

Material Test Report



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INSPECTION CERTIFICATE EN 10204 - 2004

NUMBER 21C1-00015
 REVISION 0
 DATE 07/06/2022

3.1 3.2

CLIENT: GULF INTERSTATE ENGINEERING COMPANY ORDER: SO474753 JOB: WOSO474753-5

CLIENT ITEM	ITEM	QTY	DESCRIPTION	HEAT CODE	SPECIFICATION	MATERIAL	STEEL MAKER	CERT. N.	RAW MATERIAL
8	8	1.00	42 .720 3R 90 ELL Y70 SEGMENTABLE Product Code : 70P93.72042	1NAO13	MSS SP-75-2019 WPHY70	WPHY70	TRAMETAL	499161	PLATE

CHEMICAL COMPOSITION BY LADLE ANALYSIS * BY CHECK ANALYSIS **

HEAT	TEST	C	Mn	Si	P	S	Cr	Ni	Mo	Cu	V	Nb	B	CE
	min.	0.15												
	max.	0.25	1.60	0.45	0.025	0.015	0.25	0.50	0.25	0.45	0.11	0.10	0.0005	0.450
1NAO13	LADLE *	0.15	1.37	0.29	0.008	0.002	0.02	0.04	0.00	0.07	0.04	0.02	0.0005	0.380
1NAO13	CHECK **	0.14	1.36	0.28	0.007	0.001	0.01	0.03	0.00	0.06	0.04	0.01	0.0000	0.360

The chemical values and tensile properties are a true and correct copy of the certificate issued by the supplier of raw material or by the laboratory which has determined them.

MECHANICAL PROPERTIES ON RAW MATERIAL * ON FINISHED FITTINGS ** SUPPLEMENTARY REQ ***

Tensile Test Temp. °C +20 Impact Test Temp: -46.00 °C

	Y.S. Mpa	U.T.S Mpa	E %	Senso Direct.	Dim Sample	KCV (J)	Shear Area %	Lat. Exp MM	Hardness HBW	Red. Area %	REMARKS
min.	483	566	18			min. 20			min.		Melting Process: BASIC OXYGEN FURNACE Heat Treatment: Quenching at 920 °C 1min/mm, water cooling. Tempered at 630 °C 1min/mm, still air cooling. Macrohardness according to ASTM E18: Satisfactory Manufacturing Method: Hot Formed (780°C + 980°C) UT carried out on 100% of thicknesses of pieces according to ASTM E797 with satisfactory results. Visual and dimensional examination in accordance with MSS SP-75 (ED. 2019) Welded fittings are 100% X-Rayed (a joint factor 1.00 is guaranteed) All material supplied is certified to be free of mercury contamination and no mercury bearing equipment was used during manufacturing MR0103/ISO17945:2015 MR0175/ISO15156:2015
max.	759	827	100			average			max. 235	max.	
32258CSG	489	588	25	T	10 X 10 B.M.	82 - 78 - 128	50 - 50 - 65		198 - 214		
		603			H.A.Z.	118 - 78 - 169	65 - 50 - 70		203 - 216		
					W.	77 - 80 - 88	50 - 50 - 55		198 - 217		

ACTIVITIES	X-RAY				
CERTIFICATE	2795/20				
RESULT	Satisfactory				
	1940-3R-24, 4290222				

Work Inspector _____

Customer Inspector _____

Third Part Inspector _____

DATE _____ SIGNATURE

DATE _____ SIGNATURE _____

DATE _____ SIGNATURE _____

We hereby certify that the material listed below have been manufactured in compliance with the order and mentioned rules

