

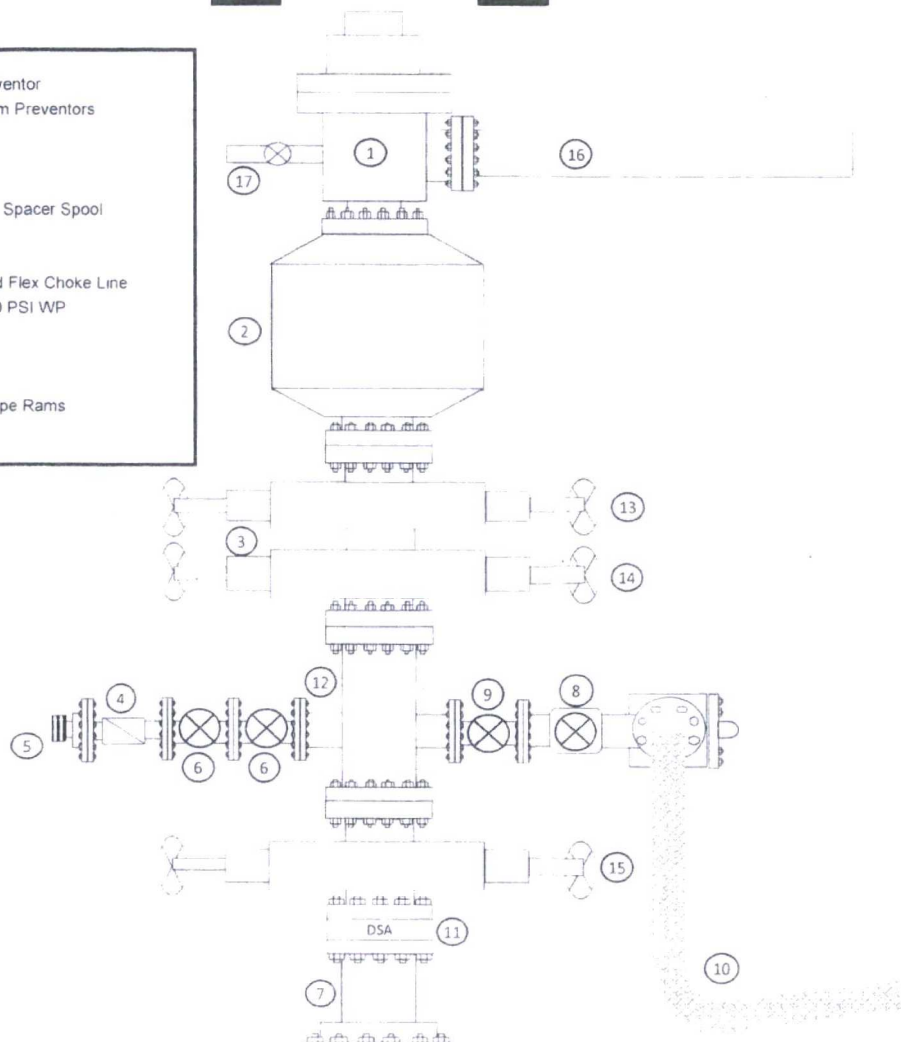
# Exhibit 1

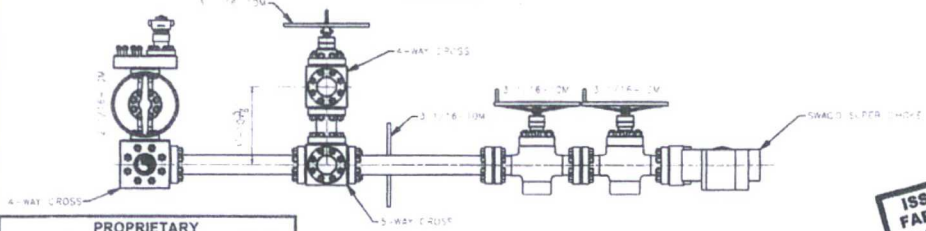
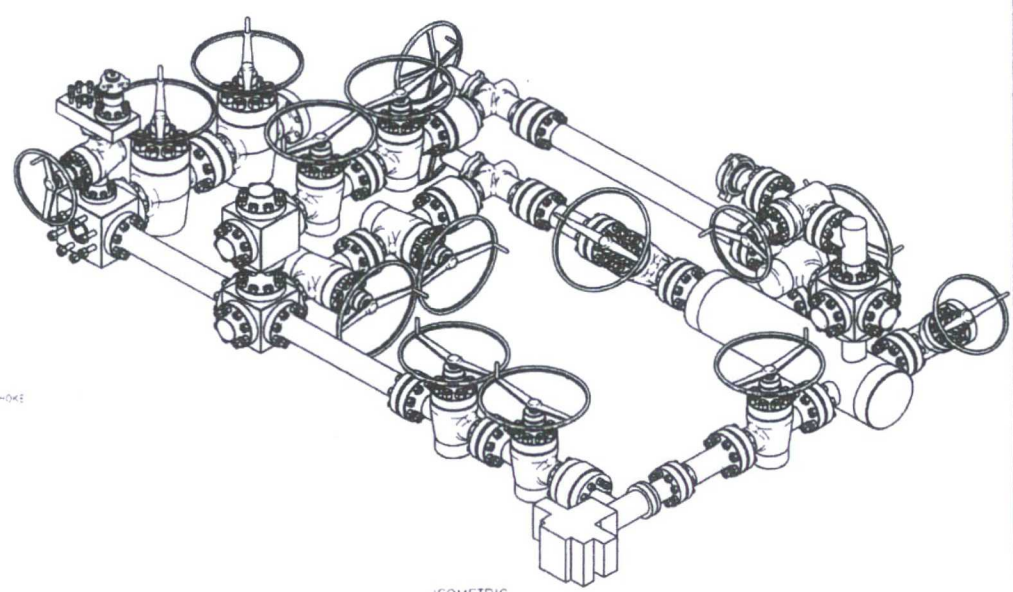
