TEST SPECIFICATIONS

Saddle Butte Rockies Midstream, LLC - Hydrostatic Pressure Test

G Leg Phase 1

Date:	Select Routing:
17-Oct-2016	

Test Number: 1 of 1

Project Name:	Project I.D. / AFE Number	Facility Name or Number
~~Platte River Bore~~	15C024A	Rangeview Gathering System

Installation Location (M.P. or S.S.):			State:	County/Parish:	Class Location Designation	1	Selected Design Pressure	1480	Planned MAOP	1400
0+00	to	318+87	CO	Weld						

Project Description:

Hydrostatic pressure test of the 8" G Leg Phase 1 pipeline.

Testing at 1.25*MAOP = 1850 psig minimum test pressure. **2155 psig Target Test Pressure at Chart Location**

Max Test Pressure for ANSI 600 Valves and Fittings is 2545 psig where they are located.

Test shall be compliant with all test specifications in Exhibit D "Pipeline Construction Specifications" and all other Construction Documents.

LEAK ONLY TEST ☐ STRENGTH TEST ☑ FABRICATION ☐ NEW CONSTRUCTION ☑ REPLACEMENT ☐ RETEST ☐ REFERENCE DRAWINGS ATTACHED ☐

POST-INSTALLATION TEST ☑ PRE-INSTALLATION TEST ☐

Test Design Criteria

Minimum Component Characteristics

Pipe Information

O.D.	8.625
Wall Thickness	0.219
SMYS	52,000

Valve/Flange ANSI Class Rating
600# Valves/Fittings

Test Pressure Calculations

☐ Input minimum and maximum pressure of test
☐ Input minimum and maximum %SMYS of test

	Pressure (psig)	% PIPE SMYS
Max. Test Pressure (Pipe)	2470	93.5%
Max. Test Pressure (Valves and Fittings)	2545	96.4%
Min.	1850	70.1%

Test Section - Reference Data

Test Medium	Water	
Test Duration	8	Hours (min)
Section Length	31,887	Ft.
Section Fill Volume	96,775	Gal
Max. Elevation Change	304	Ft.

Station Equations:	1	2	3
Back	0+00	0+00	0+00
Ahead	0+00	0+00	0+00

Test Pressures

Location	Station	Elevation (feet)	Max. psig.	% SMYS @ Max.	Min. psig.	% SMYS @ Min.	Variance psig.	Target psig.	% SMYS @Target
BEGIN -	0+00	4852	2,400	90.9%	1,911	72.4%	488	2,155	81.6%
HIGH ELEVATION	318+87	4994	2,338	88.6%	1,850	70.1%	488	2,094	79.3%
LOW ELEVATION	168+25	4690	2,470	93.5%	1,982	75.0%	488	2,225	84.3%
END	318+87	4994	2,338	88.6%	1,850	70.1%	488	2,094	79.3%
Chart Location (Test Point)	**0+00**	**4852**	**2,400**	**90.9%**	**1,911**	**72.4%**	**488**	**2,155**	**81.6%**

REMARKS:

ASME B16.5 2.6 System Hydrostatic Testing 2003:
Flanged joints and flanged fittings may be subjected to system hydrostatic tests at a pressure of 1.5 times the 38°C (100°F) rating rounded off to the next higher 1 bar (25 psi) increment. Testing at any higher pressure is the responsibility of the user, taking into account the requirements of the applicable code or regulation.

Test shall be compliant with all test specifications in Exhibit D "Pipeline Construction Specifications" and all other Construction Documents.

PRE-TEST SPECIFIED / REVIEWED BY:	TEST PERFORMED / ACCEPTED BY:	POST-TEST REVIEWED BY:
Originator (Signature) Date:	Test Performed by (Signature): Dewayne Key Date: 11-10-16	Compliance (signature) Date:
Designed Reviewed if applicable (Signature) Date:	Company Name (for Contractor or for Employee): North Winds of Wyoming Date: 11-10-16	Engineering or Operations (Signature) Date:
Compliance (Signature) Date:	Witnessed & Accepted by Company Representative: (Signature) Charles Walker Date: 11-10-16	**Actual MAOP**

LIQUID PIPELINE PRESSURE TEST REPORT

Pressure Test Number 1

MOP of tested facility is 1400 PSIG

Company: Saddle Butte Operations Area:

Project: Rangeview Gathering System AFE: 15C024A

Pipeline:

Section: G Leg Phase 1

Station or Milepost From: 0+00 To: 318+87

INSTRUCTIONS

In this worksheet, cells containing formulas are protected against input.
Cells with BLUE text labels allow or require input.

