Form H: Direct Examination Data Sheet - Page 1 of 10

DA/ILI		DA		ILI	
Route Number:	3010-01	**N-Segment:**	191-2013	**ILI Log Distance:**	N/A
Examination Date:	4/30/2013	**IMA Number:**	N/A	**RMP-11 Ref. Section:**	N/A
Mile Point:	0.53 - 0.65			**Reference Girth Weld:**	N/A
Examination Performed By:	Nicholas Mortenson	**Region Number:**	2	**Distance From Girth Weld:**	N/A
PG&E Project Manager:	Adam Abraham	**Subregion # (ICDA):**	N/A		
Approved By:	Brenda McKay	**Stationing:**	4+49		
Order Number:	41821294				

Excavation Priority: ☐ Immediate ☐ Scheduled ☐ 1 Year ☐ Other ■ Monitor ☐ Effectiveness ☐ ICDA

Excavation Reason ■ ECDA ☐ ILI ☐ Recoat ☐ ICDA ☐ Other

If practical, take P/S or CIS reads before excavation: No test point available.

Excavation Details: Ce[redacted]sed on GIS):
Northing:
Easting:

Planned Inspection Length (Ft.): 12
Actual Inspection Length (Ft.): 13'6"

Ce[redacted]corrected Field Measurement):
Northing
Easting

GPS File Name: 191 4+49

C[redacted]Corrected Field Measurement):
Northing
Easting

Nominal Wall Thickness: 0.219"
Nominal Pipe Diameter: 6"

1.0 Data Before Coatin[redacted]

1.1 Native Soil Type: ☐ Clay ☐ Rock ■ Sand ☐ Loam ☐ Wet ☐ Other

1.1a Backfill Material Found ■ Sand ☐ Slurry ☐ Native

Depth of Cover (Ft.): 4'2"

Comments: Material found around pipe was sand.

1.2 Coating Type: ☐ HAA ☐ Somastic ■ Plastic Tape ■ Wax Tape ☐ FBE ☐ Powercrete ☐ Bare/None ☐ Paint ☐ Other:

Comments: Wax tape on valve.

Coating Thickness (Inches): 0.100 - 0.190

Number of Layers: 2 - 5

1.3 Holiday Testing Performed?: ☐ Yes ■ No Voltage Used: N/A Map Location of Holidays Below.

Device Used: ☐ Coil ☐ Wet Sponge Comments: Coating was visually inspected for defects.

1.4 Pipe-to-Soil Potentials in Ditch (-mV): US: 417 DS: 420

Comments: Pipe-to-Soil potentials taken with a CSE. Potentials were low, PG&E has turned off rectifiers in the surrounding area for survey.

1.5 Soil Resistivity in Ditch (Ω-cm):

Method: ☐ 4-Pin N/A due to asphalt. ■ Soil Box 5.7 x 10,000 x 1 = 57,000

1.6 Soil Sample Location: Comments: U/S edge, at 3:00.

1.7 Ground Water Present?: ☐ Yes ■ No Sample(s) Collected?: ☐ Yes ■ No Sample pH: N/A

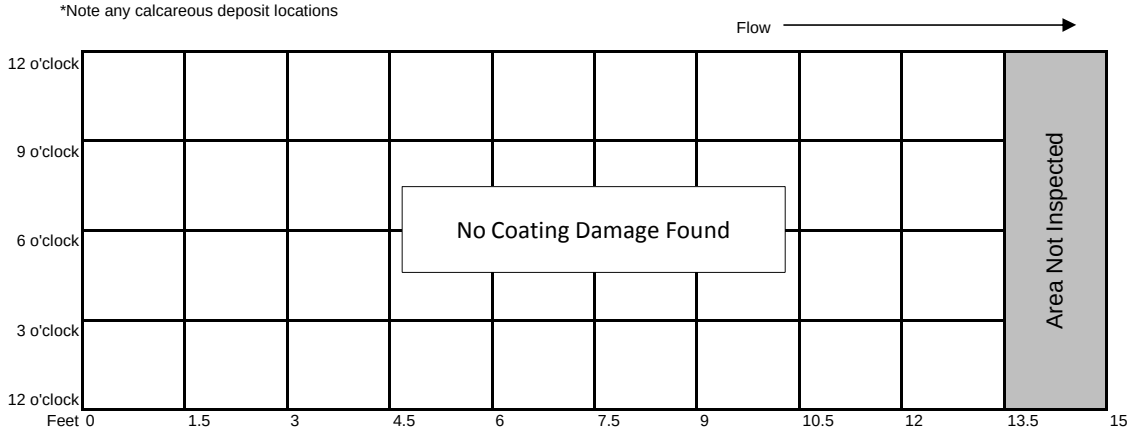
Comments: No ground water present.

1.8 Coating Condition: ■ Good - Adhered to Pipe ☐ Fair - Coating Partially Disbonded or Degraded ☐ Poor - Coating Significantly Disbonded or Missing

Comments: Existing coating was found to be in good condition, with no holidays present. Coating had some superficial cracking.

1.9 Map of Coating Degradation*: **Zero Reference Point:** U/S Edge of Inspection Area

*Note any calcareous deposit locations



DA/ILI		DA		ILI	
Route Number:	3010-01	**N-Segment:**	191-2013	**ILI Log Distance:**	N/A
Examination Date:	4/30/2013	**IMA Number:**	N/A	**RMP-11 Ref. Section:**	N/A
Mile Point:	0.53 - 0.65			**Reference Girth Weld:**	N/A
Examination Performed By:	Nicholas Mortenson	**Region Number:**	2	**Distance From Girth Weld:**	N/A
PG&E Project Manager:	Adam Abraham	**Subregion # (ICDA):**	N/A		
Approved By:	Brenda McKay	**Stationing:**	4+49		
Order Number:	41821294				

1.10 Photos Taken?*: ■ Yes ☐ No
*See Photo Log for additional information.

1.11 Coating Sample Taken?: ☐ Yes ■ No Location of Sample: N/A

1.12 Liquid Underneath Coating?: ☐ Yes ■ No If Yes, pH of Liquid: N/A

1.13 Corrosion Product Present?: ☐ Yes ■ No If Yes, Was Sample Taken?: ☐ Yes ☐ No
Comments: No corrosion product present.