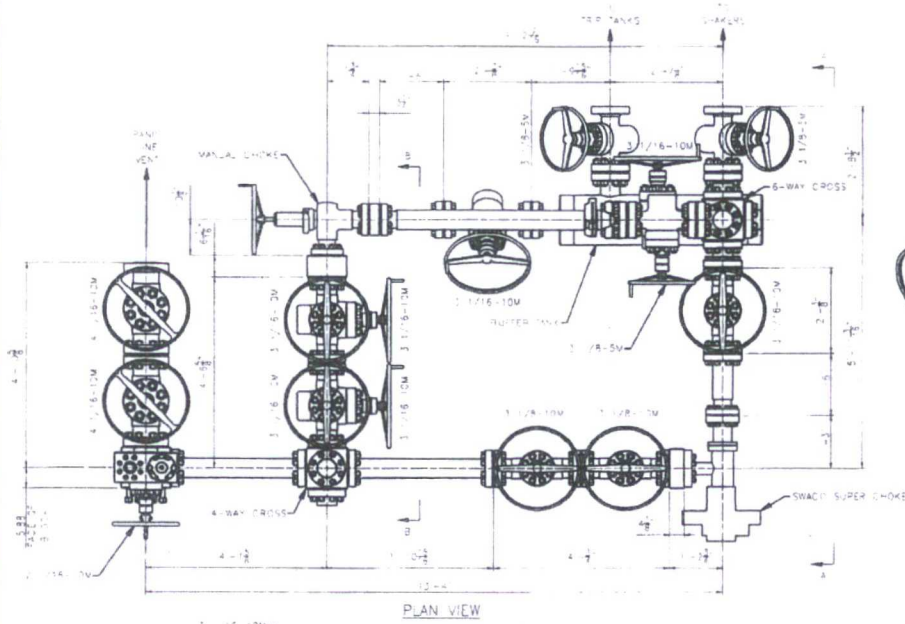
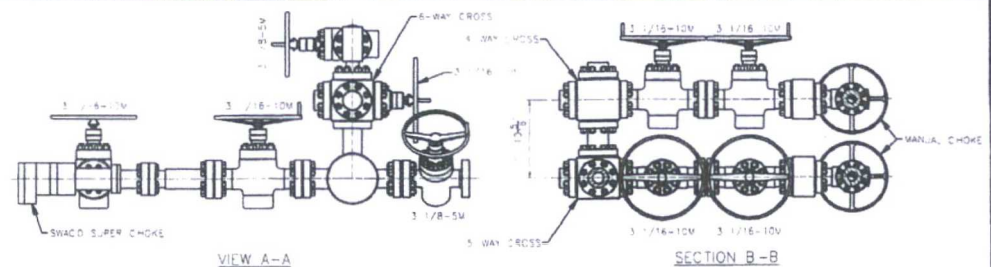
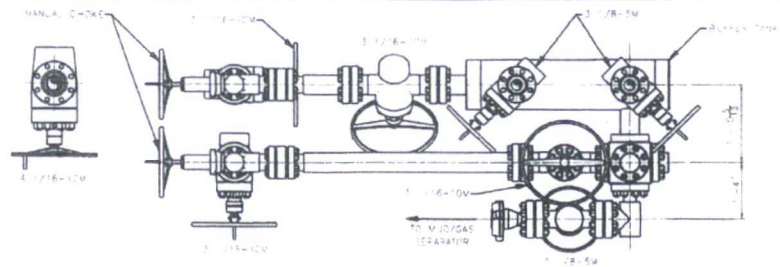
## EOG Resources

