

Couvillion Group, LLC MC-20 Hydrocarbon Pump-Off #48 Results Report

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Revision	Date	Ву	Check	Approve	Remarks
0	4/4/2023				Initial
					Document

Summary:

Couvillion Group's Rapid Response Collection System initiated its forty-eighth collection cycle on 1/31/2023 and completed the cycle on 3/5/2023 resulting in a collection duration of 32.9 days. Using the OSV Brandon Bordelon the collected hydrocarbon fluid that was recovered from the subsea oil containment vessels was taken to the Couvillion Dock in Port Fourchon, Louisiana. Vessel to Dockside Transfer commenced on 3/8/2023, with 607.8 bbl of hydrocarbon fluids transferred to onshore frac tanks 1-3 according to NRC frac tank strapping.

On 3/27/2023, Couvillion Group confirmed the initial measurement of 607.8 bbl of hydrocarbon fluids in frac tanks 1-3 via strap measurements. After a confirmation measurement was recorded, the decanting process began. From frac tanks 1-3, a total of 22.5 bbl of water was decanted on 3/27/23 and 2.0 bbl of water was decanted on 3/28/23. This 24.5 bbl of water was sent to the fourth frac tank for disposal at a later time. A gross total of 564.0 bbl of fluids according to NRC strapping measurements was sent to Acadiana oil using tank trucks from frac tanks 1-3. After temperature and BS&W deductions a net total of 546.0 bbl of oil was transferred from tanks 1-3 in the Port Fourchon yard to the Acadiana Oil Company.

Procedures Followed:

Couvillion Group and the associated companies participating in the collection and transportation of hydrocarbon fluids from the MC-20 site to the Acadiana Oil Company site have compiled a set of procedures that are followed throughout the process. The MC-20 Response Disposal Plan with associated documentation pertaining to custody transfer and hydrocarbon fluids measurements for this report are in Appendix I. Appendix II includes the NRC waste handling documentation.

Execution:

Offshore Collection of Hydrocarbon Fluids at MC-20 Site:

The Brandon Bordelon OSV moved in place on location at MC-20 on 3/5/2023 at 12:35 hrs. An asfound ROV survey was conducted prior to commencement of pump off operations. To begin pump off operations ROV's were launched and thereafter the hydraulic subsea pump and hoses were over boarded. The inlet hose to the hydraulic subsea pump was connected to the offload outlet on the subsea oil storage containers. On 3/5/2023 the ATI/BTI were closed at 14:26, marking the end of the 48th collection cycle. Pumping commenced at 20:40 on 3/5/2023 and ended at 06:52 on 3/6/2023. Fluids were sampled on the vessel every 20 minutes for field analysis to determine the estimated oil to water ratios until water breakthrough occurred and collection operations were then stopped. **A total of 612.4 bbl of hydrocarbon fluid was collected according to the tank strap measurement taken offshore.** Upon pump off completion the hoses and pump were surfaced and flushed with saltwater that was sent to a filtration system for treatment and over boarding.

Vessel to Dockside Transfer

The Brandon Bordelon arrived at the Couvillion Dock in Port Fourchon, Louisiana on 3/8/2023. On the morning of 3/8/2023 hoses were run from the tanks on the vessel through a diaphragm pump and then run to 500 bbl frac tanks. The pump-off process was begun and continued until all MPT tanks aboard the OSV Brandon Bordelon were empty. Tankermen from Team Services verified that the MPT tanks onboard the vessel were emptied, then an NRC representative strapped the dockside frac tanks to determine **the total quantity transferred which was 607.8 bbl.** With the dockside transfer complete, the fluid was allowed to settle out water from the oil over a period of time before the transfer of the oil from the frac tanks to tank trucks.

Dockside Frac Tanks to Truck Transfers

On the morning of 3/28/2023 at 07:00 hrs the first round of frac tanks to tank truck transfers commenced. A hose was attached to the frac tank and ran through a diaphragm pump into a tank truck. Pumping commenced and the first truck received 141.8 bbls, the second truck received 136.7 bbls of hydrocarbon fluids. The second day of truck transfers began on 3/29/2023 at 07:00. The third truck received 149.1 bbls and final truck of pumpoff 48 received 136.4 bbls of hydrocarbon fluids. There was a total of 19.3 bbls of residual fluids which remained in frac tanks 1-3 and was later pumped into tank 4. All values were recorded in the appropriate forms in the MC-20 Response Disposal Plan (see report Appendix I). Total fluid reconciliation for frac tanks 1-3 was within 0.0%.

Truck to Facility Transfer

Upon arrival at the Acadiana Oil Company site each truck enters a loading bay. Before any fluids are transferred an Acadiana Oil Representative straps their tank for an initial measurement and then transfer of fluid begins. While the pump off is underway an Acadiana Oil Company Representative takes three fluid samples during the transfer process from the pump outlet from which hydrocarbon fluid is flowing. These samples are taken at the beginning of the transfer, mid-way through the transfer, and at the end of the transfer process to ensure a full mixture. The sample is then taken to their testing area where tests are run to determine: % BS&W content, temperature, and specific gravity. Temperature and specific gravity are recorded via the use of a hydrometer, while BS&W content is determined via the use of a centrifuge with a 50/50 mixture of the sample with mineral spirits. Once all sampling is completed and recorded (see copy in Appendix I) the Acadiana Oil Company Representative again straps their tank to obtain a post transfer level. The gross fluids that are recorded is determined by subtracting the initial pump off tank strap level from the post transfer tank strap level. This gross fluid value is corrected for temperature, specific gravity and BS&W content to determine the net oil value that is recorded. This process is repeated for each truck offload.

Summary Tally and Running Totals:

The tables below show an oil tally, a total fluid reconciliation, and a flow rate calculation. In total 607.8 bbl of hydrocarbon fluid was transferred from the Brandon Bordelon into an onshore frac tank. Tank trucks transported a gross total of 564.0 bbl to the Acadiana Oil Company, which netted out to a total of 546.0 bbl. From a total fluid reconciliation standpoint, measurements at different site locations were within 0.0% for frac tanks 1-3. The calculated flow rate during the 32.9-day collection cycle offshore was 16.6 bbl/day or 697.2 gal/day. Monthly pump off collection rates reflects collection rates which are not inclusive of product that remains in the residual tank. This causes monthly collection rates to appear slightly lower than the historic average. As of the end of this pump off campaign 1,225,144.2 gallons of salvaged crude oil have been contained from the MC-20 site.

