### Joint Task Force-Red Hill

Bi-Monthly Quality Validation Working Group Meeting



20 July 2023



### **BACKGROUND/DESCRIPTION**

- On January 27, 2023, the Hawai'i Department of Health (DOH) conditionally approves the Independent Third-Party Quality Validation Plan, with the following conditions:
  - Para #1, Provide resumes of those working QV (31 Jan) OUTSTANDING
  - Para #2, Provide QV Plan Addendum detailing testing requirements that will follow repairs (28 Feb)
  - Para #3a, Provide DoH/EPA our first monthly QV report (23 Feb)
  - Para #3b, Provide list of dates of major repair/inspection events that DoH/EPA can attend (23 Feb)
  - Para #4, Provide final report (last repair + 30 days)



### RFI from DOH

**ENSURING A FREE AND OPEN INDO-PACIFIC** 

### Second June Submission

- **Repair 10**: The report states U-bolts were installed except at was also an exception. In both locations, welded brackets were used. If correct, the documentation should be revised for accuracy.
- **Repair 11**: The report states U-bolts were installed except at (b) (3) (A). However, the photos appear to indicate was also an exception. In both locations, welded brackets were used. If correct, the documentation should be revised for accuracy. The after photo for the repair at appears to either be missing or mislabeled. Photos for repairs at were not included.
- **Repair 19**: The repair appears to be associated with the F-24 line. However, the comment section of the report refers to the memo, dated November 30, 2022, which references the JP-5 line. Please clarify whether the correct citation is the updated memo, dated June 22, 2023, and that the correct reference to for the F-24 line is on page 5 under Section 1.
- Repair 241: Why is the "Rework 2" line indicating a failure of weld after the "rework" 1 line indicates it passed and was inspected?
- **Repairs 241 and 242**: These reports included weld tests associated with O- and U- repairs. What repair numbers are these associated with? Were these welds resolved?

### Third June Submission

- Repair 96: This repair is for (b) (3) (A) However, the after photo presented is labelled (b) (3) (A). Is the photo mislabeled, or was the incorrect photo included? Please provide an after photo for (b) (3) (A)
- Repair 128: Do welds represent actions performed on Repair 128? Data on those welds were not provided. Please clarify.



### **Quality Validation Report (+ x23)**

NO.	Validation Complete	Date	Location
002	Contractor installed pressure indicating transmitters (PITs) at locations throughout the Red Hill tunnel connecting to Bleed ring fittings at high point vents on the JP-5 and F-24 piping. PITs integrated into facility automated fuel handling equipment (AFHE) and supervisory control and data acquisition (SCADA) systems. The PITs provide operators with real-time pressure readings to ensure conditions are acceptable before and during fuel movement. Equipment is factory calibrated. Subsequent calibration will be performed once the system has been repacked, documented in the Site Survey Report (SSR).	17 JUL 23	TG/HT



### **Quality Validation Report (+ x23)**

NO.	Validation Complete	Date	Location
INC -002	Contractor unbolted non-standard/field-fabricated flange, cleaned the flange face to accept a new (b) (3) (A) gasket.  Contractor installed a new (b) (3) (A) blind flange with new hardware.	13 JUL 23	(b) (3) (A)
INC -003	Contractor removed (b) (3) (A) of piping at Pipe Support to address dent on bell joint. Contractor butt welded pipe pup; tie-in welds received 100% radiographic testing. NDE result table, NDE inspection report, weld map included for reference.	19 JUL 23	
INC -004	Contractor installed a new high point vent assembly on the to facilitate line packing. NOE result table, NOE inspection report, weld map/design detail included for reference.	19 JUL 23	
INC -005	Contractor equally torqued tension rod nuts to around the Dresser coupling lugs.	19 JUL 23	
INC -006	Contractor removed and replaced damaged grout from beneath Pipe Support	19 JUL 23	
INC -007	Contractor removed existing threaded plug from the top of the piping. Contractor installed a threaded nipple, (b) (3) (A) ball valve and threaded end cap.	13 JUL 23	



### **Quality Validation Report (+ x22)**

NO.	Validation Complete	Date	Location
INC -008	Contractor installed conduit clips to restrain uni-strut bracket for piping connected to the (b) (3) (A)	13 JUL 23	(b) (3) (A)
INC -009	Contractor installed u-bolt brackets and shims for (b) (3) (A) to existing support bracket.	13 JUL 23	
INC -010	Contractor installed u-bolt brackets and shims for (b) (3) (A) to existing bracket.	13 JUL 23	
INC -011	Contractor fabricated hanging supports by anchoring threaded rod into existing overhead structures to support uni-strut brackets.  Conduit clips were installed to secure the piping to the uni-strut bracket supports.	13 JUL 23	
INC -012	Contractor added a section angle to connect the (b) (3) (A)  Contractor welded a (b) (3) (A) plate to the side of the existing structural beam for reinforcement.	19 JUL 23	
INC -013	Contractor installed a column beam approximately (b) (3) (A) from the wall (to allow clearance for opening existing electrical panel), anchored to the tunnel floor with (b) (3) (A) anchor bolts. Grout installed beneath new column baseplate.	19 JUL 23	



### **Quality Validation Report (+ x22)**

NO.	Validation Complete	Date	Location
INC -014	Contractor installed knee brace to tunnel wall. Brace welded to beam and baseplate, baseplate anchored to tunnel wall with anchor bolts. Grout installed beneath baseplate.	19 JUL 23	(b) (3) (A)
INC -015	Contractor welded a (b) (3) (A) plate (b) (3) (A) extending (b) (3) (A) to reinforce beam at Pipe Support	19 JUL 23	
INC -016	Contractor welded a (b) (3) (A) plate (b) (3) (A) extending (b) (3) (A) to reinforce beam at Pipe Support	19 JUL 23	
INC -017	Contractor welded a (b) (3) (A) plate (b) (3) (A) extending (b) (3) (A) to reinforce beam at Pipe Support	19 JUL 23	
INC -018	Contractor welded a (b) (3) (A) plate (b) (3) (A) extending (b) (3) (A) to reinforce beam at Pipe Support	19 JUL 23	
INC -019	Contractor welded a (b) (3) (A) plate (b) (3) (A) ) extending (b) (3) (A) to reinforce beam at Pipe Support Visual inspection and MT was performed on the structural welds IAW AWS D1.1 code, 50% random.	19 JUL 23	
INC -020	Contractor welded a (b) (3) (A) place, (b) (3) (A) high on the outside of the vertical support. Visual inspection and PT was performed on the structural welds IAW AWS D1.1 code, 50% random.	19 JUL 23	



### **Quality Validation Report (+ x22)**

NO.	Validation Complete	Date	Location
INC -021	Contractor removed the bottom (b) (3) (A) of the vertical support and replaced in-kind at locations: (b) (3) (A)  Structural welds inspection via VT and PT, 50% random.	19 JUL 23	(b) (3) (A)
INC -022	Contractor welded a (b) (3) (A) place, (b) (3) (A) high on the outside of the vertical support. Visual inspection and PT was performed on the structural welds IAW AWS D1.1 code, 50% random.	19 JUL 23	
INC -024	At Pipe Support (b) (3) (A), contractor removed coating from anchor nut to allow tack welding to the anchor bolt in place of full thread engagement.	19 JUL 23	



### **Rework - Quality Validation Report**

NO.	Validation Complete	Date	Location



### **Relief - Quality Validation Report**

### **ENSURING A FREE AND OPEN INDO-PACIFIC**

NO.	Validation Complete	Date	Location

Seeking Repair Relief: #006, UGPH



### **Testing & Inspection Dates**

NO.	Testing & Inspection Dates	Date	Location
1			
2			
3			
4			



### **Around the Horn**

**ENSURING A FREE AND OPEN INDO-PACIFIC** 

### **AGENCIES**:

- NAVAL FACILITIES ENGINEERING SYS COMMAND-HAWAII (NAVFAC-HI)
- JOINT TASK FORCE-RED HILL (JTF-RH)
- ENVIRONMENTAL PROTECTION AGENCY (EPA)
- DEPARTMENT OF HEALTH (DOH)
- FLEET LOGISTIC CENTER-PEARL HARBOR (FLC-PH)
- DEFENSE LOGISTIC AGENCY (DLA)
- COMMANDER, NAVY REGION-HAWAII (CNR-HI)
- ENGINEERING AND EXPEDITIONARY WARFARE CENTER (EXWC)
- NAVY-OTHER

				QUALI	TY VALIDATION (	QV) REPO	ORT			**	
			]	Red Hill B	Bulk Fuel Storage Fac	ility Defue	ı			, (	
Val	idation Firm	HDR Env	ironmental	, Operatio	ns and Construction,	Inc.		Repair No.	1002		
-1	Address	9781 S. N	/leridian Bl	vd., Suite	400, Englewood, CO	80112	10-3		(b) (4).06	U.	
(	Contract No.	FA89031	5D0007, D	.O. FA890	03 19 F 0027			Report	17 JUL 2	023	
(	V Enginee	(b) (	<b>(6)</b>					IMP			
		\ /			VALIDATION						
Sc	ource	F	PDF Page N	o.	Facility Geograph	ic Area		Location	Reference		
(b) (4)		319									
Repair	Description		ditior (b) ( lTs are in	4)	cating Transmit	e	Sour	ce Contra Referen		F	
Description of Contractor QC Method(s) Used  Pre Installation, Pre Operational and Operational Testing completed. Integration with AFHE.  Contractor QC Records Reviewed  Contractor QC Records Reviewed											
Va	iption of QA didation and Observations	Visually in submittals JTF RH s JTF RH C submittals	nspected c s. secondary QV visually s).	ompleted QA and 3r inspected	ce is documented IAV installation; matched d Party QV complete I repairs and reviewed Date: 12 JUL 2023	completed d.		•			
	Rework	Needed			Photo Record Attached	i	Repair	Work Vali	dated as Co	mplete	
0	Yes	•	No		See Pages 2 5.		•	Yes	0	No	
readings	or instal	conditions a	ol an <mark>d data</mark> are accepta	able befor	piping. PITs integration (SCADA) systems. e and during fuel moves system has been reparted.	The PITs prement. Eq	cility autom provide ope uipment is umented ir	erators with factory ca	n real time librated.	pressure	
	rtify that repair personally sub			QV ENG	INEER SIGNATURE	(b) (	6)				
report is tru					DATE	17 JUL 2	023			\$2. V	

				QUALIT	Y VALIDATION (	QV) REP	ORT					
			]	Red Hill Bu	ılk Fuel Storage Fac	ility Defu	el					
Vali	idation Firm	HDR Env	rironmental	, Operation	s and Construction,	Inc.		Repair No.				
	Address	9781 S. I	Meridian Bl	vd., Suite 4	00, Englewood, CO	80112		Repair ID 27				
C	Contract No.	FA89031	5D0007, D	.O. FA890	3 19 F 0027			Report	13 JUL 20	023		
Q	V Enginee	(b) (	6)									
		` / (	<i>'</i>		VALIDATION							
So	urce	]	PDF Page N	o.	Facility Geograph	ic Area		Location	Reference			
/C /	NDA	N/A			(b) (3) (A)		(b) (3) (A)		3	,		
		Replace I	Non	ard B	ange.			4				
Repair	Description						Sour	ce Contr Referen				
		3										
De	escription of	Methods	outlined in	QCP.			Con	ntractor QC	QCP and Daily Reports.			
	ntractor QC hod(s) Used							s Reviewed				
Va	ption of QA lidation and Observations	JTF RH 9		QA and 3rd	I Party QV complete repair & reviewed co		OC docume	ntation.				
		Final acce	ptance by go	government. Date: 26 MAY 2023								
	Rework	Needed		]	Photo Record Attached	i		r Work Vali	dated as Co	mplete		
O	Yes	•	No		See Page 2.			Yes	O	No		
omments		ed a ı	new (b) (3) (	A)	blind flange with ne	_	o a ure.	(b) (3)	(A)	_		
			-		CERTIFICATION							
	tify that repair personally sub			QV ENGI	NEER SIGNATURE	(b)	(6)					
port is true					DATE	13 JUL 2	2023					

				QUALI	TY VALIDATION (	QV) REPO	ORT				
			1	Red Hill B	Bulk Fuel Storage Fac	ility Defu	el				
Vali	idation Firm	HDR Env	vironmental	, Operatio	ns and Construction,	Inc.		Repair No.	INC 003		
	Address	9781 S. N	Meridian Bl	vd., Suite	400, Englewood, CO	80112		Repair ID	A21.	51	
C	Contract No.	FA89031	5D0007, D	.O. FA890	03 19 F 0027			Report	19 JUL 20	023	
Q	V Enginee	(b)	(6)								
		(10)	( )		VALIDATION						
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Repair Description								Referen			
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Description of		inspection	outlined in n via Radio		CQCP. Pipe welds 100 esting.	0%	Con	ntractor QC			
	ntractor QC hod(s) Used					Record	s Reviewed				
Va	ption of QA lidation and Observations	Form 429 design ar JTF RH 9 JTF RH 0 submittal	96/2. Visua nd material secondary QV visually s, daily rep	Ily inspect submittals QA and 3r inspected orts).	ed completed installa s. Reviewed NDE rep d Party QV complete	tion; matcl orts. d.	s in the daily CQC reports using NAVI ched completed construction against stor QC documentation (Work Plan,				
	Rework	Needed	, , , , ,		Photo Record Attached	i	Repair	r Work Vali	dated as Co	mplete	
0	Yes	•	No		See Page 2.	,	•	Yes	0	No	
omments		(b) (3) (A) % rac	liogr	(b) (3) (A	E result table, NDE	r ell		ld map inc	luded for re	eference.	
	tify that repair			QV ENG	INEER SIGNATURE	(b) (6	3)				
port was p port is true	personally sub e.	stantiated an	nd this		DATE	19 JUL 2					