1.14 Soil pH (Sb Electrode): Upstream: 5 Downstream: 5

2.0 Data After Coating Removal

2.1 Pipe Temperature (°F): 80 Measured Pipe Diameter (In.): 8, 6

2.2 Weld Seam Type: ☐ DSAW ☐ SSAW ■ ERW ■ SMLS ☐ Spiral ☐ Lap ☐ Flash ☐ AO Smith ☐ If can't determine, visually perform macroetch to locate & identify type (see Table 5.7.3, Element 2.2)

2.3 Girth Weld Coordinates:

Northing [redacted]
Easting
Elevation

eld Clock Position: S-1: 4:15, S- 3: 4:15, S-6: 10:30
S-8: 11:30

Northin [redacted]
Eastin
Elevatio

2.4 Damage Found:

Corrosion Damage? ☐ Yes ■ No Mechanical Damage? ☐ Yes ■ No

Other Damage: No damage found during inspection.

2.5 UT Wall Thickness Measurements: TDC: 0.176"/0.175" 1 O'clock: 0.179"/0.178" 2 O'clock: 0.179"/0.178" 3 O'clock: 0.179"/0.179"
Section 1 / Section 3 4 O'clock: 0.176"/0.178" 5 O'clock: 0.178"/0.175" 6 O'clock: 0.178"/0.177" 7 O'clock: 0.177"/0.177"
**Additional UT on Page 6b* 8 O'clock: 0.177"/0.178" 9 O'clock: 0.177"/0.179" 10 O'clock: 0.179"/0.180" 11 O'clock: 0.180"/0.179"

2.5a Nominal Wall Thickness: 0.219"

UT Wall Thickness Grid @ 6:00 is required. Be sure to attach grid to Form H electronically. See page 6 of 10.

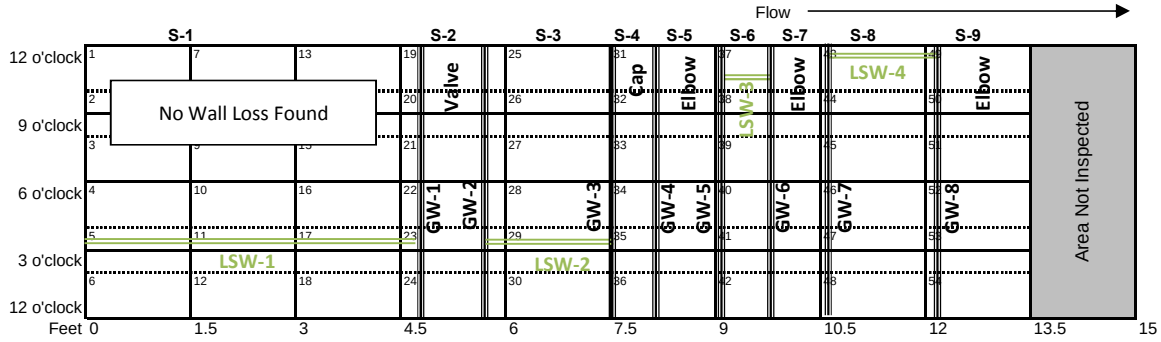
2.6 Wet Fluorescent Mag. Part. Is Required. Comments: Magnetic Particle Exam performed by N. Mortenson (Mears) on 05/01/2013.

Were there any linear indications? ■ Yes ☐ No If Yes, attach NDE report electronically as part of the Form H. Report to include black light and white light photos of indications.

2.7 Take Photos to Document Corrosion and Other Anomalies*
*See Photo Log for additional information.

2.8 Overview Map of Corroded Area*:
*See Pit Depth Measurement Grid for additional Information
*Note any calcareous deposits.