2014/68/EU Directive - Annexe I § 4.3

Hydrotest Report

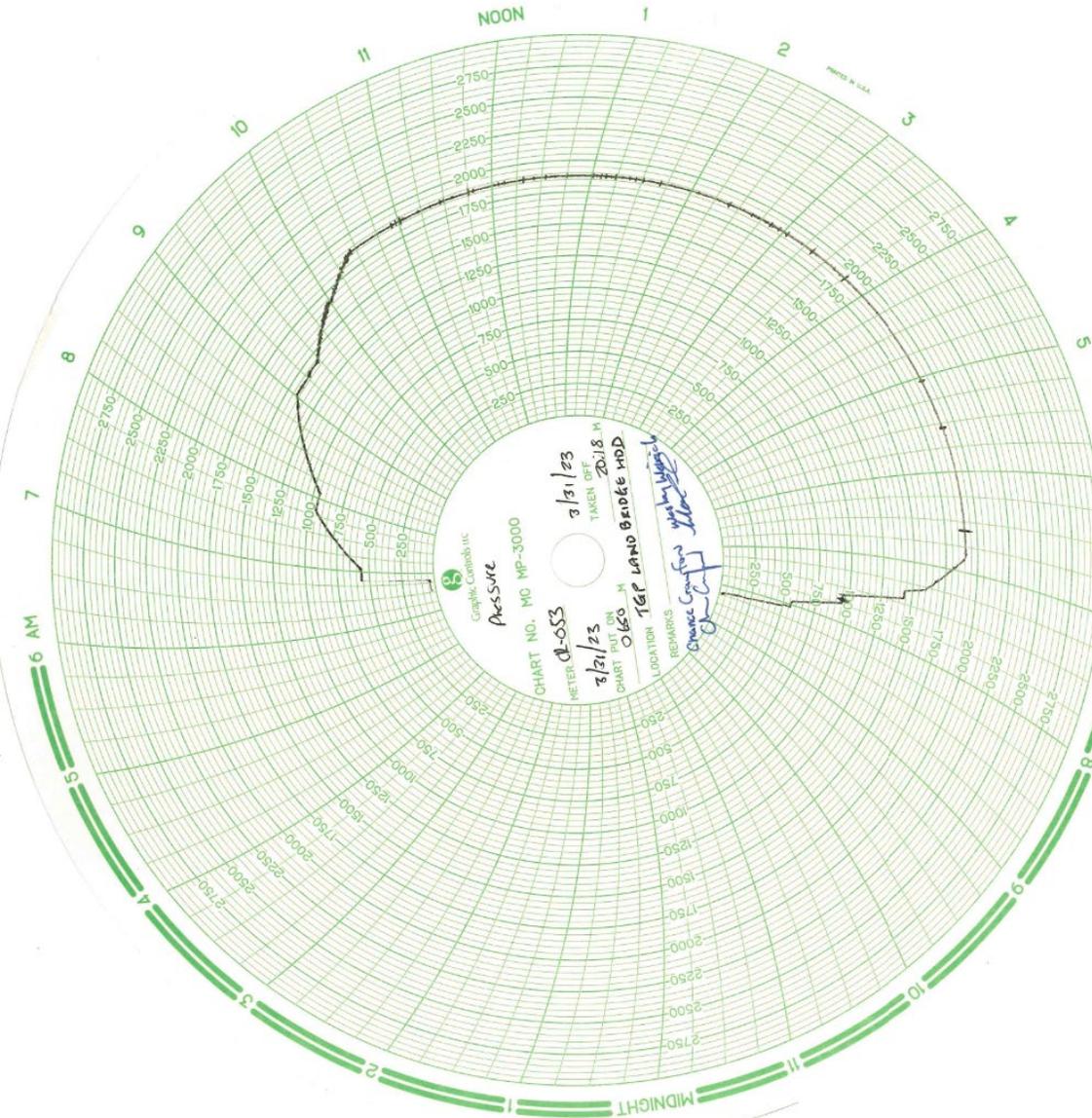
Hydrostatic Test Report

TEST SECTION DATA					
Operating Company:		State / Province:	LA		
Project Name:		AFE or WBS No.:	1940		
Testing Contractor:		Date:	03/31/23		
Test No.:	0-4	From Station:	550+26	(M.P.):	10.42
Test Description:	HDD - PreTest	To Station:	510+00	(M.P.):	9.66
		Or Fab. Location:	NA		
Code or Std.:	49 CFR Part 192	Design Factor:	Class Location 3	0.5	
Minimum Duration:	8 hr	Class Factor:	Class 3	1.5	
Product Type:	Gas	Joint Factor:	DSAW	1	
Test Section Visible?:	No	Temperature Factor:	< 250 F (121 C)	1	
Specified Min. Test Pressure:	1800 (psig)	Specified Max. Test Pressure:	1900 (psig)		
Elevation (ft) Station		Elevation (ft) Station			
Actual High Pt:	9.315 550+00	Actual Low Pt:	-6 510+00	% SMYS	
Governing High Pt:	9.315 550+00	Governing Low Pt:	-6 510+00	95	
Lowest Strength Pipe Component					Desired MOP / MAOP of Test Segment
O.D. (in):	42	W.T. (in):	0.600	Grade:	
SMYS:			70000		
Lowest Strength Component Other Than Pipe					
Grade:	WPHY-70	ANSI:	600	MOP:	1480
Other		O.D. (in):	42		
		MOP:	2220		psig: 1200
TESTING INSTRUMENT DATA					
	Serial Number	Certification Date	Manufacturer		
Deadweight (DW):	SMDW-0072	1/30/2023	Weber		
Pressure Recorder:	242B-115418	1/3/2023	Bullfrog / Barton		
Pipe Temp. Recorder:	242B-115718	1/3/2023	Bullfrog / Barton		
Ambient Temp. Recorder:	242B-115618	1/3/2023	Bullfrog / Barton		
Deadweight Location:	550+00	Specified Min. Pressure at DW:	1800		
Deadweight Elevation:	9.32	Specified Max. Pressure at DW:	1893		
HYDROSTATIC TEST RESULTS					
Start Date:	3/31/2023	End Date:	3/31/2023	Weather Conditions:	Sunny
Start Time:	10:30	End Time:	18:30	Test Duration:	8:00
Actual As Tested Pressures (psig)		Actual As Tested Pressures (psig)			
Actual Min. at DW:	1850	Actual Max. at DW:	1872		
Actual Min. at Actual High Pt:	1850	Actual Max. at Actual Low Pt:	1879 % SMYS		
Actual Min. at Governing High Pt:	1850	Actual Max. at Governing Low Pt:	1879 94		
Number of Leaks:	-	Reference Drawings:	GX-588600-PPL-HDD-GIE-00002-002		
Leak Pressure (psig):	-	Target Test Pressure: 1850 psig			
Leak Location:	-	Test section includes approx. 3378' of 0.72" WT			
Leak Elevation:	-	and 651' of 0.6" WT pipe			
The Pressure Test is:	Acceptable	Was a Pressure / Volume Plot Created?	Yes		
Additional Rational & Comments:	Test is acceptable, no visible leaks				
Testing Contractor			Company Representative		
Signature:		Date:	03/31/23	Signature:	
Print:	Wes Weirich	Print:	Chance Crawford	Date:	03/31/23