General Information	· Complete this Report and attached necessary exhibits for all SBP installed pipelines or pipeline segments or those re-qualified for service. · Fill in all applicable information. If information is not applicable, write NA in the corresponding space on the Report.
Pipe Data	· Record the details for each pipe section tested, including lengths, line fill, pipe fittings, etc. · Add together pipe section lengths and line fill for a total pipe section length and line fill.
Test Water Data	· Enter water source information (i.e., from municipal supply, well, river, lake, pond) in the Test Log or notes section of the Report. · Source water temperature compared to ground temperature can assist with understanding the time for the water to stabilize.
Pressure Calculations	· Elevation of high and low points and the elevation of the test pressure measure sites is required for calculation of the target test pressures.
Test Log	· Fill out the Test Log at the time of the test. This is the actual log of the test. · From the start of filling the test section, record pressure readings from the calibrated test gauge or deadweight tester used in the test. · Record the test pressure and temperatures at intervals of 30 minutes to an hour and as necessary to represent the test pressure during the test period. · The below ground pipe temperature sensor should be placed away from exposed pipe and far enough from the water injection point so that water injected will not affect the readings. · In the Remarks column, enter start of test, end of test, and any remarks concerning unusual events, such as liquid added or withdrawn, weather conditions, etc.
Notes	· Enter all pertinent comments about the test, including such things as weather conditions, radical weather changes, equipment malfunctions, or any other noteworthy event that may affect testing.
Profile	· An elevation profile is required for any test section where the elevation varies more than 100 feet. The following items should be noted on the profile: - Location and elevation where test pressure measurements are taken - High and low points - Stationing or mileposts - Horizontal and vertical scale of the drawing · Elevation data is available in electronic format from the KPL mapping system. · If electronic elevation data is not available, take profile elevations from survey information or from U.S. Geological Service 7 1/2 minute topographical maps.
Failure Log	· Record each failure event that causes the line to be taken "off test". · Enter the date, time, and pressure at the time of failure. · List the apparent cause of the failure if the actual cause cannot be determined. Pipe seam failure or leaking flange, for example, could be entered as the cause of test failure. · Describe the repair method (i.e., changed-out pipe or tightened flange).
Supplementary Documentation	· Check each supplementary documentation attached as part of this test record (i.e., test charts and/or equipment certifications). · Write the corresponding Exhibit Number on the attached supplementary documentation.
Certification	· Signatures of the Company and Contractor representatives in charge of the test are MANDATORY.

PRESSURE CALCULATIONS

Location of Test Point	Elevation of Test Point	High Point	Low Point
Greg Phasel 0+00	4852 Ft. (Elevation) 0+00 Ft. (Station)	4994 Ft. (Elevation) 318+87 Ft. (Station) Location Name	4690 Ft. (Elevation) 168+25 Ft. (Station) Location Name

Target MOP: 1400 Test Duration: 8 hr

Target Test Pressure Range
1st Min: 1850 Maximum: 2470
2nd Min: 2212

High Point	Low Point
2215	2212

Start Point	End Point
4852 Ft. (Elevation) 0+00 Ft. (Station) Location Name	4994 Ft. (Elevation) 318+87 Ft. (Station) Location Name

TEST LOG

DATE	TIME	PRESSURE	AMBIENT TEMP	BELOW GROUND TEMP	ABOVE GROUND TEMP	REMARKS
11-9-16	5:30	0	61	58	72	Dark, NO wind, NO clouds
	5:45	0	60	58	72	build to 500
	5:50	525	60	58	69	
	6:20	525	59	58	66	build to 1000
	6:25	1001	59	58	65	
	6:40	1000	57	58	62	build to 1500
	6:45	1500	56	58	60	
	7:15	1500	53	58	59	build to 2000
	7:20	1996	53	56	57	
	7:35	1996	52	56	54	build to 2250
	7:36	2250	52	56	52	
	7:45	2248	51	56	50	
	8:00	2237	50	56	50	Found leak on bypass
	8:15	2228	49	56	48	
	8:30	2226	49	56	48	Dark Clear NO wind
	8:45	2225	48	56	48	
	9:00	2224	47	56	48	
	9:15	2223	46	56	48	
	9:30	2222	45	56	48	
	9:45	2222	44	56	48	
	10:00	2221	44	56	47	
	10:15	2221	43	56	47	
	10:30	2220	42	56	47	
	10:45	2220	41	56	47	
	11:00	2220	41	56	46	
	11:15	2219	40	56	46	
	11:30	2219	39	56	46	
	11:45	2219	39	56	46	
11/10/16	12:00	2218	38	56	45	
	12:15	2218	38	56	45	
	12:30	2218	38	56	44	
	12:45	2217	37	56	44	
	1:00	2217	37	56	44	
	1:15	2217	37	56	43	
	1:30	2217	36	56	42	
	1:45	2217	36	56	42	
	2:00	2216	35	56	42	
	2:15	2216	35	56	42	
	2:30	2216	34	56	42	

CABRILLO BUTTES PIPELINE, LLC

TEST LOG (CONTINUED)

DATE	TIME	PRESSURE	AMBIENT TEMP	BELOW GROUND TEMP	ABOVE GROUND TEMP	REMARKS
11/10/16	2:45	2216	34	56	42	Dark Clear Skys
	3:00	2216	33	56	42	no wind
	3:15	2216	33	56	42	
	3:30	2215	33	56	42	
	3:45	2215	32	56	42	
	4:00	2215	32	56	42	
	4:15	2215	31	56	42	
	4:30	2215	31	56	42	
	4:45	2214	31	56	42	
	5:00	2214	30	56	41	
	5:15	2214	30	56	39	
	5:30	2214	30	56	39	
	5:45	2214	30	56	39	
	6:00	2214	29	56	39	Day light
	6:15	2213	29	56	39	
	6:30	2213	29	56	41	Clear Sky no wind
	6:45	2213	31	56	42	
	7:00	2213	33	56	45	
	7:15	2213	34	56	48	
	7:30	2213	35	56	51	
	7:45	2213	37	56	55	
	8:00	2213	39	56	58	
	8:15	2213	41	56	58	
	8:30	2213	43	56	58	
	8:45	2213	45	56	58	Bleed chart to 0 TO Begin Test
	8:55	0	44	56	58	replace chart
	9:00	0	50			
	9:05	0	51			Build back TO 2213
	9:09	2212	52			Clear Sunny warming up Quick
*	9:15	2212	52	56	62	*Begin Test*
	9:30	2212	54	56	65	
	9:45	2212	55	56	66	Light haze / wind picking up
	10:00	2213	58	56	68	
	10:15	2213	61	56	70	WINDY
	10:30	2213	65	56	72	
	10:45	2213	66	56	72	
	11:00	2213	67	56	73	
	11:15	2213	68	56	74	Sunny Windy
	11:30	2214	68	56	75	
	11:45	2214	68	56	76	
	12:00	2214	69	56	77	
	12:15	2214	69	57	77	
	12:30	2214	70	57	78	
	12:45	2214	70	57	78	
	1:00	2214	70	57	78	
	1:15	2214	70	57	78	
	1:30	2215	70	57	79	
	1:45	2215	70	57	79	Sunny Windy
	2:00	2215	70	57	79	
	2:15	2215	70	57	79	