### 10M BOPE

Rig Floor

1. 13 5/8" Rotating Head
2. Hydril 13 5/8" 10,000 PSI WP GK Annular Preventor
3. 13 5/8" Cameron Type "U" 10,000 PSI WP Ram Preventors
4. 2 1/16" - 10,000 PSI WP Check Valve
5. 10,000 PSI WP - 1502 Union to kill line
6. 2 1/16" - 10,000 PSI WP Manual Valves
7. 13 5/8" 3,000 PSI WP x 13 5/8" 5,000 PSI WP Spacer Spool
8. 4 1/16" 10,000 PSI WP HCR Valve
9. 4 1/16" 10,000 PSI WP Manual Valve
10. 6" OD x 3" ID 10,000 PSI WP Steel Armoured Flex Choke Line
11. DSA - 13 5/8" 10,000 PSI WP x 13 5/8" 5,000 PSI WP
12. Mud Cross - 13 5/8" 10,000 PSI WP
13. Blind Rams
14. Pipe Rams
15. 13 5/8" Cameron Type "U" 10,000 PSI WP Pipe Rams
16. Flow Line
17. 2" Fill Line





**PROPRIETARY**  
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**ISSUED FOR FABRICATION**  
February-10-2014  
DRAFTSMAN *[Signature]*  
ENGINEER *[Signature]*

