


500BBL/D STABILIZER

Drawing Name	Description	Revision #	Revision Date
500 BBL/D STABILIZER UNIT			
CSU-500B-0	500 BBL/D NGL STABILIZER - DRAWING INDEX	0	5/28/2014
CSU-500B-0A	500 BBL/D STABILIZER - HYDROSTATIC TEST	0	5/28/2014
CSU-500B-1	500 BBL/D STABILIZER - P&ID	0	5/28/2014
CSU-500B-2	500 BBL/D NGL STABILIZER - OVERHEAD VIEW	0	5/28/2014
CSU-500B-3	500 BBL/D NGL STABILIZER - 30 DEG ISO VIEW	0	5/28/2014
CSU-500B-4	500 BBL/D NGL STABILIZER - FRONT VIEW	0	5/28/2014
CSU-500B-5	500 BBL/D NGL STABILIZER - BACK VIEW	0	5/28/2014
CSU-500B-6	500 BBL/D NGL STABILIZER - PERSPECTIVE VIEW	0	5/28/2014
CSU-500B-7	500 BBL/D NGL STABILIZER - RIGHTVIEW	0	5/28/2014
CSU-500B-8	500 BBL/D NGL STABILIZER - LEFT VIEW	0	5/28/2014
CSU-500B-9	500 BBL/D NGL STABILIZER - PIPING PLAN & ELEVATION	0	5/28/2014
CSU-500B-10	500 BBL/D NGL STABILIZER - GENERAL LAYOUT	0	5/28/2014
CSU-500B-11	500 BBL/D NGL STABILIZER - INLET/OUTLET	0	5/28/2014
CSU-500B-12	500 BBL/D NGL STABILIZER - STRUCTURAL PLAN LOWER VIEW	0	5/28/2014
CSU-500B-13	500 BBL/D NGL STABILIZER - GRATING & SUPPORT DETAIL	0	5/28/2014
CSU-500B-14	500 BBL/D NGL STABILIZER - STRUCTURAL PLAN UPPER VIEW	0	5/28/2014
CSU-500B-15	500 BBL/D NGL STABILIZER - STABILIZER ELEVATION VIEW	0	5/28/2014
CSU-500B-16	500 BBL/D NGL STABILIZER - GUY WIRE DETAIL	0	5/28/2014
CSU-500B-17	500 BBL/D NGL STABILIZER - STABILIZER SUPPORT DETAIL	0	5/28/2014
CSU-500B-HE-1A-1	REBOILER (HE-1A) - LAYOUT	0	5/28/2014
CSU-500B-HE-1A-2	REBOILER (HE-1A) - LAYOUT	0	5/28/2014
CSU-500B-V-1A-1	STABILIZER COLUMN (V-1A) - LAYOUT	0	5/28/2014
CSU-500B-V-1A-2	STABILIZER COLUMN(V-1A) - ELEVATION	0	5/28/2014
CSU-500B-V-2A-1	3 PHASE SEPARATOR (V-2A) - LAYOUT	0	5/28/2014
CSU-500B-V-2A-2	3 PHASE SEPARATOR (V-2A) - ELEVATION	0	5/28/2014
3/4"-RG-C-518-1	SIGHT GLASS BRIDAL FOR V-2A	0	5/28/2014
3/4"-RG-C-518-2	SIGHT GLASS BRIDAL FOR V-2A	0	5/28/2014
1"-CN-B-1H-515-1	LEVEL SWITCH BRIDAL FOR V-1A (STABILIZER COLUMN)	0	5/28/2014
1"-PR-C-513-1	FROM V-2A (OVERHEAD SEPARATOR) TO 2"-PR-C-509	0	5/28/2014
1"-RG-C-517-1	LEVEL CONTROL BRIDAL DETAIL (LOW) FOR V-2A (3-PHASE SEPARATOR)	0	5/28/2014
1"-RG-C-521-1	LEVEL CONTROL BRIDAL DETAIL (LOW) FOR V-2A (3-PHASE SEPARATOR)	0	5/28/2014
1"-WT-B-512-1	FROM V-2A (3-PHASE SEPARATOR) TO H2O TANK (EXIT)	0	5/28/2014
2"-CN-B-1C-501	FROM REFRIGERATION PLANT (ENTRANCE) TO V-1A (STABILIZER COLUMN)	0	5/28/2014
2"-CN-B-516-1	FROM V-1A (STABILIZER COLUMN) BRIDAL DETAIL	0	5/28/2014
2"-CN-B-516-2	FROM V-1A (STABILIZER COLUMN) BRIDAL DETAIL	0	5/28/2014
2"-CN-B-519-1	REBOILER (HE-1A) BRIDLE	0	5/28/2014
2"-CN-B-519-2	REBOILER (HE-1A) BRIDLE	0	5/28/2014
2"-GL-B-1H-510-1	FROM GLYCOL UNIT (ENTRANCE) TO HE-1A (REBOILER)	0	5/28/2014
2"-GL-B-1H-511-1	FROM HE-1A (REBOILER) TO GLYCOL UNIT (EXIT)	0	5/28/2014
2"-GL-B-1H-520-1	FROM 2"-GL-B-1H-510 TO 2"GL-B-1H-511	0	5/28/2014
2"-PR-B-1H-507-1	FROM HE-1A (REBOILER) TO AC-1A (NGL COOLER)	0	5/28/2014
2"-PR-C-508-1	FROM AC-1A (NGL COOLER) TO 2"-PR-C-509	0	5/28/2014
2"-RG-B-502-1	FROM V-1A (STABILIZER COLUMN) TO V-2A (OVERHEAD SEPARATOR)	0	5/28/2014
2"-RG-B-503-1	FROM V-2A (OVERHEAD SEPARATOR) TO RESIDUE (EXIT)	0	5/28/2014
3"-CN-B-1H-505-1	FROM V-1A (STABILIZER COLUMN) TO HE-1A (REBOILER)	0	5/28/2014
4"-CN-B-1H-506-1	FROM V-2A (OVERHEAD SEPARATOR) TO C-1A (COMPRESSOR PACKAGE)	0	5/28/2014
1"-RG-C-523-1	FROM PRESSURE RELIEF VALVE TO ATMOSPHERE	0	5/28/2014

<p>PROPRIETARY NOTES: WEDGE ENERGY SERVICES L.L.C. CLAIMS PROPRIETARY RIGHTS IN THE MATERIAL DISCLOSED HEREON. NEITHER THIS DRAWING NOR ANY REPRODUCTION THEREOF MAY BE USED TO MANUFACTURE ANYTHING SHOWN HEREON WITHOUT PERMISSION IN WRITING FROM WEDGE ENERGY SERVICES L.L.C. TO THE USER SPECIFICALLY REFERRING TO THE DRAWING. THESE DESIGNS ARE THE PROPERTY OF WEDGE ENERGY SERVICES, L.L.C. SUBJECT TO COPYRIGHT PROTECTION UNDER FEDERAL LAW.</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NO.</th> <th>ISSUED FOR CONSTRUCTION</th> <th>BY</th> <th>DATE</th> <th>NO.</th> <th>DESCRIPTION</th> <th>BY</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>ISSUED FOR CONSTRUCTION</td> <td>JM</td> <td>05/28/14</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	NO.	ISSUED FOR CONSTRUCTION	BY	DATE	NO.	DESCRIPTION	BY	DATE	0	ISSUED FOR CONSTRUCTION	JM	05/28/14					<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3">WEDGE RECORD</th> </tr> </thead> <tbody> <tr> <td>DESIGN</td> <td>JT</td> <td>04/17/12</td> </tr> <tr> <td>DESIGN ENG.</td> <td>MWM</td> <td>04/17/12</td> </tr> <tr> <td colspan="3" style="text-align: center;">SCALE: NONE</td> </tr> </tbody> </table>	WEDGE RECORD			DESIGN	JT	04/17/12	DESIGN ENG.	MWM	04/17/12	SCALE: NONE			<div style="text-align: center;">  <p>461 N. BROADWAY ST. JOSHUA, TX. 76058 Phone: 817.426.9810 Fax: 817.426.9777</p> </div>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center;">CSU-500B</td> </tr> <tr> <td>P.O.#/AFE:</td> <td>SHOP ORDER #:</td> </tr> <tr> <td colspan="2">CLIENT:</td> </tr> <tr> <td colspan="2">DESCRIPTION: 500 BBL/D NGL STABILIZER DRAWING INDEX</td> </tr> </table>	CSU-500B		P.O.#/AFE:	SHOP ORDER #:	CLIENT:		DESCRIPTION: 500 BBL/D NGL STABILIZER DRAWING INDEX	
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500BBL/D STABILIZER

PRE-TEST SECTION No. 1		
DESIGN PRESSURE: <u>655 PSIG.</u>	CLASS LOCATION: <u>3</u>	
DESIGN TEMPERATURE: <u>-50°F TO 300°F</u>	DESIGN FACTOR: <u>0.5</u>	
FLANGE RATING CLASS: <u>ANSI 300</u>		
MATERIAL TEST LIMITS: <u>ANSI 300 FLANGES</u>		
PRE-TEST REQUIREMENTS SECTION No. 1		
TEST MEDIUM: <u>WATER</u>		
STABILIZATION: <u>AS REQUIRED</u>		
HOLD PERIOD: <u>4 HRS. MIN.</u>		
TEST PRESSURE: <u>MIN: 982 PSIG. MAX: 1012 PSIG.</u>		
RECORDED PRESSURE: <u>MIN: PSIG. MIN: PSIG.</u>		
DRAWING/ISO #	DESIGN TEMPERATURE	NOTES
3/4"-RG-C-518	-50 TO 300F	
1"-CN-B-1H-515	-50 TO 300F	
1"-PR-C-513	-50 TO 300F	
1"-RG-C-517	-50 TO 300F	
1"-RG-C-521	-50 TO 300F	
1"-WT-B-512	-50 TO 300F	
2"-CN-B-1C-501	-50 TO 300F	
2"-CN-B-516	-50 TO 300F	
2"-CN-B-519	-50 TO 300F	
2"-GL-B-1H-510	-50 TO 300F	
2"-GL-B-1H-511	-50 TO 300F	
2"-GL-B-1H-520	-50 TO 300F	
2"-PR-B-1H-507	-50 TO 300F	
2"-PR-C-508	-50 TO 300F	
2"-PR-C-509	-50 TO 300F	
2"-RG-B-502	-50 TO 300F	
2"-RG-B-503	-50 TO 300F	
3"-CN-B-1H-505	-50 TO 300F	
4"-CN-B-1H-506	-50 TO 300F	

PRE-TEST SECTION No. 2		
DESIGN PRESSURE: <u>1360 PSIG.</u>	CLASS LOCATION: <u>3</u>	
DESIGN TEMPERATURE: <u>-50°F TO 200°F</u>	DESIGN FACTOR: <u>0.5</u>	
FLANGE RATING CLASS: <u>ANSI 600</u>		
MATERIAL TEST LIMITS: <u>ANSI 600 FLANGES</u>		
PRE-TEST REQUIREMENTS SECTION No. 2		
TEST MEDIUM: <u>WATER</u>		
STABILIZATION: <u>AS REQUIRED</u>		
HOLD PERIOD: <u>4 HRS. MIN.</u>		
TEST PRESSURE: <u>MIN: 2040 PSIG. MAX: 2070 PSIG.</u>		
RECORDED PRESSURE: <u>MIN: PSIG. MIN: PSIG.</u>		
DRAWING/ISO #	DESIGN TEMPERATURE	NOTES
1"-JA-B-514	-50 TO 200F	DO NOT HYDRO REGULATOR
2"-RG-B-504	-50 TO 200F	

GENERAL NOTES:

- 1.) ALL PIPING TO BE HYDROSTATICALLY TESTED AS PER DESIGN SPECIFICATIONS OR OTHERWISE NOTED. DO NOT TEST AGAINST ANY CLOSED VALVES.
- 2.) ALL PIPING TO BE CERTIFIED TO BE FREE OF HAZARDOUS LEAKS.
- 3.) ALL BUTT WELDS 2" AND LARGER IN DIAMETER TO BE 100% RADIOGRAPHICALLY INSPECTED & ALL TOL'S WILL BE MAGNETIC PARTICLE TESTED.
- 4.) ALL FLANGE BOLT HOLES TO STRADDLE VERTICAL CENTERLINE.
- 5.) COAT ALL PIPE INTERNALS WITH RUST DISPLACING INHIBITOR.
- 6.) DO NOT HYDROTEST RELIEF VALVES, HEAT EXCAHNGERS, VESSELS, STAINLESS STEEL TUBING, INSTRUMENTATION, OR LEVEL GAUGES/SIGHT GLASS.

SHEET 0A OF 17

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NO.	ISSUED FOR CONSTRUCTION	JM	5/29/14	NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE	NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE					

PIPING				
DRAWING/ISO #	WORKING TEMPERATURE	INSULATION THICKNESS (IN)	INSULATION TYPE	NOTES
3/4"-RG-C-518	50 °F			
1"-CN-B-1H-515	170 °F			
1"-IA-B-514	110 °F			
1"-PR-C-513	30 °F			
1"-RG-C-517	30 °F			
1"-RG-C-521	30 °F			
1"-WT-B-512	30 °F			
2"-CN-B-1C-501	30 °F			
2"-CN-B-516	170 °F			
2"-CN-B-519	170 °F			
2"-GL-B-1H-510	240 °F			
2"-GL-B-1H-511	270 °F			
1"-GL-B-1H-520	270 °F			
2"-PR-B-1H-507	140 °F			
2"-PR-C-508	110 °F			
2"-RG-B-502	30 °F			
2"-RG-B-503	30 °F			
2"-RG-B-504	110 °F			
3"-CN-B-1H-505	140 °F			
4"-CN-B-1H-506	170 °F			

VESSEL AND HEAT EXCHANGERS				
VESSEL	WORKING TEMPERATURE	INSULATION THICKNESS (IN)	INSULATION TYPE	NOTES
HE-1A REBOILER	170 °F			
V-1A STABILIZER	170 °F			
V-2A OVERHEAD SEPARATOR	40 °F			
V-3A INSTRUMENT SEPARATOR	80 °F			

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NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE	NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE
1	GENERAL REVISION.	MMW	1/2/13				
0	ISSUED FOR CONSTRUCTION	MMW	10/8/12				

WEDGE RECORD		
DESIGN	JT	4/17/12
DESIGN ENG.	CS	4/17/12
SCALE: NONE		

WEDGE
 ENERGY SERVICES, L.L.C.
 461 N. BROADWAY ST. Phone: 817.426.9810
 JOSHUA, TX. 76058 Fax: 817.426.9777

DRAWING NO. CSU-500-0B REV. 1

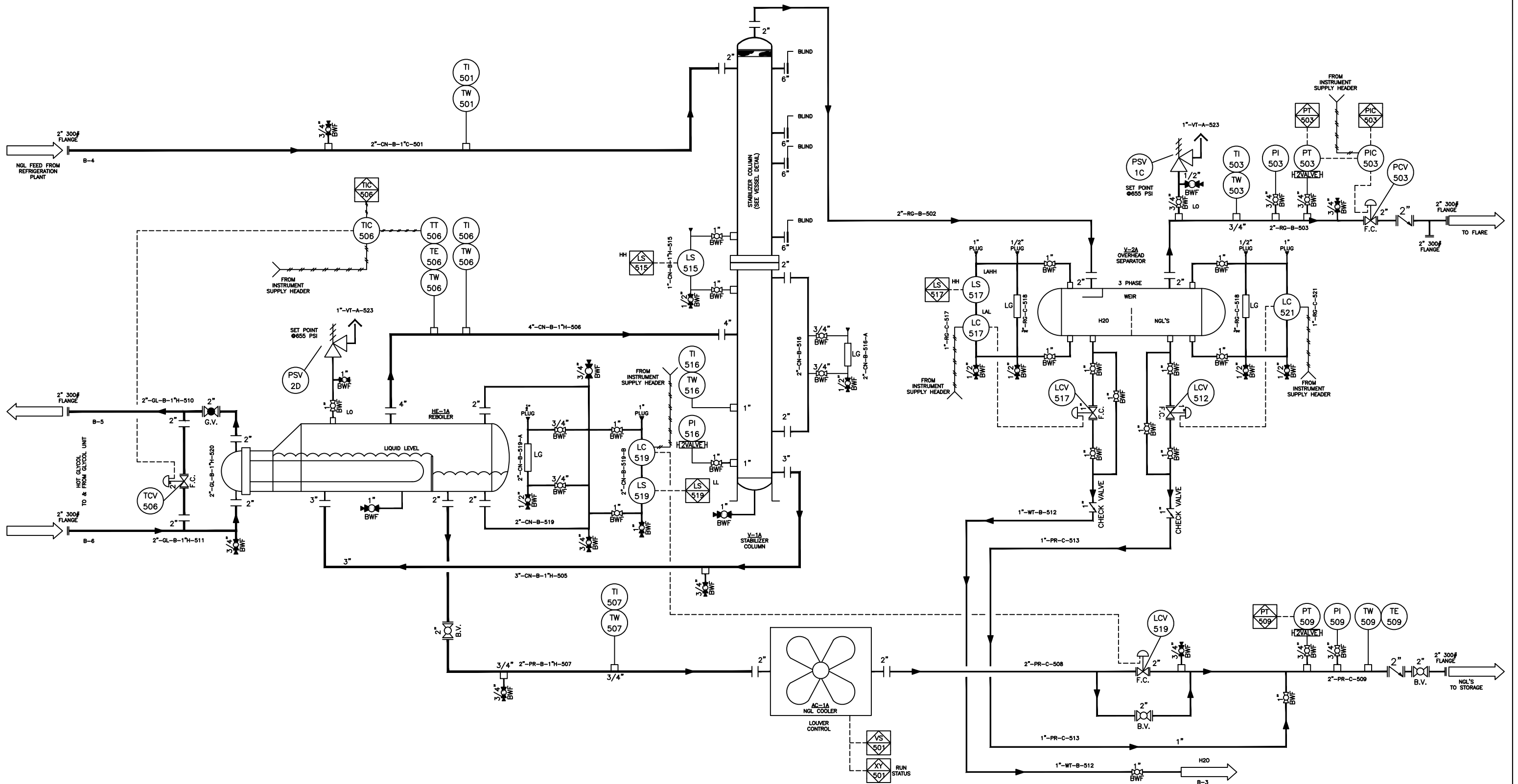
CSU-500	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	INSULATION INFORMATION

HE-1A
 REBOILER
 SHELL: MAOP 655 PSIG.
 -50°F TO 300°F
 TUBES: MAOP 655 PSIG.
 -50°F TO 300°F
 8.625" X 16" O.D.

V-1A
 STABILIZER COLUMN
 MAOP: 655 PSIG.
 -50°F TO 300°

AC-1A
 NGL COOLER
 MAOP 655 PSIG.
 -49°F TO 300°

V-2A
 OVERHEAD SEPARATOR
 MAOP 655 PSIG.
 -50°F TO 300°
 12.75" O.D. X 7'-6" SS



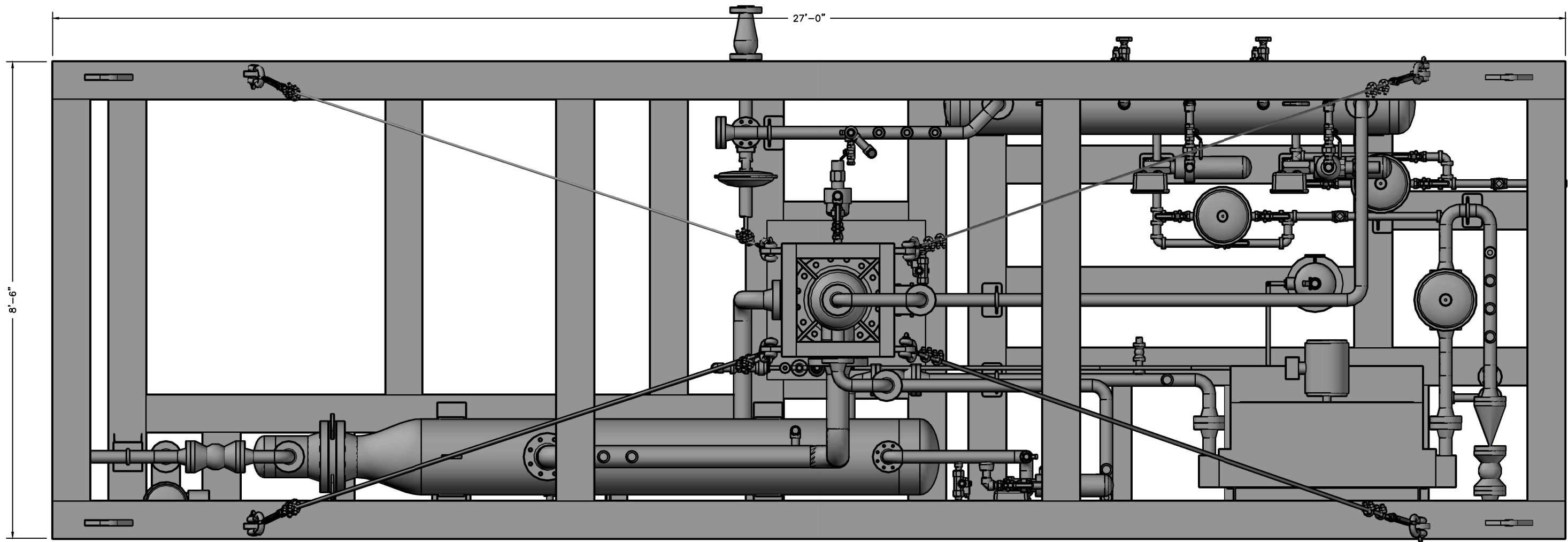
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NO.	ISSUED FOR CONSTRUCTION.	BY	DATE	NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION.	JM	5/29/14				

WEDGE RECORD		
DESIGN	GF	4/02/12
DESIGN ENG.	CS	4/02/12
SCALE: NONE		

WEDGE ENERGY SERVICES L.L.C.
 461 N. BROADWAY ST. JOSHUA, TX. 76058
 Phone: 817.426.9810 Fax: 817.426.9777

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	*
DESCRIPTION:	500 BBL/D NGL STABILIZER - P&ID



PLAN VIEW
(SCALE: NONE)

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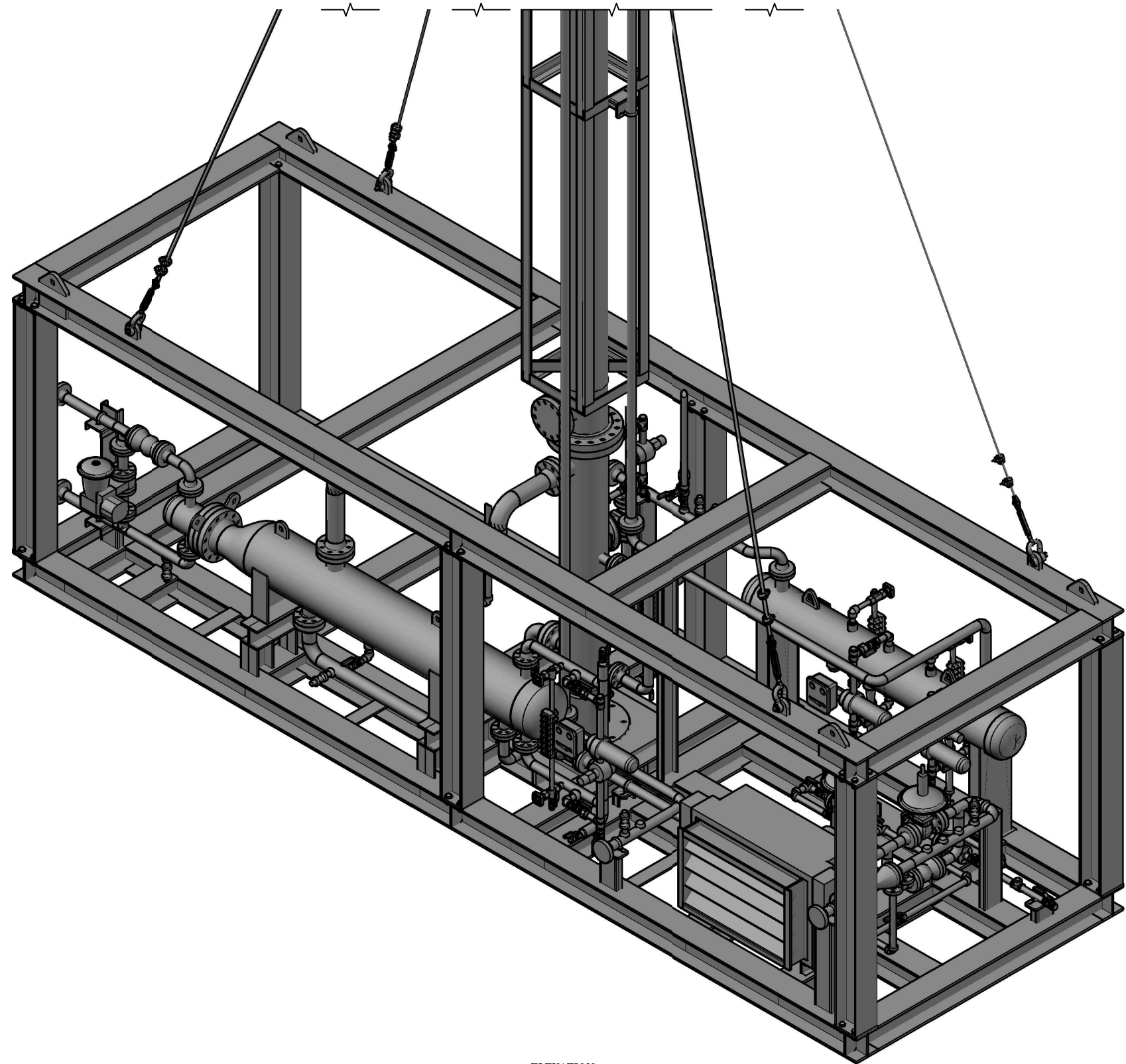
NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE	NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/29/14				

WEDGE RECORD		
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DESIGN ENG.	MWM	10/02/12
SCALE: NONE		

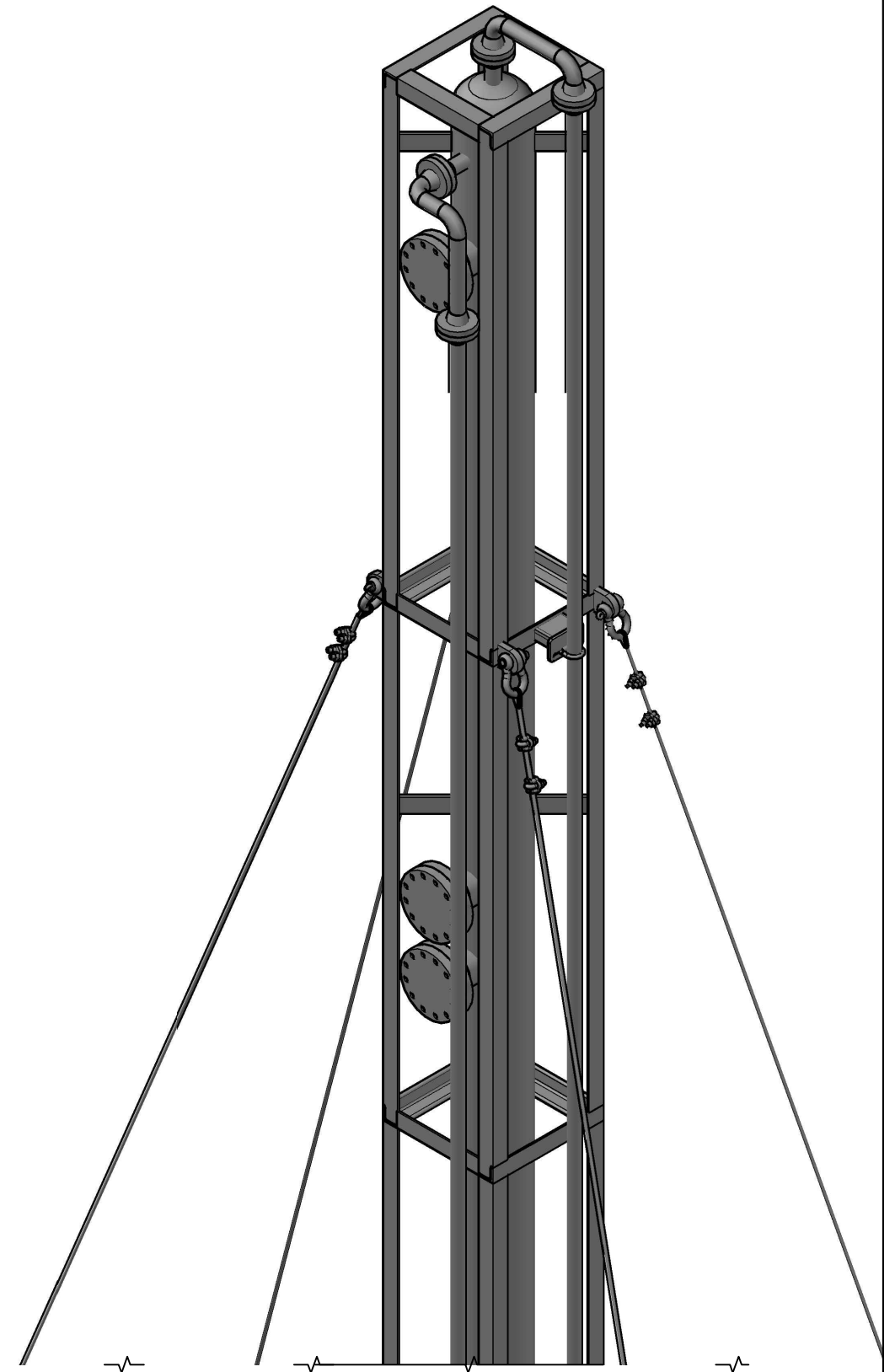
WEDGE ENERGY SERVICES, L.L.C.
461 N. BROADWAY ST. JOSHUA, TX. 76058
Phone: 817.426.9810 Fax: 817.426.9777

DRAWING NO. CSU-500B-2

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	500 BBL NGL STABILIZER - OVERHEAD VIEW
REV. 0	



**ELEVATION
ISOMETRIC VIEW**
(SCALE: NONE)



SHEET 3 OF 17

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4							
3							
2							
1							
0	ISSUED FOR CONSTRUCTION	JM	05/29/14				

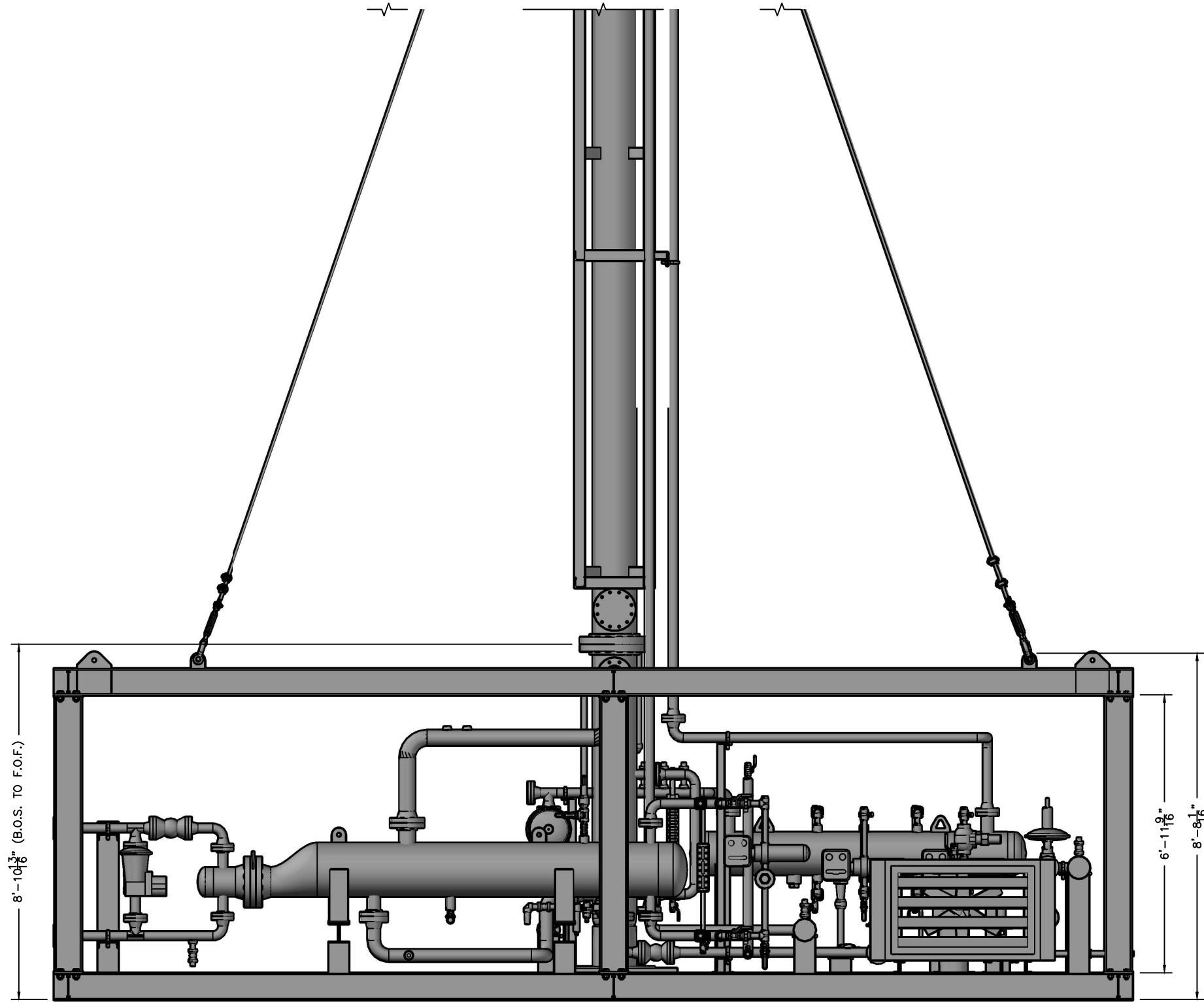
QUANTITY
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WEDGE RECORD		
DESIGN	JT	10/02/12
DESIGN ENG.	MWM	10/02/12
SCALE: NONE		

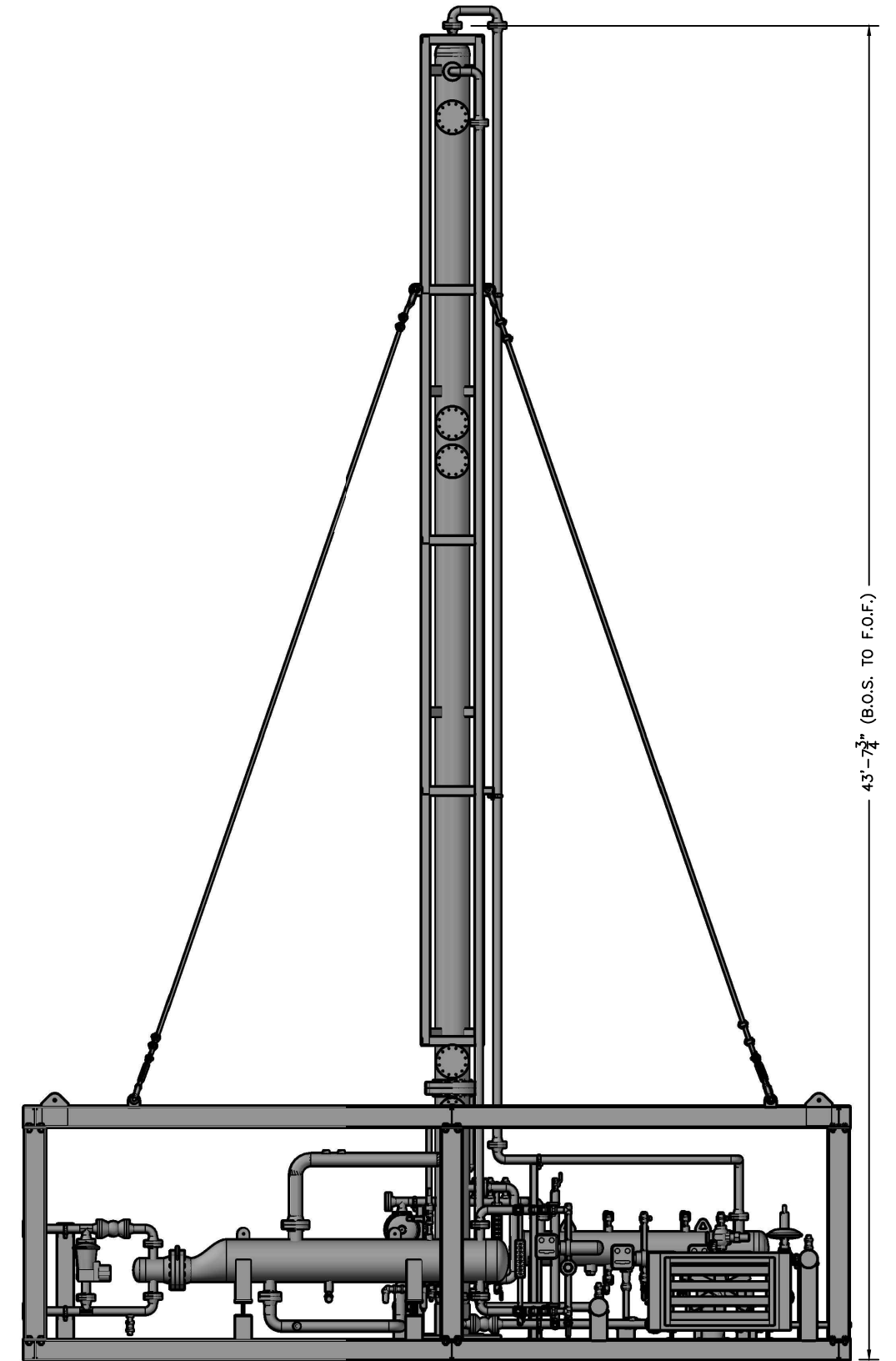
WEDGE
ENERGY SERVICES, L.L.C. ©
461 N. BROADWAY ST. Phone: 817.426.9810
JOSHUA, TX. 76058 Fax: 817.426.9777

DRAWING NO. CSU-500B-3

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION: 500 BBL/D NGL STABILIZER - 30° ISOMETRIC VIEW	
REV. 0	



**ELEVATION
WEST SIDE (FRONT)**
(SCALE: NONE)



**ELEVATION
WEST SIDE (FRONT)**
(SCALE: NONE)

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QUANTITY
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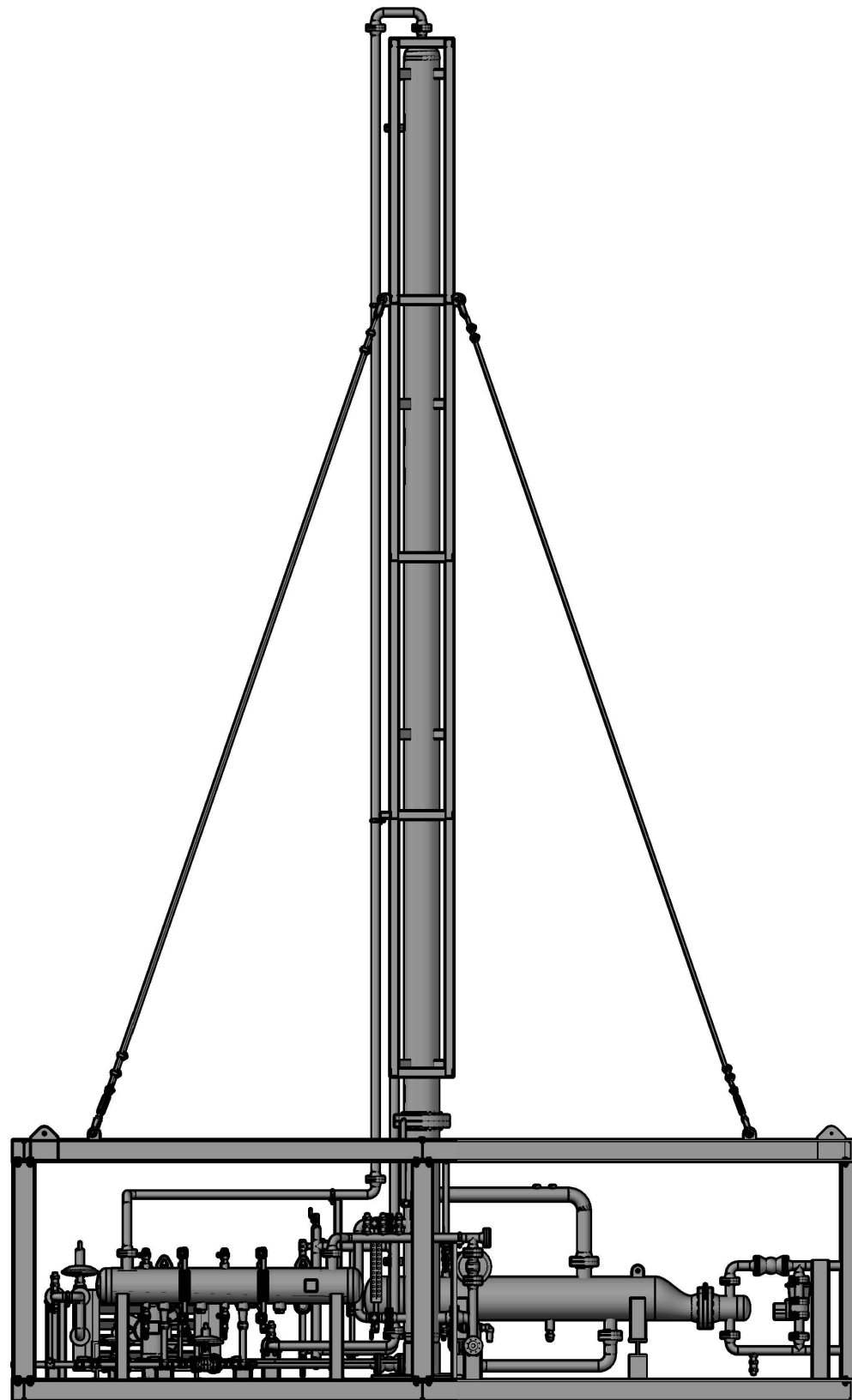
WEDGE RECORD		
DESIGN	JT	10/02/12
DESIGN ENG.	MWM	10/02/12
SCALE: NONE		

WEDGE ENERGY SERVICES, L.L.C.
461 N. BROADWAY ST. JOSHUA, TX. 76058
Phone: 817.426.9810 Fax: 817.426.9777

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	500 BBL/D NGL STABILIZER - FRONT VIEW

REV. 0

DRAWING NO. CSU-500B-4



**ELEVATION
EAST SIDE (BACK)**
(SCALE: NONE)

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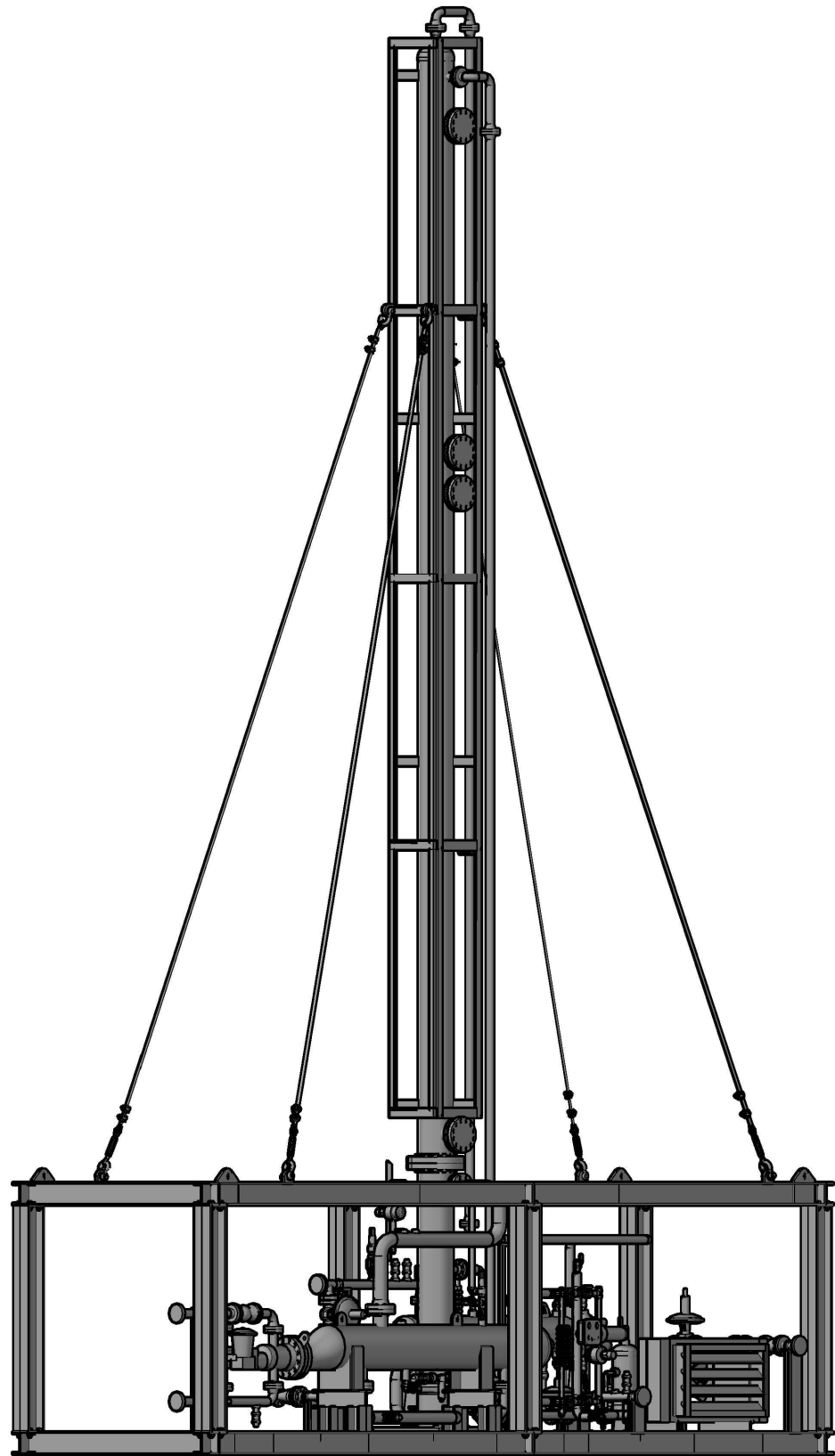
QUANTITY
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WEDGE RECORD		
DESIGN	JT	10/02/12
DESIGN ENG.	MWM	10/02/12
SCALE: NONE		

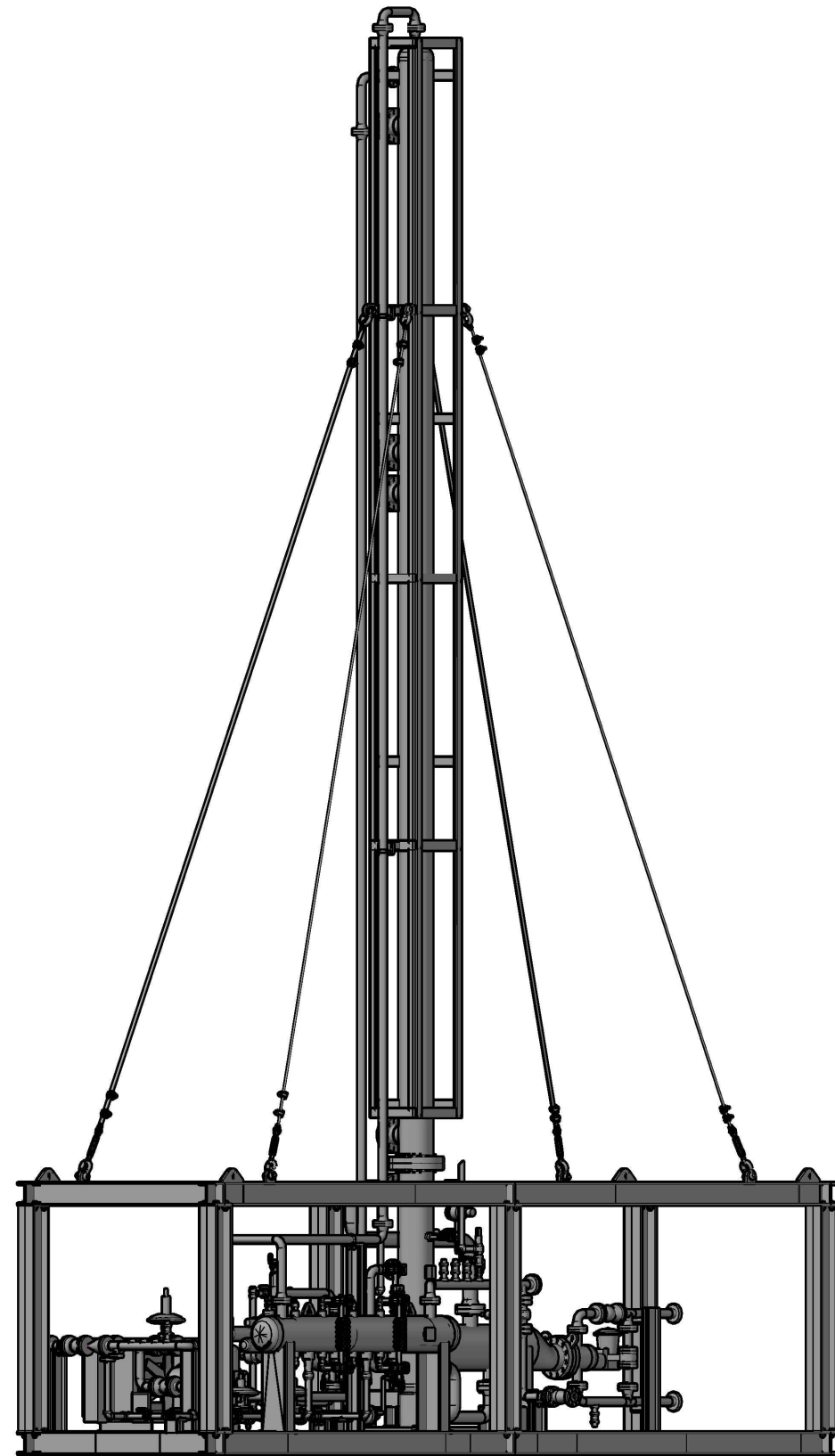
WEDGE ENERGY SERVICES, L.L.C. ©
461 N. BROADWAY ST. JOSHUA, TX. 76058
Phone: 817.426.9810 Fax: 817.426.9777

DRAWING NO. CSU-500B-5

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	
REV. 0	500 BBL/D NGL STABILIZER - BACK VIEW



ELEVATION
NORTH-WEST SIDE (FRONT)
 (SCALE: NONE)



ELEVATION
NORTH-EAST SIDE (BACK)
 (SCALE: NONE)

PROPRIETARY NOTES:
 WEDGE ENERGY SERVICES L.L.C. CLAIMS PROPRIETARY RIGHTS IN THE MATERIAL DISCLOSED HEREON. NEITHER THIS DRAWING NOR ANY REPRODUCTION THEREOF MAY BE USED TO MANUFACTURE ANYTHING SHOWN HEREON WITHOUT PERMISSION IN WRITING FROM WEDGE ENERGY SERVICES L.L.C. TO THE USER SPECIFICALLY REFERRING TO THE DRAWING. THESE DESIGNS ARE THE PROPERTY OF WEDGE ENERGY SERVICES, L.L.C. SUBJECT TO COPYRIGHT PROTECTION UNDER FEDERAL LAW.

