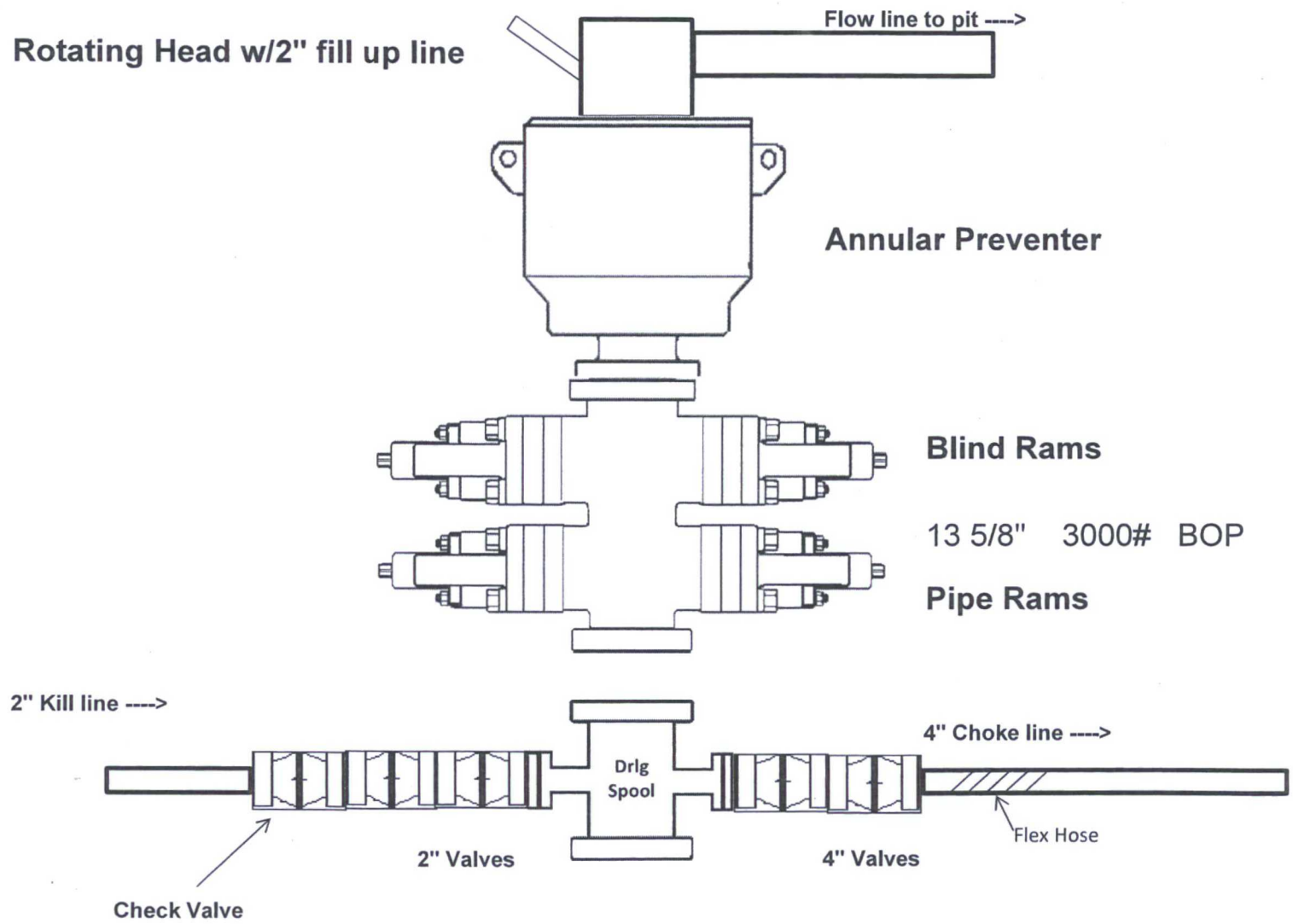
2,000 psi BOP Schematic



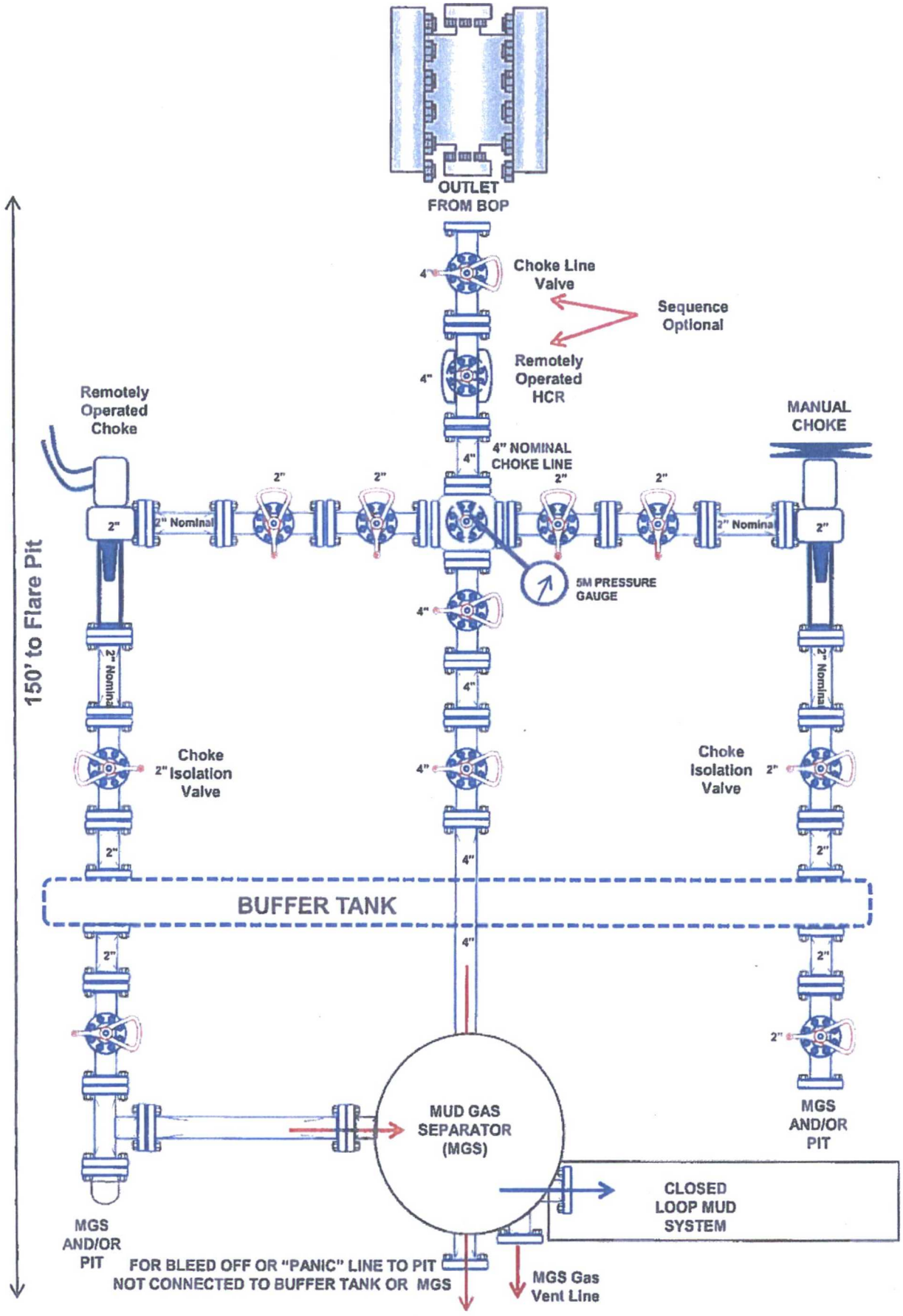
2,000 psi BOP Schematic



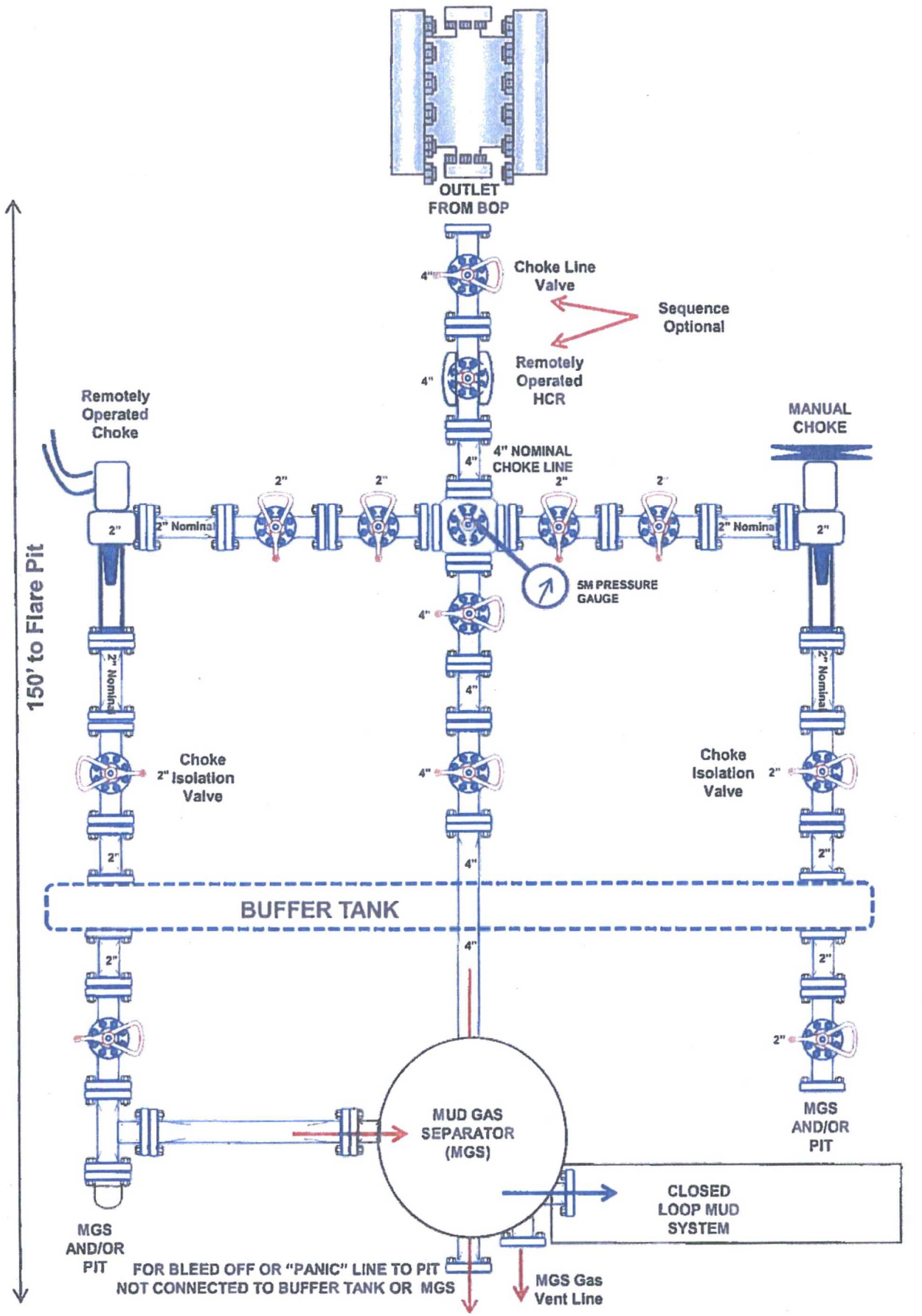
3,000 psi BOP Schematic



2M Choke Manifold Equipment (WITH MGS + CLOSED LOOP)