Zero Reference Point: U/S Edge of Inspection Area

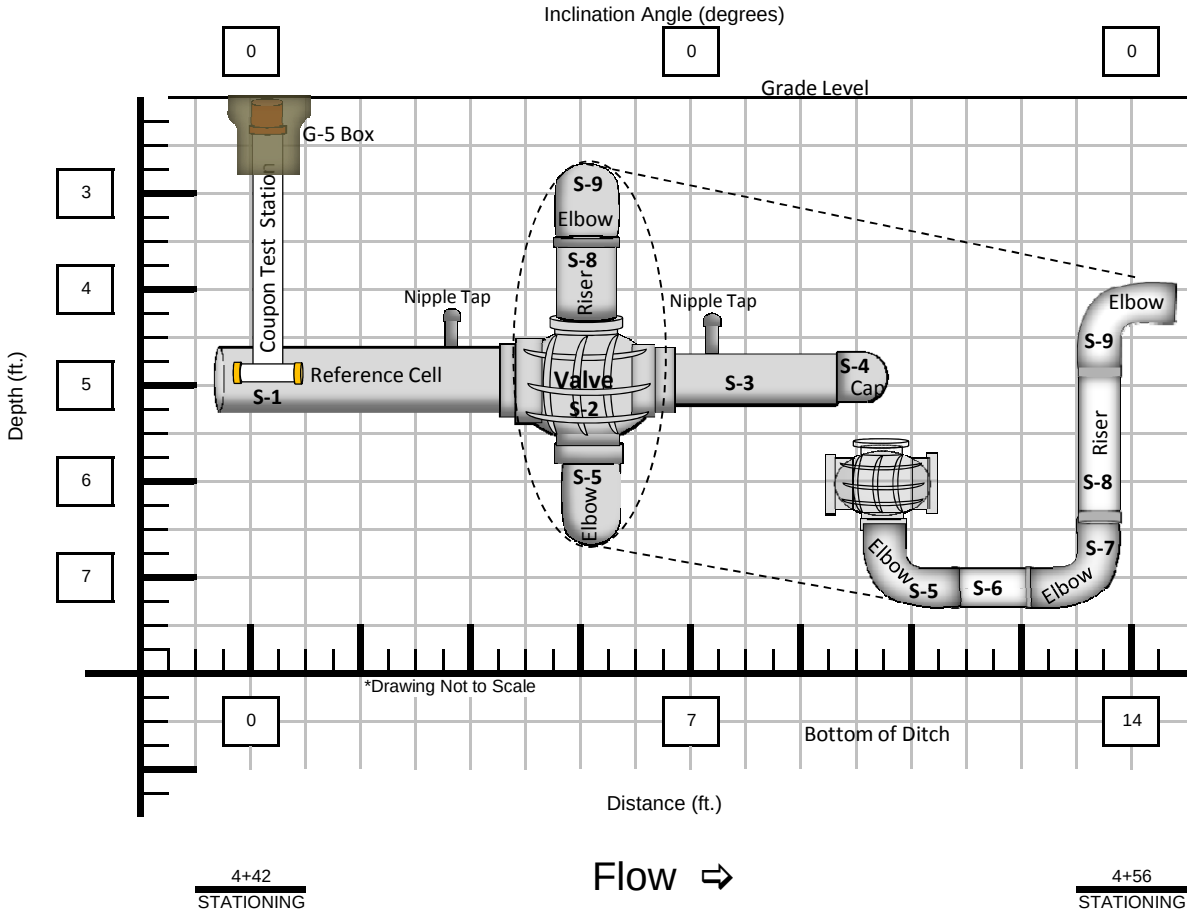


Form H: Direct Examination Data Sheet - Page 3a of 10

DA/ILI		DA		ILI	
Route Number:	3010-01	**N-Segment:**	191-2013	**ILI Log Distance:**	N/A
Examination Date:	4/30/2013	**IMA Number:**	N/A	**RMP-11 Ref. Section:**	N/A
Mile Point:	0.53 - 0.65			**Reference Girth Weld:**	N/A
Examination Performed By:	Nicholas Mortenson	**Region Number:**	2	**Distance From Girth Weld:**	N/A
PG&E Project Manager:	Adam Abraham	**Subregion # (ICDA):**	N/A		
Approved By:	Brenda McKay	**Stationing:**	4+49		
Order Number:	41821294				

Excavation Drawing:

At minimum draw pipe elevation profile and indicate stationing of 1) low point and 2) critical inclination angle.
Place an arrow on the drawing indicating direction of gas flow in the region(s). Other labels may also be added (e.g. "to Station").



NOTES: (Record stationing and names of nearby landmarks such as creeks and roads. Provide any additional information that may help in spatially positioning pipe):

[redacted]

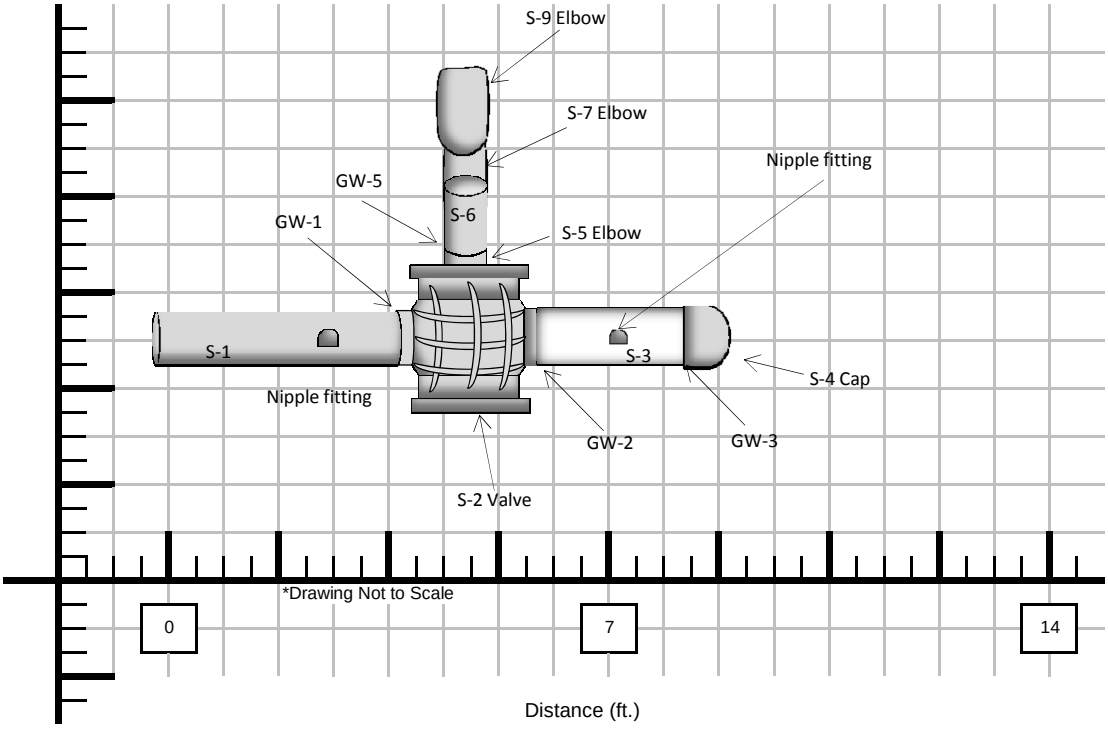
Form H: Direct Examination Data Sheet - Page 3b of 10

DA/ILI		DA		ILI	
Route Number:	3010-01	**N-Segment:**	191-2013	**ILI Log Distance:**	N/A
Examination Date:	4/30/2013	**IMA Number:**	N/A	**RMP-11 Ref. Section:**	N/A
Mile Point:	0.53 - 0.65			**Reference Girth Weld:**	N/A
Examination Performed By:	Nicholas Mortenson	**Region Number:**	2	**Distance From Girth Weld:**	N/A
PG&E Project Manager:	Adam Abraham	**Subregion # (ICDA):**	N/A		
Approved By:	Brenda McKay	**Stationing:**	4+49		
Order Number:	41821294				

Excavation Drawing:

At minimum draw pipe elevation profile and indicate stationing of 1) low point and 2) critical inclination angle.
Place an arrow on the drawing indicating direction of gas flow in the region(s). Other labels may also be added (e.g. "to Station").