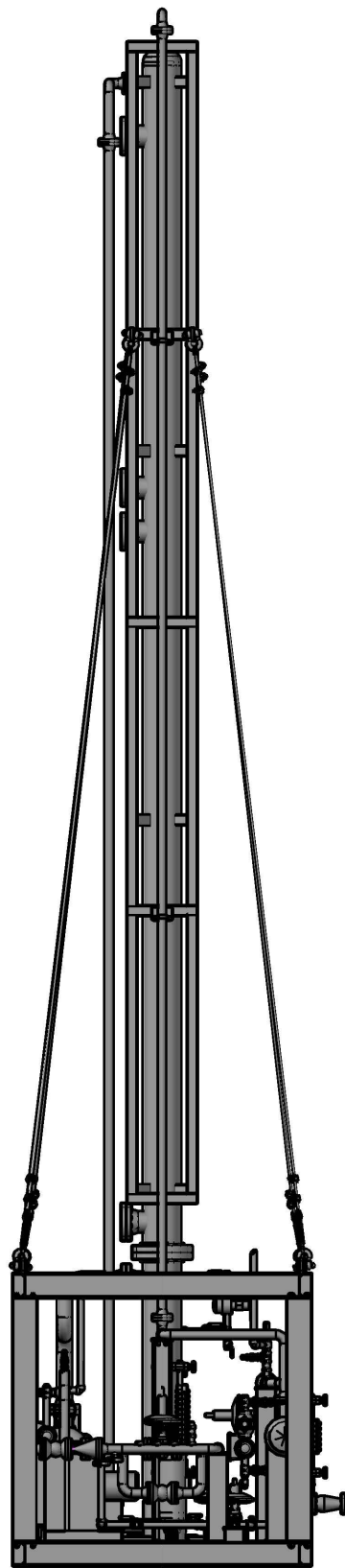
NO.	ISSUED FOR CONSTRUCTION	JAM	05/29/14	NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JAM	05/29/14				

QUANTITY
 *

WEDGE RECORD		
DESIGN	JT	10/02/12
DESIGN ENG.	MWM	10/02/12
SCALE: NONE		

WEDGE
 ENERGY SERVICES, L.L.C. ©
 461 N. BROADWAY ST. Phone: 817.426.9810
 JOSHUA, TX. 76058 Fax: 817.426.9777
 DRAWING NO. CSU-500B-6 REV. 0

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	500 BBL/D NGL STABILIZER - PERSPECTIVE VIEW



ELEVATION
SOUTH SIDE (RIGHT)
 (SCALE: NONE)

CSU-500B

PROPRIETARY NOTES:
 WEDGE ENERGY SERVICES L.L.C. CLAIMS PROPRIETARY RIGHTS IN THE MATERIAL DISCLOSED HEREON. NEITHER THIS DRAWING NOR ANY REPRODUCTION THEREOF MAY BE USED TO MANUFACTURE ANYTHING SHOWN HEREON WITHOUT PERMISSION IN WRITING FROM WEDGE ENERGY SERVICES L.L.C. TO THE USER SPECIFICALLY REFERRING TO THE DRAWING. THESE DESIGNS ARE THE PROPERTY OF WEDGE ENERGY SERVICES, L.L.C. SUBJECT TO COPYRIGHT PROTECTION UNDER FEDERAL LAW.

NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE	NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE
5	REVISE SKID TO 8.5 FT. WIDE	JM	5/27/14				
4	GENERAL REVISION	MWM	12/19/13				
3	GENERAL REVISION	MWM	01/02/13				
2	GENERAL REVISION	MWM	12/05/12				
1	GENERAL REVISION	MWM	11/15/12				
0	ISSUED FOR CONSTRUCTION	JM	05/29/14				

QUANTITY
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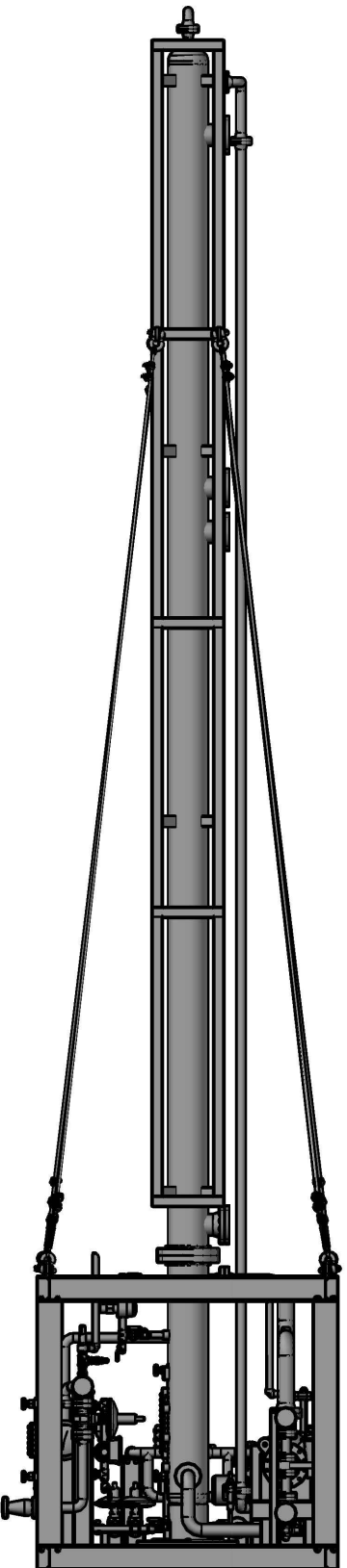
WEDGE RECORD		
DESIGN	JT	10/02/12
DESIGN ENG.	MWM	10/02/12
SCALE: NONE		



461 N. BROADWAY ST. Phone: 817.426.9810
 JOSHUA, TX. 76058 Fax: 817.426.9777

DRAWING NO. CSU-500B-7

P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	500 BBL/D NGL STABILIZER -- RIGHT VIEW
REV. 0	



**ELEVATION
NORTH SIDE (LEFT)**
(SCALE: NONE)

PROPRIETARY NOTES:
WEDGE ENERGY SERVICES L.L.C. CLAIMS PROPRIETARY RIGHTS IN THE MATERIAL DISCLOSED HEREON. NEITHER THIS DRAWING NOR ANY REPRODUCTION THEREOF MAY BE USED TO MANUFACTURE ANYTHING SHOWN HEREON WITHOUT PERMISSION IN WRITING FROM WEDGE ENERGY SERVICES L.L.C. TO THE USER SPECIFICALLY REFERRING TO THE DRAWING. THESE DESIGNS ARE THE PROPERTY OF WEDGE ENERGY SERVICES, L.L.C. SUBJECT TO COPYRIGHT PROTECTION UNDER FEDERAL LAW.

NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE	NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/29/14				

QUANTITY
*

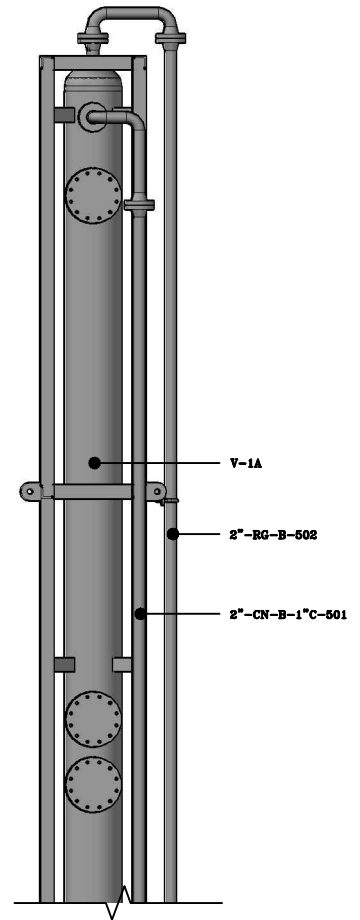
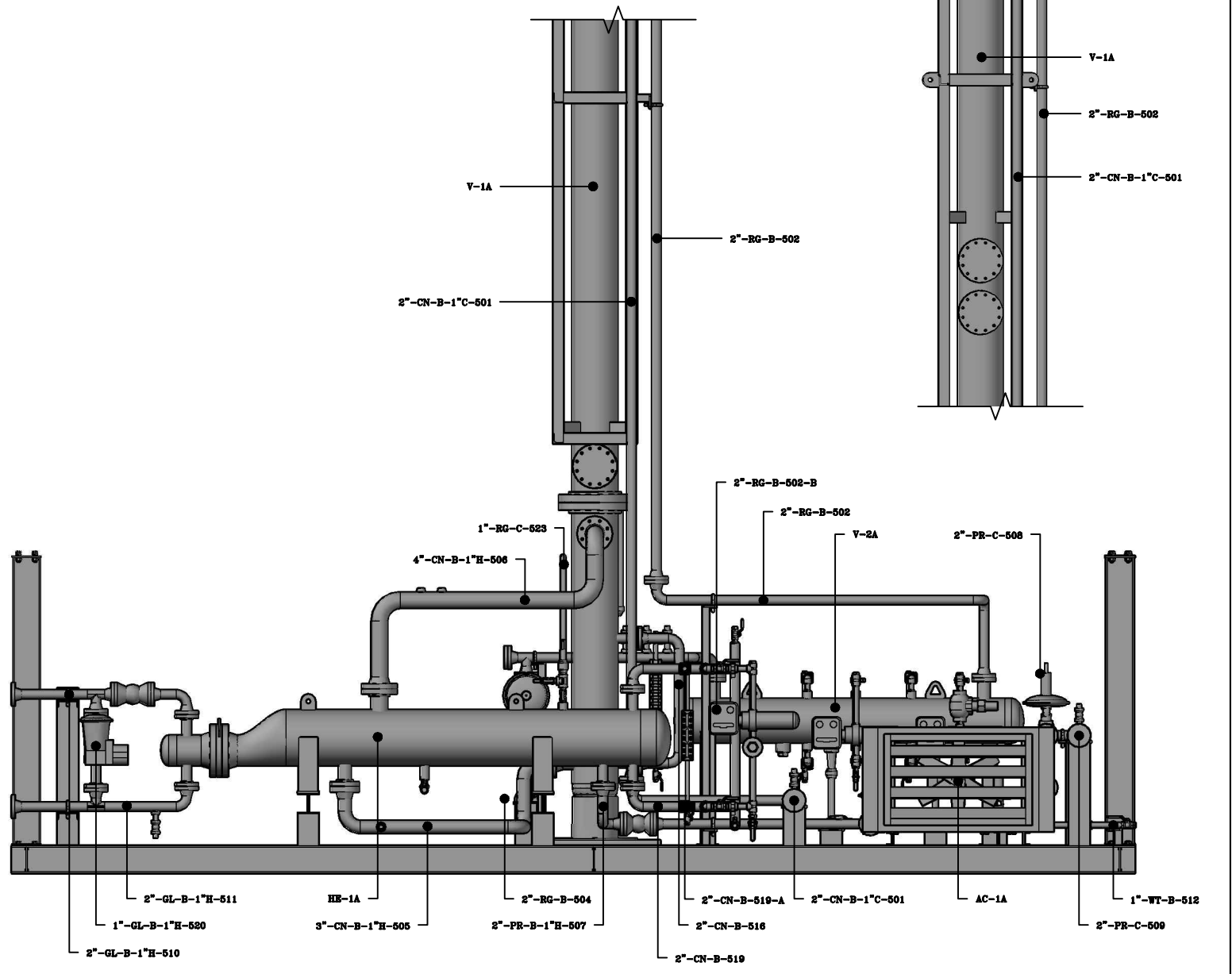
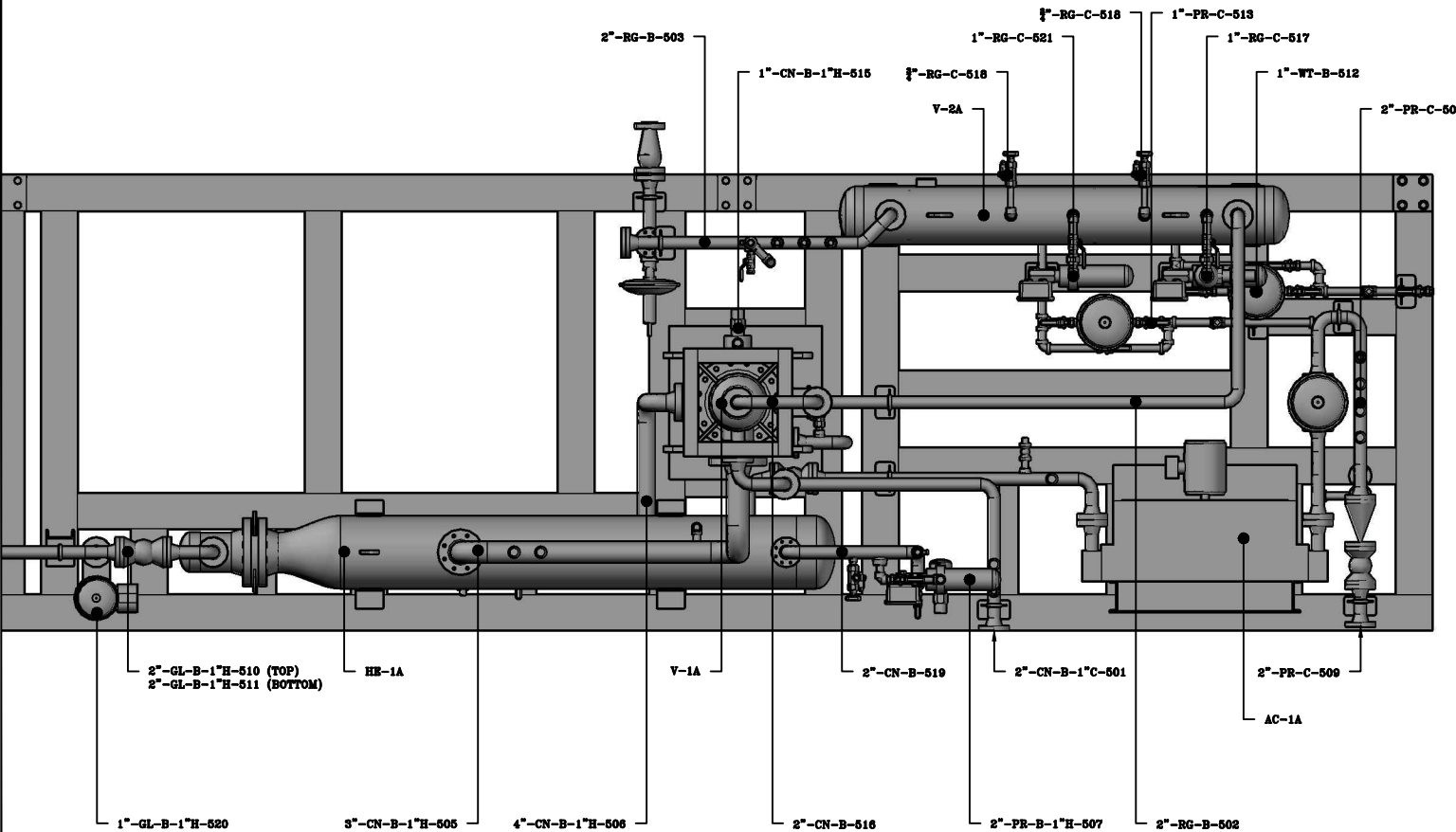
WEDGE RECORD		
DESIGN	JT	10/02/12
DESIGN ENG.	MWM	10/02/12
SCALE: NONE		

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461 N. BROADWAY ST. JOSHUA, TX. 76058 Phone: 817.426.9810 Fax: 817.426.9777
DRAWING NO. CSU-500B-8

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION: 500 BBL/D NGL STABILIZER - LEFT VIEW	
REV. 0	

VESSEL LIST

MARK NUMBER	DESCRIPTION
AC-1A	CONDENSER
HE-1A	HEAT EXCHANGER
V-1A	STABILIZER COLUMN
V-2A	OVERHEAD SEPARATOR



PROPRIETARY NOTES:
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NO.	ISSUED FOR APPROVAL	BY	DATE	NO.	DESCRIPTION	BY	DATE
0	ISSUED FOR APPROVAL	JM	05/29/14				

QUANTITY
*

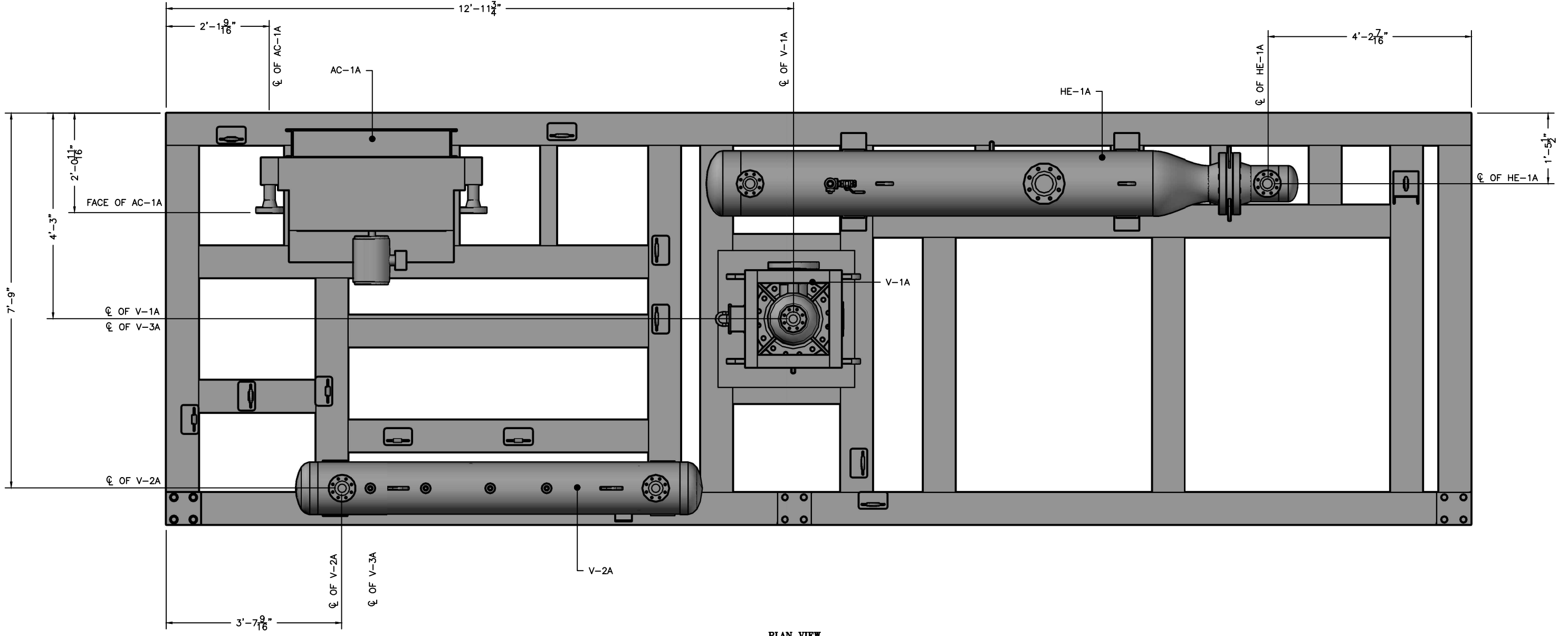
WEDGE RECORD		
DESIGN	JT	10/02/12
DESIGN ENG.	MWM	10/02/12
SCALE: NONE		

WEDGE
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JOSHUA, TX. 76058 Fax: 817.426.9777
DRAWING NO. CSU-500B-9

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	DESCRIPTION:
	500 BBL NGL STABILIZER - PIPING PLAN & ELEVATION

VESSEL LIST	
MARK NUMBER	DESCRIPTION
AC-1A	CONDENSER
HE-1A	HEAT EXCHANGER
V-1A	STABILIZER COLUMN
V-2A	OVERHEAD SEPARATOR
V-3A	INSTRUMENT GAS SEPARATOR

ITEMS



PLAN VIEW
(SCALE: NONE)

PROPRIETARY NOTES:
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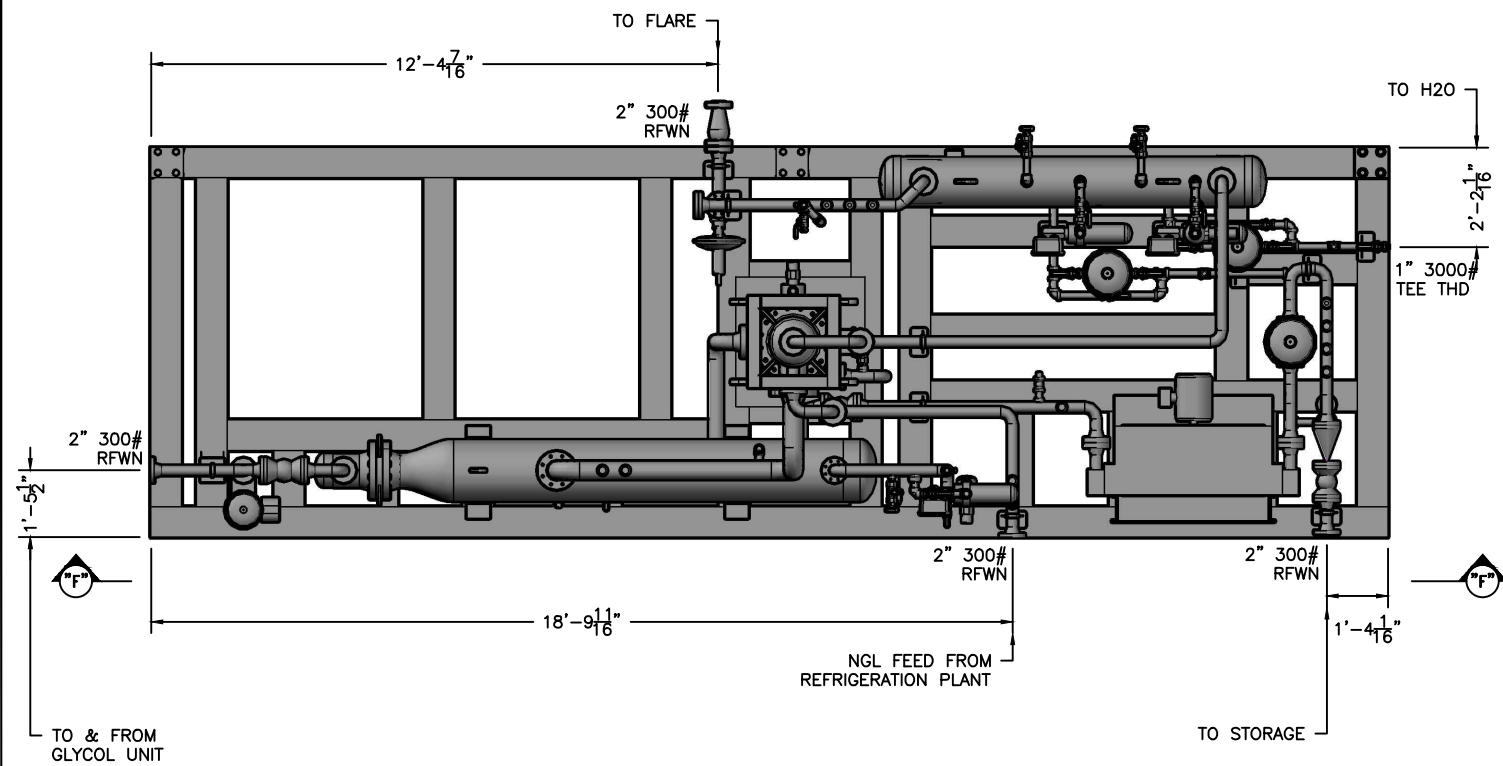
NO.	ISSUED FOR APPROVAL	BY	DATE	NO.	DESCRIPTION	BY	DATE
0	ISSUED FOR APPROVAL	JM	05/29/14				

QUANTITY
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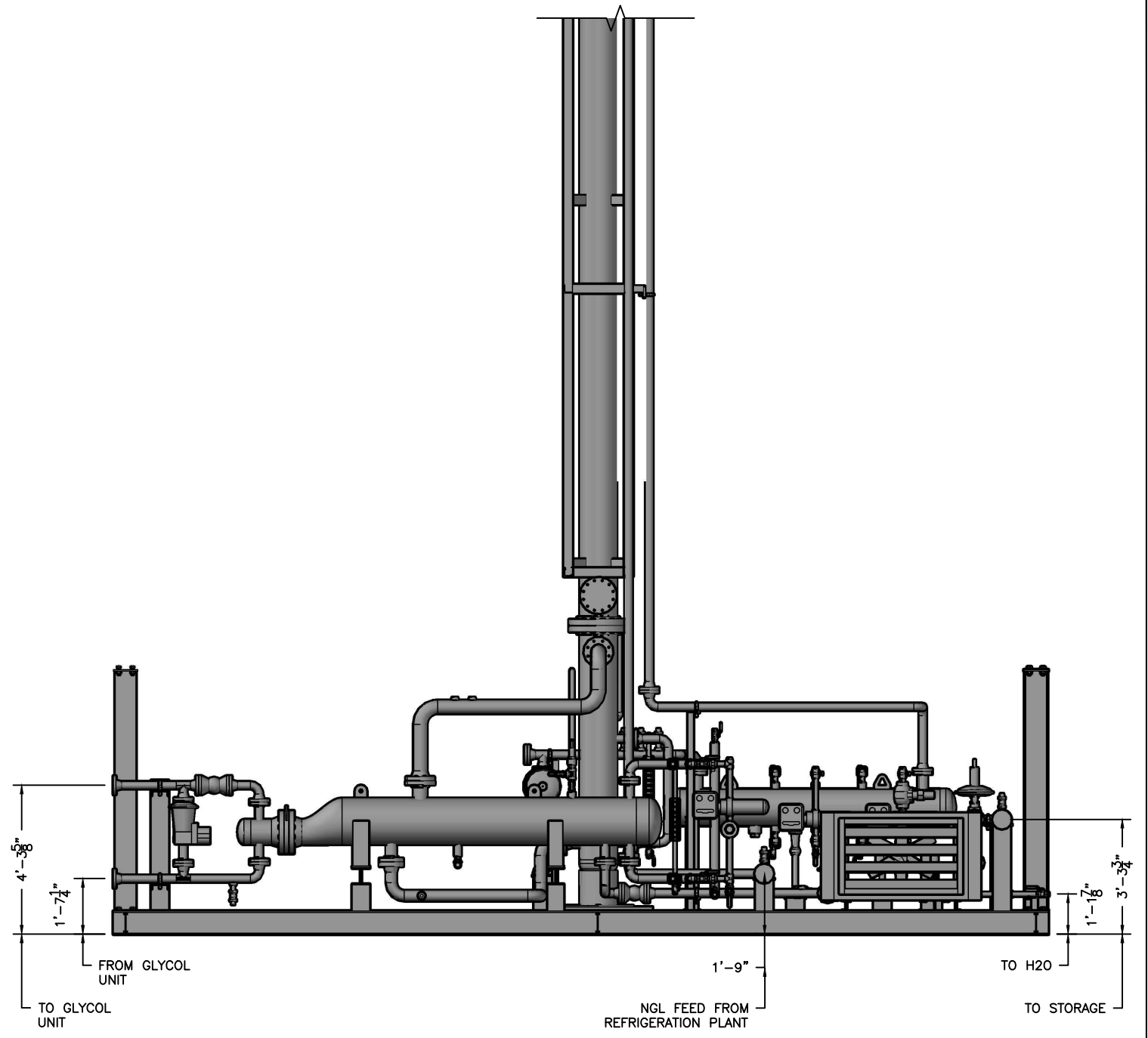
WEDGE RECORD		
DESIGN	JT	10/02/12
DESIGN ENG.	MWM	10/02/12

WEDGE
ENERGY SERVICES, L.L.C. ©
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JOSHUA, TX. 76058 Fax: 817.426.9777

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	500 BBL NGL STABILIZER - GENERAL LAYOUT
DRAWING NO. CSU-500B-10	REV. 0



PIPING PLAN
(SCALE: NONE)



ELEVATION SECTION "F-F"
(SCALE: NONE)

PROPRIETARY NOTES:
WEDGE ENERGY SERVICES L.L.C. CLAIMS PROPRIETARY RIGHTS IN THE MATERIAL DISCLOSED HEREON. NEITHER THIS DRAWING NOR ANY REPRODUCTION THEREOF MAY BE USED TO MANUFACTURE ANYTHING SHOWN HEREON WITHOUT PERMISSION IN WRITING FROM WEDGE ENERGY SERVICES L.L.C. TO THE USER SPECIFICALLY REFERRING TO THE DRAWING. THESE DESIGNS ARE THE PROPERTY OF WEDGE ENERGY SERVICES, L.L.C. SUBJECT TO COPYRIGHT PROTECTION UNDER FEDERAL LAW.

NO.	ISSUED FOR APPROVAL	BY	DATE	NO.	DESCRIPTION	BY	DATE
0	ISSUED FOR APPROVAL	JM	05/29/14				

QUANTITY
*

WEDGE RECORD		
DESIGN	JT	10/02/12
DESIGN ENG.	MWM	10/02/12
SCALE: NONE		

WEDGE ENERGY SERVICES, L.L.C.
461 N. BROADWAY ST. JOSHUA, TX. 76058
Phone: 817.426.9810 Fax: 817.426.9777

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	500 BBL NGL STABILIZER - INLETS AND OUTLETS

REV. 0

DRAWING NO. CSU-500B-11

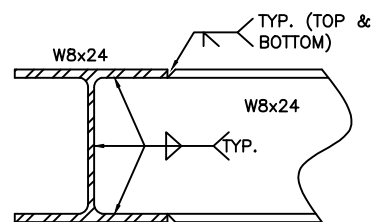
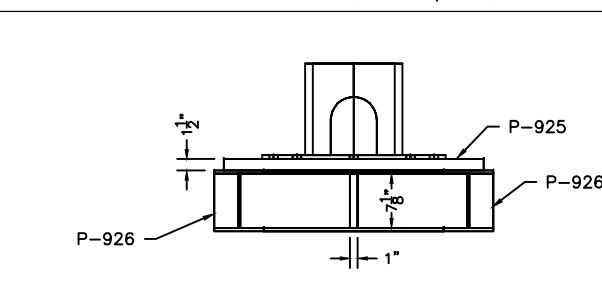
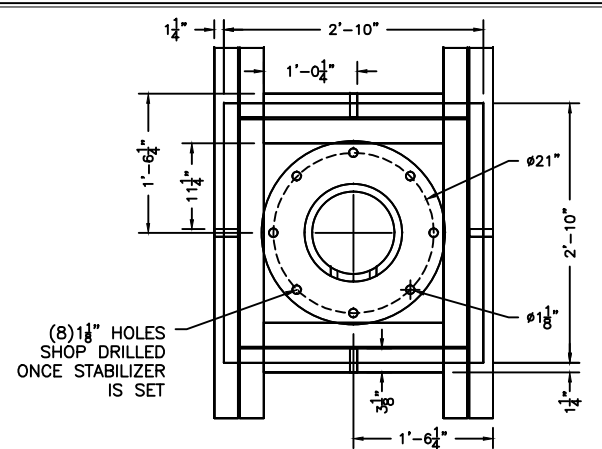
**STRUCTURAL STEEL
MATERIAL AND FABRICATION**

- 1.) ALL FABRICATION SHALL COMPLY WITH THIS SPECIFICATION, AND THE LATEST EDITION OF A.W.S. DI.1 STRUCTURAL WELDING CODE. STEEL FABRICATION SHALL FOLLOW GOOD WORKMANSHIP PRACTICES AND SHALL BE FREE FROM DEFECTS.
- 2.) ALL MATERIAL SHALL BE OF ASTM A36 UNLESS NOTED OTHERWISE.
- 3.) PRIOR TO TACKING OR WELDING, BEVELS AND ALL ADJACENT SURFACES SHALL BE THOROUGHLY CLEANED OF ALL LOOSE OR THICK SCALE, SLAG, RUST, MOISTURE, GREASE, OIL, BURRS OR OTHER FOREIGN MATERIAL.
- 4.) ALL STRUCTURAL STEEL WELDS SHALL BE COMPLETE SEAL WELDS. PARTIAL STITCH OR SKIP WELDS ARE NOT ALLOWED.
- 5.) SKID SHALL BE EQUIPPED WITH 4 LIFTING LUGS. LIFTING LUGS SHALL BE DESIGNED TO SUPPORT SKID, AND ALL INSTALLED EQUIPMENT WITH A SAFETY FACTOR OF 3.0.
- 6.) STRUCTURAL SKIDS SHALL BE HOT-DIPPED GALVANIZED.

MATERIAL LIST

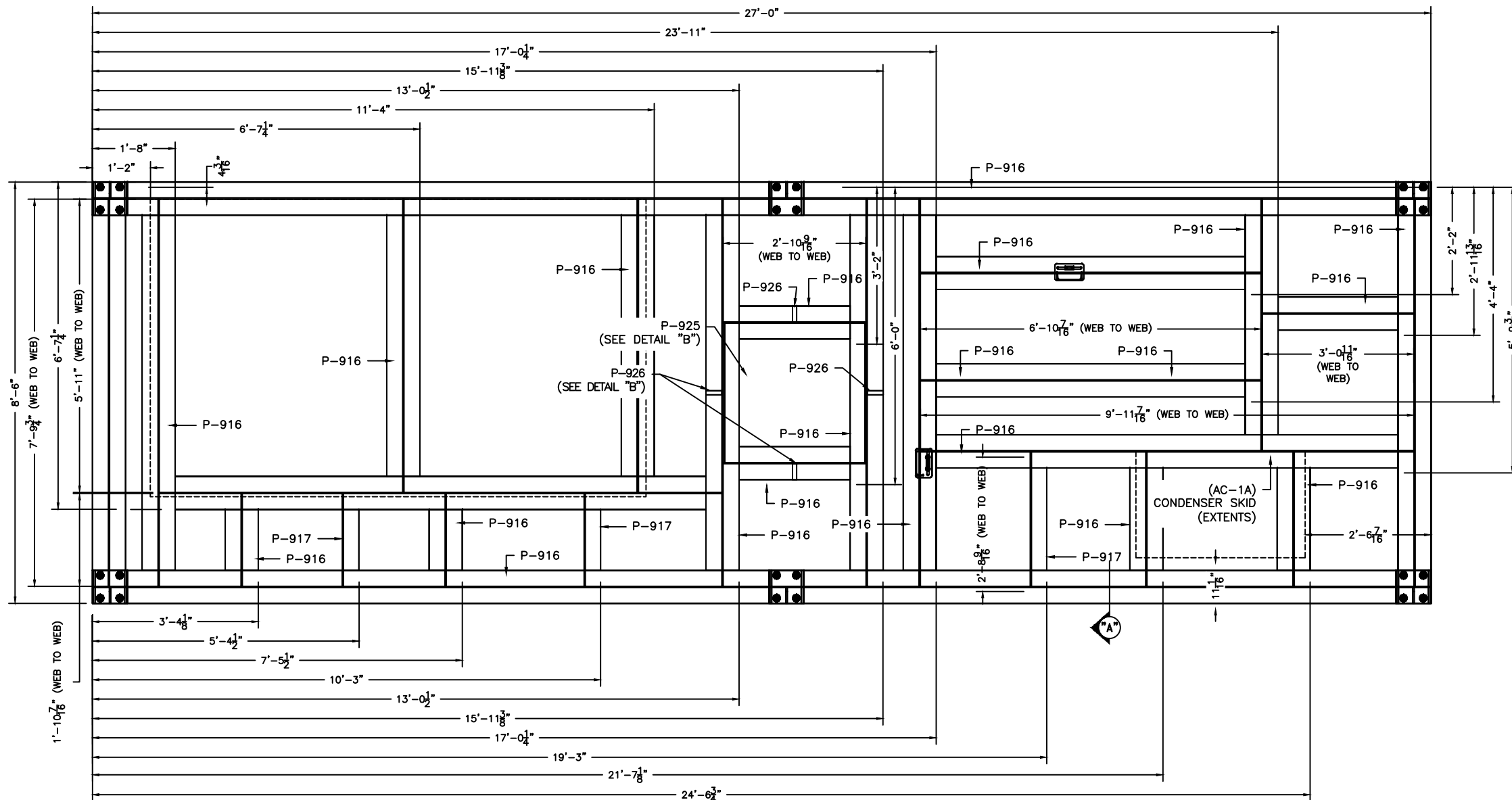
MARK #	QTY.	UNIT	DESCRIPTION	LENGTH
P-916	200'	FEET	BEAM W8 x 24#/LF A36	*
P-917	10'	FEET	ANGLE L4 x 3 x 1/4" A36	*
P-925	1	EACH	PLATE 2'-10" x 2'-10" x 1-1/2"	*
P-926	4	EACH	PLATE 7-1/8" x 3-1/8" x 1"	*

PLATE DETAIL "B"



SECTION "A"

(TYP. @ W8" X 24# TO W8" X 24#)



PLAN VIEW
(SCALE: NONE)

PROPRIETARY NOTES:
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NO.	ISSUED FOR CONSTRUCTION	BY	DATE	NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

QUANTITY
*

WEDGE RECORD		
DESIGN	JT	10/02/12
DESIGN ENG.	MWM	10/02/12
SCALE: NONE		

WEDGE
ENERGY SERVICES, L.L.C. ©
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JOSHUA, TX. 76058 Fax: 817.426.9777

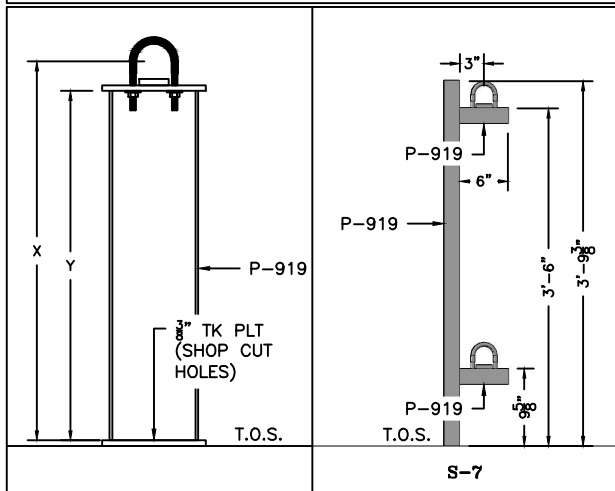
CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	500 BBL NGL STABILIZER - STRUCTURAL LOWER PLAN
DRAWING NO. CSU-500B-12	REV. 0

STRUCTURAL STEEL MATERIAL AND FABRICATION

- 1.) ALL FABRICATION SHALL COMPLY WITH THIS SPECIFICATION, AND THE LATEST EDITION OF A.W.S. DI.1 STRUCTURAL WELDING CODE. STEEL FABRICATION SHALL FOLLOW GOOD WORKMANSHIP PRACTICES AND SHALL BE FREE FROM DEFECTS.
- 2.) ALL MATERIAL SHALL BE OF ASTM A36 UNLESS NOTED OTHERWISE.
- 3.) PRIOR TO TACKING OR WELDING, BEVELS AND ALL ADJACENT SURFACES SHALL BE THOROUGHLY CLEANED OF ALL LOOSE OR THICK SCALE, SLAG, RUST, MOISTURE, GREASE, OIL, BURRS OR OTHER FOREIGN MATERIAL.
- 4.) ALL STRUCTURAL STEEL WELDS SHALL BE COMPLETE SEAL WELDS. PARTIAL STITCH OR SKIP WELDS ARE NOT ALLOWED.
- 5.) SKID SHALL BE EQUIPPED WITH 4 LIFTING LUGS. LIFTING LUGS SHALL BE DESIGNED TO SUPPORT SKID, AND ALL INSTALLED EQUIPMENT WITH A SAFETY FACTOR OF 3.0.
- 6.) STRUCTURAL SKIDS SHALL BE HOT-DIPPED GALVANIZED.

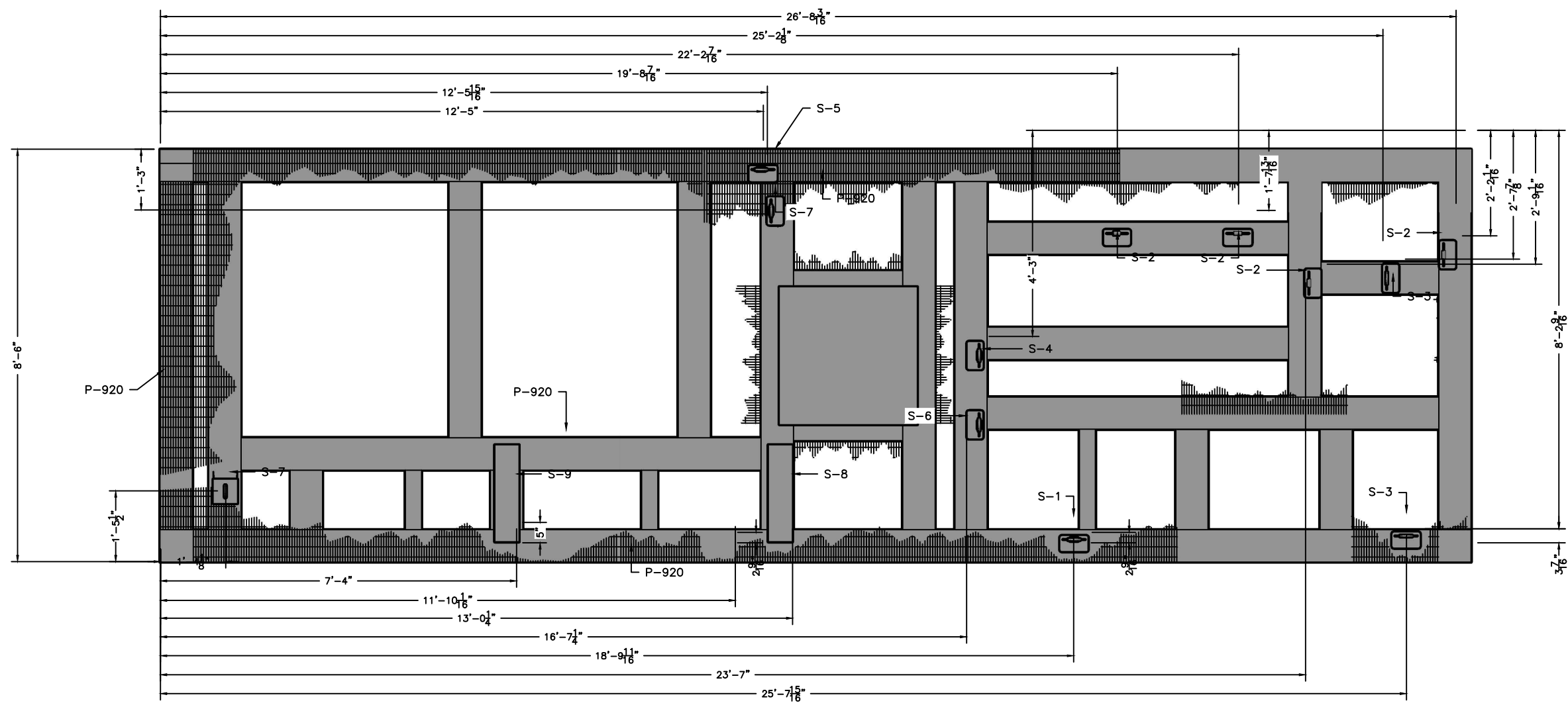
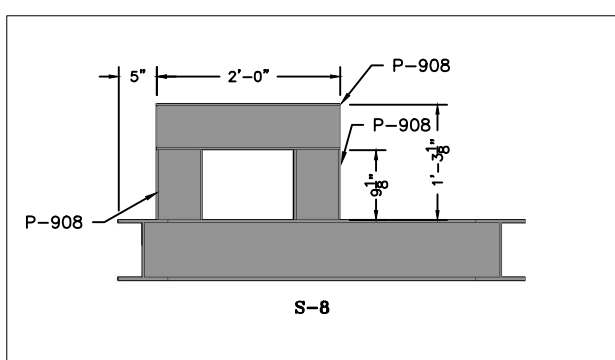
MATERIAL LIST				
MARK #	QTY.	UNIT	DESCRIPTION	LENGTH
P-908	10'	FEET	BEAM W6 x 15#/LF A36	*
P-919	60'	FEET	CHANNEL C6" x 8.2# A36	*
P-920	9	EACH	GRATING 1-1/4" X 3/16" X 3' X 20'-0" GALVANIZED	*
P-927	11	EACH	UBOLT PLATE 7"x 4"x 3/8" W/SLOTS	*
P-928	4	EACH	U-BOLT FOR 1" PIPE W/ IROD	*
P-929	11	EACH	U-BOLT FOR 2" PIPE W/ IROD	*

PIPE SUPPORT DETAIL



TAG #	QTY.	DIMENSION		PIPE SIZE
		X	Y	
S-1	1	1'-8"	10'-0"	2"
S-2	4	5 1/2"	4 1/8"	1"
S-3	2	3'-3 3/8"	3'-1 3/8"	2"
S-4	1	6'-9 7/8"	6'-7 7/8"	2"
S-5	1	1'-1 1/8"	11 1/8"	2"
S-6	2	5 3/8"	3 3/8"	2"
S-7	2	4'-5 5/8"	4'-3 7/8"	2"

VESSEL SUPPORT DETAIL



PLAN VIEW
(SCALE: NONE)

PROPRIETARY NOTES:
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NO.	ISSUED FOR CONSTRUCTION	BY	DATE	NO.	DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

QUANTITY	WEDGE RECORD
1	DESIGN JT 10/02/12
	DESIGN ENG. MWM 10/02/12
	SCALE: NONE

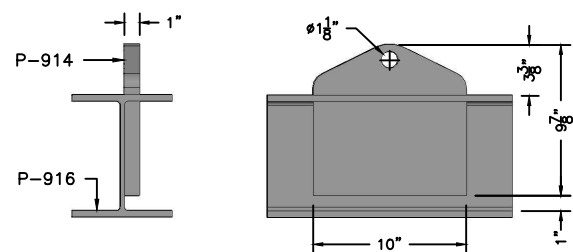
WEDGE ENERGY SERVICES, L.L.C.
461 N. BROADWAY ST. JOSHUA, TX. 76058
Phone: 817.426.9810 Fax: 817.426.9777

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	DESCRIPTION:
	500 BBL NGL STABILIZER - GRATING & SUPPORT DETAIL
DRAWING NO. CSU-500B-13	REV. 0

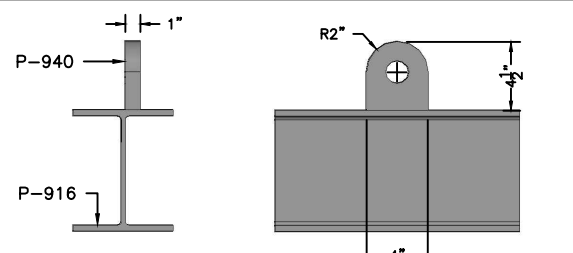
**STRUCTURAL STEEL
MATERIAL AND FABRICATION**

- 1.) ALL FABRICATION SHALL COMPLY WITH THIS SPECIFICATION, AND THE LATEST EDITION OF A.W.S. DI.1 STRUCTURAL WELDING CODE. STEEL FABRICATION SHALL FOLLOW GOOD WORKMANSHIP PRACTICES AND SHALL BE FREE FROM DEFECTS.
- 2.) ALL MATERIAL SHALL BE OF ASTM A36 UNLESS NOTED OTHERWISE.
- 3.) PRIOR TO TACKING OR WELDING, BEVELS AND ALL ADJACENT SURFACES SHALL BE THOROUGHLY CLEANED OF ALL LOOSE OR THICK SCALE, SLAG, RUST, MOISTURE, GREASE, OIL, BURRS OR OTHER FOREIGN MATERIAL.
- 4.) ALL STRUCTURAL STEEL WELDS SHALL BE COMPLETE SEAL WELDS. PARTIAL STITCH OR SKIP WELDS ARE NOT ALLOWED.
- 5.) SKID SHALL BE EQUIPPED WITH 4 LIFTING LUGS. LIFTING LUGS SHALL BE DESIGNED TO SUPPORT SKID, AND ALL INSTALLED EQUIPMENT WITH A SAFETY FACTOR OF 3.0.
- 6.) STRUCTURAL SKIDS SHALL BE HOT-DIPPED GALVANIZED.