3M Choke Manifold Equipment (WITH MGS + CLOSED LOOP)



GATES E & S NORTH AMERICA, INC
DU-TEX
134 44TH STREET
CORPUS CHRISTI, TEXAS 78405

PHONE: 361-887-9807
FAX: 361-887-0812
EMAIL: crpe&s@gates.com
WEB: www.gates.com

10K CHOKE & KILL ASSEMBLY PRESSURE TEST CERTIFICATE

Customer :	SPECIALTY SALES, INC.	Test Date:	11/21/2013
Customer Ref. :	49680-S	Hose Serial No.:	D-112113-8
Invoice No. :	197465	Created By:	Norma M.

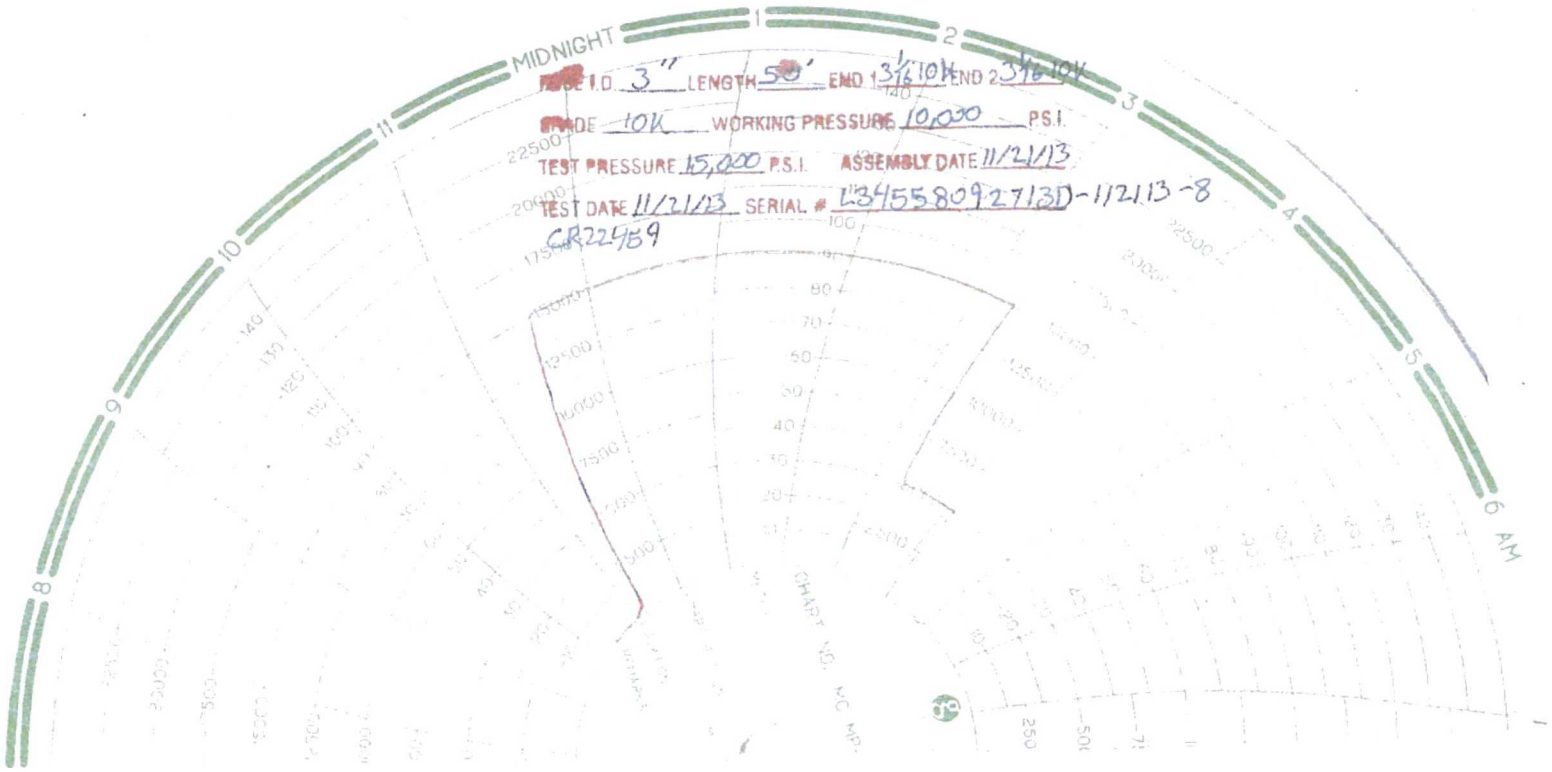
Product Description:	10K3.050.0CK31/1610KFLGE/E