CARRIZO MIDSTREAM, LLC

TEST LOG (CONTINUED)

DATE	TIME	PRESSURE	AMBIENT TEMP	BELOW GROUND TEMP	ABOVE GROUND TEMP	REMARKS
11-16-16	2:30 PM	2215	70	57	79	Sunny warm windy
	2:45	2215	69	57	80	
	3:00	2215	68	57	81	Turned on flameless heaters at Chart location
	3:15	2215	68	57	84	
	3:30	2215	66	57	88	moved heat source away from Temp
	3:45	2215	66	57	83	Still Sunny but cooling off Probe
	4:00	2215	66	57	83	
	4:15	2215	65	57	82	
	4:30	2215	64	56	80	Sun is gone behind mountains
	4:45	2215	63	56	80	Sunset
	5:00	2215	61	56	79	
*	5:15	2215	60	56	79	*END TEST Turned off Heater
	5:30	2215	59	56	78	
	5:45	2215	57	56	77	Bleedoff to 2000
	5:50	2002	56	56	74	
	6:05	2000	55	56	72	Bleed off to 1500
	6:10	1503	55	56	68	
	6:25	1501	54	56	68	Bleed off to 1000
	6:38	998	54	56	68	
	6:45	999	52	56	64	Bleed off to 500
	6:49	498	52	56	63	
	7:05	500	52	56	62	Bleed off to 0
	7:10	0	52	56	60	
	7:25	0	50	56	60	

SAMUEL PUTNAM FURNACE, LLC

TEST EQUIPMENT

PRESSURE RECORDER 1:

Mfg. Barton
Model
Serial No. 242-49950
Range 0-3000 PSI
0-150° F
Notes: Calon

PRESSURE RECORDER 2:

Mfg.
Model
Serial No.
Range
Notes:

DEADWEIGHT TESTER OR CALIBRATED TEST GAUGE:

Mfg. Crystal
Model XP2i
Serial No. 364359 CR-2
Date of last Calibration 11-2-16
Calibrated by PMC
Range 0-5000 PSI
Notes:

TEMPERATURE RECORDER:

Mfg. Barton
Model
Serial No. 242-122850
Range 0-150 F
Notes: Cal 10-22-16

CALIBRATION OF TEMPERATURE RECORDER

Temperature recorder reading	Test mercury thermometer reading	Remarks

CALIBRATION OF PRESSURE RECORDER 1

Pressure recorder reading	Deadweight tester reading	Remarks

CALIBRATION OF PRESSURE RECORDER 2

Pressure recorder reading	Deadweight tester reading	Remarks

NOTES

CABRILLO PORT PIPELINE, LLC

EQUIPMENT CALCULATED MOP SUMMARY WORKSHEET

1. Test Information:

Target MOP [1480]
Enter the desired MOP, if less than pipe internal design pressure.

Date 11-9-16 Time 4:00 PM
Test Point Location 0+00
Test Medium Water Test Duration 8 hrs
Specific Gravity of Test Medium
Min. Test Press. at test site 125% of min. MOP + elv. 110%
Maximum allowable % of SMYS = 100%

2. Pipe Specifications:

Manufacture Type
Pipe (#1) O.D. 8.625 MOP
Grade X52 SMYS 52,000 Seam Joint Factor
Wall thickness .219 Design Factor (F)
Length (ft.): 31,887 Volume
Max allowable test pressure, psig

3. Pipe Specifications:

Manufacture Type
Pipe (#2) O.D. MOP
Grade SMYS Seam Joint Factor
Wall thickness Design Factor (F)
Length (ft.): Volume
Max allowable test pressure, psig

4. Pipe Specifications:

Manufacture Type
Pipe (#3) O.D. MOP
Grade SMYS Seam Joint Factor
Wall thickness Design Factor (F)
Length (ft.): Volume
Max allowable test pressure, psig

5. Pipe Specifications:

Manufacture Type
Pipe (#4) O.D. MOP
Grade SMYS Seam Joint Factor
Wall thickness Design Factor (F)
Length (ft.): Volume
Max allowable test pressure, psig

6. Pipe Specifications:

Manufacture Type
Pipe (#5) O.D. MOP
Grade SMYS Seam Joint Factor
Wall thickness Design Factor (F)
Length (ft.): Volume
Max allowable test pressure, psig

7. Pipe Specifications:

Manufacture Type
Pipe (#6) O.D. MOP
Grade SMYS Seam Joint Factor
Wall thickness Design Factor (F)
Length (ft.): Volume
Max allowable test pressure, psig