Overhead View



4+42 STATIONING

Flow ⇨

4+56 STATIONING

NOTES: (Record stationing and names of nearby landmarks such as creeks and roads. Provide any additional information that may help in spatially positioning pipe):

[redacted]

EXTERNAL PIT DEPTH MEASUREMENT GRID SHEETS

DA/ILI

Route Number:	3010-01
Examination Date:	4/30/2013
Mile Point:	0.53 - 0.65
Examination Performed By:	Nicholas Mortenson
PG&E Project Manager:	Adam Abraham
Approved By:	Brenda McKay
Order Number:	41821294

DA

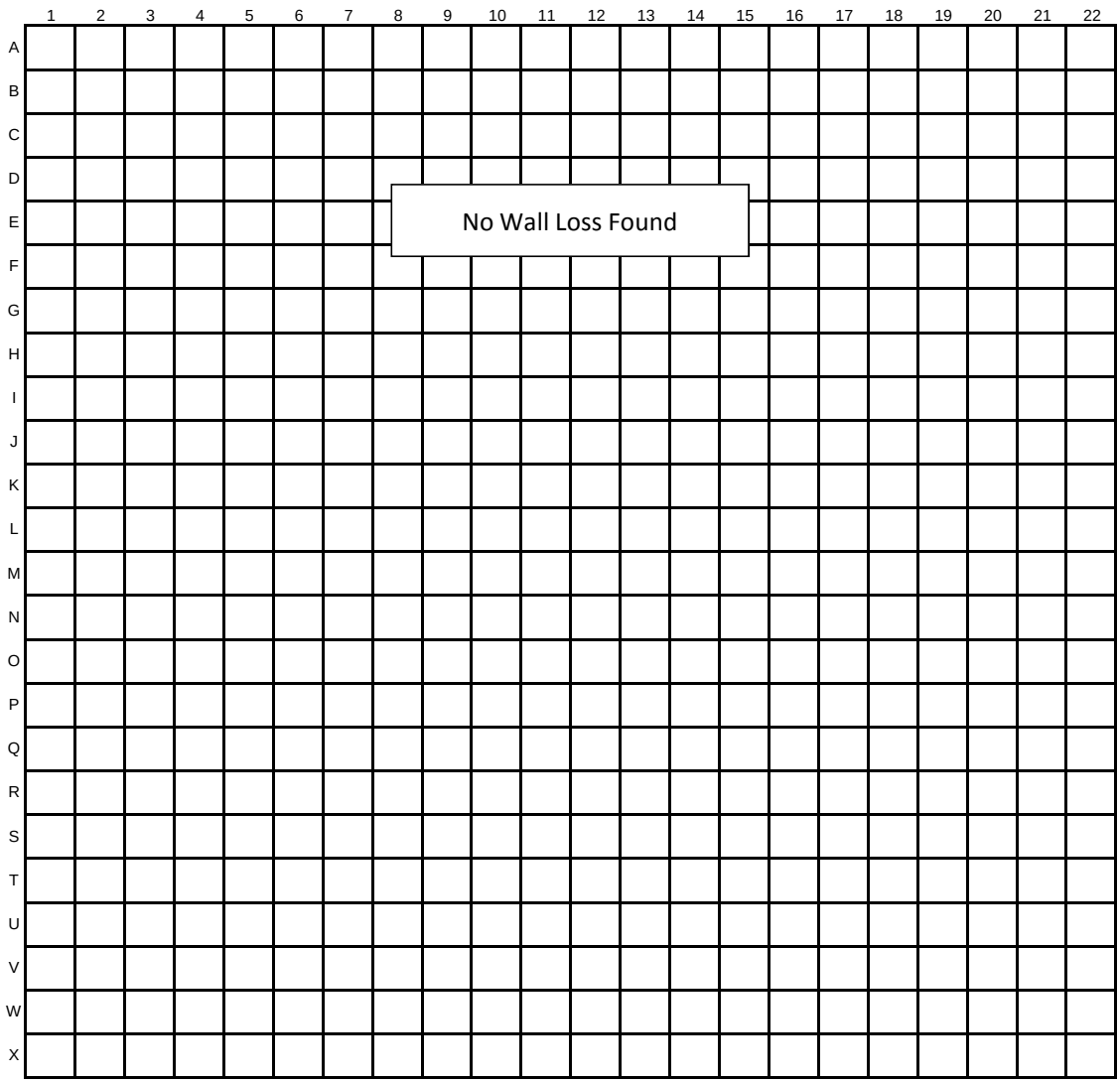
N-Segment:	191-2013
IMA Number:	N/A
Region Number:	2
Subregion # (ICDA):	N/A
Stationing:	4+49

ILI

ILI Log Distance:	N/A
RMP-11 Ref. Section:	N/A
Reference Girth Weld:	N/A
Distance From Girth Weld:	N/A

Grid Size = _____ Inch x _____ Inch (specify grid size)
Clock Position (specify below)

Anomaly #: N/A Grid #: N/A



PIT DEPTH GRID 1 OF 2

EXTERNAL PIT DEPTH MEASUREMENT GRID SHEETS

DA/ILI

Route Number:	3010-01
Examination Date:	4/30/2013
Mile Point:	0.53 - 0.65
Examination Performed By:	Nicholas Mortenson
PG&E Project Manager:	Adam Abraham
Approved By:	Brenda McKay
Order Number:	41821294

DA

N-Segment:	191-2013
IMA Number:	N/A
Region Number:	2
Subregion # (ICDA):	N/A
Stationing:	4+49

ILI

ILI Log Distance:	N/A
RMP-11 Ref. Section:	N/A
Reference Girth Weld:	N/A
Distance From Girth Weld:	N/A

Grid Size = _____ Inch x _____ Inch (specify grid size)
Clock Position (specify below)

Anomaly #: N/A Grid #: N/A

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
A																						
B																						
C																						
D																						
E																						
F																						
G																						
H																						
I																						
J																						
K																						
L																						
M																						
N																						
O																						
P																						
Q																						
R																						
S																						
T																						
U																						
V																						
W																						
X																						