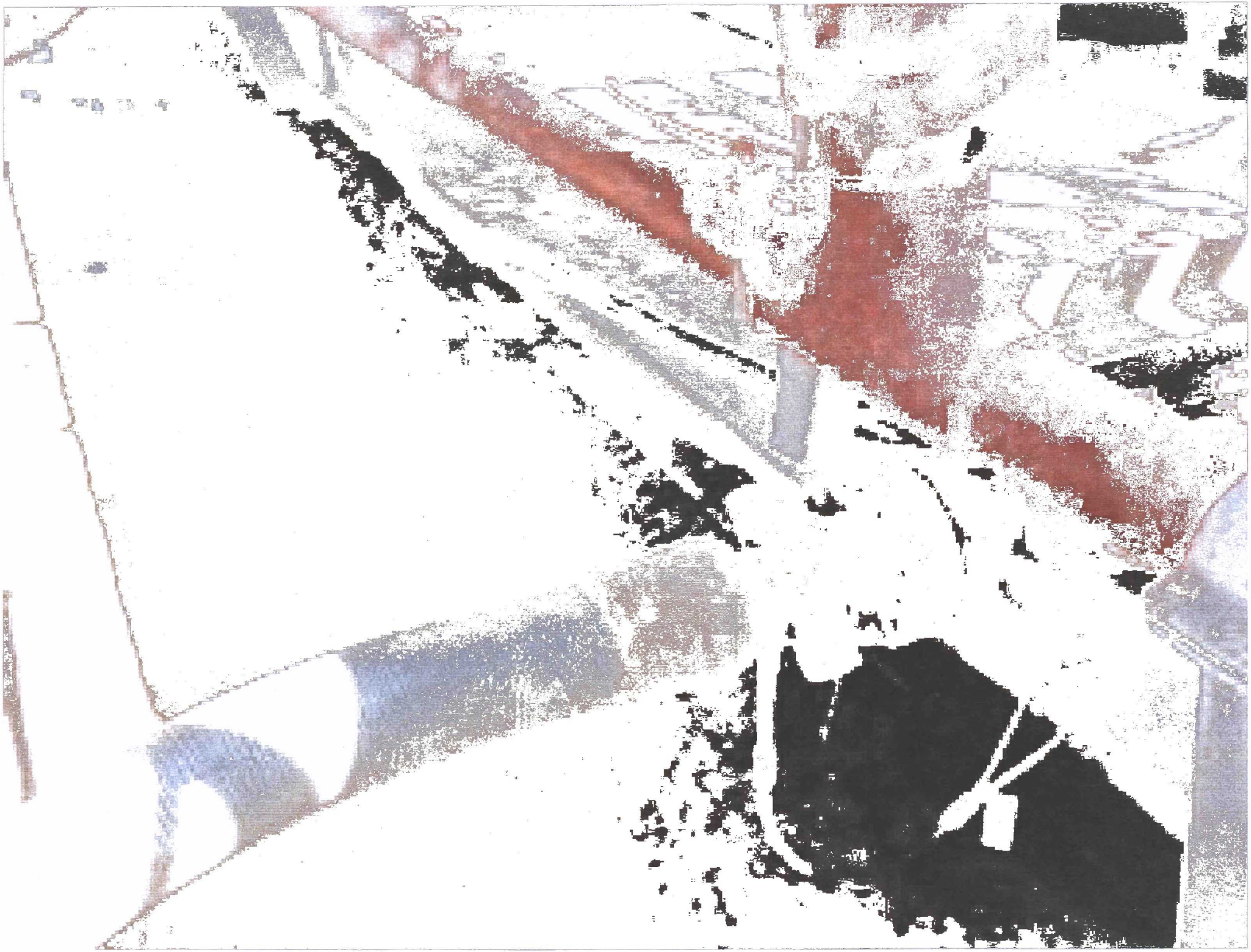
End Fitting 1 :	3 1/16 10K FLG	End Fitting 2 :	3 1/16 10K FLG
Gates Part No. :	47773-4290	Assembly Code :	L34558092713D-112113-8
Working Pressure :	10,000 PSI	Test Pressure :	15,000 PSI