STANDARD TOLERANCES		SHEET NOTES	
1. FABRICATION DIMENSIONS	A-6" TO 36"	1. 1/16"	
2. MACHINED DIMENSIONS	36" TO 120"	2. 1/8"	
	120" TO 180"	3. 1/4"	
	180" TO 240"	4. 3/8"	
	240" TO 300"	5. 1/2"	
	300" TO 360"	6. 3/4"	
	360" TO 420"	7. 1"	
	420" TO 480"	8. 1 1/4"	
	480" TO 540"	9. 1 1/2"	
	540" TO 600"	10. 1 3/4"	
	600" TO 660"	11. 2"	
	660" TO 720"	12. 2 1/4"	
	720" TO 780"	13. 2 1/2"	
	780" TO 840"	14. 3"	
	840" TO 900"	15. 3 1/4"	
	900" TO 960"	16. 3 1/2"	
	960" TO 1020"	17. 3 3/4"	
	1020" TO 1080"	18. 4"	
	1080" TO 1140"	19. 4 1/4"	
	1140" TO 1200"	20. 4 1/2"	
	1200" TO 1260"	21. 4 3/4"	
	1260" TO 1320"	22. 5"	
	1320" TO 1380"	23. 5 1/4"	
	1380" TO 1440"	24. 5 1/2"	
	1440" TO 1500"	25. 5 3/4"	
	1500" TO 1560"	26. 6"	
	1560" TO 1620"	27. 6 1/4"	
	1620" TO 1680"	28. 6 1/2"	
	1680" TO 1740"	29. 6 3/4"	
	1740" TO 1800"	30. 7"	
	1800" TO 1860"	31. 7 1/4"	
	1860" TO 1920"	32. 7 1/2"	
	1920" TO 1980"	33. 7 3/4"	
	1980" TO 2040"	34. 8"	
	2040" TO 2100"	35. 8 1/4"	
	2100" TO 2160"	36. 8 1/2"	
	2160" TO 2220"	37. 8 3/4"	
	2220" TO 2280"	38. 9"	
	2280" TO 2340"	39. 9 1/4"	
	2340" TO 2400"	40. 9 1/2"	
	2400" TO 2460"	41. 9 3/4"	
	2460" TO 2520"	42. 10"	
	2520" TO 2580"	43. 10 1/4"	
	2580" TO 2640"	44. 10 1/2"	
	2640" TO 2700"	45. 10 3/4"	
	2700" TO 2760"	46. 11"	
	2760" TO 2820"	47. 11 1/4"	
	2820" TO 2880"	48. 11 1/2"	
	2880" TO 2940"	49. 11 3/4"	
	2940" TO 3000"	50. 12"	
	3000" TO 3060"	51. 12 1/4"	
	3060" TO 3120"	52. 12 1/2"	
	3120" TO 3180"	53. 12 3/4"	
	3180" TO 3240"	54. 13"	
	3240" TO 3300"	55. 13 1/4"	
	3300" TO 3360"	56. 13 1/2"	
	3360" TO 3420"	57. 13 3/4"	
	3420" TO 3480"	58. 14"	
	3480" TO 3540"	59. 14 1/4"	
	3540" TO 3600"	60. 14 1/2"	
	3600" TO 3660"	61. 14 3/4"	
	3660" TO 3720"	62. 15"	
	3720" TO 3780"	63. 15 1/4"	
	3780" TO 3840"	64. 15 1/2"	
	3840" TO 3900"	65. 15 3/4"	
	3900" TO 3960"	66. 16"	
	3960" TO 4020"	67. 16 1/4"	
	4020" TO 4080"	68. 16 1/2"	
	4080" TO 4140"	69. 16 3/4"	
	4140" TO 4200"	70. 17"	
	4200" TO 4260"	71. 17 1/4"	
	4260" TO 4320"	72. 17 1/2"	
	4320" TO 4380"	73. 17 3/4"	
	4380" TO 4440"	74. 18"	
	4440" TO 4500"	75. 18 1/4"	
	4500" TO 4560"	76. 18 1/2"	
	4560" TO 4620"	77. 18 3/4"	
	4620" TO 4680"	78. 19"	
	4680" TO 4740"	79. 19 1/4"	
	4740" TO 4800"	80. 19 1/2"	
	4800" TO 4860"	81. 19 3/4"	
	4860" TO 4920"	82. 20"	
	4920" TO 4980"	83. 20 1/4"	
	4980" TO 5040"	84. 20 1/2"	
	5040" TO 5100"	85. 20 3/4"	
	5100" TO 5160"	86. 21"	
	5160" TO 5220"	87. 21 1/4"	
	5220" TO 5280"	88. 21 1/2"	
	5280" TO 5340"	89. 21 3/4"	
	5340" TO 5400"	90. 22"	
	5400" TO 5460"	91. 22 1/4"	
	5460" TO 5520"	92. 22 1/2"	
	5520" TO 5580"	93. 22 3/4"	
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	5700" TO 5760"	96. 23 1/2"	
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	5940" TO 6000"	100. 24 1/2"	
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	6060" TO 6120"	102. 25"	
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	6240" TO 6300"	105. 25 3/4"	
	6300" TO 6360"	106. 26"	
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	6600" TO 6660"	111. 27 1/4"	
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	6720" TO 6780"	113. 27 3/4"	
	6780" TO 6840"	114. 28"	
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	6960" TO 7020"	117. 28 3/4"	
	7020" TO 7080"	118. 29"	
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	7140" TO 7200"	120. 29 1/2"	
	7200" TO 7260"	121. 29 3/4"	
	7260" TO 7320"	122. 30"	
	7320" TO 7380"	123. 30 1/4"	
	7380" TO 7440"	124. 30 1/2"	
	7440" TO 7500"	125. 30 3/4"	
	7500" TO 7560"	126. 31"	
	7560" TO 7620"	127. 31 1/4"	
	7620" TO 7680"	128. 31 1/2"	
	7680" TO 7740"	129. 31 3/4"	
	7740" TO 7800"	130. 32"	
	7800" TO 7860"	131. 32 1/4"	