No Wall Loss Found

PIT DEPTH GRID 2 OF 2

Form H: Direct Examination Data Sheet - Page 6a of 10

INTERNAL CORROSION PIT DEPTH GRID

DA/ILI		DA		ILI	
Route Number:	3010-01	**N-Segment:**	191-2013	**ILI Log Distance:**	N/A
Examination Date:	4/30/2013	**IMA Number:**	N/A	**RMP-11 Ref. Section:**	N/A
Mile Point:	0.53 - 0.65			**Reference Girth Weld:**	N/A
Examination Performed By:	Nicholas Mortenson	**Region Number:**	2	**Distance From Girth Weld:**	N/A
PG&E Project Manager:	Adam Abraham	**Subregion # (ICDA):**	N/A		
Approved By:	Brenda McKay	**Stationing:**	4+49		
Order Number:	41821294				

Grid Size = 1 Inch x 1 Inch

Clock Position (specify below)

UT Data in Inches

3'0" from U/S Edge

	1	2	3	4	5	6	7	8	9	10	11	12
A	0.178	0.178	0.179	0.182	0.175	0.176	0.178	0.174	0.176	0.173	0.174	0.178
B	0.177	0.177	0.177	0.177	0.174	0.175	0.176	0.175	0.177	0.179	0.177	0.175
C	0.173	0.176	0.178	0.181	0.179	0.176	0.176	0.177	0.175	0.180	0.179	0.178
D	0.176	0.180	0.180	0.180	0.178	0.178	0.178	0.178	0.180	0.180	0.179	0.174
E	0.177	0.175	0.175	0.176	0.178	0.177	0.178	0.178	0.175	0.175	0.180	0.178
F	0.173	0.175	0.174	0.177	0.176	0.175	0.176	0.180	0.178	0.176	0.176	0.179
G	0.178	0.175	0.175	0.175	0.173	0.175	0.176	0.177	0.176	0.176	0.176	0.176
H	0.173	0.173	0.173	0.179	0.180	0.181	0.182	0.176	0.181	0.180	0.178	0.175
I	0.173	0.174	0.174	0.177	0.178	0.181	0.178	0.181	0.182	0.178	0.179	0.176
J	0.178	0.177	0.174	0.176	0.178	0.178	0.178	0.177	0.176	0.178	0.177	0.175
K	0.177	0.177	0.179	0.175	0.175	0.177	0.179	0.176	0.177	0.177	0.179	0.177
L	0.173	0.174	0.174	0.177	0.173	0.174	0.174	0.177	0.177	0.174	0.177	0.176

6:00

INTERNAL CORROSION GRID

Form H: Direct Examination Data Sheet - Page 6b of 10

INTERNAL CORROSION PIT DEPTH GRID

DA/ILI		DA		ILI	
Route Number:	3010-01	**N-Segment:**	191-2013	**ILI Log Distance:**	N/A
Examination Date:	4/30/2013	**IMA Number:**	N/A	**RMP-11 Ref. Section:**	N/A
Mile Point:	0.53 - 0.65			**Reference Girth Weld:**	N/A
Examination Performed By:	Nicholas Mortenson	**Region Number:**	2	**Distance From Girth Weld:**	N/A
PG&E Project Manager:	Adam Abraham	**Subregion # (ICDA):**	N/A		
Approved By:	Brenda McKay	**Stationing:**	4+49		
Order Number:	41821294				

UT Data in Inches

Grid Size = 1 Inch x 1 Inch

Clock Position (specify below)

2.5 UT Wall Thickness Measurements:

	S-1	S-2	S-3	S-4	S-5	S-6	S-7	S-8	S-9			
12:00	0.176	Valve	0.178	0.325	0.357	0.187	0.286	0.192	0.346			
1:00	0.179		0.178	0.333	0.323	0.191	0.281	0.193	0.329			
2:00	0.179		0.179	0.335	0.296	0.192	0.291	0.195	0.309			
3:00	0.179		0.178	0.331	0.275	0.193	0.286	0.194	0.277			
4:00	0.176		0.175	0.323	0.266	0.196	0.295	0.196	0.309			
5:00	0.178		0.177	0.333	0.269	0.194	0.299	0.198	0.257			
6:00	0.178		0.177	0.332	0.281	0.191	0.311	0.197	0.262			
7:00	0.177		0.178	0.331	0.291	0.189	0.329	0.196	0.253			
8:00	0.177		0.179	0.341	0.321	0.193	0.307	0.194	0.257			
9:00	0.177		0.180	0.335	0.316	0.196	0.294	0.196	0.303			
10:00	0.179		0.179	0.333	0.354	0.198	0.304	0.195	0.309			
11:00	0.180		0.175	0.335	0.359	0.191	0.308	0.195	0.324			
Pipe Feature	Straight		Straight	Cap	Elbow	Straight	Elbow	Riser	Elbow			
LSW Orientation	4:15		4:15	SMLS	SMLS	10:30	SMLS	11:30	SMLS			
Pipe Diameter	8"		8"	8"	6"	6"	6"	6"	6"			

FLOW

Form H: Direct Examination Data Sheet - Page 7 of 10

COATING DAMAGE

DA/ILI		DA		ILI	
Route Number:	3010-01	**N-Segment:**	191-2013	**ILI Log Distance:**	N/A
Examination Date:	4/30/2013	**IMA Number:**	N/A	**RMP-11 Ref. Section:**	N/A
Mile Point:	0.53 - 0.65			**Reference Girth Weld:**	N/A
Examination Performed By:	Nicholas Mortenson	**Region Number:**	2	**Distance From Girth Weld:**	N/A
PG&E Project Manager:	Adam Abraham	**Subregion # (ICDA):**	N/A		
Approved By:	Brenda McKay	**Stationing:**	4+49		
Order Number:	41821294				

NO.	FEET FROM REFERENCE	O'CLOCK	MAX LENGTH (IN.)	MAX CIRC EXTENT (IN.)