8. Pipe Fittings Specifications:

Manufacture Type
Fitting Description
Pipe Fitting O.D. MOP
Grade SMYS Seam Joint Factor
Wall thickness Design Factor (F)
Max allowable test pressure, psig

9. Pipe Fittings Specifications:

Manufacture Type
Fitting Description
Pipe Fitting O.D. MOP
Grade SMYS Seam Joint Factor
Wall thickness Design Factor (F)
Max allowable test pressure, psig

10. Pipe Fittings Specifications:

Manufacture Type
Fitting Description
Pipe Fitting O.D. MOP
Grade SMYS Seam Joint Factor
Wall thickness Design Factor (F)
Max allowable test pressure, psig

EQUIPMENT CALCULATED MOP SUMMARY WORKSHEET
(continued)

11. Manufactured:
Weldolet, etc. O.D. _____ Working Pressure _____
Manufacture Type _____ Grade _____
Fitting Description _____
Max allowable test pressure, psig

12. Manufactured:
Pipe Flanges O.D. _____ Working Pressure _____
Manufacture Type _____ Class _____
Temperature Derating Factor (T) _____
Max allowable test pressure, psig

13. Manufactured:
Pipe Flanges O.D. _____ Working Pressure _____
Manufacture Type _____ Class _____
Temperature Derating Factor (T) _____
Max allowable test pressure, psig

14. Manufactured:
Block Valve Size _____ Working Pressure _____
Manufacture Type _____ Class _____
Temperature Derating Factor (T) _____
Max allowable test pressure, psig

15. Calculated MOPs (psi):

Test Pressure Range @Test Site, psig	125% to psig	110% to psig
Note: Add 0 psi to min. test range		
Maximum test presssure at test site, psig		

CALCULATED TARGET MOP OF PIPELINE SECTION PSIG

SADDLE BUTTE PIPELINE, LLC

FAILURE LOG

FAILURE:

Date: ________ Time: ________________ am / pm Failure Pressure: ______________________

Apparent Cause: ____
____

REPAIR:

Describe Repair Method: ____
____

FAILURE:

Date: ________ Time: ________________ am / pm Failure Pressure: ______________________

Apparent Cause: ____
____

REPAIR:

Describe Repair Method: ____
____

FAILURE:

Date: ________ Time: ________________ am / pm Failure Pressure: ______________________

Apparent Cause: ____
____

REPAIR:

Describe Repair Method: ____
____

FAILURE:

Date: ________ Time: ________________ am / pm Failure Pressure: ______________________

Apparent Cause: ____
____

REPAIR:

Describe Repair Method: ____
____

FAILURE:

Date: ________ Time: ________________ am / pm Failure Pressure: ______________________

Apparent Cause: ____
____

REPAIR:

Describe Repair Method: ____
____

The following marked exhibits are attached as a part of this Test Report:

EXHIBIT NO. 1	☐ Sketch of Tested Piping (including how section is isolated), with material list
EXHIBIT NO. 2	☐ Profile of pipeline section and/or segment
EXHIBIT NO. 3	☐ Pressure Chart, with pressure test number, date, test section name, Inspector name and signature
EXHIBIT NO. 4	☐ Temperature Chart, with pressure test number, date, test section name, Inspector name and signature
EXHIBIT NO. 5	☐ Pressure Recorder Certification Papers
EXHIBIT NO. 6	☐ Temperature Recorder Certification Papers
EXHIBIT NO. 7	☐ Deadweight or Calibrated Test Gauge Certification Papers
EXHIBIT NO. 8	☐ Field test data log, if hand written
EXHIBIT NO. 9	☐ Pressure Test Procedure, if applicaple, with MOP Area Representative and Engineer signature approval

CERTIFICATION

I certify this pipeline or pipeline section has been tested and successfully met the terms of SBP MOP Establishment and Pressure Testing of Pipelines Technical Guideline and, where applicable, the contract document between SBP and its prime contractor.