	7860" TO 7920"	132. 32 1/2"	
	7920" TO 7980"	133. 32 3/4"	
	7980" TO 8040"	134. 33"	
	8040" TO 8100"	135. 33 1/4"	
	8100" TO 8160"	136. 33 1/2"	
	8160" TO 8220"	137. 33 3/4"	
	8220" TO 8280"	138. 34"	
	8280" TO 8340"	139. 34 1/4"	
	8340" TO 8400"	140. 34 1/2"	
	8400" TO 8460"	141. 34 3/4"	
	8460" TO 8520"	142. 35"	
	8520" TO 8580"	143. 35 1/4"	
	8580" TO 8640"	144. 35 1/2"	
	8640" TO 8700"	145. 35 3/4"	
	8700" TO 8760"	146. 36"	
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	8820" TO 8880"	148. 36 1/2"	
	8880" TO 8940"	149. 36 3/4"	
	8940" TO 9000"	150. 37"	
	9000" TO 9060"	151. 37 1/4"	
	9060" TO 9120"	152. 37 1/2"	
	9120" TO 9180"	153. 37 3/4"	
	9180" TO 9240"	154. 38"	
	9240" TO 9300"	155. 38 1/4"	
	9300" TO 9360"	156. 38 1/2"	
	9360" TO 9420"	157. 38 3/4"	
	9420" TO 9480"	158. 39"	
	9480" TO 9540"	159. 39 1/4"	
	9540" TO 9600"	160. 39 1/2"	
	9600" TO 9660"	161. 39 3/4"	
	9660" TO 9720"	162. 40"	
	9720" TO 9780"	163. 40 1/4"	
	9780" TO 9840"	164. 40 1/2"	
	9840" TO 9900"	165. 40 3/4"	
	9900" TO 9960"	166. 41"	
	9960" TO 10020"	167. 41 1/4"	
	10020" TO 10080"	168. 41 1/2"	
	10080" TO 10140"	169. 41 3/4"	
	10140" TO 10200"	170. 42"	
	10200" TO 10260"	171. 42 1/4"	
	10260" TO 10320"	172. 42 1/2"	
	10320" TO 10380"	173. 42 3/4"	
	10380" TO 10440"	174. 43"	
	10440" TO 10500"	175. 43 1/4"	
	10500" TO 10560"	176. 43 1/2"	
	10560" TO 10620"	177. 43 3/4"	
	10620" TO 10680"	178. 44"	
	10680" TO 10740"	179. 44 1/4"	
	10740" TO 10800"	180. 44 1/2"	
	10800" TO 10860"	181. 44 3/4"	
	10860" TO 10920"	182. 45"	
	10920" TO 10980"	183. 45 1/4"	
	10980" TO 11040"	184. 45 1/2"	
	11040" TO 11100"	185. 45 3/4"	
	11100" TO 11160"	186. 46"	
	11160" TO 11220"	187. 46 1/4"	
	11220" TO 11280"	188. 46 1/2"	
	11280" TO 11340"	189. 46 3/4"	
	11340" TO 11400"	190. 47"	
	11400" TO 11460"	191. 47 1/4"	
	11460" TO 11520"	192. 47 1/2"	
	11520" TO 11580"	193. 47 3/4"	
	11580" TO 11640"	194. 48"	
	11640" TO 11700"	195. 48 1/4"	
	11700" TO 11760"	196. 48 1/2"	
	11760" TO 11820"	197. 48 3/4"	
	11820" TO 11880"	198. 49"	
	11880" TO 11940"	199. 49 1/4"	
	11940" TO 12000"	200. 49 1/2"	
	12000" TO 12060"	201. 49 3/4"	
	12060" TO 12120"	202. 50"	
	12120" TO 12180"	203. 50 1/4"	
	12180" TO 12240"	204. 50 1/2"	
	12240" TO 12300"	205. 50 3/4"	
	12300" TO 12360"	206. 51"	
	12360" TO 12420"	207. 51 1/4"	
	12420" TO 12480"	208. 51 1/2"	
	12480" TO 12540"	209. 51 3/4"	
	12540" TO 12600"	210. 52"	
	12600" TO 12660"	211. 52 1/4"	
	12660" TO 12720"	212. 52 1/2"	
	12720" TO 12780"	213. 52 3/4"	
	12780" TO 12840"	214. 53"	
	12840" TO 12900"	215. 53 1/4"	
	12900" TO 12960"	216. 53 1/2"	
	12960" TO 13020"	217. 53 3/4"	
	13020" TO 13080"	218. 54"	
	13080" TO 13140"	219. 54 1/4"	
	13140" TO 13200"	220. 54 1/2"	
	13200" TO 13260"	221. 54 3/4"	
	13260" TO 13320"	222. 55"	
	13320" TO 13380"	223. 55 1/4"	
	13380" TO 13440"	224. 55 1/2"	
	13440" TO 13500"	225. 55 3/4"	
	13500" TO 13560"	226. 56"	
	13560" TO 13620"	227. 56 1/4"	
	13620" TO 13680"	228. 56 1/2"	
	13680" TO 13740"	229. 56 3/4"	
	13740" TO 13800"	230. 57"	
	13800" TO 13860"	231. 57 1/4"	
	13860" TO 13920"	232. 57 1/2"	
	13920" TO 13980"	233. 57 3/4"	
	13980" TO 14040"	234. 58"	
	14040" TO 14100"	235. 58 1/4"	
	14100" TO 14160"	236. 58 1/2"	
	14160" TO 14220"	237. 58 3/4"	
	14220" TO 14280"	238. 59"	
	14280" TO 14340"	239. 59 1/4"	
	14340" TO 14400"	240. 59 1/2"	
	14400" TO 14460"	241. 59 3/4"	
	14460" TO 14520"	242. 60"	
	14520" TO 14580"	243. 60 1/4"	
	14580" TO 14640"	244. 60 1/2"	
	14640" TO 14700"	245. 60 3/4"	
	14700" TO 14760"	246. 61"	
	14760" TO 14820"	247. 61 1/4"	
	14820" TO 14880"	248. 61 1/2"	
	14880" TO 14940"	249. 61 3/4"	
	14940" TO 15000"	250. 62"	