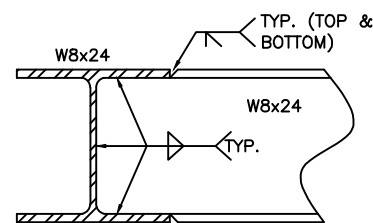
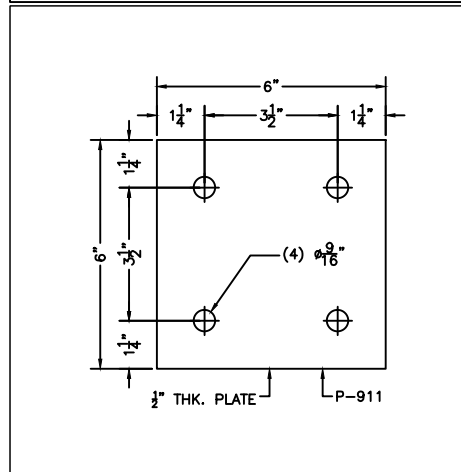
LIFTING LUG DETAIL (20 KIP)



TIE DOWN LUG DETAIL (10 KIP)



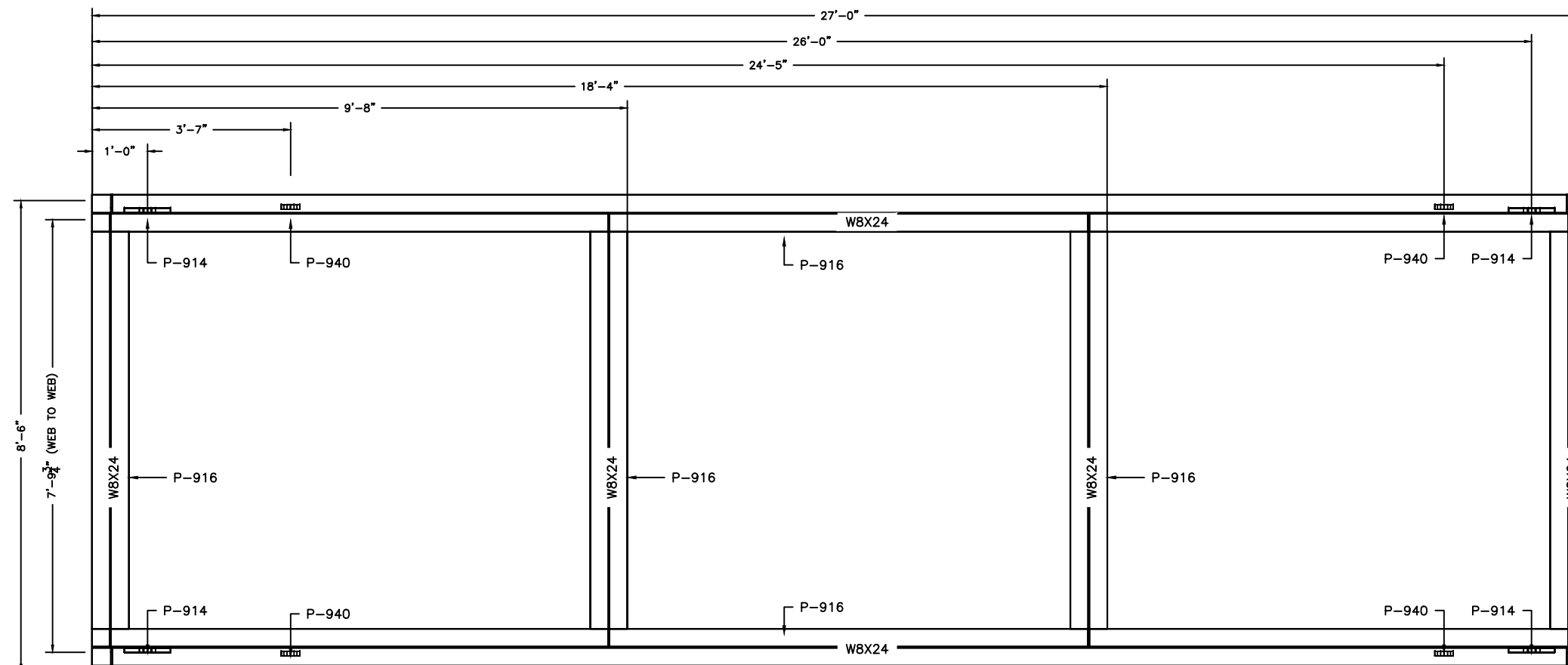
DETAIL J (SUPPORT PLATE)



SECTION "B"
(TYP. @ W8" X 24# TO W8" X 24#)

MATERIAL LIST

MARK #	QTY.	UNIT	DESCRIPTION	LENGTH
P-916	90'	FEET	BEAM W8 x 24#/LF A36	*
P-914	4	EACH	LIFTING LUGS, 20 KIP	*
P-940	4	EACH	10 KIP TIE DOWN LUG	*



PLAN VIEW
(SCALE: NONE)

NOTE:
ALL BOLT HOLES ARE TO BE MACHINE DRILLED OR LASER CUT. TORCH CUT HOLES WILL NOT BE ACCEPTABLE.

SHEET 14 OF 17

PROPRIETARY NOTES:
WEDGE ENERGY SERVICES L.L.C. CLAIMS PROPRIETARY RIGHTS IN THE MATERIAL DISCLOSED HEREON. NEITHER THIS DRAWING NOR ANY REPRODUCTION THEREOF MAY BE USED TO MANUFACTURE ANYTHING SHOWN HEREON WITHOUT PERMISSION IN WRITING FROM WEDGE ENERGY SERVICES L.L.C. TO THE USER SPECIFICALLY REFERRING TO THE DRAWING. THESE DESIGNS ARE THE PROPERTY OF WEDGE ENERGY SERVICES, L.L.C. SUBJECT TO COPYRIGHT PROTECTION UNDER FEDERAL LAW.

NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE	NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

QUANTITY
*

WEDGE RECORD		
DESIGN	JT	10/02/12
DESIGN ENG.	MWM	10/02/12
SCALE: NONE		

WEDGE
ENERGY SERVICES, L.L.C. ©
461 N. BROADWAY ST. Phone: 817.426.9810
JOSHUA, TX. 76058 Fax: 817.426.9777

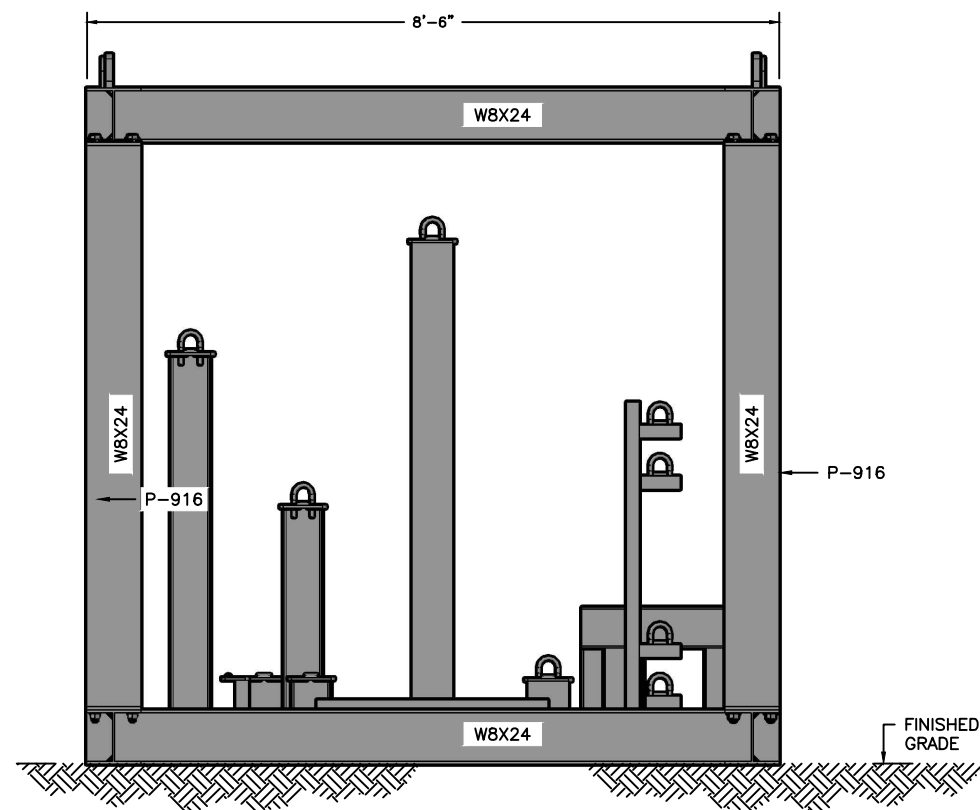
CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	500 BBL NGL STABILIZER - STRUCTURAL UPPER PLAN
DRAWING NO.	CSU-500B-14
REV.	0

**STRUCTURAL STEEL
MATERIAL AND FABRICATION**

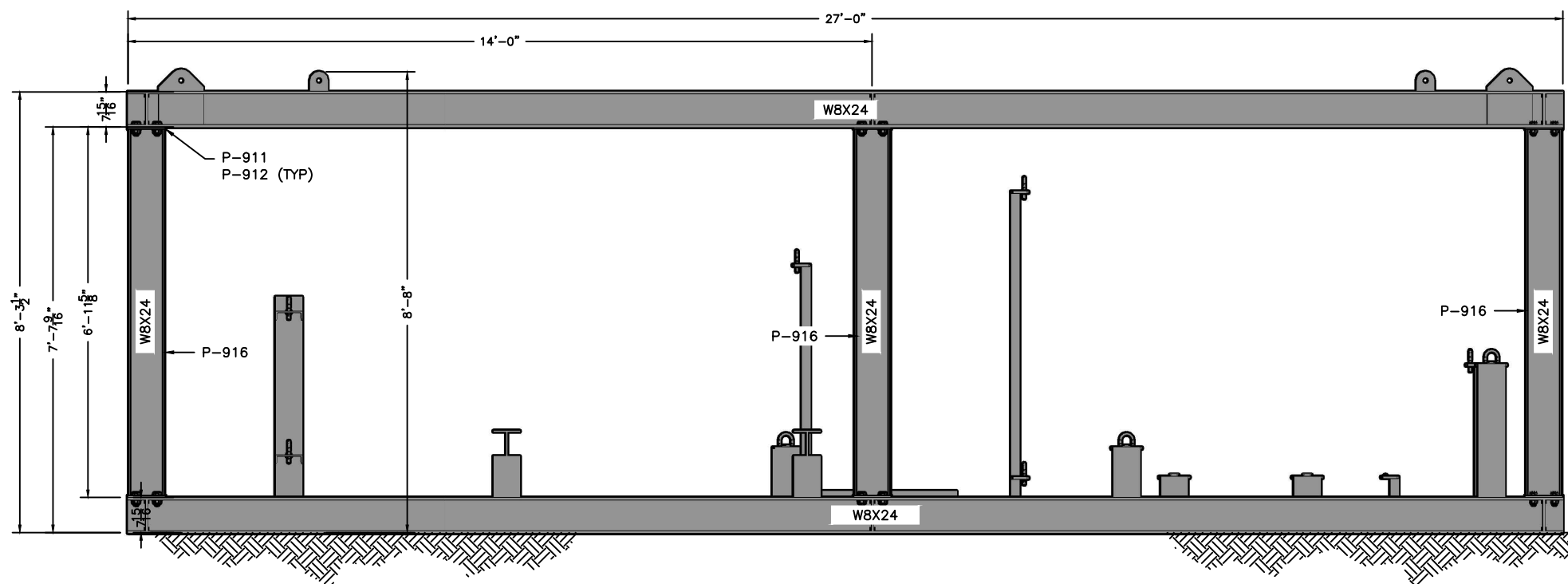
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- 6.) STRUCTURAL SKIDS SHALL BE HOT-DIPPED GALVANIZED.

MATERIAL LIST

ITEMS	MARK #	QTY.	UNIT	DESCRIPTION	LENGTH
	P-916	45'	FEET	W8X24	*
	P-911	12	EACH	CONNECTION PLATE - 8" x 8-1/2" x 1" TH, A36 - SEE DETAIL J	*
	P-912	48	EACH	HEX BOLT 3/4" x 2-3/4" LG A325, FLAT WASHER F436, FLAT WASHER F436, HEX NUT GRADE A563	*



**PROFILE VIEW
(LEFT VIEW)**
(SCALE: NONE)



**PROFILE VIEW
(FRONT VIEW)**
(SCALE: NONE)

PROPRIETARY NOTES:
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NO.	ISSUED FOR CONSTRUCTION	BY	DATE	NO.	DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

QUANTITY
*

WEDGE RECORD		
DESIGN	JT	10/02/12
DESIGN ENG.	MWM	10/02/12
SCALE: NONE		

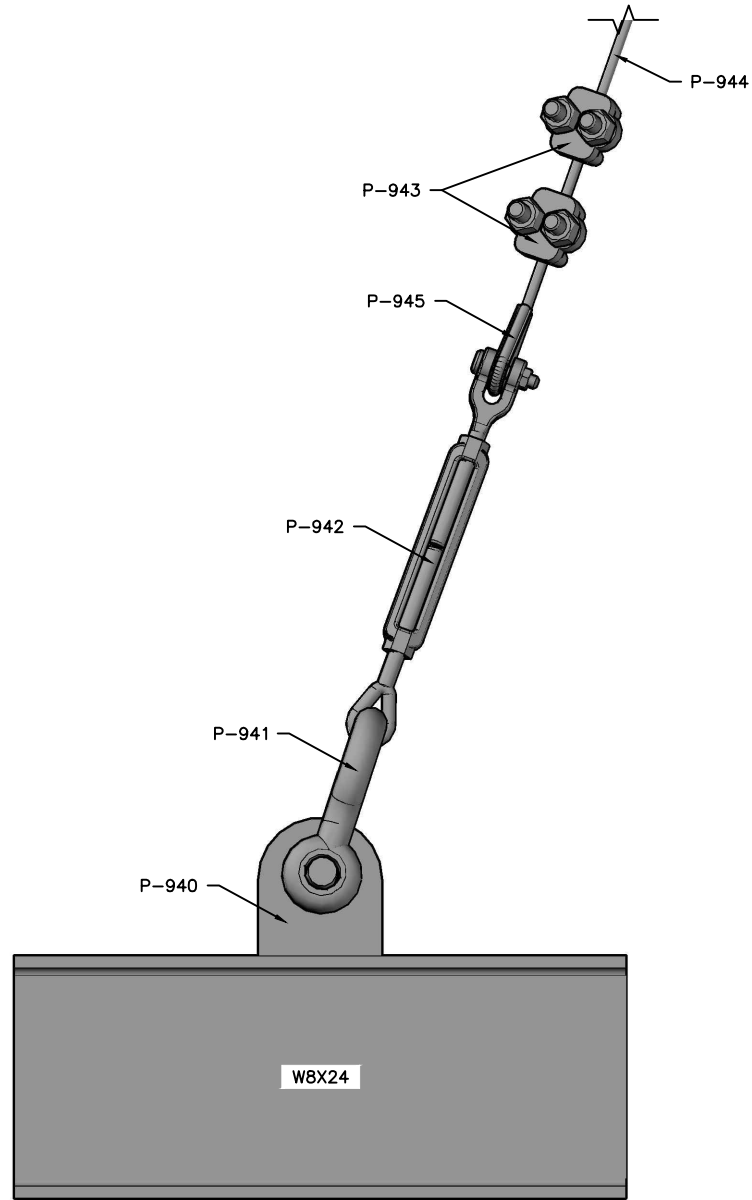
WEDGE
ENERGY SERVICES, L.L.C. ©
461 N. BROADWAY ST. Phone: 817.426.9810
JOSHUA, TX. 76058 Fax: 817.426.9777

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	500 BBL NGL STABILIZER - STRUCTURAL ELEVATION PLAN

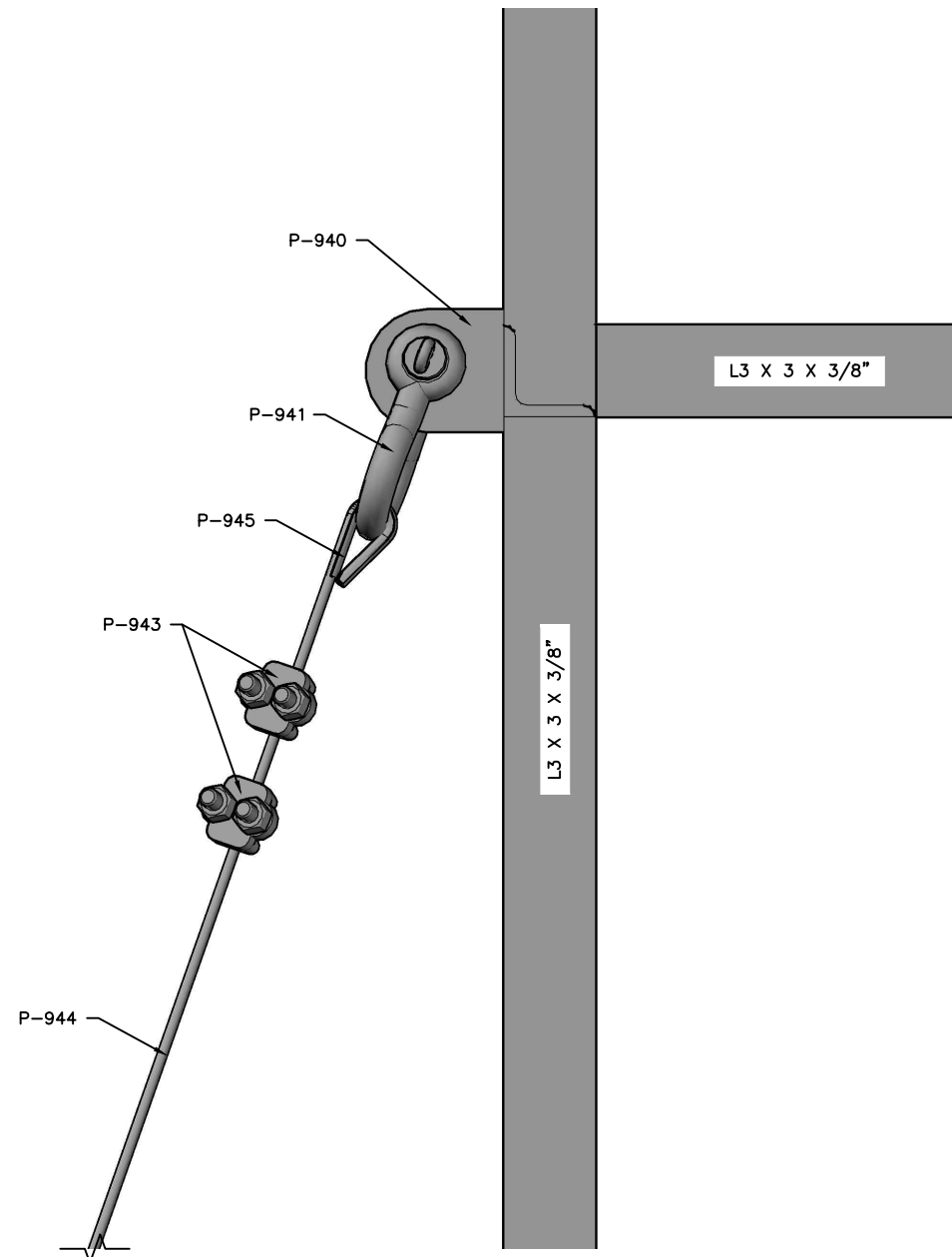
DRAWING NO.	REV.
CSU-500-15	0

MATERIAL LIST

MARK NUMBER	QTY.	UNIT	DESCRIPTION	MATERIAL
P-940	4	EACH	TIE DOWN LUG	*
P-941	8	EACH	ANCHOR SHACKLE, GALVANIZED - 19,000# CAPACITY (MCMaster #32345T14)	*
P-942	4	EACH	TURNBUCKLES, CORROSION RESISTANT - 24" ADJUSTMENT; 15,200# LIMIT (MCMaster #3001T74)	*
P-943	16	EACH	WIRE ROPE CLIP, DOUBLE SADDLE - ZINC PLATED FOR 1/2" WIRE ROPE (MCMaster #3466T16)	*
P-944	4	EACH	WIRE ROPE, GALVANIZED - 6X37; 1/2" DIAM; 26,600# BREAK STRENGTH; 50FT LENGTHS (MCMaster# 3323T23)	*
P-945	8	EACH	THIMBLE, GALVANIZED - 1 1/2" x 2 3/4" (MCMaster# 3495T18)	*



**PROFILE VIEW
LOWER DETAIL**
(SCALE: NONE)



**PROFILE VIEW
UPPER DETAIL**
(SCALE: NONE)

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0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

QUANTITY
4

WEDGE RECORD		
DESIGN	JT	10/02/12
DESIGN ENG.	MWM	10/02/12
SCALE: NONE		

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ENERGY SERVICES, L.L.C. ©
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JOSHUA, TX. 76058 Fax: 817.426.9777

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	500 BBL NGL STABILIZER - GUY WIRE DETAIL
DRAWING NO.	CSU-500B-16
REV.	0

STRUCTURAL STEEL MATERIAL AND FABRICATION

- 1.) ALL FABRICATION SHALL COMPLY WITH THIS SPECIFICATION, AND THE LATEST EDITION OF A.W.S. DI.1 STRUCTURAL WELDING CODE. STEEL FABRICATION SHALL FOLLOW GOOD WORKMANSHIP PRACTICES AND SHALL BE FREE FROM DEFECTS.
- 2.) ALL MATERIAL SHALL BE OF ASTM A36 UNLESS NOTED OTHERWISE.
- 3.) PRIOR TO TACKING OR WELDING, BEVELS AND ALL ADJACENT SURFACES SHALL BE THOROUGHLY CLEANED OF ALL LOOSE OR THICK SCALE, SLAG, RUST, MOISTURE, GREASE, OIL, BURRS OR OTHER FOREIGN MATERIAL.
- 4.) ALL STRUCTURAL STEEL WELDS SHALL BE COMPLETE SEAL WELDS. PARTIAL STITCH OR SKIP WELDS ARE NOT ALLOWED.
- 6.) STRUCTURAL FRAME TO BE PAINTED.

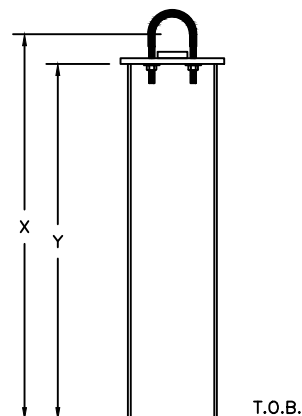
PAINT SPEC.

SANDBLAST TO NEAR WHITE METAL.

PRIME: CARBOLINE, PHENOLINE 187 PRIMER, 4-6 MILS DFT, (COLOR: RED OR WHITE).

TOP COAT: CARBOLINE, PHENOLINE 187 FINISH, 4-6 MILS DFT, (COLOR: GREY OR WHITE).

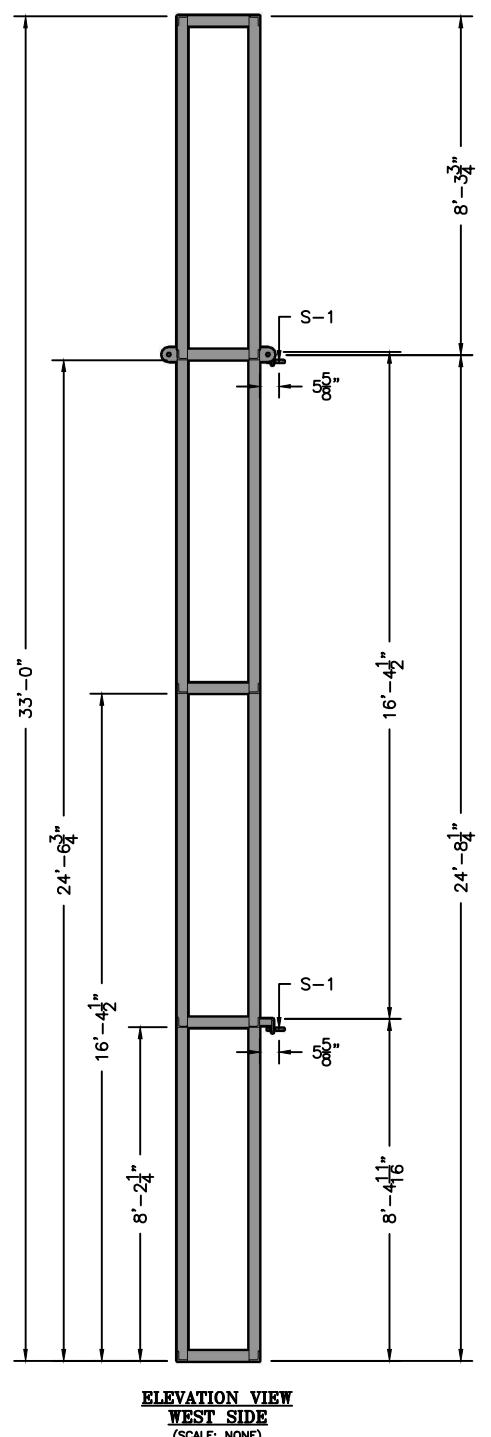
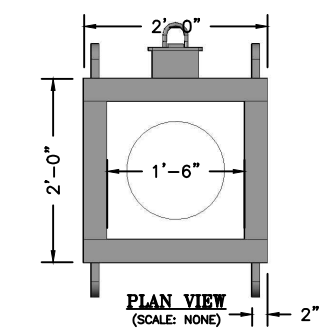
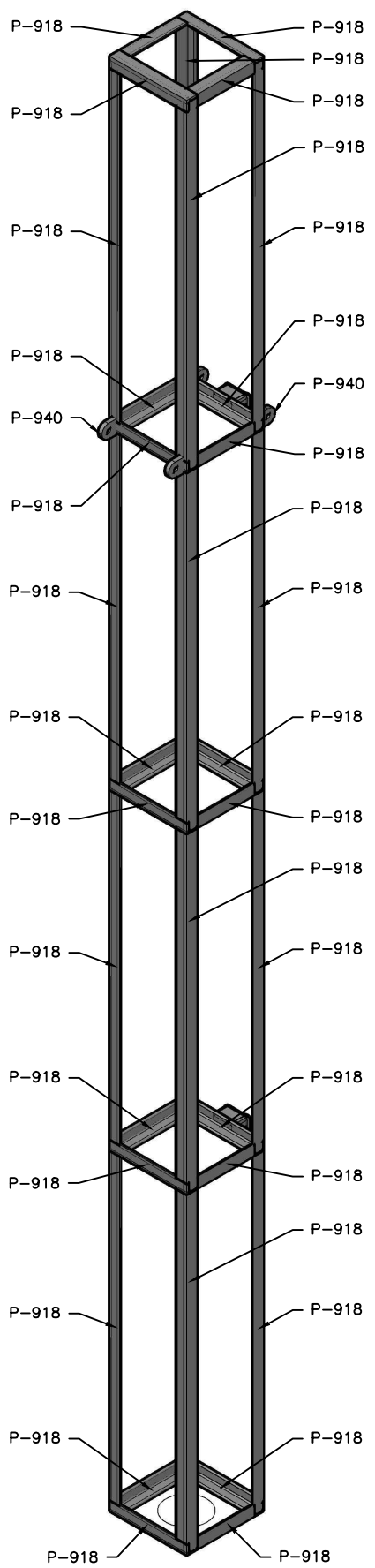
PIPE SUPPORT DETAIL



TAG #	QTY.	DIMENSION		PIPE SIZE
		X	Y	
S-1	2	5'-8"	3'-8"	2"

PROPRIETARY NOTES:
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NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE	NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				



MATERIAL LIST

ITEMS	MARK NUMBER	QTY.	UNIT	DESCRIPTION	LENGTH
	P-918	170	FEET	ANGLE L3 X 3 X 3/8" A36	*
	P-940	4	EACH	10 KIP TIE DOWN LUG	*

CSU-500B

WEDGE RECORD

DESIGN	JT	10/02/12
DESIGN ENG.	MWM	10/02/12

SCALE: NONE

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 Phone: 817.426.9810 Fax: 817.426.9777

DRAWING NO. CSU-500B-17

P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	STABILIZER COLUMN SUPPORT DETAIL
REV.	0

DESIGN INFORMATION

DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 300° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS: ANSI 300	
MATERIAL TEST LIMITS: ANSI 300 FLANGES	

WEDGE GENERAL NOTES:

- 1.) ALL PIPING TO BE DESIGNED AND STAMPED IN ACCORDANCE WITH ASME CODE SECTION VIII, DIV1.
- 2.) ALL PIPING TO BE CERTIFIED TO BE FREE OF HAZARDOUS LEAKS.
- 3.) ENTIRE VESSEL TO BE HYDROSTATICALLY TESTED FOR 4 HOURS AT 1.5x DESIGN PRESSURE.
- 4.) CAP OUTER ENDS AND PLUG ALL TOL'S w/ SS PLUGS PRIOR TO SHIPPING.
- 5.) DIMENSIONAL TOLERANCES: ± 1/8" UNLESS OTHERWISE SPECIFIED.
- 6.) ALL GIRTH (BUTT) WELDS TO BE 100% RADIOGRAPHICALLY INSPECTED TO MEET OR EXCEED API 1104.
- 7.) ALL TOL'S & COUPLINGS TO BE MAGNETIC PARTICLE TESTED.

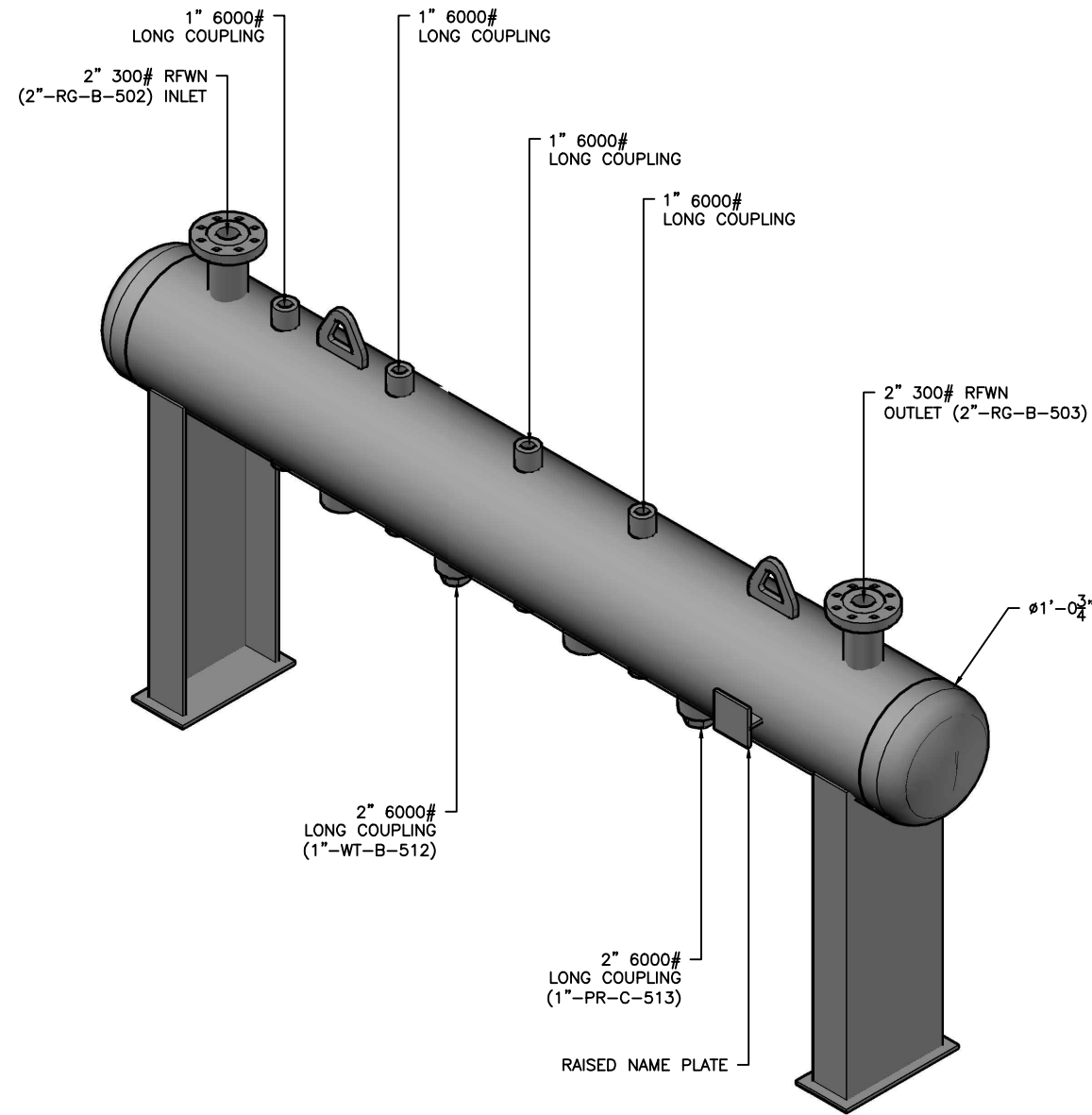
PAINT SPEC.

SANDBLAST TO NEAR WHITE METAL.

PRIME: CARBOLINE, PHENOLINE 187 PRIMER, 4-6 MILS DFT, (COLOR: RED OR WHITE).

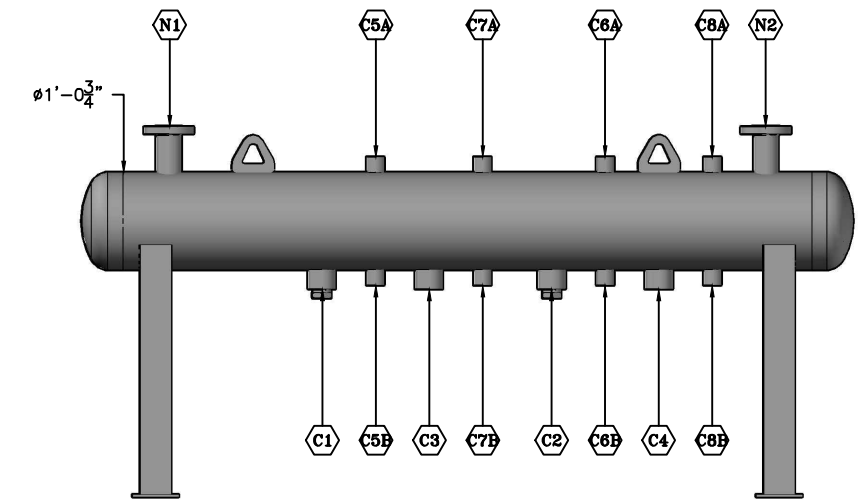
TOP COAT: CARBOLINE, PHENOLINE 187 FINISH, 4-6 MILS DFT, (COLOR: GREY OR WHITE).

ESTIMATED WEIGHT: 600 LBS.



NOZZLE SCHEDULE

ITEM	QTY.	SIZE & RATING, TYPE	FUNCTION / ISO DESCRIPTION
C8A-B	2	1" 6000# LONG COUPLING	LEVEL CONTROL / 1"-RG-C-521
C7A-B	2	1" 6000# LONG COUPLING	LEVEL CONTROL / 1"-RG-C-517
C6A-B	2	1" 6000# LONG COUPLING	LEVEL GAGE / 3/4"-RG-C-518
C5A-B	2	1" 6000# LONG COUPLING	LEVEL GAGE / 3/4"-RG-C-518
C4	1	1" 6000# LONG COUPLING	CONDENSATE OUTLET / 1"-PR-C-513
C3	1	1" 6000# LONG COUPLING	WATER OUTLET / 1"-WT-B-512
C2	1	1" 6000# LONG COUPLING	DRAIN
C1	1	1" 6000# LONG COUPLING	DRAIN
N2	1	2" 300# RFLWN FLG	OUTLET / 2"-RG-B-503
N1	1	2" 300# RFLWN FLG	INLET / 2"-RG-B-502



**NOZZLE DETAIL
(WEST SIDE)**
(SCALE: NONE)

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NO.	ISSUED FOR CONSTRUCTION	BY	DATE	NO.	DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	5/28/14				

WEDGE RECORD

DESIGN	JT	09/21/12
DESIGN ENG.	MWM	09/21/12

SCALE: NONE

WEDGE ENERGY SERVICES, L.L.C.

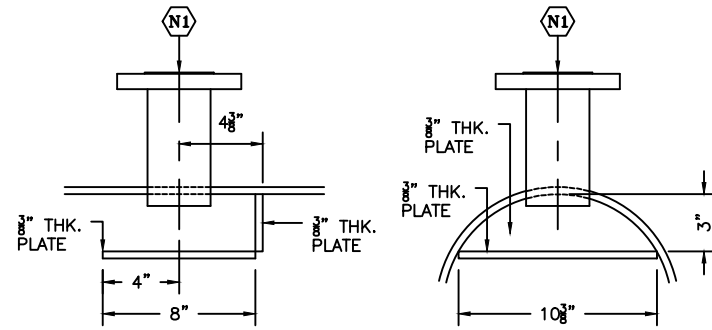
461 N. BROADWAY ST. JOSHUA, TX. 76058
Phone: 817.426.9810 Fax: 817.426.9777

DRAWING NO. CSU-500B-V-2A-1

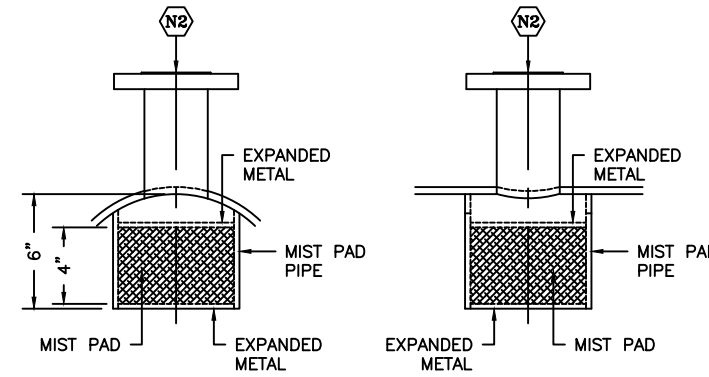
CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	V-2A 3-PHASE SEPARATOR - LAYOUT

DESIGN INFORMATION

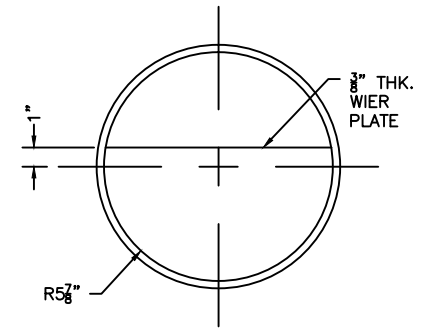
DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 300° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS: ANSI 300	
MATERIAL TEST LIMITS: ANSI 300 FLANGES	



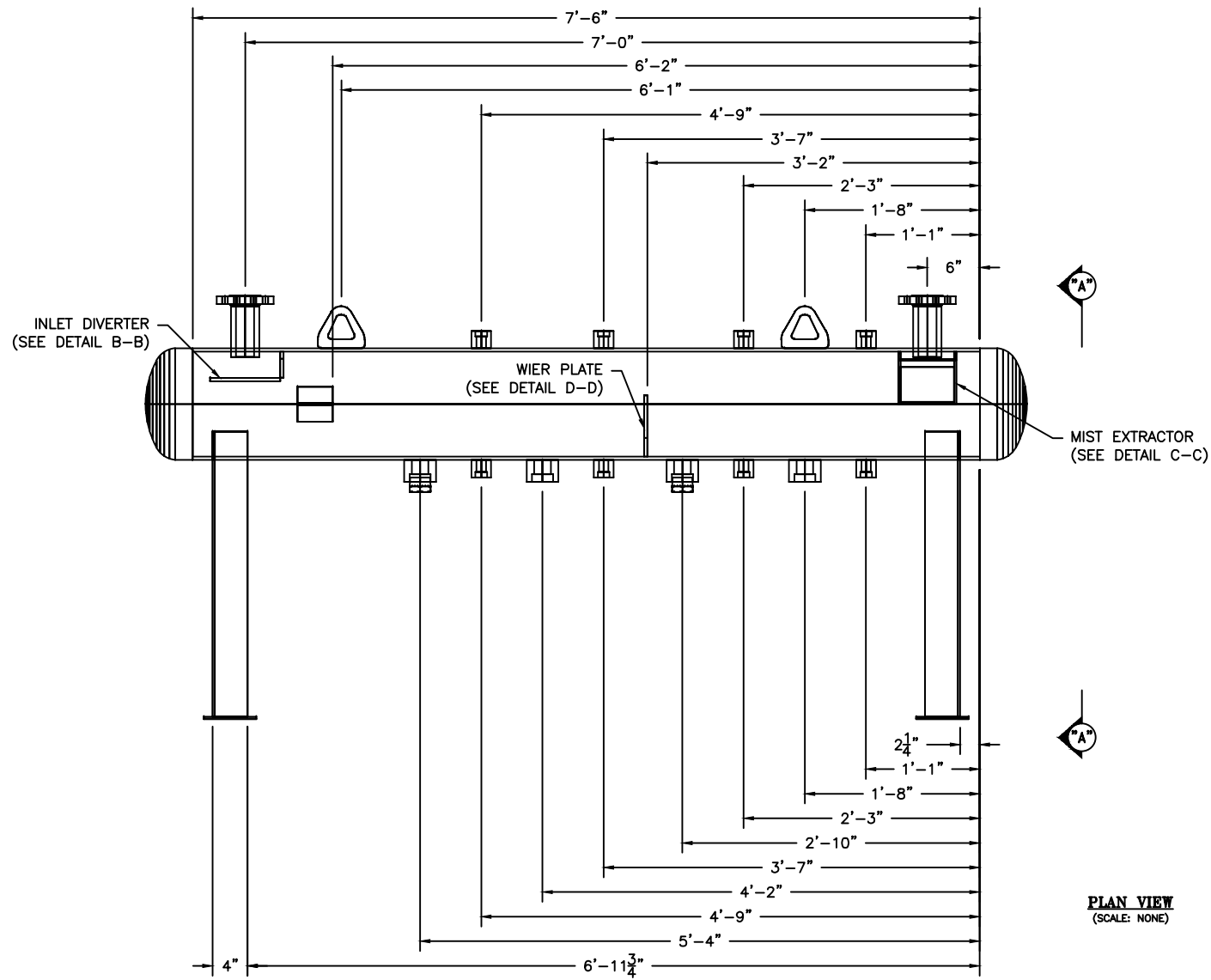
**INLET DIVERTER
DETAIL B-B
(SCALE: NONE)**



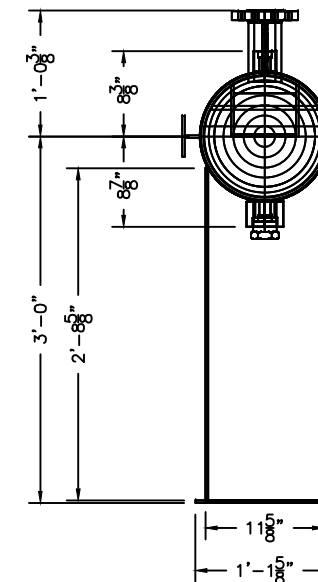
**MIST EXTRACTOR
DETAIL C-C
(SCALE: NONE)**



**WIER PLATE
DETAIL D-D
(SCALE: NONE)**



**PLAN VIEW
(SCALE: NONE)**



**DETAIL "A-A"
SOUTH SIDE
(SCALE: NONE)**

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0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

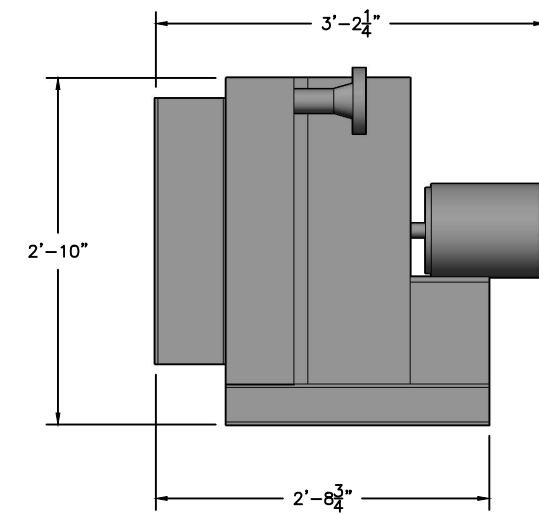
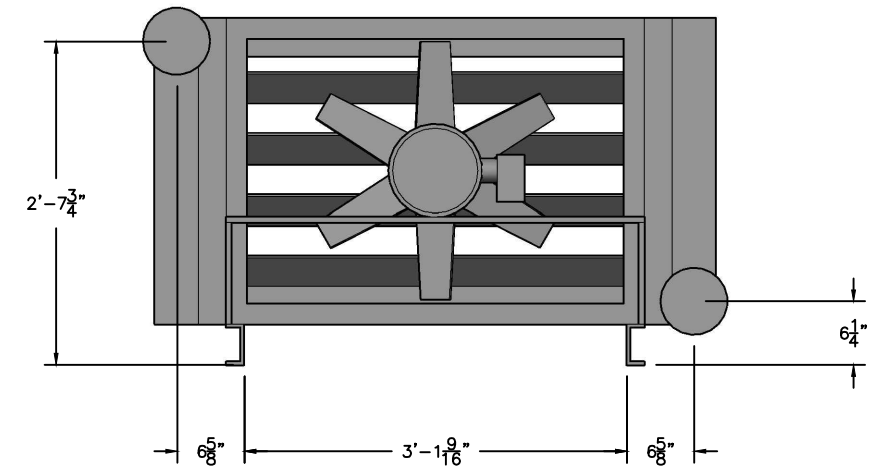
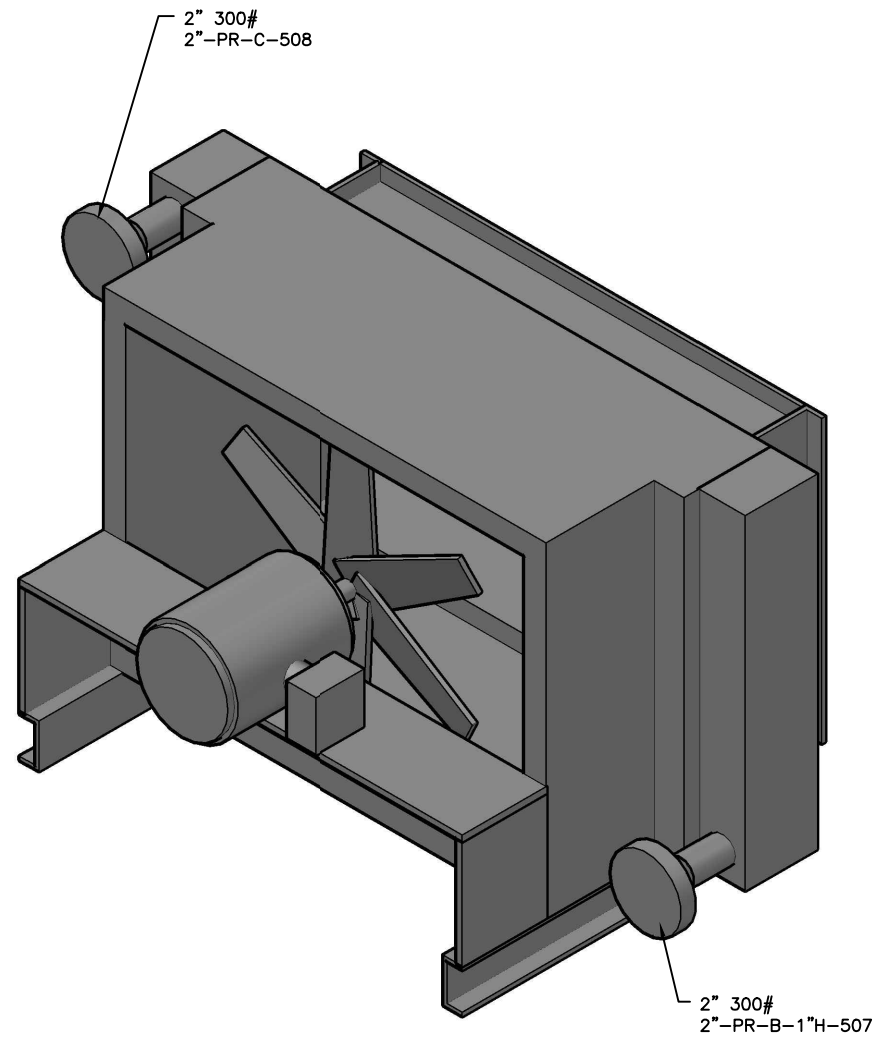
QUANTITY
*

WEDGE RECORD		
DESIGN	JT	09/21/12
DESIGN ENG.	MWM	09/21/12
SCALE: NONE		

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CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	V-2A PHASE SEPARATOR -- ELEVATION

DRAWING NO.	REV.
CSU-500B-V-2A-2	0



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NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE	NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

WEDGE RECORD		
DESIGN	JT	01/01/12
DESIGN ENG.	MWM	01/01/12
SCALE: NONE		

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CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	*

DRAWING NO.	REV.
CSU-500B-AC-1A	0

SHELL DESIGN INFORMATION	
DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 300° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS: ANSI 300	
MATERIAL TEST LIMITS: ANSI 300 FLANGES	

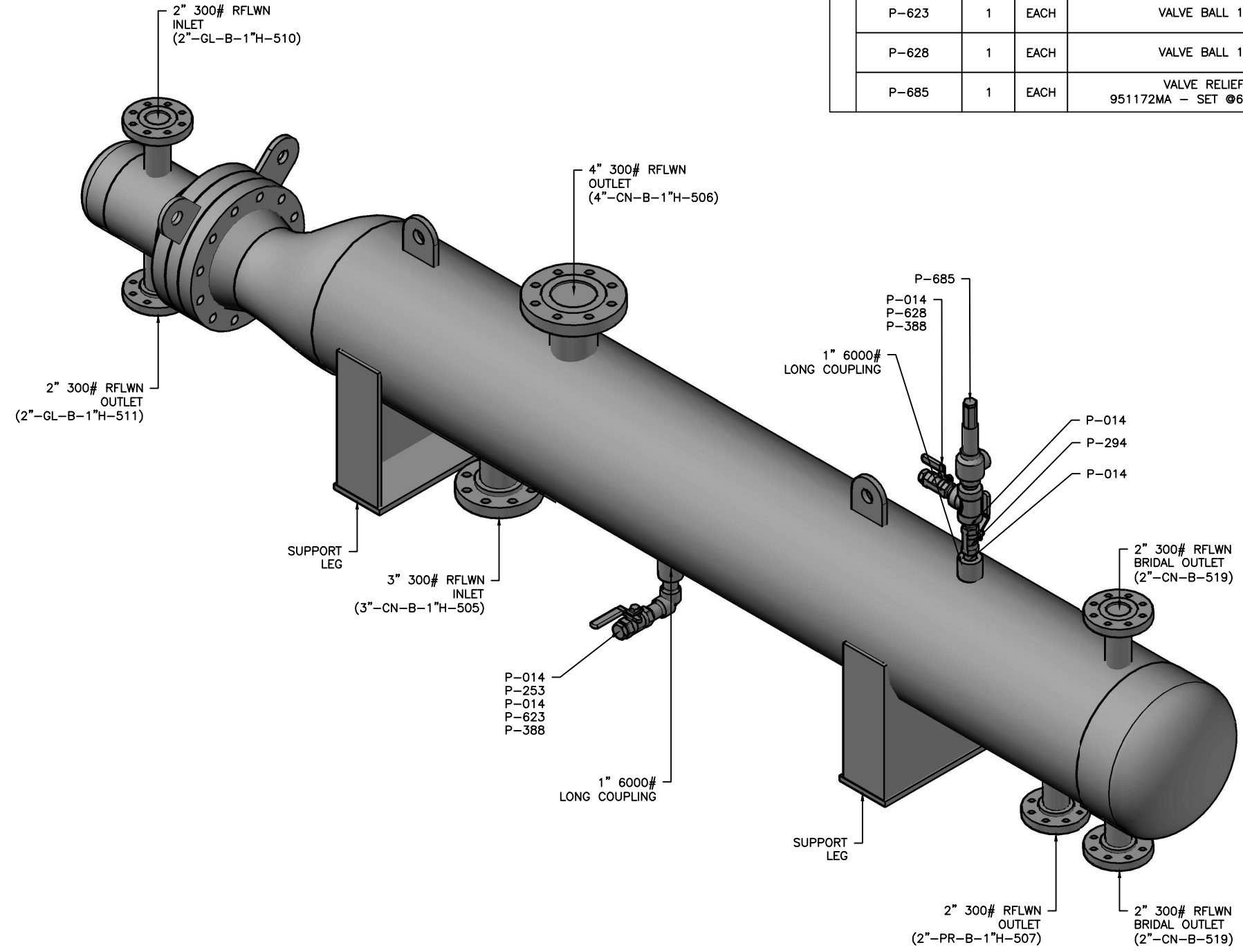
TUBE DESIGN INFORMATION	
DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 300° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS: ANSI 300	
MATERIAL TEST LIMITS: ANSI 300 FLANGES	

WEDGE GENERAL NOTES:
1.) ALL PIPING TO BE DESIGNED AND STAMPED IN ACCORDANCE WITH ASME CODE SECTION VIII, DIV1.
2.) ALL PIPING TO BE CERTIFIED TO BE FREE OF HAZARDOUS LEAKS.
3.) ENTIRE VESSEL TO BE HYDROSTATICALLY TESTED FOR 4 HOURS AT 1.5x DESIGN PRESSURE.
4.) CAP OUTER ENDS AND PLUG ALL TOL'S w/ CS PLUGS PRIOR TO SHIPPING.
5.) DIMENSIONAL TOLERANCES: ± 1/8" UNLESS OTHERWISE SPECIFIED.
6.) ALL GIRTH (BUTT) WELDS TO BE 100% RADIOGRAPHICALLY INSPECTED TO MEET OR EXCEED API 1104.
7.) ALL TOL'S & COUPLINGS TO BE MAGNETIC PARTICLE TESTED.