No Coating Damage Found

CORROSION LOG

DA/ILI		DA		ILI	
Route Number:	3010-01	**N-Segment:**	191-2013	**ILI Log Distance:**	N/A
Examination Date:	4/30/2013	**IMA Number:**	N/A	**RMP-11 Ref. Section:**	N/A
Mile Point:	0.53 - 0.65			**Reference Girth Weld:**	N/A
Examination Performed By:	Nicholas Mortenson	**Region Number:**	2	**Distance From Girth Weld:**	N/A
PG&E Project Manager:	Adam Abraham	**Subregion # (ICDA):**	N/A		
Approved By:	Brenda McKay	**Stationing:**	4+49		
Order Number:	41821294				

IC or EC	FEET FROM REFERENCE	O'CLOCK	MAX PIT DEPTH (MILS)	MAX LENGTH (IN.)	MAX CIRC EXTENT (IN.)
			No Wall Loss Found		

PHOTO LOG

DA/ILI

Route Number: 3010-01
Examination Date: 4/30/2013
Mile Point: 0.53 - 0.65
Examination Performed By: Nicholas Mortenson
PG&E Project Manager: Adam Abraham
Approved By: Brenda McKay
Order Number: 41821294

DA

N-Segment: 191-2013
IMA Number: N/A
Region Number: 2
Subregion # (ICDA): N/A
Stationing: 4+49

ILI

ILI Log Distance: N/A
RMP-11 Ref. Section: N/A
Reference Girth Weld: N/A
Distance From Girth Weld: N/A

PHOTO NO.	LOCATION	DESCRIPTION	COMMENTS
1	Facing North	Site Prior to Excavation	
2	Facing East	Site Prior to Excavation	
3	Facing South	Site Prior to Excavation	
4	Facing West	Site Prior to Excavation	
5	Facing North	Excavation in Progress	After Saw Cut
6	Facing East	Excavation in Progress	
7	Facing West	Excavation in Progress	
8	Overview	Excavation in Progress	White and Black Plastic Tape
9	12:00, Facing D/S	Existing Coating	
10	3:00, Facing D/S	Existing Coating	
11	6:00, Facing D/S	Existing Coating	
12	9:00, Facing D/S	Existing Coating	
13	Facing 3:00	Existing Coating	Black Plastic Tape (Tap)
14	Facing 3:00	Existing Coating	White and Black Plastic Tape (Valve)
15	9:00, Facing D/S	Existing Coating	White Plastic Tape (Pipe)
16	3:00, Facing D/S	Existing Coating	
17	6:00, Facing D/S	Existing Coating	
18	12:00, Facing U/S	Existing Coating	6" Pipe
19	12:00, Facing U/S	Existing Coating	8" Pipe
20	3:00, Facing U/S	Existing Coating	8" Pipe
21	6:00, Facing U/S	Existing Coating	8" Pipe
22	9:00, Facing U/S	Existing Coating	8" Pipe
23	12:00, Facing D/S	Coating Removed	8" Pipe
24	3:00, Facing D/S	Coating Removed	8" Pipe
25	6:00, Facing D/S	Coating Removed	8" Pipe
26	9:00, Facing D/S	Coating Removed	8" Pipe
27	12:00, Facing U/S	Coating Removed	8" Pipe
28	3:00, Facing U/S	Coating Removed	8" Pipe
29	6:00, Facing U/S	Coating Removed	8" Pipe
30	3:00, Facing U/S	Coating Removed	6" Pipe
31	9:00, Facing U/S	Coating Removed	6" Pipe
32	12:00, Facing U/S	Coating Removed	6" Pipe
33	6:00, Facing U/S	Coating Removed	6" Pipe
34	12:00, Facing D/S	Media Blasted Pipe	Kleen Blast 30/60, 8" Pipe
35	3:00, Facing D/S	Media Blasted Pipe	Kleen Blast 30/60, 8" Pipe
36	6:00, Facing D/S	Media Blasted Pipe	Kleen Blast 30/60, 8" Pipe
37	9:00, Facing D/S	Media Blasted Pipe	Kleen Blast 30/60, 8" Pipe
38	12:00, Facing U/S	Media Blasted Pipe	Kleen Blast 30/60, 8" Pipe
39	3:00, Facing U/S	Media Blasted Pipe	Kleen Blast 30/60, 8" Pipe
40	6:00, Facing U/S	Media Blasted Pipe	Kleen Blast 30/60, 8" Pipe

PHOTO LOG

DA/ILI

Route Number: 3010-01
Examination Date: 4/30/2013
Mile Point: 0.53 - 0.65
Examination Performed By: Nicholas Mortenson
PG&E Project Manager: Adam Abraham
Approved By: Brenda McKay
Order Number: 41821294

DA

N-Segment: 191-2013
IMA Number: N/A
Region Number: 2
Subregion # (ICDA): N/A
Stationing: 4+49

ILI

ILI Log Distance: N/A
RMP-11 Ref. Section: N/A
Reference Girth Weld: N/A
Distance From Girth Weld: N/A

PHOTO NO.	LOCATION	DESCRIPTION	COMMENTS
41	6:00, Facing U/S	Media Blasted Pipe	Kleen Blast 30/60, U/S of Valve
42	9:00, Facing U/S	Media Blasted Pipe	Kleen Blast 30/60,8" Pipe
43	12:00, Facing D/S	Media Blasted Pipe	6" Pipe
44	3:00, Facing U/S	Media Blasted Pipe	6" Pipe
45	9:00, Facing U/S	Media Blasted Pipe	6" Pipe
46	Overview, Facing East	Media Blasted Pipe	
47	Overview, Facing South	Media Blasted Pipe	
48	Overview, Facing East	Media Blasted Pipe	Valve and 6" line
49	6:00, 5'9" from U/S Edge	MT Test - Linear Indication, LI-1	Black Light
50	6:00, 5'9" from U/S Edge	MT Test - Linear Indication, LI-1	White Light
51	6:00, 5'9" from U/S Edge	MT Test - Linear Indication, LI-1	White Light After Buffing began
52	6:00, 5'9" from U/S Edge	MT Test - Linear Indication, LI-1	Indication removed
53		Environmental Readings	
54	12:00, at U/S Edge	Test Wires Installed with CAD Welds	
55		Hardener Batch Number	
56		Hardener Batch Number	
57		Hardener Batch Number	
58		Base Resin Batch Number	
59		Base Resin Batch Number	
60	12:00, Facing U/S	Pipe Recoated	
61	3:00, Facing U/S	Pipe Recoated	
62	6:00, Facing U/S	Pipe Recoated	
63	9:00, Facing U/S	Pipe Recoated	
64	12:00, Facing D/S	Pipe Recoated	
65	12:00, Facing D/S	Pipe Recoated	
66	3:00, Facing D/S	Pipe Recoated	
67	3:00, Facing U/S	Pipe Recoated	
68	6:00. Facing U/S	Pipe Recoated	
69	9:00, Facing D/S	Pipe Recoated	
70	12:00, Facing D/S	Pipe Recoated	
71	9:00, Facing D/S	Pipe Recoated	
72	6:00, Facing D/S	Pipe Recoated	
73	3:00, Facing D/S	Pipe Recoated	
74	Overview	Pipe Recoated	
75	12:00, Facing D/S	Coating Protection Applied	Tuff-N-Nuff
76	Overview	Soil Compaction Test	
77	Overview	Soil Compaction Test	
78	9:00, at U/S Edge	Reference Cell Installation in Progress	
79	9:00, at U/S Edge	Reference Cell Installed	
80	9:00, at U/S Edge	Coupon Test Station and Reference Cell Installed	