**HELMERICH & PAYNE**  
INTERNATIONAL DRILLING CO.  
TITLE: 3 CHOKE, 3 LEVEL, 10M CHOKE MANIFOLD G.A.  
CUSTOMER: H&P  
PROJECT:  
DRAWN: MWL DATE: 2/7/2014 DWG NO:  
SCALE: 3/4"=1'-0" SHEET: OF 1 HP-D1254

## EOG Resources Surface Casing Option Request

### 1. Request for variance for the option to preset surface casing with surface rig:

- a) EOG Requests the option to contract a Surface Rig to drill, set surface casing, and cement on the following subject wells. After WOC 8 hours or 500 psi compressive strength (whichever is greater), the Surface Rig will move off so that the wellhead can be installed. A welder will cut the casing to the proper height and weld on the wellhead (both "A" and "B" sections). The weld will be tested to 1000 psi. All valves will be closed and a wellhead cap will be installed. See attached wellhead diagram below. If the timing between rigs is such that EOG Resources would not be able to preset surface, the Primary Rig will MIRU and drill the well in its entirety per the APD. *Primary rig needs to move back in within 90 days. BLM needs to be notified 24 hours before the spudder rig & the primary rig moves in.*

Wellname

ANTIETAM 9 FED COM #701H

ANTIETAM 9 FED COM #702H

ANTIETAM 9 FED COM #703H

ANTIETAM 9 FED COM #704H

COLGROVE FED COM #707H

COLGROVE FED COM #708H

ENDURANCE 36 STATE COM #707H

ENDURANCE 36 STATE COM #708H

HOUND 30 FED #701H

HOUND 30 FED #702H

HOUND 30 FED #703H

HOUND 30 FED #704H

LUCKY 13 FED COM #8H

LUCKY 13 FED COM #9H

TRIGG 5 FED #1



OD	Weight	Wall Th.	Grade	API Drift	Connection
7 5/8 in.	29.70 lb/ft	0.375 in.	VM 110 HC	6.750 in.	VAM® SLIJ-II

PIPE PROPERTIES	
Nominal OD	7.625 in.
Nominal ID	6.875 in.
Nominal Cross Section Area	8.541 sqin.
Grade Type	High Collapse
Min. Yield Strength	110 ksi
Max. Yield Strength	140 ksi
Min. Ultimate Tensile Strength	125 ksi

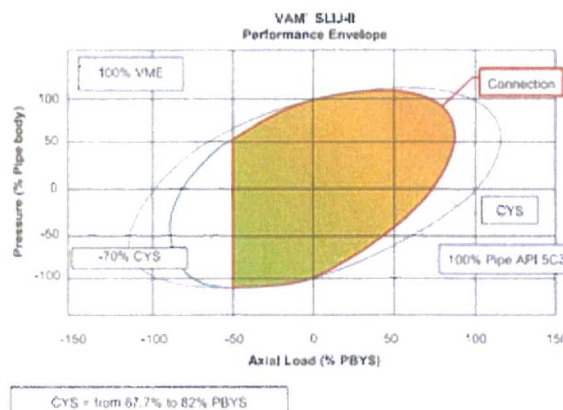
CONNECTION PROPERTIES	
Connection Type	Premium integral semi-flush
Connection OD (nom)	7.711 in.
Connection ID (nom)	6.820 in.
Make-up Loss	4.822 in.
Critical Cross Section	5.912 sqin.
Tension Efficiency	69.2 % of pipe
Compression Efficiency	48.5 % of pipe
Internal Pressure Efficiency	100 % of pipe
External Pressure Efficiency	100 % of pipe

CONNECTION PERFORMANCES	
Tensile Yield Strength	651 klb
Compression Resistance	455 klb
Internal Yield Pressure	9470 psi
Uniaxial Collapse Pressure	7890 psi
Max. Bending Capacity	TDB
Max Bending with Sealability	20 °/100 ft

FIELD TORQUE VALUES	
Min. Make-up torque	11300 ft.lb
Opti. Make-up torque	12600 ft.lb
Max. Make-up torque	13900 ft.lb

**VAM® SLIJ-II** is a semi-flush integral premium connection for all casing applications. It combines a near flush design with high performances in tension, compression and gas sealability.

VAM® SLIJ-II has been validated according to the most stringent tests protocols, and has an excellent performance history in the world's most prolific HPHT wells.