### EMERGENT PIPELINE REPAIRS

REPAIR ID				ROOT PASS				_						COVER PASS					
(b) (3) (A)	FITUP P/F	DATE	WELDER	DATE	VT P/F	INSPECTOR	DATE		VELDER	DATE	VT P/F	DATE	INSPECTOR	MT / PT P/F	DATE	INSPECTOR	RT P/F	DATE	INSPECTOR
INITIAL	FILLET WELD							(t	) (6)	05 / 04 / 2023	Р	05/04/2023	(b) (6)	P	05/04/2023	(b) (6)			
REWORK 1											STRUCTURAL WELI	0							
REWORK 2																			
REPAIR ID	ROOT PASS													COVER PASS					
(b) (3) (A)	FITUP P/F	DATE	WELDER	DATE	VT P/F	INSPECTOR	DATE			DATE	VT P/F	DATE		MT / PT P/F	DATE		RT P/F	DATE	INSPECTOR
INMAL	FILLET WELD				P/F					05/04/2023	P	05/04/2023		P	05/04/2023		""		
REWORK 1											STRUCTURAL WELL								
REWORK 2																			
REPAIR ID				ROOT PASS										COVER PASS					
(b) (3) (A)	FITUP	DATE	WELDER	DATE	VT	INSPECTOR	DATE	Н		DATE	VT	DATE		MT / PT	DATE		RT	DATE	INSPECTOR
INITIAL.	P/F FILLET WELD				P/F					05/04/2023	P/F P	05/04/2023		P/F	05/04/2023		P/F		
REWORK 1											STRUCTURAL WELL				20, 00, 2023				
REWORK 2																			
=										COVER PASS									
(b) (3) (A)	FITUP			ROOT PASS	VT			Н		L ANT COT						I	I		
	P/F	DATE	WELDER	DATE	P/F	INSPECTOR	DATE	Н		DATE	P/F	DATE		P/F	DATE	_	P/F	DATE	INSPECTOR
INMAL	FILLET WELD							Н		05 / 04 / 2023	Р	05/04/2023		P	05/04/2023	_			
REWORK 1								$\vdash$			STRUCTURAL WELL	,				-			
REWORK 2								Ц											
REPAIR ID				ROOT PASS				Ц						COVER PASS		_			
(b) (3) (A	FITUP P/F	DATE	WELDER	DATE	VT P/F	INSPECTOR	DATE			DATE	VT P/F	DATE		MT / PT P/F	DATE		RT P/F	DATE	INSPECTOR
INMAL	FILLET WELD									05 / 04 / 2023	Р	05/04/2023		P	05/04/2023				
REWORK 1		$\sim$									STRUCTURAL WELF	,							
REWORK 2	Y Y	K Y Y	Y Y	7 7	Y Y	Y Y	7 7	۲		Y Y )	* * *	Y Y		Y Y	Y Y	Y Y	Y Y	* * *	Y Y
repair id (b) (3) (A)	_			ROOT PASS										COVER PASS					
(b) (3) (A)	FITUP P/F	DATE	WELDER	DATE	VT P/F	INSPECTOR	DATE			DATE	VT P/F	DATE		MT / PT P/F	DATE	INSPECTOR	RT P/F	DATE	INSPECTOR
INMAL	Р	05/02/2023	W.L.	05/02/2023	Р	AW	05/02/2023			05/03/2023	P	05/03/2023					Р	05/04/2023	(b) (6)
REWORK 1																			
REWORK 2																			
REPAIR ID				ROOT PASS										COVER PASS					
(b) (3) (A)	A) FITUP DATE WEIDER DATE VT WERKETOR DATE					DATE			DATE	VT	DATE		MT/PT	DATE	INSPECTOR	RT	DATE		
INITIAL	P/F P	05/02/2023	WL	05/02/2023	P/F P	AW	05/02/2023			05/03/2023	P/F P	05/03/2023		P/F			P/F P	05/04/2023	
REWORK 1		-2, 42, 240		-5, 00, 000			-2, 00, 000			,,	<u> </u>	-51 001 0000						.5, 51, 2325	
REWORK 2																			

EmergentPipelineRepairs N39430-20-0-2225-N3943021F4207

# (b) (3) (A), (b) (4)

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### RADIOGRAPHIC INSPECTION REPORT

(b) (4) W. O. No.: 73-034 Report No.: 6550423
Page 3 of 3

WELD#	VIEW #	GEOMETRIK UNSHARPN *UG*	ESS /		10000			The state of the s	20 20 20 20	THE STATE OF		/
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(b) (3) (A)	1-2	/	X	+	$\vdash$	+	+	Н	+	+	+	
	2-3		X	$\perp$	Н	$\pm$	+	Н	$\vdash$	+		
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ر <sub>د</sub> س	0-14	020	X	+	$\forall$	$\top$	+	Н		$\dagger$	+	J15 }
b) (3) (A)	14-28	1	2									ITEM JP5.A2I.5I
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1 4	1458	/	1	+	Н	+	+	$\vdash$	$\vdash$	+	+	ITEM JP5.A21.51
	78-42	/	X	+	$\vdash$	+	+	╁	H	+	+	1
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Film Interpreter SNT-TC-1A Level Date of Inspection

				QUALI	TY VALIDATION (	QV) REP	ORT			
			]	Red Hill B	ulk Fuel Storage Fac	ility Defu	el			
Val	idation Firm	HDR Env	rironmental	, Operatio		Repair No.	INC 004			
	Address	9781 S. M	Meridian Bl	vd., Suite		Repair ID	C.K.	рр		
(	Contract No. FA890315D0007, D.O. FA8903 19 F 0027							Report	19 JUL 20	023
Ç	V Enginee	(b) (6	$\mathbf{S}$							
					VALIDATION					
So	ource	I	PDF Page N	o.	Facility Geograph	ic Area		Location	Reference	
C	C N/A (b) (3) (A)						(b) (3) (A)		is is	,
		Missing F	IPV <b>IIII</b>	nality	tteral with curre					
Repair	Description	(b) (3) (A)					Sour	rce Contra Referen		
De	escription of				QCP. Socket welds	100%	Con	ntma at an OC	CQCP an Reports.	d Daily
Contractor QC Method(s) Used								ntractor QC s Reviewed	1 '	
	(-)									
Government Quality Assurance is documented by the QSR's in the control of QA Validation and Observations  Government Quality Assurance is documented by the QSR's in the Control of QA Validation and Observations  JTF RH secondary QA and 3rd Party QV completed.  JTF RH QV visually inspected repairs and reviewed contractor QC of Submittals, daily reports).  Final acceptance by government. Date: 14 JUN 2023								eted constr	uction aga	inst
	Rework	Needed			Photo Record Attached	i	Repair	r Work Vali	dated as Co	mplete
0	Yes	•	No		See Page 2.		•	Yes	0	No
Comments					(b) (3) (A)	ir	ng E			
JOHN GON	or motar	port, v	veld		included for referen		9			
					CERTIFICATION					
	rtify that repair			QV ENG	INEER SIGNATURE	(b) (	(6)			
eport is tru					DATE	2023				

		WELD INFORMATION								INSPECTION INFORMATION				
Weld ID	Number	SIZE	TYPE	JOINT	П	JOINT	WELDER ID	DATE	NDE TYPE	INITIALS	DATE	RESULTS		
(3) (A)	4	(b) (3) (A)	SW	PIPE		90* SW ELBOW	(b) (6)	6/21/2023	CWI VT	(b) (6)		PASSED		
/ ( ) ( )							(8) (8)		PT		6/29/2023	PASSED		
	5		SW	90* SW ELBOW		PIPE		6/21/2023	CWI VT			PASSED		
									PT		6/29/2023	PASSED		
	6		SW	PIPE	П	90* SW ELBOW		6/21/2023	CWI VT			PASSED		
					П				PT		6/29/2023	PASSED		
	7		SW	90* SW ELBOW		PIPE NIPPLE (TOE)		6/21/2023	CWI VT			PASSED		
									PT		6/29/2023	PASSED		
				(b) (3) (A	L,	h) (2) (A)								
	1		BW	Pipe	-	vessel-o-let		6/30/2023	CWI VT			PASSED		
									RT		7/5/2023	PASSED		
	2		BW	vessel-o-let	-	RFWN Flange		6/30/2023	CWI VT			PASSED		
					'				RT		7/5/2023	PASSED		
	3		SW	RFSW Flange		PIPE		6/22/2023	CWI VT			PASSED		
									PT		6/29/2023	PASSED		
	4		SW	PIPE		90* SW ELBOW		6/22/2023	CWI VT			PASSED		
									PT		6/29/2023	PASSED		
	5		SW	90* SW ELBOW		PIPE		6/22/2023	CWI VT			PASSED		
									PT		6/29/2023	PASSED		
	6		SW	PIPE		90* SW ELBOW		6/22/2023	CWI VT			PASSED		
									PT		6/29/2023	PASSED		
	7		SW	90* SW ELBOW		PIPE NIPPLE (TOE)		6/22/2023	CWI VT			PASSED		
									PT		6/29/2023	PASSED		
	Y Y Y		YY	DISIA	Y	(D)(3)(A)		Y Y Y Y	YY		YYY	YY		
	1		BW	Pipe	-	vessel-o-let		6/15/2023	CWI VT		6/15/2023	PASSED		
				(b) (3) (A	╙				RT		6/30/2023	PASSED		
	2		BW	vessel-o-let	<u>  -</u>	FWN Flange		6/9/2023	CWI VT			PASSED		
					╙				RT		6/12/2023	PASSED		
	3		SW	RFSW Flange	Ь	PIPE		6/22/2023	CWI VT			PASSED		
					Ь				PT		6/29/2023	PASSED		
	4		SW	PIPE	Ь	90* SW ELBOW		6/22/2023	CWI VT			PASSED		
					Ь				PT		6/29/2023	PASSED		
	5	<b>                                     </b>	SW	90* SW ELBOW	├	PIPE		6/22/2023	CWI VT			PASSED		
		<b>                                     </b>			├				PT		6/29/2023	PASSED		
	6	<b>                                     </b>	SW	PIPE	├	90* SW ELBOW		6/22/2023	CWI VT			PASSED		
		<b>                                     </b>			├				PT		6/29/2023	PASSED		
	7	<b>                                     </b>	SW	90* SW ELBOW	├	PIPE NIPPLE (TOE)		6/22/2023	CWI VT			PASSED		
			L			I			PT		6/29/2023	PASSED		

# (b) (3) (A), (b) (4)

11	7/	11
/ r		Т/

### RADIOGRAPHIC INSPECTION REPORT

(b) (4)
W. O. No.: 73-034

Report No.: 6567723

Page 3 of 4

2-3 3-4 4-1 2-3 3-4 4-1	, 8-U)	/ / / / / / / / / / / / / / / / / / /					The state of the s				(b)	(3)	(A),	(b)	(6)	
2-3 3-4 4-1 1-2 2-3 3-4 4-1 1-2 2-3 3-4 4-1 1-2 2-3 3-4	, 8-2. ) , 8-2. )	X X X X										(3)	( <i>/</i> ~ <i>)</i> ,	(D)	(0)	
3-4 4-1 1-2 2-3 3-4 4-1 1-7 2-3 3-4	,	Ž							\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\							
2-3 3-4 1-2 2.3 3-4 4-1 1-2 2.3 3-4 3-4	,	Ž														
2-3 3-4 4-1 1-2 2-3 3-4 4-1 1-2 2-3 3-4	,	Ž									-					
2-3 3-4 4-1 1-2 2-3 3-4 4-1 1-2 2-3 3-4	,	Ž									- - -					
3-4 4-1 1-2 2-3 3-4 4-1 1-2 2-3 3-4	,										-					
Y-1 1-2 2-3 3-4 4-1 1-2 2-3 3-4		1			+	F		+	+		-					
1-2 2-3 3-4 4-1 1-2 2-3 3-4		Ž ,		1			$\Box$	+	+	+	-					
2.3 3-4 4-1 1-2 2.3 3-4	-020	X	$\vdash$	-						1 1						
3-4 4-1 1-2 2-3 3-4		X .					$\Box$	$\top$	+	$\forall$						
4-1 1-2 2-3 3-4			$\vdash$	+	+	$\vdash$	Н	+	+	+						
1-7 2.3 3-4		<del>\</del>		+	+	$\vdash$	Н	+	+	+						
2.3 3-4	/	<u> </u>	+	$\top$	+	+	Н	$\dashv$	+	+						
3-4	1	7	+	+	+	+	Н	$\dashv$	+	+						
		<u> </u>	++	+	+	+	Н	$\dashv$	+	+						
9-1		X	++	$\dashv$	+	+	Н	$\dashv$	+	+						
1.7			+	+	+	+	Н	$\dashv$	+	+						
	.070,5		++	+	+	+	H	+	+	+						
2·3	//		++	_	+	+	$\vdash$	+	+	$\forall$						
	/	X	+	+	7	Н	Н			$\prec$						
4-1		X			74				(8	7						

Film Interpreter

SNT-TC-1A Level

Date of Inspection

(b)	(4)
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### RADIOGRAPHIC INSPECTION REPORT

(b) (4) <sub>W. (</sub>	0. No.: <u>73 - 034</u>
Rep	ort No.: 6541773
Date:	Glizhz3
Page	1_0f(