PHOTO LOG

DA/ILI
Route Number: 3010-01
Examination Date: 4/30/2013
Mile Point: 0.53 - 0.65
Examination Performed By: Nicholas Mortenson
PG&E Project Manager: Adam Abraham
Approved By: Brenda McKay
Order Number: 41821294

DA
N-Segment: 191-2013
IMA Number: N/A
Region Number: 2
Subregion # (ICDA): N/A
Stationing: 4+49

ILI
ILI Log Distance: N/A
RMP-11 Ref. Section: N/A
Reference Girth Weld: N/A
Distance From Girth Weld: N/A

PHOTO NO.	LOCATION	DESCRIPTION	COMMENTS
81	Facing East	Backfill in Progress	
82	Facing East	Backfill in Progress	
83	Facing East	Backfill in Progress	
84	Facing North	Backfill in Progress	G-5 Box Installed
85	Facing West	Backfill in Progress	
86	Facing North	Site As Left	
87	Facing East	Site As Left	
88	Facing South	Site As Left	
89	Facing West	Site As Left	

DA/ILI		DA		ILI	
Route Number:	3010-01	**N-Segment:**	191-2013	**ILI Log Distance:**	N/A
Examination Date:	4/30/2013	**IMA Number:**	N/A	**RMP-11 Ref. Section:**	N/A
Mile Point:	0.53 - 0.65			**Reference Girth Weld:**	N/A
Examination Performed By:	Nicholas Mortenson	**Region Number:**	2	**Distance From Girth Weld:**	N/A
PG&E Project Manager:	Adam Abraham	**Subregion # (ICDA):**	N/A		
Approved By:	Brenda McKay	**Stationing:**	4+49		
Order Number:	41821294				

3.0 Recoat Data

3.1 Sandblast Media: Kleen Blast 30/60 **Anchor Profile Measurement:** 3.5 mils

3.2 Pipe Recoated With:

☐ Powercrete J ■ Wax Tape ☐ Bar-Rust 235 ☐ Dev Grip 238 ☐ Dev Tar 247 ■ Protal 7200 ☐ PE Tape

3.3 For Epoxy Coating Systems, Record Environmental Condition:

Air Temperature: 85.4°F Dew Point: 58.0°F

Pipe Temperature: 82.9°F Relative Humidity: 39.4%

Time of Day: 12:00 PM

3.4 Repair Coating Hardness (If ARC Coating:) 81

3.5 Measured Coating Thickness: 3:00 - 39 - 43 mils 6:00 - 27 - 45 mils 9:00 - 23 - 41 mils 12:00 - 26 - 37 mils

Holiday Tested?: ■ Yes ☐ No

Device Used: ■ Coil ☐ Wet Sponge Voltage Used: 2,500V Repair All Holidays.

3.6 Coupon Test Station Installed?: ■ Yes ☐ No **ETS Installed?:** ☐ Yes ■ No

If Yes, Date Installed: 6/4/2013

Surface Configuration:: ☐ Fink ■ G-5 Box ☐ Carsonite ☐ Other:

3.7 Backfill Material: ☐ Native ■ Imported Sand ■ Other: Road base

Coating Protections?: ■ Yes ☐ No

If Yes, Check One: ☐ Rockguard ■ Tuff-N-Nuff ☐ PipeSaver ☐ Other:

3.8 Pipe-to-Soil Readings Over Bell Hole After Backfill: -650mV

*If specified, a CIS should be done for approximately 100' on either side of the bell hole. Attach data.

Comments: Pipe-to-Soil potential taken with a CSE.

3.9 Attach site sketch of excavation site.

4.0 Repair Data

4.1 Repair Made: ☐ Yes ■ No **4.1 Number of Repairs Made:** N/A

4.3 Repair Type: ☐ Metallic Sleeve ☐ Non Metallic Sleeve ☐ Replace ☐ Can ☐ Filler Metal ☐ Other

4.4 Damage Repaired: ☐ Corrosion ☐ Mechanical ☐ Other

Misc. Comments/Information: Site was located with provided GPS coordinates and a Metrotech 810 locator. Speed shoring was installed due to multiple sections of pipe and angle points. There were two 8" straight pipes, an 8" valve, three 6" elbows, all 90° angles, and a 6" riser. Once the excavation was complete, a coating inspection was performed. The coating was found to be in good condition with no holidays present. The coating had 2 main layers with the elbows and valve having up to 5 layers. The coating was then removed and the pipe was inspected for wall loss before blasting. Pipe was then media blasted using Kleen Blast 30/60. The pipe was inspected finding no indications of wall loss due to external corrosion or mechanical damage. A Magnetic Particle Exam was performed finding 1 linear indication, located on an inside curve of the valve at 6:00, making it difficult to obtain an accurate UT measurement. Joel Leon (ATS) to buff out the indication. The indication got bigger and began to flake from the parent metal. Joel determined to not buff further until investigation since no accurate wall thickness could be measured. Mike Ballard (ATS) performed Sheer Wave testing. Mike Ballard determined there were more indications under the surface. Kevin Rawlins (ATS) arrived on site with Edge to perform RT. RT testing was unsuccessful due to the thickness of the valve and pipe, no indication was visible. ATS performed additional testing and Acid Etch to determine there was no weld present in the location of the indication. It was determined after further testing that there was no indication below the original LI-1 found during the Magnetic Particle Exam. On 5/21/13, ATS successfully buffed out the indication using a buffing wheel. Approval was given to recoat. The pipe was media blasted and test leads were attached to the pipe near the U/S edge with CAD welds. The pipe was recoated with Protal 7200. The coating was allowed to cure, hardness and thickness were measured and coating was holiday tested. Wax Tape was applied to the coating transitions. Tuff-N-Nuff was applied for additional coating protection. A reference cell and coupon test station were installed springline, on the 9:00 side of pipe near the U/S edge. Site was backfilled with imported sand, compacted, and road base to below grade. Asphalt was repaired. Coupon test station was installed in a G-5 box, flush with asphalt. The site was restored on 06/04/2013.