Do you need help on this product? - Remember no one knows VAM® like VAM

canada@vamfieldservice.com  
usa@vamfieldservice.com  
mexico@vamfieldservice.com  
brazil@vamfieldservice.com

uk@vamfieldservice.com  
dubai@vamfieldservice.com  
nigeria@vamfieldservice.com  
angola@vamfieldservice.com

china@vamfieldservice.com  
baku@vamfieldservice.com  
singapore@vamfieldservice.com  
australia@vamfieldservice.com

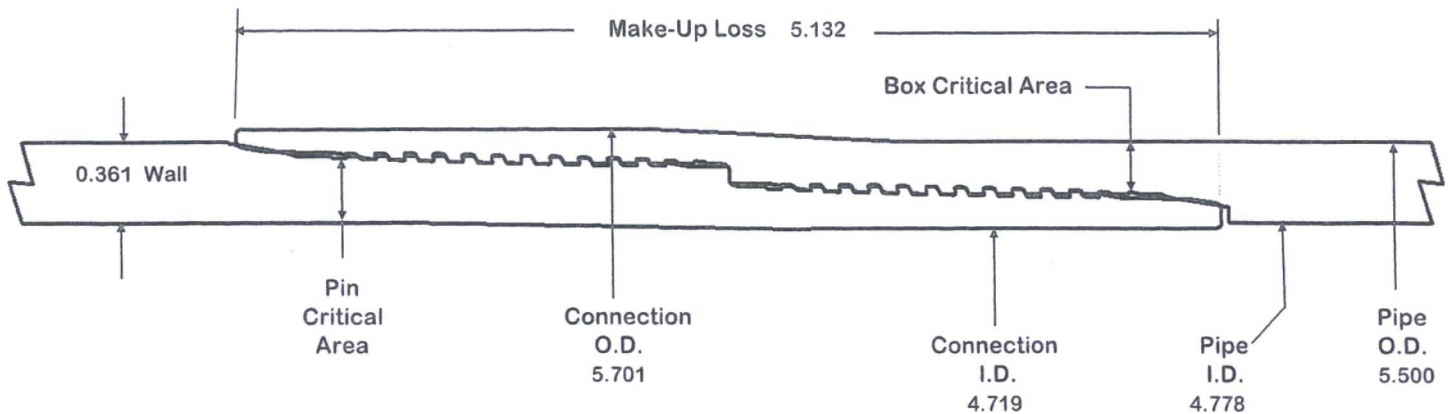
Over 140 VAM® Specialists available worldwide 24/7 for Rig Site Assistance

Other Connection Data Sheets are available at [www.vamservices.com](http://www.vamservices.com)

**Vallourec Group**



# VAM® SFC



O.D.  
5.500

WEIGHT  
20.00

WALL  
0.361

GRADE  
VST P110EC

DRIFT  
4.653

## PIPE BODY PROPERTIES

Material Grade	VST P110EC
Min. Yield Strength	125 ksi
Min. Tensile Strength	135 ksi
Outside Diameter	5.500 in
Inside Diameter	4.778 in
Nominal Area	5.828 sq.in.
Yield Strength	729 kips
Ultimate Strength	787 kips
Min Internal Yield	14,360 psi
*High Collapse	12,090 psi

## CONNECTION PROPERTIES

Connection OD	5.701 in
Connection ID	4.719 in
Make up Loss	5.132 in
Box Critical Area	4.083 sq.in.
%PB Section Area	70.1%
Pin Critical Area	4.123 sq.in.
%PB Section Area	70.7%
Yield Strength	510 kips
Parting Load	551 kips
Min Internal Yield	14,360 psi
*High Collapse	12,090 psi
Wk Compression	357 kips
Max Pure Bending	20 °/100 ft

Contact: [tech.support@vam-usa.com](mailto:tech.support@vam-usa.com)  
 Ref. Drawing: SI-PD 100414 Rev.B  
 Date: 14-Jun-16  
 Time: 2:31 PM

## TORQUE DATA ft-lb

min	opt	max
8,700	9,700	10,700



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## TECHNICAL SPECIFICATIONS

These specifications are furnished for general information only and are not intended for design purposes. This information is preliminary and may change subject to a final design by VAM-USA Engineering. This is not a controlled document.

**DWC/C-IS MS      Casing      5.500" O.D.      20.00 lb./ft.      VST P-110EC**  
*standard*

### Material

VST P-110EC	Grade
125,000	Minimum Yield Strength (psi.)
135,000	Minimum Ultimate Strength (psi.)



### Pipe Dimensions

5.500	Nominal Pipe Body OD (in.)
4.778	Nominal Pipe Body ID (in.)
0.361	Nominal Wall Thickness (in.)
20.00	Nominal Weight (lbs./ft.)
19.83	Plain End Weight (lbs./ft.)
5.828	Nominal Pipe Body Area (sq. in.)