FORM NDT-005.1		_				
customer (D)	(4)	CUST JOB#	SPECIFICATION	ASME V	ACCEPTANCE ASME B31.3	1. Single Wall
PROJECT ( L)	emegent	DWG. NO.	7	NTOUL REV C	ACC. PROC. B31.3 REV7015	
RT SOURCE TO	- 0	FA DS PB SCREENS	ENS: ASTM	SHIMS MAT'L/THKNS,	MATERIAL C 3	
SOURCE	\ /2	\		TECHNIQUE USED	THICKNESS (b) (3) (A)	Panoramic
FOCAL S	1 (5	) (A)		EXPOSURE TIME	15 JOINT TYPE	2. Single Wall
SFD	/ ( )	/ \/		PROCESSING [X]N	IANUAL UTOMATIC PIPE DIA.	
WELD#	VIEW *	GEOMETRIC UNSHARPNESS			nemariko	Offset
¥	\$	*UR*			REMARKS	3. Double Wall
(b) (3) (A)	٥ ( <sub>4</sub> ه	.00 V		////	(b) (3) (A)	(
m	~ ko~	V XX	m	***		4. Double Wall 0/90
(b) (3) (A)		7 050				
	60					Elliptical
<b>X</b>	120					5. Plate •
	0 /	, 020 X		7777		
	60	1000		1		6. Other
	120					
			1111			
(b) (6	5)			<u>I</u>	ce liztz	
Radlographer	Date	Film Interpreter	5	NT-TC-1A Level	Date of Inspection	Customer

(b)	) (4	41			UID PENE	TRANT EX	AMINATION RECORD	
			Client:	9) (4)		Location	: Red Hill Page 1 of 1	
	/ \		P.O. No.:			Job No.:	23-034	
				cedure: NDT002.2	Rev C	Code: A	SME B31.3	
			Report No	o. KM6292023d				
ITEM: VSLT so								
	MATERIAL			PENETRANT			TECHNIQUE	
TYPE: CS FW			BRANI	DESIGNATI	ON PO#	BATCH#	Preclean Drying Time: 5 MIN	
Surface Conditio		Cleaner				21002K	Method of Application: Brush	
As Welde	ed		Magnaflu	x SKC-S	N/A	002711		
Ground	LLD	Penetrant		arr an		19G04K	Dwell Time: 10 Min	
Other We		F 1.:6	Magnaflu	x SKL-SP1	N/A	01755	Post 1-10's at the Triange NVA	
M New Well	ı	Emulsifier	N/A	N/A	N/A	N/A	Emulsification Time: N/A	
		Developer	IN/A	N/A	IV/A	20L02U	Developing Time: 15 Min	
		Beveloper	Magnaflu	x SKD-S2	N/A	202020	Developing Time: 15 IAIII	
Temperature: X Other	60° F – 125° F		Illuminati		FC 150	•	E & I Control # UV Meter N/A	
Views(s)	~~~	Accep	Reject	Sketch/Notes	$\sim$	$\sim$	$\sim\sim\sim$	
$(b) (3) (A)_{soc}$	ket weld						<del></del>	
	ket weld		+ =				1	
			+ ;-				≺	
soc	ket weld		$\perp$		No in	dications not	ed at time of inspection.	
soc	ket weld						)	
soc	ket weld						<b>~</b>	
			LL.	ىىى	ىد	ىىى		
			$+ \overline{\overline{\overline{\overline{\overline{\overline{\overline{\overline{\overline{\overline{\overline{\overline{\overline{\overline{\overline{\overline{\overline{\overline{$					
		<del>-                                    </del>	+					
			<del></del>					
Performed By	o) (6)	Level III Date	: 6/29/2023		Reviewed B	y:	Date:	

PCP-02.1 REV. B (06/04/03)

				QUALI	TY VALIDATION (	QV) REP	ORT			
			]	Red Hill B	ulk Fuel Storage Fac	ility Defu	el			.3
Val	idation Firm	HDR Env	rironmental	, Operatio	ns and Construction,	Inc.		Repair No.	INC 005	
-1	Address	9781 S. I	Meridian Bl	vd., Suite	400, Englewood, CO	80112		Repair ID	C.K.	99
(	Contract No.	FA89031	5D0007, D	.O. FA890	3 19 F 0027		1	Report	19 JUL 2	023
Ç	V Enginee	(b) (6	6)							
		(3)	<i>-</i> /		VALIDATION					
So	ource	,	PDF Page N	0.	Facility Geograph	ic Area		Location	Reference	
C C		N/A	<b>.</b>		(b) (3) (A)		(b) (3) (A)		G G	
Repair	Description	Loose dre (b) (3) (A		ing r	ht harness nuts		Sour	ce Contra Referen		
Co	escription of entractor QC hod(s) Used		outlined in	CQCP.				ntractor QC s Reviewed	CQCP an Reports.	d Daily
Va	ption of QA lidation and Observations	Form 429 Plan. JTF RH 9 JTF RH 0 reports).	96/2. Visua secondary QV visually	lly inspected QA and 3rd inspected	e is documented by the documented by the documented installated Party QV completed repairs and reviewed Date: 14 JUN 2023	tion; matcl d.	hed comple	eted constr	uction aga	inst Work
	Rework	Needed			Photo Record Attached	i	Repair	r Work Vali	dated as Co	mplete
0	Yes	•	No		See Page 2.	,	•	Yes	0	No
Comments Contracto				(b) (3		<b>€</b>	co			
					CERTIFICATION		(0)			
	rtify that repair			QV ENG	INEER SIGNATURE	(b)	(6)			
report is tru			<del>-</del>		DATE	19 JUL 2	2023			52

				QUALI	TY VALIDATION (	QV) REP	ORT			
			]	Red Hill B	ulk Fuel Storage Fac	cility Defu	el			
Vali	idation Firm	HDR Env	rironmental	, Operatio	ns and Construction,	Inc.		Repair No.	INC 006	
	Address	9781 S. N	Meridian Bl	vd., Suite	400, Englewood, CO	80112		Repair ID	C.K.	rr
C	Contract No.	FA89031	5D0007, D	.O. FA890	3 19 F 0027			Report	19 JUL 20	023
Q	V Enginee	(b) (	6)							
		\	,		VALIDATION					
So	urce	1	PDF Page N	0.	Facility Geograph	ic Area		Location	Reference	
C		N/A			(b) (3) (A)		(b) (3) (A)		)	
		Damageo	gro	eath (b) (3) (A)	base plate. Re		_			
Repair	Description						Sour	ce Contra Referen		
							(4)			
	escription of	Methods	outlined in	CQCP.			Cor	ntractor QC	CQCP an Reports.	d Daily
	ntractor QC hod(s) Used							s Reviewed		
Val	ption of QA lidation and observations	Form 429 design ar JTF RH 9 JTF RH 0 submittal	96/2. Visua nd material secondary QV visually s, daily rep	lly inspectors submittals QA and 3r inspected orts).	te is documented by the documented by the documented installates.  If the documented installates.  If the documented by the document in the do	ition; matcl d.	hed comple	eted constr	uction aga	inst
	Rework	Needed			Photo Record Attached	i	Repair	r Work Vali	dated as Co	mplete
0	Yes	•	No		See Page 2.		•	Yes	0	No
omments				-		(h) (3) (		-	5.	
Contracto	Tellio	3	9		A A	(b) (3) ( <i>i</i>	); <u> </u>			
					CERTIFICATION					
I hereby certify that repair work validated in this report was personally substantiated and this							(6)			
eport was p		Stantialeu an	iu uno		DATE	19 JUL 2	0000			

				QUALITY VALIDATION (	QV) REP	ORT			
			]	Red Hill Bulk Fuel Storage Fa	cility Defu	el			
Vali	dation Firm	HDR Env	ironmental	, Operations and Construction	Inc.		Repair No.	INC 007	
	Address	9781 S. N	Meridian Bl	vd., Suite 400, Englewood, CC	80112		Repair ID	.MM.	02
C	Contract No.	FA89031	5D0007, D	O.O. FA8903 19 F 0027			Report	13 JUL 20	023
Q	V Enginee	(b) (6	5)						
			<i>'</i>	VALIDATION					
So	urce	]	PDF Page N	o. Facility Geograpl	nic Area		Location	Reference	
C		N/A		(b) (3) (A)		(b) (3) (A)		e G	
Repair	Description	8	(b) (3) (A)	ng valve. Rem		Sour	ce Contra Referen		
Con	escription of ntractor QC nod(s) Used		outlined in	QCP.			ntractor QC s Reviewed	QCP and Reports.	Daily
Val	ption of QA lidation and observations	JTF RH s	secondary (	d in QASP. QA and 3rd Party QV complete inspected repair & reviewed c		C docume	ntation.		
		Final acce	ptance by g	overnment. Date: 18 MAY 2023		,			
	Rework	Needed	7	Photo Record Attache	d	Repair	r Work Vali	dated as Co	mplete
O	Yes	•	No	See Page 2.			Yes	O	No
Comments Contracto Crews wil	or remo	ap. nreaded co	onnections	for weeps during repacking.	in	st		(b) (3)	(A)I
				CERTIFICATION	92				
	tify that repair			QV ENGINEER SIGNATURE	(b)	(6)			
eport was p eport is true	ersonally sub e.	olanilaleu an	iu liib	DATE	13 JUL 2				

				QUALI	TY VALIDATION (	QV) REPO	ORT			
			]	Red Hill B	ulk Fuel Storage Fac	ility Defu	el			
Vali	idation Firm	HDR Env	rironmental	, Operatio	ns and Construction,	Inc.		Repair No.	INC 008	
	Address	9781 S. I	Meridian Bl	vd., Suite	400, Englewood, CO	80112		Repair ID	.MM.	03
C	Contract No.	FA89031	5D0007, D	.O. FA890	3 19 F 0027		1	Report	13 JUL 20	023
Q	V Enginee	(b) (6	<b>5</b> )							
					VALIDATION					
So	urce	]	PDF Page N	0.	Facility Geograph	ic Area		Location	Reference	
C		N/A			(b) (3) (A)		(b) (3) (A)		e e	
Repair	Description	(b) (3) (A)	rted (b) (3) (A)	pipe (b) (3	I Ill shims and U (A)	rt	Sour	ce Contra Referen		
Co	escription of ntractor QC hod(s) Used	Methods	outlined in	QCP.				ntractor QC s Reviewed	QCP and Reports.	Daily
Va	ption of QA lidation and Observations	JTF RH		QA and 3r	o. d Party QV completed repair & reviewed co		C docume	ntation.		
		Final acce	ptance by g	overnment.	Date: 22 MAY 2023					
	Rework	Needed	·		Photo Record Attached	i	Repair	r Work Vali	dated as Co	mplete
O	Yes	•	No		See Page 2.			Yes	O	No
Comments				(b) (3) (A)		i k	et		(b)	(3) (A)
					CERTIFICATION	(l- )	(0)			
	tify that repair personally sub			QV ENG	INEER SIGNATURE	(b)	(b)			
eport is true			<del></del>		DATE	13 JUL 2	023			

QUALITY VALIDATION (QV) REPORT											
			]	Red Hill B	ulk Fuel Storage Fac	ility Defue	l				
Vali	dation Firm	HDR Env	vironmental	, Operatio	ns and Construction,	Inc.		Repair No.	I INC. HHY		
	Address	9781 S. I	Meridian Bl	vd., Suite	400, Englewood, CO	80112		Repair ID	8	04	
С	o ntract N	[∉A89031	5D0007, D	.O. FA890	3 19 F 0027				1 13 11 11 21	023	
Q	V Engineer	(b) (	<b>(6)</b>					Dute			
		` /			VALIDATION						
Sou	urce	]	PDF Page N	o.	Facility Geograph	ic Area		Location	Reference		
EXWC		N/A			(b) (3) (A)	2	(b) (3) (A)				
Repair l	Description				nstall shims and u bo		Sour	ce Contrac Referenc			
Cor	scription of ntractor QC nod(s) Used		outlined in	QCP.				ntractor QC s Reviewed	Reports.	Daily	
Val	otion of QA lidation and bservations	JTF RH		QA and 3r	o. d Party QV complete repair & reviewed co		C docume	ntation.			
		Final acce	ptance by go		Date: 22 MAY 2023		Î				
		Needed	I		Photo Record Attached				idated as Co		
Comments	Yes	•	No		See Page 2.	,	•	Yes		No	
	r installed	u bolt brad	ckets and s	hims for (b	CERTIFICATION	(b) (3)			to e	xisting	
	tify that repair			QV ENG	INEER SIGNATURE	(b)	(6				
eport was p eport is true		otantiateu di	13 u 113		DATE	13 JUL 2			Report Date  Location Reference  Contrac Reference  QCP and Daily Reports.  Reviewed Reviewed Reviewed Reviewed No No to existing		

QUALITY VALIDATION (QV) REPORT										
			]	Red Hill B	ulk Fuel Storage Fac	ility Defu	el			
Valid	dation Firm	HDR Env	rironmental	, Operatio	ns and Construction,	Inc.		Repair No.	INC 010	
	Address	9781 S. I	Meridian Bl	vd., Suite	400, Englewood, CO	80112		Repair ID	CAR.MM.	07
Co	o ntract N	ŒA89031	5D0007, D	.O. FA890	3 19 F 0027			Report Date	1 13 .11 11 20	023
Q'	V Engineer	(b)	(6)							
			,		VALIDATION					
Sou	ırce	]	PDF Page N	0.	Facility Geograph	ic Area		Location	Reference	
EXWC		N/A			(b) (3) (A)		(b) (3) (A)			
Repair I	Description				nstall shims and U bopipe connected to		Sour	ce Contract Reference		
Con	scription of stractor QC od(s) Used	Methods	outlined in	QCP.				ntractor QC s Reviewed	QCP and Reports.	Daily
Val	otion of QA idation and bservations	JTF RH		QA and 3r	o. d Party QV completed repair & reviewed co		C docume	ntation.		
		Final acce	ptance by go	overnment.	Date: 22 MAY 2023					
	3	Needed	l		Photo Record Attached				dated as Co	
Comments	Yes	•	No	-	See Page 2.		•	Yes	0	No
	or installed	u bolt bra	ckets and s	shims for	b) (3) (A)				to e	existing
					CERTIFICATION					
hereby cerf	ify that repair	work validat		QV ENG	INEER SIGNATURE	(b)	(6)			
	ersonally sub			Q:	INCLIN CIGHATOTAL		(0)			

				QUALI	TY VALIDATION (	QV) REP	ORT			
			J	Red Hill B	Bulk Fuel Storage Fac	ility Defu	el			
Val	idation Firm	HDR Env	vironmental	, Operatio	ns and Construction,	Inc.		Repair No.	INC 011	Ţ
	Address	9781 S. N	Meridian Bl	vd., Suite	400, Englewood, CO	80112	1.5	Repair ID	.мм.	.08
C	Contract No.	FA89031	5D0007, D	.O. FA890	03 19 F 0027			Report	13 JUL 20	023
Q	V Enginee	(b) (	6)							
	3	(	,		VALIDATION					
So	ource	1	PDF Page N	0.	Facility Geograph	ic Area		Location	Reference	
C		N/A			(b) (3) (A)		(b) (3) (A)		e G	
Repair	Description	Four unsi	(b)(3)(A)	nk są	pipes. Provide		Sour	ce Contra Referen		de.
Co	escription of intractor QC hod(s) Used	Methods	outlined in	QCP.				ntractor QC s Reviewed	QCP and Reports.	Daily
Va	ption of QA lidation and Observations	JTF RH s		QA and 3i	o. rd Party QV complete d repair & reviewed co		C docume	ntation.		
		Final acce	ptance by go	vernment.	Date: 22 MAY 2023		,			
	Rework	Needed	ı		Photo Record Attached	i	Repair	Work Vali	dated as Co	mplete
$\circ$	Yes	•	No		See Page 2.		•	Yes	0	No
omments	s or fabriq	ere in	nstall		iping to the uni stru		ert supports.			
					CERTIFICATION					
	rtify that repair			QV ENG	SINEER SIGNATURE	(b)	(6)			
port was p port is true		olanilaleu an	iu uiis		DATE	13 JUL 2				9

				QUALI	TY VALIDATION (	QV) REPO	ORT					
			]	Red Hill B	ulk Fuel Storage Fac	cility Defu	el			,67 40		
Vali	dation Firm	HDR Env	ironmental	, Operatio	ns and Construction,	Inc.		Repair	INC-012			
-1	Address	9781 S. N	Meridian Bl	vd., Suite	400, Englewood, CO	80112	0		Repair ID CAR.STR.01  Report Date 19 JUL 2023  Location Reference  CQCP and Daily Reports.  CQC reports using NAVFACed construction against			
C	Contract No.	FA89031	5D0007, D	.O. FA890	3-19-F-0027			Repair ID CAR.STR.01  Report Date 19 JUL 2023  Location Reference  CCC Careports using NAVFACE Red Construction against CONTRACT		023		
Q	V Engineer	(b) (6	3)					Date				
		<u>, , , , , , , , , , , , , , , , , , , </u>	<u> </u>		VALIDATION							
So	urce	I	PDF Page N	· .	Facility Geograph	ic Area		Location	Reference			
EXWC / 2		N/A	<b>S</b> -		(b) (3) (A)		(b) (3) (A)	rce Contract Reference  CQCP and Daily				
Repair	Description	is heavily We	corroded ( d(b) (3) (A)	greater that plate, (b) (	port column and cross an 50% metal loss). ( 3) (A) in height, on in ng camera).	Ground	Sour					
Con	escription of ntractor QC nod(s) Used	inspection	outlined in n via VT ar		QCP. Structural weld	ds 50%	1		Reports.	d Daily		
Val	ption of QA lidation and observations	Form 429 design ar JTF-RH 9 JTF-RH 0 submittal	96/2. Visua nd material secondary QV visually s, daily rep	lly inspected submittals QA and 3rd inspected orts).	ed completed installa s. Reviewed NDE rep d Party QV complete	ition; match orts. d.	ned comple	eted constr	uction aga	inst		
	Rework	Needed	, , , ,		Photo Record Attached	i	Repair	Work Vali	dated as Co	mplete		
0	Yes	•	No		See Page 2.	,	•	Yes	0	No		
Comments Contractor plate to the	or added a	section and the existing	gle to conr structural	nect the cr	g to the base reinforcement.		(A)	l. Contracto	or welded a	a(b)(3)(A)		
I hereby cer	tify that repair	work validate	ed in this	QV ENG	INEER SIGNATURE		(6)					
	ersonally sub				DATE	19 JUL 2	· <i>'</i>					

LOCATION / REPAIR ID	VT P/F	FINAL ACCEPTANCE DATE	INSPECTOR	MT / PT / UT P/F	DATE	INSPECTOR
(b) (3) (A)	Р	06 / 06 / 2023	(b) (6)	Р	06 / 27 / 2023	(b) (4)
	Р	06 / 06 / 2023		Р	06 / 27 / 2023	()
	Р	06 / 06 / 2023		Р	06 / 27 / 2023	
	Р	06 / 06 / 2023	-	Р	06 / 27 / 2023	
	Р	06 / 06 / 2023	-	Р	06 / 30 / 2023	
	Р	04 / 07 / 2023		Р	04 / 27 / 2023	
	Р	04 / 14 / 2023		Р	04 / 27 / 2023	
	Р	04 / 14 / 2023	-	Р	04 / 27 / 2023	
		04/14/2023			<u>√04√27√20₹3</u> √	
	Р	06 / 06 / 2023	-	Р	06 / 30 / 2023	
~	u,u	\03\22\2023		ww	04/27/2023	
	Р	03 / 28 / 2023		Р	04 / 27 / 2023	
	Р	03 / 28 / 2023	-	Р	04 / 27 / 2023	
	Р	03 / 29 / 2023		Р	04 / 27 / 2023	
	Р	03 / 30 / 2023	-	Р	04 / 27 / 2023	
	Р	03 / 23 / 2023	-	Р	04 / 27 / 2023	
	Р	03 / 24 / 2023	-	Р	04 / 27 / 2023	
	Р	06 / 06 / 2023	-	Р	06 / 30 / 2023	
	Р	06 / 06 / 2023	-	Р	06 / 30 / 2023	
	Р	03 / 20 / 2023		Р	04 / 27 / 2023	
	Р	03 / 20 / 2023		Р	04 / 27 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	

(b)		1	1		MAGN	ETIC PA	RTICI	LE EXA	MINATION F	RECORD	
		_		Client:(b) (4)			Lo	ocation: R	ed Hill; JBPHH	Date: 06-3	0-2023
				P.O. No.: NA			Jo	b No. 23-	034		
			4	(b) (4) rocedure: N	DT 003.2	revD	C	ode: AWS	D1.1		
				Report No.: KS063	02023						
MAT	ERIAL			MAGNE	TIZING	TECHN	OUE		MAGNET	ZING EO	UIPMENT
Type: C/S				Prod: X AC		C Spaci		) 1	Mfg.: Parker		Serial #: 2396
Thickness: STD				Amp	s <u>fixed</u>	Coil Dia.			Calibration Date 0	5/01/2023	
Geometry:				Longitudinal Turn		Amp Turns		I	Field Verification l	By: Pie Gauge	
☐ Pipe ☐ Plate ☐ Rod	1			Direc							
Other:					r <u>n/a</u>	_			JV Meter: n/a		
Item: Repairs on Pipe Supp	orts			Central Conducto	r <u>n/a</u> s <u>n/a</u>	-		1	MODEL: n/a	Serial	#: n/a
Stage of Mfg.: New				Inspection Medium		Dry Powe	ler	Color:	RED		
Stage of Mig.: New				inspection wedian		3 Dij 10m	101	Color,	KLD		
						Wet Visib	ole	Type I	Batch No.: 22A006	<u>i</u>	
Surface Condition: Buffed	Clean			Illumination 🖂	White	Ultrav	riolet				
Item(s)	Accept	Reject	Ite	m(s)	Accept	Reject			Sketch/	Notes	
Pine Supports/Braces	•			(0)	_					. 1000	
(h) (2) (1			$\vdash$				┨				
(D)(3)( <i>F</i>							$\sim$	$\wedge$	$\lambda\lambda\lambda\lambda$	$\wedge$	$\lambda \lambda \lambda \lambda$
( / (- / (-							> N	AT Inspe	ction was reque	ested and pe	rformed on
	$\boxtimes$		$\cap$				6	R	epairs made on	Pipe Suppo	rts.
							(		-		
		~					\ \ \ \ \ \ \ \ \	No releva	ant indications	were found	during this
	$\bowtie$						\ <u>\</u>		inspec		
							<b>∤(</b> .		1		
	$\boxtimes$							ىد	ىىب		سب
							1				
	+		$\vdash$		<del>                                     </del>	+	1				
			_				4				
//5	\ (C)										
Performed By:	) (6)			Date 06/30/202	3	Review	red Bv			Date:	Page 1 of 1

				QUALI	TY VALIDATION (	QV) REPO	ORT			
			]	Red Hill B	ulk Fuel Storage Fac	ility Defue	el			33
Vali	idation Firm	HDR Env	rironmental	, Operation	ns and Construction,	Inc.		Repair No.	INC 013	
	Address	9781 S. I	Meridian Bl	vd., Suite	400, Englewood, CO	80112		Repair ID	CAR.STF	1.02
C	Contract No.	FA89031	5D0007, D	.O. FA890	3 19 F 0027			Report Date	19.1111 20	023
Q	V Engineer	(b) (6	)					Dute		
					VALIDATION					
So	urce	]	PDF Page N	o.	Facility Geograph	ic Area		Location	Reference	
EXWC /		N/A			(b) (3) (A)	,	(b) (3) (A)			30
Repair	Description	interface.	Install a co	olumn ben	l oded through at the w eath beam, approxim he beam.		Sour	ce Contract Reference		±
Co	escription of ntractor QC hod(s) Used	inspectio	outlined in n via VT ar		QCP. Structural welc	ds 50%		ntractor QC s Reviewed	ı	d Daily
Va	ption of QA lidation and observations	Form 429 design ar JTF RH 9 JTF RH 9 submittal	96/2. Visua nd material secondary QV visually s, daily rep	lly inspecte submittals QA and 3re inspected orts).	e is documented by t ed completed installa s. Reviewed NDE rep d Party QV complete repairs and reviewed Date: 14 JUN 2023	tion; match orts. d.	ned comple	eted constr	uction agai	inst
	Rework	Needed	promote of gr		Photo Record Attached	i	Repair	r Work Vali	dated as Co	mplete
0	Yes	•	No	1	See Page 2.	, i	•	Yes	0	No
	or installed				b) (3) (A) from the walchor bolts. Grout instance				ng existing eplate.	e +
	tify that repair			QV ENG	INEER SIGNATURE	(b)	(6)			
report was preport is true	personally sub e.	stantiated ar	nd this		DATE	19 JUL 2	023			

			(b) (c)			
LOCATION / REPAIR ID	VT P/F	FINAL ACCEPTANCE DATE	(b) (b)	MT / PT / UT P/F	DATE	INSPECTOR
(b) (3) (A)	Р	06 / 06 / 2023		P	06 / 27 / 2023	(b) (4)
	Р	06 / 06 / 2023		P	06 / 27 / 2023	
	Р	06 / 06 / 2023		Р	06 / 27 / 2023	
	~~~	06 / 06 / 2023		~~~	06/27/2023	
	Р	06 / 06 / 2023		P	06 / 30 / 2023	
		04 / 07 / 2023			04 / 27 / 2023	
	Р	04 / 14 / 2023		Р	04 / 27 / 2023	
	Р	04 / 14 / 2023		P	04 / 27 / 2023	
	Р	04 / 14 / 2023		Р	04 / 27 / 2023	
	Р	06 / 06 / 2023		Р	06 / 30 / 2023	
	Р	03 / 22 / 2023		P	04 / 27 / 2023	
	Р	03 / 28 / 2023		P	04 / 27 / 2023	
	Р	03 / 28 / 2023		Р	04 / 27 / 2023	
	Р	03 / 29 / 2023		P	04 / 27 / 2023	
	Р	03 / 30 / 2023		P	04 / 27 / 2023	
	Р	03 / 23 / 2023		P	04 / 27 / 2023	
	Р	03 / 24 / 2023		P	04 / 27 / 2023	
	P	06 / 06 / 2023		P	06 / 30 / 2023	
	P	06 / 06 / 2023		Р	06 / 30 / 2023	
	Р	03 / 20 / 2023		P	04 / 27 / 2023	
	P	03 / 20 / 2023		P	04 / 27 / 2023	
	P	02 / 28 / 2023		P	03 / 07 / 2023	
	Р	02 / 28 / 2023		P	03 / 07 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	
	Р	02 / 28 / 2023		P	03 / 07 / 2023	
	Р	02 / 28 / 2023		P	03 / 07 / 2023	

(b) (4)	MAGNETIC PARTICLE EXAMINATION RECORD							
	Client: (b) (4)	Location: Red Hill; JBPHH Date: 06-30-2023						
	P.O. No.: NA	Job No. 23-034						
\ / \ /	(b) (4) Procedure: NDT 003.2 revD	Code: AWS D1.1						
	Report No.: KS06302023							
MATERIAL	MAGNETIZING TECHNIQ	UE MAGNETIZING EQUIPMENT						
Type: C/S	Prod: AC DC Spacing							
Thickness: STD	Amps fixed Coil Dia.	Calibration Date 06/01/2023						
Geometry:	Longitudinal Turns n/a Amp Turns							
☐ Pipe ☐ Plate ☐ Rod	Direct n.a							
Other:	Circular <u>n/a</u>	UV Meter: n/a						
Item: Repairs on Pipe Supports	Central Conductor	MODEL: n/a Serial #: n/a						
Stage of Mfg.: New	Inspection Medium Dry Powder	Color: RED						
Stage of Mig., New	inspection weathin	Color. <u>RED</u>						
	Wet Visible	Type Batch No.: 22A006						
Surface Condition: Buffed Clean	Illumination White Ultraviol	let						
Accept Reject Item	n(s) Accept Reject	Sketch/Notes						
(b)(3)(A)	(0)	2.1011.1111.10100						
	<del> </del>							
	(	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~						
810		MT Inspection was requested and performed on						
		Repairs made on Pipe Supports.						
	(							
	<del></del>	No relevant indications were found during this						
		inspection.						
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		umining						
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				QUALI	TY VALIDATION (	QV) REP	ORT			
			]	Red Hill B	ulk Fuel Storage Fac	ility Defu	el			
Val	idation Firm	HDR Env	rironmental	, Operatio	ns and Construction,	Inc.		Repair No.	INC-014	
	Address	9781 S. N	Meridian Bl	vd., Suite	400, Englewood, CO	80112		Repair ID	STF	R.03
(	Contract No.	FA89031	5D0007, D	.O. FA890	3-19-F-0027			Report	19 JUL 20	023
Ç	V Enginee	(b) (	6)							
		( / (	<i>'</i>		VALIDATION					
So	urce	I	PDF Page N	o.	Facility Geograph	ic Area		Location	Reference	
/C/ 2	2022 (6) (4)	N/A			(b) (3) (A)		(b) (3) (A)		is is	,
Repair	Description		l bea	s 40%	al loss on botto		Sour	ce Contra Referen		
Co	escription of ntractor QC hod(s) Used		outlined in n via VT ar		QCP. Structural weld	ds 50%		ntractor QC s Reviewed	l	d Daily
Va	ption of QA lidation and observations	Form 429 design ar JTF-RH 9 JTF-RH 0 submittal	96/2. Visua nd material secondary QV visually s, daily rep	lly inspecte submittals QA and 3re inspected orts).	e is documented by the documented by the documented installations. Reviewed NDE repid Party QV completed repairs and reviewed Date: 14 JUN 2023	tion; matcl orts. d.	hed comple	eted constr	uction aga	inst
	Rework	Needed			Photo Record Attached	1	Repair	Work Vali	dated as Co	mplete
0	Yes	•	No		See Page 2.		•	Yes	0	No
comments Contracto (3) (3) (A)	or instal	out in	stalle		ate.	at	e, <b></b>			th
					CERTIFICATION					
	tify that repair			(b)	(6)					
eport was peport is true	personally sub e.	stantiated an	id this		DATE	19 JUL 2				

LOCATION / REPAIR ID	VT P/F	FINAL ACCEPTANCE DATE	INSPECTOR	MT / PT / UT P/F	DATE	INSPECTOR
(b) (3) (A)	Р	06 / 06 / 2023	(b) (6)	Р	06 / 27 / 2023	(b) (4)
	Р	06 / 06 / 2023		Р	06 / 27 / 2023	
	Р	06 / 06 / 2023		Р	06 / 27 / 2023	
	Р	06 / 06 / 2023		Р	06 / 27 / 2023	
	Р	06 / 06 / 2023		Р	06 / 30 / 2023	
	Р	04 / 07 / 2023		Р	04 / 27 / 2023	
	Р	04 / 14 / 2023		Р	04 / 27 / 2023	
	Р	04 / 14 / 2023		Р	04 / 27 / 2023	
	Р	04 / 14 / 2023		Р	04 / 27 / 2023	
	Р	06 / 06 / 2023		Р	06 / 30 / 2023	
	Р	03 / 22 / 2023		Р	04 / 27 / 2023	
	Р	03 / 28 / 2023		Р	04 / 27 / 2023	
	Р	03 / 28 / 2023		Р	04 / 27 / 2023	
	Р	03 / 29 / 2023		Р	04 / 27 / 2023	
	Р	03 / 30 / 2023		Р	04 / 27 / 2023	
	Р	03 / 23 / 2023		Р	04 / 27 / 2023	
	Р	03 / 24 / 2023		Р	04 / 27 / 2023	
· · ·	~~~	06/06/2023		~~~	~06/30/2023~	
7	Р	06 / 06 / 2023		Р	06 / 30 / 2023	
	The state of the s	03 / 20 / 2023			04 / 27 / 2023	
	P	03 / 20 / 2023		Р	04 / 27 / 2023	
	P	02 / 28 / 2023		Р	03 / 07 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	

(b)		1	1		MAGN	ETIC PA	RTICLE	EXAMINATION R	ECORD	
				Client:(b) (4)			Loca	tion: Red Hill; JBPHH	Date: 06-30	)-2023
				P.O. No.: NA			_	No. 23-034		
				(b) (4) rocedure: N	NDT 003.2	revD	Code	e: AWS D1.1		
				Report No.: KS063	302023					
MAT	ERIAL			MAGNE	CTIZING	TECHNI	QUE	MAGNETIZ	ZING EQU	JIPMENT
Type: C/S				Prod: X AC		C Spaci	ng (b) (3)	Mfg.: Parker		Serial #: 23962
Thickness: STD				Amp	os <u>fixed</u>	Coil Dia.		Calibration Date 06/	01/2023	
Geometry:				Longitudinal Turr		Amp Turns		Field Verification B	y: Pie Gauge	
☐ Pipe ☐ Plate ☐ Rod	l				ct <u>n.a</u>					
Other:					ar <u>n/a</u>	_		UV Meter: n/a		
Item: Repairs on Pipe Supp	orts			Central Conducto		_		MODEL: n/a	Serial #	‡: n/a
Grand CNG - N					os <u>n</u> /a	/ D. D.		G.1. PED		
Stage of Mfg.: New				Inspection Mediun	<u>n</u>	Dry Powd	ier	Color: RED		
					Г	Wet Visib	de	Type Batch No.: 22A006		
Surface Condition: Buffed	Clean			Illumination 🖂	White	Ultrav		Type Batch 140 22/1000		
Surface Condition. Buried	Civan			Indimination	** Inte	Oldav	10101			
Item(s)	Accept	Reject	Iten	n(s)	Accept	Reject		Sketch/N	lotes	
Pine Supports/Braces										
(h) (3) (A		$\vdash \lnot \lnot$						0000		000
(D) (O) (A							( '	Y Y Y Y Y Y	Y Y Y	
( ) ( ) (	$\boxtimes$						<b>≻</b> MT	Inspection was reques		
								Repairs made on I	Pipe Suppor	rts.
							(			く
	.67	<u> </u>	)				No	relevant indications w	ere found d	luring this
	$\boxtimes$	ΙП,	۲				\ \rac{1}{2}	inspect	ion.	·
		<del>                                     </del>	_			+	( \		د د د	$\sim \sim \sim$
					+	+	†			
			_			+	-			
Performed By:	(6)			Date 06/30/202	23	Review	ed Bv:		Date:	Page 1 of 1

				QUALI	TY VALIDATION (	QV) REP	ORT			
			]	Red Hill B	Bulk Fuel Storage Fac	ility Defu	el			
Vali	dation Firm	HDR Env	rironmental	, Operatio	ns and Construction,	Inc.		Repair No.	INC 015	
	Address	9781 S. N	Meridian Bl	vd., Suite	400, Englewood, CO	80112		Repair ID	STF.	R.04
C	Contract No.	FA89031	5D0007, D	.O. FA890	03 19 F 0027		/( 	Report	19 JUL 20	023
Q	V Enginee	(b) (	6)							
		( ) (	<i>'</i>		VALIDATION					
Soi	urce	1	PDF Page N	· 0.	Facility Geograph	ic Area		Location	Reference	
	2022 <sup>(b) (4)</sup>	N/A	zz zugę z	<u> </u>	(b) (3) (A)		(b) (3) (A)		j)	
**				į						
		(b) (3) (A)	nt col (b) (3)		on top flange d	_	Sour	ce Contra		
Repair 1	Description						50 m	Referen		
De	scription of		outlined in n via VT ar		CQCP. Structural welc	ds 50%		-tt0C	CQCP an Reports.	d Daily
	ntractor QC nod(s) Used		ii via v i ai	id ivii.				ntractor QC s Reviewed		
Meu	iou(s) Useu									
Val	otion of QA lidation and observations	Form 429 design ar JTF RH 9 JTF RH 0 submittal	96/2. Visua nd material secondary QV visually s, daily rep	lly inspect submittals QA and 3r inspected orts).	ce is documented by to ed completed installates. Reviewed NDE report Party QV completed repairs and reviewed Date: 14 JUN 2023	tion; matcl orts. d.	hed comple	eted constr	uction agai	nst
	Rework	Needed	ptance by go	overmment.	Photo Record Attached	1	Renair	r Work Vali	dated as Co	mnlete
0	Yes	•	No		See Page 2.	•	(A)	Yes	0	No
Comments Contracto		(b) (3) (A)			CERTIFICATION	n	fo		(b) (3)	
	tify that repair			QV ENG	INEER SIGNATURE	(b)	(6)			
eport was p eport is true	ersonally sub e.	stantiated an	ia this		DATE	19 JUL 2				

LOCATION / REPAIR ID	VT P/F	FINAL ACCEPTANCE DATE	INSPECTOR	MT / PT / UT P/F	DATE	INSPECTOR
b) (3) (A)	P	06 / 06 / 2023	(b) (6)	P	06 / 27 / 2023	(b) (4
	mm	06/06/2023	-	~~	06/27/2023	
	Р	06 / 06 / 2023		Р	06 / 27 / 2023	
		06 / 06 / 2023		u, u	06 / 27 / 2023	
	Р	06 / 06 / 2023		Р	06 / 30 / 2023	
	Р	04 / 07 / 2023		Р	04 / 27 / 2023	
	Р	04 / 14 / 2023		Р	04 / 27 / 2023	
	Р	04 / 14 / 2023		Р	04 / 27 / 2023	
	Р	04 / 14 / 2023		Р	04 / 27 / 2023	
	Р	06 / 06 / 2023		Р	06 / 30 / 2023	
	Р	03 / 22 / 2023		Р	04 / 27 / 2023	
	Р	03 / 28 / 2023	_	Р	04 / 27 / 2023	
	Р	03 / 28 / 2023	_	Р	04 / 27 / 2023	
	Р	03 / 29 / 2023		Р	04 / 27 / 2023	
	Р	03 / 30 / 2023	_	Р	04 / 27 / 2023	
	P	03 / 23 / 2023	_	Р	04 / 27 / 2023	
	P	03 / 24 / 2023		Р	04 / 27 / 2023	
	Р	06 / 06 / 2023		Р	06 / 30 / 2023	
	Р	06 / 06 / 2023		Р	06 / 30 / 2023	
	Р	03 / 20 / 2023		Р	04 / 27 / 2023	
	Р	03 / 20 / 2023		Р	04 / 27 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	

Client: (b) (4) Location: Redhill Date: 06/26/2023  P.O. No. Job No.: 23-034  (b) (4) recedure: NDT-003.2 REV E Code: AWS D1.1  Report No.: 6506/26/23   MACRETIZING TECHNIQUE Type: Plate Prod: AC DC Spacing (b) (c) (A) Mfg.: Parker Serial #: 340  Thickness: Various Amps Coil Dia.  Cometry Direct Circular Conductor Central Conductor Amps  Longitudinal Turns Amp Turns  Direct Circular Central Conductor MODEL: Scrial #:  Stage of Mfg.: Inspection Medium Dry Powder Color: Gray  Wet Fluorescent Type Batch No.: 14B108  Surface Condition: Clean  Item(s) Accept Reject Item(s) Accept Reject No indications noted at time of inspection.	h) (1)	MAGNETIC PARTIC	CLE EXAMINATION RECORD
Type: Plate		P.O. No. (b) (4) rocedure: NDT-003.2 REV E	Job No.: 23-034
b) (3) (A) No indications noted at time of inspection.	Type: Plate Thickness: Various  Geometry Pipe Plate Rod Other: Item; Steel Plate Stage of Mfg.:	Prod: AC DC Spacing  Amps Coil Dia.  Longitudinal Turns Amp Turns Direct Circular Central Conductor Amps Inspection Medium   DC Spacing  Amp Turns  Dry Powder  Wet Fluorescen	(3) (A) Mfg.: Parker Serial #: 340  Calibration Due Date: 12/20/23  Field Verification By: Pie Gauge  UV Meter: MODEL: Serial #:  Color: Gray
	b) (3) (A)	11	indications noted at time of inspection.

				QUALI	TY VALIDATION (	QV) REP	ORT			
			]	Red Hill B	Bulk Fuel Storage Fac	cility Defu	el			
Vali	idation Firm	HDR Env	rironmental	, Operatio	ns and Construction,	Inc.		Repair No.	INC 016	·
	Address	9781 S. N	Meridian Bl	vd., Suite	400, Englewood, CO	80112		Repair ID	STF.	R.05
C	Contract No.	FA89031	5D0007, D	.O. FA890	03 19 F 0027			Report	19 JUL 20	023
Q	V Enginee	(b) (	<b>(6)</b>						22	
		()			VALIDATION					
So	urce	,	PDF Page N	0.	Facility Geograph	nic Area		Location	Reference	
	2022 <sup>(b) (4)</sup>	N/A		,	(b) (3) (A)		(b) (3) (A)		ja Ja	
Repair	Description	Significar (b) (3) (A)		obs	on top flange d		Sour	ce Contra Referen		E
Co	escription of ntractor QC hod(s) Used		outlined in n via VT ar		CQCP. Structural wel	ds 50%		ntractor QC s Reviewed	ı	d Daily
Va	ption of QA lidation and Observations	Form 429 design ar JTF RH 9 JTF RH 0 submittal	96/2. Visua nd material secondary QV visually s, daily rep	lly inspect submittals QA and 3r inspected orts).	ce is documented by ed completed installa s. Reviewed NDE rep rd Party QV complete d repairs and reviewe Date: 14 JUN 2023	ation; matcl ports. ed.	ned comple	eted constr	uction agai	inst
	Rework	Needed			Photo Record Attache	d	Repair	r Work Vali	dated as Co	mplete
0	Yes	•	No		See Page 2.		•	Yes	0	No
Comments Contracto		(b) (3) (A)				n	fo		(b) (3	
					CERTIFICATION					
	tify that repair personally sub			QV ENG	INEER SIGNATURE	(b)	(6)			
eport was p		ountaiou di	IG UINS	b -	DATE	19 JUL 2				

OCATION / EPAIR ID	VT P/F	FINAL ACCEPTANCE DATE	INSPECTOR	MT / PT / UT P/F	DATE	INSPECTOR
b) (3) (A)	~~~	06 / 06 / 2023	(b) (6)	~~~	06/27/2023	(b) (4
	Р	06 / 06 / 2023		Р	06 / 27 / 2023	
		06 / 06 / 2023			06 / 27 / 2023	<b>.</b>
	P	06 / 06 / 2023		Р	06 / 27 / 2023	
	Р	06 / 06 / 2023		Р	06 / 30 / 2023	
	Р	04 / 07 / 2023		Р	04 / 27 / 2023	
	Р	04 / 14 / 2023		Р	04 / 27 / 2023	
	Р	04 / 14 / 2023		Р	04 / 27 / 2023	
	Р	04 / 14 / 2023		Р	04 / 27 / 2023	
	Р	06 / 06 / 2023		Р	06 / 30 / 2023	
	Р	03 / 22 / 2023		Р	04 / 27 / 2023	
	Р	03 / 28 / 2023		Р	04 / 27 / 2023	
	Р	03 / 28 / 2023		Р	04 / 27 / 2023	
	Р	03 / 29 / 2023		Р	04 / 27 / 2023	
	Р	03 / 30 / 2023		Р	04 / 27 / 2023	
	Р	03 / 23 / 2023		Р	04 / 27 / 2023	
	Р	03 / 24 / 2023		Р	04 / 27 / 2023	
	P	06 / 06 / 2023		Р	06 / 30 / 2023	
	Р	06 / 06 / 2023		Р	06 / 30 / 2023	
	Р	03 / 20 / 2023		Р	04 / 27 / 2023	
	Р	03 / 20 / 2023		Р	04 / 27 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	

(b) (4)	MAGNETIC PART	ICLE EXAMINATION RECORD
	Client: (b) (4)	Location: Redhill Date: 06/26/2023
	P.O. No. (b) (4) rocedure: NDT-003.2 REV E	Job No.: 23-034
		Code: AWS D1.1
	Report No.: GS06/26/23	
MATERIAL	MAGNETIZING TECHNIQU	JE MAGNETIZING EQUIPMENT
Type: Plate	Prod: AC DC Spacing	Mfg.: Parker Serial #: 340
Thickness: Various	Amps Coil Dia	Calibration Due Date: 12/20/23
Geometry	Longitudinal Turns Amp Turns	Field Verification By: Pie Gauge
☐ Pipe ☑ Plate ☐ Rod	Direct Circular	*****
Other:	Central Conductor	UV Meter:
Item; Steel Plate	Amps	MODEL: Serial #:
Stage of Mfg.:	Inspection Medium	Color: Gray
	☐ Wet Fluoresce	ent Type Batch No.: 14B108
Surface Condition: Clean	Illumination White Ultraviolet	
Item(s) Accept Reject Item	n(s) Accept Reject	Sketch/Notes
Item(s) Accept Reject Item  (b) (3) (A)		o indications noted at time of inspection.
Performed By: (b) (6) Level: II	Date: 06/26/2023 Reviewed By	z: Date: Page 1 of 1

				QUALI	TY VALIDATION (	QV) REP	ORT			
			]	Red Hill B	Bulk Fuel Storage Fac	cility Defu	el			
Vali	idation Firm	HDR Env	rironmental	, Operatio	ns and Construction,	Inc.		Repair No.	INC 017	
	Address	9781 S. N	Meridian Bl	vd., Suite	400, Englewood, CO	80112		Repair ID	.STF	R.06
C	Contract No.	FA89031	5D0007, D	.O. FA890	03 19 F 0027		7	Report	19 JUL 20	023
Q	V Enginee	(b) (	6)							
		\ / \	,		VALIDATION					
So	ource	J	PDF Page N	o.	Facility Geograph	ic Area		Location	Reference	
	2022 (b) (4)	N/A		*	(b) (3) (A)		(b) (3) (A)		0 0	
Repair	Description	Significar (b) (3) (A)	nt col	obse	on top flange d		Sour	ce Contra Referen		
Co	escription of entractor QC hod(s) Used		outlined in n via VT ar		CQCP. Structural weld	ds 50%		ntractor QC s Reviewed	CQCP an Reports.	d Daily
Va	ption of QA lidation and Observations	Form 429 design ar JTF RH 9 JTF RH 0 submittal	96/2. Visua nd material secondary QV visually s, daily rep	lly inspect submittals QA and 3r inspected orts).	ce is documented by the documented installations. Reviewed NDE report Party QV completed repairs and reviewed Date: 14 JUN 2023	ition; matcl orts. d.	hed comple	eted constr	uction agai	inst
	Rework	Needed			Photo Record Attached	i	Repair	Work Vali	dated as Co	mplete
0	Yes	•	No		See Page 2.		•	Yes	0	No
Comments Contracto	or welde	(b) (3) (A)				n	fo		(b) (3)	
					CERTIFICATION					
	rtify that repair personally sub			QV ENG	SINEER SIGNATURE	(b)	(6)			
eport was p		ota nata a			DATE	19 JUL 2	023			

LOCATION / REPAIR ID	VT	FINAL ACCEPTANCE	UNSBECTOR	MT/PT/UT	O BATE O	INSPECTOR
REPAIR TO Y Y Y Y Y Y Y	A A byle A A	DATE	WSPECTOR Y	Y YP/FY Y	<b>₹</b>	( )
(b) (3) (A)	Р	06 / 06 / 2023	(b) (6)	Р	06 / 27 / 2023	(D)(4)
	<u>u</u>	06 / 06 / 2023			06 / 27 / 2023	
	Р	06 / 06 / 2023		Р	06 / 27 / 2023	
	Р	06 / 06 / 2023		Р	06 / 27 / 2023	
	Р	06 / 06 / 2023		Р	06 / 30 / 2023	
	Р	04 / 07 / 2023		Р	04 / 27 / 2023	
	Р	04 / 14 / 2023		Р	04 / 27 / 2023	
	Р	04 / 14 / 2023		Р	04 / 27 / 2023	
	Р	04 / 14 / 2023		Р	04 / 27 / 2023	
	Р	06 / 06 / 2023		Р	06 / 30 / 2023	
	Р	03 / 22 / 2023		Р	04 / 27 / 2023	
	Р	03 / 28 / 2023		Р	04 / 27 / 2023	
	Р	03 / 28 / 2023		Р	04 / 27 / 2023	
	Р	03 / 29 / 2023		Р	04 / 27 / 2023	
	Р	03 / 30 / 2023		Р	04 / 27 / 2023	
	Р	03 / 23 / 2023		Р	04 / 27 / 2023	
	Р	03 / 24 / 2023		Р	04 / 27 / 2023	
	Р	06 / 06 / 2023		Р	06 / 30 / 2023	
	Р	06 / 06 / 2023		Р	06 / 30 / 2023	
	Р	03 / 20 / 2023		Р	04 / 27 / 2023	
	Р	03 / 20 / 2023		Р	04 / 27 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	

(b) (4)		ICLE EXAMINATION RECORD
	Client: (b) (4)	Location: Redhill Date: 06/26/2023
	P.O. No.	Job No.: 23-034
	(b) (4) Procedure: NDT-003.2 REV E	Code: AWS D1.1
	Report No.: GS06/26/23	
MATERIAL	MAGNETIZING TECHNIQU	E MAGNETIZING EQUIPMENT
Type: Plate	Prod: AC DC Spacing	) (3) (A) Mfg.: Parker Serial #: 340
Thickness: Various		
Geometry	Amps Coil Dia Longitudinal Turns Amp Turns	Field Verification By: Pie Gauge
☐ Pipe ☐ Plate ☐ Rod	Direct	
Other:	Circular	UV Meter:
Item; Steel Plate	Central Conductor Amps	MODEL: Serial #:
Stage of Mfg.:	Inspection Medium	Color: Gray
	Wet Fluorescen	
Surface Condition: Clean	Illumination White Ultraviolet	
$\sim\sim\sim\sim$	$\sim\sim\sim\sim$	
Item(s) Accept Reject Item		Sketch/Notes
(b) (3) (A)	No	o indications noted at time of inspection.
	<b>スススススススス</b>	

PCP-04.1 Rev. B (06/04/03)

				QUALI	TY VALIDATION (	QV) REPO	ORT			
			]	Red Hill B	Bulk Fuel Storage Fac	cility Defu	el			
Val	idation Firm	HDR Env	rironmental	, Operatio	ns and Construction,	Inc.		Repair No.	INC 018	
	Address	9781 S. N	Meridian Bl	vd., Suite	400, Englewood, CO		Repair ID	STF	R.07	
(	Contract No.	FA89031	5D0007, D	O. FA8903 19 F 0027 Report 19 JUL 20						
Q	V Enginee	(b) (d	6)							
					VALIDATION					
So	ource	1	PDF Page N	o.	Facility Geograph	nic Area		Location	Reference	
(C/ 2	2022 <sup>(b) (4)</sup>	N/A		*	(b) (3) (A)		(b) (3) (A)			
Repair	Description	Significar (b) (3) (A)	nt col	obse	on top flange d		Sour	ce Contra Referen		
Description of Contractor QC Method(s) Used					CQCP. Structural weld	ds 50%		ntractor QC s Reviewed	ı	d Daily
Va	ption of QA lidation and Observations	Form 429 design ar JTF RH 9 JTF RH 0 submittal	96/2. Visua nd material secondary QV visually s, daily rep	lly inspect submittals QA and 3r inspected orts).	ce is documented by the documented installation in the completed installation. Reviewed NDE report Party QV completed repairs and reviewed Date: 14 JUN 2023	ition; match oorts. d.	ned comple	eted constr	uction aga	inst
	Rework	Needed			Photo Record Attached	d	Repair	r Work Vali	dated as Co	mplete
0	Yes	•	No		See Page 2.		•	Yes	0	No
Comments Contracto	s or welde	(b) (3) (A)				in in	fo		(b) (3) (A	
					CERTIFICATION	<b>/</b>   <b>b</b>	16			
	rtify that repair			QV ENGINEER SIGNATURE			(6			
	eport was personally substantiated and this eport is true.				DATE	19 JUL 2	023			

LOCATION / REPAIR ID	VT P/F	FINAL ACCEPTANCE DATE	INSPECTOR	MT / PT / UT P/F	DATE	INSPECTOR
(b) (3) (A)	Р	06 / 06 / 2023	(b) (6)	Р	06 / 27 / 2023	(b) (4
	Р	06 / 06 / 2023		Р	06 / 27 / 2023	
~	MPY -	<b>√06√06√20₹3</b> ✓	_		\$67\$77\$02 <del>3</del>	
	Р	06 / 06 / 2023		Р	06 / 27 / 2023	
	W.	06 / 06 / 2023		u,u	06 / 30 / 2023	
	Р	04 / 07 / 2023		Р	04 / 27 / 2023	
	Р	04 / 14 / 2023		Р	04 / 27 / 2023	
	Р	04 / 14 / 2023		Р	04 / 27 / 2023	
	Р	04 / 14 / 2023		Р	04 / 27 / 2023	
	Р	06 / 06 / 2023		Р	06 / 30 / 2023	
	Р	03 / 22 / 2023		Р	04 / 27 / 2023	
	Р	03 / 28 / 2023		Р	04 / 27 / 2023	
	Р	03 / 28 / 2023	_	Р	04 / 27 / 2023	
	Р	03 / 29 / 2023		Р	04 / 27 / 2023	
	Р	03 / 30 / 2023		Р	04 / 27 / 2023	
	Р	03 / 23 / 2023		Р	04 / 27 / 2023	
	Р	03 / 24 / 2023		Р	04 / 27 / 2023	
	P	06 / 06 / 2023		Р	06 / 30 / 2023	
	Р	06 / 06 / 2023		Р	06 / 30 / 2023	
	Р	03 / 20 / 2023		P	04 / 27 / 2023	
	Р	03 / 20 / 2023		P	04 / 27 / 2023	
	P	02 / 28 / 2023		P	03 / 07 / 2023	
	P	02 / 28 / 2023		P	03 / 07 / 2023	
	P	02 / 28 / 2023		P	03 / 07 / 2023	
	Р	02 / 28 / 2023		P	03 / 07 / 2023	
	P	02 / 28 / 2023		P	03 / 07 / 2023	

	Client: (b) (4)		Location:		Date: 06/26/2023
b)(4)	P.O. No.		Job No.: 2		
	(b) (4) Procedure: NDT-0 Report No.: GS06/26/23	003.2 REV E	Code: AW	/S D1.1	
MATEDIAI			CITE .	MACNET	IZING FOUIDMEN
MATERIAL Type: Plate	Prod: XAC	DC Spacing		Mfg.: Parker	IZING EQUIPMENT Serial #: 340
Thickness: Various				Calibration Due D	
Geometry	Amps Longitudinal Turns	Amp Turns		Field Verification	
☐ Pipe ☐ Plate ☐ Rod	Direct				
Other:	Circular		ļ	UV Meter:	
tem; Steel Plate	Central Conductor Amps	<del></del>		MODEL:	Serial #:
Stage of Mfg.:	Inspection Medium	□ Dry Powder	Colc	or: Gray	
mgs of mag.	mspection wiediam	Z Dij romaci	0010	i. Giuj	
		Wet Fluoresc		e Batch No.: 14B108	3
Surface Condition: Clean	Illumination Whi	ite Ultraviole	t		
Item(s) Accept Reject Ite	m(s) Ac	ccept Reject	~~	Sketch	Notes
			lo indicatio	ons noted at time	
(b) (3) (A) 🗵 🗆		<del>                                     </del>	o mareano	no noted at time	1 mspection.
		<del>                                     </del>	محد		
		<del>                                     </del>			
	<del>                                     </del>				
		<del>                                     </del>			

PCP-04.1 Rev. B (06/04/03)

				QUALI	TY VALIDATION (	QV) REPO	ORT			
			]	Red Hill B	ulk Fuel Storage Fac	cility Defu	el			
Val	idation Firm	HDR Env	rironmental	, Operatio	ns and Construction,	Inc.		Repair No.	INC 019	
	Address	9781 S. N	Meridian Bl	vd., Suite	400, Englewood, CO	80112		Repair ID	STF.	R.08
(	Contract No.	FA89031	5D0007, D	O. FA8903 19 F 0027 Report 19 JUL 202						
Q	V Enginee	(b) (6	3)							
			,		VALIDATION					
So	ource	J	PDF Page N	o.	Facility Geograph	nic Area		Location	Reference	
C/	2022 (b) (4)	N/A			(b) (3) (A)		(b) (3) (A)			
Repair	Description		nt col(b) (3) (A	- 25	on top flange a	F	Sour	ce Contra Referen		
Description of Magnetic Particle In				spection (I	CQCP. Visual inspect MT) was performed o .1 code, 50% randon	on the		ntractor QC s Reviewed	CQCP and Daily Reports.	
Va	ption of QA lidation and Observations	Form 429 design ar JTF RH 9 JTF RH 0 submittal	96/2. Visua nd material secondary QV visually s, daily rep	lly inspected submittals QA and 3re inspected orts).	e is documented by the documented installation of the completed installation. Reviewed NDE repairs and reviewed Date: 14 JUN 2023	ition; match oorts. d.	ned comple	eted constr	uction agai	nst
	Rework	Needed			Photo Record Attached	d	Repair	r Work Vali	dated as Co	mplete
0	Yes	•	No		See Page 2.		•	Yes	0	No
Contracto	s or welde	(b) (3) (A) erforn	med		relds IAW AWS D1.	1 code, 50	fo % random		(b) (3) (A	
				OV ENC	INEER SIGNATURE	(b)	(6)			
port was p	rtify that repair personally sub			WA ENG						
eport is true	e.				DATE	19 JUL 2	023			

LOCATION / REPAIR ID	VT P/F	FINAL ACCEPTANCE DATE	INSPECTOR	MT / PT / UT P/F	DATE	INSPECTOR
(b) (3) (A)	Р	06 / 06 / 2023	(b) (6)	Р	06 / 27 / 2023	(b) (4)
	Р	06 / 06 / 2023		Р	06 / 27 / 2023	
	Р	06 / 06 / 2023		Р	06 / 27 / 2023	
	Р	06 / 06 / 2023		Р	06 / 27 / 2023	
	Р	06 / 06 / 2023		Р	06 / 30 / 2023	
	Р	04 / 07 / 2023		Р	04 / 27 / 2023	
	Р	04 / 14 / 2023		Р	04 / 27 / 2023	
	P	04 / 14 / 2023		Р	04 / 27 / 2023	
	Р	04 / 14 / 2023		Р	04 / 27 / 2023	
	Р	06 / 06 / 2023		Р	06 / 30 / 2023	
	Р	03 / 22 / 2023		Р	04 / 27 / 2023	
	Р	03 / 28 / 2023		Р	04 / 27 / 2023	
	Р	03 / 28 / 2023		Р	04 / 27 / 2023	
	Р	03 / 29 / 2023		Р	04 / 27 / 2023	
	P	03 / 30 / 2023		Р	04 / 27 / 2023	
	Р	03 / 23 / 2023		Р	04 / 27 / 2023	
~	~~~	03 / 24 / 2023		~~~	04/27/2023	
· · · · · · · · · · · · · · · · · · ·	Р	06 / 06 / 2023		Р	06 / 30 / 2023	
		06 / 06 / 2023	-		06 / 30 / 2023	
	Р	03 / 20 / 2023		Р	04 / 27 / 2023	
	Р	03 / 20 / 2023		Р	04 / 27 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	

				Client: (b) (4	4)			Logation	n: Red Hill; JBPHH	Date: 06-30-2023
(b)				P.O. No.: NA				Job No.		Date: 00-30-2023
				(b) (4) <sub>Proced</sub>	ura: NDT (	102.2 *	- D	_	WS D1.1	
				Report No.:	KS0630202	23	evD	Code. A	W3 D1.1	
MATE	ERIAL			MA	GNETIZ	ING	TECHNIC		MAGNETIZ	ZING EQUIPMENT
Type: C/S				Prod:	AC			g <sup>(b) (3) (A</sup>	Mfg.: Parker	Serial #: 23
Thickness: STD					Amps fix		Coil Dia		Calibration Date 06/	
Geometry:				Longitudina			Amp Turns _		Field Verification B	y: Pie Gauge
☐ Pipe ☐ Plate ☐ Rod					Direct n.a					
Other:					Circular		-		UV Meter: n/a	
Item: Repairs on Pipe Suppo	orts			Central Co	Amps n		-		MODEL: n/a	Serial #: n/a
Stage of Mfg.: New				Inspection M			Dry Powde	r Co	lor: RED	
suge of mig., then				Inspection in	- Caraini		2 21, 10, 40		101. <u>1122</u>	
							Wet Visible	e Ty	pe Batch No.: 22A006	
Surface Condition: Buffed C	Clean			Illumination	⊠ Wh	ite	Ultravio	olet		
Item(s)	Accept	Reject	Iten	n(s)	Ac	cept	Reject		Sketch/N	Votes
Pine Supports/Braces	_									
b) (3) (A)								$\sim$	~~~~	$\sim$
								MT In	spection was reques Repairs made on I	sted and performed on
			<del>- ) -</del>				<del>                                     </del>	7	Repairs made on i	ripe supports.
			11					No mi		farmal dramin a thin
		72	7					Note	inspecti	vere found during this ion.
								U	سس	www
	4-									
		1	1							
	+				-		+			

PCP-04.1 Rev. B (06/04/03)

				QUALI	TY VALIDATION (	QV) REPO	ORT			
			]	Red Hill B	Bulk Fuel Storage Fac	cility Defu	el			
Val	idation Firm	HDR Env	rironmental	, Operatio	ns and Construction,	Inc.		Repair No.	INC 020	
	Address	9781 S. N	Meridian Bl	vd., Suite	400, Englewood, CO		Repair ID	STF.	R.09	
(	Contract No.	FA89031	5D0007, D	.O. FA890	O. FA8903 19 F 0027 Report 19 JU					
Q	V Enginee	(b) (6	5)							
					VALIDATION					
So	ource	]	PDF Page N	o.	Facility Geograph	nic Area		Location	Reference	
C/	2022 <sup>(b) (4)</sup>	N/A			(b) (3) (A)		(b) (3) (A)		is S	
Repair	Description	(b) (3) (A)		(b) (3	re heavily corrd (b) (3) (A)	(b) (3) (A)	Sour	ce Contra Referen		
				ing (PT) w	CQCP. Visual inspect as performed on the 50% random.			ntractor QC s Reviewed	I .	
Va	ption of QA lidation and Observations	Form 429 design ar JTF RH 9 JTF RH 0 submittal	96/2. Visua nd material secondary QV visually s, daily rep	Ily inspect submittal QA and 3r inspected orts).	ce is documented by the documented installations. Reviewed NDE report Party QV completed repairs and reviewed Date: 14 JUN 2023	ition; matcl oorts. id.	ned comple	eted constr	uction aga	inst
	Rework	Needed			Photo Record Attache	d	Repai	r Work Vali	dated as Co	mplete
0	Yes	•	No		See Page 2.		•	Yes	0	No
comments Contracto	s or welde	(b) (3) (A) erforn	ned (		elds IAW AWS D1.		ne was random.			
					CERTIFICATION	(b)	(6)			
eport was p	rtify that repair personally sub			QV ENGINEER SIGNATURE (D) (6)						
eport is tru	e.				DATE	19 JUL 2	023			

LOCATION / REPAIR ID	VT P/F	FINAL ACCEPTANCE DATE	INSPECTOR	MT / PT / UT P/F	DATE	INSPECTOR
(b) (3) (A)	Р	02 / 28 / 2023	(b) (6)	Р	03 / 07 / 2023	(b) (4
$(\mathbf{S})(\mathbf{S})(\mathbf{S})$	Р	02 / 28 / 2023		Р	03 / 07 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	
	Р	06 / 06 / 2023		Р	06 / 30 / 2023	
	P	06 / 06 / 2023		P	06 / 26 / 2023	
{	Р	06 / 06 / 2023		Р	06 / 26 / 2023	
<b>\{</b>	Р	06 / 06 / 2023		Р	06 / 26 / 2023	
	uşu	06/06/2023		ىرى	06/26/2023	
	Р	06 / 06 / 2023		Р	06 / 26 / 2023	
$\overline{}$	~~~	06 / 06 / 2023		~~~	06/26/2023	
	Р	06 / 06 / 2023		Р	06 / 26 / 2023	
	The state of the s	06 / 06 / 2023		N/A		
$\sim$	P P	06 / 06 / 2023		N/A	~~~	
	Р	06 / 06 / 2023		Р	06 / 26 / 2023	
	W <sub>p</sub>	06 / 06 / 2023		V <sub>p</sub>	06 / 26 / 2023	
	Р	06 / 15 / 2022		N/A		
	Р	06 / 15 / 2022		N/A		
	Р	06 / 15 / 2022		N/A		
	Р	06 / 15 / 2022		N/A		
	Р	06 / 15 / 2022		N/A		
	Р	06 / 15 / 2022		N/A		
	Р	06 / 15 / 2022		N/A		
	Р	06 / 15 / 2022		N/A		
	Р	06 / 15 / 2022		N/A		

1	(b) (·	<u> </u>		LIQUID	PENET	TRANT EX	AMINATION RECO	RD
ı			Client: (b)	(4)		Location	: Red Hill	Page 1 of 1
			P.O. No.:			Job No.:	23-034	
	•			ure: NDT002.2 Rev	C	Code: A	WS D1.1	
			Report No. G	S070723				
	ITEM: Emergent Pipeline repair							
	MATERIAL			ENETRANT M			TECHI	
	TYPE: CS FW	1	BRAND	DESIGNATION	PO#	BATCH#	Preclean Drying Time: 5	
	Surface Condition:	Cleaner		area a		21002K	Method of Application: B	rush
	As Welded Ground	Donostonost	Magnaflux	SKC-S	N/A	002711 19G04K	Dwell Time: 10 Min	
	Other	Penetrant	Magnaflux	SKL-SP1	N/A	01755	Dwell Time: 10 Min	
	New weld	Emulsifier	Magnanux	3817-311	IN/A	01733	Emulsification Time: N/A	Δ
		Linuisitiei	N/A	N/A	N/A	N/A	Emulsification Time: 147	
		Developer				20L02U	Developing Time: 15 Mir	1
		1	Magnaflux	SKD-S2	N/A			
	Temperature: X 60° F - 125° F		Illumination:	⊠White	FC 150		(b) (4) Control #	
	Other						UV Meter N/A	
	Item(s)	Accept	Reject Sk	etch/Notes				
	(b) (3) (A)	Y Y N						
	(D)(D)(A)		<u> </u>		~~	~~~	$\sim\sim$	
				(	. 37 1			)
_				7	No inc	lications not	ed at time of inspection	·
			<del>                                     </del>		ムレ			7
	Y		$\mathcal{L}$					
-								
,								
	入							
1								
	Performed By (b) (6) Level	II Date: 7/07/2	023	Rev	riewed By	:		Date:

PCP-02.1 REV. B (06/04/03)

				QUALI	TY VALIDATION (	QV) REPO	ORT			ì
			]	Red Hill B	Bulk Fuel Storage Fac	ility Defu	el			Ŷ
Val	idation Firm	HDR Env	rironmental	, Operatio	ns and Construction,	Inc.		Repair No.	INC 021	
	Address	9781 S. N	Meridian Bl	vd., Suite	d., Suite 400, Englewood, CO 80112 Repair ID					1.10
(	Contract No.	FA89031	5D0007, D	.O. FA890	03 19 F 0027			Report	19 JUL 20	023
Ç	V Enginee	(b)	(6)							
		(~)	( )		VALIDATION					
So	urce	I	PDF Page N	o.	Facility Geograph	ic Area		Location	Reference	
/C /	2022 (b) (4)								is e	
Repair	Description	(b) (3) (A)	ne ve ce in kind.	(b	re heavily corrd (b) (3) (A) () (3) (A)	rt	Sour	ce Contra Referen		Î
Co	escription of ntractor QC hod(s) Used		outlined in n via VT ar		CQCP. Structural wek % random.	ds	1	ntractor QC s Reviewed	l .	d Daily
Va	ption of QA lidation and observations	Form 429 design ar JTF RH 9 JTF RH 0 submittal	96/2. Visua nd material secondary QV visually s, daily rep	lly inspect submittals QA and 3r inspected orts).	ce is documented by the documented by the documented installations. Reviewed NDE report Party QV completed repairs and reviewed Date: 14 JUN 2023	ition; match orts. d.	ned comple	eted constr	uction agai	nst
	Rework	Needed			Photo Record Attached	i	Repair	Work Vali	dated as Co	mplete
0	Yes	•	No		See Page 2.		•	Yes	0	No
omments Contracto	or remo	welds	(b) (3) (A) insp		PT, 50% random.	<b>T</b> in	d(b) (3) (A)			
					CERTIFICATION					
	tify that repair			QV ENG	SINEER SIGNATURE	(b)	(6)			
eport was pe eport is true	personally sub e.	stantiated an	id this		DATE	19 JUL 2				

LOCATION / REPAIR ID	VT P/F	FINAL ACCEPTANCE DATE	INSPECTOR	MT / PT / UT P/F	DATE	INSPECTOR
(b) (3) (A		02 / 28 / 2023	(b) (6)	P	03 / 07 / 2023	(b) (4)
(5) (5) (7)	P	02 / 28 / 2023		Р	03 / 07 / 2023	(
	P	02 / 28 / 2023		Р	03 / 07 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	
	P	02 / 28 / 2023		Р	03 / 07 / 2023	
	P	06 / 06 / 2023		Р	06 / 30 / 2023	
	P	06 / 06 / 2023		Р	06 / 26 / 2023	
	P	06 / 06 / 2023		Р	06 / 26 / 2023	
~	~~~	0670672023		~~~	V06/26/2023	
	P	06 / 06 / 2023		Р	06 / 26 / 2023	
	P	06 / 06 / 2023		Р	06 / 26 / 2023	
	Р	06 / 06 / 2023		Р	06 / 26 / 2023	
	THE THE PARTY OF T	06 / 06 / 2023		\ \ \	06 / 26 / 2023	
	Р	06 / 06 / 2023		N/A		
	Р	06 / 06 / 2023		N/A		
	P	06 / 06 / 2023		P	06 / 26 / 2023	
}	Р	06 / 06 / 2023		Р	06 / 26 / 2023	
		06 / 15 / 2022		N/A		
	P	06 / 15 / 2022		N/A		
	P	06 / 15 / 2022		N/A		
	Р	06 / 15 / 2022		N/A		
	P	06 / 15 / 2022		N/A		
	P	06 / 15 / 2022		N/A		
	P	06 / 15 / 2022		N/A		
	P	06 / 15 / 2022		N/A		
	Р	06 / 15 / 2022		N/A		

ITEM: Emergent Pipeline repair		Report No. G	(4) ure: NDT002.2 Re S070723	v C	Location: Job No.: Code: AV	23-034 WS D1.1	Page 1 of 1
MATERIAL			ENETRANT M				NIQUE
TYPE: CS FW Surface Condition:  As Welded	Cleaner	BRAND Magnaflux	DESIGNATION SKC-S	PO# N/A	BATCH # 21002K 002711	Preclean Drying Time: 5 Method of Application: 1	
☐ Ground ☐ Other	Penetrant	Magnaflux	SKL-SP1	N/A	19G04K 01755	Dwell Time: 10 Min	
⊠ New weld	Emulsifier	N/A	N/A	N/A	N/A	Emulsification Time: N	
	Developer	Magnaflux	SKD-S2	N/A	20L02U	Developing Time: 15 Mi	n
Temperature: X 60° F – 125° F Other		Illumination:	⊠White	FC 150		(b) (4) Control #  UV Meter N/A	
Item(s)	Accept	Reject Sk	etch/Notes				
 (b) (3) (A)				No ind	lications note	ed at time of inspection	n. }
Performed By (b) (6) Level	II Date: 7/07/2	023	Re	viewed By	:		Date:

PCP-02.1 REV. B (06/04/03)

				QUALI	TY VALIDATION (	QV) REPO	ORT				
			]	Red Hill B	Bulk Fuel Storage Fac	ility Defu	el				
Val	idation Firm	HDR Env	rironmental	, Operatio	ns and Construction,	Inc.		Repair No.	INC 022		
	Address	9781 S. N	Meridian Bl	vd., Suite	400, Englewood, CO	80112		Repair ID	STF	R.11	
(	Contract No.	FA89031	5D0007, D	.O. FA890	03 19 F 0027			Report	19 JUL 20	023	
(	QV Enginee	(b) (	6)								
			<u>'</u>		VALIDATION						
Source PDF Page No. Facility Geographic								Location	Reference		
C /	2022 (b) (4)	N/A			(b) (3) (A)		(b) (3) (A)				
Repair	Description	Vertical s (b) (3) (A)	uppd	amag	maguckled. Weld a (b) (3) (A) Source Contra Referen						
Description of Dye Penetrant Test				n detail in CQCP. Visual inspection and ting (PT) was performed on the structural 1.1 code, 50% random.					CQCP and Daily Reports.		
Va	iption of QA alidation and Observations	Form 429 design ar JTF RH 9 JTF RH 0 submittal	96/2. Visua nd material secondary QV visually s, daily rep	Ily inspect submittals QA and 3r inspected orts).	ce is documented by the documented by the documented installations. Reviewed NDE report Party QV completed repairs and reviewed Date: 14 JUN 2023	ition; match orts. d.	ned comple	eted constr	uction aga	inst	
	Rework	Needed	, ,		Photo Record Attached	i	Repair Work Validated as Complete				
0	Yes	•	No		See Page 2.		•	Yes	0	No	
omment	s or welde	(b) (3) (A) erforn	ned (		∎elds IAW AWS D1.		ne				
					CERTIFICATION	(h) (	<b>(6)</b>				
	rtify that repair personally sub			QV ENG	SINEER SIGNATURE	(b) (	0)				
port is tru	le.				DATE	19 JUL 2	023				

LOCATION / REPAIR ID	VT P/F	FINAL ACCEPTANCE DATE	INSPECTOR	MT / PT / UT P/F	DATE	INSPECTOR
(b) (3) (A)	Р	02 / 28 / 2023	(b) (6)	Р	03 / 07 / 2023	(b) (4)
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	
	Р	02 / 28 / 2023		P	03 / 07 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	
	~~~	06/06/2023	~	~~~	06/30/2023	
<b>&gt;</b>	Р	06 / 06 / 2023		Р	06 / 26 / 2023	
	ىىپىن	06 / 06 / 2023	<u>ک</u>	u,u	06 / 26 / 2023	
	Р	06 / 06 / 2023		Р	06 / 26 / 2023	
	Р	06 / 06 / 2023		Р	06 / 26 / 2023	
	Р	06 / 06 / 2023		P	06 / 26 / 2023	
	Р	06 / 06 / 2023		P	06 / 26 / 2023	
	Р	06 / 06 / 2023		P	06 / 26 / 2023	
	Р	06 / 06 / 2023		N/A		
	Р	06 / 06 / 2023		N/A		
	Р	06 / 06 / 2023		P	06 / 26 / 2023	
	Р	06 / 06 / 2023		P	06 / 26 / 2023	
	Р	06 / 15 / 2022		N/A		
	Р	06 / 15 / 2022		N/A		
	Р	06 / 15 / 2022		N/A		
	Р	06 / 15 / 2022		N/A		
	Р	06 / 15 / 2022		N/A		
	Р	06 / 15 / 2022		N/A		
	Р	06 / 15 / 2022		N/A		
	Р	06 / 15 / 2022		N/A		
	Р	06 / 15 / 2022		N/A		

ITEM: Emergent Pipeline repair	Client: Ocea PO No.: (b) (4) Proced Report No. Co	unic lure: NDT002.2 Rev		Location: Job No.: 2 Code: AV	23-034	Page 1 of 1
MATERIAL	P	ENETRANT MA	ATERIA	L	TEC	HNIQUE
TYPE: CS FW	BRAND	DESIGNATION	PO#	BATCH#	Preclean Drying Time	
Surface Condition: Clean As Welded	Magnaflux	SKC-S	N/A	21002K 002711	Method of Application	n: Brush
☐ Ground Penet ☐ Other  New weld Emul	Magnaflux	SKL-SP1	N/A	19G04K 01755	Dwell Time: 10 Min	
New weld Emul	sifier N/A	N/A	N/A	N/A	Emulsification Time:	N/A
Deve	loper Magnaflux	SKD-S2	N/A	20L02U	Developing Time: 15	Min
Temperature: <u>X</u> 60° F – 125° F Other	Illumination:	White	FC 150		(b) (4) Control #  UV Meter N/A	
Ytem(s)	Accept Reject Sh	cetch/Notes				
(b) (3) (A)		2	No ind	ications note	ed at time of inspecti	ion.
Performed By: (b) (6) Level II Da	te: 7/07/2023	Rev	iewed By:			Date:

PCP-02.1 REV. B (06/04/03)

				QUALITY VALIDA	TION (QV) REP	ORT				
			]	Red Hill Bulk Fuel Stor	age Facility Defu	ıel				
Val	idation Firm	HDR Env	/ironmental	, Operations and Const	ruction, Inc.		Repair No.	INC-024		
	Address	9781 S. I	Meridian Bl	vd., Suite 400, Englewo	od, CO 80112		Repair ID	STF.	.13	
(	Contract No.	FA89031	5D0007, D		Report	19 JUL 20	)23			
Ç	V Enginee	(b)	(6)							
		, ,	<b>\</b> /	VALIDA	ΓΙΟΝ					
So	ource	]	PDF Page N	o. Facility (	Geographic Area		Location	Reference		
/C /	2022 (6) (4)	N/A		(b) (3) (A)		(b) (3) (A)	_	<b>S</b>		
Nut [on ancho				source Contra						
		anchor ro (b) (3) (A)	od. An atter							
Description of Contractor QC Method(s) Used							CQCP and D Contractor QC Records Reviewed			
Va	ption of QA lidation and Observations	Form 429 design an JTF-RH 9 JTF-RH 9 submittal	96/2. Visua nd material secondary QV visually ls, daily rep	Assurance is documer lly inspected completed submittals.  QA and 3rd Party QV completed inspected repairs and orts).  Determinent. Date: 14 JUN	installation; mate ompleted. reviewed contract	ched comple	eted constr	uction agai	nst	
	Rework	Needed		Photo Record	Photo Record Attached			Repair Work Validated as Co		
$\circ$	Yes	•	No	See Pag	e 2.	•	Yes	0	No	
omments	s Support (b) (	3) (A) t.				w ta				
				CERTIFIC	2	(6)				
	rtify that repair			QV ENGINEER SIGNA	TURE (b)	(b)				
eport is tru				DATE	19 JUL	2023				

LOCATION / REPAIR ID	VT P/F	FINAL ACCEPTANCE DATE	INSPECTOR	MT / PT / UT P/F	DATE	INSPECTOR
(b) (3) (A)	Р	02 / 28 / 2023	(b) (6)	Р	03 / 07 / 2023	(b) (4
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	( ) (
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	
	Р	02 / 28 / 2023		Р	03 / 07 / 2023	
	Р	06 / 06 / 2023		Р	06 / 30 / 2023	
	Р	06 / 06 / 2023		Р	06 / 26 / 2023	
	Р	06 / 06 / 2023		Р	06 / 26 / 2023	
	Р	06 / 06 / 2023		Р	06 / 26 / 2023	
	Р	06 / 06 / 2023		Р	06 / 26 / 2023	
	Р	06 / 06 / 2023		Р	06 / 26 / 2023	
	Р	06 / 06 / 2023		Р	06 / 26 / 2023	
	~~~	06/06/2023	~	~~~	V06\26\2053	
	Р	06 / 06 / 2023		N/A		
	Р	06 / 06 / 2023		N/A		
	u,u	06 / 06 / 2023		سہیں	06/26/2023	
	Р	06 / 06 / 2023		Р	06 / 26 / 2023	
	Р	06 / 15 / 2022		N/A		
	Р	06 / 15 / 2022		N/A		
	Р	06 / 15 / 2022		N/A		
	Р	06 / 15 / 2022		N/A		
	Р	06 / 15 / 2022		N/A		
	Р	06 / 15 / 2022		N/A		
	Р	06 / 15 / 2022		N/A		
	Р	06 / 15 / 2022		N/A		
	Р	06 / 15 / 2022		N/A		