Hydrostatic Test Report

HYDROSTATIC TEST LOG						
Time	Pressure (psig)	Pipe Temp.	Ambient Temp.	Total Strokes	Δ Strokes	Remarks
6:50	0					Started fresh charts.
6:51	0				0	Open up gauges to 530psi.
6:52	530				0	Charts are marking.
7:00	530				0	Begin pressurization to 925psi.
7:47	925				0	Stop pressurization for 15 minute hold.
8:02	925				0	Begin pressurization to 1400psi.
9:00	1400				0	Stop pressurization for 15 minute hold.
9:15	1400				0	Begin pressurization to 1650.
9:55	1650			1	0	Begin P/V plot.
10:22	1850			36682	0	Stop pressurization for 15 minute hold.
10:30	1850	75	74		0	Begin 8 hour test.
10:45	1850	75	74		0	
11:00	1850	75	74		0	
11:15	1850	75	74		0	
11:30	1850	76	74		0	
11:45	1850	76	74		0	
12:00	1850	76	75		0	
12:15	1851	76	75		0	Gain of 1psi.
12:30	1851	76	76		0	
12:45	1852	76	76		0	Gain of 1psi.
13:00	1853	76	78		0	Gain of 1psi.
13:15	1853	76	78		0	
13:30	1855	76	78		0	Gain of 2psi.
13:45	1855	76	78		0	
14:00	1856	76	78		0	Gain of 1psi.
14:15	1856	76	78		0	
14:30	1856	76	78		0	
14:45	1856	76	78		0	
15:00	1857	76	78		0	Gain of 1psi.
15:15	1859	76	78		0	Gain of 2psi.
15:30	1859	76	78		0	
15:45	1860	76	78		0	Gain of 1psi.
16:00	1861	76	78		0	Gain of 1psi.
16:15	1862	76	78		0	Gain of 1psi.
16:30	1864	76	78		0	Gain of 2psi.
16:45	1865	76	78		0	Gain of 1psi.
17:00	1865	76	78		0	
17:15	1866	76	78		0	Gain of 1psi.
17:30	1868	76	78		0	Gain of 2psi.
17:45	1868	76	78		0	
18:00	1869	76	78		0	Gain of 1psi.
18:00	1870	76	78		0	Gain of 1psi.
18:15	1871	74	78		0	Gain of 1psi.

Hydrotest Report



CALIBRATION CERTIFICATE

DESCRIPTION Weber Brass Deadweight SERIAL NUMBER 5MDW-0072
 PRESSURE RANGE 5,000 ACCURACY+/- 0.1% FULL SERVICE +/- 5 P.S.I.

PRESSURE (PSI) ARRIVING ON CALIBRATION TABLE		
APPLIED PRESSURE	INDICATED PRESSURE	DIFFERENCE
0	0	0
1,000	1,002	2
2,000	2,003	3
3,000	3,004	4
4,000	4,005	5
4,995	5,000	5

PRESSURE (PSI) DEPARTING CALIBRATION TABLE		
APPLIED PRESSURE	INDICATED PRESSURE	DIFFERENCE
0	0	0
1,000	1,002	2
2,000	2,003	3
3,000	3,004	4
4,000	4,005	5
4,995	5,000	5

INSTRUMENT CALIBRATED IN THE VERTICAL POSITION ROOM TEMP 75F

This instrument upon receiving on calibration table was found to be within manufacturers tolerance. **XXX**
 This instrument upon receiving on calibration table was found to be out of manufacturers tolerance.

This is to certify that this instrument has been inspected and tested against Pressure Standard Additel Model # 681, Serial # 218193B0019 traceable to the National Institute of Standards and Technology, (NIST) Reference Doc# 119320, calibrated (04/12/2022). Reference Standard Serial # 211H201D0007. Certified Additel Model 681 A NIST Via NAMAS Cert number # CL258-37339-694. The calibration meets or exceeds all ISO 9001:2015 and API Spec. Q1 requirements by using Procedure #DHPF-1.1 Rev04. Also let it be known that all calibrations are performed by qualified DHP personnel using instrumentation and methods which guarantee precise accuracy.

DATE OF CALIBRATION 01/30/23
 CALIBRATION DUE DATE 07/30/23

TECHNICIAN Blake Broussard