Mears Job Number: 9101323013

Form H: Site Map

DA/ILI		DA		ILI	
Route Number:	3010-01	**N-Segment:**	191-2013	**ILI Log Distance:**	N/A
Examination Date:	4/30/2013	**IMA Number:**	N/A	**RMP-11 Ref. Section:**	N/A
Mile Point:	0.53 - 0.65			**Reference Girth Weld:**	N/A
Examination Performed By:	Nicholas Mortenson	**Region Number:**	2	**Distance From Girth Weld:**	N/A
PG&E Project Manager:	Adam Abraham	**Subregion # (ICDA):**	N/A		
Approved By:	Brenda McKay	**Stationing:**	4+49		
Order Number:	41821294				

***Sketch Not Drawn to Scale**

Form H: Direct Examination Data Sheet

MAGNETIC PARTICLE EXAMINATION DATA SHEET

DA/ILI		DA		ILI	
Route Number:	3010-01	**N-Segment:**	191-2013	**ILI Log Distance:**	N/A
Examination Date:	4/30/2013	**IMA Number:**	N/A	**RMP-11 Ref. Section:**	N/A
Mile Point:	0.53 - 0.65			**Reference Girth Weld:**	N/A
Examination Performed By:	Nicholas Mortenson	**Region Number:**	2	**Distance From Girth Weld:**	N/A
PG&E Project Manager:	Adam Abraham	**Subregion # (ICDA):**	N/A		
Approved By:	Brenda McKay	**Stationing:**	4+49		
Order Number:	41821294				

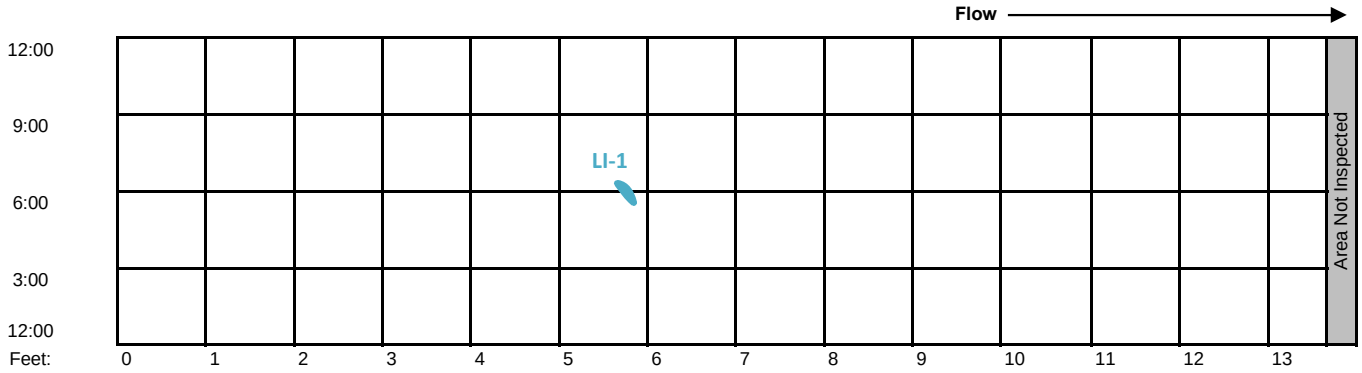
Test Equipment	Serial No.	Technique	Test Medium	Quality Control	Surface Condition
Yoke ■	11630	Continuous ■	Wet ■	Batch # 07J052	■ As Blasted NACE 2
Permanent Magnet ☐		Residual ☐	Dry ☐	Batch #	☐ Bare Metal
Coil ☐		AC ■	Fluorescent ■	Batch # 07J052	☐ As Ground
Other ☐		DC ☐	Black on White ☐	Batch #	☐ Painted
					☐ Other (Walnut Blasted)

Reference GPS: *U/S Edge*
Northing [redacted]
Easting

Acceptance Criteria: No indications allowed.
Accepted? ☐ Yes ■ No, See Table below.

Map of Magnetic Particle Indications:

Zero Reference Point: U/S Edge of Inspection Area



Table

Ind No.	Axial Position	Circumferential Position	Indication Length	Wall Thickness before Softpad	Wall Thickness after Final Softpad	Indication Removed (Yes, No)
LI-1	5'9"	6:00	3.5"	0.410" - 0.510"	0.398" - 0.511"	Yes

Notes: Magnetic Particle Exam was performed, finding 1 linear indication. Indication is 3.5" long by 0.5" wide, located at the 6:00 position on the valve. Joel (ATS) attempted to remove LI-1 by buffing, but the indication became larger and began to peel up from the outer surface of the parent metal. Due to the rounded edges of the valve it was very difficult to obtain an accurate reading with UT. Mike Ballard (PG&E) performed Shear Wave UT, finding multiple indications under the surface of the original indication. Kevin Rawlins (ATS) attempted to perform RT but was unable since the wall thickness of the valve and the pipe configuration it was impossible to make out any of the indications found during UT and MT inspections. On 5/21/13, ATS continued buffing until the indication was removed. Due to the issues obtaining an accurate UT read, it was not possible to provide an accurate percentage of wall removed during buffing.

The examination above was performed to the best of my professional ability in accordance with Mears MPE-01.

Technician's Signature: Nicholas Mortenson Mears Level: Level II - Limited Date: 05/01/13

Assistant: Mears Level: Date: