INSPECTION SERVICES Pipeline Integrity Team CWA # 2500461774 GEIS Job # LAPI0015

IN-FIELD SERVICES

GEIS Pipeline Integrity Team NDE



	ct Examination Data Shee					
	DA/iLi Route Number:	L-147	DA Site Designation:	T43A/B B	ILI Log Distance:	L <u>I</u> NA
	Date of Excavation:	10/7/2011	N-Segment:	NA	RMP-11 Ref. Section:	Table 5.6.2
-		lacted	IMA Number:	NA	Reference Girth Weld:	NA
	ation Performed By: &E Project Manager:		Region Number:	NA	Distance From Girth Weld:	NA
	Approved By:	NA	Subregion # (ICDA):	NA	-	
	Order Number:	NA	Stationing:	NA	-	
Excava	tion Priority:			Excavation Reason		
ir ir	mmediate Scheo	luled (For ILI -	1 Year Other)	ECDA	ILI Recoat	
	Aonítor Effect	iveness X	Hydro Test		Other NA	
		-	_			
If pract Excavation Det	tical, take P/S or CIS reads be ails: U/S Ditch Start GPS		(Uncorrected Field Measurement)	NA	
	Northing Redac		PDOF	. NA Planr	ed Excavation Length (Ft.):	NA
	Easting		Acc~:	NA Act	ual Excavation Length (Ft.):	21.0ft
	Centerline GPS	Coordinates	(Uncorrected Field Measurement		GPS File Name:	Redacted
	Northing: NA Easting: NA		PDOF Acc~:	NA NA		
	D/S Ditch End 0	SPS Coordinates	(Uncorrected Field Measurement)		
	Northing: Reda		PDOF	NA NA		
	Easting:		Acc~:	NA		
1.0 Data Befo	ore Coating Removal					
1.1	Native Soil Type:	X Clay	X Rock X Sand	Loam Wet	Other NA	
	1.1A Backfill Material Found	i:	Silt Slurry	Native De	pth of Cover (Ft.):	6.00ft
	Comments: NA			_		
1.2	Coating Type:	НАА	Somastic Plastic T	ape 🛛 Wax Tape	FBE	Powercrete
	Bare/None	X Coal Tar	Other: NA	Comments:		4
	Coating Thickness (Inches):	0.250in				
	Coaung mickness (incres).	0.25001		Number of Layers: 2		
1.3	Holiday Testing Performed		Yes X No	Voltage Used: NA	Map Location of	Holidays Below.
		Device Used:	Coil Wet Sponge	Comm		
1.4	Pipe-to-Soil Potentials in Di	tch (-mV):	US: 12:00 -526	3:00 -530	6:00 -535 9:0	
	Comments: CP system	may be turned off.	DS: 12:00 -661	3:00 -658	6:00 -640 9:0	0 -663
1.5	Soil Resistivity in Ditch (Ω-	11	11 77 5.2			
		-Pin 24469.5 ohm/c	m///~~	Soil B	ox NA	
	Comments:		// NA //>		SRM-100 US: 131.5	KΩ/cm DS: 6.1 KΩ/cm
	Comments.					
1.6	Soil Sample Location	Comments	Ditch end (DS) 6:00 position	under pipe.		
1.6 1.7	Soil Sample Location Ground Water Present?:	Comments Yes		under pipe. (s)Collected?: Yes	X No Sample	pH: NA
1.7	Soil Sample Location Ground Water Present?: Comments: NA	Yes	X No Sample	(s)Collected?: Yes		pH: NA
	Soil Sample Location Ground Water Present?:	Yes	X No Sample	S)Collected?: Yes Fair Coating Partially		pH: NA
1.7	Soil Sample Location Ground Water Present?: Comments: NA Coating Condition:	Yes X Good - A Poor - C	X No Sample Adhered to Pipe soating Significantly Disbonded or M	S) Collected?: Yes Fair-Coating Partially Ssing	Disbonded or Degraded	pH: <u>NA</u>
1.7	Soil Sample Location Ground Water Present?: Comments: <u>NA</u> Coating Condition: Comments: <u>Coating rem</u>	Yes X Good - A Poor - C oved & tie in weld areas	X No Sample Adhered to Pipe coating Significantly Disbonded or M blasted. Pipe section removed and	(6))Collected?: Yes	Disbonded or Degraded	pH: <u>NA</u>
1.7 1.8	Soil Sample Location Ground Water Present?: Comments: NA Coating Condition: Comments: Coating rem was in good conition except fe	Yes X Good - A Poor - C oved & tie in weld areas or coating damage from r	X No Sample Adhered to Pipe soating Significantly Disbonded or M	© Collected?: Ves	Disbonded or Degraded	рН: <u>NA</u>
1.7	Soil Sample Location Ground Water Present?: Comments: <u>NA</u> Coating Condition: Comments: <u>Coating rem</u> was in good conition except fr Map of Coating Degradation	Yes X Good - A Poor - C oved & tie in weld areas or coating damage from r	X No Sample Adhered to Pipe coating Significantly Disbonded or M blasted. Pipe section removed and	(6))Collected?: Yes	Disbonded or Degraded	рН: <u>NA</u>
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1.7 1.8 1.9	Soil Sample Location Ground Water Present?: Comments: NA Coating Condition: Comments: Coating rem was in good conition except for Map of Coating Degradation *Note any calcareous deposit Holidays	Yes X Good - A Poor - C oved & tie in weld areas or coating damage from r	X No Sample Adhered to Pipe coating Significantly Disbonded or M blasted. Pipe section removed and	© Collected?: Ves	Disbonded or Degraded	pH: <u>NA</u> _
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1.7 1.8 1.9 12 o'r 9 o'r	Soil Sample Location Ground Water Present?: Comments: <u>NA</u> Coating Condition: Comments: <u>Coating rem</u> was in good conition except fr Map of Coating Degradation *Note any calcareous deposit Holidays clock	Yes X Good - / Poor - C Over d & the in weld areas or coating damage from r *: locations	X No Sample Adhered to Pipe coating Significantly Disbonded or M blasted. Pipe section removed and	Collected?: Ves Fair-Coating Partially ssing test bipes installed. Removed pi ments page 10. Zero Reference Point:	Disbonded or Degraded	рН: <u>NA</u>
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1.7 1.8 1.9 12 o'r 9 o'r	Soil Sample Location Ground Water Present?: Comments: NA Coating Condition: Comments: Coating rem was in good conition except fe Map of Coating Degradation *Note any calcareous deposit Holidays clock clock clock	Yes X Good - / Poor - C Over d & the in weld areas or coating damage from r *: locations	X No Sample Adhered to Pipe coating Significantly Disbonded or M blasted. Pipe section removed and	Collected?: Ves Fair-Coating Partially ssing test bipes installed. Removed pi ments page 10. Zero Reference Point:	Disbonded or Degraded	рН: <u>NA</u>
1.7 1.8 1.9 12 o'c 9 o'c 6 o'c	Soil Sample Location Ground Water Present?: Comments: NA Coating Condition: Comments: Coating rem was in good conition except fe Map of Coating Degradation *Note any calcareous deposit Holidays clock clock clock	Yes X Good - / Poor - C Over d & the in weld areas or coating damage from r *: locations	X No Sample Adhered to Pipe coating Significantly Disbonded or M blasted. Pipe section removed and	Collected?: Ves Fair-Coating Partially ssing test bipes installed. Removed pi ments page 10. Zero Reference Point:	Disbonded or Degraded	рН: <u>NA</u>
1.7 1.8 1.9 12 or 6 or 3 or	Soil Sample Location Ground Water Present?: Comments: NA Coating Condition: Comments: Coating rem was in good conition except fe Map of Coating Degradation *Note any calcareous deposit Holidays clock cloc	Yes X Good - / Poor - C Over d & the in weld areas or coating damage from r *: locations	X No Sample Adhered to Pipe coating Significantly Disbonded or M blasted. Pipe section removed and	Collected?: Ves Fair-Coating Partially ssing test bipes installed. Removed pi ments page 10. Zero Reference Point:	Disbonded or Degraded	рН: <u>NA</u>
1.7 1.8 1.9 12 or 6 or 3 or 12 or	Soil Sample Location Ground Water Present?: Comments: NA Coating Condition: Comments: Coating rem was in good conition except fe Map of Coating Degradation *Note any calcareous deposit Holidays clock cloc	Yes X Good - / Poor - C Over d & the in weld areas or coating damage from r *: locations	X No Sample Adhered to Pipe coating Significantly Disbonded or M blasted. Pipe section removed and	Collected?: Ves Fair-Coating Partially ssing test bipes installed. Removed pi ments page 10. Zero Reference Point:	Disbonded or Degraded	рН: <u>NA</u>
1.7 1.8 1.9 12 or 6 or 3 or 12 or	Soil Sample Location Ground Water Present?: Comments: NA Coating Condition: Comments: Coating rem was in good conition except fe Map of Coating Degradation *Note any calcareous deposit Holidays clock clock clock clock	Yes Yes Yes You could a the in weld areas or coating damage from r r; locations Disbondments	No Sample No Sample Adhered to Pipe Joating Significantly Disbonded or M blasted. Pipe section removed and removal and transportation. See con		Disbonded or Degraded	
1.7 1.8 1.9 12 or 6 or 3 or 12 or	Soil Sample Location Ground Water Present?: Comments: NA Coating Condition: Comments: Coating rem was in good conition except fr Map of Coating Degradation *Note any calcareous deposit Holidays clock cloc	Yes Yes Yes You could a the in weld areas or coating damage from r r; locations Disbondments	No Sample Adhered to Pipe Sample toating Significantly Disbonded or Mill Disbonded or Mill blasted. Pipe section removed and removal and transportation. See con Image: Sample section removed and transportation Sample section removed and Image: Sample section removed and transportation Sample section removed and Image: Sample section removed and transportation Sample section removed and Image: Sample section removed and transportation Sample section removed and Image: Sample section removed and transportation Sample section removed and Image: Sample section removed and transportation Sample section removed and Image: Sample section removed and transportation Sample section removed and Image: Sample section removed and transportation Sample section removed and Image: Sample section removed and transportation Sample section removed and Image: Sample section removed and transportation Sample section removed and Image: Sample section removed and transportation Sample section removed and Image: Sample section removed and transportation Sample section removed and Image: Sample section removed and transportation Sample section removed and Image: Sample section removed and transportation Sample section removed and Image: Sample section removed and transportation Samp		Disbonded or Degraded	
1.7 1.8 1.9 12 o'c 9 o'c 6 o'c 3 o'c	Soil Sample Location Ground Water Present?: Comments: NA Coating Condition: Comments: Coating rem was in good conition except f Map of Coating Degradation *Note any calcareous deposit Holidays Holidays clock cl	Yes Yes Yes Yes You could a the in weld areas or coating damage from r '': locations Disbondments 2 areous deposits coo	No Sample Adhered to Pipe Sample ioating Significantly Disbonded or Mi Disbonded or Mi blasted. Pipe section removed and removal and transportation. See con Sample address Sample		Disbonded or Degraded	
1.7 1.8 1.9 12 o'c 9 o'c 6 o'c 3 o'c	Soil Sample Location Ground Water Present?: Comments: NA Coating Condition: Comments: Coating rem was in good conition except fo Map of Coating Degradation *Note any calcareous deposit Holidays clock cloc	Yes Yes Yes Yes Yes Yes Poor - C oved & tie in weld areas or coating damage from r Ye: locations Disbondments	No Sample Adhered to Pipe Sample toating Significantly Disbonded or Mi blasted. Pipe section removed and blasted. Pipe section removed and transportation. See con Sample 3 4 ntaining calcium scale		Disbonded or Degraded	

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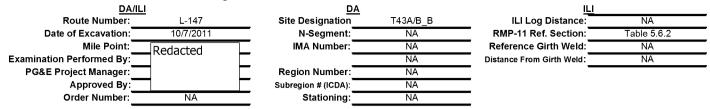
Form H: Direct Examination Data Sheet - Page 2 of 10

			DA		ILI
	Route Number: L-147	Site Designat		ILI Log Distar	
!	Date of Excavation: 10/7/2011	N-Segm		RMP-11 Ref. Secti	
	Mile Point: Redacted	IMA Num		Reference Girth W	
	tion Performed By:		NA	Distance From Girth W	eld: NA
PG&	E Project Manager:	Region Num			
	Approved By: NA	Subregion # (IC Station			
	Order Number: NA	Station	ing. NA		
	Photos Taken?*: X Yes No *See Photo Log for additional information.				
1.11	Coating Sample Taken?: 🛛 🗍 Yes	X No	Location of Sample:	NA	
1.12	Liquid Underneath Coating?:	X No	If Yes, pH of Liquid:	NA	
	Corrosion Product Present?: T Yes Comments: NA	X No	If Yes, Was Sample Take	en?: Yes X N	0
	Soil pH (Sb Electrode): Upstream:	6.0	Downstream: 7.8	5 Pipe pH:	6.0
.0 Data Aft	er Coating Removal				
	Pipe Temperature (°F):60.0° F		Measured Pipe Diam	eter (In.): _63" = 20.05"	
2.2	Weld Seam Type: X DSAW	ISSAW 🗖 E	RW 🗖 SMLS		
				IF CAN'T DETERMINE,	VISUALLY PERFORM
	Spiral	Lap F	lash 📃 AO Smith	MACROETCH & LOCA	E
2.3	Girth Weld Coordinates & Identify Type (Se	•			
	Northing: NA		PDOP: NA		_
	Easting: NA	<u> </u>	Acc~: NA	LS Weld Clock Position(s): 8:5	5
	Elevation: NA	<u>µ</u>			
2.4	Damage Found: Corrosion Damage Yes Other Damage: Non relevant tool marks,	No to corrosion found gr	Mechanical Damage eater than 20%	Yes X	No
2.5	UT Wall Thickness Measurements: US	DS / IP J	US/DS	US / DS	US / DS
2.0		"/0.275" 1 O'clock			Vclock 0.265"/0.271"
		"/0.270" 5 O'clock			0.266"/0.272
	8 O'clock 0.269			0.266"/0.264" 11 0	D'clock 0.269"/0.270"
		Bo cure to attach of			
	UT Wall Thickness Grid @ 6:00 is required.	be sure to attach gr			
2.6	Wet Fluorescent Mag. Part. Is Required.	Comments:	// 2 linear indications	on the removed pipe section. S	ee MT & Photo report.
,	Were there any linear indications?	Yes 🔲 No	If Yes, attach NDE rep	ort electronically as part of the	H-Form.
		· —	Report to include blac	k light and white light photos of	indications.
	Take Photos to Document Corrosion and C	other Anomalies*		2.	
	Take Photos to Document Corrosion and C *See Photo Log for additional information.	other Anomalies*		D _{11 n}	
1		Other Anomalies*		NA 0	
2.8	*See Photo Log for additional information.		Zero Reference Po	Int. NA	
2.8	*See Photo Log for additional information. Overview Map of Corroded Area*:		Zero Reference Po		>
2.8	*See Photo Log for additional information. Overview Map of Corroded Area*:		Zero Reference Po	Flow	
2.8	*See Photo Log for additional information. Overview Map of Corroded Area*: *See Pit Depth Measurement Grid for addition calcareous deposits.		Zero Reference Po		→
2.8 (*See Photo Log for additional information. Overview Map of Corroded Area*: *See Pit Depth Measurement Grid for addition calcareous deposits.		Zero Reference Po		→
2.8 (*See Photo Log for additional information. Overview Map of Corroded Area*: *See Pit Depth Measurement Grid for addition calcareous deposits.		Zero Reference Po		→
2.8 (*See Photo Log for additional information. Overview Map of Corroded Area*: *See Pit Depth Measurement Grid for addition calcareous deposits.				
2.8 *Note any o 12 o'clo	*See Photo Log for additional information. Overview Map of Corroded Area*: *See Pit Depth Measurement Grid for addition calcareous deposits.				
2.8 (*Note any o 12 o'clo 9 o'clo	*See Photo Log for additional information. Overview Map of Corroded Area*: *See Pit Depth Measurement Grid for addition calcareous deposits.		Zero Reference Po		
2.8 *Note any o 12 o'clo	*See Photo Log for additional information. Overview Map of Corroded Area*: *See Pit Depth Measurement Grid for addition calcareous deposits.		Zero Reference Po		
2.8 (*Note any o 12 o'clo 9 o'clo	*See Photo Log for additional information. Overview Map of Corroded Area*: *See Pit Depth Measurement Grid for addition calcareous deposits.		Zero Reference Po		
2.8 (*Note any o 12 o'clo 9 o'clo 6 o'clo	*See Photo Log for additional information. Overview Map of Corroded Area*: *See Pit Depth Measurement Grid for addition calcareous deposits. book		Zero Reference Po		
2.8 (*Note any o 12 o'clo 9 o'clo	*See Photo Log for additional information. Overview Map of Corroded Area*: *See Pit Depth Measurement Grid for addition calcareous deposits. book		Zero Reference Po		
2.8 (*Note any o 12 o'clo 9 o'clo 6 o'clo 3 o'clo	*See Photo Log for additional information. Overview Map of Corroded Area*: *See Pit Depth Measurement Grid for addition calcareous deposits. box box box box box box box box		Zero Reference Po		
2.8 (*Note any o 12 o'clo 9 o'clo 6 o'clo 3 o'clo 12 o'clo	*See Photo Log for additional information. Overview Map of Corroded Area*: *See Pit Depth Measurement Grid for addition calcareous deposits. box box box box box box box box				9 10

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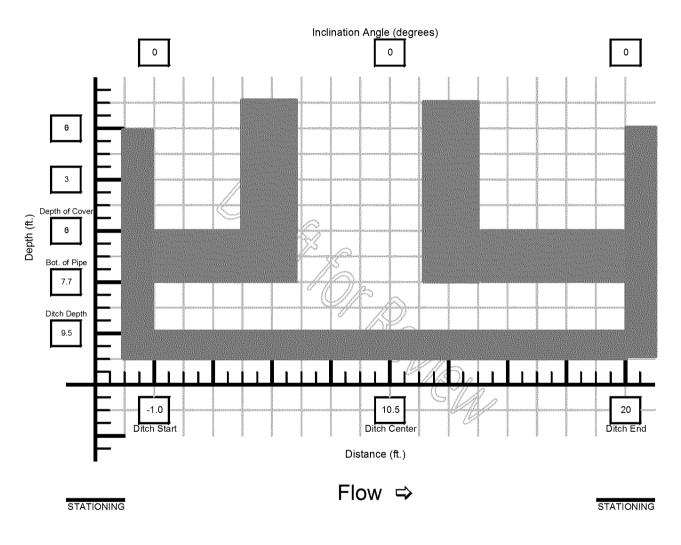
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Excavation Drawing:

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").



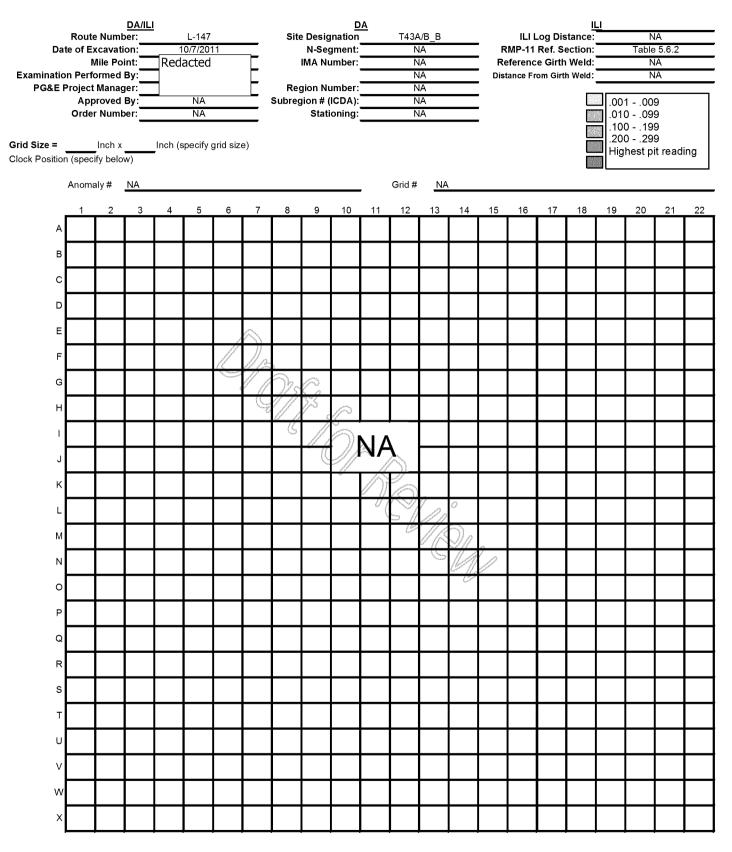
NOTES: (Record stationing and names of nearby landmarks such as creeks and roads. Provide any additional information that may help in spatially positioning pipe):

**See attached Delorme screen shot on page 11.

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EXTERNAL PIT DEPTH MEASUREMENT GRID SHEETS



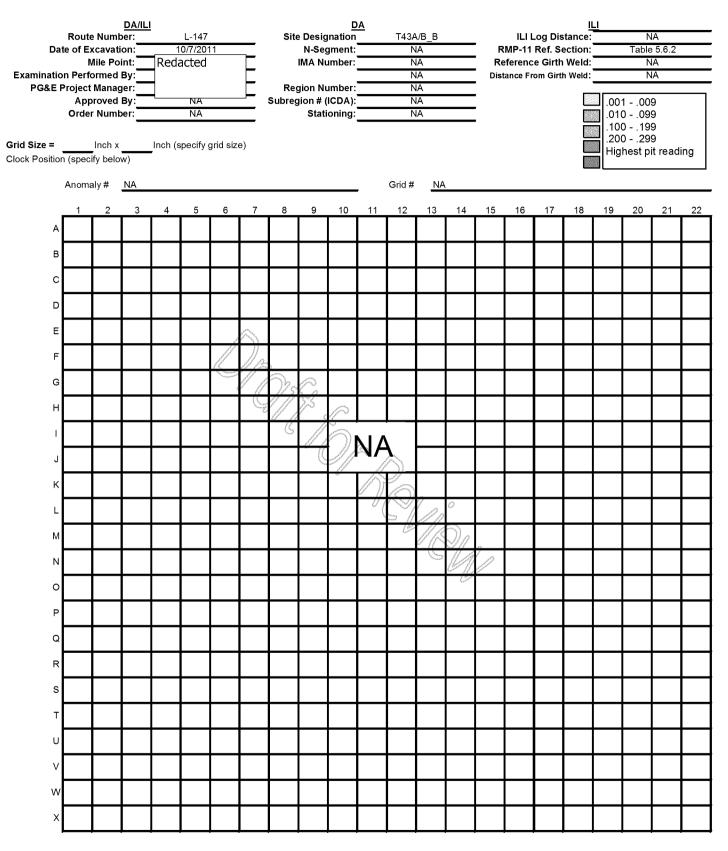
PIT DEPTH GRID 1 OF 2

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EXTERNAL PIT DEPTH MEASUREMENT GRID SHEETS



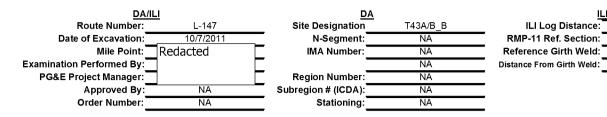
PIT DEPTH GRID 2 OF 2

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INTERNAL CORROSION WALL LOSS GRID



Grid Size = ____ Inch x ____ Inch

Clock Position (specify below)

All measurements are in inches.

UT Grid is centered @	6:00 position on pipe.
	1

	1	2	3	4	5	6 \	/ 7	8	9	10	11	12
A	0.251"	0.251"	0.249"	0.249"	0.249"	0.249"	0.249"	0.248"	0.248"	0.248"	0.248"	0.248"
в	0.251"	0.254"	0.251"	0.251"	0.249"	0.249"	0.249"	0.249"	0.248"	0.248"	0.248"	0.249"
с	0.253"	0.251"	0.251"	0.251"	0.251"	0.251"	0.251"	0.249"	0.249"	0.258"	0.249"	0.249"
D	0.251"	0.251"	0.251	0,251"	0.251"	0.249"	0.250"	0.249"	0.249"	0.248"	0.247"	0.249"
E	0.251"	0.251"	0.251" 《	0,251"	0.251"	0.251"	0.251"	0.251"	0.247"	0.248"	0.247"	0.248"
F	0.251"	0.251"	0.251"	0.251"	0.249"	0.249"	0.251"	0.249"	0.249"	0.247"	0.248"	0.249"
G	0.251"	0.251"	0.247"	0.246"	0.249"	0/248"	0.247"	0.247"	0.246"	0.247"	0.248"	0.247"
н	0.248"	0.249"	0.249"	0.249"	0.248"	0.247"	0.247	0.2475	0.246"	0.246"	0.246"	0.246"
I	0.249"	0.249"	0.249"	0.249"	0.247"	0.246"	0.244"	0,247	0.244"	0.244"	0.247"	0.246"
J	0.247"	0.247"	0.247"	0.246"	0.246"	0.246"	0.242"	0.244"	0.244"	0.243"	0.244"	0.246"
к	0.247"	0.247"	0.247"	0.246"	0.246"	0.246"	0.244"	0.244"	0.244"	0.244"	0.244"	0.246"
L	0.249"	0.247"	0.247"	0.247"	0.248"	0.248"	0.248"	0.242"	0.244"	0.244"	0.246"	0.244"

INTERNAL CORROSION GRID 1 of 1

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NA

Table 5.6.2

NA

NA

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COATING DAMAGE

<u>DA/ILI</u>		DA	DA		<u>ILI</u>		
Route Number:	L-147	Site Designation	T43A/B_B	ILI Log Distance:	NA		
Date of Excavation:	10/7/2011	N-Segment:	NA	RMP-11 Ref. Section:	Table 5.6.2		
Mile Point:	Redacted	IMA Number:	NA	Reference Girth Weld:	NA		
Examination Performed By:			NA	Distance From Girth Weld:	NA		
PG&E Project Manager:		Region Number:	NA	_			
Approved By:	NA	Subregion # (ICDA):	NA				
Order Number:	NA	Stationing:	NA				
-							
FEET FROM							

NO.	FEET FROM REFERENCE	O'CLOCK	MAX LENGTH (IN.)	MAX CIRC EXTENT (IN.)
NA	NA	NA	NA	NA
	1 1			
	+ +			
	+ +			
) 	
	↓↓			
	↓↓	(L		
		ن ا	4 // 55°	
			16	
	1 1			2
	+ +			
	┥───┤			
	1 1			
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Form H: Direct Examination Data Sheet - Page 8 of 10

CORROSION LOG

<u>DA/ILI</u>		DA			<u>ILI</u>		
	Route Number:	L-147	Site Designation	T43A/B_B	ILI Log	Distance:	NA
	Date of Excavation:	10/7/2011	N-Segment:	NA	RMP-11 Ref	RMP-11 Ref. Section: Table 5	
	Mile Point:	Redacted	IMA Number:	NA	Reference G	irth Weld:	NA
Examina	ation Performed By:		• • • • • • • • • • • • • • • • • • • •	NA	Distance From (Girth Weld:	NA
PG8	E Project Manager:	٦ ٢	Region Number:	NA			
	Approved By:	NA	Subregion # (ICDA):	NA			
	Order Number:	NA	Stationing:	NA			
			· · · · · · · · · · · · · · · · · · ·				
IC or EC	FEET FROM REFERENCE	O'CLOCK	MAX PIT DEPTH (MIL	LS) N	/IAX LENGTH (IN.)	MAXC	IRC EXTENT (IN.)
NA	NA	NA	NA		NA		NA

NA	NA	NA	NA	NA	NA
			2-		
			(Dr. P		
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			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
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## Form H: Direct Examination Data Sheet - Page 9 of 10

## PHOTO LOG

DA/ILI		DA		<u>LI</u>		
Route Number:	L-147	Site Designation	T43A/B_B	ILI Log Distance:	NA	
Date of Excavation:	10/7/2011	N-Segment:	NA	RMP-11 Ref. Section:	Table 5.6.2	
Mile Point:	Redacted	IMA Number:	NA	Reference Girth Weld:	NA	
Examination Performed By:			NA	Distance From Girth Weld:	NA	
PG&E Project Manager:		Region Number:	NA			
Approved By:	NA	Subregion # (ICDA):	NA			
Order Number:	NA	Stationing:	NA			

PHOTO NO.	LOCATION	DESCRIPTION	COMMENTS
	***	*See attached photo report.	
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Page 10 of 29

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Form H: D	rect Examination Data Sheet - Page 1			
	DA/ILI Route Number: L-147	DA Site Designation	T43A/B_B	I <u>LI</u> ILI Log Distance: NA
	Date of Excavation: 10/7/2011	N-Segment:	NA	RMP-11 Ref. Section: Table 5.6.2
	Mile Point: Redacted	IMA Number:	NA	Reference Girth Weld: NA
Exami	nation Performed By:	-	NA	Distance From Girth Weld: NA
PG	&E Project Manager:	Region Number:	NA	
	Approved By: NA	Subregion # (ICDA):	NA	
	Order Number: NA	Stationing:	NA	
<u>3.0 REC</u>	ΟΑΤ ΔΑΤΑ			
3.1	Sandblast Media: Shar	o Shot 30/60	Anchor Profile Meas	urement: Average: 3.2 mils
3.2	Pipe Recoated With:			
	Powercrete J X Poly Tape	Bar-Rust 235	Dev Grip 238	Dev Tar 247 🔀 Protal 7200 🔲 PE Tape
3.3	For Epoxy Coating Systems, Reco	rd Environmental Condition	- <u> </u>	— —
0.0	Air Temperature: 62.4°F	ra Environmentar contation	Dew Point: 45.1°F	
	Pipe Temperature: 67.0°F		Relative Humidity: 51.4%	
	Time of Day: 12:30 pm			
3.4	Repair Coating Hardness (If ARC Coating	:) US 3:00 - DS 3:00 -	82 6:00 - 79 79 6:00 - 75	9:00 - <u>79</u> 12:00 - <u>79</u> 9:00 - <u>79</u> 12:00 - <u>81</u>
0.5	Managered Conting Thickness	LIC 2:00 22.7		9:00 - 57.5 12:00 - 27.4
3.5	0	US 3:00 - 33.7 DS 3:00 - 37.3	6:00 - <u>38.7</u> 6:00 - <u>28.6</u>	9:00 - 57.5 9:00 - 39.0 12:00 - 27.4 12:00 - 29.3
		DO 0.00- <u>07.0</u>	0.00 - 20.0	12.00 - 23.0
	Holiday Tested?: X Yes No			
	Device Used: Coil We	t Sponge Voltage U	sed: <u>UNK</u>	Repair All Holidays. YES
3.6	Coupon Test Station Installed?:	Yes X No E1	S Installed?: Y	es X No
	· · · · · · · · · · · · · · · · · · ·	ta 🖬		
	If Yes, Date Installed: NA	<u> </u>		
	Surface Configuration:: 📃 Fink 🖉	G-5 Box Carsoni	te 🗌 Other: <u>NA</u>	
3.7	Backfill Material: Native	Imported Sand	Other: NA	
	Coating Protections?: Yes		→ <u> </u>	
			Conwed 🔲 Other:	NA
• •	<b>—</b>			
3.8	Pipe-to-Soil Readings Over Bell Hole After *If specified, a CIS should be done for appro	1.5	the bell hole. Attach data	L.
	Comments: NA		16.	
			U(\\// 20	
3.9	Attach site sketch of excavation site.		- Oli	1
4.0 REPA	IR DATA		CH L	//
4.1		No 4.2 Number o	of Repair Made: NA	
		_	·	
4.3	Repair Type Metallic Sleev	e Non Metallic	Sleeve Replace	Can Filler Metal Other
4.4	Damage Repaired: Co	prrosion 🔲 M	echanical 🔲 Other	r
Misc. Co	mments/Information: T43A had coatin	ng removed, area for inspectio	on was blasted from coatin	g up to test pipe tie in weld. About 1 ft of coating
was inspecte				About 1.5 ft of coating was inspected. Removed
pipe section	was inspected at the PG&E yard.		· · ·	

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## GE Energy INSPECTION & LIFE EXTENSION SERVICES

MAGNETIC PARTICLE EXAMINATION REPORT								☑ Non-N	luclear	
To: Pacific Gas & Electric Company				Freeacted			Date: <b>10/7/2011</b>			
Project:			T43A/B_L147_B	Redacted	7					
Purchase Order No	):		GEIS Jo							
LAPI0015										
ltem	Weld	Structural Casting	g Machinery	Mach. Parts	Pipe	N/A	Other:			
					$\checkmark$			N/A		
	Non-Weld	Plate Pipe	Bar	Casting	Mach. Parts	N/A	Other:			
	$\overline{\checkmark}$							N/A		
Material	Size	Material Thickness	Type of Base Mate	rial	Type of Filler Mat	erial	Weld	✓ N/A		
Platerial	20''	0.250"	Carbon Stee	1	C/S	Smooth	SnAsolow/bild	de 💭 As W	Velded	
Location	Redacted			System						
Location						I	L-147			
Acceptance		Customer Specific	ations	Procedure						
Standards		Customer specific	utions		GE	IS QCF	P # 500 Rev 15			
Type of Check	Initial	Plate Edge In Proce	ss Back Gouge	Root Pass	Repair	12	Hour 24	Hour	Final	
Type of check	$\checkmark$								$\checkmark$	
			DC Pro	be	Continuous	;	Other:			
	✓     Wet     Dry     Direct Contact     ✓     Residual									
Type of Inspection	Circular	AC Prod	- OF-Yoke	<u>}</u>	Other					
	MT Yoke & Model - Serial No. / Blacklight Model - Serial No. Surface Preparation Method									
	Parker DA-400 - S# 18830 / Spectroline BIP - S# 1597251 Abrasive Blasting (Kleen Blast) - NACE 2 Finish								h	
	Inspection Medium / Color / Batch No. Demagnetization Method / Equipment									
	Magnaglo 14A / Flourescent Green / 09M12K					N/A				
Reference: Summo	,		✓ See	Attachment	10		Results of I	nspection	1	
The following areas were requested to be inspected:  Results of Inspection										
							ant indications found @ time of insp. ant indications found @ time of insp.			
Removed pipe section. 21						2 Linear indications were found.				
Summary:	-1.601/Erom 11/5 a	nd of ning) Al -1 60" CM	-0.020" CLK Desition	/000						
		nd of pipe), AL=1.58" , CW nd of pipe), AL=1.20", CW			-					
These are on the r	emoved pipe secti	ion.								
					-					
Indications were on t	the removed pipe sec	tion. Please see attached ph	oto report for additional	information.						
Сору То:		Reques	Requested By:			Reported By (Technician):				
Pacific Gas & Electric Company				Redacted			Redacted			
GE Inspection Services (Los Angeles)				Customer Specifications     Accept     Reject			N			
NOTICE: THIS EXAM	INATION REPORT IS	A REPORT OF THE RESULTS		Accept	Reject	S COMPA	ANY IT IS SUBJECT		ITATIONS	