MOP Area Representative

By: _____ (Please print) _____ (Signature) Date: _____

Engineer

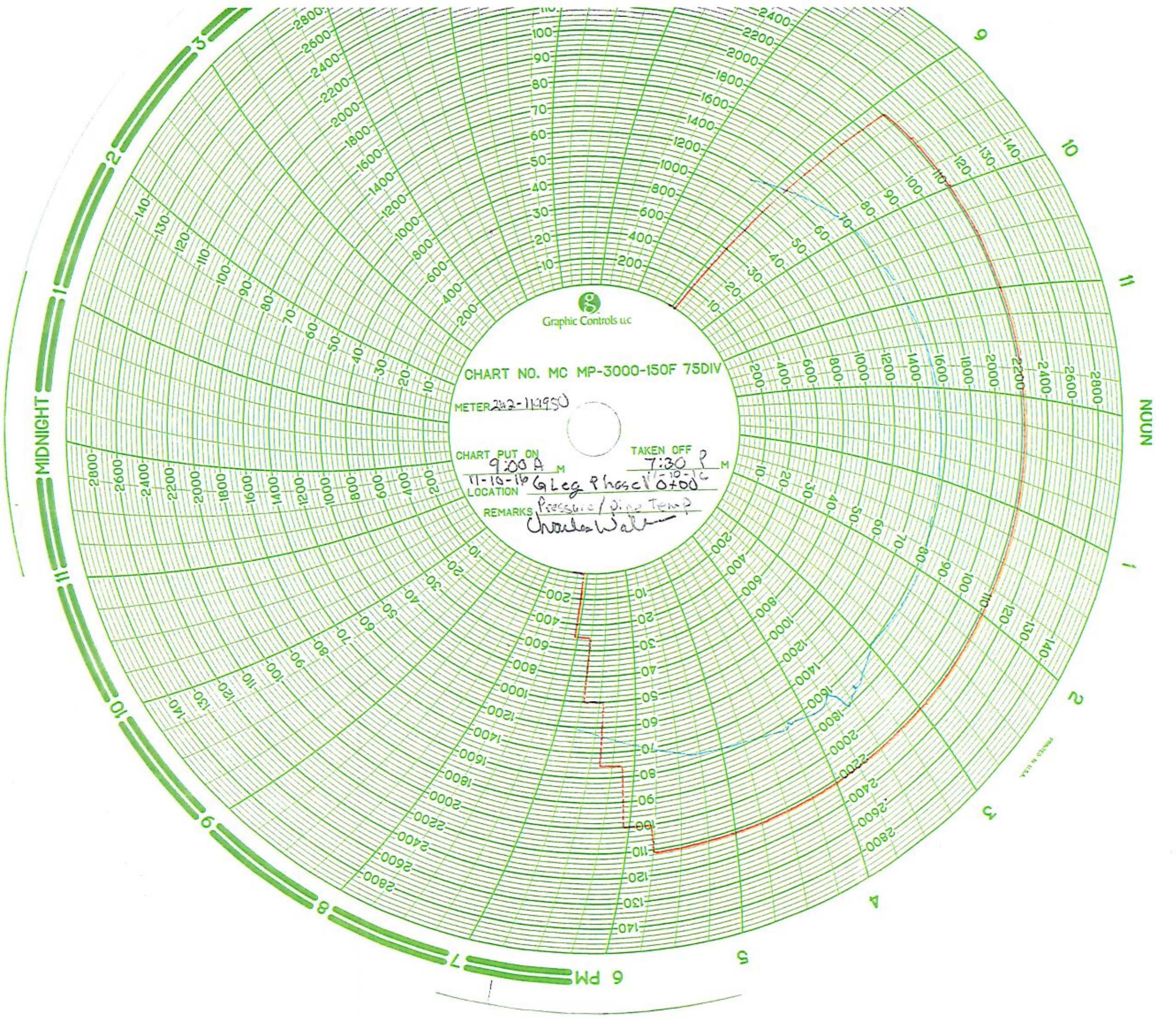
By: _____ (Please print) _____ (Signature) Date: _____

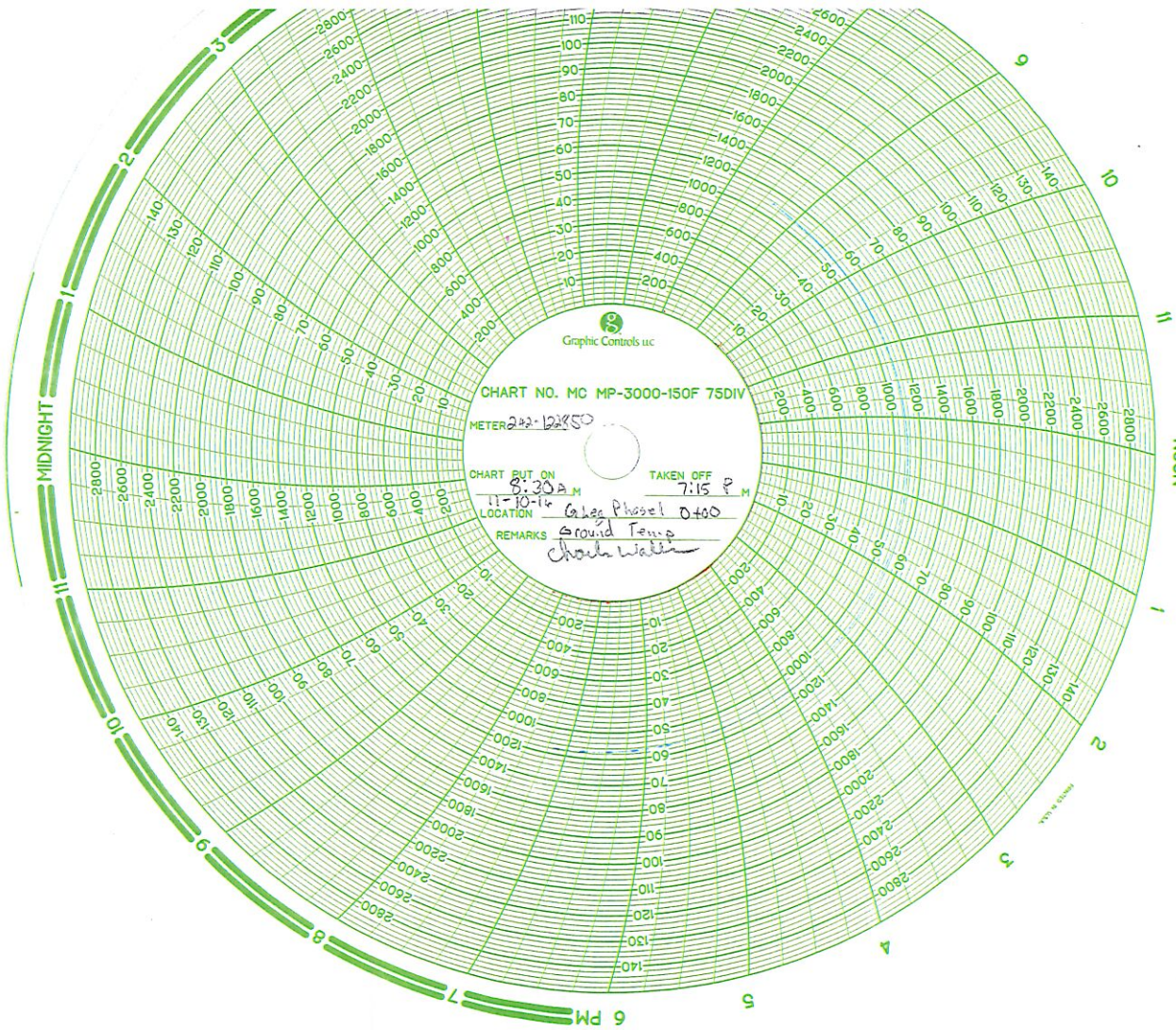
Inspector

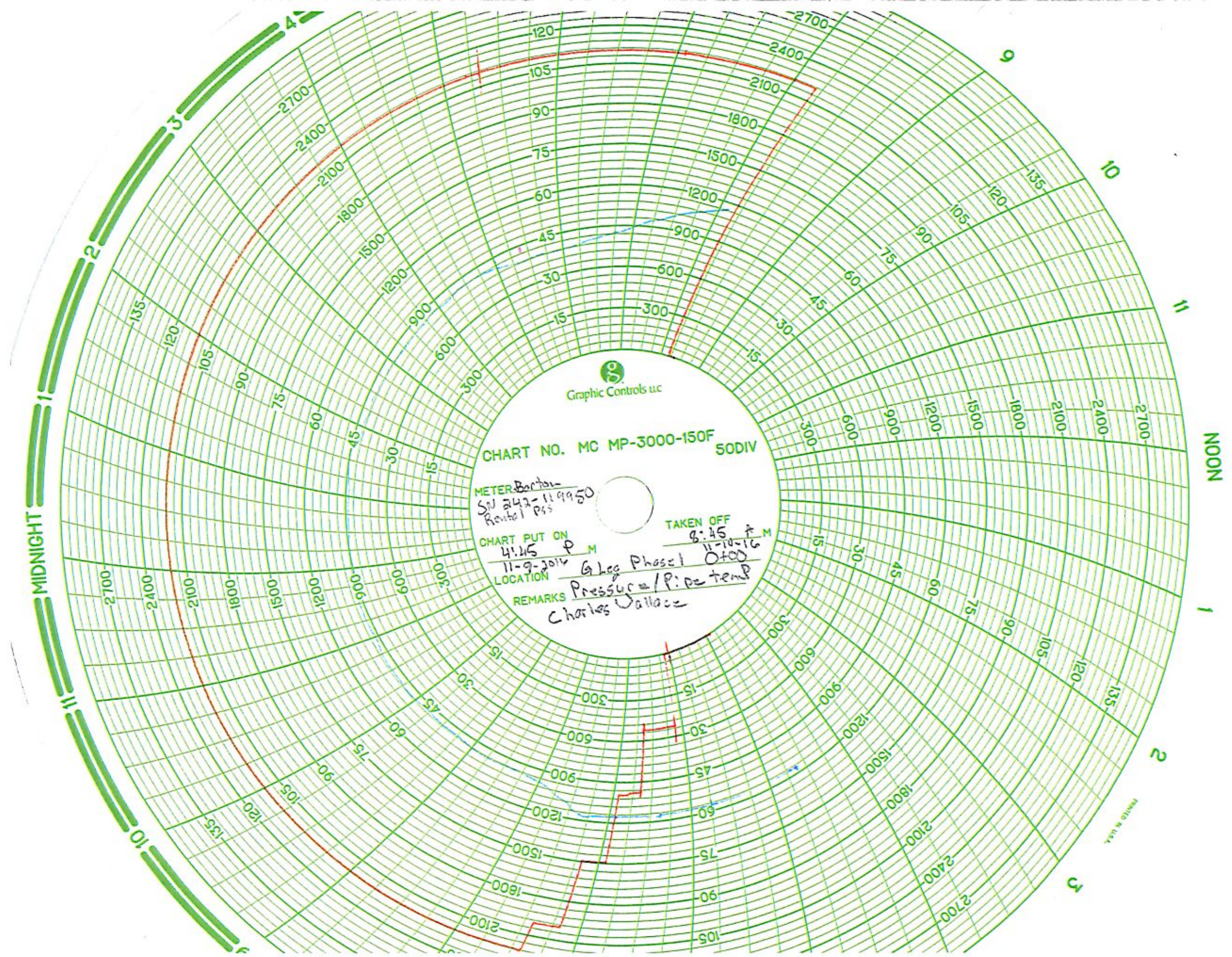
By: Charles Wallace (Please print) Charles Wallace (Signature) Date: 11-10-16

Name of Testing Contractor North winds of Wyoming

By: Dewayne Kerr (Please print) Dewayne Kerr (Signature) Date: 11/10-16


Graphic Controls LLC
CHART NO. MC MP-3000-150F 75DIV
METER 242-119950
CHART PUT ON 9:00 AM
TAKEN OFF 7:30 PM
11-10-16
LOCATION G Leg Phase 1 0+00
11-10-16
REMARKS Pressure / Pipe Temp
MIDNIGHT
NOON
6 PM