PAINT SPEC.
SANDBLAST TO NEAR WHITE METAL.
PRIME: CARBOLINE, PHENOLINE 187 PRIMER, 4-6 MILS DFT, (COLOR: RED OR WHITE).
TOP COAT: CARBOLINE, PHENOLINE 187 FINISH, 4-6 MILS DFT, (COLOR: GREY OR WHITE).

ESTIMATED WEIGHT: 1,200 LBS.

MATERIAL LIST				
MARK NUMBER	QTY.	UNIT	DESCRIPTION	LENGTH
P-014	5	EACH	NIPPLE 1" X 3" XS (0.218" WT) SMLS A333 TBE	3"
P-253	1	EACH	ELL THD 1", 90 DEG, 6000# A420	*
P-294	1	EACH	TEE THD 1", 6000#, A420	*
P-388	2	EACH	PLUG HEX, 1 NPT, 6000# SS	*
P-623	1	EACH	VALVE BALL 1" FNPT, 3000#, FP A420	*
P-628	1	EACH	VALVE BALL 1" FNPT, 6000#, FP A420	*
P-685	1	EACH	VALVE RELIEF 1" MNPT X 1" FNPT - 951172MA - SET @655 PSI (CROSBY) (TAG: PSV-2D)	*



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NO.	ISSUED FOR CONSTRUCTION	BY	DATE	NO.	DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

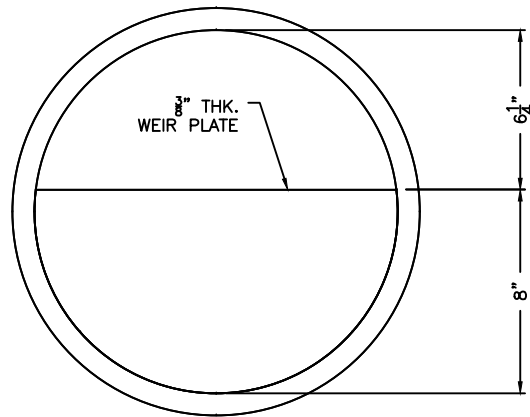
WEDGE RECORD		
DESIGN	JT	10/02/12
DESIGN ENG.	MWM	10/02/12
SCALE: NONE		

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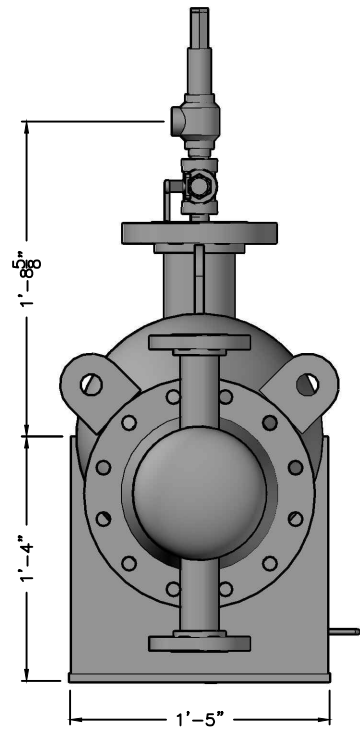
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	REBOILER (HE-1A) -- LAYOUT

SHELL DESIGN INFORMATION	
DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 300° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS: ANSI 300	
MATERIAL TEST LIMITS: ANSI 300 FLANGES	

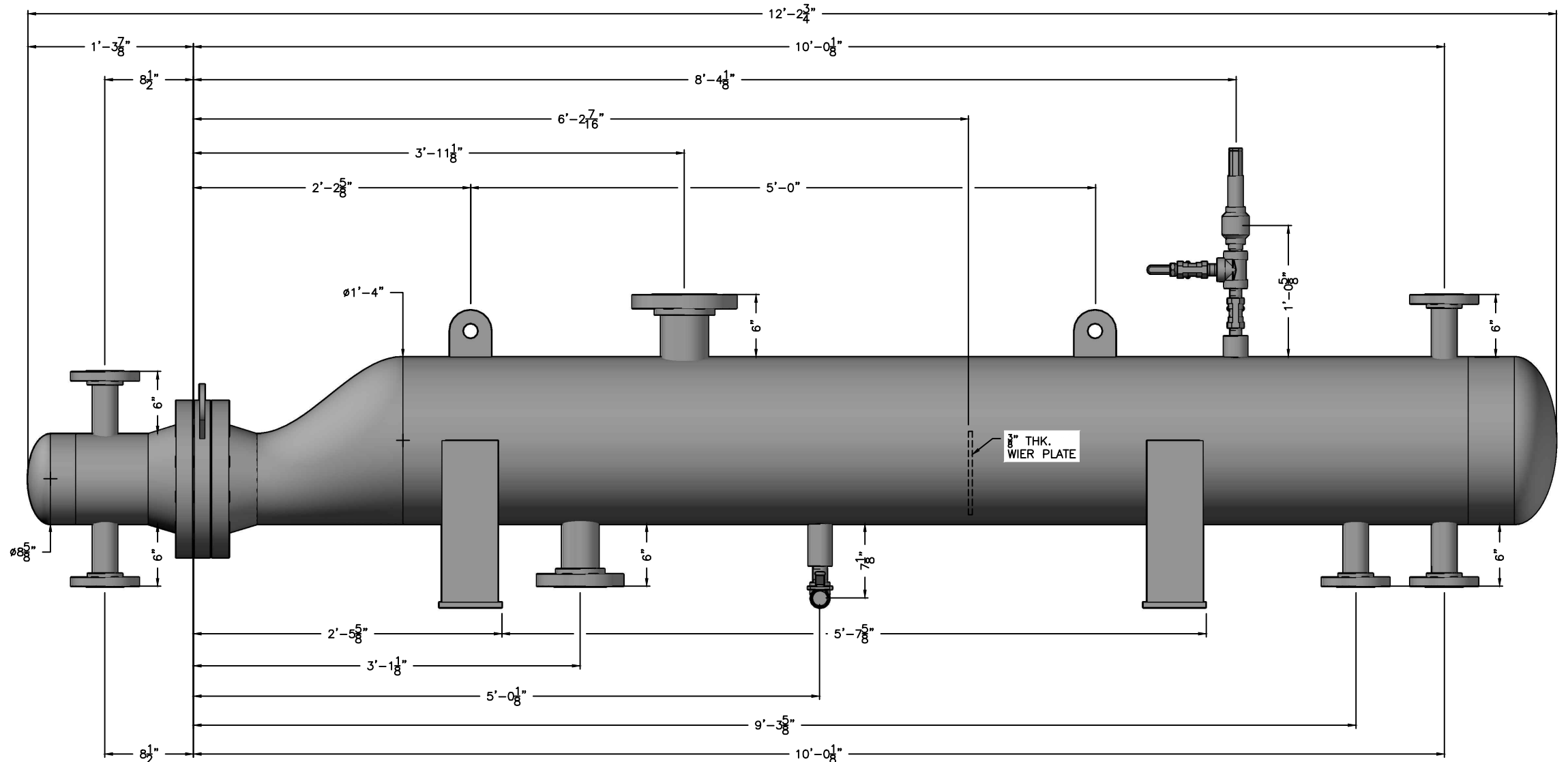
TUBE DESIGN INFORMATION	
DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 300° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS: ANSI 300	
MATERIAL TEST LIMITS: ANSI 300 FLANGES	



DETAIL "A"
(SCALE: NONE)



**ELEVATION
WEST SIDE**
(SCALE: NONE)



**ELEVATION
SOUTH SIDE**
(SCALE: NONE)

PROPRIETARY NOTES:
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NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE	NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

QUANTITY	1
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WEDGE RECORD		
DESIGN	JT	10/02/12
DESIGN ENG.	MWM	10/02/12
SCALE: NONE		

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JOSHUA, TX. 76058 Fax: 817.426.9777

P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	REBOILER (HE-1A) - LAYOUT
DRAWING NO.	REV.
CSU-500B-HE-1A-2	0

DESIGN INFORMATION	
DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 300° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS: ANSI 300	
MATERIAL TEST LIMITS: ANSI 300 FLANGES	

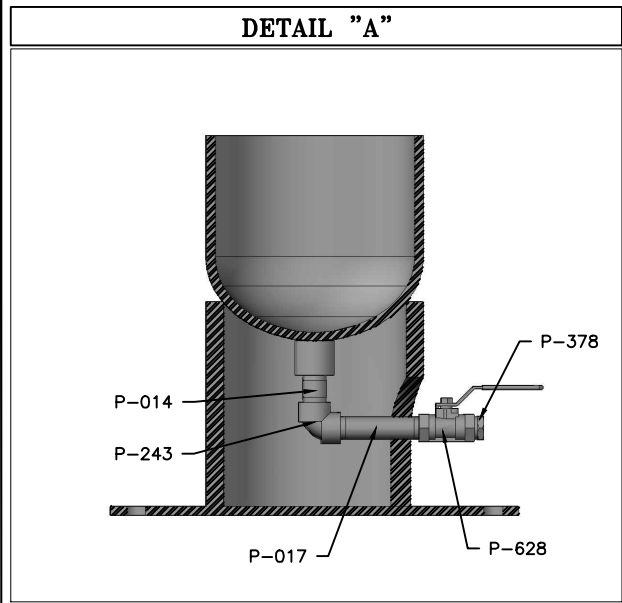
- WEDGE GENERAL NOTES:**
- 1.) ALL PIPING TO BE DESIGNED AND STAMPED IN ACCORDANCE WITH ASME CODE SECTION VIII, DIV1.
 - 2.) ALL PIPING TO BE CERTIFIED TO BE FREE OF HAZARDOUS LEAKS.
 - 3.) ENTIRE VESSEL TO BE HYDROSTATICALLY TESTED PER INDUSTRY STANDARD PRACTICES.
 - 4.) CAP OUTER ENDS AND PLUG ALL TOL'S w/ CS PLUGS PRIOR TO SHIPPING.
 - 5.) DIMENSIONAL TOLERANCES: ± 1/8" UNLESS OTHERWISE SPECIFIED.

PAINT SPEC.

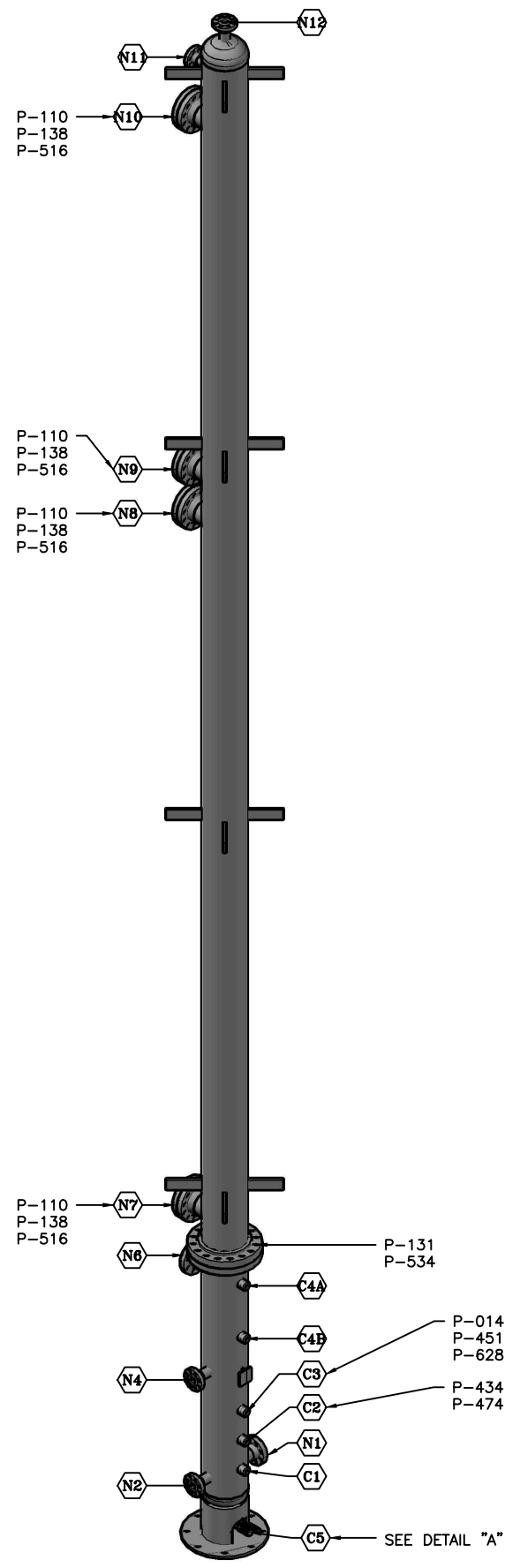
SANDBLAST TO NEAR WHITE METAL.

PRIME: CARBOLINE, PHENOLINE 187 PRIMER, 4-6 MILS DFT, (COLOR: RED OR WHITE).

TOP COAT: CARBOLINE, PHENOLINE 187 FINISH, 4-6 MILS DFT, (COLOR: GREY OR WHITE).



ESTIMATED WEIGHT: 3,500 LBS.



MATERIAL LIST				
MARK No.	QTY.	UNIT	DESCRIPTION	LENGTH
P-014	2	EACH	NIPPLE 1" X 3" XS (0.179" WT) SMLS A333 TBE	3"
P-017	1	EACH	NIPPLE 1" X 6" XS (0.179" WT) SMLS A333 TBE	6"
P-110	4	EACH	FLANGE BLIND 6" 300# RFWN A420	*
P-131	1	EACH	GASKET 12" 300#, 1/8" TK, RIR SPIRALWOUND	*
P-138	4	EACH	GASKET 6" 300#, 1/8" TK, RIR SPIRALWOUND	*
P-243	1	EACH	ELL THD 1", 90 DEG, 3000# A420	*
P-378	1	EACH	PLUG HEX, 1" NPT, 6000# A420	*
P-434	1	EACH	THERMOWELL 3/4" x 1/2" x 10U, 0.385" BORE, 304SS	*
P-451	1	EACH	NOSHOK PRESSURE GUAGE - 45/760-1000PSI-1/2NPT; 0-1000PSI, SS LIQUID FILLED; 1/2" NPT	*
P-474	1	EACH	NOSHOK TEMP. INDICATOR, 30-300-090-0/200-F/C-1/2-SG-316-AU, 3" DIAL, BTM CON. 9" STEM, 0-200 F, 1/2" NPT	*
P-516	48	EACH	STUD 3/4" X 5", A193 B7, W/ 2 HH NUTS A194 2H, CADMIUM PLATED	5"
P-534	16	EACH	STUD 1-1/8" X 7", A193 B7, W/ 2 HH NUTS A194 2H, CADMIUM PLATED	7"
P-628	2	EACH	VALVE BALL 1" FNPT, 6000#, FP A420	*
P-923	A/R	EACH	PACKING MATERIAL	*

NOZZLE SCHEDULE			
ITEM	QTY.	SIZE & RATING, TYPE	FUNCTION / ISO DESCRIPTION
C5	1	1" 6000# LONG COUPLING	DRAIN
C4A-B	2	1" 6000# LONG COUPLING	HIGH LEVEL SWITCH / 1"-CN-B-1"H-515
C1	1	1" 6000# LONG COUPLING	MISC. SPARE
C2	1	1" 6000# LONG COUPLING	TEMPERATURE INDICATOR
C3	1	1" 6000# LONG COUPLING	PRESSURE INDICATOR
N12	1	2" 300# RFWN FLG	OUTLET / 2"-RG-B-502 - OVERHEAD VAPORS
N11	1	2" 300# RFWN FLG	INLET / 2"-CN-B-1"C-501 - NGL's IN
N10	1	6" 300# RFWN FLG	MISC. - PACKING FILL
N9	1	6" 300# RFWN FLG	MISC. - PACKING EMPTY
N8	1	6" 300# RFWN FLG	MISC. - PACKING FILL
N7	1	6" 300# RFWN FLG	MISC. - PACKING EMPTY
N6	1	4" 300# RFWN FLG	INLET / 4"-CN-B-1"H-506 - REBOILER VAPORS
N5	1	*	NOT USED.
N4	1	2" 300# RFWN FLG	OUTLET / 1"-CN-B-1"H-516 - LEVEL BRIDLE
N3	1	*	NOT USED.
N2	1	2" 300# RFWN FLG	OUTLET / 1"-CN-B-1"H-516 - LEVEL BRIDLE
N1	1	3" 300# RFWN FLG	OUTLET / 3"-CN-B-1"H-505 - REBOILER INLET

SHEET 1 OF 2

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NO.	ISSUED FOR APPROVAL	BY	DATE	NO.	DESCRIPTION	BY	DATE
0	ISSUED FOR APPROVAL	JM	5/28/14				

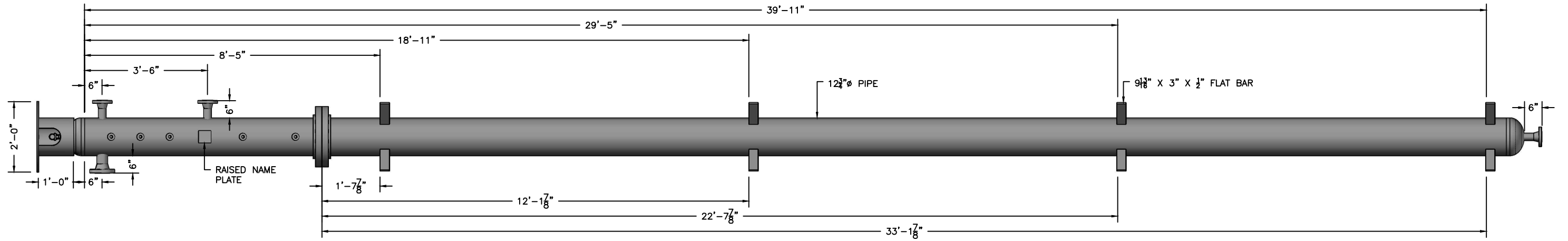
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DESIGN	JT	10/01/12
DESIGN ENG.	MWM	10/01/12
SCALE: NONE		

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461 N. BROADWAY ST. JOSHUA, TX. 76058
Phone: 817.426.9810 Fax: 817.426.9777

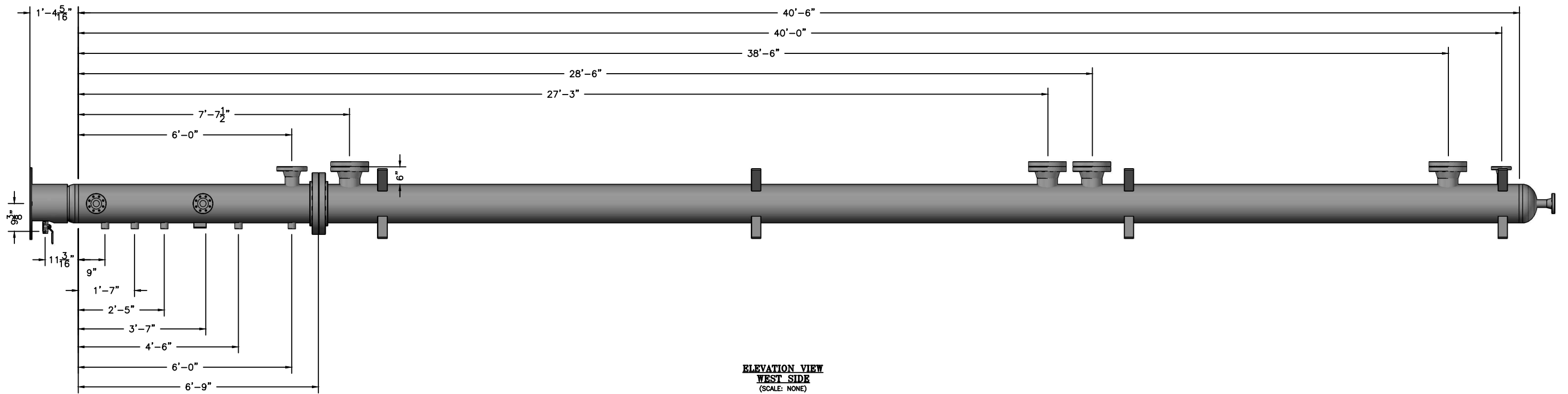
CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	V-1A STABILIZER COLUMN

DESIGN INFORMATION

DESIGN PRESSURE: 655 PSIG CLASS LOCATION: 3
 DESIGN TEMPERATURE: -50° F TO 300° F DESIGN FACTOR: 0.5
 FLANGE RATING CLASS: ANSI 300
 MATERIAL TEST LIMITS: ANSI 300 FLANGES



**ELEVATION VIEW
SOUTH SIDE**
(SCALE: NONE)



**ELEVATION VIEW
WEST SIDE**
(SCALE: NONE)

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0	ISSUED FOR APPROVAL	JM	5/28/14				

QUANTITY
*

WEDGE RECORD		
DESIGN	JT	10/01/12
DESIGN ENG.	MWM	10/01/12
SCALE: NONE		

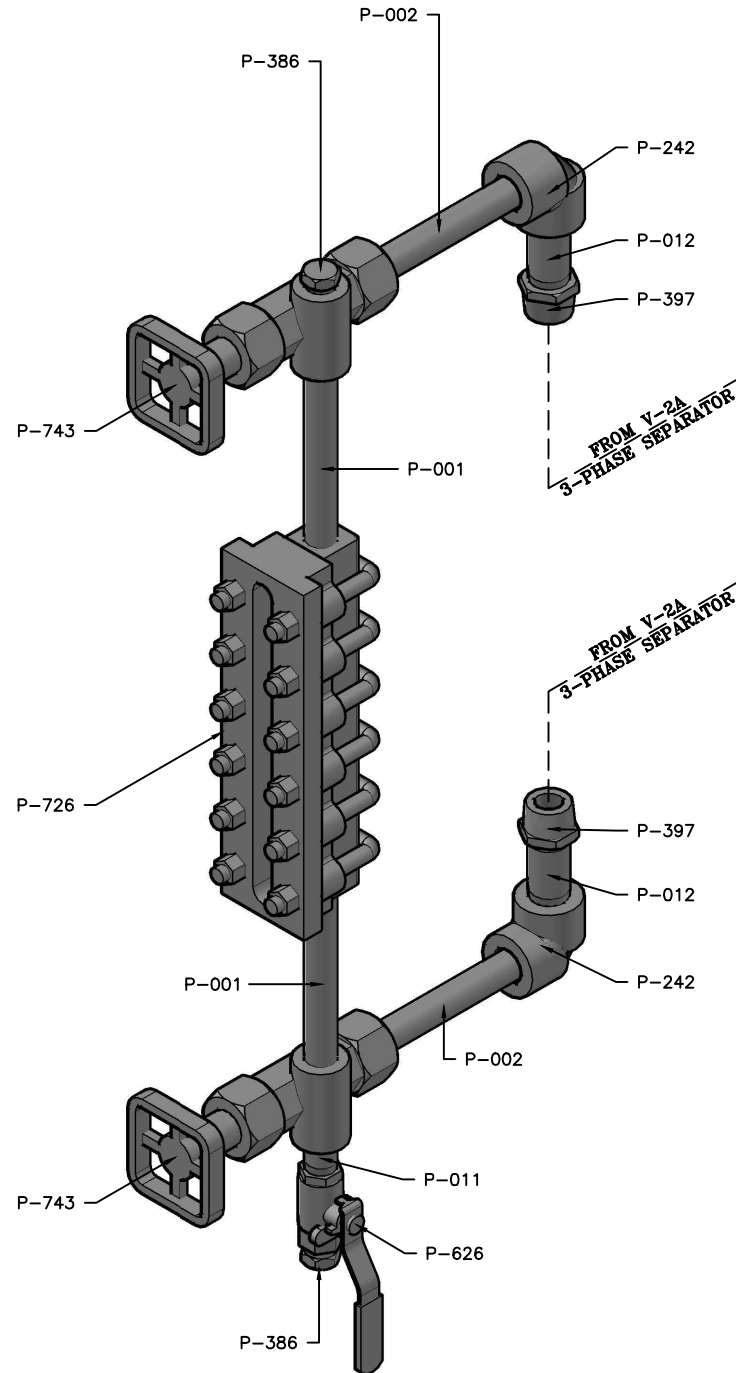
WEDGE ENERGY SERVICES, L.L.C.
 461 N. BROADWAY ST. Phone: 817.426.9810
 JOSHUA, TX. 76058 Fax: 817.426.9777

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	V-1A STABILIZER COLUMN

DRAWING NO. CSU-500B-V-1A-2
 REV. 0

DESIGN INFORMATION	
DESIGN PRESSURE: <u>655 PSIG</u>	CLASS LOCATION: <u>3</u>
DESIGN TEMPERATURE: <u>-50° F TO 300° F</u>	DESIGN FACTOR: <u>0.5</u>
FLANGE RATING CLASS:	
MATERIAL TEST LIMITS:	

PRE-TEST SECTION No. 1	
TEST MEDIUM: <u>WATER</u>	
STABILIZATION: <u>AS REQUIRED</u>	
HOLD PERIOD: <u>4 HRS. MIN.</u>	
TEST PRESSURE: <u>MIN: 982 PSIG. MAX: 1012 PSIG</u>	



MATERIAL LIST				
MARK NUMBER	QTY.	UNIT	DESCRIPTION	LENGTH
P-001	1	EACH	PIPE 1/2" XS (0.147" WT) SMLS A333 (FOR CUSTOM NIPPLE LENGTHS)	1'-2"
P-002	1	EACH	PIPE 3/4" XS (0.154" WT) SMLS A333 (FOR CUSTOM NIPPLE LENGTH)	12"
P-011	1	EACH	NIPPLE 1/2" X 3" XS (0.147" WT) SMLS A333 TBE	*
P-012	2	EACH	NIPPLE 3/4" x 3" XS (0.154" WT) SMLS A333 TBE	*
P-242	2	EACH	ELL THD 3/4", 90 DEG, 3000# A420	*
P-386	2	EACH	PLUG HEX, 1/2" NPT, 6000# SS	*
P-397	2	EACH	BUSHING, 1" X 3/4" NPT, 3000# A420	*
P-626	1	EACH	VALVE BALL 1/2" FNPT, 6000#, FP A420	*
P-726	1	EACH	SIGHT GLASS REFLUX STYLE - MALLARD 3520-17RB1-3S; 11 3/4" LG X 1/2" NPT	*
P-743	2	EACH	VALVE SIGHT GLASS MALLARD 3500-3N POSITION 2, 3/4" X 1/2" NPT	*

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0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

QUANTITY
2

WEDGE RECORD		
DESIGN	JT	10/08/12
DESIGN ENG.	MWM	10/08/12
SCALE: NONE		

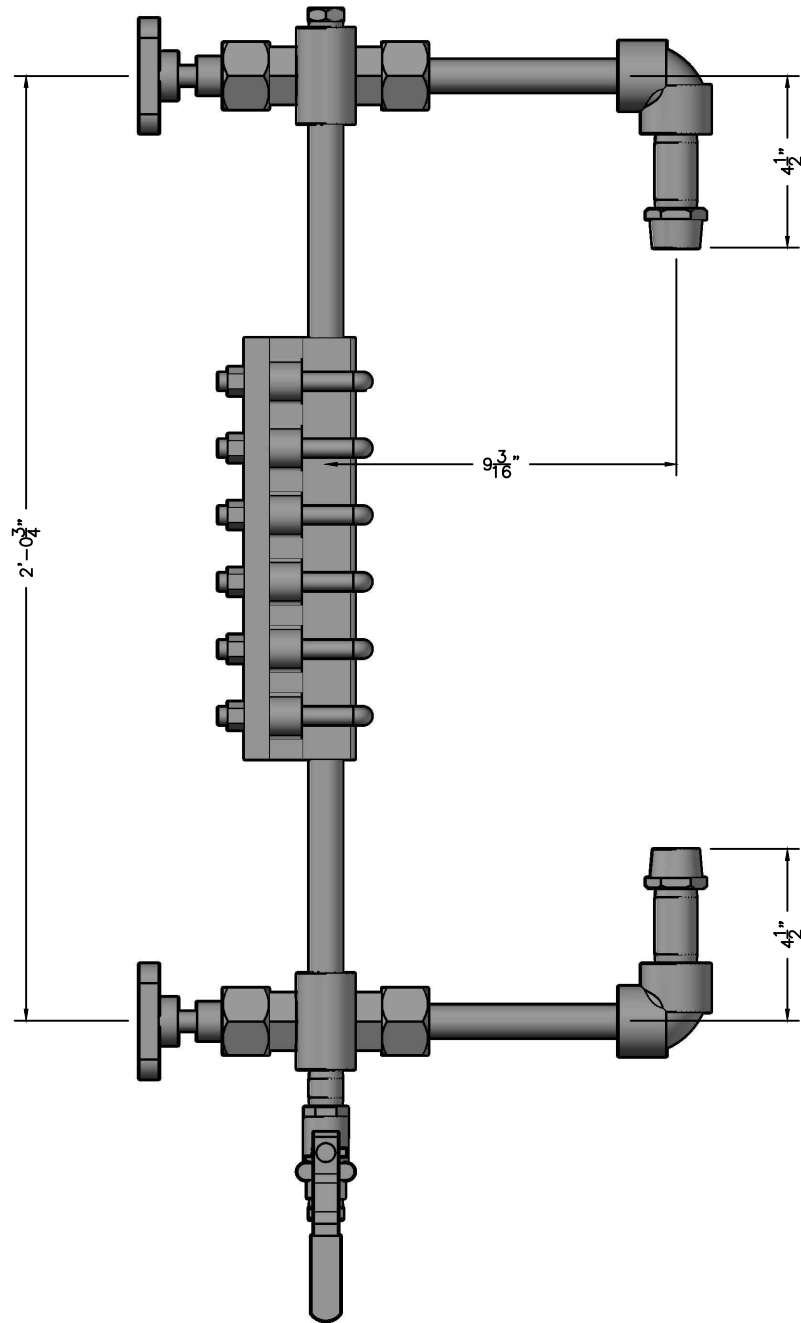
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 JOSHUA, TX. 76058 Fax: 817.426.9777

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	SIGHT GLASS BRIDAL DETAIL FOR V-2A

DRAWING NO.	REV.
0.75-RG-C-518-1	0

DESIGN INFORMATION

DESIGN PRESSURE: <u>655 PSIG</u>	CLASS LOCATION: <u>3</u>
DESIGN TEMPERATURE: <u>-50° F TO 300° F</u>	DESIGN FACTOR: <u>0.5</u>
FLANGE RATING CLASS:	
MATERIAL TEST LIMITS:	



**ELEVATION
SOUTH SIDE**
(SCALE: NONE)

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NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE	NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

QUANTITY
*

WEDGE RECORD		
DESIGN	JT	10/08/12
DESIGN ENG.	MWM	10/08/12
SCALE: NONE		

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DRAWING NO. 0.75-RG-C-518-2

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	SIGHT GLASS BRIDAL DETAIL FOR V-2A

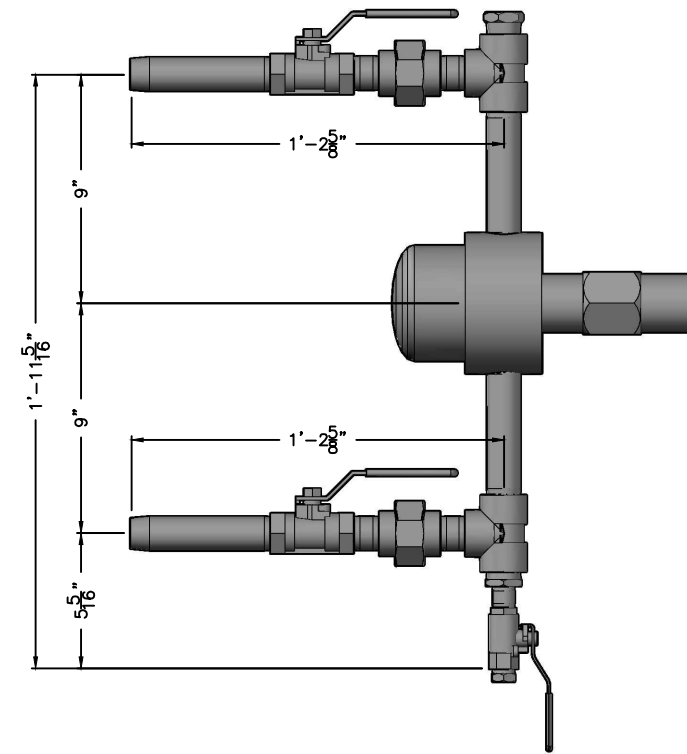
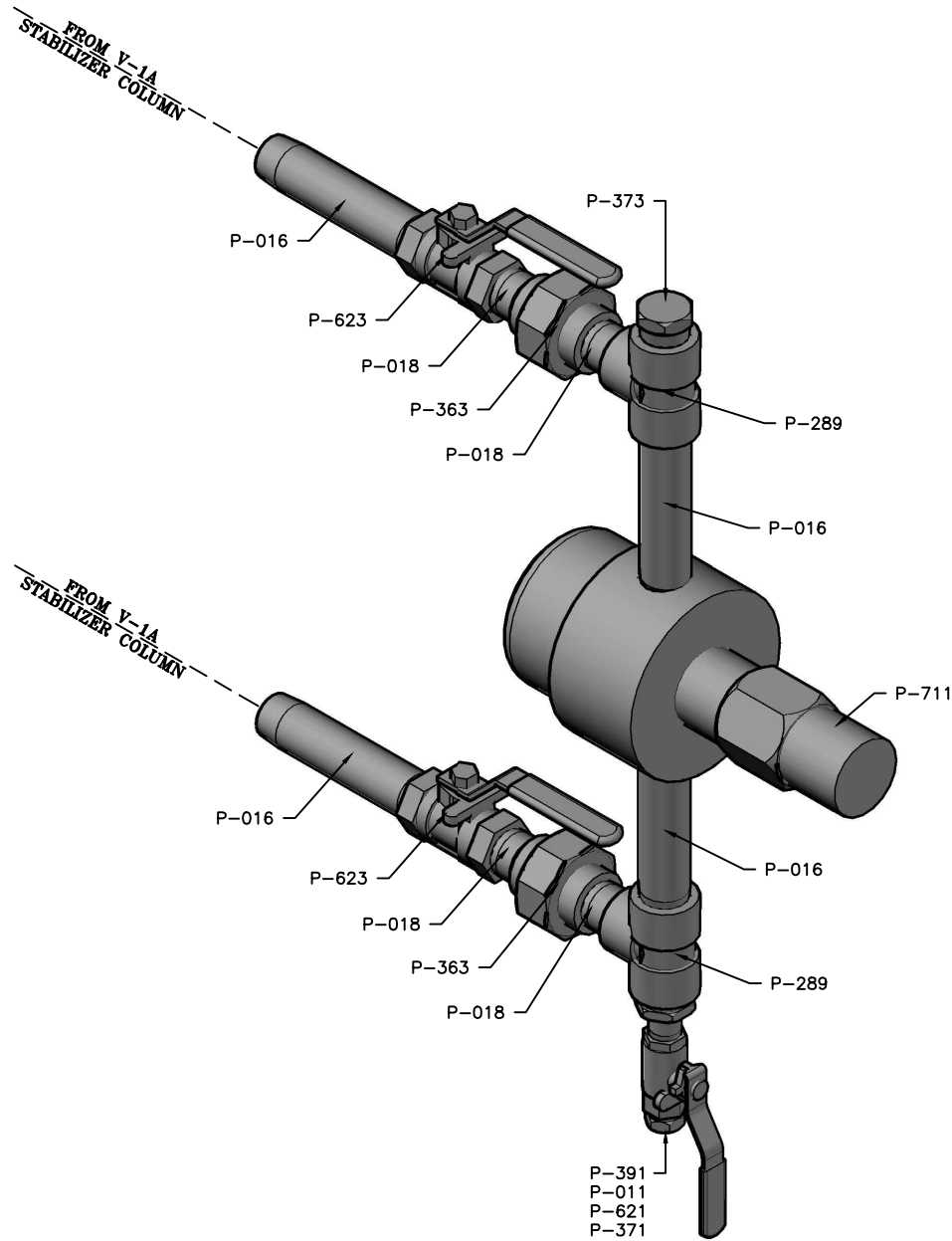
REV. 0

DESIGN INFORMATION

DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 300° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS:	
MATERIAL TEST LIMITS:	

PRE-TEST SECTION No. 1

TEST MEDIUM: WATER
STABILIZATION: AS REQUIRED
HOLD PERIOD: 4 HRS. MIN.
TEST PRESSURE: MIN: 982 PSIG. MAX: 1012 PSIG



MATERIAL LIST

MARK NUMBER	QTY.	UNIT	DESCRIPTION	LENGTH
P-011	1	EACH	NIPPLE 1/2" x 3" XS (0.147" WT) SMLS A333 TBE	3"
P-016	4	EACH	NIPPLE 1" X 6" XS (0.179" WT) SMLS A333 TBE	6"
P-018	4	EACH	NIPPLE 1" X 2" XS (0.179" WT) SMLS A333 TBE	2"
P-289	2	EACH	TEE THD 1", 3000#, A420	*
P-363	2	EACH	UNION THD 1", 3000# A420	*
P-371	1	EACH	PLUG HEX, 1/2" NPT, 3000# A420	*
P-373	1	EACH	PLUG HEX, 1" NPT, 3000# A420	*
P-621	1	EACH	VALVE BALL 1/2" FNPT, 3000#, FP A420	*
P-623	2	EACH	VALVE BALL 1" FNPT, 3000#, FP A420	*
P-711	1	EACH	SWITCH LIQUID LEVEL 2" NPT CLASS 1 DIV 2 MALLARD 3100-SS; W/ SS FLOAT & BODY (TAG: LS-515)	*

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0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

WEDGE RECORD

DESIGN	JT	10/08/12
DESIGN ENG.	MWM	10/08/12

SCALE: NONE

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 461 N. BROADWAY ST. JOSHUA, TX. 76058
 Phone: 817.426.9810 Fax: 817.426.9777

DRAWING NO. **1-CN-B-1H-515-1** REV. **0**

CSU-500B

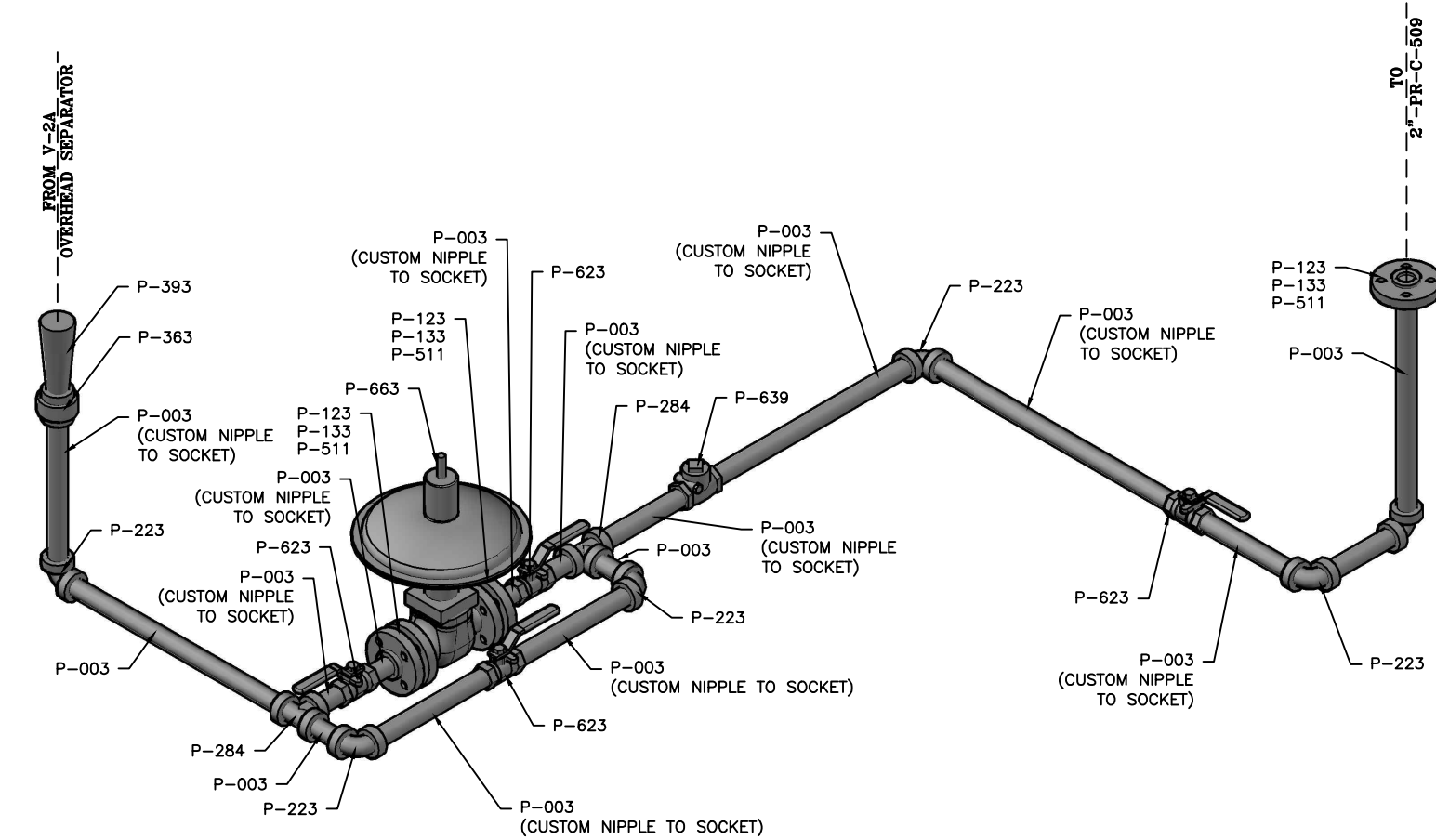
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	LEVEL SWITCH BRIDAL FOR V-1A (STABILIZER COLUMN)

DESIGN INFORMATION

DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 300° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS: ANSI 300	
MATERIAL TEST LIMITS: ANSI 300 FLANGES	

PRE-TEST SECTION No. 1

TEST MEDIUM: WATER
STABILIZATION: AS REQUIRED
HOLD PERIOD: 4 HRS. MIN.
TEST PRESSURE: MIN: 982 PSIG. MAX: 1012 PSIG



MATERIAL LIST

MARK NUMBER	QTY.	UNIT	DESCRIPTION	LENGTH
P-003	1	EACH	PIPE 1" XS (0.179" WT) SMLS A333	19 FEET
P-123	3	EACH	FLANGE SLIP ON 1" 300# XS (0.179" WT) A420	*
P-133	3	EACH	GASKET 1" 300#, 1/8" TK, RIR SPIRALWOUND	*
P-223	5	EACH	ELL SOCKET WELD 1", 90 DEG, 3000#, A420	*
P-284	2	EACH	TEE SOCKET WELD 1", 3000#, A420	*
P-363	1	EACH	UNION THD 1", 3000# A420	*
P-393	1	EACH	SWAGE CONC 2" X 1" XS SMLS A333 PLE-TSE	*
P-511	12	EACH	STUD 5/8" X 3-1/4", A193 B7, W/ 2 HH NUTS A194 2H, CADMIUM PLATED	3-1/4"
P-623	4	EACH	VALVE BALL 1" FNPT, 3000#, FP A420	*
P-639	1	EACH	VALVE, CHECK 1" NPT WHEATLEY 2000#, CS - MODEL # 9D-822-13200-131	*
P-663	1	EACH	VALVE GLOBE 1" RF 300#, CLOSED YOKE, DIRECT ACTING, 5450-1F3NG73DV-12Q (TAG: LCV-512)	*

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NO.	ISSUED FOR CONSTRUCTION	BY	DATE	NO.	DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

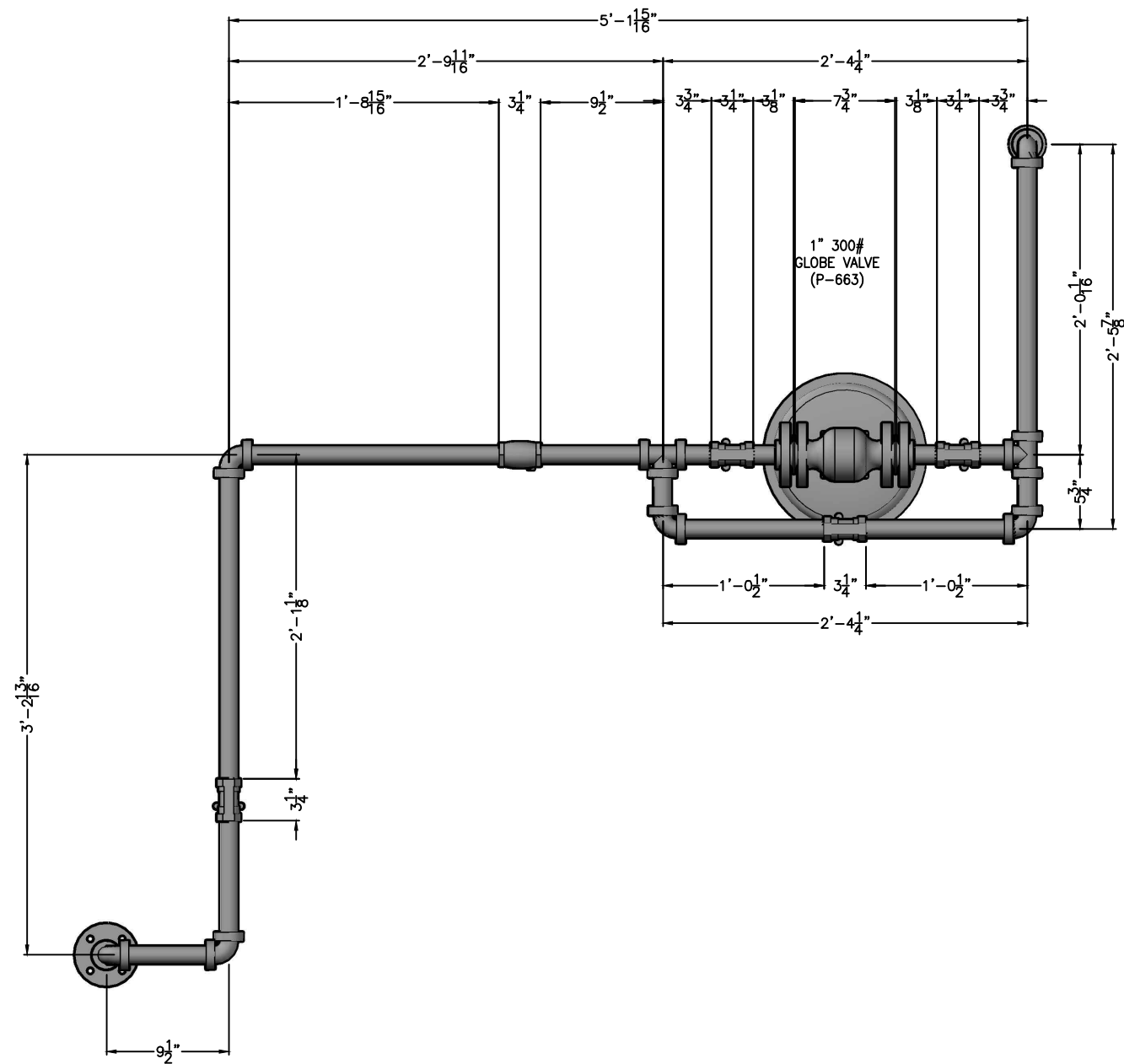
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DESIGN	JT	10/08/12
DESIGN ENG.	MWM	10/08/12

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 461 N. BROADWAY ST. JOSHUA, TX. 76058
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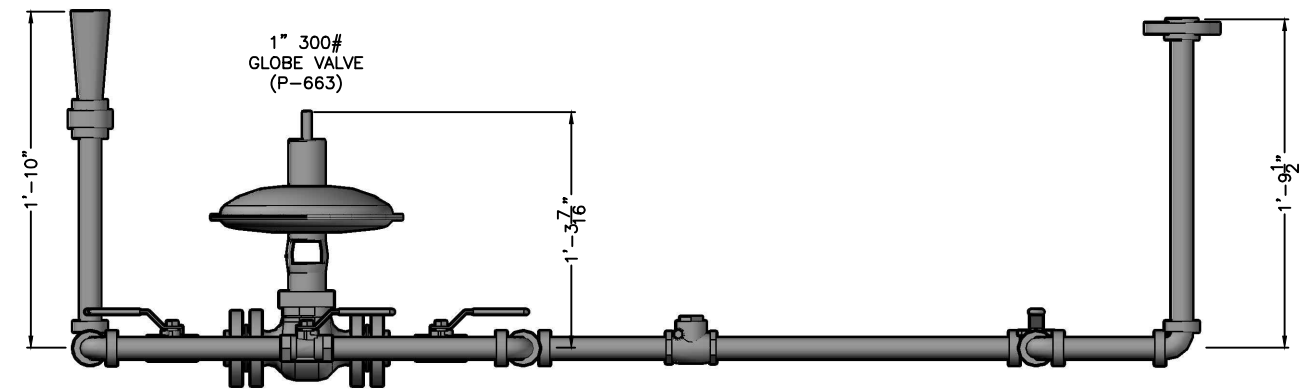
CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	FROM V-2A (OVERHEAD SEPARATOR) TO 2"-PR-C-509

DRAWING NO.	1-PR-C-513-1
REV.	0

DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 300° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS: ANSI 300	
MATERIAL TEST LIMITS: ANSI 300 FLANGES	



PLAN VIEW
(SCALE: NONE)



PROFILE VIEW
(SCALE: NONE)

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0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

WEDGE RECORD		
DESIGN	JT	10/08/12
DESIGN ENG.	MWM	10/08/12
SCALE: NONE		

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DRAWING NO. 1-PR-C-513-2

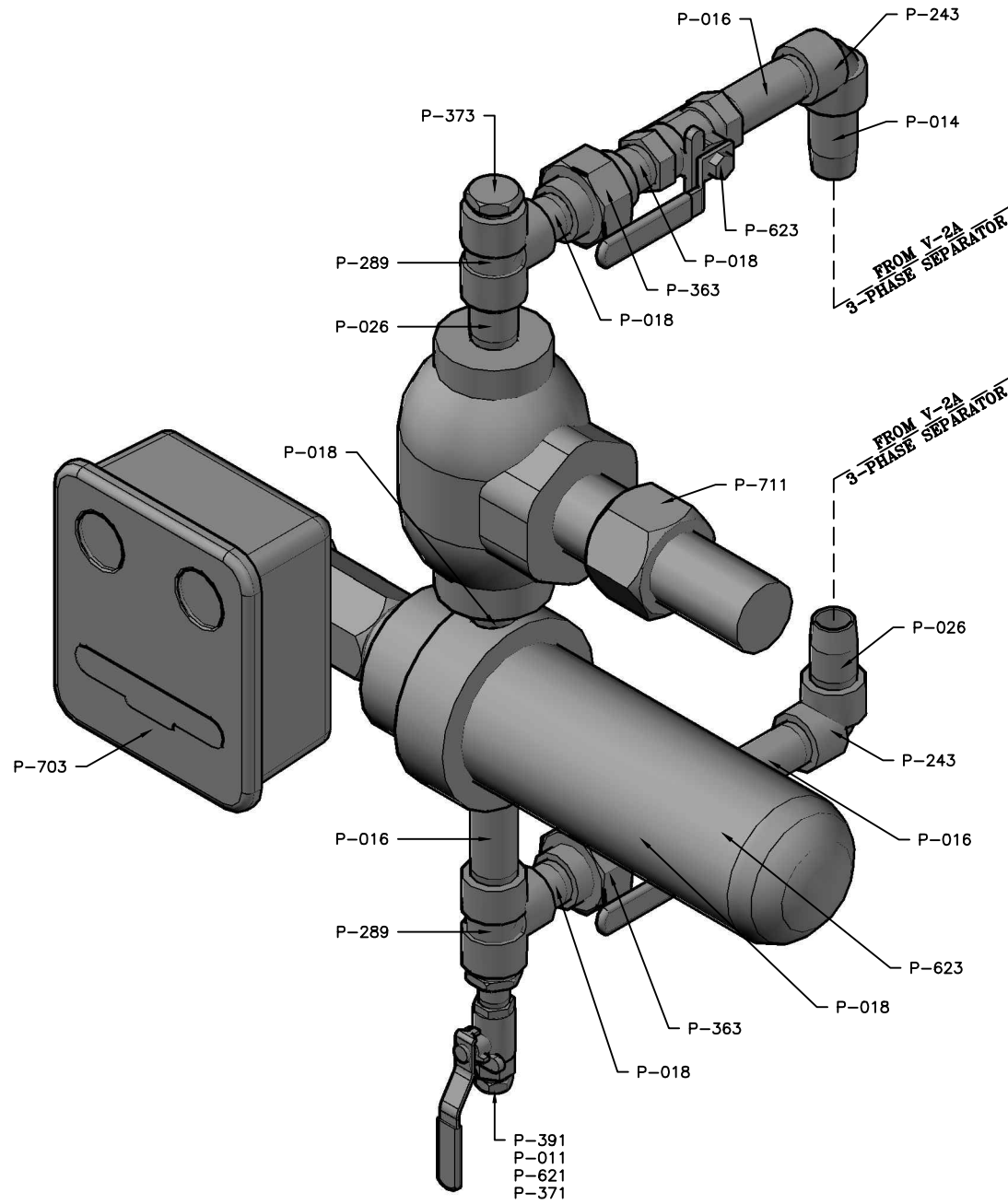
CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	FROM V-2A (OVERHEAD SEPARATOR) TO 2"-PR-C-509

SHELL DESIGN INFORMATION

DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 300° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS:	
MATERIAL TEST LIMITS:	

PRE-TEST SECTION No. 1

TEST MEDIUM: WATER
STABILIZATION: AS REQUIRED
HOLD PERIOD: 4 HRS. MIN.
TEST PRESSURE: MIN: 982 PSIG. MAX: 1012 PSIG



MATERIAL LIST

MARK NUMBER	QTY.	UNIT	DESCRIPTION	LENGTH
P-011	1	EACH	NIPPLE 1/2" x 3" XS (0.147" WT) SMLS A333 TBE	3"
P-014	1	EACH	NIPPLE 1" x 3" XS (0.179" WT) SMLS A333 TBE	3"
P-016	3	EACH	NIPPLE 1" x 4" XS (0.179" WT) SMLS A333 TBE	4"
P-018	5	EACH	NIPPLE 1" x 2" XS (0.179" WT) SMLS A333 TBE	2"
P-026	2	EACH	NIPPLE 1" x 2-1/2" XS (0.179" WT) SMLS A333 TBE	*
P-243	2	EACH	ELL THD 1", 90 DEG, 3000# A420	*
P-289	2	EACH	TEE THD 1", 3000#, A420	*
P-363	2	EACH	UNION THD 1", 3000# A420	*
P-371	1	EACH	PLUG HEX, 1/2" NPT, 3000# A420	*
P-373	1	EACH	PLUG HEX, 1" NPT, 3000# A420	*
P-391	1	EACH	BUSHING, 1" x 1/2" NPT, 3000# A420	*
P-621	1	EACH	VALVE BALL 1/2" FNPT, 3000#, FP A420	*
P-623	2	EACH	VALVE BALL 1" FNPT, 3000#, FP A420	*
P-703	1	EACH	CONTROL LIQUID LEVEL 2" PNEUMATIC MALLARD 3200-20MSONSLDV-DS (TAG: LC-517)	*
P-711	1	EACH	SWITCH LIQUID LEVEL 2" NPT CLASS 1 DIV 2 MALLARD 3100-SS; W/ SS FLOAT & BODY (TAG: LS-517)	*

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NO.	ISSUED FOR CONSTRUCTION	BY	DATE	NO.	DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

QUANTITY
1

WEDGE RECORD		
DESIGN	JT	10/08/12
DESIGN ENG.	MWM	10/08/12

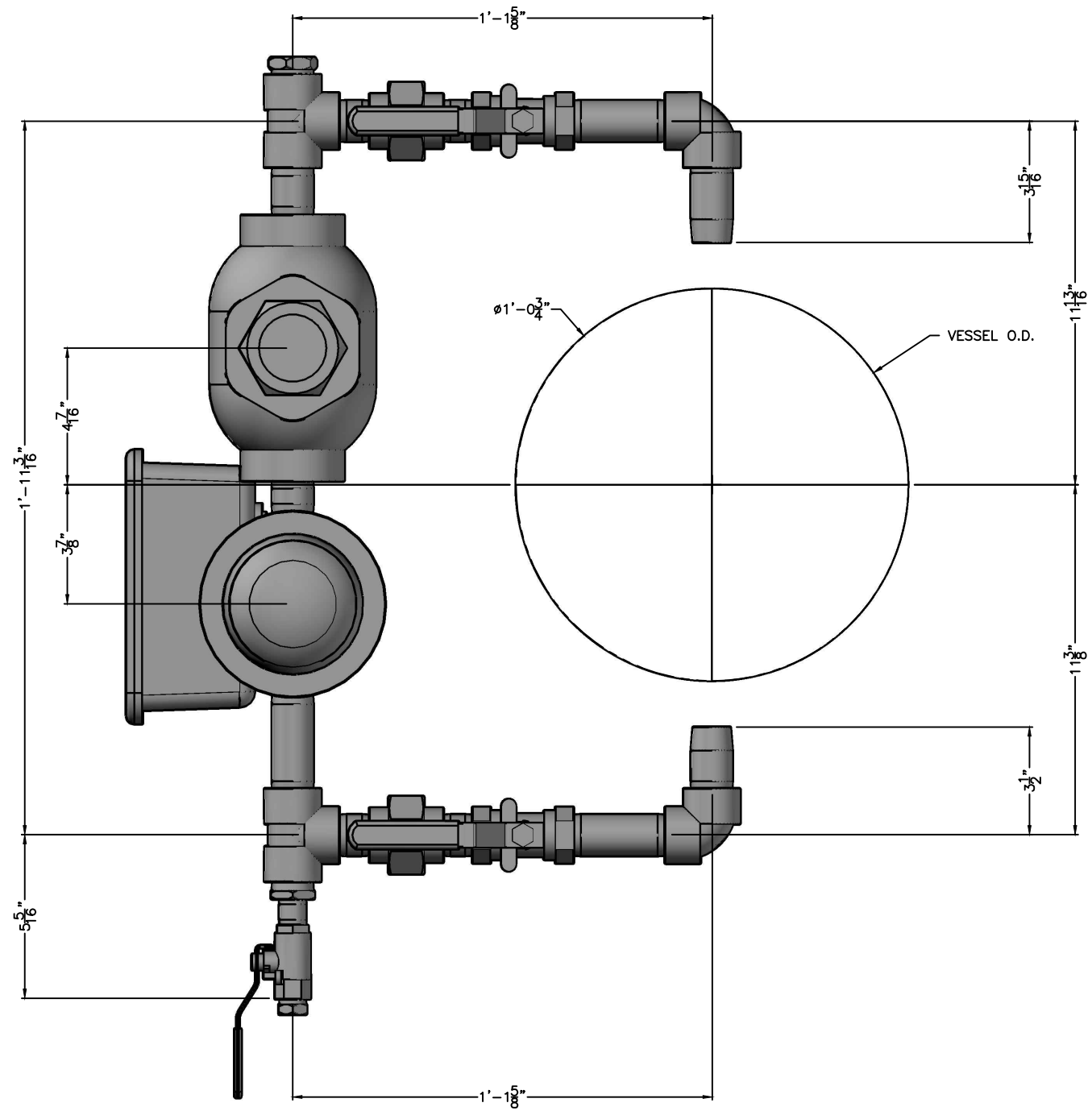
WEDGE ENERGY SERVICES, L.L.C.
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 JOSHUA, TX. 76058 Fax: 817.426.9777

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	LEVEL CONTROL BRIDAL DETAIL (LOW)

DRAWING NO.	REV.
1-RG-C-517-1	0

SHELL DESIGN INFORMATION

DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 300° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS:	
MATERIAL TEST LIMITS:	



PROPRIETARY NOTES:
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0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

QUANTITY
1

WEDGE RECORD		
DESIGN	JT	10/08/12
DESIGN ENG.	MWM	10/08/12
SCALE: NONE		

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DRAWING NO. 1-RG-C-517-2

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	LEVEL CONTROL BRIDAL DETAIL (LOW)

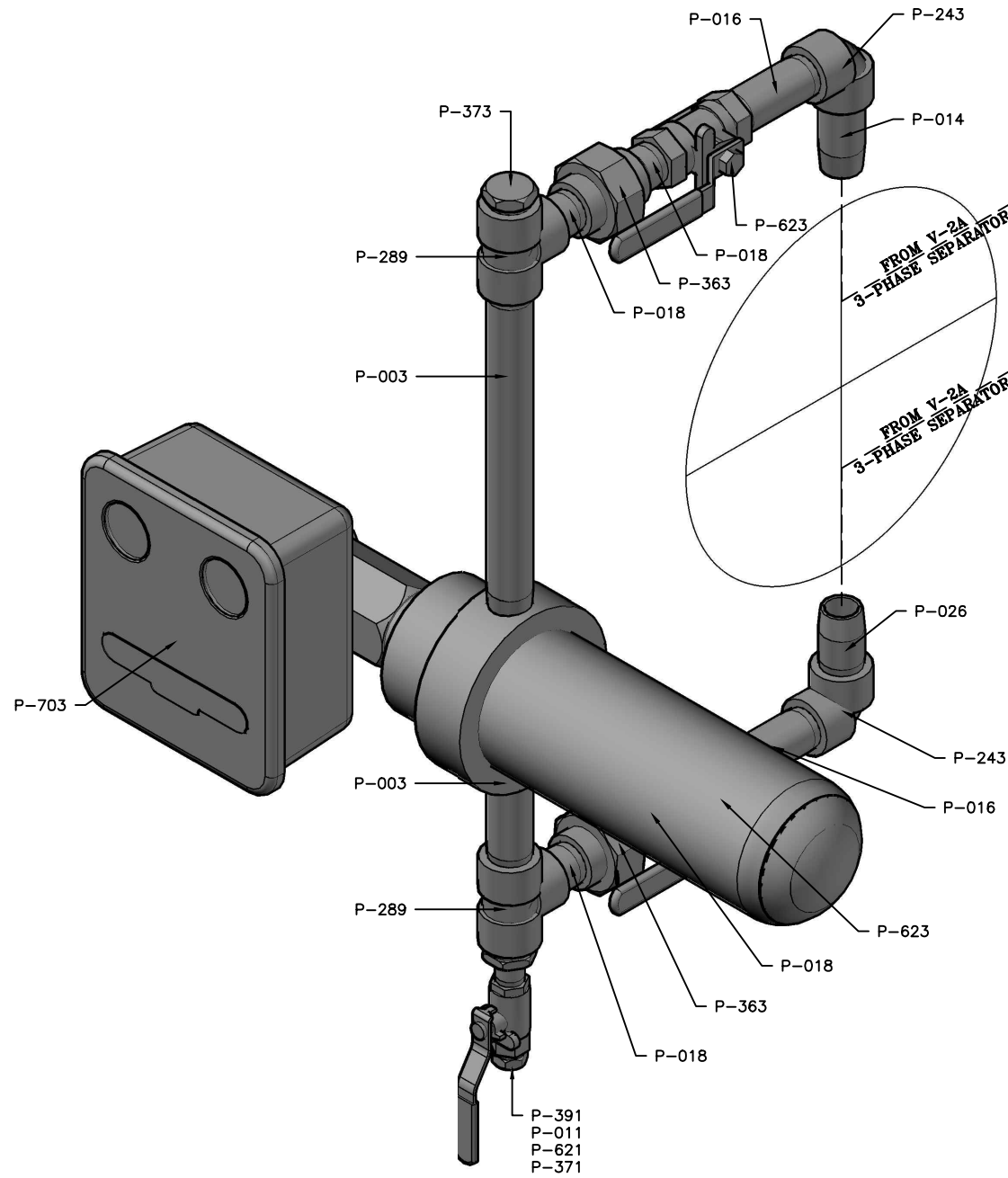
REV. 0

SHELL DESIGN INFORMATION

DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 300° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS:	
MATERIAL TEST LIMITS:	

PRE-TEST SECTION No. 1

TEST MEDIUM: WATER
STABILIZATION: AS REQUIRED
HOLD PERIOD: 4 HRS. MIN.
TEST PRESSURE: MIN: 982 PSIG. MAX: 1012 PSIG



MATERIAL LIST

MARK NUMBER	QTY.	UNIT	DESCRIPTION	LENGTH
P-003	1	EACH	PIPE 1" XS (0.179" WT) SMLS A333 (FOR CUSTOM NIPPLE LENGTHS)	2 FEET
P-011	1	EACH	NIPPLE 1/2" x 3" XS (0.147" WT) SMLS A333 TBE	3"
P-014	1	EACH	NIPPLE 1" x 3" XS (0.179" WT) SMLS A333 TBE	3"
P-016	2	EACH	NIPPLE 1" x 4" XS (0.179" WT) SMLS A333 TBE	4"
P-018	4	EACH	NIPPLE 1" X 2" XS (0.179" WT) SMLS A333 TBE	2"
P-026	1	EACH	NIPPLE 1" x 2-1/2" XS (0.179" WT) SMLS A333 TBE	2-1/2"
P-243	2	EACH	ELL THD 1", 90 DEG, 3000# A420	*
P-289	2	EACH	TEE THD 1", 3000#, A420	*
P-363	2	EACH	UNION THD 1", 3000# A420	*
P-371	1	EACH	PLUG HEX, 1/2" NPT, 3000# A420	*
P-373	1	EACH	PLUG HEX, 1" NPT, 3000# A420	*
P-391	1	EACH	BUSHING, 1" X 1/2" NPT, 3000# A420	*
P-621	1	EACH	VALVE BALL 1/2" FNPT, 3000#, FP A420	*
P-623	2	EACH	VALVE BALL 1" FNPT, 3000#, FP A420	*
P-703	1	EACH	CONTROL LIQUID LEVEL 2" PNEUMATIC MALLARD 3200-20MSONSLDV-DS (TAG: LC-521)	*

PROPRIETARY NOTES:
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NO.	ISSUED FOR CONSTRUCTION	BY	DATE	NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

QUANTITY
1

WEDGE RECORD		
DESIGN	JT	10/08/12
DESIGN ENG.	MWM	10/08/12
SCALE: NONE		

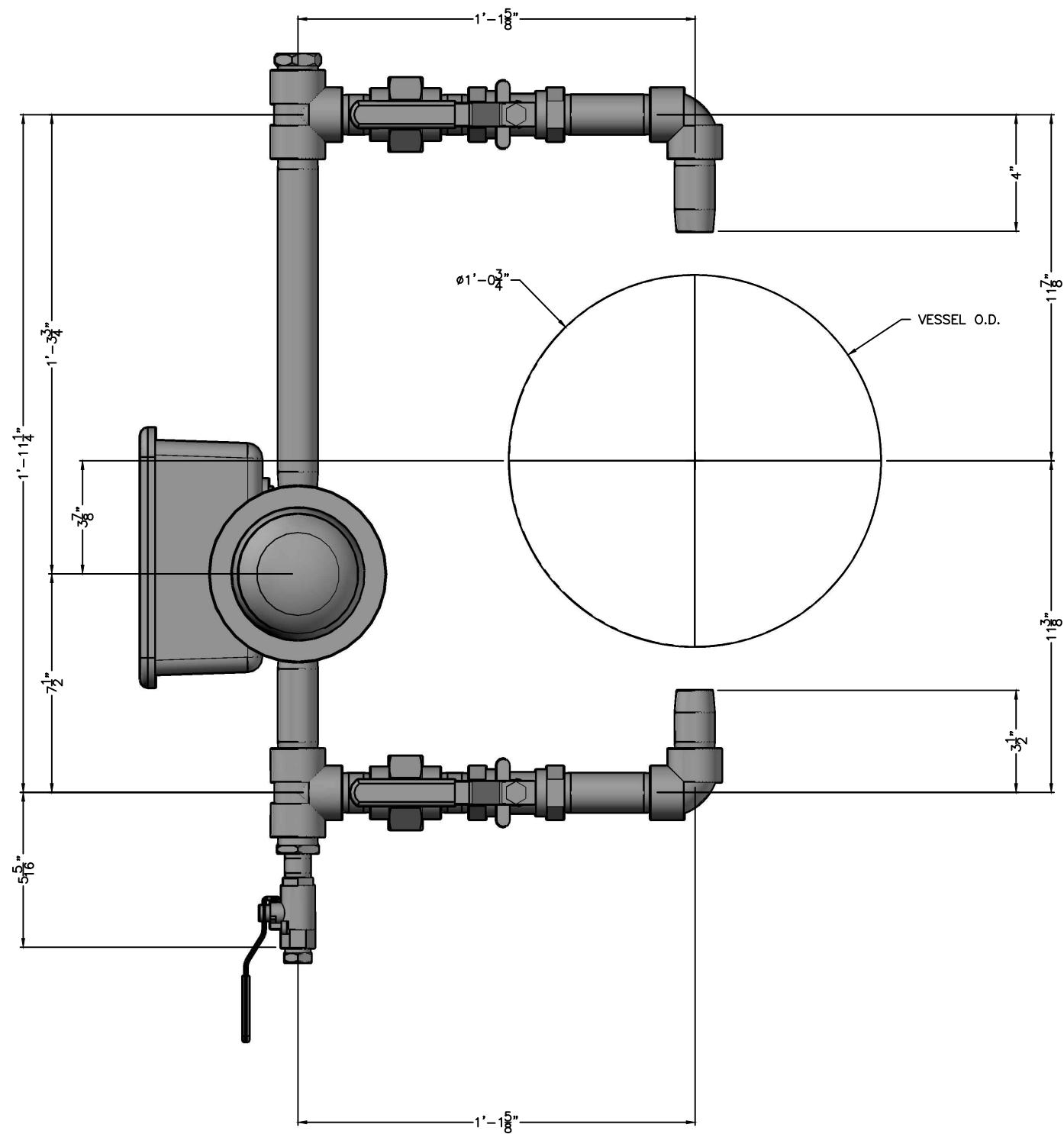
WEDGE ENERGY SERVICES, L.L.C.
 461 N. BROADWAY ST. Phone: 817.426.9810
 JOSHUA, TX. 76058 Fax: 817.426.9777

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	LEVEL CONTROL BRIDAL DETAIL (LOW)

DRAWING NO.	REV.
1-RG-C-521-1	0

SHELL DESIGN INFORMATION

DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 300° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS:	
MATERIAL TEST LIMITS:	



CSU-500B

PROPRIETARY NOTES:
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NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE	NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

QUANTITY
1

WEDGE RECORD		
DESIGN	JT	10/08/12
DESIGN ENG.	MWM	10/08/12
SCALE: NONE		

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 JOSHUA, TX. 76058 Fax: 817.426.9777
 DRAWING NO. 1-RG-C-521-2

P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	LEVEL CONTROL BRIDAL DETAIL (LOW)

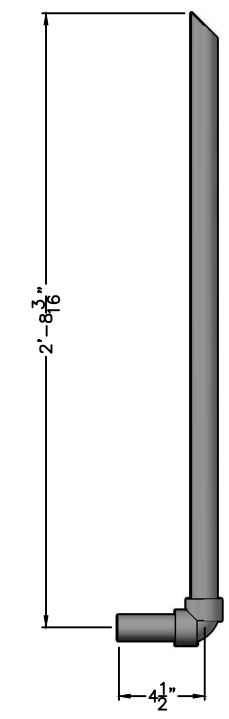
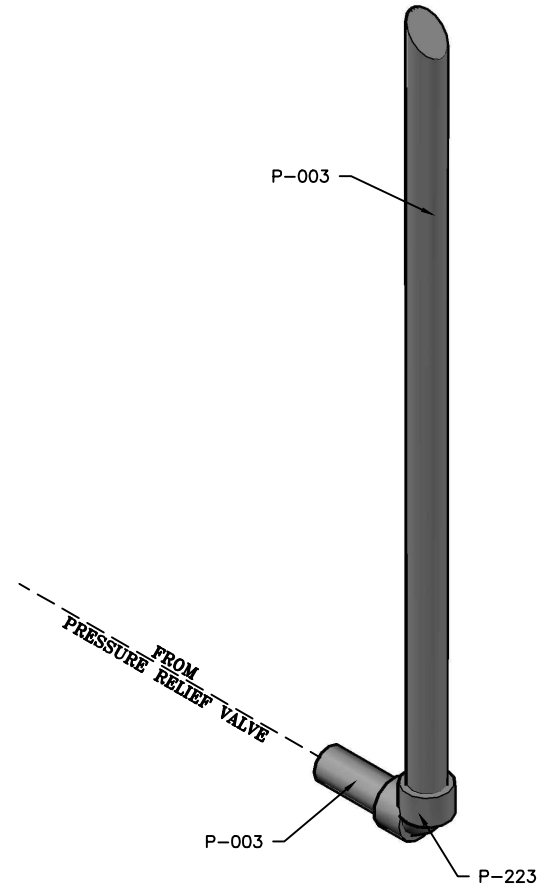
REV. 0

DESIGN INFORMATION

DESIGN PRESSURE: <u>655 PSIG</u>	CLASS LOCATION: <u>3</u>
DESIGN TEMPERATURE: <u>-50° F TO 300° F</u>	DESIGN FACTOR: <u>0.5</u>
FLANGE RATING CLASS: <u>ANSI 300</u>	
MATERIAL TEST LIMITS: <u>ANSI 300 FLANGES</u>	

MATERIAL LIST

ITEMS	MARK NUMBER	QTY.	UNIT	DESCRIPTION	LENGTH
	P-003	1	EACH	PIPE 1" XS (0.179" WT) SMLS A333	4 FEET
P-223	1	EACH	ELL SOCKET WELD 1", 90 DEG, 3000#, A420	*	



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NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE	NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

QUANTITY
2

WEDGE RECORD		
DESIGN	JT	01/02/13
DESIGN ENG.	MWM	01/02/13

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CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	FROM PRESSURE RELIEF VALVE TO ATMOSPHERE

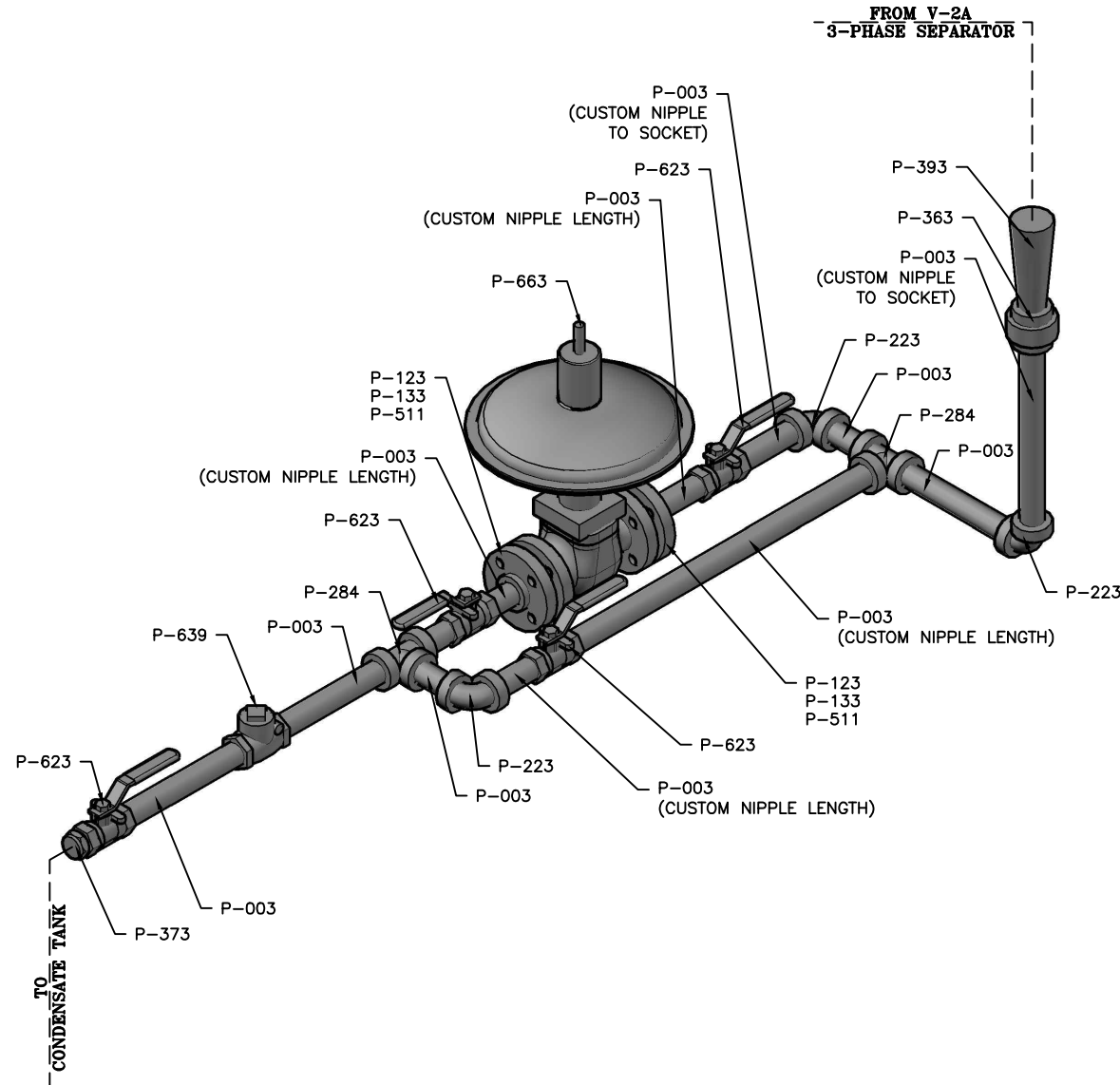
DRAWING NO. 1-RG-C-523-1
 REV. 0

DESIGN INFORMATION

DESIGN PRESSURE: <u>655 PSIG</u>	CLASS LOCATION: <u>3</u>
DESIGN TEMPERATURE: <u>-50° F TO 300° F</u>	DESIGN FACTOR: <u>0.5</u>
FLANGE RATING CLASS: <u>ANSI 300</u>	
MATERIAL TEST LIMITS: <u>ANSI 300 FLANGES</u>	

PRE-TEST SECTION No. 1

TEST MEDIUM: <u>WATER</u>
STABILIZATION: <u>AS REQUIRED</u>
HOLD PERIOD: <u>4 HRS. MIN.</u>
TEST PRESSURE: <u>MIN: 982 PSIG. MAX: 1012 PSIG</u>



MATERIAL LIST

MARK NUMBER	QTY.	UNIT	DESCRIPTION	LENGTH
P-003	1	EACH	PIPE 1" XS (0.179" WT) SMLS A333	3 FEET
P-123	2	EACH	FLANGE SLIP ON 1" 300# XS (0.179" WT) A420	*
P-133	2	EACH	GASKET 1" 300#, 1/8" TK, RIR SPIRALWOUND	*
P-223	3	EACH	ELL SOCKET WELD 1", 90 DEG, 3000#, A420	*
P-284	2	EACH	TEE SOCKET WELD 1", 3000#, A420	*
P-363	1	EACH	UNION THD 1", 3000# A420	*
P-373	1	EACH	PLUG HEX, 1" NPT, 3000# A420	*
P-393	1	EACH	SWAGE CONC 2" X 1" XS SMLS A333 PLE-TSE	*
P-511	8	EACH	STUD 5/8" X 3-1/4", A193 B7, W/ 2 HH NUTS A194 2H, CADMIUM PLATED	3-1/4"
P-623	4	EACH	VALVE BALL 1" FNPT, 3000#, FP A420	*
P-639	1	EACH	VALVE, CHECK 1" NPT WHEATLEY 2000#, CS - MODEL # 9D-822-13200-131	*
P-663	1	EACH	VALVE GLOBE 1" RF 300#, CLOSED YOKE, DIRECT ACTING, 5450-1F3NG73DV-12Q (TAG: LCV-517)	*

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NO.	ISSUED FOR CONSTRUCTION	BY	DATE	NO.	DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

WEDGE RECORD		
DESIGN	JT	10/08/12
DESIGN ENG.	MWM	10/08/12

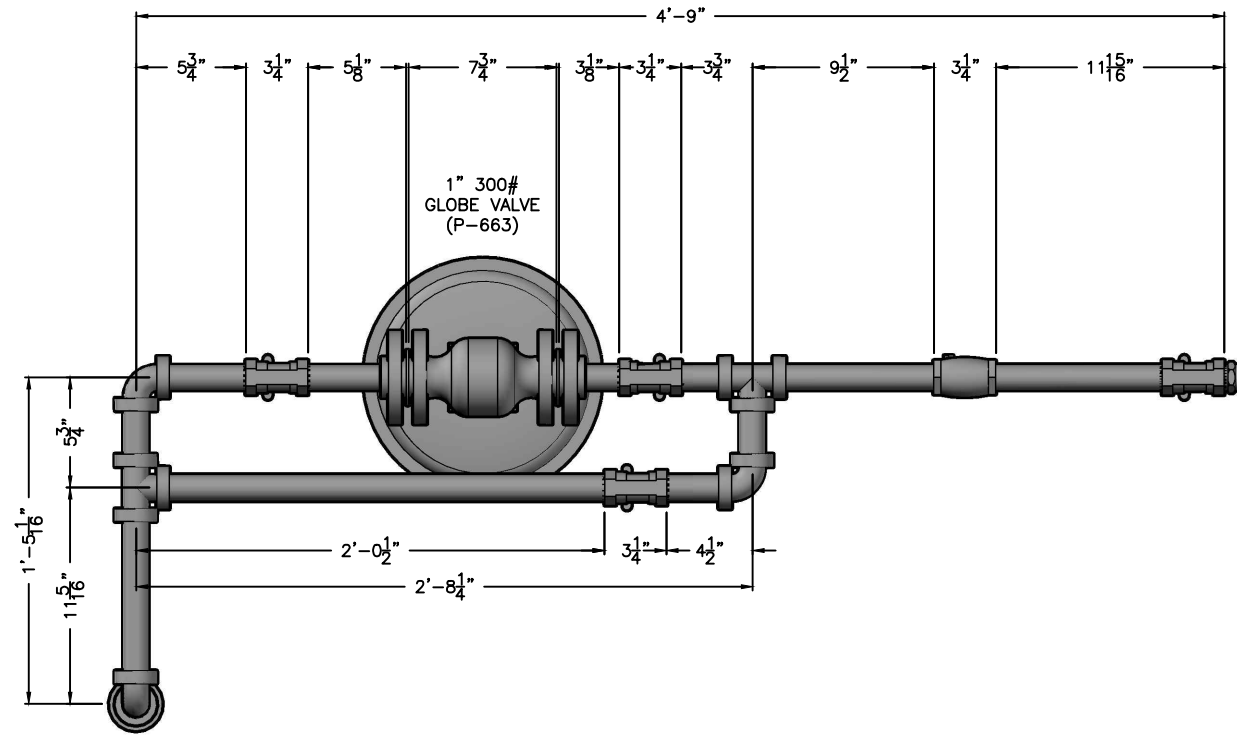
WEDGE ENERGY SERVICES, L.L.C.
 461 N. BROADWAY ST. JOSHUA, TX. 76058
 Phone: 817.426.9810 Fax: 817.426.9777

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	FROM V-2A (3-PHASE SEPARATOR) TO H2O TANK (EXIT)

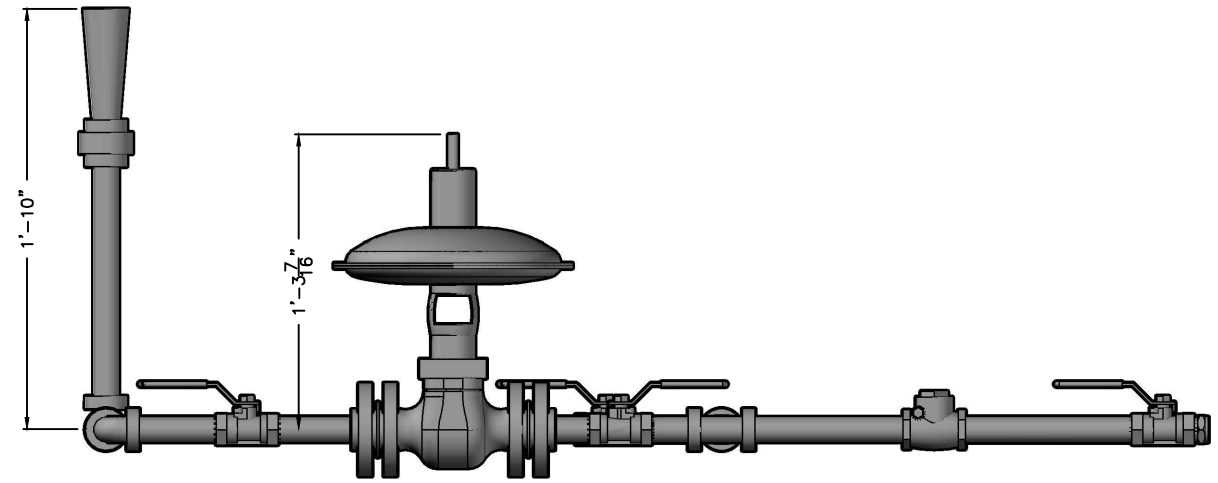
DRAWING NO.	1-WT-B-512-1
REV.	0

DESIGN INFORMATION

DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 300° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS: ANSI 300	
MATERIAL TEST LIMITS: ANSI 300 FLANGES	



PLAN VIEW
(SCALE: NONE)



PROFILE VIEW
(SCALE: NONE)

PROPRIETARY NOTES:
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NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE	NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

WEDGE RECORD		
DESIGN	JT	10/08/12
DESIGN ENG.	MWM	10/08/12
SCALE: NONE		

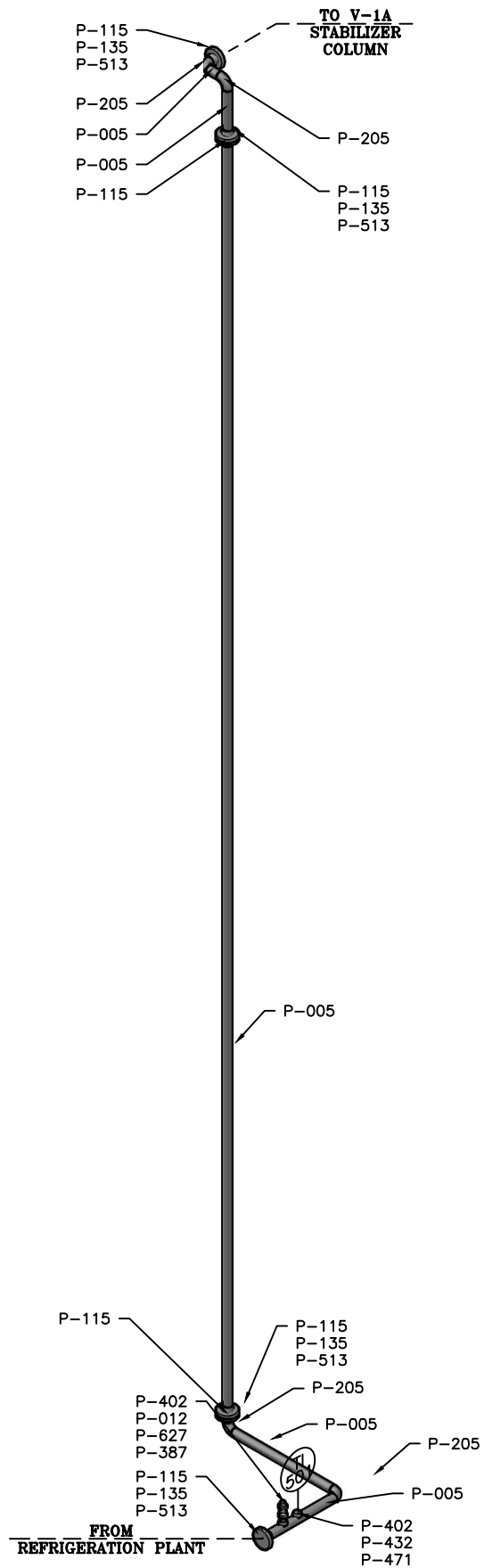
WEDGE ENERGY SERVICES, L.L.C.
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Phone: 817.426.9810 Fax: 817.426.9777

DRAWING NO. 1-WT-B-512-2

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	FROM V-2A (3-PHASE SEPARATOR) TO H2O TANK (EXIT)

DESIGN INFORMATION	
DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 300° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS: ANSI 300	
MATERIAL TEST LIMITS: ANSI 300 FLANGES	

PRE-TEST SECTION No. 1	
TEST MEDIUM: WATER	
STABILIZATION: AS REQUIRED	
HOLD PERIOD: 4 HRS. MIN.	
TEST PRESSURE: MIN: 982 PSIG. MAX: 1012 PSIG	



MATERIAL LIST				
MARK NUMBER	QTY.	UNIT	DESCRIPTION	MATERIAL
P-005	1	EACH	PIPE 2" XS (0.218" WT) SMLS A333	44 FEET
P-012	1	EACH	NIPPLE 3/4" X 3" XS (0.154" WT) SMLS A333 TBE	*
P-115	6	EACH	FLANGE WELD 2" 300# XS (0.218" WT) RFWN A420	*
P-135	4	EACH	GASKET 2" 300#, 1/8" TK, RIR SPIRALWOUND	*
P-205	4	EACH	ELL WELD 2", 90 DEG, XS (0.218"), L.R., A420	*
P-387	1	EACH	PLUG HEX, 3/4" NPT, 6000# SS	*
P-402	2	EACH	THREAOLET 3/4", 3000#, A420	*
P-432	1	EACH	THERMOWELL 3/4" X 1/2" X 2U 0.385" BORE 304SS	*
P-471	1	EACH	NOSHOK TEMP. INDICATOR, 30-300-040-0/200-F/C-1/2-SG-316-AU, 3" DIAL, BTM CON. 4" STEM, 0-200 F, 1/2" NPT	*
P-513	32	EACH	STUD 5/8" X 3-3/4", A193 B7, W/ 2 HH NUTS A194 2H, CADMIUM PLATED	3-3/4"
P-627	1	EACH	VALVE BALL 3/4" FNPT, 6000#, FP A420	*

SHEET 1 OF 2

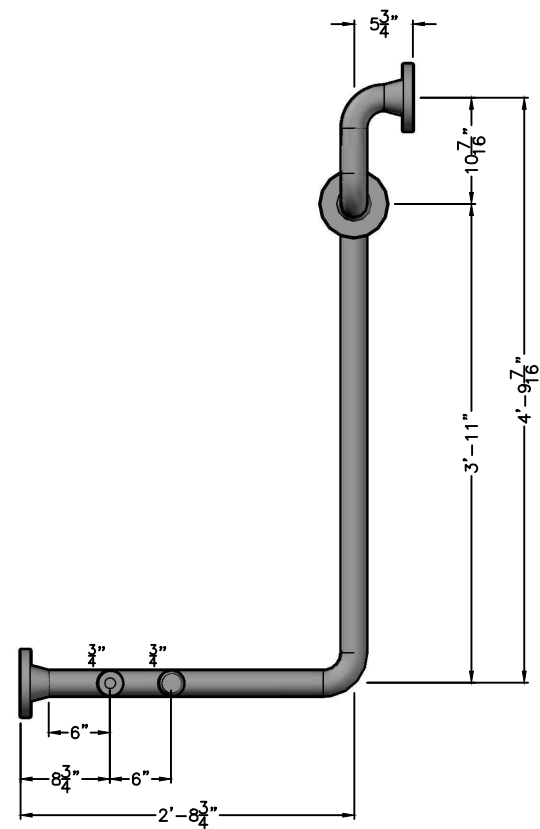
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NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE	NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

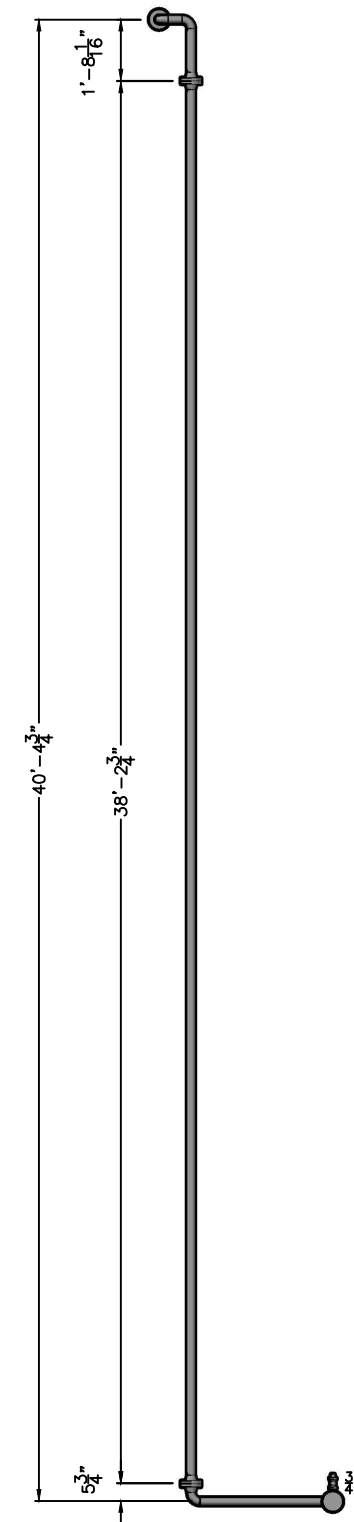
WEDGE RECORD		
DESIGN	JT	10/08/12
DESIGN ENG.	MWM	10/08/12
SCALE: NONE		

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 JOSHUA, TX. 76058 Fax: 817.426.9777

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	FROM REFRIGERATION PLANT FEED TO V-1A (STABILIZER COLUMN)
DRAWING NO.	REV.
2-CN-B-1C-501-1	0



PLAN VIEW
(SCALE: NONE)



PROFILE VIEW
(SCALE: NONE)

CSU-500B

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NO.	ISSUED FOR CONSTRUCTION	BY	DATE	NO.	DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				
NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE	NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE

WEDGE RECORD		
DESIGN	JT	10/08/12
DESIGN ENG.	MWM	10/08/12
SCALE: NONE		

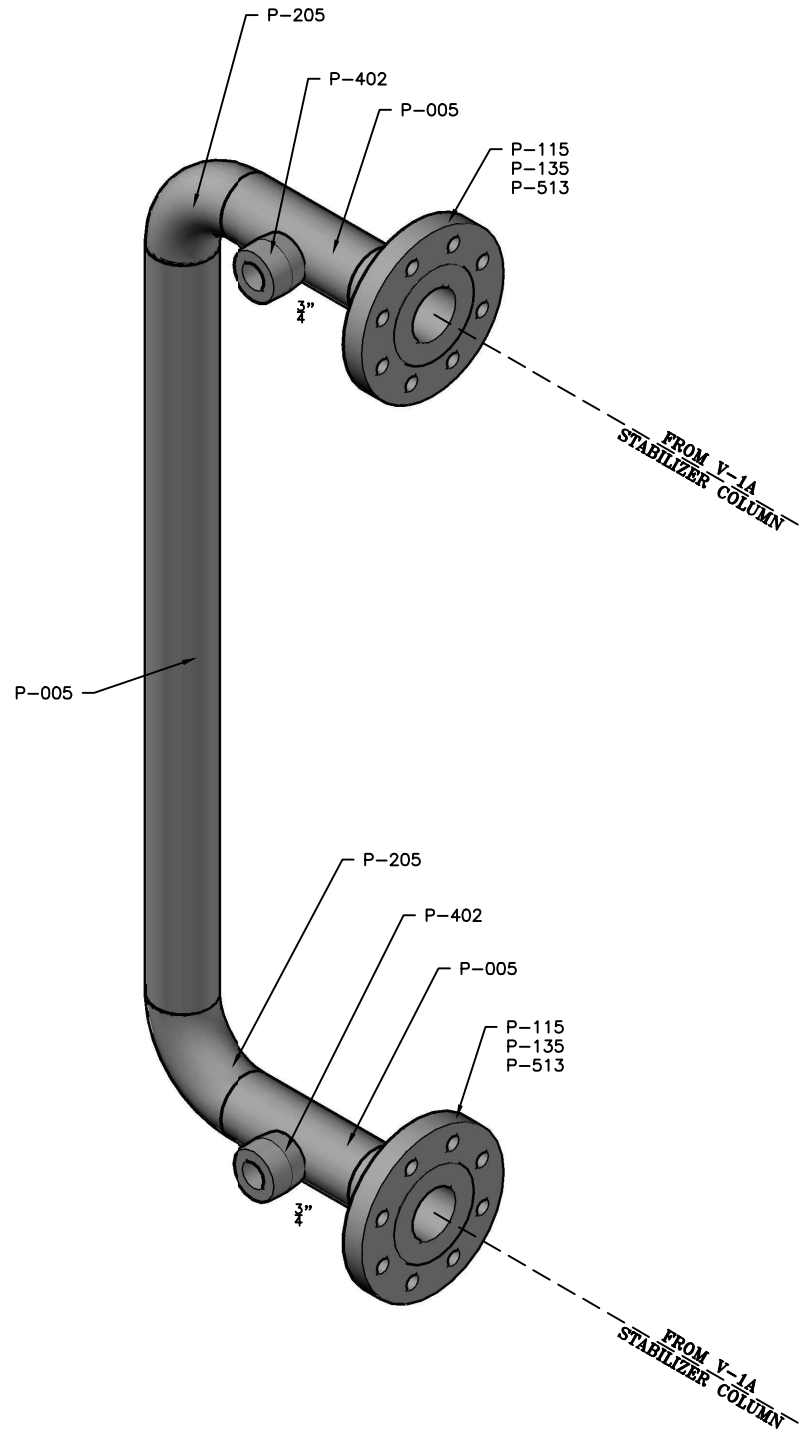
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DRAWING NO. 2-CN-B-1C-501-2 REV. 0

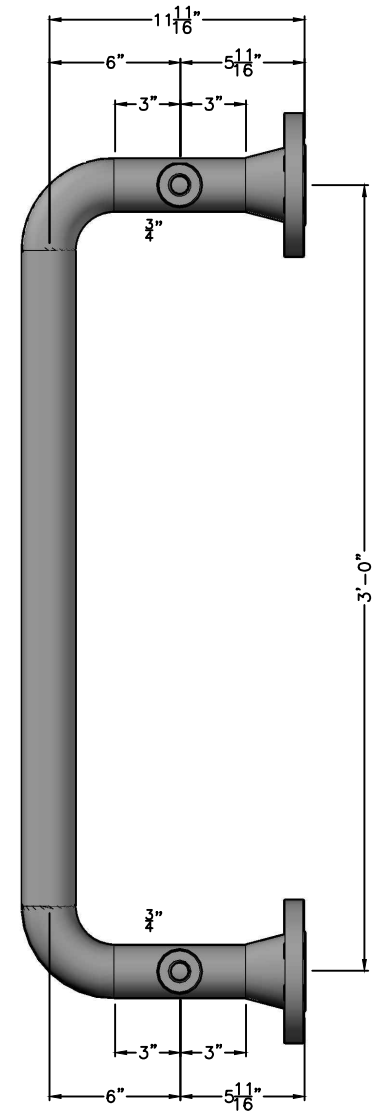
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	FROM REFRIGERATION PLANT FEED TO V-1A (STABILIZER COLUMN)

DESIGN INFORMATION	
DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 300° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS: ANSI 300	
MATERIAL TEST LIMITS: ANSI 300 FLANGES	

PRE-TEST SECTION No. 1	
TEST MEDIUM: WATER	
STABILIZATION: AS REQUIRED	
HOLD PERIOD: 4 HRS. MIN.	
TEST PRESSURE: MIN: 982 PSIG. MAX: 1012 PSIG	



MATERIAL LIST				
MARK NUMBER	QTY.	UNIT	DESCRIPTION	MATERIAL
P-005	1	EACH	PIPE 2" XS (0.218" WT) SMLS A333	4 FEET
P-115	2	EACH	FLANGE WELD 2" 300# XS (0.218" WT) RFWN A420	*
P-135	2	EACH	GASKET 2" 300#, 1/8" TK, RIR SPIRALWOUND	*
P-205	2	EACH	ELL WELD 2", 90 DEG, XS (0.218"), L.R., A420	*
P-402	2	EACH	THREDOLET 3/4", 3000#, A420	*
P-513	16	EACH	STUD 5/8" X 3-3/4", A193 B7, W/ 2 HH NUTS A194 2H, CADMIUM PLATED	3-3/4"



PROFILE VIEW
(SCALE: NONE)

PROPRIETARY NOTES:
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NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE	NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

WEDGE RECORD		
DESIGN	JT	10/09/12
DESIGN ENG.	MWM	10/09/12

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DRAWING NO. 2-CN-B-516-1

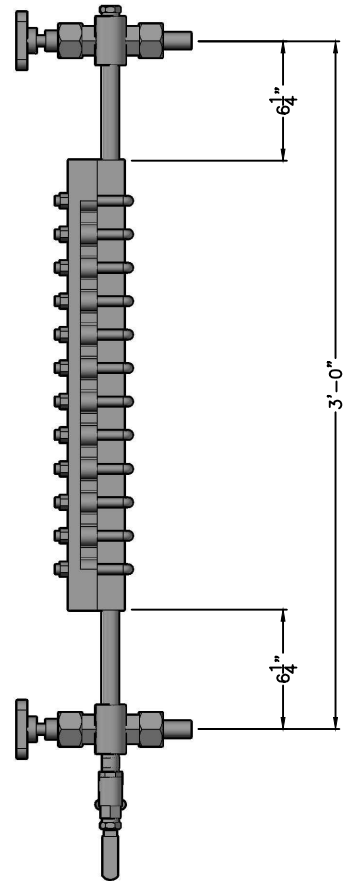
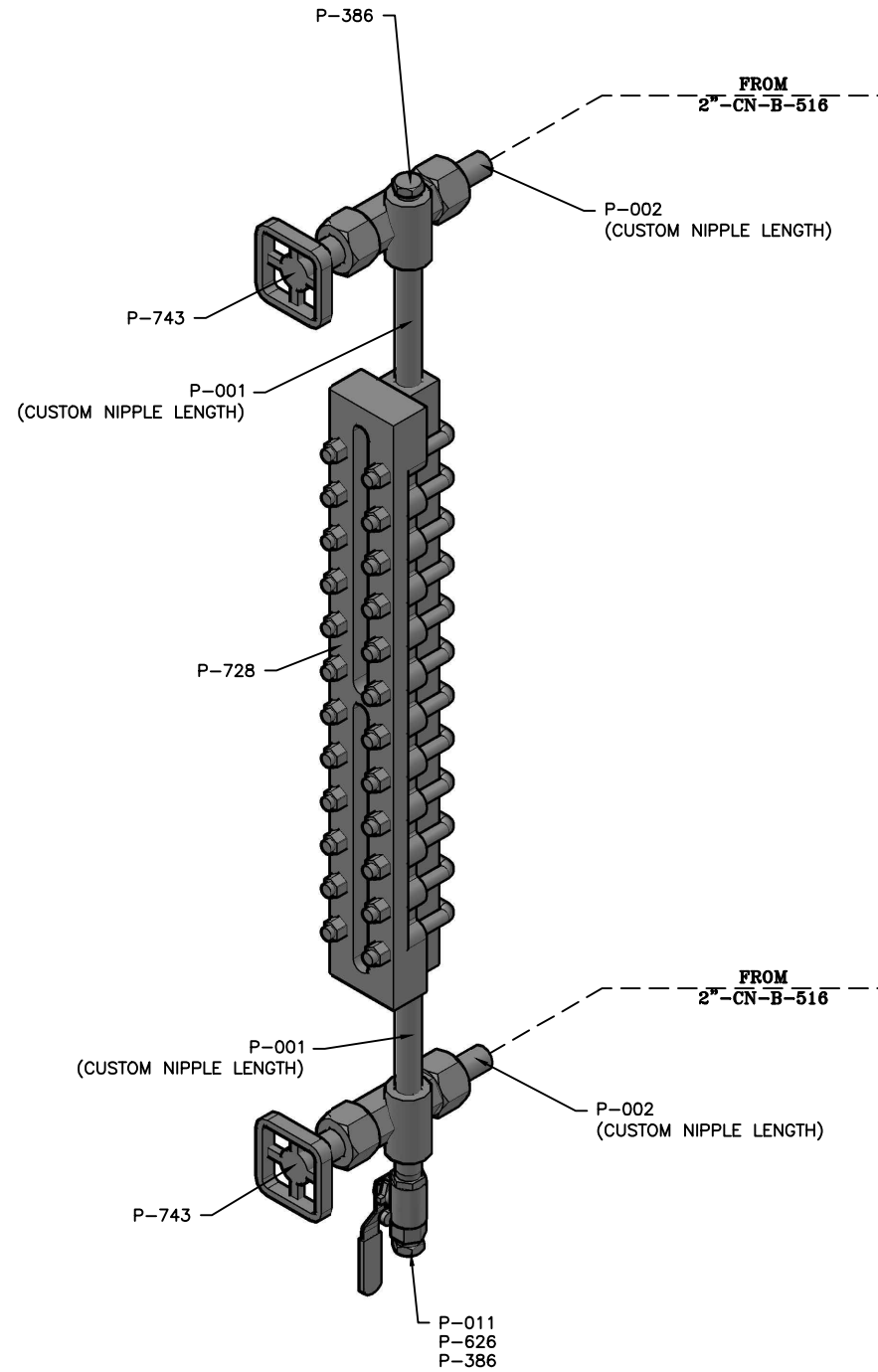
CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	FROM V-1A (STABILIZER COLUMN) BRIDAL DETAIL

DESIGN INFORMATION

DESIGN PRESSURE: <u>655 PSIG</u>	CLASS LOCATION: <u>3</u>
DESIGN TEMPERATURE: <u>-50° F TO 300° F</u>	DESIGN FACTOR: <u>0.5</u>
FLANGE RATING CLASS: <u>ANSI 300</u>	
MATERIAL TEST LIMITS: <u>ANSI 300 FLANGES</u>	

PRE-TEST SECTION No. 1

TEST MEDIUM: <u>WATER</u>
STABILIZATION: <u>AS REQUIRED</u>
HOLD PERIOD: <u>4 HRS. MIN.</u>
TEST PRESSURE: <u>MIN: 982 PSIG. MAX: 1012 PSIG</u>



PROFILE VIEW
(SCALE: NONE)

MATERIAL LIST				
MARK NUMBER	QTY.	UNIT	DESCRIPTION	MATERIAL
P-001	1	EACH	PIPE 1/2" XS (0.147" WT) SMLS A333	2 FEET
P-002	1	EACH	PIPE 3/4" XS (0.154" WT) SMLS A333	1 FEET
P-011	1	EACH	NIPPLE 1/2" x 3" XS (0.147" WT) SMLS A333 TBE	3"
P-386	2	EACH	PLUG HEX, 1/2" NPT, 6000# SS	*
P-626	1	EACH	VALVE BALL 1/2" FNPT, 6000#, FP A420	*
P-728	1	EACH	SIGHT GLASS REFLUX STYLE - MALLARD 3520-27RB1-3S; 23 1/2" LG X 1/2" NPT	*
P-743	2	EACH	VALVE SIGHT GLASS MALLARD 3500-3N POSITION 2, 3/4" X 1/2" NPT	*

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NO.	ISSUED FOR APPROVAL	BY	DATE	NO.	DESCRIPTION	BY	DATE
0	ISSUED FOR APPROVAL	JM	05/28/14				

WEDGE RECORD		
DESIGN	JT	10/09/12
DESIGN ENG.	MWM	10/09/12

WEDGE ENERGY SERVICES, L.L.C.
461 N. BROADWAY ST. JOSHUA, TX. 76058
Phone: 817.426.9810 Fax: 817.426.9777

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	FROM V-1A (STABILIZER COLUMN) BRIDAL DETAIL

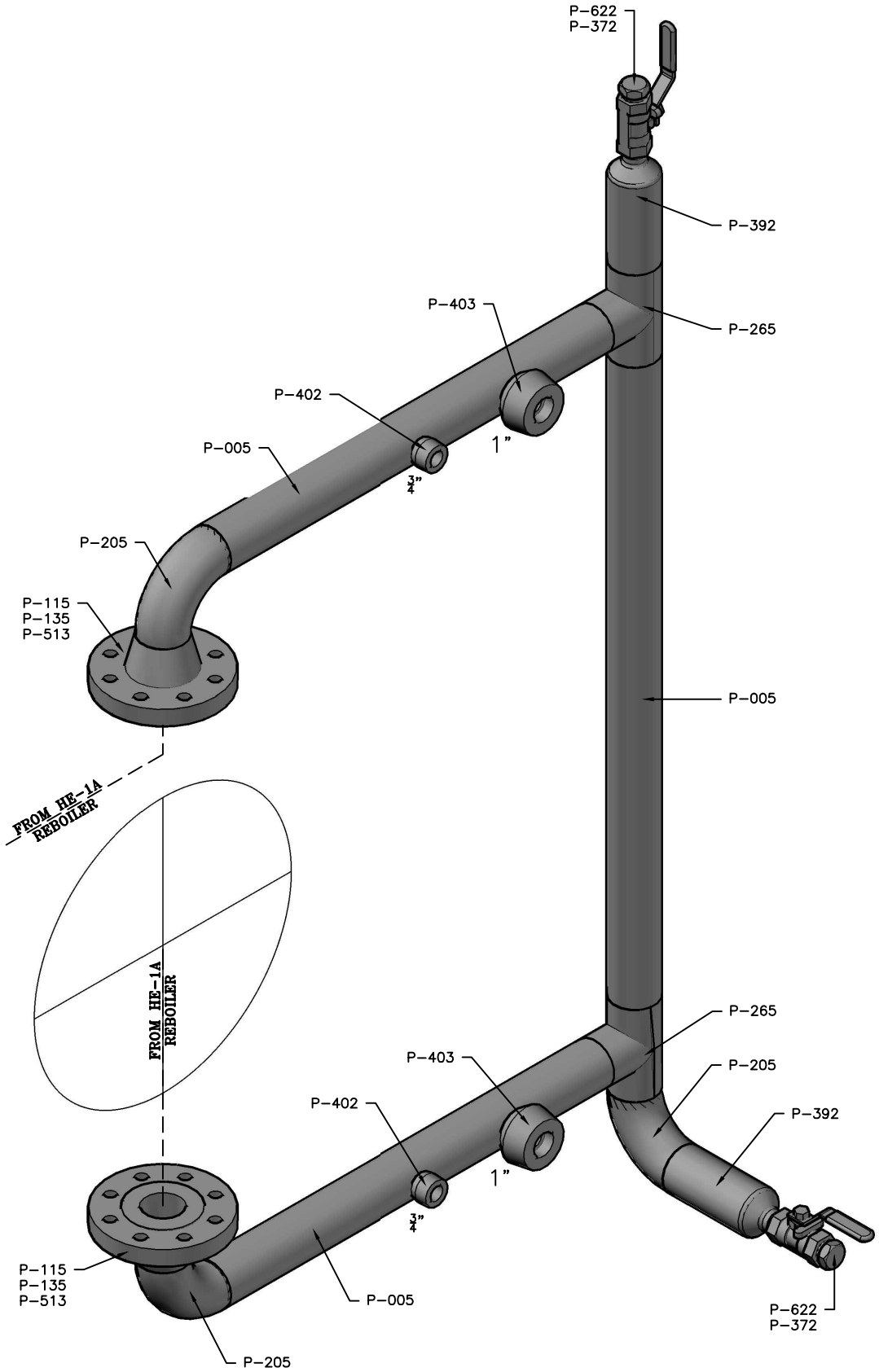
DRAWING NO.	REV.
2-CN-B-516-A-1	0

DESIGN INFORMATION	
DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 300° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS: ANSI 300	
MATERIAL TEST LIMITS: ANSI 300 FLANGES	

PRE-TEST SECTION No. 1	
TEST MEDIUM: WATER	
STABILIZATION: AS REQUIRED	
HOLD PERIOD: 4 HRS. MIN.	
TEST PRESSURE: MIN: 982 PSIG. MAX: 1012 PSIG	

WEDGE GENERAL NOTES:	
1.) ALL PIPING TO BE DESIGNED IN ACCORDANCE WITH ASME B31.3 ANSI.	
2.) ALL PIPING TO BE CERTIFIED TO BE FREE OF HAZARDOUS LEAKS.	
3.) ALL GIRTH (BUTT) WELDS TO BE 100% RADIOGRAPHICALLY INSPECTED.	
4.) ALL TOL'S WILL BE MAGNETIC PARTICLE TESTED.	
5.) HYDROSTATIC TEST - 4HRS. MIN. @ 1.5x M.A.O.P.	
6.) CAP OUTER ENDS AND PLUG ALL TOL'S w/ CS PLUGS PRIOR TO SHIPPING.	
7.) FURNISH INSPECTION REPORTS, CALIBRATION SHEETS, X-RAY REPORTS, MTRs.	

PAINT SPEC.	
SANDBLAST TO NEAR WHITE METAL.	
PRIME: CARBOLINE, PHENOLINE 187 PRIMER, 4-6 MILS DFT, (COLOR: RED OR WHITE).	
TOP COAT: CARBOLINE, PHENOLINE 187 FINISH, 4-6 MILS DFT, (COLOR: GREY OR WHITE).	



MATERIAL LIST				
MARK No.	QTY.	UNIT	DESCRIPTION	LENGTH
P-005	1	EACH	PIPE 2" XS (0.218" WT) SMLS A333	10 FEET
P-115	2	EACH	FLANGE WELD 2" 300# XS (0.218" WT) RFWN A420	*
P-135	2	EACH	GASKET 2" 300#, 1/8" TK, RIR SPIRALWOUND	*
P-205	3	EACH	ELL WELD 2", 90 DEG, XS (0.218"), L.R., A420	*
P-265	2	EACH	TEE WELD 2", XS (0.218" WT), A420	*
P-372	2	EACH	PLUG HEX, 3/4" NPT, 3000# A420	*
P-392	2	EACH	BELL REDUCER 2" x 3/4" XS (0.218" WT) A420	*
P-402	2	EACH	THREDOLET 3/4", 3000#, A420	*
P-403	2	EACH	THREDOLET 1", 3000#, A420	*
P-513	16	EACH	STUD 5/8" X 3-3/4", A193 B7, W/ 2 HH NUTS A194 2H, CADMIUM PLATED	3-3/4"
P-622	2	EACH	VALVE BALL 3/4" FNPT, 3000#, FP A420	*

PROPRIETARY NOTES:
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NO.	ISSUED FOR CONSTRUCTION	BY	DATE	NO.	DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

WEDGE RECORD		
DESIGN	JT	10/09/12
DESIGN ENG.	MWM	10/09/12

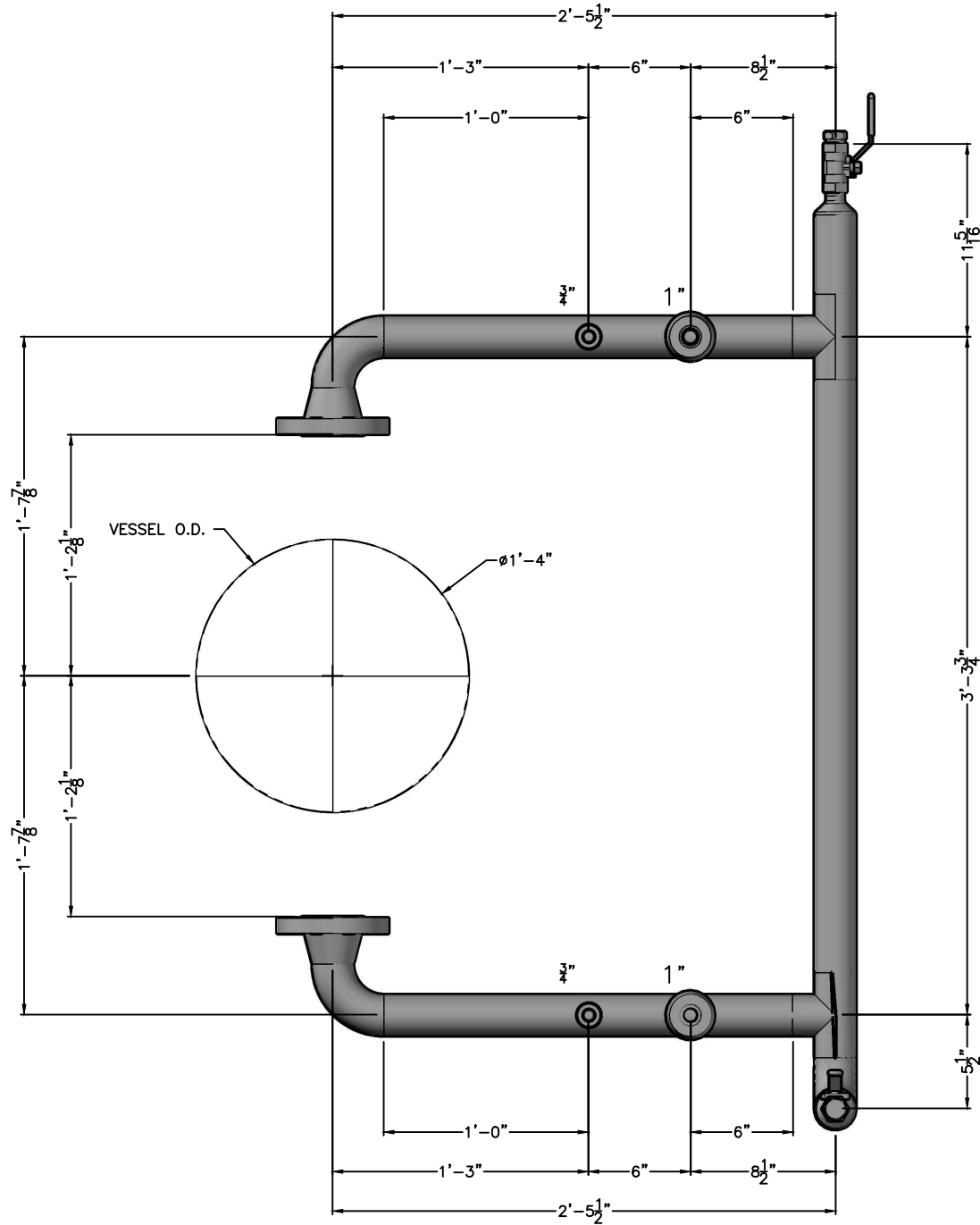
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 JOSHUA, TX. 76058 Fax: 817.426.9777

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	BEBOLER (HE-1A) BRIDLE

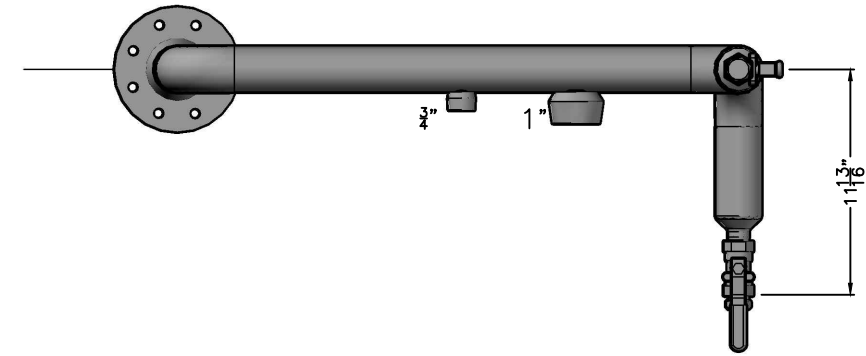
SCALE: NONE
 DRAWING NO. 2-CN-B-519-1
 REV. 0

DESIGN INFORMATION

DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 300° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS: ANSI 300	
MATERIAL TEST LIMITS: ANSI 300 FLANGES	



PROFILE VIEW
(SCALE: NONE)



PLAN VIEW
(SCALE: NONE)

PROPRIETARY NOTES:
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NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE	NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

QUANTITY
1

WEDGE RECORD		
DESIGN	JT	10/09/12
DESIGN ENG.	MWM	10/09/12
SCALE: NONE		



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DRAWING NO. 2-CN-B-519-2 REV. 0

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION: BEBOILER (HE-1A) BRIDLE	

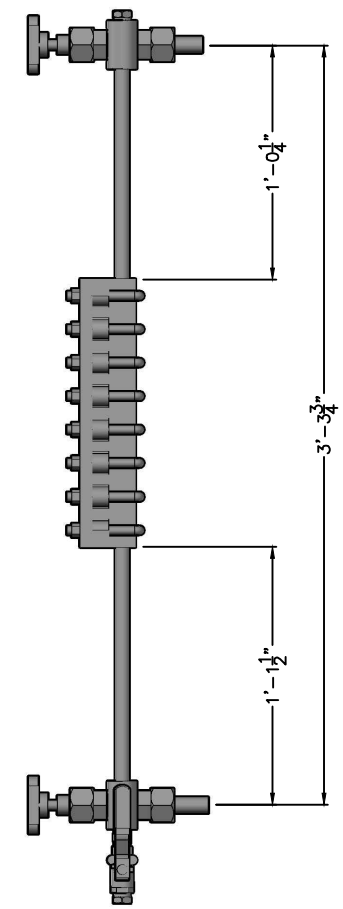
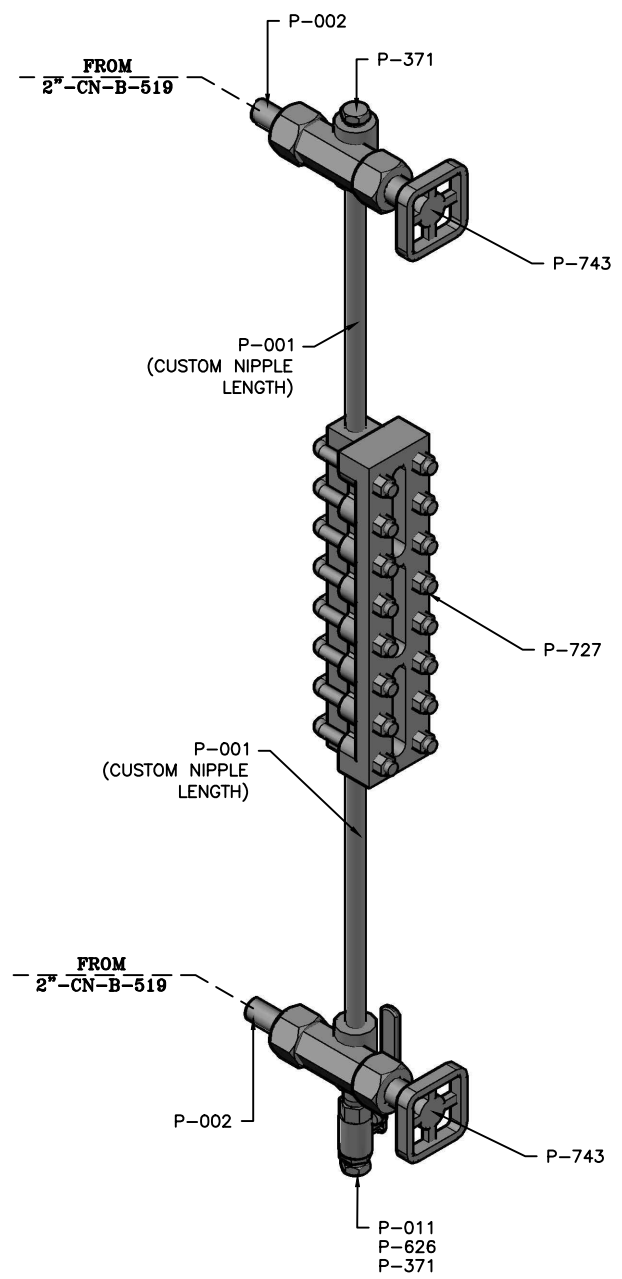
DESIGN INFORMATION	
DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 300° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS: ANSI 300	
MATERIAL TEST LIMITS: ANSI 300 FLANGES	

PRE-TEST SECTION No. 1	
TEST MEDIUM: WATER	
STABILIZATION: AS REQUIRED	
HOLD PERIOD: 4 HRS. MIN.	
TEST PRESSURE: MIN: 982 PSIG. MAX: 1012 PSIG	

WEDGE GENERAL NOTES:	
1.) ALL PIPING TO BE DESIGNED IN ACCORDANCE WITH ASME B31.3 ANSI.	
2.) ALL PIPING TO BE CERTIFIED TO BE FREE OF HAZARDOUS LEAKS.	
3.) ALL GIRTH (BUTT) WELDS TO BE 100% RADIOGRAPHICALLY INSPECTED.	
4.) ALL TOL'S WILL BE MAGNETIC PARTICLE TESTED.	
5.) HYDROSTATIC TEST - 4HRS. MIN. @ 1.5x M.A.O.P.	
6.) CAP OUTER ENDS AND PLUG ALL TOL'S w/ CS PLUGS PRIOR TO SHIPPING.	
7.) FURNISH INSPECTION REPORTS, CALIBRATION SHEETS, X-RAY REPORTS, MTRs.	

PAINT SPEC.	
SANDBLAST TO NEAR WHITE METAL.	
PRIME: CARBOLINE, PHENOLINE 187 PRIMER, 4-6 MILS DFT, (COLOR: RED OR WHITE).	
TOP COAT: CARBOLINE, PHENOLINE 187 FINISH, 4-6 MILS DFT, (COLOR: GREY OR WHITE).	

MATERIAL LIST				
MARK No.	QTY.	UNIT	DESCRIPTION	LENGTH
P-001	1	EACH	PIPE 1/2" XS (0.147" WT) SMLS A333	4 FEET
P-002	2	EACH	PIPE 3/4" XS (0.154" WT) SMLS A333	1 FEET
P-011	1	EACH	NIPPLE 1/2" X 3" XS (0.147" WT) SMLS A333 TBE	*
P-371	2	EACH	PLUG HEX, 1/2" NPT, 3000# A420	*
P-626	1	EACH	VALVE BALL 1/2" FNPT, 6000#, FP A420	*
P-727	1	EACH	SIGHT GLASS REFLUX STYLE - MALLARD 3520-17RB2-3S; 11 3/4" LG X 3/4" NPT W/ 316SST LIQUID CHAMBER	*
P-743	2	EACH	VALVE SIGHT GLASS MALLARD 3500-3N POSTION 2, 3/4" X 1/2" NPT	*



PROFILE VIEW
(SCALE: NONE)

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NO.	ISSUED FOR CONSTRUCTION	BY	DATE	NO.	DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

WEDGE RECORD		
DESIGN	JT	10/09/12
DESIGN ENG.	MWM	10/09/12

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JOSHUA, TX. 76058 Fax: 817.426.9777

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	BEBOILER (HE-1A) BRIDLE

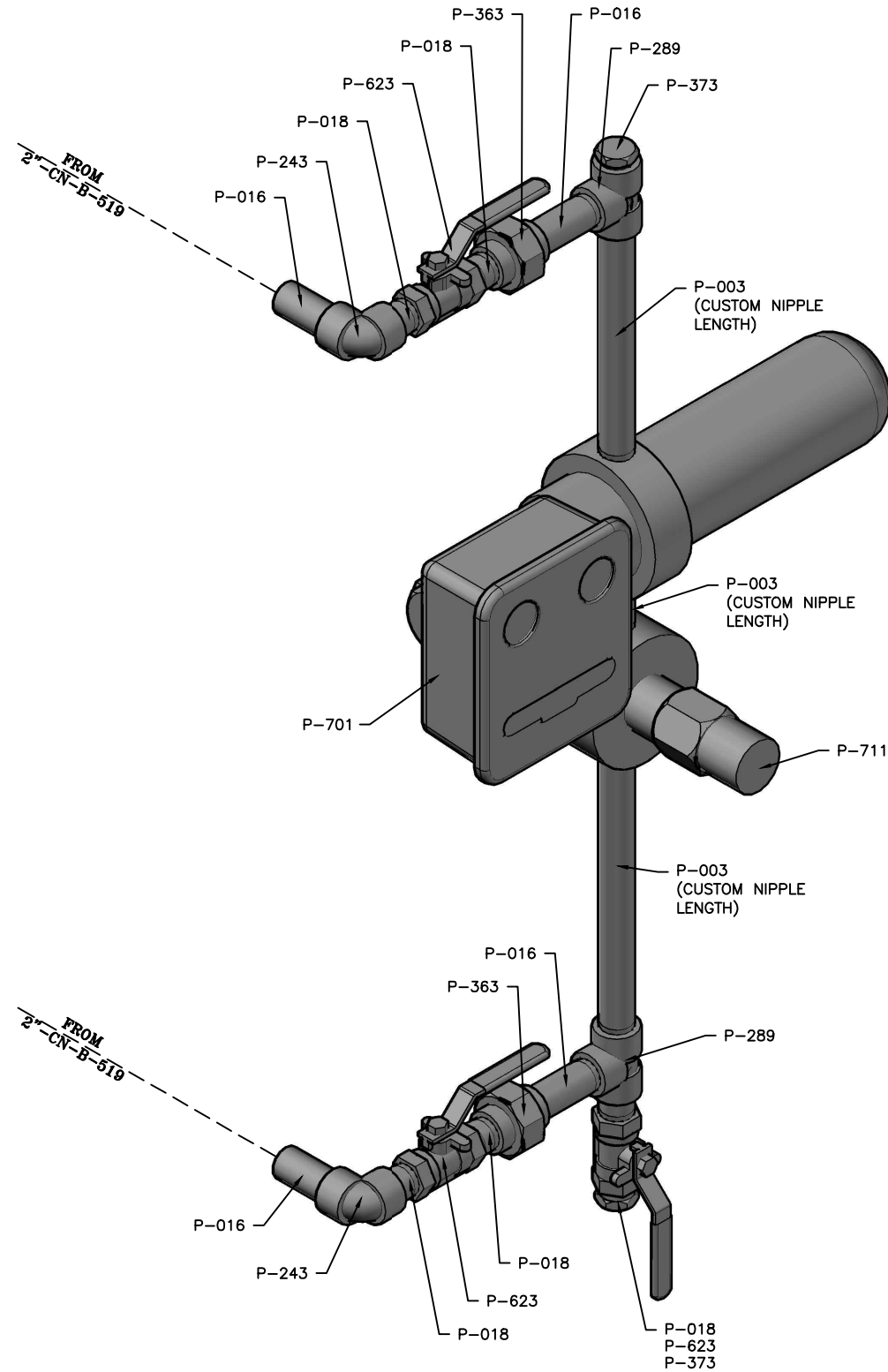
DRAWING NO.	REV.
2-CN-B-519-A-1	0

DESIGN INFORMATION

DESIGN PRESSURE: <u>655 PSIG</u>	CLASS LOCATION: <u>3</u>
DESIGN TEMPERATURE: <u>-50° F TO 300° F</u>	DESIGN FACTOR: <u>0.5</u>
FLANGE RATING CLASS: <u>ANSI 300</u>	
MATERIAL TEST LIMITS: <u>ANSI 300 FLANGES</u>	

PRE-TEST SECTION No. 1

TEST MEDIUM: <u>WATER</u>
STABILIZATION: <u>AS REQUIRED</u>
HOLD PERIOD: <u>4 HRS. MIN.</u>
TEST PRESSURE: <u>MIN: 982 PSIG. MAX: 1012 PSIG</u>



MATERIAL LIST

MARK No.	QTY.	UNIT	DESCRIPTION	LENGTH
P-003	1	EACH	PIPE 1" XS (0.179" WT) SMLS A333	4 FEET
P-016	4	EACH	NIPPLE 1" X 4" XS (0.179" WT) SMLS A333 TBE	4"
P-018	5	EACH	NIPPLE 1" X 2" XS (0.179" WT) SMLS A333 TBE	2"
P-243	2	EACH	ELL THD 1", 90 DEG, 3000# A420	*
P-289	2	EACH	TEE THD 1", 3000#, A420	*
P-363	2	EACH	UNION THD 1", 3000# A420	*
P-373	2	EACH	PLUG HEX, 1" NPT, 3000# A420	*
P-623	3	EACH	VALVE BALL 1" FNPT, 3000#, FP A420	*
P-701	1	EACH	CONTROL LIQUID LEVEL 2" PNEUMATIC MALLARD 3200-20MSONTLDV-DS (TAG: LC-519)	*
P-711	1	EACH	SWITCH LIQUID LEVEL 2" NPT CLASS 1 DIV 2 MALLARD 3100-SS; W/ SS FLOAT & BODY (TAG: LS-519)	*

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NO.	ISSUED FOR CONSTRUCTION	BY	DATE	NO.	DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

WEDGE RECORD		
DESIGN	JT	10/09/12
DESIGN ENG.	MWM	10/09/12

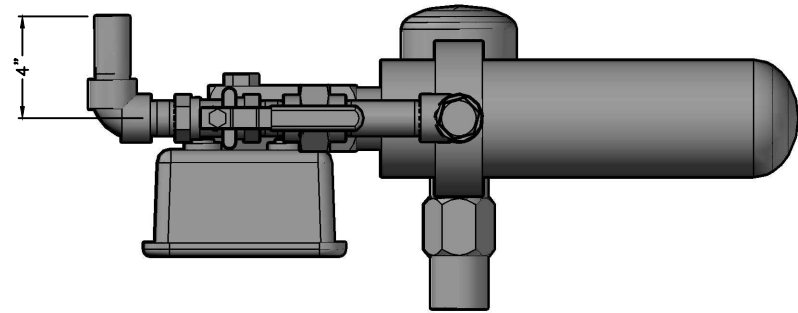
WEDGE ENERGY SERVICES L.L.C.
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CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	BEBOILER (HE-1A) BRIDLE

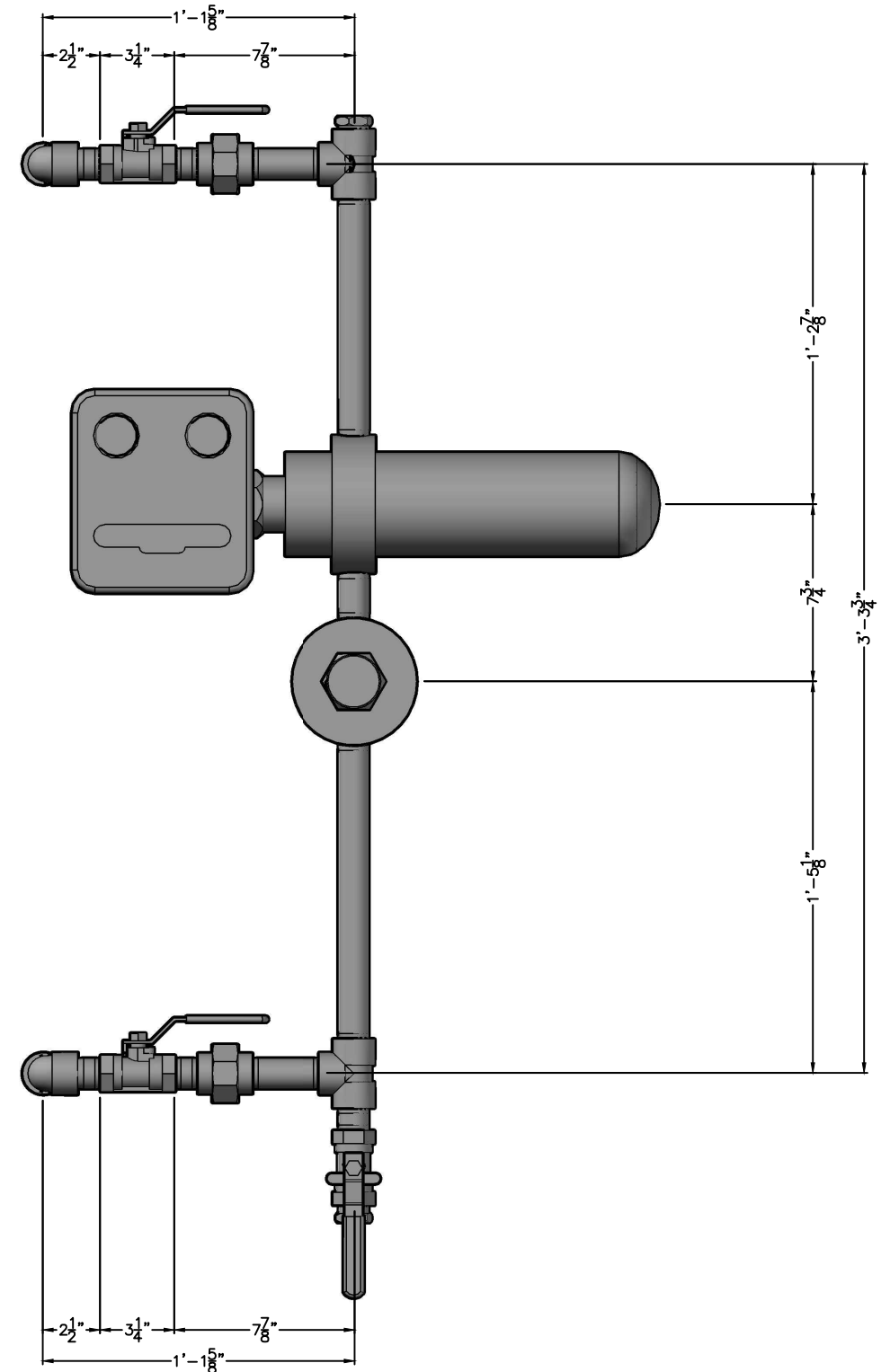
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2-CN-B-519-B-1	0

DESIGN INFORMATION

DESIGN PRESSURE: 655 PSIG CLASS LOCATION: 3
 DESIGN TEMPERATURE: -50° F TO 300° F DESIGN FACTOR: 0.5
 FLANGE RATING CLASS: ANSI 300
 MATERIAL TEST LIMITS: ANSI 300 FLANGES



PLAN VIEW
(SCALE: NONE)



PROFILE VIEW
(SCALE: NONE)

PROPRIETARY NOTES:
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NO.	ISSUED FOR CONSTRUCTION	BY	DATE	NO.	DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

QUANTITY
1

WEDGE RECORD		
DESIGN	JT	10/09/12
DESIGN ENG.	MWM	10/09/12
SCALE: NONE		



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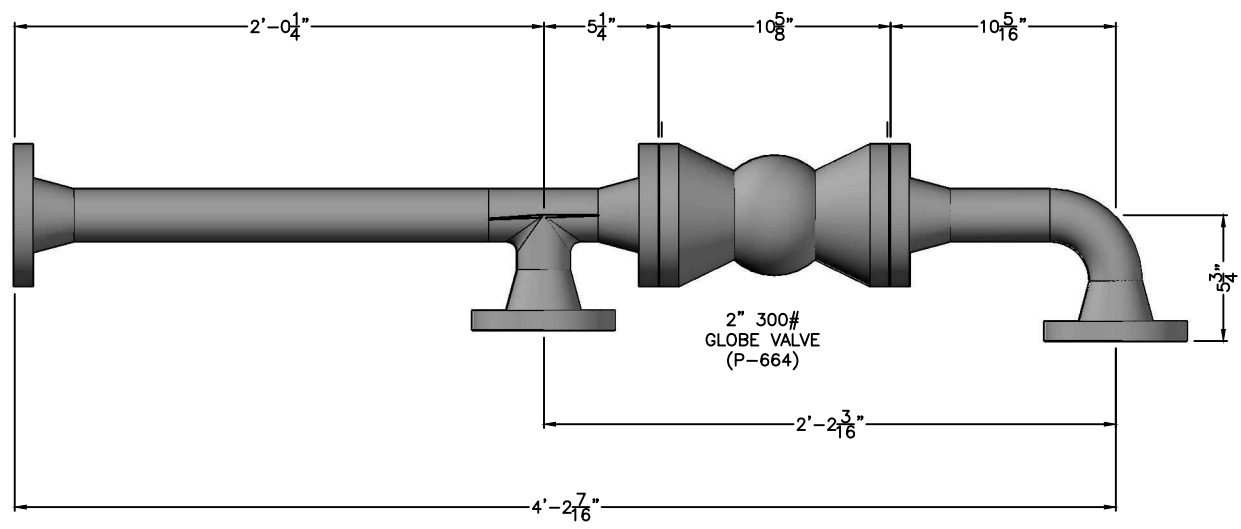
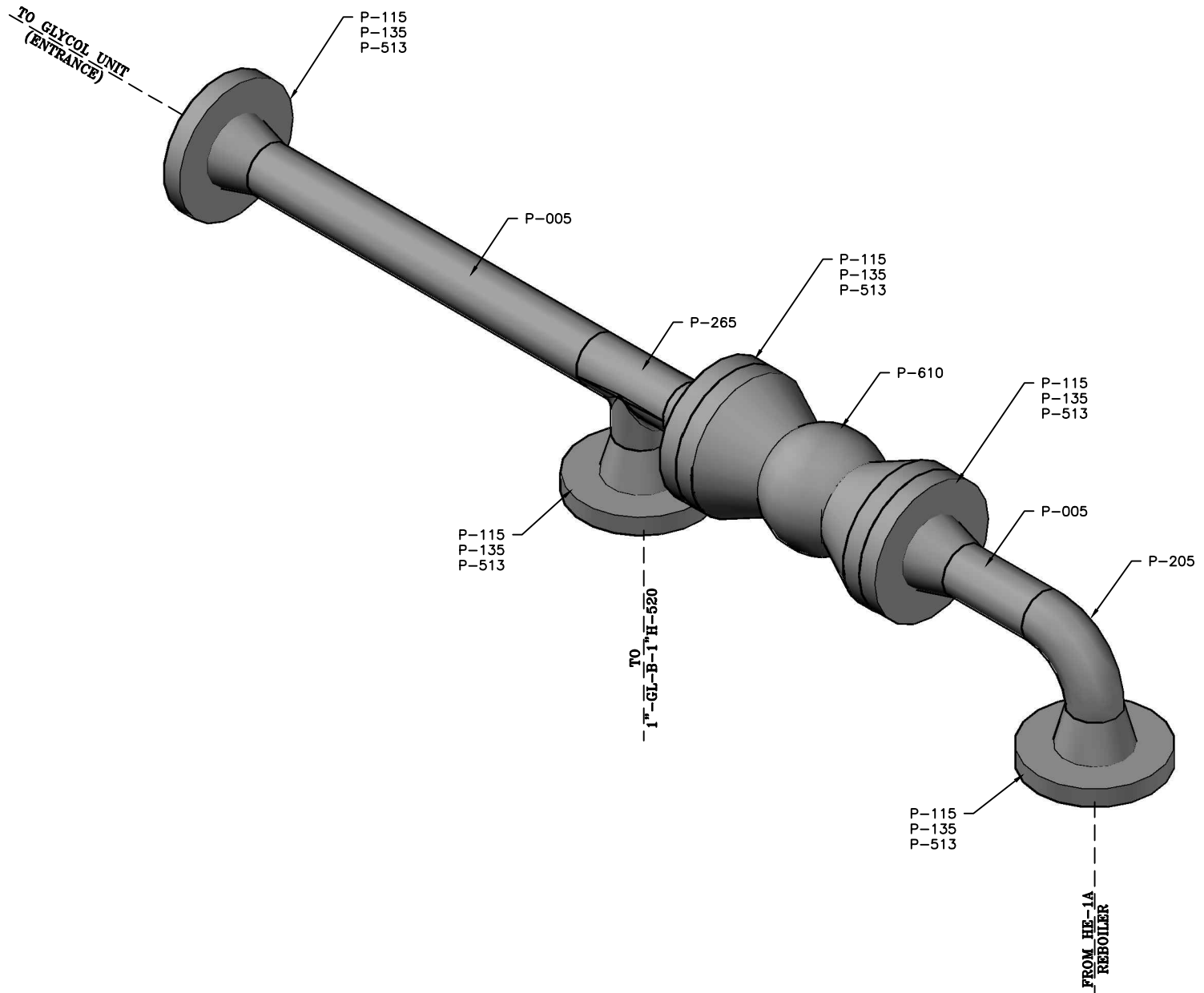
DRAWING NO. 2-CN-B-519-B-2 REV. 0

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION: BEBOILER (HE-1A) BRIDLE	

DESIGN INFORMATION	
DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 300° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS: ANSI 300	
MATERIAL TEST LIMITS: ANSI 300 FLANGES	

PRE-TEST SECTION No. 1	
TEST MEDIUM: WATER	
STABILIZATION: AS REQUIRED	
HOLD PERIOD: 4 HRS. MIN.	
TEST PRESSURE: MIN: 982 PSIG. MAX: 1012 PSIG	

MATERIAL LIST				
MARK No.	QTY.	UNIT	DESCRIPTION	MATERIAL
P-005	1	EACH	PIPE 2" XS (0.218" WT) SMLS A333	2 FEET
P-115	5	EACH	FLANGE WELD 2" 300# XS (0.218" WT) RFWN A420	*
P-135	5	EACH	GASKET 2" 300#, 1/8" TK, RIR SPIRALWOUND	*
P-205	1	EACH	ELL WELD 2", 90 DEG, XS (0.218"), L.R., A420	*
P-265	1	EACH	TEE WELD 2", XS (0.218" WT), A420	*
P-513	40	EACH	STUD 5/8" X 3-3/4", A193 B7, W/ 2 HH NUTS A194 2H, CADMIUM PLATED	3-3/4"
P-610	1	EACH	VALVE GLOBE 2" RF 300#, A420	10-1/2"



PROFILE VIEW
(SCALE: NONE)

PROPRIETARY NOTES:
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NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE	NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

WEDGE RECORD		
DESIGN	JT	10/08/12
DESIGN ENG.	MWM	10/08/12

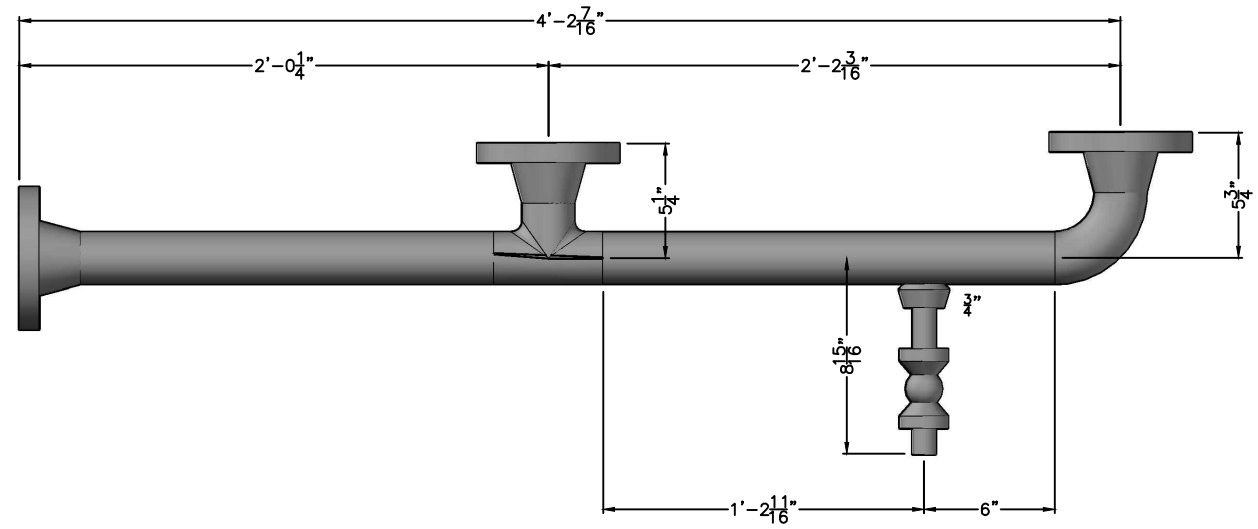
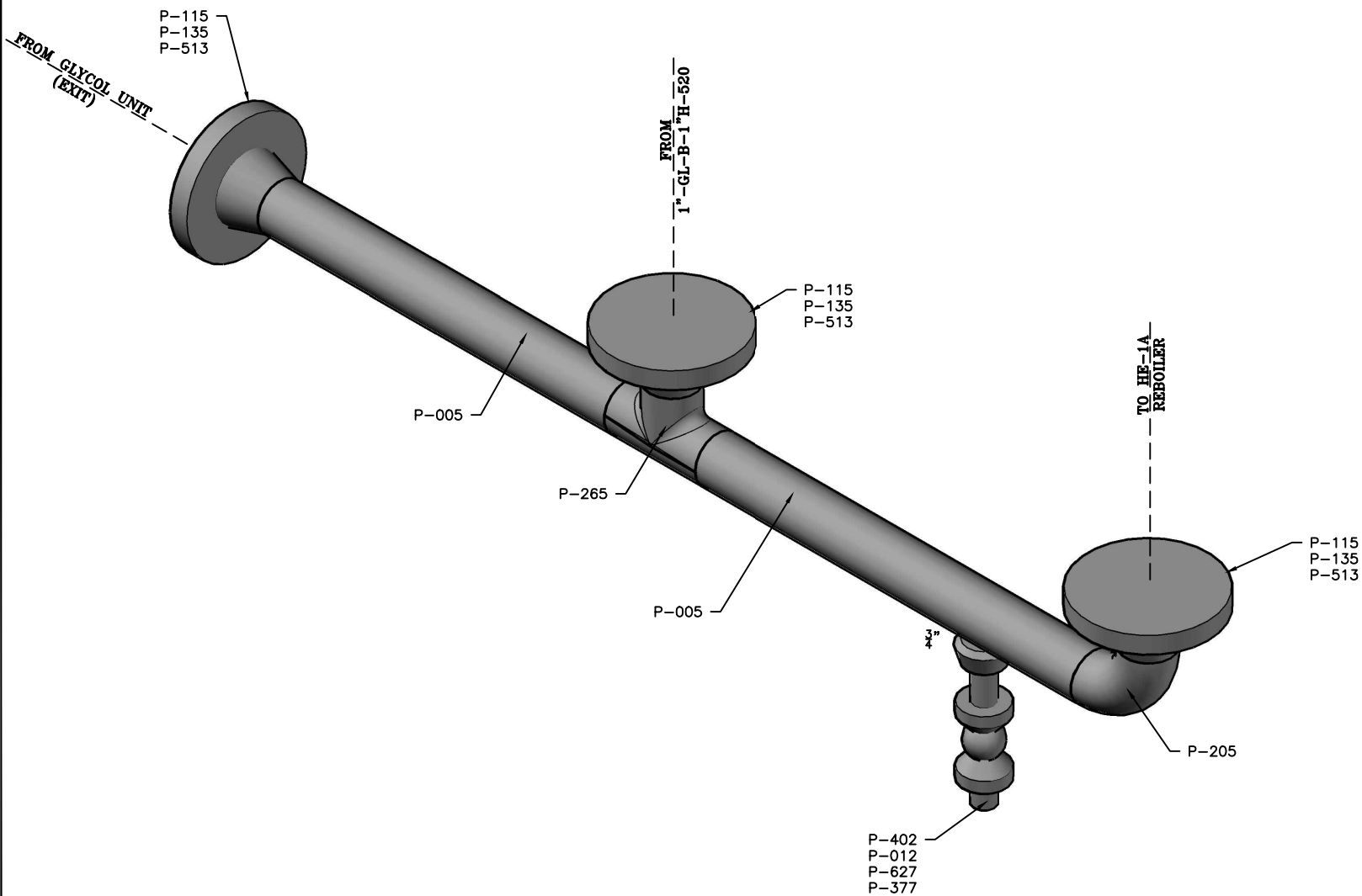
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Phone: 817.426.9810 Fax: 817.426.9777

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	FROM HE-1A (REBOILER) TO GLYCOL UNIT (ENTRANCE)

DRAWING NO.	REV.
2-GL-B-1H-510-1	0

DESIGN INFORMATION	
DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 300° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS: ANSI 300	
MATERIAL TEST LIMITS: ANSI 300 FLANGES	
PRE-TEST SECTION No. 1	
TEST MEDIUM: WATER	
STABILIZATION: AS REQUIRED	
HOLD PERIOD: 4 HRS. MIN.	
TEST PRESSURE: MIN: 982 PSIG. MAX: 1012 PSIG	

MATERIAL LIST				
MARK NUMBER	QTY.	UNIT	DESCRIPTION	MATERIAL
P-005	1	EACH	PIPE 2" XS (0.218" WT) SMLS A333	2 FEET
P-012	1	EACH	NIPPLE 3/4" X 3" XS (0.154" WT) SMLS A333 TBE	*
P-115	3	EACH	FLANGE WELD 2" 300# XS (0.218" WT) RFWN A420	*
P-135	3	EACH	GASKET 2" 300#, 1/8" TK, RIR SPIRALWOUND	*
P-205	1	EACH	ELL WELD 2", 90 DEG, XS (0.218"), L.R., A420	*
P-265	1	EACH	TEE WELD 2", XS (0.218" WT), A420	*
P-377	1	EACH	PLUG HEX, 3/4" NPT, 6000# A420	*
P-402	1	EACH	THREDOLET 3/4", 3000#, A420	*
P-513	24	EACH	STUD 5/8" X 3-3/4", A193 B7, W/ 2 HH NUTS A194 2H, CADMIUM PLATED	3-3/4"
P-627	1	EACH	VALVE BALL 3/4" FNPT, 6000#, FP A420	*



PROFILE VIEW
(SCALE: NONE)

PROPRIETARY NOTES:
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NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE	NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

WEDGE RECORD		
DESIGN	JT	10/08/12
DESIGN ENG.	MWM	10/08/12
SCALE: NONE		

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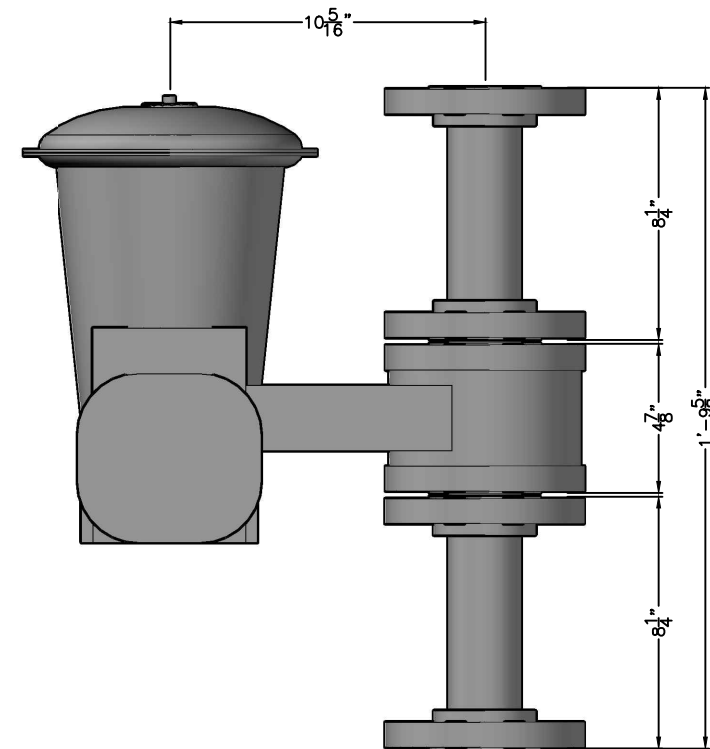
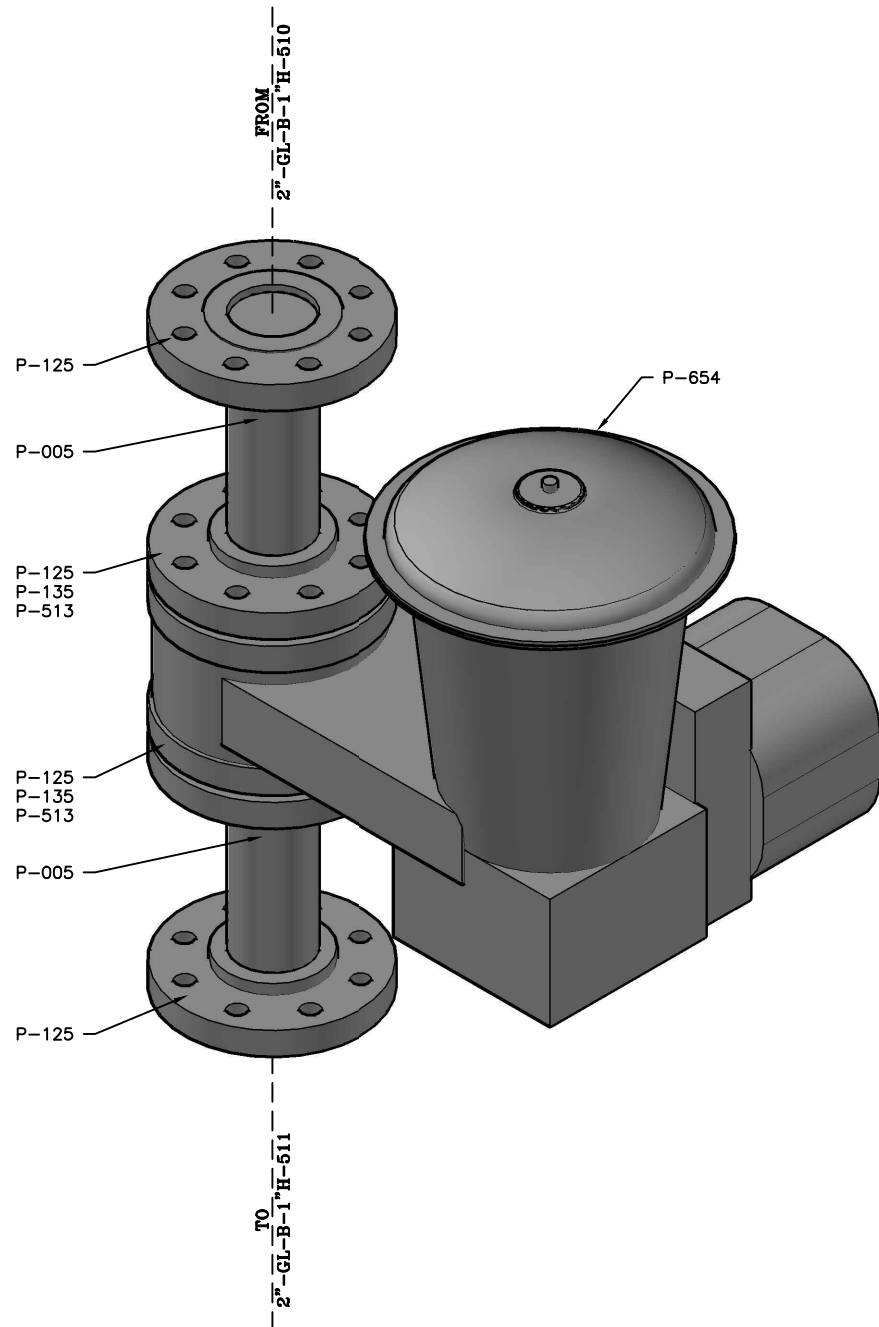
DRAWING NO. 2-GL-B-1H-511-1

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	TO HE-1A (REBOILER) FROM GLYCOL UNIT (EXIT)

DESIGN INFORMATION	
DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 300° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS: ANSI 300	
MATERIAL TEST LIMITS: ANSI 300 FLANGES	

PRE-TEST SECTION No. 1	
TEST MEDIUM: WATER	
STABILIZATION: AS REQUIRED	
HOLD PERIOD: 4 HRS. MIN.	
TEST PRESSURE: MIN: 982 PSIG. MAX: 1012 PSIG	

MATERIAL LIST				
MARK NUMBER	QTY.	UNIT	DESCRIPTION	MATERIAL
P-005	*	EACH	PIPE 2" XS (0.218" WT) SMLS A333	3 FEET
P-125	4	EACH	FLANGE SLIP ON 2" 300# XS (0.218" WT) A420	*
P-135	2	EACH	GASKET 2" 300#, 1/8" TK, RIR SPIRALWOUND	*
P-513	16	EACH	STUD 5/8" X 3-3/4", A193 B7, W/ 2 HH NUTS A194 2H, CADMIUM PLATED	3-3/4"
P-654	1	EACH	NPS 2 V300, CARBON STEEL, 300RF, 2052 SIZE 1, FAIL CLOSED, DVC6200, 4-20mA INPUT, 67CFR (TAG: TCV-506)	*



PROFILE VIEW
(SCALE: NONE)

SHEET 1 OF 1

PROPRIETARY NOTES:
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NO.	ISSUED FOR CONSTRUCTION	BY	DATE	NO.	DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

WEDGE RECORD		
DESIGN	JT	10/08/12
DESIGN ENG.	MWM	10/08/12

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DRAWING NO. 2-GL-B-1H-520-1

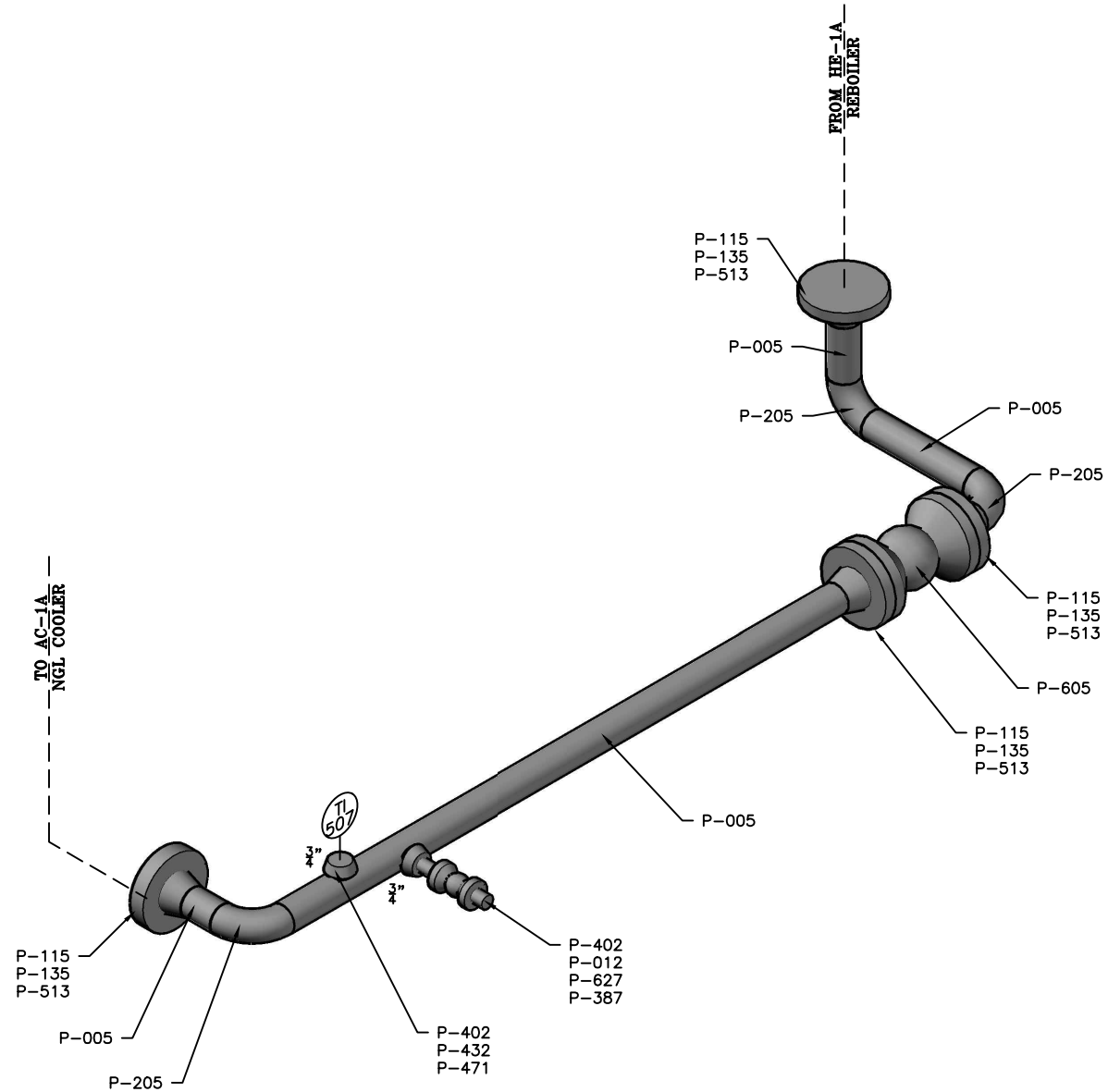
CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	FROM 2"-6L-B-1"H-510 TO 2"-6L-B-1"H-511

DESIGN INFORMATION

DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 300° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS: ANSI 300	
MATERIAL TEST LIMITS: ANSI 300 FLANGES	

PRE-TEST SECTION No. 1

TEST MEDIUM: WATER
STABILIZATION: AS REQUIRED
HOLD PERIOD: 4 HRS. MIN.
TEST PRESSURE: MIN: 982 PSIG. MAX: 1012 PSIG



MATERIAL LIST

MARK NUMBER	QTY.	UNIT	DESCRIPTION	MATERIAL
P-005	1	EACH	PIPE 2" XS (0.218" WT) SMLS A333	16 FEET
P-012	1	EACH	NIPPLE 3/4" X 3" XS (0.154" WT) SMLS A333 TBE	*
P-115	4	EACH	FLANGE WELD 2" 300# XS (0.218" WT) RFWN A420	*
P-135	4	EACH	GASKET 2" 300#, 1/8" TK, RIR SPIRALWOUND	*
P-205	3	EACH	ELL WELD 2", 90 DEG, XS (0.218"), L.R., A420	*
P-387	1	EACH	PLUG HEX, 3/4" NPT, 6000# SS	*
P-402	2	EACH	THREAOLET 3/4", 3000#, A420	*
P-432	1	EACH	THERMOWELL 3/4" x 1/2" x 2U 0.385" BORE 304SS	*
P-471	1	EACH	NOSHOK TEMP. INDICATOR, 30-300-040-0/200-F/C-1/2-SG-316-AU, 3" DIAL, BTM CON. 4" STEM, 0-200 F, 1/2" NPT	*
P-513	32	EACH	STUD 5/8" X 3-3/4", A193 B7, W/ 2 HH NUTS A194 2H, CADMIUM PLATED	3-3/4"
P-605	1	EACH	VALVE BALL 2", 300#FP RFFE A420	*
P-627	1	EACH	VALVE BALL 3/4" FNPT, 6000#, FP A420	*

PROPRIETARY NOTES:
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NO.	ISSUED FOR CONSTRUCTION	BY	DATE	NO.	DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

WEDGE RECORD

DESIGN	JT	10/08/12
DESIGN ENG.	MWM	10/08/12

SCALE: NONE

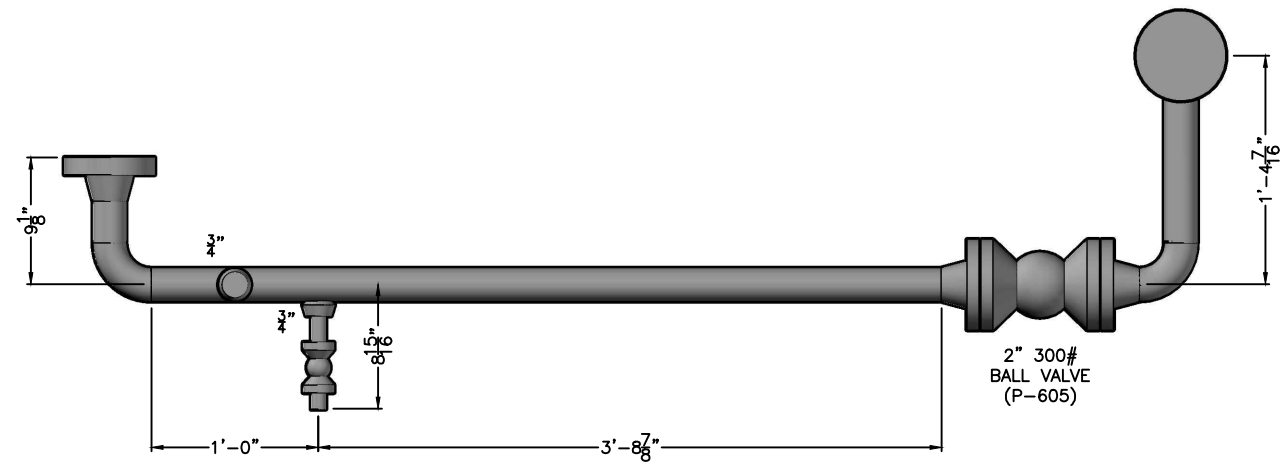
WEDGE ENERGY SERVICES, L.L.C.
 461 N. BROADWAY ST. JOSHUA, TX. 76058
 Phone: 817.426.9810 Fax: 817.426.9777

DRAWING NO. 2-PR-B-1H-507-1

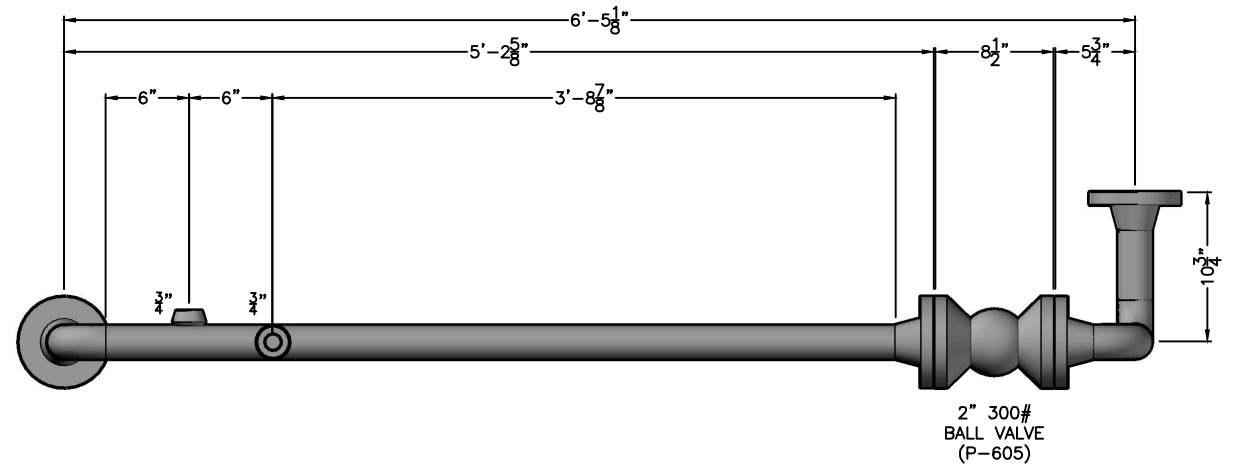
CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	FROM HE-1A (REBOILER) TO AC-1A (NGL COOLER)

DESIGN INFORMATION

DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 300° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS: ANSI 300	
MATERIAL TEST LIMITS: ANSI 300 FLANGES	



PLAN VIEW
(SCALE: NONE)



PROFILE VIEW
(SCALE: NONE)

PROPRIETARY NOTES:
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NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE	NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

WEDGE RECORD		
DESIGN	JT	10/08/12
DESIGN ENG.	MWM	10/08/12
SCALE: NONE		

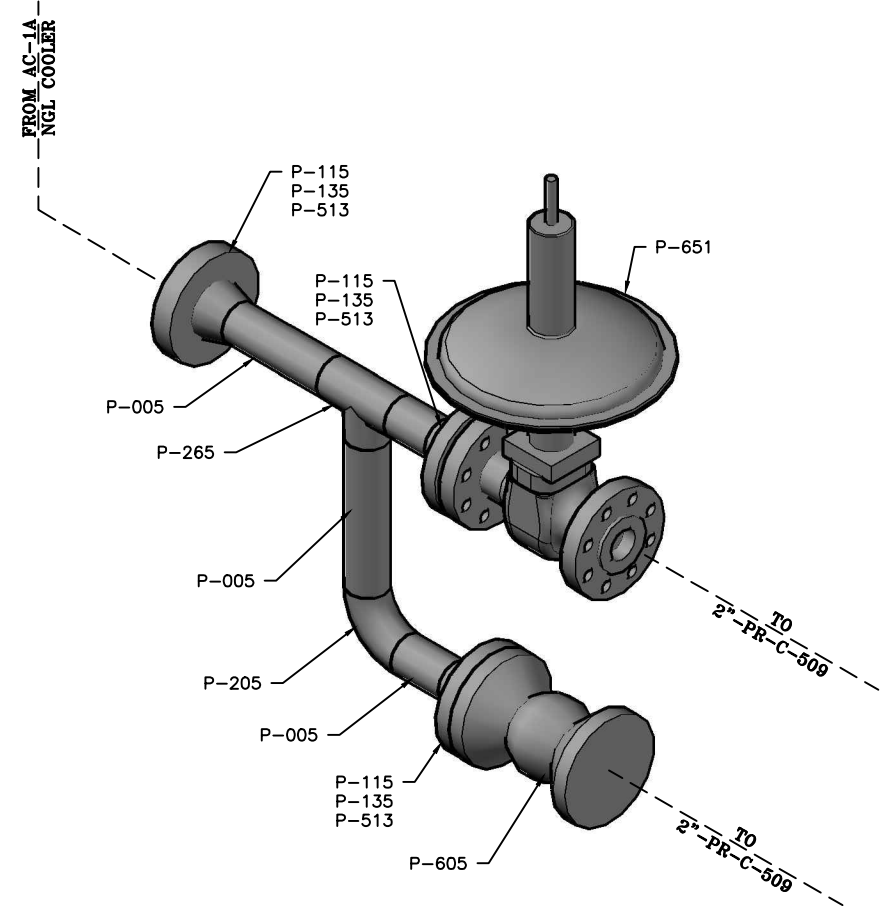
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ENERGY SERVICES, L.L.C. ©
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DRAWING NO. 2-PR-B-1H-507-2

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	FROM HE-1A (REBOILER) TO AC-1A (NGL COOLER)

DESIGN INFORMATION	
DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 300° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS: ANSI 300	
MATERIAL TEST LIMITS: ANSI 300 FLANGES	
PRE-TEST SECTION No. 1	
TEST MEDIUM: WATER	
STABILIZATION: AS REQUIRED	
HOLD PERIOD: 4 HRS. MIN.	
TEST PRESSURE: MIN: 982 PSIG. MAX: 1012 PSIG	

MATERIAL LIST				
MARK NUMBER	QTY.	UNIT	DESCRIPTION	MATERIAL
P-005	1	EACH	PIPE 2" XS (0.218" WT) SMLS A333	3 FEET
P-115	3	EACH	FLANGE WELD 2" 300# XS (0.218" WT) RFWN A420	*
P-135	3	EACH	GASKET 2" 300#, 1/8" TK, RIR SPIRALWOUND	*
P-205	1	EACH	ELL WELD 2", 90 DEG, XS (0.218"), L.R., A420	*
P-265	1	EACH	TEE WELD 2", XS (0.218" WT), A420	*
P-513	24	EACH	STUD 5/8" X 3-3/4", A193 B7, W/ 2 HH NUTS A194 2H, CADMIUM PLATED	*
P-605	1	EACH	VALVE BALL 2", 300#FP RFFE A420	*
P-651	1	EACH	NPS 2 D4, CARBON STEEL, NACE, 600RF, 1/4" M-FORM TRIM SIZE 40 ACTUATOR, FAIL CLOSED (VINSON) (TAG: LCV-519)	*



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NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE	NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

WEDGE RECORD		
DESIGN	JT	10/08/12
DESIGN ENG.	MWM	10/08/12

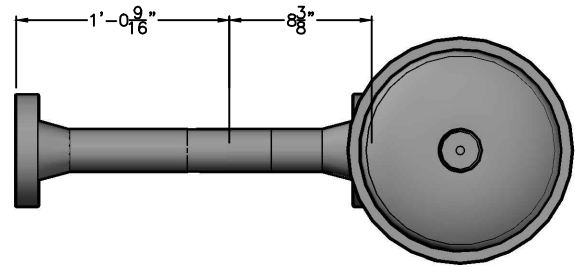
WEDGE
 ENERGY SERVICES, L.L.C. ©
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 JOSHUA, TX. 76058 Fax: 817.426.9777

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	FROM AC-1A (NGL COOLER) TO 2"-PR-C-509

DRAWING NO.	REV.
2-PR-C-508-1	0

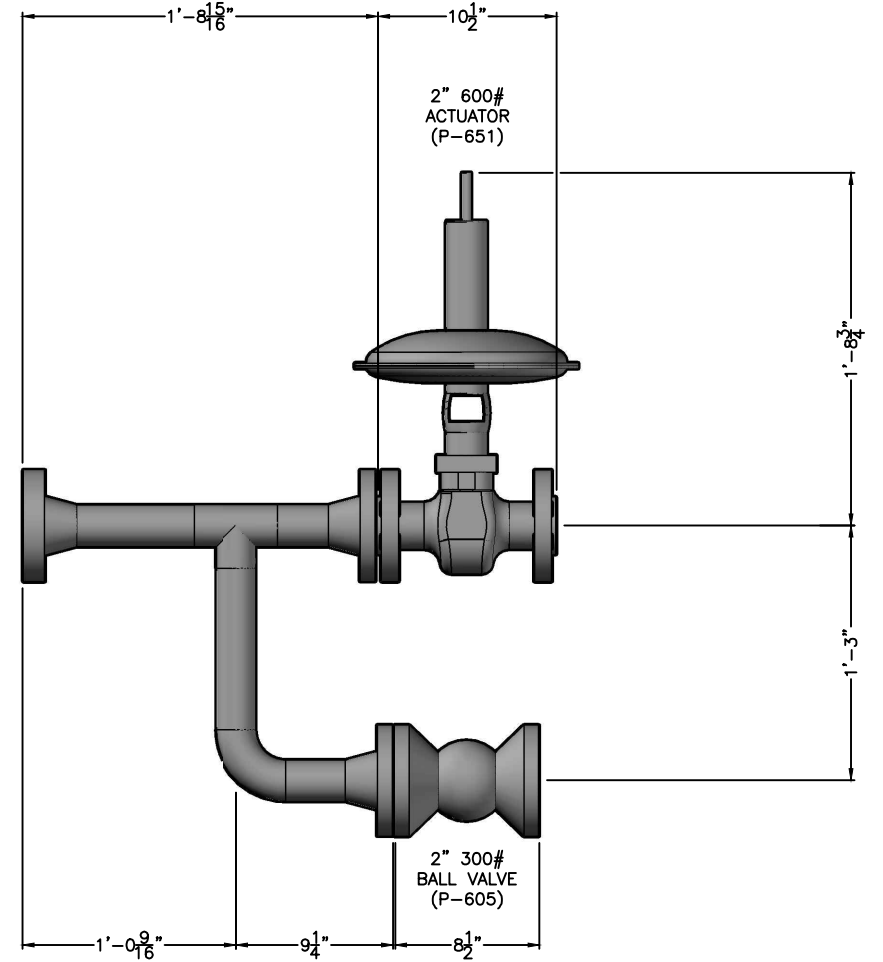
DESIGN INFORMATION

DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 300° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS: ANSI 300	
MATERIAL TEST LIMITS: ANSI 300 FLANGES	



2" 600#
ACTUATOR
(P-651)

PLAN VIEW
(SCALE: NONE)



PROFILE VIEW
(SCALE: NONE)

PROPRIETARY NOTES:
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NO.	ISSUED FOR CONSTRUCTION	BY	DATE	NO.	DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

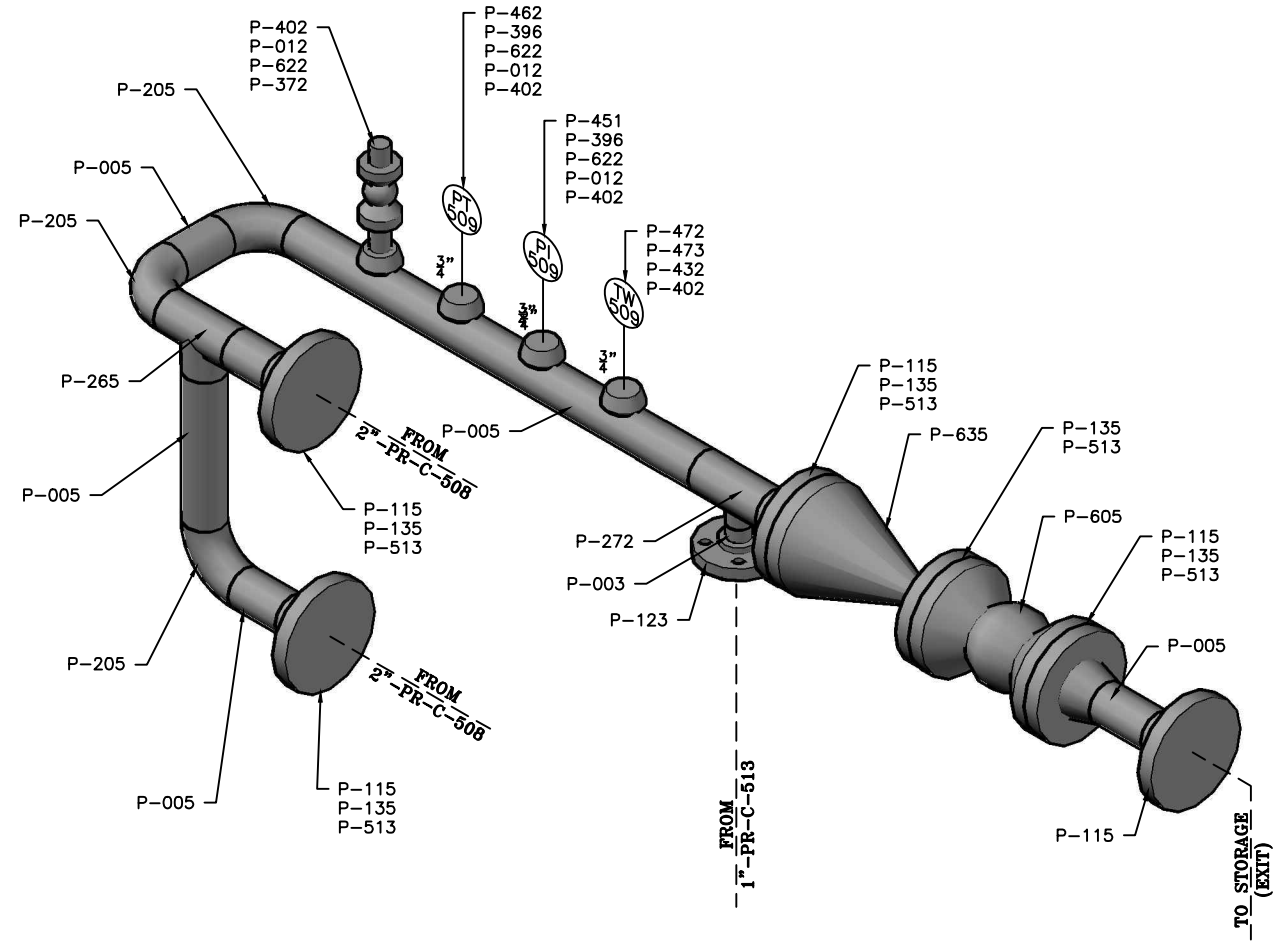
WEDGE RECORD		
DESIGN	JT	10/08/12
DESIGN ENG.	MWM	10/08/12

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461 N. BROADWAY ST. JOSHUA, TX. 76058
Phone: 817.426.9810 Fax: 817.426.9777

DRAWING NO. 2-PR-C-508-2

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	FROM AC-1A (NGL COOLER) TO 2"-PR-C-509

DESIGN INFORMATION	
DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 300° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS: ANSI 300	
MATERIAL TEST LIMITS: ANSI 300 FLANGES	
PRE-TEST SECTION No. 1	
TEST MEDIUM: WATER	
STABILIZATION: AS REQUIRED	
HOLD PERIOD: 4 HRS. MIN.	
TEST PRESSURE: MIN: 982 PSIG. MAX: 1012 PSIG	



MATERIAL LIST				
MARK NUMBER	QTY.	UNIT	DESCRIPTION	MATERIAL
P-003	1	EACH	PIPE 1" XS (0.179" WT) SMLS A333	1 FEET
P-005	1	EACH	PIPE 2" XS (0.218" WT) SMLS A333	6 FEET
P-012	3	EACH	NIPPLE 3/4" X 3" XS (0.154" WT) SMLS A333 TBE	*
P-115	5	EACH	FLANGE WELD 2" 300# XS (0.218" WT) RFWN A420	*
P-123	1	EACH	FLANGE SLIP ON 1" 300# XS (0.179" WT) A420	*
P-135	5	EACH	GASKET 2" 300#, 1/8" TK, RIR SPIRALWOUND	*
P-205	3	EACH	ELL WELD 2", 90 DEG, XS (0.218"), L.R., A420	*
P-272	1	EACH	TEE REDUCING WELD, 2" X 1", XS (0.218" WT X 0.179" WT), A420	*
P-265	1	EACH	TEE WELD 2", XS (0.218" WT), A420	*
P-372	1	EACH	PLUG, HEX HEAD 3/4" NPT, 3000# A420	*
P-396	2	EACH	BUSHING, 3/4" X 1/2" NPT, 3000# A420	*
P-402	4	EACH	THREDOLET 3/4", 3000#, A420	*
P-432	1	EACH	THERMOWELL 3/4" X 1/2" X 2U 0.385" BORE 304SS	*
P-451	1	EACH	NOSHOK PRESSURE GAUGE - 45/760-1000PSI-1/2NPT; 0-1000PSI, SS LIQUID FILLED; 1/2" NPT	*
P-462	1	EACH	ROSEMOUNT PRESSURE TRANSMITTER - 3051CG5A22A1AM5B4E5T1S5; -14.2 TO 200 PSIG, 4-20MA; SST; 1/2-14 NPT ALUMINUM (TAG: PT-509)	*
P-472	1	EACH	ROSEMOUNT TEMPERATURE TRANSMITTER - 3144PD1A1K5M5T1; 1/2-14NPT; 4-20mA; LCD DISPLAY (TAG: TT-509)	*
P-473	1	EACH	RTD G STYLE PROBE W/PLUG AND SPECIAL SPRING BURNS ENGINEERING P19447-12.5-144-138	*
P-513	40	EACH	STUD 5/8" X 3-3/4", A193 B7, W/ 2 HH NUTS A194 2H, CADMIUM PLATED	3-3/4"
P-605	1	EACH	VALVE BALL 2", 300#FP RFFE A420	8-1/2"
P-622	3	EACH	VALVE BALL 3/4" FNPT, 3000#, FP A420	*
P-635	1	EACH	VALVE FULL BODY CHECK 2", 300#FP RFFE A420	10-1/2"

PROPRIETARY NOTES:
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NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE	NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

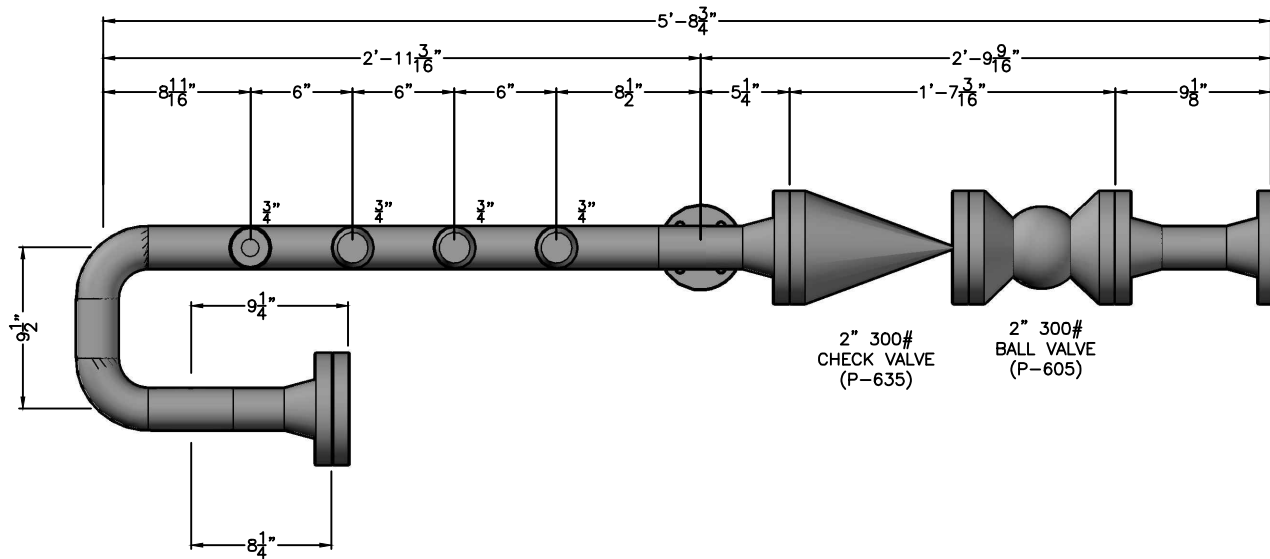
WEDGE RECORD		
DESIGN	JT	10/08/12
DESIGN ENG.	MWM	10/08/12
SCALE: NONE		

WEDGE ENERGY SERVICES, L.L.C.
 461 N. BROADWAY ST. JOSHUA, TX. 76058
 Phone: 817.426.9810 Fax: 817.426.9777

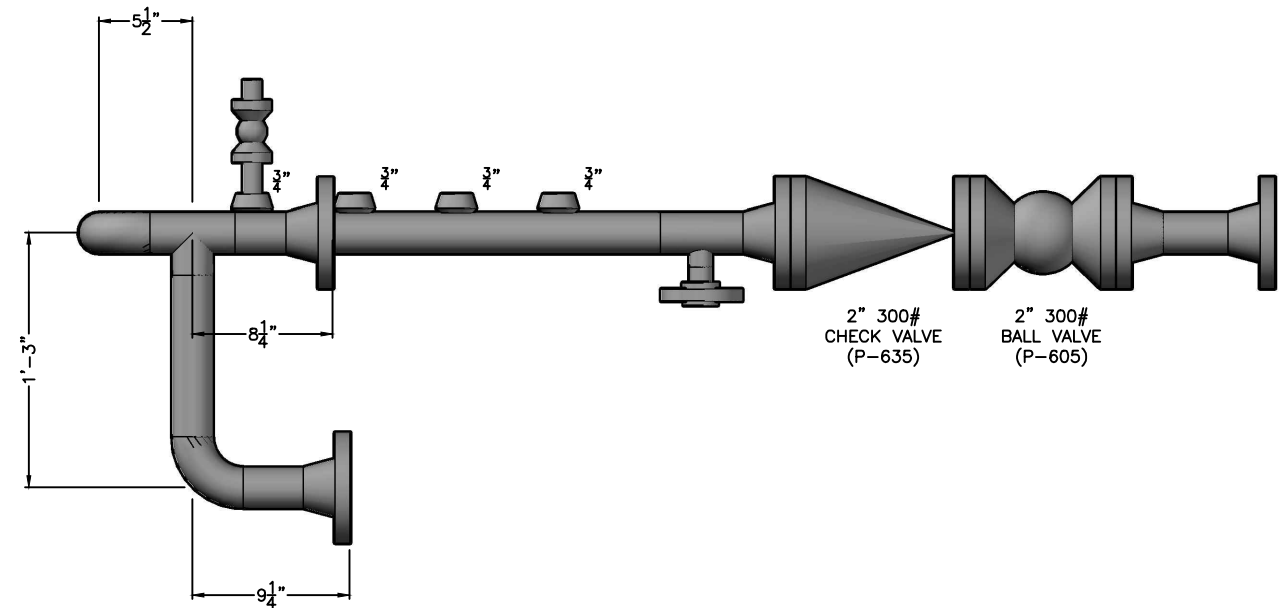
CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	FROM 2"-PR-C-508 TO STORAGE (EXIT)
DRAWING NO.	2-PR-C-509-1
REV.	0

DESIGN INFORMATION

DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 300° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS: ANSI 300	
MATERIAL TEST LIMITS: ANSI 300 FLANGES	



PLAN VIEW
(SCALE: NONE)



PROFILE VIEW
(SCALE: NONE)

PROPRIETARY NOTES:
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0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

WEDGE RECORD		
DESIGN	JT	10/08/12
DESIGN ENG.	MWM	10/08/12
SCALE: NONE		



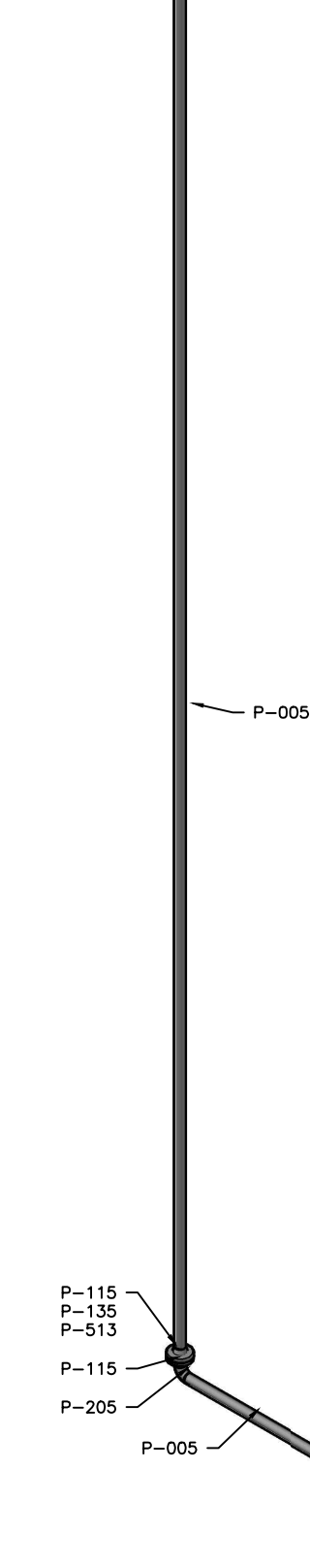
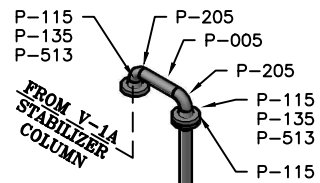
461 N. BROADWAY ST.
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Phone: 817.426.9810
Fax: 817.426.9777

DRAWING NO.	REV.
2-PR-C-509-2	0

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	FROM 2"-PR-C-508 TO STORAGE (EXIT)

DESIGN INFORMATION	
DESIGN PRESSURE: <u>655 PSIG</u>	CLASS LOCATION: <u>3</u>
DESIGN TEMPERATURE: <u>-50° F TO 300° F</u>	DESIGN FACTOR: <u>0.5</u>
FLANGE RATING CLASS: <u>ANSI 300</u>	
MATERIAL TEST LIMITS: <u>ANSI 300 FLANGES</u>	

PRE-TEST SECTION No. 1	
TEST MEDIUM: <u>WATER</u>	
STABILIZATION: <u>AS REQUIRED</u>	
HOLD PERIOD: <u>4 HRS. MIN.</u>	
TEST PRESSURE: <u>MIN: 982 PSIG. MAX: 1012 PSIG</u>	



MATERIAL LIST				
MARK No.	QTY.	UNIT	DESCRIPTION	MATERIAL
P-005	1	EACH	PIPE 2" XS (0.218" WT) SMLS A333	47 FEET
P-115	6	EACH	FLANGE WELD 2" 300# XS (0.218" WT) RFWN A420	*
P-135	4	EACH	GASKET 2" 300#, 1/8" TK, RIR SPIRALWOUND	*
P-205	5	EACH	ELL WELD 2", 90 DEG, XS (0.218"), L.R., A420	*
P-513	32	EACH	STUD 5/8" X 3-3/4", A193 B7, W/ 2 HH NUTS A194 2H, CADMIUM PLATED	3-3/4"

SHEET 1 OF 2

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0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

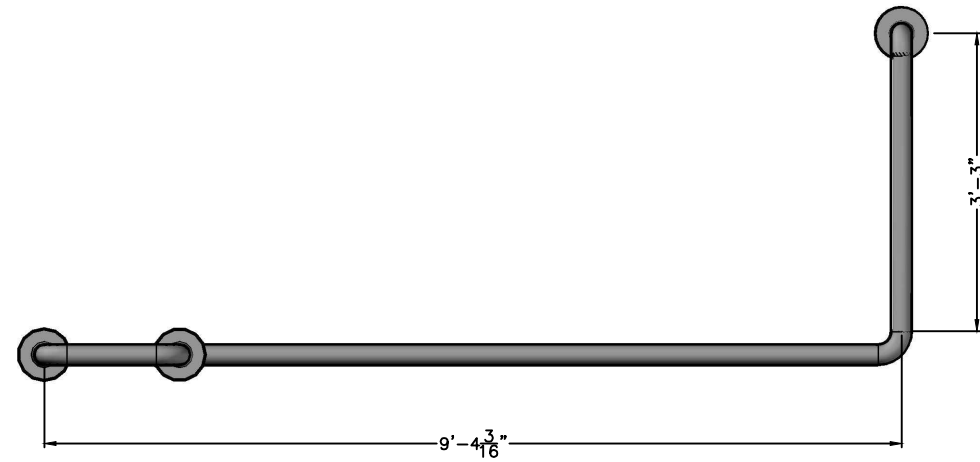
WEDGE RECORD		
DESIGN	JT	10/08/12
DESIGN ENG.	MWM	10/08/12
SCALE: NONE		

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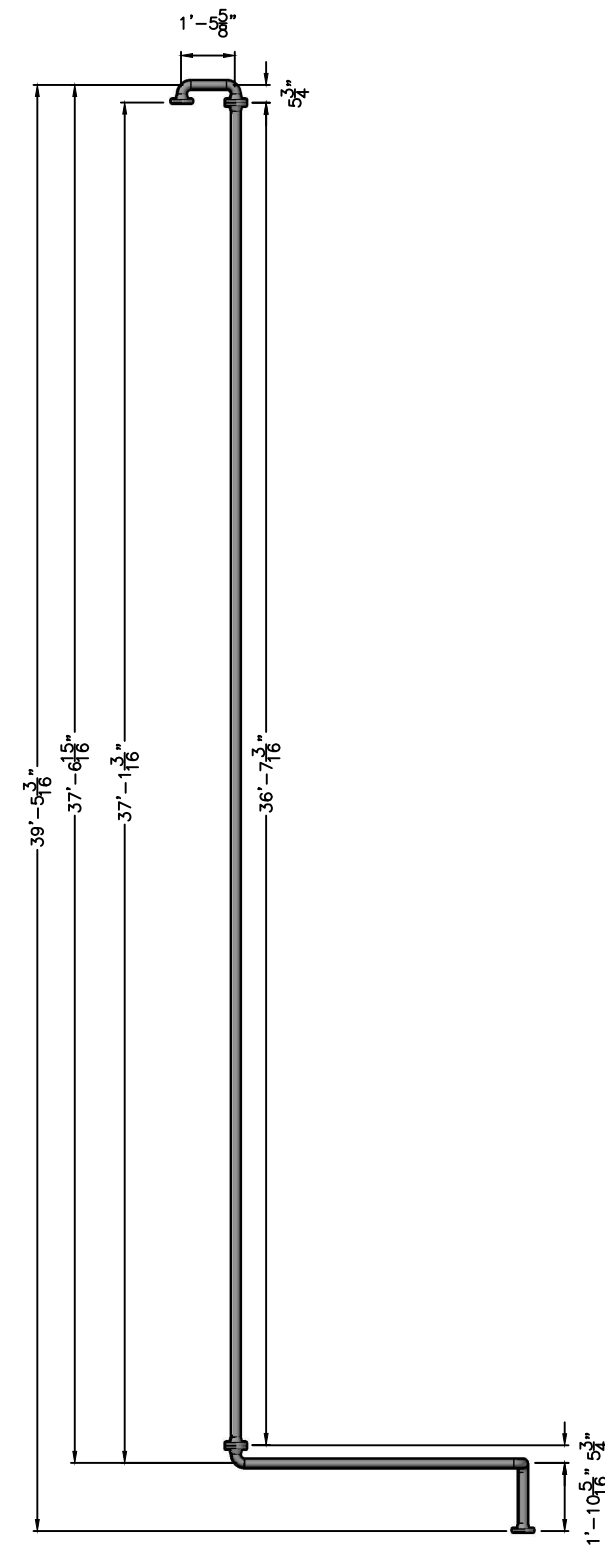
CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	FROM V-1A (STABILIZER COLUMN) TO V-2A (OVERHEAD SEPARATOR)
DRAWING NO.	2-RG-B-502-1
REV.	0

DESIGN INFORMATION

DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 300° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS: ANSI 300	
MATERIAL TEST LIMITS: ANSI 300 FLANGES	



PLAN VIEW
(SCALE: NONE)



PROFILE VIEW
(SCALE: NONE)

PROPRIETARY NOTES:
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NO.	ISSUED FOR CONSTRUCTION	BY	DATE	NO.	REVISION - DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

WEDGE RECORD		
DESIGN	JT	10/08/12
DESIGN ENG.	MWM	10/08/12
SCALE: NONE		

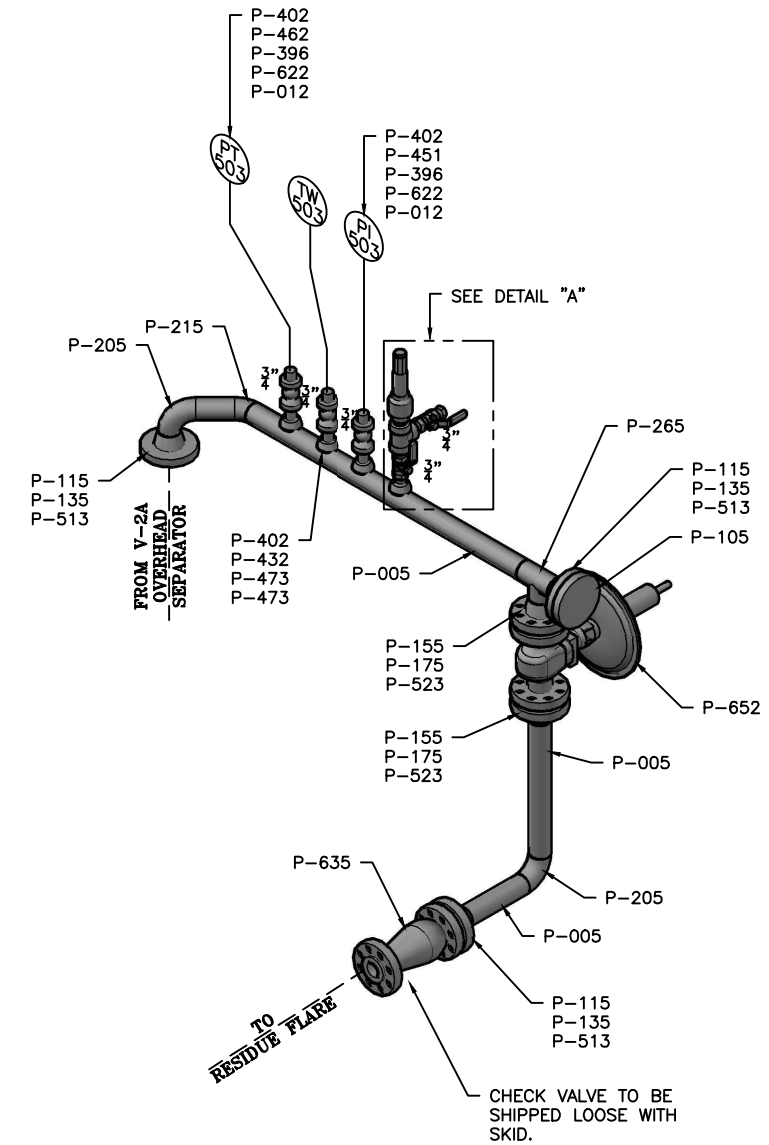
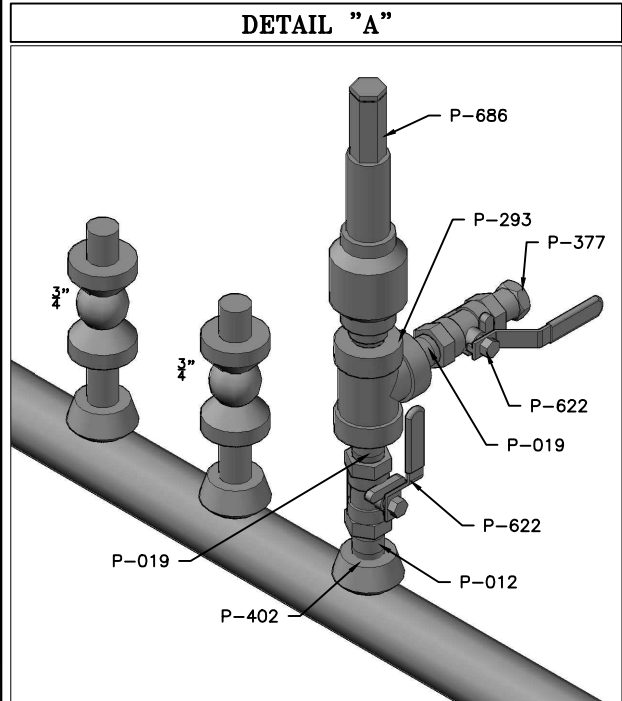
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461 N. BROADWAY ST. JOSHUA, TX. 76058
Phone: 817.426.9810 Fax: 817.426.9777

DRAWING NO. 2-RG-B-502-2

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	FROM V-1A (STABILIZER COLUMN) TO V-2A (OVERHEAD SEPARATOR)

DESIGN INFORMATION	
DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 125° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS: ANSI 300	
MATERIAL TEST LIMITS: ANSI 300 FLANGES	

PRE-TEST SECTION No. 1	
TEST MEDIUM: WATER	
STABILIZATION: AS REQUIRED	
HOLD PERIOD: 4 HRS. MIN.	
TEST PRESSURE: MIN: 982 PSIG. MAX: 1012 PSIG	



MATERIAL LIST				
MARK NUMBER	QTY.	UNIT	DESCRIPTION	MATERIAL
P-005	1	EACH	PIPE 2" XS (0.218" WT) SMLS A333	15 FEET
P-012	3	EACH	NIPPLE 3/4" X 3" XS (0.154" WT) SMLS A333 TBE	*
P-019	2	EACH	NIPPLE 3/4" X 2" XS (0.154" WT) SMLS A333 TBE	*
P-115	3	EACH	FLANGE WELD 2" 300# XS (0.218" WT) RFWN A420	*
P-135	3	EACH	GASKET 2" 300#, 1/8" TK, RIR SPIRALWOUND	*
P-155	2	EACH	FLANGE WELD 2" 600# XS (0.218" WT) RFWN A420	*
P-175	2	EACH	GASKET 2" 600#, 1/8" TK, RIR SPIRALWOUND	*
P-105	1	EACH	FLANGE BLIND 2" 300# RF A420	*
P-205	2	EACH	ELL WELD 2", 90 DEG, XS (0.218"), L.R., A420	*
P-215	1	EACH	ELL WELD 2", 45 DEG, XS (0.218"), L.R., A420	*
P-265	1	EACH	TEE WELD 2", XS (0.218" WT), A420	*
P-293	1	EACH	TEE THD 3/4", 6000#, A420	*
P-377	1	EACH	PLUG HEX, 3/4" NPT, 6000# A420	*
P-396	3	EACH	BUSHING, 3/4" X 1/2" NPT, 3000# A420	*
P-402	4	EACH	THREADOLET 3/4", 3000#, A420	*
P-432	1	EACH	THERMOWELL 3/4" x 1/2" x 2U 0.385" BORE 304SS	*
P-451	1	EACH	NOSHOK PRESSURE GUAGE - 45/760-1000PSI-1/2NPT; 0-1000PSI, SS LIQUID FILLED; 1/2" NPT	*
P-462	1	EACH	ROSEMOUNT PRESSURE TRANSMITTER - 3051CG5A22A1AM5B4E5T1S5; -14.2 TO 200 PSIG, 4-20mA; SST; 1/2-14 NPT ALUMINUM (TAG: PT-503)	*
P-472	1	EACH	ROSEMOUNT TEMPERATURE TRANSMITTER - 3144PD1A1K5M5T1; 1/2-14NPT; 4-20mA; LCD DISPLAY	*
P-473	1	EACH	RTD G STYLE PROBE W/PLUG AND SPECIAL SPRING BURNS ENGINEERING P19447-12.5-144-138	*
P-513	24	EACH	STUD 5/8" X 3-3/4", A193 B7, W/ 2 HH NUTS A194 2H, CADMIUM PLATED	3-3/4"
P-523	16	EACH	STUD 5/8" X 4-1/2", A193 B7, W/ 2 HH NUTS A194 2H, CADMIUM PLATED	4-1/2"
P-622	5	EACH	VALVE BALL 3/4" FNPT, 3000#, FP A420	*
P-652	1	EACH	NPS 2 D4, CS, NACE, 600RF, 1/4" M-FORM TRIM SIZE 40 ACT., FAIL CLOSED, DVC6200, 67CFR (VINSON) (TAG: PCV-503)	*
P-686	1	EACH	VALVE RELIEF 3/4" MNPT X 1" FNPT - 951171MA - SET @655 PSI (CROSBY) (TAG: PSV-IC)	*
P-635	1	EACH	VALVE, FULL BODY CHECK 2", 300# FP RFFE A420	*

PROPRIETARY NOTES:
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NO.	ISSUED FOR CONSTRUCTION	BY	DATE	NO.	ISSUED FOR CONSTRUCTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				
DRAWING STATUS / REVISION - DESCRIPTION		BY	DATE	DRAWING STATUS / REVISION - DESCRIPTION		BY	DATE

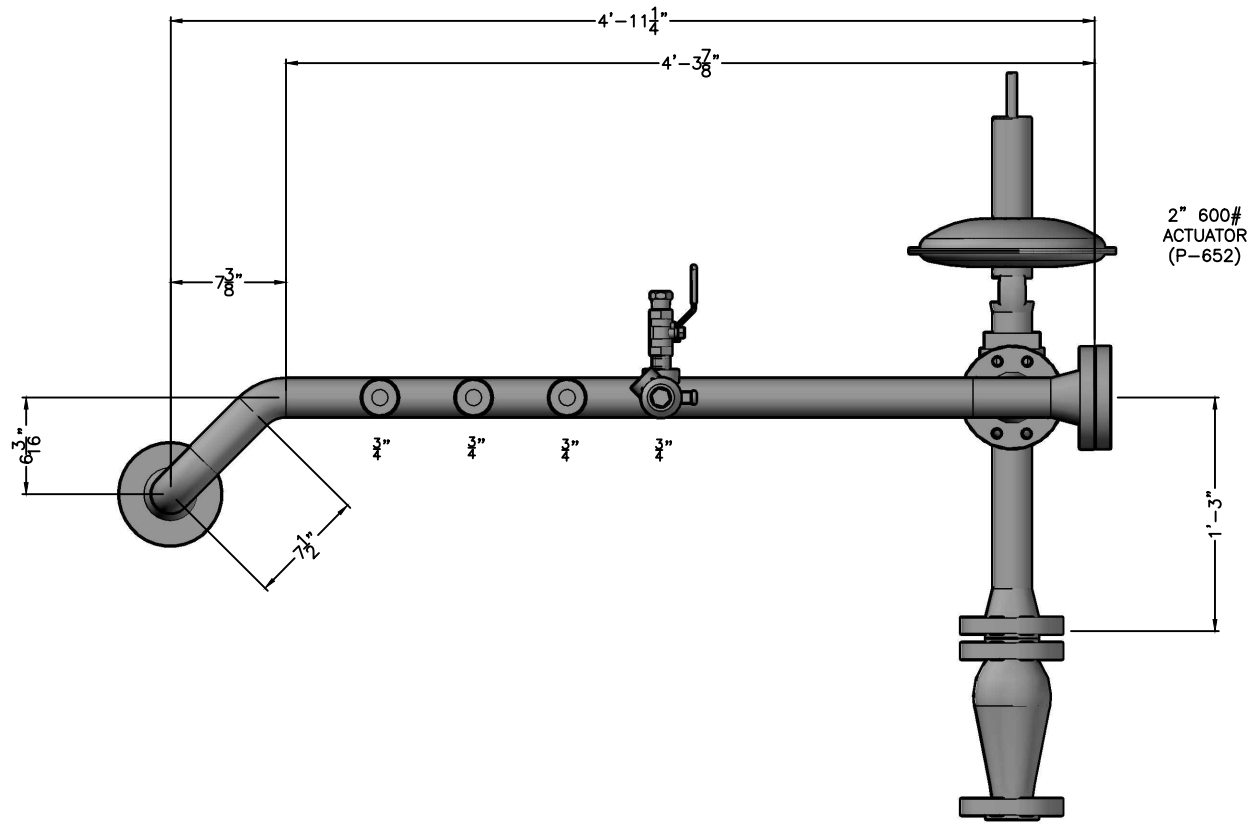
WEDGE RECORD		
DESIGN	JT	10/06/12
DESIGN ENG.	MWM	10/06/12
SCALE: NONE		

WEDGE ENERGY SERVICES, L.L.C.
 461 N. BROADWAY ST. JOSHUA, TX. 76058
 Phone: 817.426.9810 Fax: 817.426.9777

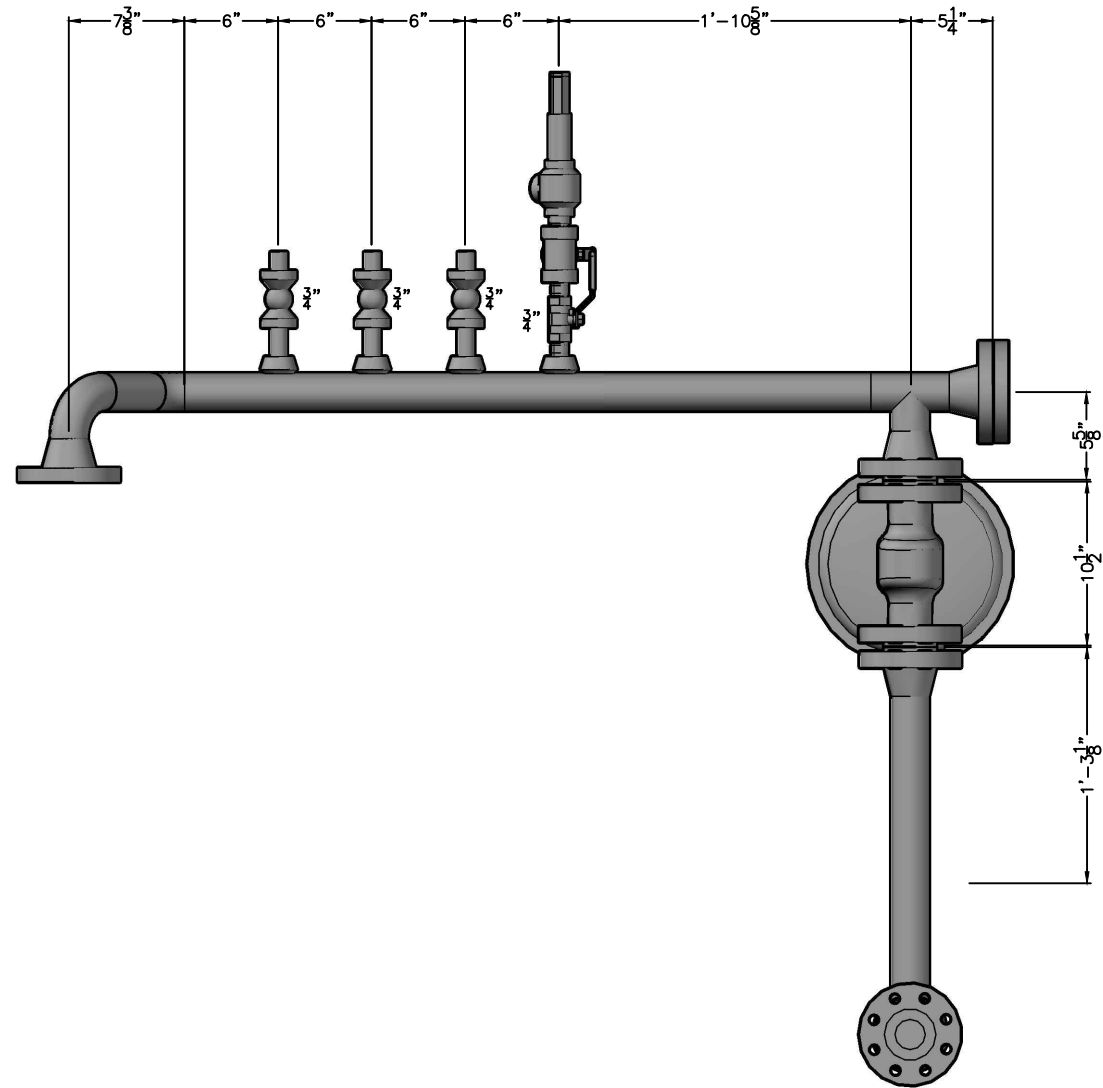
CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	FROM V-2A (OVERHEAD SEPARATOR) TO C-1A (COMPRESSOR PACKAGE)
DRAWING NO.	2-RG-B-503-1
REV.	0

DESIGN INFORMATION

DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 125° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS: ANSI 300	
MATERIAL TEST LIMITS: ANSI 300 FLANGES	



PLAN VIEW
(SCALE: NONE)



PROFILE VIEW
(SCALE: NONE)

PROPRIETARY NOTES:
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NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE	NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE
0	ISSUED FOR APPROVAL	JM	05/28/14				

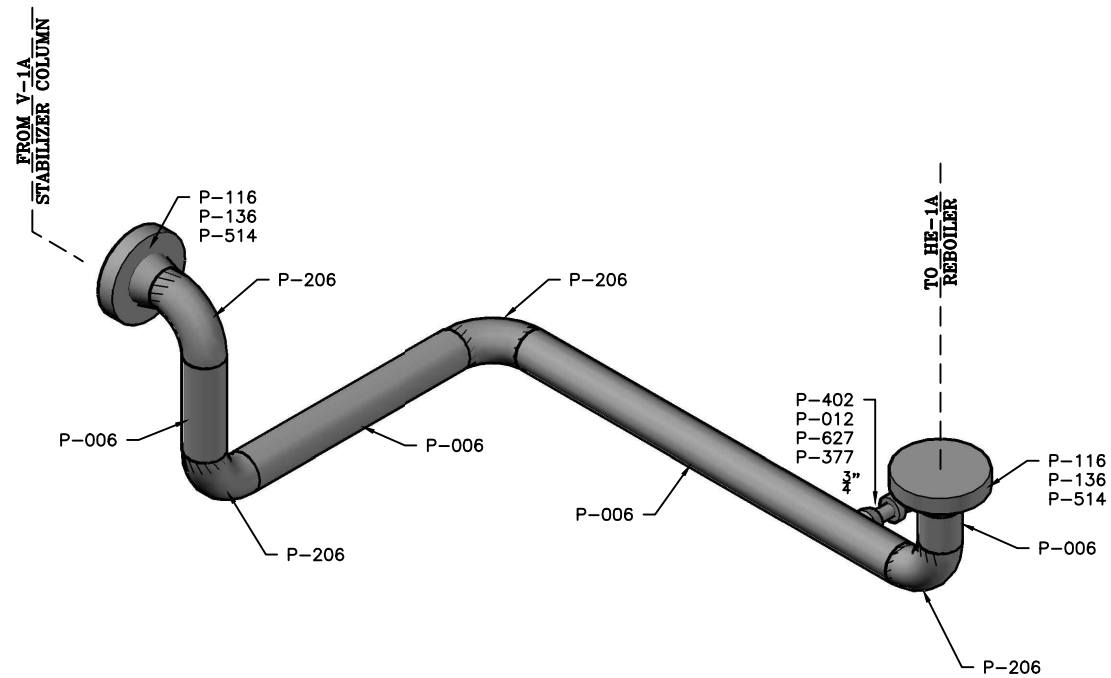
WEDGE RECORD		
DESIGN	JT	10/06/12
DESIGN ENG.	MWM	10/06/12
SCALE: NONE		

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DRAWING NO. 2-RG-B-503-2

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	FROM V-2A (OVERHEAD SEPARATOR) TO C-1A (COMPRESSOR PACKAGE)
REV. 0	

DESIGN INFORMATION	
DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 300° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS: ANSI 300	
MATERIAL TEST LIMITS: ANSI 300 FLANGES	

PRE-TEST SECTION No. 1	
TEST MEDIUM: WATER	
STABILIZATION: AS REQUIRED	
HOLD PERIOD: 4 HRS. MIN.	
TEST PRESSURE: MIN: 982 PSIG. MAX: 1012 PSIG	



MATERIAL LIST				
MARK NUMBER	QTY.	UNIT	DESCRIPTION	MATERIAL
P-006	1	EACH	PIPE 3" XS (0.300" WT) SMLS A333	7 FEET
P-012	1	EACH	NIPPLE 3/4" X 3" XS (0.154" WT) SMLS A333 TBE	*
P-116	2	EACH	FLANGE WELD 3" 300# XS (0.300" WT) RFWN A420	*
P-136	2	EACH	GASKET 3" 300#, 1/8" TK, RIR SPIRALWOUND	*
P-206	4	EACH	ELL WELD 3", 90 DEG, XS (0.300"), L.R., A420	*
P-377	1	EACH	PLUG HEX, 3/4" NPT, 6000# A420	*
P-402	1	EACH	THREAOLET 3/4", 3000#, A420	*
P-514	16	EACH	STUD 3/4" X 4-1/2", A193 B7, W/ 2 HH NUTS A194 2H, CADMIUM PLATED	4-1/2"
P-627	1	EACH	VALVE BALL 3/4" FNPT, 6000#, FP A420	*

SHEET 1 OF 2

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NO.	ISSUED FOR CONSTRUCTION	BY	DATE	NO.	DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

WEDGE RECORD		
DESIGN	JT	10/08/12
DESIGN ENG.	MWM	10/08/12

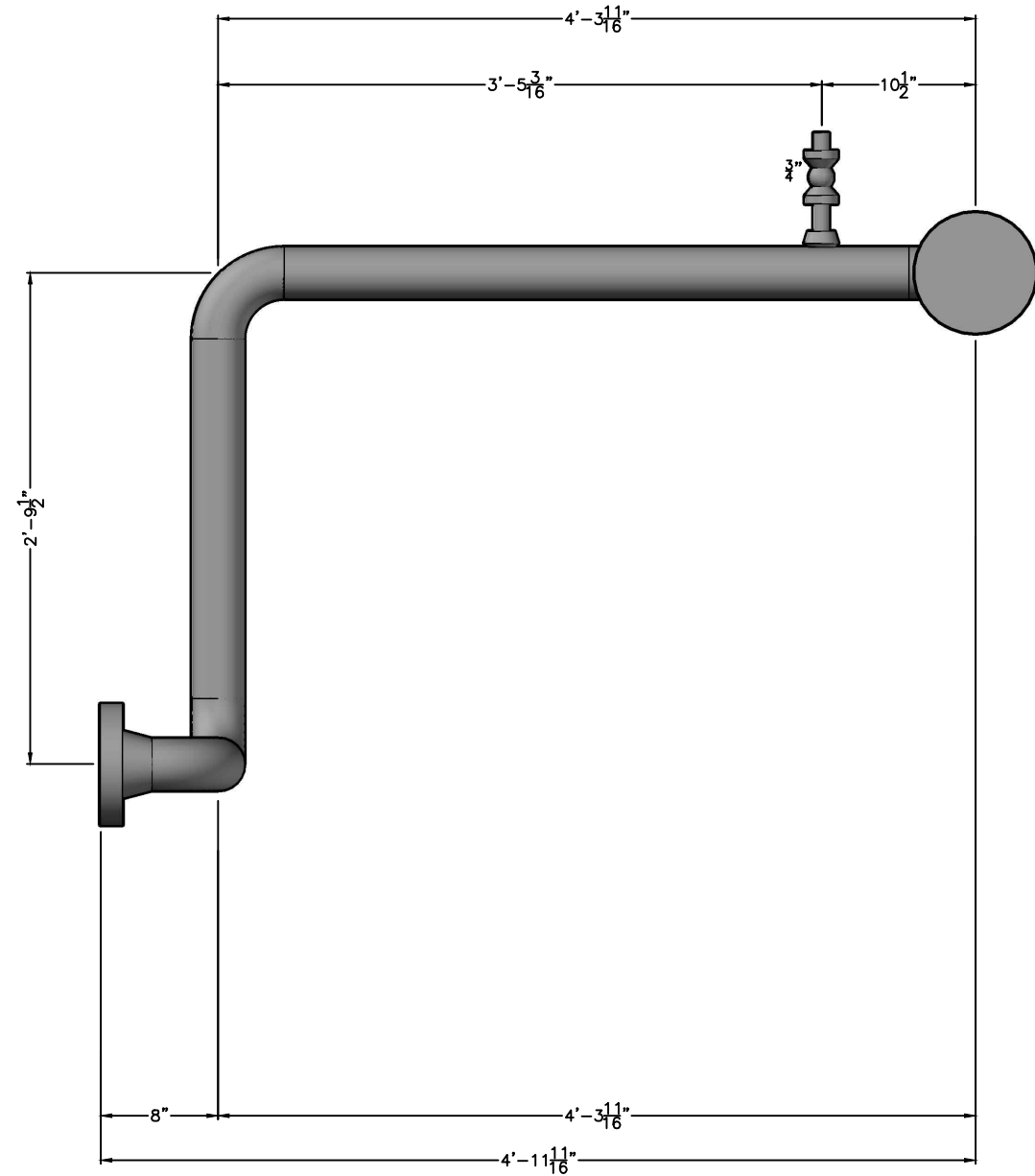
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 461 N. BROADWAY ST. JOSHUA, TX. 76058
 Phone: 817.426.9810 Fax: 817.426.9777

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	FROM V-1A (STABILIZER COLUMN) TO HE-1A (REBOILER)

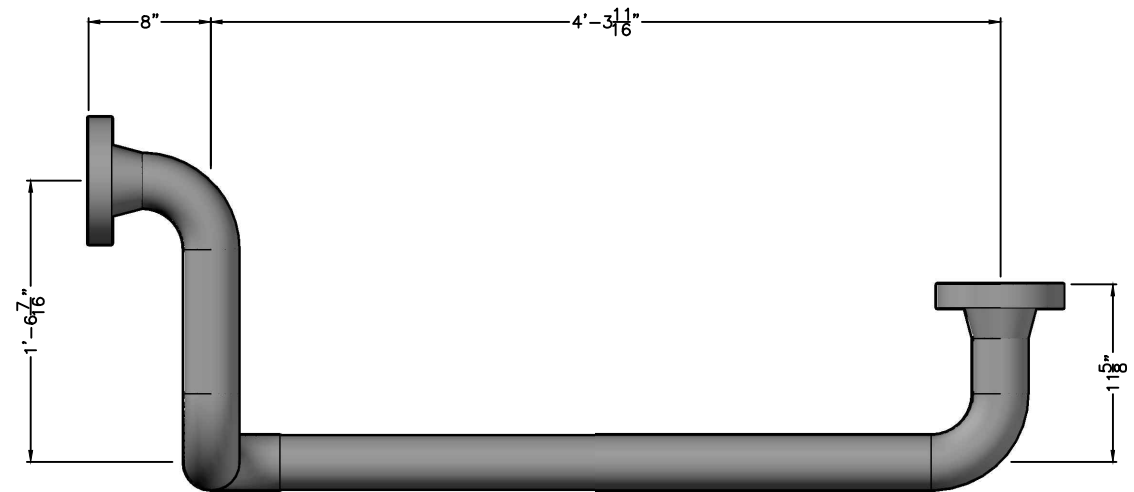
DRAWING NO.	REV.
3-CN-B-1H-505-1	0

DESIGN INFORMATION

DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 300° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS: ANSI 300	
MATERIAL TEST LIMITS: ANSI 300 FLANGES	



PLAN VIEW
(SCALE: NONE)



PROFILE VIEW
(SCALE: NONE)

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NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE	NO.	DRAWING STATUS / REVISION - DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

WEDGE RECORD		
DESIGN	JT	10/08/12
DESIGN ENG.	MWM	10/08/12
SCALE: NONE		

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CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	FROM V-1A (STABILIZER COLUMN) TO HE-1A (REBOILER)

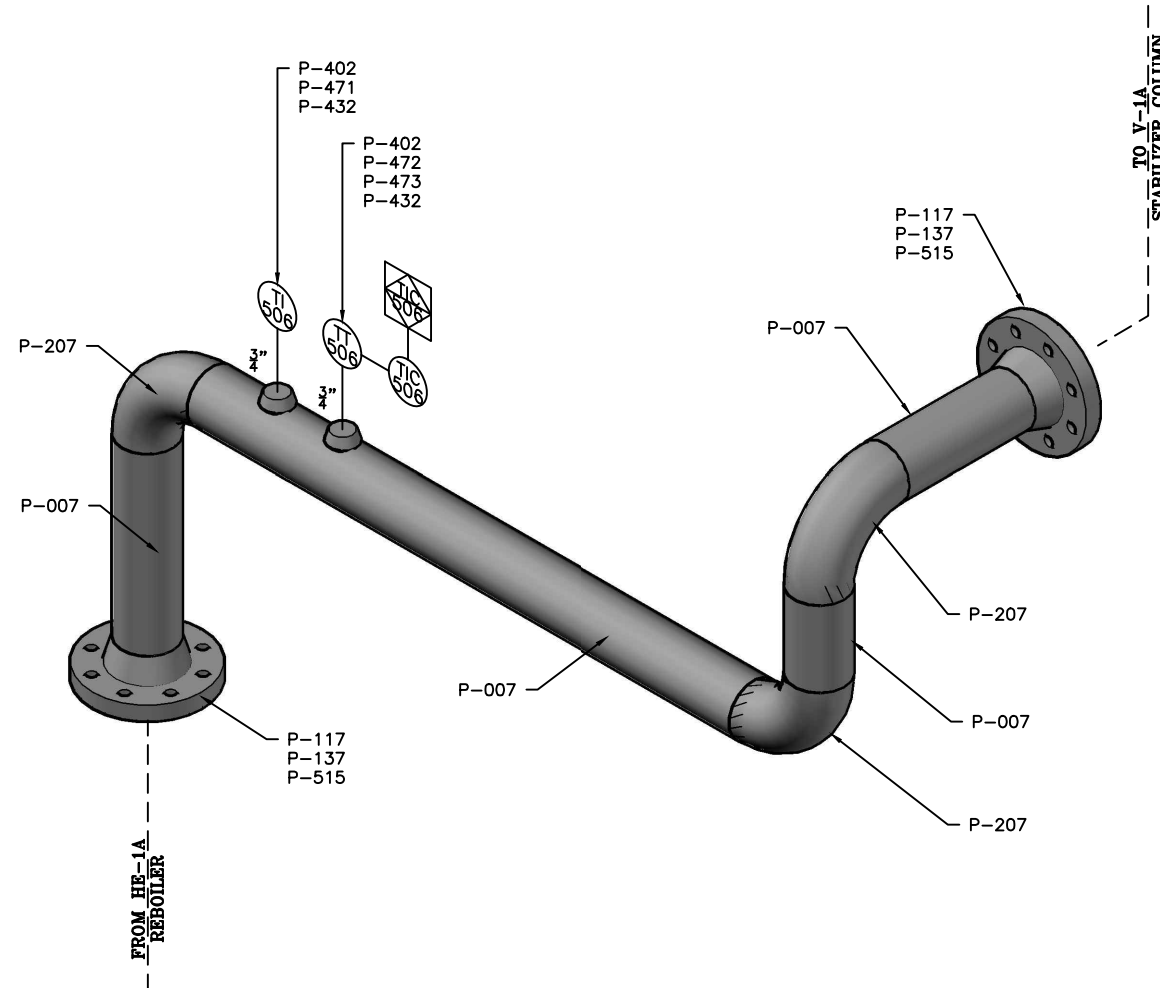
DRAWING NO.	REV.
3-CN-B-1H-505-2	0

DESIGN INFORMATION

DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 300° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS: ANSI 300	
MATERIAL TEST LIMITS: ANSI 300 FLANGES	

PRE-TEST SECTION No. 1

TEST MEDIUM: WATER
STABILIZATION: AS REQUIRED
HOLD PERIOD: 4 HRS. MIN.
TEST PRESSURE: MIN: 982 PSIG. MAX: 1012 PSIG



MATERIAL LIST

MARK No.	QTY.	UNIT	DESCRIPTION	MATERIAL
P-007	1	EACH	PIPE 4" XS (0.337" WT) SMLS A333	6 FEET
P-117	2	EACH	FLANGE WELD 4" 300# XS (0.337" WT) RFWN A420	*
P-137	2	EACH	GASKET 4" 300#, 1/8" TK, RIR SPIRALWOUND	*
P-207	3	EACH	ELL WELD 4", 90 DEG, XS (0.337"), L.R., A420	*
P-402	2	EACH	THREADOLET 3/4", 3000#, A420	*
P-432	2	EACH	THERMOWELL 3/4" X 1/2" X 2U 0.385" BORE 304SS	*
P-471	1	EACH	NOSHOK TEMP. INDICATOR, 30-300-040-0/200-F/C-1/2-SG-316-AU, 3" DIAL, BTM CON. 4" STEM, 0-200 F, 1/2" NPT	*
P-472	1	EACH	ROSEMOUNT TEMPERATURE TRANSMITTER - 3144PD1A1K5M5T1; 1/2-14NPT; 4-20MA; LCD DISPLAY (TAG: TT-506)	*
P-473	1	EACH	RTD G STYLE PROBE W/PLUG AND SPECIAL SPRING BURNS ENGINEERING P19447-12.5-144-138	*
P-515	16	EACH	STUD 3/4" X 4-3/4", A193 B7, W/ 2 HH NUTS A194 2H, CADMIUM PLATED	4-3/4"

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0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

WEDGE RECORD		
DESIGN	JT	10/06/12
DESIGN ENG.	MWM	10/06/12

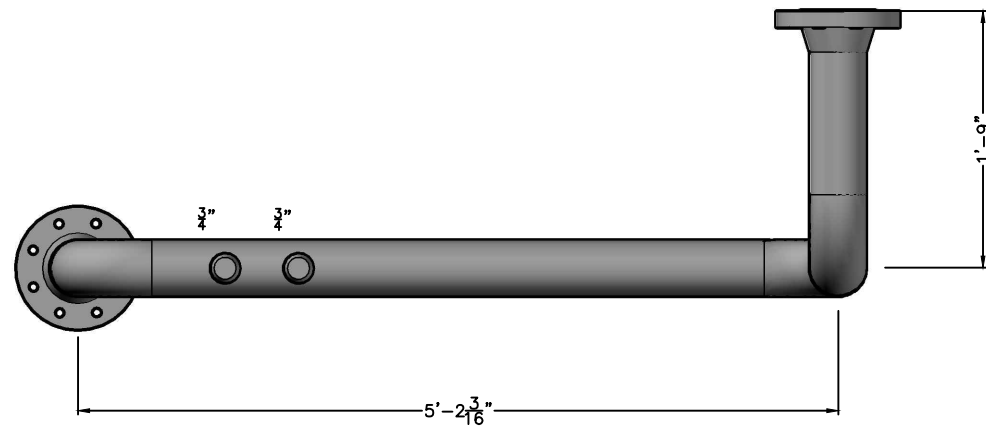
WEDGE ENERGY SERVICES, L.L.C.
 461 N. BROADWAY ST. JOSHUA, TX. 76058
 Phone: 817.426.9810 Fax: 817.426.9777

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	FROM V-2A (OVERHEAD SEPARATOR) TO C-1A (COMPRESSOR PACKAGE)

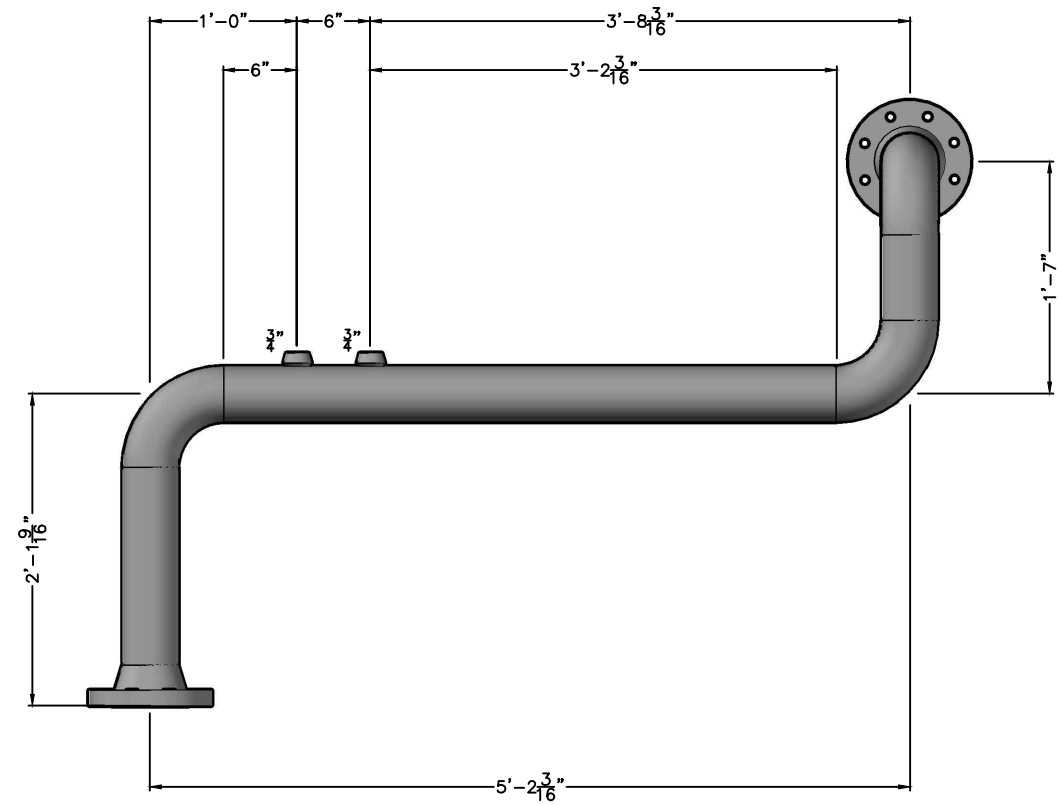
DRAWING NO.	4-CN-B-1H-506-1	REV.	0
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DESIGN INFORMATION

DESIGN PRESSURE: 655 PSIG	CLASS LOCATION: 3
DESIGN TEMPERATURE: -50° F TO 300° F	DESIGN FACTOR: 0.5
FLANGE RATING CLASS: ANSI 300	
MATERIAL TEST LIMITS: ANSI 300 FLANGES	



PLAN VIEW
(SCALE: NONE)



PROFILE VIEW
(SCALE: NONE)

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0	ISSUED FOR CONSTRUCTION	JM	05/28/14				

WEDGE RECORD		
DESIGN	JT	10/06/12
DESIGN ENG.	MWM	10/06/12
SCALE: NONE		

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DRAWING NO. 4-CN-B-1H-506-2

CSU-500B	
P.O.#/AFE:	SHOP ORDER #:
CLIENT:	
DESCRIPTION:	FROM V-2A (OVERHEAD SEPARATOR) TO C-1A (COMPRESSOR PACKAGE)