OF THE TESTING SPECIFICATIONS AND PROCEDURES WHICH WERE UTILIZED. BY FURNISHING THIS REPORT, GE INSPECTION & LIFE EXTENSION SERVICES DOES NOT GUARANTEE ANY CONDITION OF THE TESTED SPECIMEN.



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## GE Energy **Inspection & Life Extension Services**

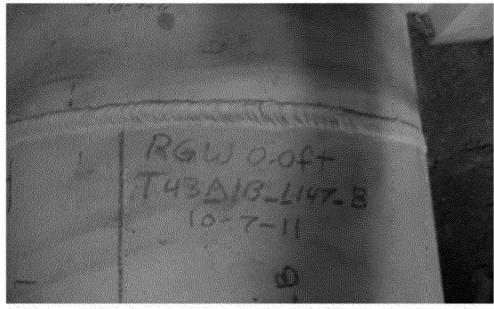
	ULTRAS		Nuclear	✓ Non-Nuclear								
To: Pacific Gas & Electric Company							Date: 10/7/2011					
Project: T43A/B_L147_B Redacted												
Purchase Order No:												
			LAPI0015									
ltem	Weld Structu	al Casting	Machinery	Mach. Parts	Pipe	N/A	Other:					
	Non-Weld Plate	Pipe	Bar	Casting	Mach. Parts	N/A	Other					
Material	Size: No. of Pieces			lase Metal <b>n Steel</b>	Type of Filler Material <b>C/S</b>		Weld	✓ N/A As Welded				
Location	Redacted			System L-147								
Acceptance Standards		Customer Specifications					Procedure QCP-601					
	Soundness Thickne			Transducer			Transducer Serial No.:					
			Single Crystal		Dual Crystal		020HFC					
	Pulse Echo Angle-Be	Frequency		Size		gle	Couplant / Batch #					
			U/ // // // // // // // // //			0°		Sonatest Ultragel II				
Type of Inspection				Flat		Convex		/ 25-901 07225 AF				
	Serial # 01	NLKN	Standard		Material	Notch Depth		Serial No.:				
	Calibration Date: 10/5/2011											
				Step Wedge 🕢 🖉		Thickness Range		Serial No.:				
	Calibration Due: 1/5/2012			Tube Wedge			- 0.500"	V34693				
Reference: Sur	-			✓ See	Attachment	0	Results of I	nspection:				
	ng areas were requ				~ V//		in dia dia dia dia	41				
	1" grid) at a random (	<i>U</i> ((	No relevant indications @ time of inspection.									
	n scans at cut-line lo		C	- No relevant indications @ time of inspection.								
Thickness readings US & DS inspection areas at the clock positions.												
** Please see attached reports for additional information.												
Сору То:	,		Reported By (Technician):			(Technician):						
Pacific Gas & E	lectric Company		Re	edacted	Redacted							
GE Inspection Services (Los Angeles)						is	sor:					
✓ Accept						Reject Redacted						

NOTICE: THIS EXAMINATION REPORT IS A REPORT OF THE RESULTS OF THE NDT PROCEDURE ACTUALLY PERFORMED BY THIS COMPANY IT IS SUBJECT TO THE LIMITATIONS OF THE TESTING SPECIFICATIONS AND PROCEDURES WHICH WERE UTILIZED. BY FURNISHING THIS REPORT, *GE INSPECTION SERVICES* DOES NOT GUARANTEE ANY CONDITION OF THE TESTED SPECIMEN.

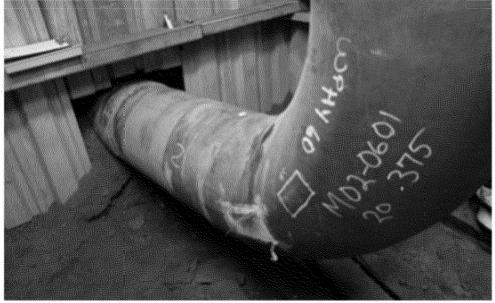


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## GE Energy Inspection



Overview of Reference Girth Weld measurments were taken from.



Overview of coating condition -1ft to 2ft, 3:00 position



Overview of coating condition -1ft to 2ft, 3:00 position



Overview of coating condition -1ft to 2ft, 9:00 position



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## GE Energy Inspection



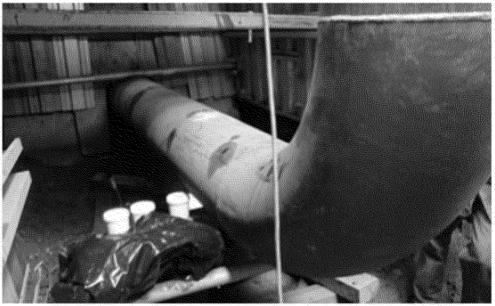
Overview of coating condition -1ft to 2ft, 9:00 position



Overview of coating condition 17ft to 20ft, 3:00 position



Overview of coating condition 17ft to 20ft, 300 position



Overview of coating condition 17ft to 20ft, 9:00 position



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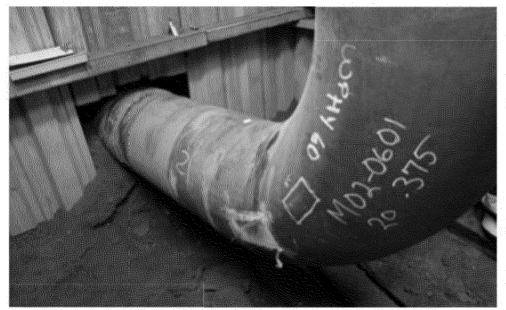
## GE Energy Inspection



Overview of coating condition 17ft to 20ft, 9:00 position



Overview of MPI loyout -1ft to 2ft, 300 position



Overview of MPI layout 1ft to 2ft, 3:00 position



Overview of MPI layout -1ft to 2ft, 9:00 position



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# GE Energy Inspection



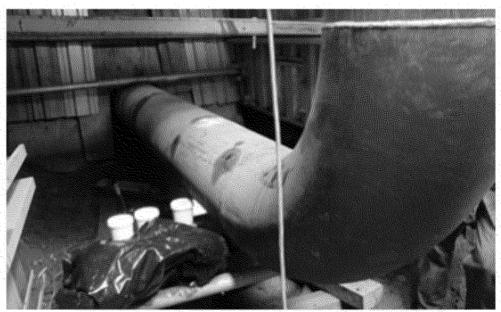
Overview of MPI layout -111 to 211, 9:00 position



Overview of MPI loyout 17th to 20th, 3:00 position



Overview of MPI layout 17ft to 20ft, 300 position



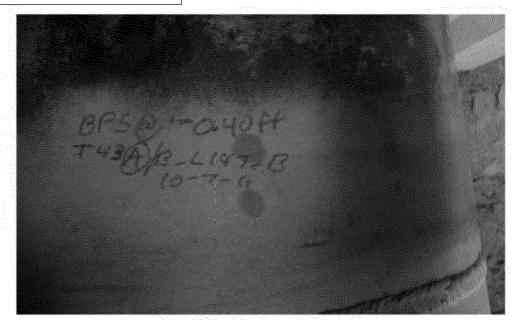
Overview of MPI layout 17ft to 20ft, 9:00 position



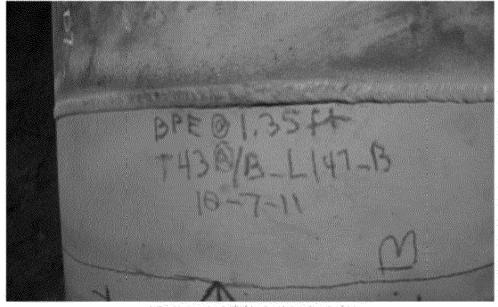
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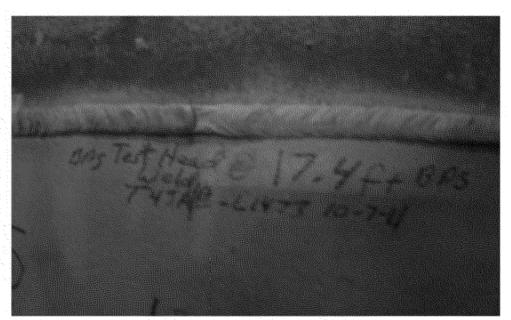
Overview of MPI layout 17ft to 20ft, 9:00 position



Overview of bare pipe start



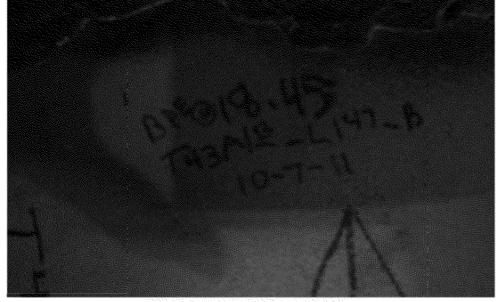
Overview of bare pipe end



Overview of bare pipe start

B

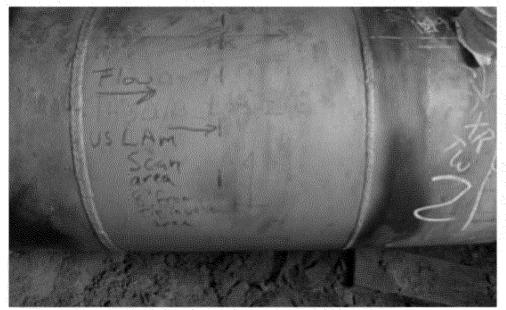
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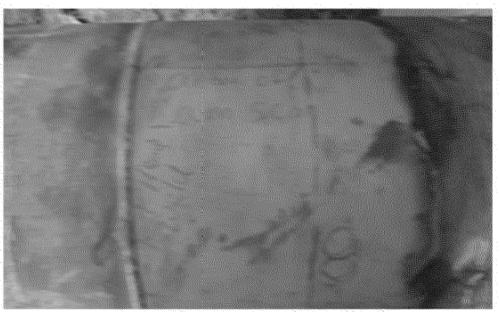
Overview of bare pipe end



Overview of feature joint long seam @ 8:55



Overview of US lamination scan area.



Overview of DS lamination scan area.

B

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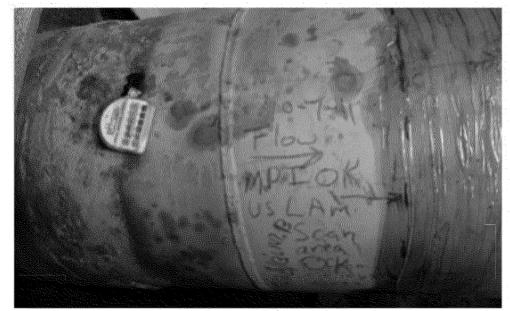
# GE Energy Inspection



Overview of US MPIOK and Lamination scan OK.



Overview DS of MPIDK and Lamination scan DK.



Overview of pipe Ph.



Closeup of pipe Ph.

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## GE Energy Inspection



Removed pipe section coating assessment 3:00



Overview of coating condition 300 position



Overview of cooting condition 3:00 position



Overview of conting condition 3:00 position

8

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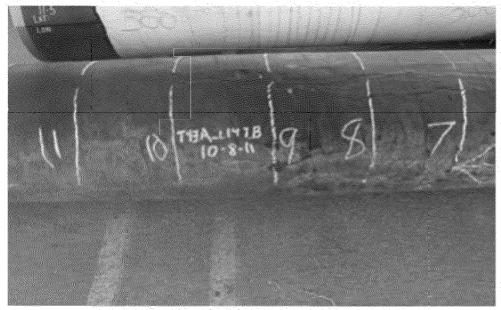




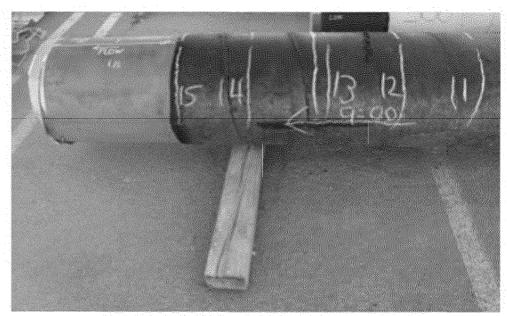
Removed pipe section coating assessment 9:00



Overview of cooting condition 9:00 position



Overview of coating condition 9:00 position

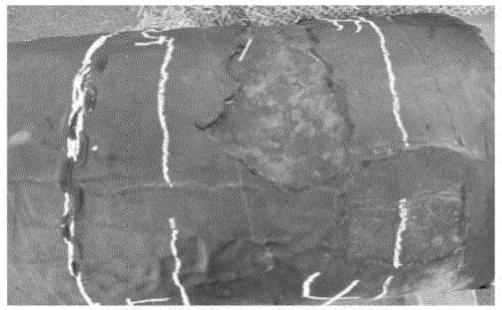


Overview of coating condition 9:00 position

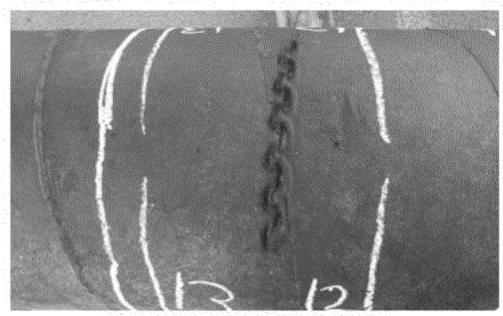
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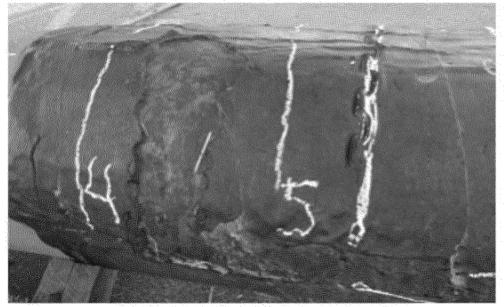
# GE Energy Inspection



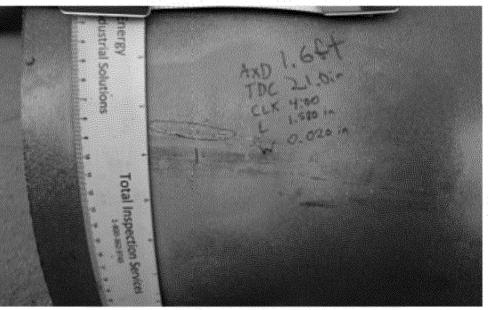
Coating damaged from removal process.



Coating damaged from removal process.



Coating damaged from removal process.

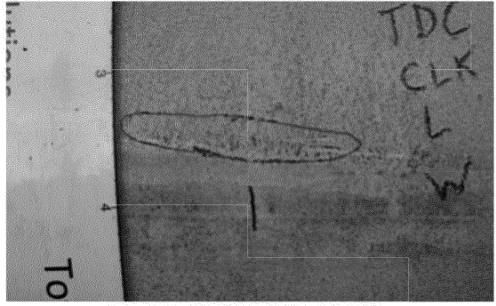


Removed pipe section linear indication-01.

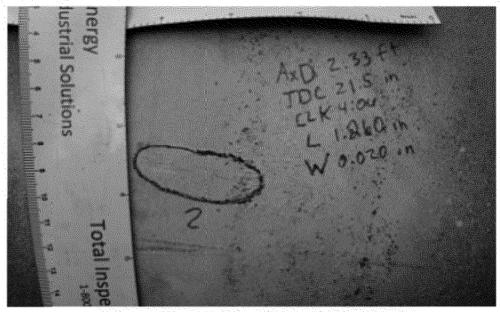
B

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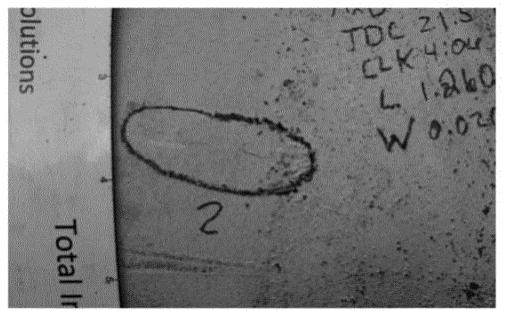
## GE Energy Inspection



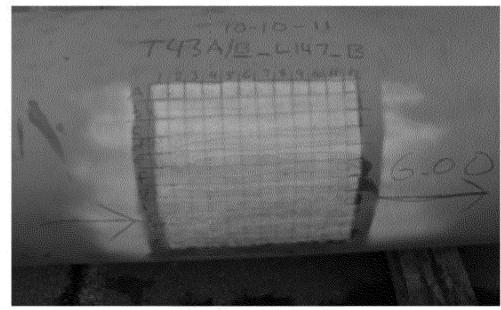
Close up of MT Indications of LIN-01



Removed pipe section linear indication-02



Close up of MT Indications of LIN-02

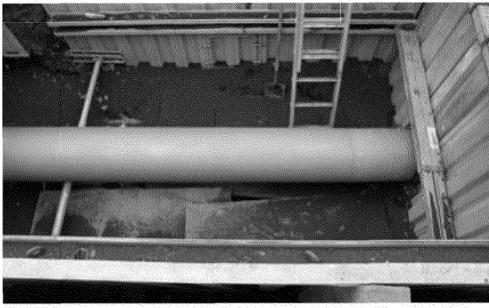


Overview of UT Grid.

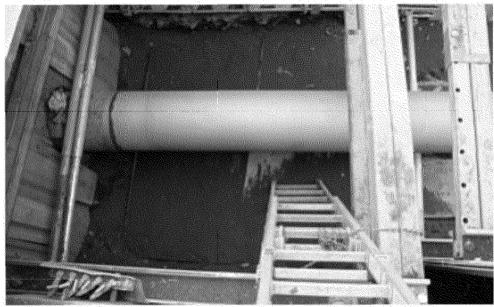
B

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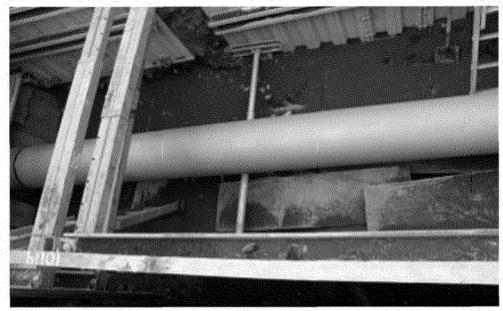
# GE Energy Inspection



Overview of clean blasted inspection area prior to recoal activities



Overview of clean blasted inspection area prior to recoat activities



Overview of clean blasted inspection area prior to recoat activities



Overview of final coating condition US 3:00

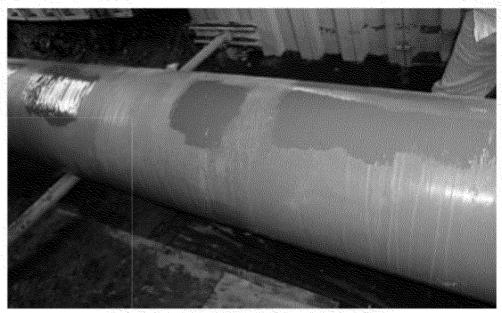


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# GE Energy Inspection



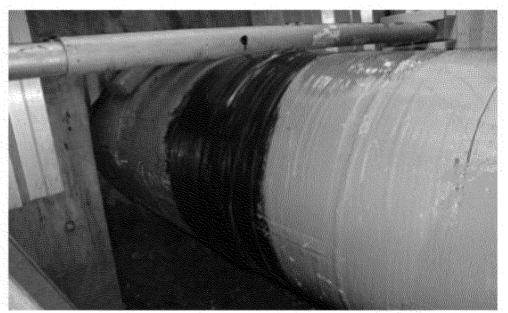
Overview of final coating condition 300



Overview of final coating condition 3:00



Overview of final coating condition 300



Overview of final coating condition US 3:00



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