Graphic Controls LLC
CHART NO. MC MP-3000-150F 75DIV
METER 242-12850
CHART PUT ON 8:30 A M
11-10-14
TAKEN OFF 7:15 P M
LOCATION College Phase I 0400
REMARKS Ground Temp
Charles Watkins
MIDNIGHT
NOON
6 PM



Graphic Controls LLC
CHART NO. MC MP-3000-150F
50DIV
METER Barton
SN 242-119950
Rental Pss
CHART PUT ON
4:45 P M
11-9-2016
TAKEN OFF
8:45 A M
11-10-16
LOCATION G Leg Phase 1 0+00
REMARKS Pressure/Pipe temp
Charles Wallace
MIDNIGHT
NOON

Pressure / Pipe Temp

P-SS-SS-COMPANIES

WASATCH SUPPLY

PSS PIPELINE SUPPLY & SERVICE

NORTH STATE SUPPLY NS

9700 E. 104TH AVE, UNIT F- HENDERSON, CO 80640 - Phone (303)857-7986 - Fax (303)389-4945

CALIBRATION CERTIFICATE

CERTIFICATE NUMBER: CO

Details +/-: 1.0% ACCURACY

DATE CALIBRATED: 10/18/2016
DUE DATE: 10/18/2017

INDICATED TEMPERATURE RANGE: # 0 – 150°F
INDICATED PRESSURE RANGE: #0 – 3000 PSI
SERIAL NO: 242-119950 / **ID:** 004060
MANUFACTURER: BARTON/ 12" RECORDER

TYPE OF INSTRUMENT CALIBRATED: TEMPERATURE / PRESSURE RECORDER

INSTRUMENT FINDINGS/STATUS: UNIT IS IN TOLERANCE/ INSTRUMENT MEETS OR EXCEEDS SPECIFICATIONS.

BASED ON INTERNATIONAL STANDARDS OF GRAVITY: (980.665 cm./sq.).

TYPE OF STANDARD USED TO CALIBRATE: REFINERY DEADWEIGHT TEST UNIT SPT. (35225-3) SERIAL No. 5268: KESSLER TEST THERMOMETERS; SERIAL NO, CALIBRATION DATE: SEPTEMBER 14, 2015

ALL STANDARD DIRECTLY TRACEABLE TO NATIONAL INSTITUTE OF STANDARDS & TECHNOLOGIES TEST NO: (N.I.S.T.) 2.6/172490 & 6.6/139577.

CALCULATED USING MASS VALUES, AREA, AO, AND STATED GRAVITY.
ROOM TEMPERATURE/HUMIDITY (AT TIME OF TEST): 66°F / 25%.

CALIBRATED BY: NICK BEDFORD

Ground Temp

P-SS-SS-COMPANIES

WASATCH SUPPLY

PSS PIPELINE SUPPLY & SERVICE

NORTH STATE SUPPLY NS

9700 E. 104TH AVE, UNIT F- HENDERSON, CO 80640 - Phone (303)857-7986 - Fax (303)389-4945

CALIBRATION CERTIFICATE

CERTIFICATE NUMBER: CO

Details +/-: 1.0% ACCURACY

DATE CALIBRATED: 10/22/2016
DUE DATE: 10/22/2017

INDICATED TEMPERATURE RANGE: # 0 – 150°F
INDICATED PRESSURE RANGE: #0 – 3000 PSI
SERIAL NO: 242-122850 / **ID:** 006893
MANUFACTURER: BARTON/ 12" RECORDER

TYPE OF INSTRUMENT CALIBRATED: TEMPERATURE / PRESSURE RECORDER

INSTRUMENT FINDINGS/STATUS: UNIT IS IN TOLERANCE/ INSTRUMENT MEETS OR EXCEEDS SPECIFICATIONS.

BASED ON INTERNATIONAL STANDARDS OF GRAVITY: (980.665 cm./sq.).

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CALCULATED USING MASS VALUES, AREA, AO, AND STATED GRAVITY.
ROOM TEMPERATURE/HUMIDITY (AT TIME OF TEST): 66°F / 25%.

CALIBRATED BY: NICK BEDFORD

crystal

Non-Conformance Report

PROCESS MEASUREMENT COMPANY
2475 W. 2ND AVE 34A DENVER, CO , 80223
303-937-7226 Fax: 303-936-2731
www.pmc-calibration.com

Calibration Performed By:
PMC-DENVER
2475 W. 2ND AVE 34A
DENVER, CO , 80223

For:
PIPELINE SUPPLY AND SERVICE
9700 E 104TH AVE

I.D.: CR-2
Description: PRESSURE GAGE
Manufacturer: CRYSTAL
Gage Type:
Temp./RH: 71.9 F / 21.8
Cal. Interval: 12 MONTHS

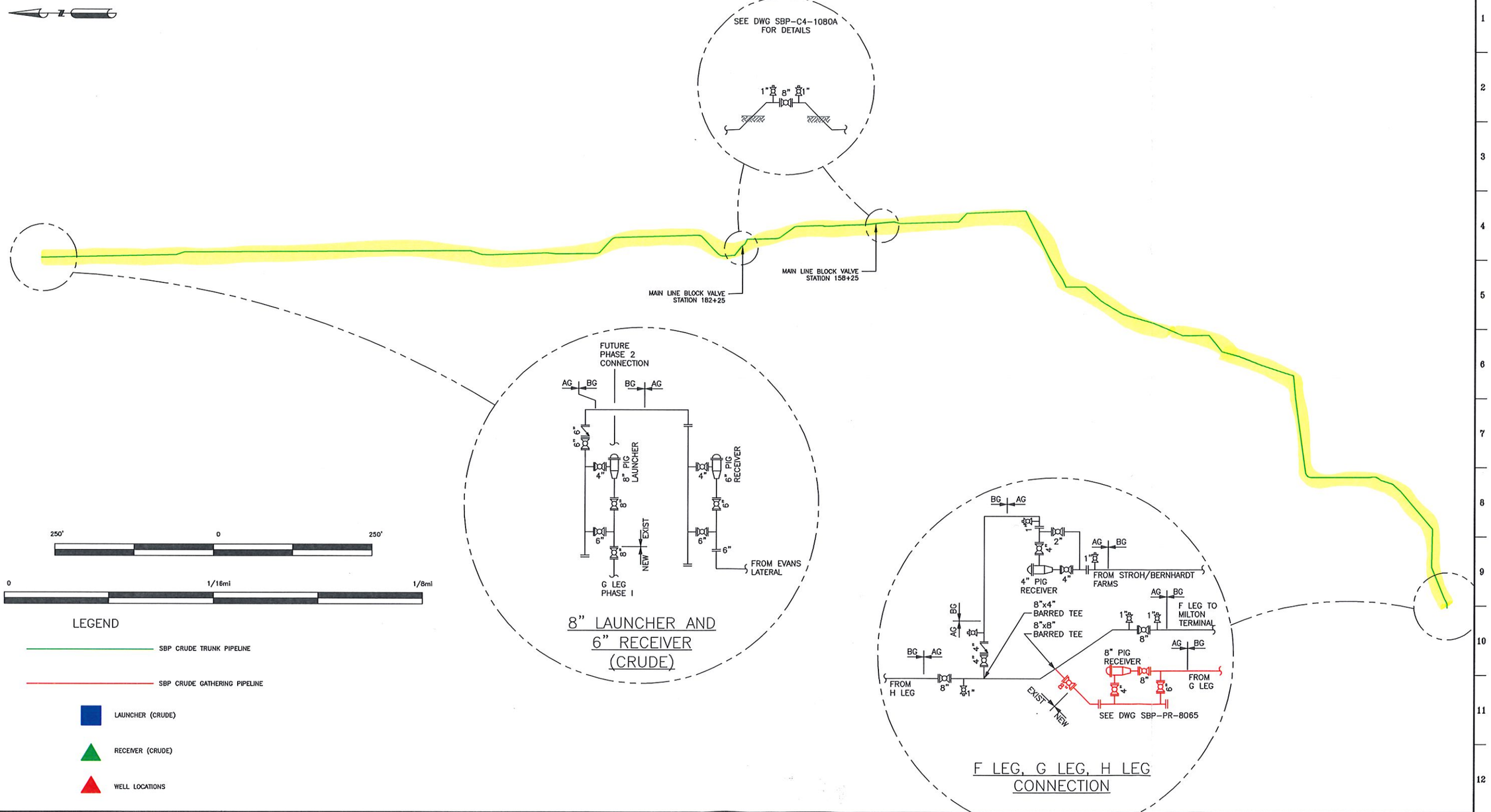
Serial Number: 364359
Model Number: XP2I
Performed By: MATTHEW KNOWLES
Cal. Due Date: 11/2/2017
Calibration Result: ADJ.
Cal Date: 11/2/2016

Equipment Used To Calibrate Equipment:

Company	I.D.	Description	Last Cal.	Cal. Due Date
02-PMC DENVER	PMCD-064	TEMP/ HUMIDITY METER	5/16/2016	5/16/2017
03-PMC OMAHA	PMCO-134	DEAD WEIGHT TEST SET 0-20	5/3/2016	5/3/2017

Procedures Used In Event:

Company	Procedure Name	Description	Revision Level	Revision Date
PROCESS MEASUREI	SCP05-022	PRESSURE AND VACUUM GAUGES	0	2/9/2015



NOTE:
1. FLOW SCHEMATIC IS FOR GRAPHICAL REPRESENTATION ONLY.
2. ALL GAS, WATER, AND UTILITY LINES SHOULD BE LOCATED PRIOR TO ANY EXCAVATING, TRENCHING OR DIGGING ANYWHERE ON OR NEAR THIS SITE.

REFERENCE DRAWINGS

NO.	TITLE

Summit Engineering Services, Inc.
44 Inverness Dr. E., Ste. E100
Englewood, CO 80112
303.768.9191 Office
303.768.9292 Fax

REVISIONS

NO.	FIRM	DATE	DESCRIPTION	BY	CHK.	APP.
0	SESI	06/08/16	ISSUED FOR CONSTRUCTION	CWG	TKC	JPE
1	SESI	09/28/16	RE-ISSUED FOR CONSTRUCTION	PDE	DMN	

ENGINEERING RECORD

	BY	DATE
DRN:	PDE	05/31/16
DES:		
CHK:		
APP:		
AFE No.		
SE&C JOB NO.		
PROJ. ENGR:		
SCALE:	AS NOTED	

SADDLE BUTTE PIPELINE

FLOW SCHEMATIC
G LEG PHASE I

PLOT SCALE
CAD NO. G_LEG_PHASE I
DWG. NO. G_LEG_PHASE I
REV 1

X:\SESI Clients-Projects\Saddle Butte Pipeline\8193 - Lakeview Engineering Schematics\3 -CAD\Xrefs\Mechanical\G_LEG_PHASE I (7/18/2016 10:43:17 AM)