Oil Tally

					Tourist 4				Tourst 2				Tourst 2				Tours de A					Dominion
Oil Tally	Date	Total Fluid	Total Fluid		Truck 1 Total Fluids	Total Fluid			Truck 2 Total Fluids	Total Fluid			Truck 3 Total Fluids	Total Fluid			Truck 4 Total Fluids	Total Fluid			Total	Running Total
Oli Tally	Date	Transfer	Frac	%	to Acadiana	at	%	Net	to Acadiana	at	%	Net	to Acadiana	at	%	Net	to Acadiana	at	%	Net	Net	Net
		by	Tank Strap	,,,	NRC Frac	Acadiana	,,,		NRC Frac	Acadiana	,,,	1100	NRC Frac	Acadiana	,.		NRC Frac	Acadiana	,,		1100	1100
		Legends	by NRC	Diff	Strap	by strap	Diff	Oil	Strap	by strap	Diff	Oil	Strap	by strap	Diff	Oil	Strap	by strap	Diff	Oil	Oil	Oil
		(bbl)	(bbl)		(bbl)	(bbl)		(bbl)	(bbl)	(bbl)		(bbl)	(bbl)	(bbl)		(bbl)	(bbl)	(bbl)		(bbl)	(bbl)	(bbl)
Pump Off #1	4/26/2019	220.0	215.7	-2.0																		
	5/6/2019				113.7	110.0	3.3	108.8	97.0	87.4	9.9	78.6									187.4	187.4
Pump Off #2	5/3/2019	246.3	223.5	-10.2	404.0	400.0															404.5	250.0
D Off #2	5/8/2019	225.0	224.2	1.1	101.3	102.0	-0.7	99.7	82.8	83.8	-1.2	81.9									181.6	369.0
Pump Off #3	5/13/2019 5/16/2019	335.0	331.2	-1.1	103.2	89.1	13.7	82.9	126.4	126.4	-7.9	132.1	108.5	00.5	8.3	80.7					295.7	664.8
Pump Off #4	6/19/2019	901.7	905.5	0.4	139.4	145.8	-4.6	143.0	138.7	136.4 139.4	-0.5	137.4	106.5	99.5	0.3	80.7					295.7	004.8
rump on #4	6/20/2019	301.7	303.3	0.4	137.7	136.2	1.1	113.0	140.7	141.4	-0.5	139.4	140.6	141.4	-0.6	134.2	144.1	141.4	1.9	138.4		
	6/21/2019				48.5	47.1	2.8	44.6													850.0	1,514.8
Pump Off #5	7/31/2019	1200.2	1196.6	-0.3	139.2	138.3	0.6	133.7	142.7	150.0	-5.1	146.5										
	8/1/2019				139.1	145.7	-4.7	135.1	140.7	138.4	1.6	131.9	146.0	142.0	2.7	81.3	138.0	142.0	-2.9	140.0		
	8/2/2019				99.8	112.9	-13.1	111.0	101.1	105.6	-4.5	104.2									983.7	2,498.5
Pump Off #6	8/26/2019	848.0	874.6	3.0	141.7	138.4	2.3	134.6	140.3	145.7	-3.8	140.6	141.5	145.7	-3.0	143.2						
	8/27/2019				140.5	138.4	1.5	135.5	137.2	142.0	-3.5	139.1	61.3	65.6	-7.0	64.2					757.0	2 255 7
Dump Off #7	0/22/2010	891.9	000.4	1.2	138.0	1247	2.4	122.4	144.3	151.0	F 2	140.0	142.6	142.0	0.4	120.7					757.2	3,255.7
Pump Off #7	9/23/2019 9/24/2019	691.9	880.4	-1.3	144.4	134.7 142.0	2.4 1.7	132.4 139.1	144.5	151.8 138.4	-5.2 3.7	148.9 135.5	142.6 55.3	142.0 54.6	1.3	139.7 53.7					749.3	4,005.0
Pump off #8	10/21/2019	790.9	787.4	-0.4	177.7	142.0	1.7	133.1	143.7	130.4	3.7	133.3	33.3	34.0	1.5	33.7					743.3	4,003.0
	10/22/2019			1	143.9	131.0	9.0	129.1	154.3	151.9	1.5	149.7	144.0	136.2	5.4	134.2						
L	10/23/2019	1	L	L	137.7	141.4	-2.7	139.2	130.0	125.7	3.3	123.6	L	L	L							
Residual Tank	10/23/2019	I	205.1										125.4	125.7	-0.2	123.6					799.4	4,804.4
Pump off #9	11/11/2019	772.3	757.8	-1.9	1				1	1	1			1								٦
	11/19/2019				142.3	156.5	-10.0	153.6	143.8	131.0	8.9		145.3	142.0	2.3	139.9						_
	11/20/2019				145.6	145.6	0.0	143.6	92.1	94.6	-2.8	93.3									659.1	5,463.5
Pump off #10	12/17/2019 12/18/2019	940.7	942.8	0.2	142.0 146.4	138.4 138.4	2.5 5.5	136.9 136.8	71.4 144.3	69.2 145.7	3.1 -1.0	68.5 144.4	146.4 144.0	145.7 142.0	0.5 1.4	144.2 140.8	47.4	47.4	0.0	47.0	818.6	6,282.1
Pump off #11	1/9/2020	697.7	691.0	-1.0	128.7	131.1	-1.9	128.3	128.0	131.1	-2.4	129.3	129.8	131.1	-1.0	129.6	47.4	47.4	0.0	47.0	010.0	0,282.1
rumpon #11	1/10/2020	057.7	031.0	-1.0	79.4	91.0	-14.6	90.0	92.6	91.1	1.6	90.0	123.0	131.1	-1.0	125.0						
Residual Tank	1/8/2020	†			141.9	142.0	-0.1	140.0							t						707.2	6,989.3
Pump off #12	2/12/2020	725.4	722.5	-0.4	120.8	123.8	-2.5	115.8	102.1	101.9	0.2	100.4	99.0	101.9	-2.9	97.5						
,	2/13/2020				149.5	160.2	-7	154	114.2	101.92	10.8	61.1										
Residual Tank	2/17/2020				108.2	105.6	2.4	101.3													630.1	7,619.4
Pump off #13	3/11/2020	583.7	570.2	-2.4																		
	3/12/2020				114.5	115.2	-0.6	112.7	138.3	136.2	1.5	134.3										
- 44	3/13/2020				93.6	94.3	-0.7	91.9	120.0	120.4	-0.3	117.5									456.4	8,075.8
Pumpoff #14	4/16/2020	966.7	928.8	-4.1	147.2	146.5	0.5	144.6	145.2	141.2	2.8	139.4	148.0	146.5	1.0	143.7					798.4	
Residual Tank	4/17/2020 4/14/2020	 	 		144.9 149.9	146.5 151.9	-1.1 -1.3	144.3 132.3	144.1	141.2	2.0	139.1	87.4	88.9	-1.7	87.3					132.3	9,006.5
Pump off #15	5/7/2020	798.4	783.1	-1.9	150.3	145.8	3.0	143.4	148.0	153.1	-3.4	149.4	145.2	142.1	2.1	138.7					132.3	3,000.3
1 dilip 011 #15	5/8/2020	730.4	703.1	1.5	147.2	149.4	-1.5	147.6	131.7	131.2	0.4	128.6	143.2	142.1	2.1	130.7					707.7	9,714.2
Pump off #16	5/28/2020	598.8	583.3	-2.7	142.1	140.3	1.3	137.5														.,
,	5/29/2020				138.0	138.5	-0.4	134.1	135.1	134.8	0.2	131.7	115.0	116.6	-1.4	109.7					513.0	10,227.2
Pumpoff #17	7/8/2020	970.1	956.3	1.4																		
	7/9/2020				149.1	149.9	-0.5	146.8	148.8	145.5	2.2	142.5	149.2	149.9	-0.5	146.8						
	7/10/2020				150.7	149.6	0.7	146.6	137.1	138.0	-0.7	135.2	119.9	119.0	0.8	116.5					834.4	11,061.4
Pumpoff #18	7/22/2020	658.4	642.6	-2.5							l				l							
	7/27/2020 7/28/2020				129.9 66.0	129.9	0.0	127.8	140.6	140.6	0.0	137.7	138.2	138.2	0.0	135.7	139.8	139.8	0.0	137.5	601.5	11,663.1
Residual Tank	7/28/2020	 		 	00.0	66.0	0.0	62.8	113	113	0.0	110.7	 	 -	 						110.7	11,773.8
Pumpoff #19	9/1/2020	901.6	886.4	-1.7	128.2	128.2	0.0	125.6	135.5	135.5	0.0	132.6									110.7	11,773.0
	9/2/2020				131.2	131.2	0.0	128.3	136.8	136.8	0.0	134.0	134.8	134.8	0.0	132.0	135.9	135.9	0.0	133.0	785.5	12,559.3
Pumpoff #20	9/29/2020	464.2	450.9	-2.9	144.0	140.0	2.8	137.9	143.5	140.0	2.4	137.9										
L	9/30/2020	1	L	<u> </u>	85.7	83.0	3.2	81.6		ļ	 _	 	 	L	ļ				 		357.4	12,916.7
Residual Tank	10/1/2020	<u> </u>	<u> </u>		136.5	131.0	4.0	128.6		<u> </u>	<u> </u>	<u> </u>							\sqcup		128.6	13,045.3
Pumpoff #21	10/15/2020	620.9	610.1	-1.8	139.0	139.0	0.0	130.8	145.3	145.0	0.2	142.1		1							E40.0	12.500.5
Dumpoff #22	10/16/2020	605.6	672.2	1.0	147.2	144.0	2.2	142.5	136.0	135.0	0.7	132.9	145 4	140.0	1.4	120 2					548.3	13,593.6
Pumpott #22	11/16/2020	685.6	673.2	-1.8	133.2	130.0	2.4	139.7	143.4	142.0	1.0	140.1	146.4	140.0	4.4	128.3					532.4	14,126.0
Pumpoff #23	12/30/2020	781.7	784.3	0.3	146.1	140.0	4.2	137.3	146.8	140.0	4.6	138.6	145.2	137.0	5.6	133.9					JJ2.4	17,120.0
	12/31/2020				145.3	141.0	3.0	138.4	113.9	111.0	2.5	107.2	5.2								655.4	14,781.4
Pumpoff # 24	1/27/2021	676.5	663.9	-1.9	123.9	*	*	*														
	1/28/2021				141.0	*	*	*	140.2	140.0	0.1		146.8	*	*	*						
L	2/19/2021	1	L		146.0	135.0	7.5	133.7	150.7	141.0	6.4	139.0	115.3	112.0	2.9	107.05		 	 		517.5	15,298.9
Residual Tank	2/20/2021	<u> </u>			100.9	101.5	-0.6	96.0		L	<u> </u>	.			<u> </u>				\sqcup		96.0	15,394.9
Pumpoff #25	3/8/2021	759.7	738.1	-2.9	144.6	143.0	1.1	140.9	146.5	143.0	2.4	141.7	146.0	140.0	4.1	137.4					624.7	16,019.5
Dummoff #2C 27	3/9/2021	400.3	472.0	F 4	144.1	140	2.8	133.9	77.3	75.0	3.0	70.8							\vdash			
Pumpoff #26-27	4/21/2021	498.2	472.6	-5.4	143.7	136.2	5.2	134.8 128.0	142.6	138.6	2.8		144.1	142.0	1 -	139.9						
	4/22/2021 4/23/2021	553.0	544.3	-1.6	123.5	129.7	-5.0	126.0	146.4 111.4	146.7 109.1	-0.2 2.1	146.6	144.1	142.0	1.5	133.9					792.8	16,812.3
Residual Tank	4/23/2021	†	 		132.5	131	1.1	127.0			†- <u></u> -	100.3	 	 	†						127.0	16,939.3
Pumpoff #28	5/26/2021	716.0	706.1	-1.4																		,,,,,,,,
,	5/27/2021			"'	144.5	140.6	2.7	136.3	141.1	139.0	1.5	136.6	143.3	140.4	2	137.9					565.2	17,504.5
	5/28/2021	<u> </u>	<u> </u>		81.1	78.0	3.8	76.1	88.7	82.0	7.6	78.3			L							
	7/14/2021																					
Pumpoff #29	7/15/2021	648.0	631.7	-2.6	114.7	115.3	-0.5	113.8	150.8	149.0	1.2	145.9	119.8	120.2	-0.3	118.5	155.3	151.7	2.3	149.2	527.4	18,031.9
	7/16/2021	200	20.	4 -	44				44	441.	 	40-	407.7	40		405 -			Н		676	4075
Pumpoff #30	8/5/2021	763.0	750.2	-1.7	115.3	115.0	0.3	112.9	112.6	111.0		109.0	106.8	105.0	1.7	103.2					673.4	18705.3
	8/6/2021	<u> </u>	<u> </u>	l	118.5	118.0	0.4	115.5	118.4	117.0	1.2	114.2	124.3	123.0	1.0	118.6						

Oil Tally Contd.

					Truck 1				Tourst 2				Truck 3				Truck 4					D
Oll Talls	D-t-	Total Fluid	Takal Elizad			Total Fluid		1	Truck 2	Total Fluid			Total Fluids	Total Fluid	1		Total Fluids	Total Fluid	1	1	Takal	Running
Oil Tally	Date	Transfer	Total Fluid Frac	%	Total Fluids to Acadiana	at	%	Net	Total Fluids to Acadiana	at	%	Net	to Acadiana	at	%	Net	to Acadiana	at	%	Net	Total Net	Total Net
		by	Tank Strap	76	NRC Frac	Acadiana	/0	ivet	NRC Frac	Acadiana	/0	INCL	NRC Frac	Acadiana	/6	ivet	NRC Frac	Acadiana	/0	IVEL	INCL	ivet
		Legends	by NRC	Diff	Strap	by strap	Diff	Oil	Strap	by strap	Diff	Oil	Strap	by strap	Diff	Oil	Strap	by strap	Diff	Oil	Oil	Oil
		(bbl)	(bbl)		(bbl)	(bbl)		(bbl)	(bbl)	(bbl)		(bbl)	(bbl)	(bbl)		(bbl)	(bbl)	(bbl)		(bbl)	(bbl)	(bbl)
Pumpoff #31	9/23/2021	616.2	598.4	-3.0	145.6	141.6	2.7	140.0	142.9	142.9	0.0	141.8	(44.)	()		(/	(,	(/		(,	530.8	19236.1
	9/24/2021				126.3	123.1	2.5	119.8	138.7	134.3	3.2	129.2										
Pumpoff #32	11/3/2021	952.4	937.1	-1.6	147.8	147.0	0.5	145.5	148.7	148.0	0.5	146.0										
	11/4/2021				152.5	149.0	2.3	147.0	154.6	145.0	6.2	142.2										
	11/5/2021				150.2	147.0	2.1	144.8														
	11/9/2021				118.8	117.0	1.5	115.4													840.9	20077.0
Pumpoff #33	11/30/2021	787.9	786.2	-0.2	142.9	140.5	1.7	139.5	144.0	140.9	2.2	139.9	149.6	145.3	2.9	143.6						
	12/1/2021				141.5	138.5	2.1	137.8	130.9	128.0	2.2	127.2									688.0	20765.0
Pumpoff #34	1/6/2022	686.6	673.8	-1.9	149.6	140.5	6.1	138.9	144.0	148.3	-3.0	146.1	152.3	148.5		147.2						
	1/7/2022				86.4	87.0	-0.7	86.3													518.5	21283.5
Pumpoff #35	2/16/2022	564.2	551.9	-2.2	144.1	144.0	0.1	142.7	140.2	136.2	2.9	140.2										
					125.5	120.0	4.4	118.3	121.8	114.6	5.9	112.3									513.5	24257.4
Residual Tank	2/22/2022	600.7	678.5	1.0	94.0	88.0	6.4	70.1	152.7	147.9	2.4	145.0	-		_						70.1	21867.1
Pumpoff #36	3/23/2022 3/24/2022	690.7	6/8.5	-1.8	152.5 148.0	148.3 142.1	2.8 4.0	147.4 141.1	152.7	150.0	3.1 4.8	145.8 144.6									578.9	22446.0
Pumpoff #37	5/4/2022	882.7	868.2	-1.7	146.0	144.0	1.4	141.1	151.5	146.6	3.2	143.9	156.2	153.0	2.0	150.8					3/6.9	22446.0
rumpon #37	5/6/2022	002.7	000.2	-1.7	145.7	142.4	2.3	141.3	127.3	125.0	1.8	123.7	70.4	68.3	3.0	67.4					768.5	23214.5
Pumpoff #38	6/1/2022	685.4	674.0	-1.7	145.2	142.0	2.2	139.9	150.3	146.7	2.4	144.6	70.4	00.5	5.0	07.1					700.5	2022110
r umpon noo	6/2/2022	003.1	07 1.0	,	140.2	135.0	3.7	128.1	136.6	132.6	2.9	130.4									543.0	23757.5
Pumpoff #39	6/29/2022	545.5	539.3	-1.3	145.7	136.9	6.0	134.1	143.6	140.7	2.0	137.7									0.000	
	6/30/2022				142.0	139.5	1.8	136.7	49.8	49.0	1.6	46.6									455.1	24212.6
Pumpoff #40	7/28/2022	707.2	702.1	-0.7	139.1	137.0	1.5	134.4	144.9	140.7	2.9	137.6	135.9	133.2	2.0	130.2						
	7/29/2022				141.8	138.1	2.6	135.2	86.8	83.3	4.0	81.8									619.2	24831.8
Pumpoff #41	8/26/2022	461.4	459.8	-0.3	149.6	146.2	2.3	143.8														
	8/29/2022				149.9	146.6	2.2	144.0	106.3	102.1	4.0	99.8									387.6	25219.4
Pumpoff #42	9/20/2022	565.9	563.9	-0.4	151.5	147.6	2.6	144.6														
	9/21/2022	 	 _		151.9	149.9	1.3	146.9	153.7	153.0		150.0	75.0	75.0	0.0	73.4				L	514.9	25734.3
Residual Tank	9/21/2022				74.2	70.5	5.0	69.0	86.5	86.0	0.6	68.0									137.0	25871.3
Pumpoff #43	10/26/2022	577.3	581.8	0.8	143.8	139.5	3.0	137.5	145.6	143.4	1.5	141.5										
	10/27/2022				146.6	141.4	3.5	139.4	83.9	81.3	3.1	80.2									498.6	26369.9
Pumpoff #44	11/22/2022	583.2	580.2	-0.5	138.3	127.6	7.7	126.5	132.4	137.7	-4.0	136.5										
D	11/23/2022	C25 5	624.7	0.6	148.0	140.4	5.1	138.7	133.2	129.6	2.7	128.5	140.5	444.0		120.0					530.2	26900.1
Pumpoff #45	12/20/2022	625.5	621.7	-0.6	144.9	140.0	3.4	137.0	150.3	140.0	6.9	137.0	149.5	141.0	5.7	138.0					E40.0	27440 1
Residual Tank	12/21/2022	 	 		145.7 62.5	140.0 62.7	3.9 -0.3	137.0 61.4	 		 		 -		 -	 			 	 	549.0 61.4	27449.1 27510.5
Pumpoff #46	1/26/2023	719.7	709.7	-1.4	137.9	137.9	0.0	137.0	132.9	128.8	3.1	127.8	124.3	120.1	3.4	119.2					01.4	2/310.3
1 ampon #46	1/20/2023	/13./	105.1	-1.4	135.2	131.9	2.4	131.1	102.5	109.0	-6.3	103.3	124.3	120.1	3.4	115.2					618.4	28128.9
Pumpoff #47	2/23/2023	576.8	578.6	0.3	110.7	106.0	4.2	103.6	145.7	145.0	0.5	141.7									010.4	20120.5
. ampon #47	2/24/2023	370.0	370.0	0.5	139.8	139.0	0.6	135.7	122.3	117.0	4.3	114.2									495.2	28624.1
Pumpoff #48	3/28/2023	612.4	607.8	-0.8	141.8	140.0	1.3	138.4	136.7	132.0	3.4	129.8									155.2	
	3/29/2023		1 227.0	2.0	149.1	145.0	2.7	143.9	136.4	135.0	1.0	133.9									546.0	29170.1
	3/29/2023				149.1	145.0	2.7	143.9	136.4	135.0	1.0	133.9									546.0	29170.1

Total Fluid Reconciliation

				Truck 1	Truck 2	Truck 3	Truck 4			
		Total Fluid	Water Decanted	Total Fluids	Total Fluids	Total Fluids	Total Fluids	Residual	Total of Fluid	
		Frac Tank Strap	From Frac Tank	to Acadiana	to Acadiana	to Acadiana	to Acadiana	left in	From Trucks,	
		at Port Fourchon	Using Strap	NRC	NRC	NRC	NRC	Frac	Residual &	
	Date	by NRC (bbl)	Measurement (bbl)	Frac Strap (bbl)	Frac Strap (bbl)	Frac Strap (bbl)	Frac Strap (bbl)	Tanks (bbl)	Decant (bbl)	% Diff
Pump Off #1	4/26/2019	215.7	0.0	(661)	(661)	(001)	(001)	(וטטו)	(001)	וווט
Tunip On #1	5/6/2019	213.7	0.0	113.7	97.0	0.0	0.0	5.2	215.9	0.1
Pump Off #2	5/3/2019	223.5	15.6							
	5/8/2019			101.3	82.8	0.0	0.0	17.6	217.3	-2.8
Pump Off #3	5/13/2019	331.2	0.0							
2000	5/16/2019			103.2	126.4	108.5	0.0	16.2	354.3	-1.6
Pump Off #4	6/19/2019	905.5	32.5	139.4 137.7	138.7 140.7	0.0	0.0 144.1		310.6	
	6/20/2019 6/21/2019			48.5	0.0	140.6 0.0	0.0	0.6	563.1 49.1	
	PO4: Total			46.5	0.0	0.0	0.0	0.0	922.8	-1.8
Pump Off #5	7/31/2019	1196.6	96.3	139.2	142.7				281.9	
	8/1/2019			139.1	140.7	146.0	138.0		563.8	
	8/2/2019			99.8	101.0			45.2	246.0	-0.7
	PO5: Total								1188.0	
Pump Off #6	8/26/2019	874.6	56.8	141.7	140.3	141.5		F7.0	480.3	
	8/27/2019		*	140.5	137.2	61.3		57.9 *	396.9 877.2	0.3
Pump Off #7	PO6: Total 9/23/2019	880.4	41.3	138.0	144.3	142.6			466.2	0.5
rump on #7	9/24/2019	000.4	*	144.4	143.7	55.3		55.3	398.7	
	P07: Total							*	864.9	-1.8
Pump Off #8	10/21/2019	787.4	27.2						27.2	
	10/22/2019			143.9	154.3	144.0			442.2	
	10/23/2019			137.7	130.0				267.7	
Residual Tank	10/23/2019	205.1	53.5			125.4		66.4	245.3	
011 370 0	PO8: Total		22.0	112.2	112.0	445.2			982.4	-1.0
Pump Off #9	11/19/2019 11/20/2019	757.8	32.0	142.3 145.6	143.8 92.1	145.3		55.6	463.4 293.3	
	PO9: Total	737.8		143.0	92.1			33.0	756.7	-0.1
Pump Off #10	12/17/2019	942.8	33.4	142.0	71.4	146.4			393.2	-0.1
	12/18/2019	3 12.0	33.1	146.4	144.3	144.0	47.4	73.9	556.0	
	PO10: Total								949.2	0.7
Pump Off #11	1/9/2020	691.0	39.2	128.7	128.0	129.8		72.7	498.4	
	1/10/2020			79.4	92.6				172.0	
Residual Tank	1/8/2020	307.0	81.5	141.9				121.7	345.1	1.0
Pumpoff #12	PO11: Total 2/11/2020	722.5	49.1						1015.5 49.1	1.8
1 41115011 1122	2/12/2020	, 22.0	2.7	120.8	102.1	99.0			324.6	
	2/13/2020		3.9	149.5	114.2			87.5	355.1	
	PO12: Total			ļ	ļ	 		*	728.8	0.9
Residual tank	2/17/2020 2/18/2020	265.8	93.6 23.5	108.2				121.7	201.8 145.2	
	Resid Total		23.3					121.7	347	-1.8
Pumpoff #13	3/11/2020	570.2	39.6						39.6	
	3/12/2020		2.8	114.5	138.3				255.6	
	3/13/2020			93.6	120.0			63.7	277.3 572.5	0.4
Pumpoff #14	PO13: Total 4/15/2020	928.8	55.1	1					55.1	0.4
r umpon #14	4/16/2020	320.0	55.1	147.2	145.2	148			440.4	
	4/17/2020			144.9	144.1	87.4		65.4	441.8	
	PO14:Total			· 	 	 			937.3	0.9
Residual tank	4/13/2020 4/14/2020	244.1	67.6	149.9				26.6	67.6 176.5	
	4/14/2020			145.5				20.0	244.1	0.0
Pumpoff #15	5/6/2020	783.1	18.3						18.3	
	5/7/2020		1.2	150.3	148.0	145.2			444.7	
	5/8/2020			147.2	131.7			40.0	318.9	0.0
Pumpoff #16	PO15: Total 5/27/2020	583.3	25.3	1					781.9 25.3	-0.2
r umpon #10	5/28/2020	303.3	25.5	142.1					142.1	
	5/29/2020			138.0	135.1	115.0		27.8	415.9	
	PO16: Total			.		 		450.6	583.3	0.0
Residual tank Pumpoff #17	5/27/2020	956.3	67.2 23.6	1				153.6	23.6	-
Fullipoli #1/	7/8/2020 7/9/2020	530.5	23.6	149.1	148.8	149.2			449.5	
	7/10/2020		**	150.7	137.1	119.9		63.3	471	
	PO17: Total			1					944.1	-1.3
Pumpoff #18	7/22/2020	642.6	14.3	120.0	140.0	420.2	430.0	0.0		
	7/27/2020 7/28/2020		13.6	129.9 66.0	140.6	138.2	139.8	0.0	642.4	0.0
Residual Tank	7/22/2020	299.6	67.2	50.0	 	 			U-72.4	0.0
	7/28/2020		31.3	113.0				84.5	296.0	-1.2
Pumpoff #19	9/1/2020	886.4	7.8	128.2	135.5	40	40:-			
Residual Tank	9/2/2020 8/31/2020	202.6	102.9	131.2	135.9	135.9	134.8	76.2 189.7	885.5 189.7	-0.1
Residual Tafik	0/31/2020	292.6	102.9	1	L	L	L	189.7	189.7	

Total Fluid Reconciliation Contd.

				Truck 1	Truck 2	Truck 3	Truck 4]		
		Total Fluid	Water Decanted	Total Fluids	Total Fluids	Total Fluids	Total Fluids	Residual	Total of Fluid	
		Frac Tank Strap	From Frac Tank	to Acadiana	to Acadiana	to Acadiana	to Acadiana	left in	From Trucks,	
		at Port Fourchon by NRC	Using Strap Measurement	NRC Frac Strap	NRC Frac Strap	NRC Frac Strap	NRC Frac Strap	Frac Tanks	Residual & Decant	%
	Date	(bbl)	(bbl)	(bbl)	(bbl)	(bbl)	(bbl)	(bbl)	(bbl)	Diff
Pumpoff #20	9/29/2020	450 9	52.9	144.0	143.5	(==:)	(44.)	24.8	450 9	0.0
Residual Tank	9/30/2020 9/30/2020	273 2	116.1	85.7	 					
nesiduai rank	10/1/2020	2732	2.7	136.5				17.9	273 2	0.0
Pumpoff #21	10/15/2020	610.1	14.0	139.0	145.3					
Residual Tank	10/16/2020	293.4	111.8	147.2	136.0			28.6 49.5	610.1 293.4	0.0
Residual Talik	10/15/2020	233.4	132.1					43.3	255.4	0.0
Pumpoff #22	11/16/2020 11/17/2020	673 2	68.7 2.7	146.5 133.2	143.4	146.4		32.3	673 2	0.0
Pumpoff #23	12/30/2020	784 3	30.3	146.1	146.8	145 2				
	12/31/2020 1/27/2021	663 9	23.3	145.3	113.9			56.7	784 3	0.0
Pumpoff #24	1/28/2021	000 3	25.5	140.2						
	2/19/2021		11.8	146.0	150.7	115 3	ļ	68.5	655 8	-12
Residual Tank	2/20/2021	164 8	31.1	100.9				32.8	164 8	0.0
Pumpoff # 25	3/3/2021 3/8/2021	738.1	26.1 5.7	144.6	146.5	146 0				
	3/9/2021		3.7	144.1	77 3	1400		47.8	738.1	0.0
Pumpoff # 26-27	4/1/2021	1016.9	73.8							
	4/20/2021		60.2							
	4/21/2021			143.7	142.6			60.0	40440	
	4/22/2021 4/23/2021		6.4	123.5 111.4	146.4	144.1		62.2	1014.3	-0 3
Residual Tank	4/21/2021	216 9	9.4	132.5	 	 	 	23.8		-03
	4/22/2021		18.2							
	4/23/2021		32.6						216 5	-0 2
Pumpoff #28	5/26/2021	706.1	72.5							
	5/27/2021 5/28/2021			144.5 81.1	141.4 88.7	143 3		34.6	706.1	0.0
Pumpoff #29	7/14/2021			81.1	00.7			34.0	700.1	0.0
Tumpon 1125	7/15/2021	631.7	81.4	114.7	150.8	119 8	155.3	9.7	631.7	0.0
Residual Tank	7/16/2021	371 2	219.1						371 2	0.0
	7/21/2021		152.1							
Pumpoff #30	8/4/2021 8/5/2021	750 2	20.4	115.3	112.6	106 8				
	8/6/2021			118.5	112.6	124 3		33.9	750 2	0.0
Pumpoff #31	9/22/2021	598.4	16.7							
	9/23/2021			145.6	142.9					
	9/24/2021		28.2	126.3	138.7				598.4	0.0
Pumpoff #32	11/3/2021 11/4/2021	937.1	31.7	147.8 152.5	148.7 154.6					
	11/4/2021			150.2	154.6					
	11/9/2021			118.8				32.0	936 3	-0.1
Pumpoff #33	11/29/2021	786 2	56.0							
	11/30/2021			142.9	144.0	149.6				
D	12/1/2021 1/5/2022	673 8	107.1	141.5	130.9	1		21.3	786 2	0.0
Pumpoff #34	1/6/2022	6/3 8	107.1	149.6	144.0	152 3				
	1/7/2022			86.4	10	152 5		34.2	673.6	-0.6
Pumpoff #35	2/8/2022	551 9	6.2					8 3	555.4	
	2/15/2022		9.3							
	2/16/2022 2/17/2022			144.1	140.2					0.6
Residual Tank	2/1//2022	207.1	104.8	125.5	121.8	 	 -	<u> </u>		0.6
co.aaa runk	2/17/2022	207.1	1.5	94.0				6 8	207.1	0.0
Pumpoff #36	2/21/2022	678 5								
	3/18/2022		54.9							
	3/23/2022 3/24/2022		3.1	152.5	152.7			31.6	700.4	2 1
Residual Tank	3/24/2022	27.7	27.7	148	157.6	 	 	0	27.7	3.1 0.0
Pumpoff #37	4/6/2022	868 2	=:::							
•	4/22/2022		22.9							
	5/4/2022		2.8	146	151.5	156 2				
D.,	5/6/2022	674		145.7	127.3	70.4		46.2	869 0	0.1
Pumpoff #38	5/15/2022 5/31/2022	674	69.2							
	6/1/2022		3.9	145.2	150.3					
	6/2/2022			140.2	136.6			28.6	674 0	0.0
Pumpoff #39	6/28/2022	538 3	39.3							
	6/29/2022			145.7	143.6			22.0	E42.4	0.3
	6/30/2022			142	49 8	<u> </u>	L	22.0	542.4	0.2

Total Fluid Reconciliation Contd.

				Truck 1	Truck 2	Truck 3	Truck 4			
		Total Fluid	Water Decanted	Total Fluids	Total Fluids	Total Fluids	Total Fluids	Residual	Total of Fluid	
		Frac Tank Strap	From Frac Tank	to Acadiana	to Acadiana	to Acadiana	to Acadiana	left in	From Trucks,	
		at Port Fourchon	Using Strap	NRC	NRC	NRC	NRC	Frac	Residual &	
		by NRC	Measurement	Frac Strap	Frac Strap	Frac Strap	Frac Strap	Tanks	Decant	%
	Date	(bbl)	(bbl)	(bbl)	(bbl)	(bbl)	(bbl)	(bbl)	(bbl)	Diff
Pumpoff #40	7/27/2022	702.1	15.4							
	7/28/2022			139.1	144.9	135.9				
	7/29/2022			141.8	86.8			38.2	702.1	0.0
Pumpoff #41	8/25/2022	459.8	36.5							
	8/26/2022			149.6						
	8/29/2022			149.9	106.3			17.5	459.8	0.0
Pumpoff #42	9/5/2022	563.9	16.6							
	9/20/2022			151.5						
	9/21/2022			151.9	153.7	75.0		15.5	564.2	0.1
Residual Tank	9/21/2022	203.3	16.0	74.2	86.5			26.6	203.3	0.0
Pumpoff #43	10/4/2022	581.8	19.5							
	10/26/2022			143.8	145.6					
	10/27/2022			146.6	83.9			42.6	582.0	0.0
Pumpoff #44	11/5/2022	580.2	15.2							
	11/22/2022			138.3	132.4					
	11/23/2022			148.0	133.2			18.2	585.3	0.9
Pumpoff #45	12/3/2022	621.7	18.5							
	12/20/2022			144.9	150.3	149.5				
	12/21/2022			145.7				12.8	621.7	0.0
Residual Tank	12/21/2022	209.5	135.2	62.5				11.8	209.5	0.0
Pumpoff #46	1/7/2023	709.7	37.6							
	1/26/2023			137.9	132.9	124.3				
	1/27/2023			135.2	102.5			39.3	709.7	0.0
Pumpoff #47	2/2/2023	578.6	43.4							
	2/23/2023			110.7	145.7					
	2/24/2023		2.7	139.8	122.3			14.0	578.6	0.0
Pumpoff #48	3/8/2023	607.8	22.5							
	3/28/2023		2.0	141.8	136.7			40.0	507.0	
	3/29/2023			149.1	136.4			19.3	607.8	0.0

Barrels of Oil Collected Daily

					Total	Net	RRS		
					Collection	Oil	Collection Rate	Collecti	nn Rate
		Start Time		End Time	Duration	Collected	Of Oil	of	
	Start Date	(hrs)	End Date	(hrs)	(Days)	(bbl)	(bbl/day)	(gallor	
Collection Duration for 1st Trip	4/12/2019		4/23/2019	01:05	11.0	187.4	17.0	715.7	gallons/day
Collection Duration for 2nd Trip	4/23/2019		4/30/2019	21:09	7.9	181.6	23.0	965.6	gallons/day
Collection Duration for 3rd Trip	4/30/2019	21:09	5/12/2019	23:20	12.1	295.7	24.4	1026.5	gallons/day
Collection Duration for 4th Trip	5/12/2019	23:20	6/13/2019	17:17	31.5	850.0	27.0	1132.3	gallons/day
Collection Duration for 5th Trip	6/13/2019	17:17	7/21/2019	01:40	37.4	983.7	26.3	1104.7	gallons/day
Collection Duration for 6th Trip	7/21/2019	01:40	8/18/2019	03:15	28.6	757.2	26.5	1112.0	gallons/day
Collection Duration for 7th Trip	8/18/2019	03:15	9/12/2019	22:30	25.8	749.2	29.0	1219.6	gallons/day
Collection Duration for 8th Trip	9/12/2019	22:30	10/9/2019	10:15	26.5	675.8	25.5	1071.1	gallons/day
Collection Duration for 9th Trip	10/9/2019		11/10/2019	01:05	31.6	659.1	20.8*	875.5	gallons/day
Collection Duration for 10th Trip	11/10/2019	01:05	12/6/2019	10:25	25.9	818.6	31.6*	1327.5	gallons/day
Collection Duration for 11th Trip	12/6/2019	10:25	12/0/2019	22:25	25.5	567.2	22.2	934.2	gallons/day
·		22:25							
Collection Duration for 12th Trip	12/31/2019		1/30/2020	17:50	29.8	528.8	17.7	745.3	gallons/day
Collection Duration for 13th Trip	1/30/2020	17:50	3/2/2020	02:00	31.3	456.4	14.6	612.4	gallons/day
Collection Duration for 14th Trip	3/2/2020	02:00	4/2/2020	01:15	31.0	798.4	25.8	1081.7	gallons/day
Collection Duration for 15th Trip	4/2/2020		4/25/2020	15:45	23.1	707.7	30.6	1286.7	gallons/day
Collection Duration for 16th Trip	4/25/2020	15:45	5/15/2020	18:40	20.1	513.0	25.5	1071.0	gallons/day
Collection Duration for 17th Trip	5/15/2020	18:40	6/18/2020	22:55	34.2	834.4	24.4	1024.8	gallons/day
Collection Duration for 18th Trip	6/18/2020	22:55	7/12/2020	15:10	23.7	601.5	25.4	1066.8	gallons/day
Collection Duration for 19th Trip	7/12/2020		8/13/2020	06:00	33.6	785.5	23.4	982.8	gallons/day
Collection Duration for 20th Trip	8/15/2020		9/2/2020	13:25	18.3	357.4	19.5	819.0	gallons/day
Collection Duration for 21st Trip	9/2/2020	13:25	10/4/2020	15:20	32.1	548.3	17.1	718.2	gallons/day
Collection Duration for 22nd Trip	10/4/2020	15:20	11/3/2020	16:10	30.0	532.4	17.7	743.4	gallons/day
Collection Duration for 23rd Trip	11/3/2020	16:10	12/10/2020	13:00	36.9	655.4	17.8	747.6	gallons/day
Collection Duration for 24th Trip	12/10/2020	13:00	1/9/2021	09:15	29.8	517.5	17.4	730.8	gallons/day
Collection Duration for 25th Trip	1/9/2021	09:15	2/21/2021	11:30	43.1	624.7	14.5	609.0	gallons/day
Collection Duration for 26th Trip	2/21/2021	11:30	3/15/2021	22:25	22.4	-	-		-
Collection Duration for 27th Trip	3/15/2021	22:25	4/8/2021	12:35	23.6	-	-		-
Collection Duration for 26-27th	2/21/2021	11:30	4/8/2021	12:35	46.0	792.8	17.2	722.4	gallons/day
Trip	4/0/2024	42.25	F /4 4 /2024	42.44	26.0	565.0	45.7	650.4	
Collection Duration for 28th Trip	4/8/2021	12:35	5/14/2021	12:14	36.0	565.2	15.7	659.4	gallons/day
Collection Duraiton for 29th Trip	5/14/2021	12:14	6/11/2021	12:08	28.0	527.4	18.8	789.6	gallons/day
Collection Duration for 30th Trip	6/11/2021	12:08	7/22/2021	13:38	41.1	673.4	16.4	688.8	gallons/day
Collection Duration for 31st Trip	7/22/2021	13:38	9/4/2021	05:40	43.7	-	-	-	gallons/day
Collection Duration for 32nd Trip	9/4/2021	05:40	10/5/2021	15:30	31.4	-	-	-	gallons/day
Collection Duration for 31-32nd Trip	7/22/2021	13:38	10/5/2021	15:30	75.1	1371.7	18.3	768.6	gallons/day
Collection Duration for 33rd Trip	10/5/2021	15:30	11/13/2021	22:29	39.3	688.0	17.5	735.0	gallons/day
Collection Duration for 34th Trip	11/13/2021	22:29	12/14/2022	13:20	30.6	518.5	16.9	709.8	gallons/day
Collection Duration for 35th Trip	12/14/2022	13:20	1/13/2022	23:30	30.4	513.5	16.9	709.8	gallons/day
Collection Duration for 36th Trip	1/13/2022	23:30	2/18/2022	17:25	35.8	578.9	16.2	680.4	gallons/day
Collection Duration for 37th Trip	2/18/2022		4/4/2022	17:56	45.0	768.5	17.1	718.2	gallons/day
Collection Duration for 38th Trip	4/4/2022	17:56	5/11/2022	16:43	36.9	547.6	14.8	621.6	gallons/day
Collection Duration for 39th Trip	5/11/2022	16:43	6/7/2022	15:50	26.9	455.1	16.9	709.8	gallons/day
Collection Duration for 40th Trip	6/7/2022	15:50	7/14/2022	05:15	36.6	619.2	16.9	709.8	gallons/day
Collection Duration for 41st Trip	7/14/2022	05:15	8/5/2022			387.6	17.7	743.4	
Collection Duration for 41st Trip	8/5/2022	03:15	9/2/2022	01:45 14:35	21.9	514.9			gallons/day gallons/day
Collection Duration for 42nd Trip	9/2/2022				28.5		18.1	760.2	
-		14:35	10/1/2022	18:16	29.2	498.6	17.1	718.2	gallons/day
Collection Duration for 44th Trip	10/1/2022	18:16	11/2/2022	10:40	31.7	530.2	16.7	701.4	gallons/day
Collection Duration for 45th Trip	11/2/2022	10:40	12/2/2022	02:09	29.6	549.0	18.5	777.0	gallons/day
Collection Duration for 46th Trip	12/2/2022	02:09	1/5/2023	03:27	34.1	618.4	18.1	760.2	gallons/day
Collection Duration for 47th Trip	1/5/2023	03:27	1/31/2023	15:01	26.5	495.2	18.7	785.4	gallons/day
Collection Duration for 48th Trip	1/31/2023	15:01	3/5/2023	14:26	32.9	546.0	16.6	697.2	gallons/day

Barrels of Oil Collected Per Day Since RRS Install

					Total	Net	RRS		
					Collection	Oil	Collection Rate	Collecti	on Rate
		Start Time		End Time	Duration	Collected	Of Oil	of	Oil
	Start Date	(hrs)	End Date	(hrs)	(Days)	(bbl)	(bbl/day)	(gallor	n/day)
Average collection to date less									
residual tank	4/12/2019	00:00	3/5/2023	14:26	1423.6	27,946.7	19.6	823.2	gallons/day
Total Collection to date	4/12/2019	00:00	3/5/2023	14:26	1423.6	29,170.1	20.5	861.0	gallons/day

Totals from Pumpoff 1-48

	Bbl	Gal
Net Oil collected	29,170.1	1,225,144.2
Total Oily fluids collected:	32,823.2	1,378,574.4

Appendix 1

MC20 Product Removal and Transportation with Completed Documentation





Attachment A: Dockside Transfer - Transfer of Liquid and Crude Oil in Accordance with Maintenance

Date: 3/8/2023

Time Transfer Ended: 09:30

	Column A	Column B	Column C	Column D	Column E
	Residual Tank Volume From Prior Operation (bbl)	On Board the Vessel Tank Strap Measurement Prior to Start of Offloading (bbl)	Onshore Frac Tank Strap Measurement after Offloading (bbl)	Volume of Fluid (Column C-A) (bbl)	% Difference Column (D-B)/D * 100
Tank 1	0	Part 299:7	306.2	306.2	
Tank 2	0	Storboard 3/2.7	3016	301.6	
Tank 3	0	7/2014	201.4	301. 6	
Total		612.4	601.8	607,8	-0.7

Note: If the	% Difference is gr	reater than 3% please attem	pt to explain the difference:	
Sign-off by:	USCG Rep	Signed Name:	Printed Name	Date: 3/8/2023
	Couvillion Rep	Signed Name:	rinted Name	ate: 3/8/2023
	Legends Rep	Signed Name:	Printed Name	Plate: 3-8-03
	NRC Rep	Signed Name:	Printed Name	Date: 3-08-2023





Attachment B: Port Fourchon Shore Base On-Site Interim Tank Storage Measurements Before Offloading to Tank Trucks (Decanting of Water)

Date: 3-27-23	Time:	
Time Measurements begin after Vessel Office	ading in hours:	

	Column A	Column B	Column C	Column D
	Tank Strap from Offloading (Initially use Column C from Attach A and on subsequent decants use Column D from this form) bbl	Today's Interim Tank Strap Measurement bbl	Tank Strap Measurement after Decanting bbl	Oily Water Mixture Volume Column (B-C)
Tank 1	366.2	306.2	286.8	bbl
Tank 2	301.6	301.6		19.4
Tank 3		301.6	298.5	3.1
	(Artistical)			-
Total	607.8	607.8	585.3	22.5

Sign-off by: USCG Rep (optiona	I) Signed Name	2. Printed Name	Date: 3-27-23
Couvillion Rep	Signed Name	Printed Name	Date:_3.27-23
NRC Rep	Signed Name:	. Printed Name	Date: 3/27/23

Page 8 of 15





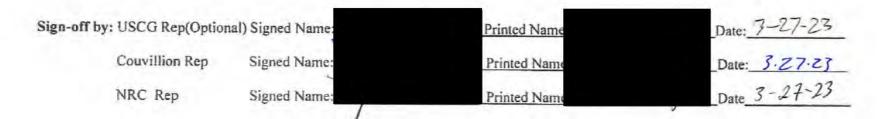
Attachment D: Decanted Water from Frac Tanks to Disposal Facility

Date: 3-27-23

	Column A	Column B	Column C
	Beginning Tank Strap Measurement bbl	Decant and then Tank Strap Measurement bbl	Volume of oily water transferred to Disposal Facility Column B - Column using Strap Measurement bbl
Tank 1	306.2	286.8	19.4
Tank 2	301.6	298.5	3.1
Tank 3			

Residual Volume left in Tanks

	Strap Measurement bbl
Tank I	286.8
Tank 2	298.5
Tank 3	



Page 12 of 15





Attachment D: Decanted Water from Frac Tanks to Disposal Facility

	Column A	Column B	Column C
	Beginning Tank Strap Measurement bbl	Decant and then Tank Strap Measurement bbl	Volume of oily water transferred to Disposal Facility Column B – Colum using Strap Measurement bbl
Tank 1	286.8	286.8	0
Tank 2	298.5	296.5	2.0
Tank 3		1	

Residual Volume left in Tanks

	Strap Measurement bbl
Tank 1	286.8
Tank 2	296.5
Tank 3	

Sign-off by: USCG Rep(Option	al) Signed Name:	Printed Name	Date: 3-28-23
Couvillion Rep	Signed Name:	Printed Name	Date: 3-28-23
NRC Rep	Signed Name:	Printed Name	Date 3-28-23





Couvillion Group, LLC

Attachment C: WASTE MANAGEMENT TRACKING FORM

Oily Water Transportation and Net Crude Oil

Start Shipments Date: 3-28-23

Manifest Number	Transporter	Truck Number	Date	Receiving Facility	Manifested Volume loaded from Port Fourchon Frac Tank into Truck (bbl from Strap)	Volume received by Buyer (bbl by Strap)	Net Crude Oil bbls (Acadiana Oil Ticket)
		2001-02	5/28	ACC	141.8		
Z	AOC	2001-01	3/28	AOC AOC	136.7		
			7				
			-				
					9		
		Total Vo	lumes Shi	pped by Gallons/bbls			

Enu	or Simpliferits date:			
Sign	-off by:USCG Rep (Optio	nal) Signed Name	. Printed Name	Date: 3-28-23
	Couvillion Rep	Signed Name:	Printed Name	Date: 3-28-23
	NRC Rep	Signed Name:	, Printed Name	Date 3-29-23
		orgined reality.	. Fillited Name	Date_5

Page 9 of 15





Attachment C: WASTE MANAGEMENT TRACKING FORM Residual Frac Tank Bottoms

Date: 3-28-23

Residual Volume left in Tanks

	Strap Measurement after Trucks Loaded in each tank bbls
Tank i	8.3
Tank 2	296.5
Tank 3	

Sign-off by: USCG Rep (Opt	ional) Signed Name	, Printed Name	Date: 3-28-23
Couvillion Rep	Signed Name:	, Printed Name	Date: 3-28-25
NRC Rep	Signed Name:	, Printed Name	Date 3-29-23





Attachment C: WASTE MANAGEMENT TRACKING FORM

Oily Water Transportation and Net Crude Oil

Start Shipments Date: 3-29-23

Manifest Number	Transporter	Truck Number	Date	Receiving Facility	Manifested Volume loaded from Port Fourchon Frac Tank into Truck (bbl from Strap)	Volume received by Buyer (bbl by Strap)	Net Crude Oil bbls (Acadiana Oil Ticket)
5	ACC	2001-01	5/29	AUC	149.1		
4	AOC	2001-02	3/29	ADC	136.4		
			1				
		Total Vo	olumes Shi	pped by Gallons/bbls		1	

End of Shipments date:			
Sign-off by:USCG Rep (Option	onal) Signed Name	Printed Name	Date: 3/29/23
Couvillion Rep	Signed Name:	Printed Name	Date: 3-29-23
NRC Rep	Signed Name:	Printed Name	Date_3-29 -23

Page 9 of 15





Attachment C: WASTE MANAGEMENT TRACKING FORM <u>Transportation Tracking of Petroleum Contaminated Solids</u>

Manifest Number	Transporter	Shipment Date	Receiving Facility	Manifested Volume (Yard)	Scaled Weight (Lb)	Comments (Box Numbers, etc.)
			50/10/5			

Sign-off by:USCG Rep(Option	onal) Signed Name:	Printed Name	Date: 3/29/23
Couvillion Rep	Signed Name:	Printed Name	Date: 3.29.23
NRC Rep	Signed Name:	Printed Name	Date_3-29-23

Page 11 of 15





Attachment C: WASTE MANAGEMENT TRACKING FORM Residual Frac Tank Bottoms

Date: 3-29-23

Residual Volume left in Tanks

	Strap Measurement after Trucks Loaded in each tank bbls			
Tank 1	4.3			
Tank 2	11.0			
Tank 3				

			9/
Sign-off by: USCG Rep (Option	nal) Signed Name:	Printed Name	Bate: 3/29/27
Couvillion Rep	Signed Name:	Printed Name	Date: 3-29-23
NRC Rep	Signed Name:	Printed Name	Date 3-29.23

Page 10 of 15

NOTICE: Shipp response tele	IT BILL OF LADING - S pers of hazardous materials must a phone number under "Emergency a Not Negotiable	enter 24-hour e Response Phone	mergency e Number and O:{	Date 3	7-28-23	Bill of Li Shipper Carrier	1
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CORPORATION Lease Run Ticket 1206 Lemaire St. • New Iberia, LA 70560 337-560-5573 25225 EMERGENCY RESPONSE CONTACT: ES&H Date 985-851-5055 Operator Couvillian CG Lease No Lease Name Field BS&W LEVEL OIL LEVEL TANK INCHES INCHES TEMP 1st 2nd TANK NO. SIZE EST. GALLONS °F SERIAL NUMBERS OBSERVED 900 @ 7/6°F TEMPERATURE ZEV PERCENT 3 OF OIL IN TANK OFFICE USE ONLY LOG NUMBER GRAVITY CORR TO 60 °F 0:27 TIME. ARRIVED 2nd TIME DEPARTED GROSS BARRELS DELIVERY FACTOR BS & W FACTOR TEMP FACTOR XFACTOR NET BBLS. .9950 138.39 9885 PER RUN TIC. 450 EN DRIVE C NET OPERATOR'S WITNESS I.D. PROPER HAZARD PG TOTAL NUMBER SHIPPING NAME CLASS **BBLS** PETROLEUM UN 3 111 1267 CRUDE OIL BS+ W

ACADIANA OIL & ENVIRONMENTAL

TRANSPORT MANIFEST

"THIS IS TO CERTIFY THAT THE ABOVE NAMED MATERIALS ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED, AND LABELED AND ARE IN PROPER CONDITION FOR TRANSPORTATION, ACCORDING TO THE APPLICABLE REGULATIONS OF TRANSPORTATION".

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ACADIANA OIL & ENVIRONMENTAL CORPORATION

1206 Lemaire St. • New Iberia, LA 70560 337-560-5573 TRANSPORT MANIFEST

Lease Run Ticket

24723

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"THIS IS TO CERTIFY THAT THE ABOVE NAMED MATERIALS ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED, AND LABELED AND ARE IN PROPER CONDITIONS OF THE DEPARTMENT OF TRANSPORTATION".

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state whet	her weight	is between two ports by a aw requires that the bill of lading s "carner's or shipper's weight".	ADDRESS		C.O.D.	C.O.D. FEE. PREPAID COLLECT	\$	TOTAL CHARGES 9
The agree by the ship	d or déclare oper to be n	is dependent on value, shipper iting the agreed or declared valu d value of the property is hereby of exceeding	e of the property. specifically stated	The carrier shall charges.	n 7 of the conditions, if consignor, the consigno not make delivery of t	this shipment is to be ir shall sign the followi this shipment without	delivered to the con ng statement, psyment of freight	signee without
RECE and condition or corporation destination. erty, that eve the date her the terms as shipper and a	IVED, subject of content on in posses it is mutual ery service rect, if this and condition accepted for	the traction to the classifications and lawfull is of packages unknown), merked sino of the property under the cily agreed as to each carrier of a to be performed hereunder shall is a rail or a rail-water shipment is of the said of the fill of lading, set to himself and his assigns.	y filed tariffs in eff , consigned, and d antract) agrees to all or any of, said to be subject to all the or (2) in the appliant in the classific	ect on the date of lestined as indicate carry to its usual property over all or he terms and con- icable motor carrier ation or tariff which	the issue of this Bill of d above which said cerro place of delivery at said any portion of said rou tions of the Uniform Do dessification or tariff, in governs the transport	Bignature of Consignor) Lading, the property dier (the word cerrier to destination, if on its report to destination and amestic Straight Bill of if this is a motor caraction of this shipment.	escribed above in a paing understood thr Tutte, otherwise to as to each party at Lading set forth (1) Trier shipment. Ship and the said term	operent good ord roughout this con deliver to another any time interest in Uniform Freig per hereby certific s and conditions
Viark with "AC Transportation on optional me Code of Federa prescribed in s	Pagulations (Shod for idental Regulations section 172.2	ate to designate Historidous Materials governing the trensportation of history fifting hazardous meteoriets on Bills of Also when chipping hazardous materi O4(a) of the Federal Regulations, as in orm the requirement, is provided in the	s as defined in the L lous meterials. The u Lading per 172.2010	J.S. Department of se of this column is (a)(1) (ii) of Title 49	The format and content or pany interpretation of req 172, Subpart C Shipping I United Trapes along the shipping and subsidient placefool.	f hazardous item list is the ulrements as described in Pepers, Such description of is Matarial Table) and Sal	e responsibility of individual AS Code of Federal Repositions of the following Reposit 172 PDP and 1	fuel com- gulations per Sec- 72 202 Mey
PER								
9	oplicable reg	aveieu, and are in proper conditional ulations of the U.S. Department of	n for transportation Transportation	n according to the	tion was made available or equivalent document	and/or carrier has the sation in the vehicle. Pro	U.S. Department of operty described above	Transportation er le is received in go

1206 Lemaire St. . New Iberia, LA 70560 337-560-5573 EMERGENCY RESPONSE CONTACT: ES&H 985-851-5055 Operator Lease Name bun chow Field BS&W LEVEL OIL LEVEL TANK INCHES INCHES TEMP 1st 2nd TANK NO SIZE FST GROSS GALLONS 0 ٥F SERIAL NUMBERS OBSERVED 9 GRAVITY PERGENT 5 TEMPERATURE MEW OF OIL IN TANK oF. OFFICE USE ONLY LOG NUMBER STATION X FACTOR BS & W FACTOR TEMP. FACTOR X FACTOR NET BBLS. 9950 PER RUNTIC. DRIVER 00 11 OPERATOR'S WITNESS I.D. PROPER HAZARD PG TOTAL NUMBER SHIPPING NAME CLASS BBLS UN PETROLEUM 3 111 1267 CRUDE OIL "THIS IS TO CERTIFY THAT THE ABOVE NAMED MATERIALS ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED, AND LABELED AND ARE IN PROPER CONDITION FOR TRANSPORTATION, ACCORDING TO THE APPLICABLE REGULATIONS OF COUNTRY TRANSPORTATION.

ACADIANA UIL & ENVIKUNMENTAL

CORPORATION

TRANSPORT MANIFEST

Lease Run Ticket

Shipper: Mike LeBlanc Jr. Date:

NOTICE: Si response t	GHT BILL OF LADING - SHORT FO hippers of hazardous materials must enter 24-hour selephone number under "Emergency Response Phor Not Negotiable	emergency ne Number:	Date 3-2	9-23	Bill of La Shipper Carrier N	
TO: Consigned Street	1825 River Rd.	pery	of Carrier) FROM: Shipper Street Conigin	Courds:	-	ch
Route: Shipping Units 136.4 661	Canada National States of States and States of	ommodibes requiring a	SCA poscial of edicitional care or attent I and packaged us to sneure sale (e) of National Motor Freight Case Ac 7 3	on in handling or	Weight (Subject to Correction)*	gency Resp e Number Rate or
	136.4	bbl				
CHILIEL DA MS	nent moves between two ports by a REMIT tops, the law requires that the bill of lading C.Q.D. TO; in weight is "carrier's or shipper's weight." ADDRESS		C.O.D. Amt. \$	C.O.D. FEE. PREPAID D COLLECTION \$		TOTAL CHARGES
The agreed	a the rate is dependent on value, shippers are required to cally in writing the agreed or declared value of the property, or declared value of the property is hereby specifically stated are to be not exceeding	TOUGH AC OIT ME	7 of the conditions, if this s consignor, the consignor sha not make delivery of this s	hipment is to be deli-	vered to the consig	nee without
\$	par		(Sinnal	ture of Consignor)		
and condition or co-poration destination. It early, that ever the date hereo the terms and shipper and according to the terms.	Disubject to the classifications and lawfully filed tariffs in effect of contants of packages unknown), marked, consigned, and did in possession of the property under the contract) agrees to is mutually agreed as to each carrier of all or any of, said by service to be performed hereunder shall be subject to all the fifth is a rail or a rail-water shipment or (2) in the applic conditions of the said bill of lading, set forth in the classification of the said bill of lading, set forth in the classifications of the said bill of lading.	tot on the date of testined as indicated carry to its usual paroperty over all or terms and conditionally materials at the carrier ation or tariff which	the issue of this Bill of Ledin above which said carrier it lace of delivery at said dest any portion of said route to Jons of the Uniform Domest classification or terff, if this agoverns the transportation	g, the property describe word cerrier being nation, if on its route destination and as to Streight Bill of Lad is a motor carrier of this shipment, an	ribed above in appage understood through the control of the contro	irent good or ghout this co ver to enothe y time intere i Uniform Fre hereby cert and conditions
Transportation Ri an applianal methological Federal F	If appropriate to designate Hezerdous Metanials as defined in the Li agulations governing the transportation of hazardous metanials. The used of for Identifying locardous metanials on Bills of Lading par 172.2016, legulations. Also when shipping locardous materials, the shipper's cen- tion 172.204(a) of the Federal Regulations, as indicated on the Bill of exception from the maniferments is movided in the Generators for	J.S. Department of se of this column is al(1) (iii) of Title 49	The formet and content of naza pany interpretation of requirementally. Subpart C-Shipping Papers tions 172 201 (Hazardous Ma Proper shipping name, hazardo	rdous item liet is the res Pits as described in 49 i Such description consi Priel Table! and Section	sponeibility of individual Code of Federal Reguli ists of the following per is 172,202, and 172	stons or o
SHIPPER						
PER						
mar	kel, and labeled, and are in proper condition for transportation	according to the	tion was made available and.	or packages and any or carrier has the LL.	required placards. () S. Department of To	arrier certifie

or equivalent documentation in the vahicle. Property described above is received in g

ACADIANA OIL & ENVIRONMENTAL

CORPORATION

1206 Lemaire St. • New Iberia, LA 70560 337-560-5573 TRANSPORT MANIFEST

Lease Run Ticket

25226

EMERGENCY RESPONSE CONTACT:

ES&H

985-851-5055

Date 3-29 20 23

Operator Couvillian Lease No. C G

Lease Name

Field Port Fourthon, La.

GA. OIL LEVEL		В	S&W LEV	EL TANK
OIL LEVEL INC	HES	F	T. INCI	
1st				
2nd				
TANK NO.	SIZE	EST. GROSS GALLON	16 🎏	8 @ 69 or
SERIAL NUMBER	is .	OBSERVED	0 0	a 1 clar
8 1922-42	3	GRAVITY	21	a @ 69°F
1922-47	0	PERCENT BS & W	5/10%	TEMPERATURE OF OIL IN TANK °F
LOG NUMBER	193	93715	OFFI GRAVITY C TO 60 °F	CE USE ONLY ORR.
TIME ID' 45	AM 143	9504.1	181	
	AM PM		2nd	
11-	1		GROSS BARRELS	135
STATION COMPACTOR BS&	sade 1	2,050	FACTOR	9917
TEMP. FACTOR X W FACT		917	NET BBLS. PER RUN T	
TAKI GROSS	0			

I.D. NUMBER	PROPER SHIPPING NAME	HAZARD CLASS	PG	BBLS
UN 1267	PETROLEUM CRUDE OIL	3	TH.	133.88
	Temp			0.44
	BS+W			0.08

OPERATOR'S WITNESS

DRIVER

"THIS IS TO CERTIFY THAT THE ABOVE NAMED MATERIAL'S ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED, AND LABELED AND ARE IN PROPER CONDITION FOR TRANSPORTATION, ACCORDING TO THE APPLICABLE REGULATIONS OF THE DEPARTMENT OF TRANSPORTATION".

Shipper: Mike LeBlanc Jr. Date:

TARE

NET O

Appendix II

NRC Waste Handling Documentation

An oil transfer operation may not commence to or from a vessel unless the by the respective transferring and receiving persons in charge. Persons in charge indicate by a check (1), in the appropriate spaces, that the vessel. A. The mooring lings are adequate for all anticipated conditions. B. Cargo hoses and/or loading arms are long enough for intended under the condition of the cargo hoses are adequately supported to prevent undue strain or the transfer system is properly lined up for discharging or receive performed each time a valve is repositioned.) E. Each flange connection on the cargo system not being used during or shut off. F. The cargo hoses and/or loading arms are connected to the manifer every other hole, (minimum of 4 bolts). Exception: Tanks without from the Captain of the Port. G. The overboard or sea suction valves are sealed or lashed in the content of the content of the provided between the facility and the content of the conten	e following requires section of the couplings. Ving oil. (Addition of the transfer operation of the transfer of the terminal and peaks the languate of the terminal and the termi	prement has been met. FACILITY promal checks shall prement has been met. FACILITY promal checks shall promal
y the respective transferring and receiving persons in charge. ersons in charge indicate by a check (√), in the appropriate spaces, that the spaces in charge indicate by a check (√), in the appropriate spaces, that the spaces in charge indicate by a check (√), in the appropriate spaces, that the spaces is charged in the spaces in charge indicate by a check (√), in the appropriate spaces, that the spaces in charge indicate by a check (√), in the appropriate spaces, that the spaces in charge indicate by a check (√), in the appropriate spaces, that the spaces in charge indicate by a check (√), in the appropriate spaces, that the spaces in charge indicate spaces in the	se	prement has been met. FACILITY promal checks shall prement has been met. FACILITY promal checks shall promal
A. The mooring lings are adequate for all anticipated conditions. B. Cargo hoses and/or loading arms are long enough for intended upon the cargo hoses are adequately supported to prevent undue strain or the performed each time a valve is repositioned.) E. Each flange connection on the cargo system not being used during or shut off. F. The cargo hoses and/or loading arms are connected to the manifed every other hole, (minimum of 4 bolts). Exception: Tanks without from the Captain of the Port. G. The overboard or sea suction valves are sealed or lashed in the continuous provided for couplings. I. All scuppers or other overboard drains are closed or plugged. J. A communications system is provided between the facility and the communication procedures are established and understood between the communication procedures are established and understood between the communication procedures are established and understood between the continuous procedures are established and understood between the	se	bonal checks shall beration is blanked s and a bolt in systems per waiver barge. I vessel control stations. at the hose has no loose lose reinforcement and
A. The mooring lings are adequate for all anticipated conditions. B. Cargo hoses and/or loading arms are long enough for intended upon the cargo hoses are adequately supported to prevent undue strain or the performed each time a valve is repositioned.) E. Each flange connection on the cargo system not being used during or shut off. F. The cargo hoses and/or loading arms are connected to the manifed every other hole, (minimum of 4 bolts). Exception: Tanks without from the Captain of the Port. G. The overboard or sea suction valves are sealed or lashed in the continuous provided for couplings. I. All scuppers or other overboard drains are closed or plugged. J. A communications system is provided between the facility and the communication procedures are established and understood between the communication procedures are established and understood between the communication procedures are established and understood between the continuous procedures are established and understood between the	se	bonal checks shall beration is blanked s and a bolt in systems per waiver barge. I vessel control stations. at the hose has no loose lose reinforcement and
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L. Communication procedures are established and understood betw M. Qualified and designated personnel are in charge and on duty at N. One person at the vessel control station is present who fluently s station. O. The owner of the cargo hoses will insure test requirements have covers, kinks, bulges, soft spots or gouges, cuts and slashes whice that hoses are marked for identification and test data is maintained. P. Adequate lighting of the vessel and terminal work areas and man Q. Persons in charge have held a conference to assure the mutual ur 1. Product identity to be transferred. 2. Sequence of transfer operation. 3. Transfer rate of flow. 4. Name or title and location of each person participating in the 5. Particulars of the transferring and receiving systems 6. Starting, stripping, topping and shutdown have been discussed 7. Emergency procedures including notification, containment an 8. Watch and shift arrangements	een persons in cl the terminal and peaks the langua been met and tha th penetrate the h	l vessel control stations. Ige of the terminal control at the hose has no loose nose reinforcement and
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3. Transfer rate of flow 4. Name or title and location of each person participating in the 5. Particulars of the transferring and receiving systems 6. Starting, stripping, topping and shutdown have been discussed 7. Emergency procedures including notification, containment an 8. Watch and shift arrangements		
		· · · · · · · <u></u>
5. Particulars of the transferring and receiving systems 6. Starting, stripping, topping and shutdown have been discussed 7. Emergency procedures including notification, containment an 8. Watch and shift arrangements		
6. Starting, stripping, topping and shutdown have been discussed7. Emergency procedures including notification, containment an8. Watch and shift arrangements	ransfer operation	
7. Emergency procedures including notification, containment and8. Watch and shift arrangements		
	d cleanup of spil	Is (%
9. Notification before leaving stations		
		8B
e following items are to be filled out by Vessel personnel only.		0-
2. Repair work authorization (35.35-30).		
4 4. Fires or open flames (35.35-30). 5 Safe smoking space (35.35-30).		
1		
rtify that I have read, understand and agree with the foregoing as marke	d and agree to be	gin/continue the transfer operati
, /		Service and a service operation
PERSON PERS	ON	
N CHARGE OF IN CHAR		
VESSEL Time Date PACIL		Date 3 - 08 - 23

The operator of each facility and the operator of each vessel shall retain a signed copy for at least a month.



Date	e: 3-8-23 Location: (5SI				
	ility/Vehicle Number:	Start T	ime En	d Time	
	sel Name: Brandon Bordelon				
_		Joseph Compaity (Tatal) (bblove 19	160	
Vessel Official Number: Vessel Capacity (Total)					
Pro	duct Transferred: (sude Oil 1	Est. Transfer Volume (b	bls): 61	12.4	
	Note For Emergency Notification Disch	arge amounts (Gallons):			
Ave	rage most probable:				
	imum most probable:				
_	st case discharge:				
	The following list refers to requirements set forth in deta	Il in 22 CFD 156 150 and	46 CED 2	5 25 20	
	The following list refers to requirements set forth in deta	II III 33 CFK 130.130 and	40 CFR 3.	3.33-30.	
×	The spaces on the left are to be reviewed by ALL PIC's inv	volved in the transfer and o	checked in	agreemen	
0	The right hand columns are to be initialed by the appropria	te PIC and/or noted as not	annlicable	with (N/	
				with (19/2	
>	Items on the list are provided to indicate that the detailed re	equirements have been me	t		
			PIC	PIC	
	<u>TOPIC</u>		Delivering	Receivi	
	Verify PIC designation/qualification 33 CFR 154.710, 154.730,	154.740(b)	M	B	
	Person In Charge (PIC): In Immediate Vicinity and Available		M	- GB	
	Personnel: Capable/Unimpaired		VÕ	23	
_	Name, title and location of each person participating in the trans		9	23	
	MC 20 Subsea Storage Offloading Operations & Maintenance N		1		
	procedures and particulars of the transfer and receiving systems	to be followed and verified	W	10	
_	with key personnel involved in these operations			15	
_	Watch and shift arrangements discussed		N	100	
_	Cargo is Authorized for transfer to or from tanks		N	013	
_	Discuss if transfer will need to stopped to change tanks – <i>supply</i> Discuss transfer rates and max allowable to receiving facility	or receiving faculty	Ŋ	93	
_	(Facility/Vessel) properly vented (monitoring vacuum and positi	iva tanka magazna)	NO.	3	
_	Communications & No Language Barrier	ive tanks pressure)	NS NS	10	
L S	oses and Connection - 33CFR 154.500		W	100	
3 11	Nonmetallic hoses usable for oil or hazardous material service		Ma	03	
_	Proper connections (must be one of the following):		12	OB	
	Fusion 100 hammer union connections		*	20	
_	Quick-disconnect coupling present on suction side of pump		110	00	
	Examine transfer hose markings or records.		\$	ab	
	Name of product handled; example "OIL SERVICE," or "HAZN	MAT SERVICE"	19	83	
S Ex	camine Transfer Hose condition - 33CFR 156.170		19	*	
,	No unrepaired kinks, bulges, soft spots, loose covers, other defect	cts	M	02	
	No cuts, slashes, or gouges that penetrate the first layer of hose i		18	28	
	No external/internal deterioration	emore ement	W)	98	
S Er	nergency shutdown - 33CFR 156.170			0	
,	Test emergency shutdown - 33CFR 154.550 - who controls the	e emergency shutdown	M	1 00	
	Communication system continuously operated.	omergency sharas an	8	62	
	Verify operating properly (Electric, pneumatic, or mechanical lin	nk to facility; electronic	- W	1	
	voice)	Wall and Adversariation	W	OB	
	Record test info in physical information.		Ø	90	
	tamine closure device - 33CFR 154.520				
E	Verify enough to blank off ends of each hose /loading arm not co	onnected for transfer	W	OB	
Ex	verify chough to blank off ends of each nose /loading arm not co	PARTICIPATION AND ASSESSMENT OF THE PARTICIPATION AND ADDRESS OF T			
	spect Small Discharge Containment - 33CFR 154.530	**************************************	U	1	



	Pre-Transfer Conference and Agreement (Continued)		
	<u>TOPIC</u>	PIC Delivering	PIC Receiving
§ Ir	nspect discharge containment equipment for oil & hazardous liquids - 33CFR 154	4.545	Receiving
	Verify booming for oil or hazmat transfer (if required by COTP).	M	0.3
	Verify adequate amount of equipment and/or absorbent material for initial response		23
	Inspect condition of response equipment stored on facility (if applicable).		93
	Verify availability of at least 200 feet of containment boom onsite within 1 hour.	M	43
	Verify means of deployment.		TIB
S M	leans of Communication - 33 CFR 154.560		· Jo
•	Verify continuous two-way voice communication between vessel and facility PICs.	1 1/0	100
	Communications must meet the following requirements	1 10	4)
	Portable Radio:		
	IF Flammable or Combustible Liquids	1/2	100
	Marked or documented as intrinsically safe.	N N	13
	2. Certified as intrinsically safe by national testing labor certification organization.		18
	Voice		J.
	1. Be audible.		T
	Test communications. SAT UNSAT UNSAT	No.	9.0
2 In	respect lighting systems - 33 CFR 154.570	116	1 da
3			1 00
	Verify portable lighting for operations between sunrise and sunset (if applicable). At transfer operations work areas for facility and vessel	- O	2x
	At transfer operations work areas for facility and vessel At transfer connection points for facility and vessel	Ř	23
_	Verify sufficient number or fire extinguishers.		98
	Verify sufficient number of fire extinguisners.	B	23
	Verify warning signs are adequate.	NO	2
	Verify warning signs are adequate.	W	93
	§ VESSEL ONLY - 155.730 Compliance with VESSEL TRANSFER	PROCEDURES §	/
	PIC for vessel/operator is required by §155.720 to have current transfer procedures		
	Require vessel personnel to use the transfer procedures for each transfer operation		
	Available for inspection by the COTP or OCMI whenever the vessel is in operation		PACE TO
	Legibly printed language(s) understood by personnel engaged in transfer operation		
-	Permanently posted or available and used by members of crew engaged in transfer of	operation	
	Appropriate tank level monitoring (visual, gauging, indicators, etc.)		
	Arrangements to monitor draft marks during transfer		
	Transfer Piping Line diagram, location of each valve, pump, control device, vent, an	nd overflow	11
	Shutoff valve location or isolation device separating bilge or ballast from the transfe	er system	
	Adequate containment on the vessel at loading or discharge connection	1	The same
	Drains, Scuppers and overboard discharges closed		
	The number of persons required to be on duty during transfer operations;	Paradar I	
	Procedures for emptying discharge containment system required by §§155.310 and	155.320	
	Procedures for tending the vessel's moorings during the transfer of oil or hazardous	material	
	Procedures for emergency shutdown/communications required by §§155.780 and 15	55.785	
	Procedures for topping off tanks		
	Procedures ensuring all valves used during transfer are closed upon completion of transfer are closed upon c		
	I do certify that I have personally inspected this facility or vessel with refer	rence to the requirem	ante
	aforementioned and that I have indicated that the regulations have been con	muliad with if annlie	antia
		трией мин у аррис	able.
		3-8-23 1	7/15
		DATE	/UTIME
		Villa	Illyit
		3-03-23	0617
		DATE	TIME
	mm 1470-mm 2004-mm mmm		
	TRANSFER COMPLETED:		
	AMOUNT (GALLONS)	DATE	TIME

Pump-Off # 48



SAFETY MANAGEMENT SYSTEM

SAFETY IT'S THE WAY TO GO! Revision: 08/2015

Job Hazard Analysis

			SUMMARY OF POTENTIAL HAZA	RDS (Check	applicable)	
☐ Heavy or awkward lifting / movement		Pinch Points or caught between		☑ Working and walking surfaces; slip, trip, fall		
☐ New / Inexperienced employees		Spill / containment		Heat stress envir	ronment	
Struck by or crush hazard			☑ Noise levels (>85 dBA)			
Hazardous liquids, vapors, waste		☐ Elevated surfaces / Fall / Ladd	ers	10		
		APPLICABLE REGULATION / SOPS /		LERTS		
SMS 19.2 Vacuum Trucks				In		
		M	INIMUM PERSONAL PROTECTIVE EC	UIPMENT	(Check applicable)	
Level A Level B Level C Level D	☑ Hard Hat☑ Safety Glasso☑ Face Shield☑ Hearing Prot	es	☐ High Visibility Vest ☐ Long Sleeves / Coveralls ☐ Chemical protective clothing ☐ Respirator: JOB HAZARD A	☐ Dispos ☐ Neopr	er Steel Toe Boots sable boot covers rene Steel Toe Boots	PFD / Work vest
0 10	ob Steps		Potential Hazards	VALYSIS	Preventive Mer	asures / Special PPE
1. Pre-jo	ob Meetings vior Based Safety	or • Pe ha	ersonnel do not understand the perational plan, relevant hazards relevant roles/responsibilities ersonnel do not stop work when azards are identified ersonnel do not report injuries, nesses, near misses or incidents	• 1	The operational plan, haz to all involved personne will be encouraged to as any project details mmediate supervisor will Authority and Responsib supervisor if they discov	rards and controls will be explained I in Safety/Ops meeting. Personnel sk questions if they are unsure of I remind their crews of their oility to Stop work and contact their rer a hazard ed to report any injuries, illnesses,
	orvey and oment Set-up	• Ecoor	neven working surfaces and trip azards. quipment not certified, not tested damaged nproper set-up due to untrained unqualified personnel	• A	correct unsafe conditio away from travel paths all equipment will be ins testing and serviceable	ole walking surface hazards. Flag or ns. Position equipment and hoses . Identify "no-go" areas. pected for current certifications, working condition prior to work ected to perform tasks based on
	le movements	str ve • Ve m	ersonnel, equipment or hoses ruck or crushed by moving shicles or equipment shicles not inspected prior to ovements. Unsafe for travel. nsecured items create dropped oject or road hazards.	• 6 • V	round guides will be us Non-essential personne path will be confirmed a ehicles will be inspected after travel for potentia ehicles will be inspected loose items and that log	d to ensure that there are no ads are secured properly.
working near water		e Pe du Pe ov	to fall on the ground and pick ther catch mooring lines from the M/V. When mooring the vessel, keep har other body parts from between the bits on the dock overboard. to fall on the ground and pick ther catch mooring lines from the M/V. When mooring the vessel, keep har other body parts from between the bits on the dock overboard.		g lines to the shore allow the lines of pick them up. Do not attempt to a the M/V. keep hands, fingers, arms, and all etween the mooring line and the sonnel within 5' of the docks edge ISCG approved PFD. Always discuss lures prior to work. Have life ring ce.	
• Pe ot du		ersonnel crushed or pinched hile connecting transfer hoses. ersonnel suffer back strain or ther ergonomic related injuries uring connections or moving oses	• Id	dentify, communicate and avoid all crush/pinch point including cam-lock connections, vehicles and other reparts or equipment Transfer hoses can be heavy and when handling the hoses employees shall use proper ergonomic practic including keeping your back as straight as possible a as lifting with your knees and not your back.		



SAFETY MANAGEMENT SYSTEM



Job Hazard Analysis

O Job Steps	Potential Hazards	Preventive Measures / Special PPE
		awareness when walking in the dock area. Try to run hoses in an area that is out of the normal walking path and go around if possible
Working in potentially hazardous atmospheres	Personnel exposed to hazards related to hazardous atmospheres. Ignition sources create potential for explosive conditions Personnel not equipped to suppress incipient fire	 Calibrated multi-gas meters/detectors will be used to confir that LEL's, CO and other gases are within safe range for pumping and transfer operations. Operations will transfer operations will stop immediately if LEL's or Carbon Monoxide levels become elevated A protective distance of 100' outside shoreside transfer will be identified, and marked with caution tape and warning signs, to prohibit smoking, sparks and any potential source of ignition within the transfer area perimeter. The M/V will suspend all similar activities for the duration of transfer operations. Fire extinguishers will be placed at the transfer manifolds, compressors, vessel and any other areas of potential ignition.
Energizing pneumatic equipment	Personnel injured when struck by hoses or pressure during hose connection or fitting failure. Air leaks or blowout causing pressure related injuries. Hearing loss/injury due to noise levels above 85 decibels	All pressurized hoses will have whip checks and safety clips installed prior to energizing. All pneumatic hoses will be inspected prior to use. Pumping operations will be stopped immediately if leaks are detected during operations. Defective hoses will be replaced with new hoses/whips. Hearing protection will be worn in all areas where highnoise machinery and equipment is being operated.
Transfer of recovered crude oil	Personnel contacted by crude oil spray or environmental release. Overfilling tank resulting in spills Personnel overcome by potentially hazardous vapors	 All transfer hoses used will be inspected, certified and tested prior to use. They will be secured with safety clips and wrapped with absorbent pads and duct tape. Polypropylene line will be used as an added retention measure. Personnel will wear Level D PPE and increase protection as appropriate. Spill control kits/supplies will be available on site. The DOI Declaration of Inspection will be completed prior to operations. Prior to transfer the amount of product that can be accepted will be calculated and the PIC will ensure that there is ample room to handle the transferred product. Crude oil is a mixture of various hydrocarbons. Among them can be benzene, hydrogen sulfide, and other chemicals. There will be a properly calibrated and bump tested 4-gas meter on site during transfer to ensure vapors aren't present. All work will stop if hazardous gasses are detected. PPE will be upgraded according to the concentration of hazards detected. If personnel will work at heights above 6': fall protection will be worn and a rescue plan will be in place. Fire extinguishers will be placed at the transfer manifolds, compressors, vessel and any other areas of potential ignition.
9. Transfer of oil into transporter	Personnel contacted by crude oil spray or environmental release Overfilling transportation vessel resulting in spills Personnel overcome by potentially hazardous vapors Fall hazards present if personnel are working above 6 feet	 All transfer hoses used will be inspected, certified and tested prior to use. They will be secured with safety clips and wrapped with absorbent pads and duct tape. Polypropylene line will be used as an added retention measure. Personnel will wear Level D PPE and increase protection as appropriate. Spill control kits/supplies will be available on site. Prior to transfer the amount of product that can be accepted will be calculated and the PIC will ensure that there is ample room to handle the transferred product. Crude oil is a mixture of various hydrocarbons. Among them can be benzene, hydrogen sulfide, and other chemicals. There will be a properly calibrated and bump tested 4-gas meter on site during transfer to ensure vapors aren't present. All work will stop if hazardous gasses are