VAM-USA  
 4424 W. Sam Houston Pkwy, Suite 150  
 Houston, TX 77041  
 Phone: (713) 479-3200  
 Fax: (713) 479-3234  
 E-mail: VAMUSAsales@na.vallourec.com

### Pipe Body Performance Properties

729,000	Minimum Pipe Body Yield Strength (lbs.)
12,090	Minimum Collapse Pressure (psi.)
14,360	Minimum Internal Yield Pressure (psi.)
13,100	Hydrostatic Test Pressure (psi.)

### Connection Dimensions

6.115	Connection OD (in.)
4.778	Connection ID (in.)
4.653	Connection Drift Diameter (in.)
4.13	Make-up Loss (in.)
5.828	Critical Area (sq. in.)
100.0	Joint Efficiency (%)

### Connection Performance Properties

729,000	(1)	Joint Strength (lbs.)
26,040	(2)	Reference String Length (ft.) 1.4 Design Factor
728,000	(3)	API Joint Strength (lbs.)
729,000		Compression Rating (lbs.)
12,090		API Collapse Pressure Rating (psi.)
14,360	(4)	API Internal Pressure Resistance (psi.)
104.2		Maximum Uniaxial Bend Rating (degrees/100 ft.)

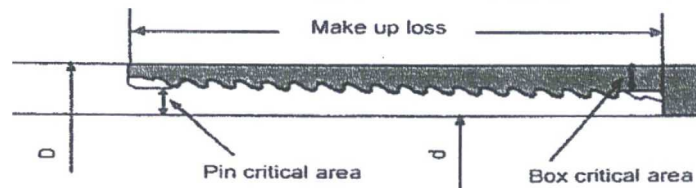
### Approximated Field End Torque Values

16,600	(5)	Minimum Final Torque (ft.-lbs.)
19,100	(5)	Maximum Final Torque (ft.-lbs.)
21,600	(6)	Connection Yield Torque (ft.-lbs.)

- (1) Joint Strength is the minimum pipe body yield strength multiplied by the connection critical area.
- (2) Reference String Length is the joint strength divided by both the weight in air and the design factor.
- (3) API Joint Strength is for reference only. It is calculated from Formulas 42 and 43 in the API Bulletin 5C3.
- (4) API Internal Pressure Resistance is calculated from Formulas 31, 32, and 35 in the API Bulletin 5C3.
- (5) Torque values are approximated and may be affected by field conditions.
- (6) Connection yield torque is not to be exceeded.

Connection specifications within the control of VAM-USA were correct as of the date printed. Specifications are subject to change without notice. Certain connection specifications are dependent on the mechanical properties of the pipe. Mechanical properties of mill proprietary pipe grades obtained from mill publications and are subject to change. Properties of mill proprietary grades should be confirmed with the mill. Users are advised to obtain current connection specifications and verify pipe mechanical properties for each application.

**FLUSHMAX-III**  
**Connection Data Sheet**



Pipe Body	Imperial		S.I.	
Grade	P110		P110	
Pipe OD ( D )	7 5/8	in	193.68	mm
Weight	29.7	lb/ft	44.25	kg/m
Actual weight	29.0	lb/ft	43.26	kg/m
Wall thickness ( t )	0.375	in	9.53	mm
Pipe ID ( d )	6.875	in	174.63	mm
Pipe body cross section	8.537	in <sup>2</sup>	5,508	mm <sup>2</sup>
Drift Dia.	6.750	in	171.45	mm

Connection				
Box OD ( W )	7.625	in	193.68	mm
PIN ID	6.875	in	174.63	mm
Pin critical area	4.420	in <sup>2</sup>	2,852	mm <sup>2</sup>
Box critical area	4.424	in <sup>2</sup>	2,854	mm <sup>2</sup>
Joint load efficiency	60	%	60	%
Make up loss	3.040	in	77.22	mm
Thread taper	1/16 ( 3/4 in per ft )			
Number of threads	5 thread per in.			

Connection Performance Properties				
Tensile Yield load	563.4	kips	2,506	kN
M.I.Y.P.	7,574	psi	52.2	MPa
Collapse strength	5,350	psi	36.9	MPa

Note

M.I.Y.P. = Minimum Internal Yield Pressure of the connection

**Torque Recommended**

Min.	8,700	ft-lb	11,700	N-m
Optl.	9,700	ft-lb	13,100	N-m
Max.	10,700	ft-lb	14,500	N-m
Operational Max.	23,600	ft-lb	32,000	N-m

Note : Operational Max. torque can be applied for high torque application