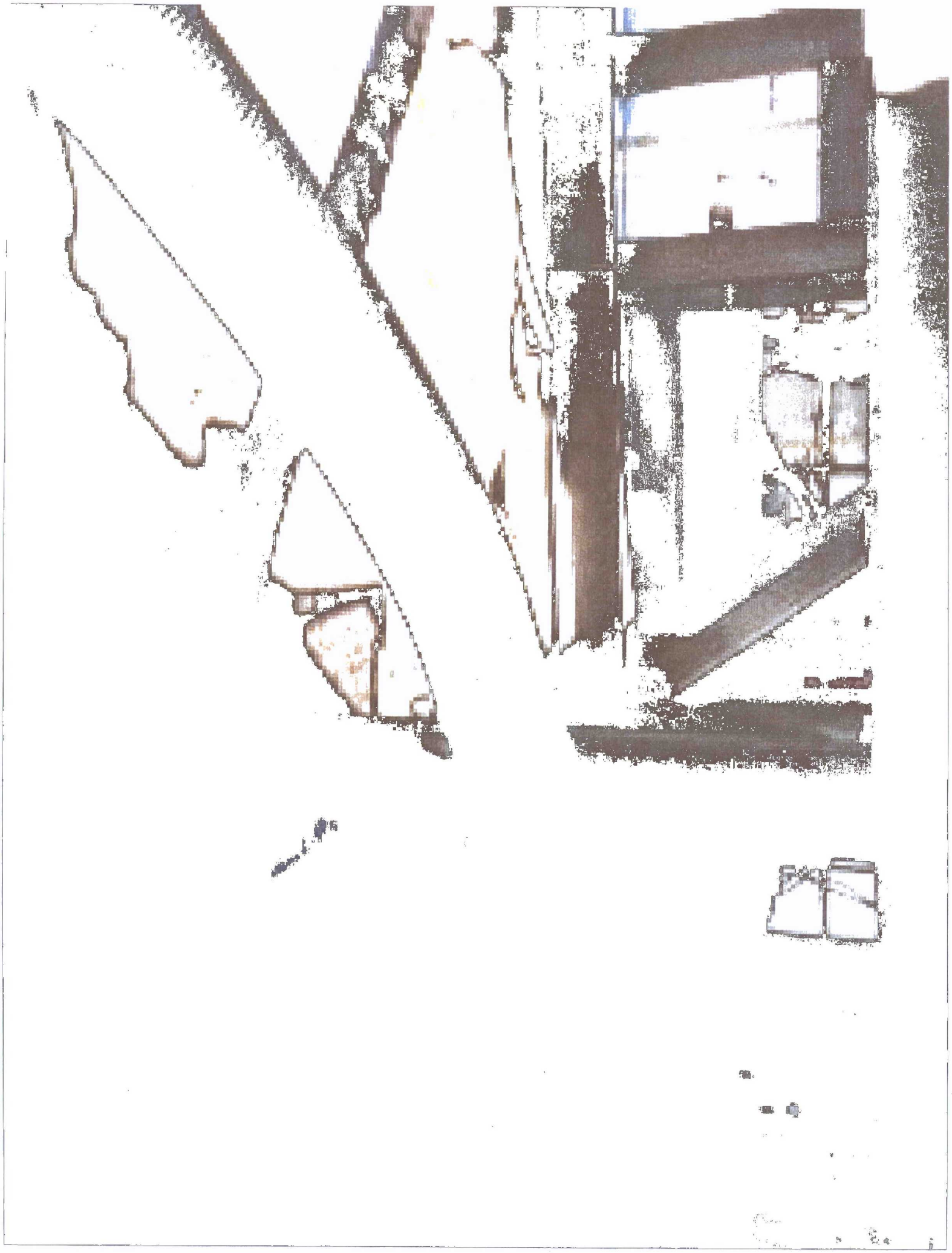
Gates E & S North America, Inc. certifies that the following hose assembly has been tested to the Gates Oilfield Roughneck Agreement/Specification requirements and passed the 15 minute hydrostatic test per API Spec 7K/Q1, Fifth Edition, June 2010, Test pressure 9.6.7 and per Table 9 to 15,000 psi in accordance with this product number. Hose burst pressure 9.6.7.2 exceeds the minimum of 2.5 times the working pressure per Table 9.

Quality Manager :	QUALITY	Technical Supervisor :	PRODUCTION
Date :	11/22/2013	Date :	11/22/2013
Signature :		Signature :	

Form PTC - 01 Rev.0 2


MIDNIGHT
6 AM
HOSE I.D. 3" LENGTH 50' END 1 3 1/16 10K END 2 3 1/16 10K
GRADE 10K WORKING PRESSURE 10,000 P.S.I.
TEST PRESSURE 15,000 P.S.I. ASSEMBLY DATE 11/21/13
TEST DATE 11/21/13 SERIAL # 1345580927130-11213-8
CR22489



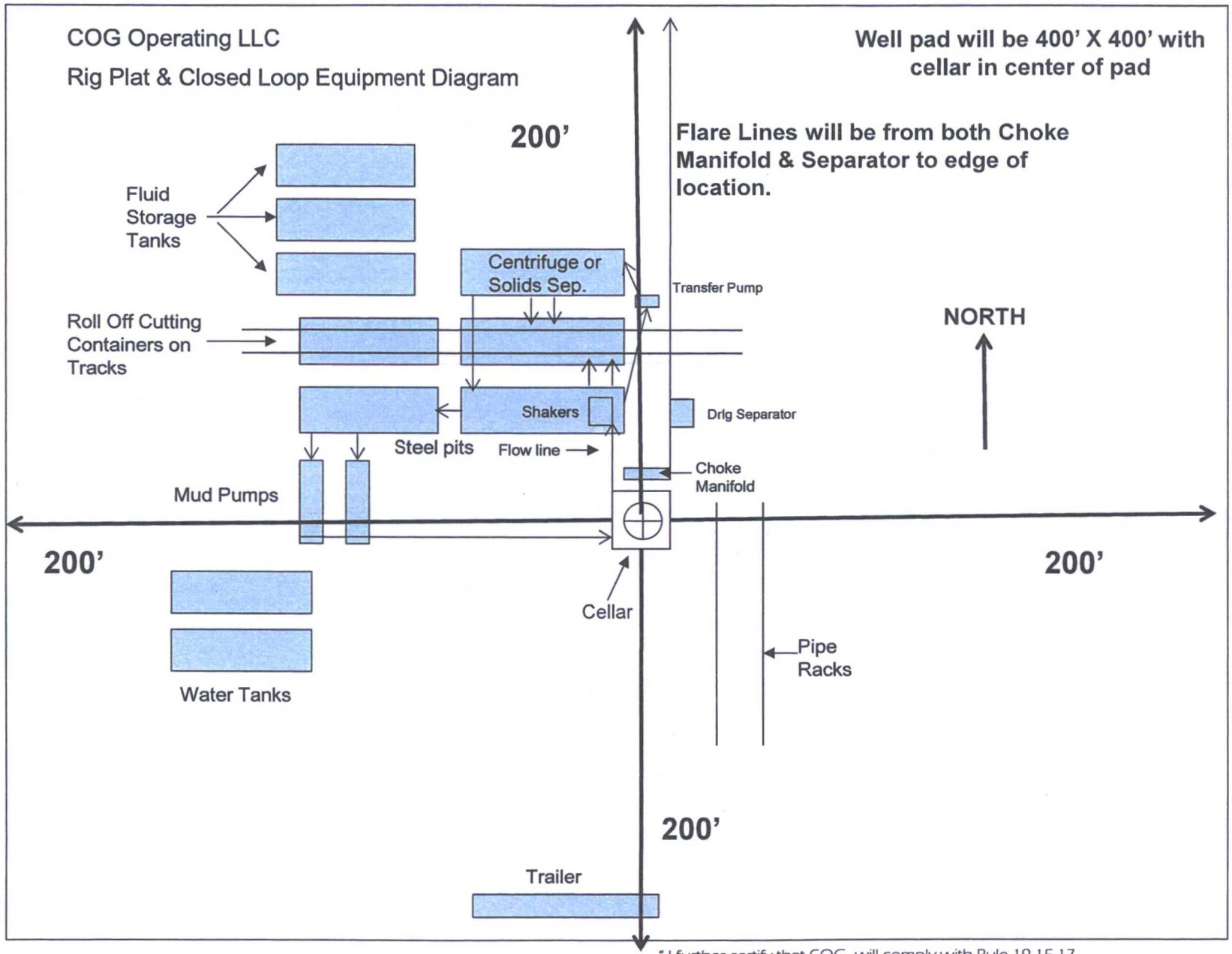


COG Operating LLC

Rig Plat & Closed Loop Equipment Diagram

Well pad will be 400' X 400' with cellar in center of pad

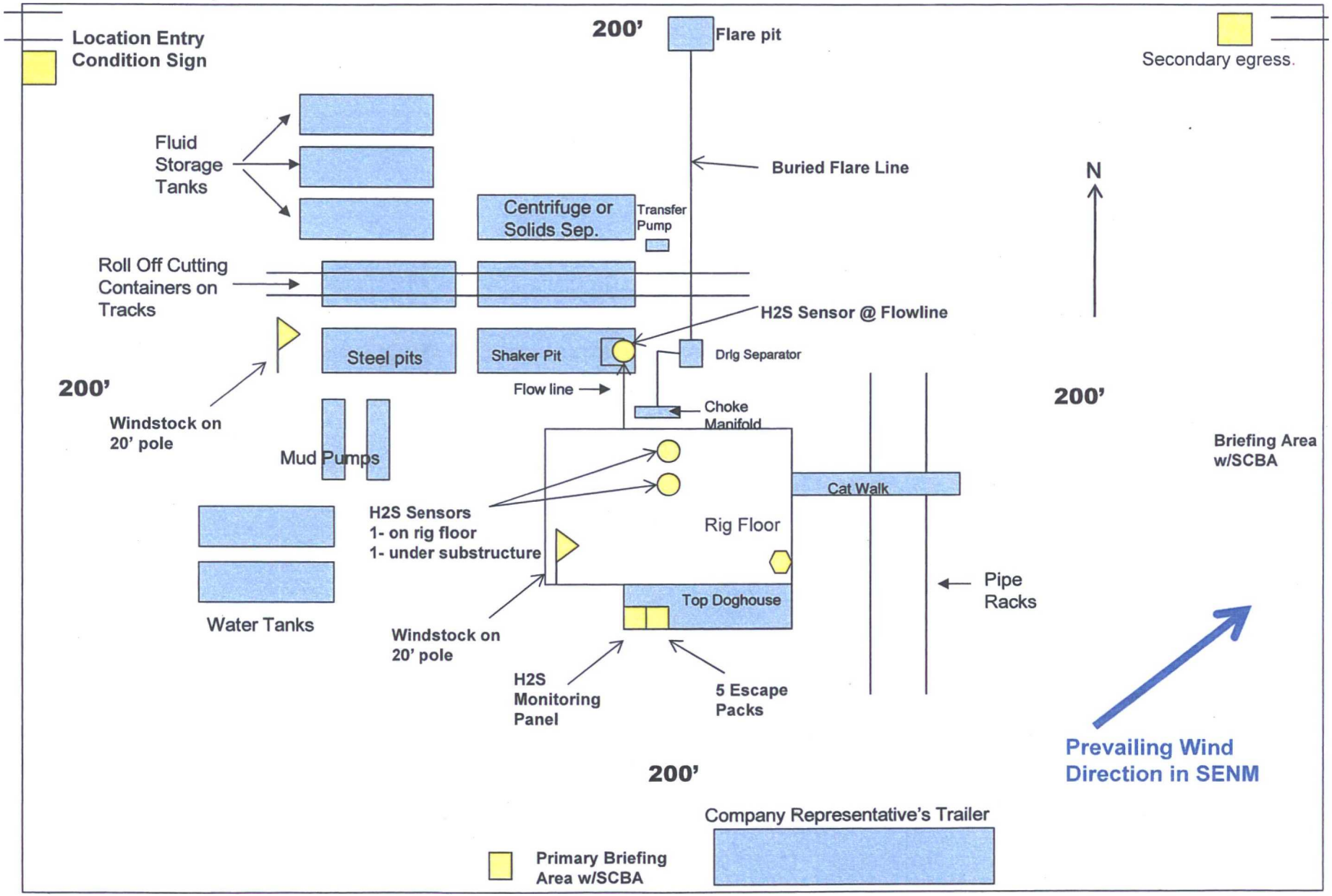
Flare Lines will be from both Choke Manifold & Separator to edge of location.



"I further certify that COG will comply with Rule 19.15.17 NMAC by using a Closed Loop System."

COG Operating LLC
H_2S Equipment Schematic
Terrain: Shinnery sand hills.

Well pad will be 400' x 400'
with cellar in center of pad



Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Certificate

Customer	Odessa	Hose Assembly Type	Choke & Kill
MWH Sales Representative	Charles Ash	Certification	API 7K/FSL LEVEL2
Date Assembled	11/11/2016	Hose Grade	Mud
Location Assembled	OKC	Hose Working Pressure	100000
Sales Order #	308747	Hose Lot # and Date Code	12354-09/15
Customer Purchase Order #	345144	Hose I.D. (Inches)	3.5"
Assembly Serial # (Pick Ticket #)	371501	Hose O.D. (Inches)	5.87"
Hose Assembly Length	35 Feet	Armor (yes/no)	No

End A		End B	
Stem (Part and Revision #)	[illegible]	Stem (Part and Revision #)	[illegible]
Stem (Heat #)	[illegible]	Stem (Heat #)	[illegible]
Ferrule (Part and Revision #)	RF3.5X5750	Ferrule (Part and Revision #)	RF3.5X5750
Ferrule (Heat #)	41632	Ferrule (Heat #)	41632
Connection (Part and Revision #)	[illegible]	Connection (Part and Revision #)	[illegible]
Connection (Heat #)	[illegible]	Connection (Heat #)	[illegible]
Nut (Part #)		Nut (Part #)	
Nut (Heat #)		Nut (Heat #)	
Dies Used	5.80"	Dies Used	5.80"

Test Pressure (psi)	15,000	Hose assembly was tested with ambient water temperature.
Test Pressure Hold Time (minutes)	24 1/2	

Date Tested	Tested By	Approved By
11/11/2016	Richard Din	Charles Ash

Midwest Hose
& Specialty, Inc.

Customer: **Odessa**	*Customer P.O.#* **345144**
Sales Order # **308747**	*Date Assembled:* **11/11/2016**

Hose Assembly Type:	**Choke & Kill**	*Rig #*	**N/A**
Assembly Serial #	**371501**	*Hose Lot # and Date Code*	**12354-09/15**
Hose Working Pressure (psi)	**100000**	*Test Pressure (psi)*	**15000**
Hose Assembly Description:	**CK56-SS-10K-6410K-6410K-35.00' FT-W/LIFTERS**		

We hereby certify that the above material supplied for the referenced purchase order to be true according to the requirements of the purchase order and current industry standards.

Supplier:
Midwest Hose & Specialty, Inc.
3312 S I-35 Service Rd
Oklahoma City, OK 73129

Comments:

Approved By	*Date*
Charles Ash	**11/11/2016**

Midwest Hose & Specialty, Inc.

Internal Hydrostatic Test Graph

November 11, 2016

Customer: Odessa

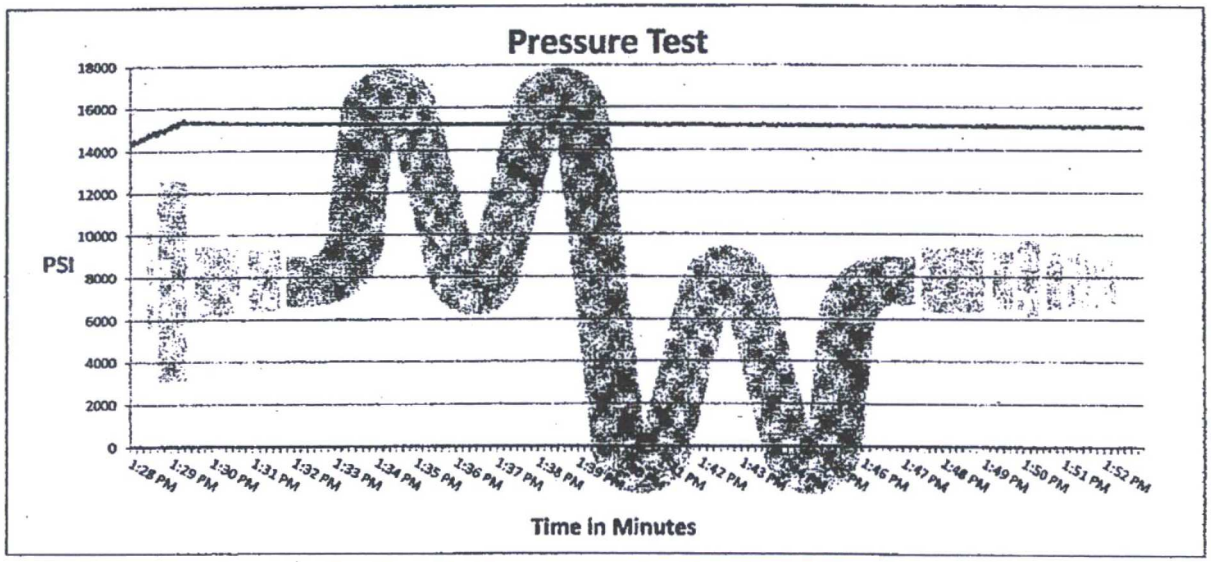
Pick Ticket #: 371501

Hose Specifications

Hose Type	Length
Ck	35'
I.D.	O.D.
3.5""	5.30"
Working Pressure	Burst Pressure
10000 PSI	Standard Safety Multiplier Applies

Verification

Type of Fitting	Coupling Method
4 1/16 10K	Swage
Die Size	Final O.D.
5.80"	5.83"
Hose Serial #	Hose Assembly Serial #
12354	371501



Test Pressure	Time Held at Test Pressure	Actual Burst Pressure	Peak Pressure
15000 PSI	24 2/4 Minutes		15512 PSI

Comments: Hose assembly pressure tested with water at ambient temperature.

Tested By: *Richard Davis*

Approved By: *Charles Ash*

LLD ACREAGE REPORT

Admin State: NM

Geo State: NM

MTR: 23 0190S 0330E

Section: 030

Sur Type	Sur No	Lld Suff	NE NW SW SE NNSS NNSS NNSS NNSS EWWE EWWE EWWE EWWE	Sur Note	Dup Flg	Sub Surf	Acreage
A			XXXX X--X X--X XXXX				480.000
L	1		---- -X-- ---- ----				40.940
L	2		---- --X- ---- ----				40.810
L	3		---- ---- -X-- ----				40.690
L	4		---- ---- --X- ----				40.560

Section 030 Total: 643.000

Section: 031

Sur Type	Sur No	Lld Suff	NE NW SW SE NNSS NNSS NNSS NNSS EWWE EWWE EWWE EWWE	Sur Note	Dup Flg	Sub Surf	Acreage
A			XXXX X--X X--X XXXX				480.000
L	1		---- -X-- ---- ----				40.480
L	2		---- --X- ---- ----				40.450
L	3		---- ---- -X-- ----				40.410
L	4		---- ---- --X- ----				40.380

Section 031 Total: 641.720

MTR Total Exluding Survey Notes C/D/R and Sub Surf = Y 1,284.720

Grand Total Excluding Survey Notes C/D/R and Sub Surf = Y: 1,284.720

NO WARRANTY IS MADE BY BLM FOR USE OF THE DATA FOR PURPOSES NOT INTENDED BY BLM

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

No records found.

PLSS Search:

Section(s): 19 **Township:** 19S **Range:** 33E

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Twn	Rng	X	Y	Depth Well	Depth Water	Water Column
CP 00883		LE	4	3		30	19S	33E	621517	3610545*	3305		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 1

PLSS Search:

Section(s): 30 **Township:** 19S **Range:** 33E

***UTM location was derived from PLSS - see Help**

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New Mexico Office of the State Engineer
Water Column/Average Depth to Water

No records found.

PLSS Search:

Section(s): 31 **Township:** 19S **Range:** 33E

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New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-basin Code	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
CP 00658		LE	2	2	4	26	19S	33E	628857	3611125*	100		
CP 00805		LE		3	1	18	19S	33E	621057	3614563*	450		
CP 00809		LE		2	1	05	19S	33E	623048	3618206*	300		
CP 00810		LE		3	3	08	19S	33E	622675	3615385*	110		
CP 00883		LE		4	3	30	19S	33E	621517	3610545*	3305		
L 07023	L	LE	2	3	3	32	19S	33E	622840	3609047*	262	185	77

Average Depth to Water: **185 feet**

Minimum Depth: **185 feet**

Maximum Depth: **185 feet**

Record Count: 6

PLSS Search:

Township: 19S **Range:** 33E

***UTM location was derived from PLSS - see Help**

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.