SAFETY MANAGEMENT SYSTEM

SAFETY

Job Hazard Analysis

Revision: 08/2015

O Job Steps	Potential Hazards	Preventive Measures / Special PPE
		detected. PPE will be upgraded according to the concentration of hazards detected. If personnel will work at heights above 6': fall protection will be worn and a rescue plan will be in place. Fire extinguishers will be placed at the transfer manifolds, compressors, vessel and any other areas of potential ignition.
Prolonged exposure to elements (Heat Stress)	 Inadequate hydration Extended work periods without rest resulting in heat stress 	 Personnel will be encouraged to hydrate frequently. Water t sports drink ratio will be 3:1 (1 sports drink to 3 waters consumed). Work to rest schedules will be determined based on the ambient temperature, acclimatization of personnel and work being performed. Heat stress potential and signs/symptoms will be discussed at all safety meetings, tailgate meetings and during breaks. Personnel will be encouraged to self-report any early symptoms of heat stress. All personnel will be advised that stop work authority applies to potential heat stress symptoms they may be experiencing, (or that they suspect with coworkers).
11. Break time	Potential for ingestion of petroleum product or other contaminants. Fire hazards from unrestricted smoking Direct sun reduces recovery time for workers during breaks Inadequate water	 Personnel will wash hands before smoking, eating, drinking or any other activity where contaminants might be ingested. This hazard will be stressed in break areas. Only smoke in designated areas. Ensure that break areas have adequate shade and cooling potential for personnel Personnel are more likely to hydrate when cool water is available. Ensure an adequate supply and include sports drinks with electrolytes to be consumed sparingly.
12. Decontaminate Personnel	Potential for secondary contamination by absorption, injection, or ingestion	 Follow decontamination plan for clothing removal and disposal when protective outerwear is required and becomes contaminated. Only use safety scissors (never knives) to cut Tyvek from personnel. Ensure that workers wash hands and face thoroughly.
NRC INCIDENT REPORTING POLICY	First Aid OSHA recordable Illness/Injury Near Miss Equipment/Vehicle Damage	 NRC employees and subcontractors are required to immediately report all incidents to their supervisor. The immediate supervisor will immediately report the incident to the site safety professional, HSEQ Manager, and Project Manager. As soon as possible the affected employee will complete the required form, if an injury then the first report of injury; if near miss, then a near miss / safety suggestion form will be completed. The supervisor will complete a root cause analysis of all reported incidents and submit to the HSEQ manager within a hours of an incident. Determination will be made regarding need for post-incident drug and alcohol testing based on NRC policy. Contact HSEQ Manager for proper USCG reports, if needed and what report is needed.

REVIEW/

Development Team	Position/Title	Reviewed By	Position/Title	Date
				7/27/20
			PIM	3-08-2

Employee Name	/ Signature	Date
		3-8-23

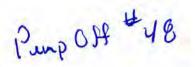


SAFETY MANAGEMENT SYSTEM



Job Hazard Analysis

3-8-23 3-8-23





Date: 63 - 08 - 23

SAFETY MANAGEMENT SYSTEM



Revision: 08/2019

Job Number: 19-0192

Site Specific Safety Plan

Project Name: MC20 Recovered Crude Oil Transfer

Start Time: 0600

NRC PROJECT PERSONNEL AND EMERGENCY CONTACTS				
Shore side NRC Project Manager	Jesse Bridges (985) 502-7190			
Director of Marine Ops	David Kendall (281) 914-6577			
Director of Operations	Ray Mc Coy (631) 236-2512			
Yard Manager	Darryl Prout (985) 396-4518			
H&S Program Manager	Peter Brause, CSP (310) 387-2639			
VP Health & Safety	Ken Koppler, CIH, CSP (971) 285-0450			
Hospital / Medical Intervention	Lady of the Sea Hospital: Galliano, LA (985) 632-6401			

☐ Land Emergency Response ☐ Marine Emergency SITE DESCRIPTION / N	
The site is the Port Fourchon Facility: 554 Dudley Bernard Rd. Po NRC will facilitate removing recovered crude oil from the well loca collecting crude oil from the location and storing it on Marine Por be moored to the dock at the above location and transfer the reco	ated at MC20 project. The M/V_33 has been table Tanks (MPTs) located on her deck. The vessel will
walled frac tanks on the dockside. Once the frac tanks on the Port Fourchon docks are ready for tra transporter trailers to be sent to its final destination.	nsfer the crude will then be transferred into bulk

SCOPE OF WORK

The M/V 3 b will send a 100' section of 3-inch petroleum duty hose to the dock where it will be connected to the hoses leading to a properly rated and tested manifold. The manifold has one inlet and three outlets. Each outlet will be fitted with a 3-inch transfer hose and affixed to the frac tanks. Once the connections are secured and the declaration of inspection (DOI) is complete, the vessel will transfer the crude oil in her tanks using a 4-inch pneumatic diaphragm pump. As the frac tanks near capacity the dockside operator will open the next manifold valve and close the active one. This process will continue until all three frac tanks are at capacity. Once the transfer is complete a 1-inch airline with the proper fitting will be given to the M/V's crew to send compressed air up the hose to "blow down" any residual product left in the hoses to ensure no product is spilled when the hoses are disconnected.

After the crude oil sits in the frac tank at the Port Fourchon Dock for 12 to 24 hours the crude oil will be pumped using a 3-inch pneumatic diaphragm pump to transport trailers to be sent to final destination.





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Site Specific Safety Plan Project Name: MC20 Recovered Crude Oil Transfer

EQUIPMENT

- Air Compressor (One aboard the M/V 3. 3. 4-inch pneumatic displacements) - One on Port Fourchon Facility Properties)
- 4-inch pneumatic diaphragm pumps
- Petroleum Duty transfer hoses rated and inspected accordingly
- Safety Clips for Cam-lock connections and Chicago fittings
- Containment pans for diaphragm pumps and each hose connection (on the deck of the M/V as well as the Port Fourchon Facility Dock)
- Sorbent pads / Polly to wrap around each hose connection as spill prevention
- Whip Checks for each air line connection coming from the air compressor
- Intrinsically safe handheld VHF radios (Means of Communication between PIC of vessel and PIC of dock)
- Supplied Air Breathing System

ATTACHMENTS

Attachment	TITLE	Attachment	TITLE
Α	Safety Data Sheets	F	Diagram of dock layout
В	SMS 8.1.5 Daily Safety Meeting form - Maritime		
С	SMS 13.2 Respiratory Protection		
D	Incident / Near Miss / RCA		
E	DOI	1	





Revision: 08/2019

Site Specific Safety Plan
Project Name: MC20 Recovered Crude Oil Transfer

CHEMICAL INFORMATION

CHEMICAL / CAS	CHEMICAL PROPERTIES	EXPOSURE LIMITS Action Levels	ROUTES OF ENTRY	SYMPTOMS
Crude Oil	VP (mmHg): 2.6-6.2lbs @ 100F VD (Air=1): >1 BP: -54 to 1100F SG: 0.8939 PV: 1-50 FP: <24 F Estimated LEL: 1.1 UEL: 7.3 Appearance; thick light yellow to dark black	Oil Mist, If Generated ACGIH TWA: 5mg/m3 STEL: 10mg/m3 OSHA TWA: 5mg/m3 NIOSH IDLH:2500mg/m3	X Inhalation X Ingestion X Contact	May include eye, nose and throat irritation, digestive tract, nausea, vomiting, diarrhea, headache, drowsiness, dizziness, loss of coordination, disorientation and fatigue
Hydrogen Sulfide	Strong rotten egg odor at low levels, rapidly deadens the sense of smell at higher concentrations. Highly flammable - LEL is 4.3%	10 PPM – OSHA PEL Above 10 PPM – Level B PPE required in work area. IDLH = 100 PPM	X Inhalation Ingestion Absorption Contact	Headache, Nausea, irritation to the eyes, nose, or throat. Death if exposed to high concentrations of Hydrogen Sulfide.
Benzene / 71-43-2	S.G. = 0.88 FP = 12 F LEL: 1.2% UEL = 7.8%	ACGIH TWA: 0.5 ppm OSHA TWA: 1 ppm IDLH: 500ppm	X Inhalation X Ingestion X Absorption X Contact	Irritation to the eyes, skin, nose and respiratory system. Dizziness, headache, nausea, staggered gait; bone marrow depressive





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Site Specific Safety Plan
Project Name: MC20 Recovered Crude Oil Transfer

PERSONAL PROTECTIVE EQUIPMENT

TASK	Level	MASK / CARTRIDGE / AIR	ADDITIONAL PPE
Mooring Vessel	D	N/A	Level D PPE with the addition of an approved PFD when working within 5' of the docks edge
Connecting hoses	D	N/A	Level D PPE with the addition of an approved PFD when working within 5' of the docks edge
Completing inspection	D	N/A	Level D PPE with the addition of an approved PFD when working within 5' of the docks edge
Transfer operations	D	Level C or Level B may be needed based on air monitoring results.	Level D PPE (unless readings indicate a need to upgrade PPE to level C respiratory protection) with the addition of an approved PFD when working within 5' of docks edge. If H2S is detected above 5 ppm Level B PPE (supplied air respirators) will be used. Operations will be suspended if H2S levels reach 100ppm.

RESPIRATORY PROTECTION PLAN

The NRC SMS Procedure 13.2 for Respiratory Protection is provided in **Attachment_C**.





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Site Specific Safety Plan
Project Name: MC20 Recovered Crude Oil Transfer

AIR MONITORING / ACTION LEVELS

Chemical Hazard	Instrument	Action Level	Action
Oxygen (O ₂)	4-gas	<19.5% or >23.5%	 Stop work, determine source of hazard and apply engineering control (ventilation) until reading can be brought to 21% +/- 1%.
Carbon Monoxide (CO)	4-gas	25 ppm	 Stop work, determine source of hazard and apply engineering controls. Upgrade PPE as necessary.
Lower Explosion Limit (LEL)	4-gas	>10%	 Stop work, determine source of hazard and apply engineering control (ventilation) until reading can be brought below 10%.
Hydrogen Sulfide (H2S)	4-gas	10 ppm >10 ppm	OSHA PEL SCBA / Supplied Air Respiratory Protection
PID/VOC	PID	10 - 750 ppm >750	Don level C PPE APR w/OV cartridge (Check Benzene Levels, if Benzene levels are below 0.5 Respiratory protection may be reduced SCBA / Supplied Air Respiratory Protection
Benzene	Colorimetric Tube	<0.5 PPM 0.5 – 25 PPM >25 PPM	 No Respiratory requirement Full Face APR with OV Cartridges SCBA / Supplied Air Respiratory Protection





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Site Specific Safety Plan
Project Name: MC20 Recovered Crude Oil Transfer

ACTIVITY HAZARD ANALYSIS / SUMMARY

ITEM	HAZARD	PREVENTION
Behavioral Based Safety	Hazard Identification Stop Work Authority Near Miss	 Immediate supervisor will remind their crews of their Authority and Responsibility to Stop work and contact their supervisor if they discover a hazard Safety officer to coordinate with work crew safety leads Daily HASP / Tailgate meetings will be conducted with the crew. Report all near misses, at risk conditions on the job site, or at-risk actions by crew member. Discuss all reported near misses during the post job briefing and during Daily HASP / Tailgate meetings.
Mooring M/V	Struck by Pinched by Fall into water	 When tossing the mooring lines to the shore allow the lines to fall on the ground and pick them up. Do not attempt to catch mooring lines from the M/V. When mooring the vessel, keep hands, fingers, arms, and all other body parts from between the mooring line and the bits on the dock. Never perform this task alone and all personnel within 5' of the docks edge are required to wear a USCG approved PFD.
Connecting Hoses	Caught / pinched by Back / muscle strain Slip / Trip / Fall	 Identify, communicate, and avoid all pinch / crush points including, but not limited to - cam lock connections, trucks backing / parking, other mobile equipment on the dock. Transfer hoses can be heavy and when handling these hoses employees shall use proper ergonomic practices including keeping your back as straight as possible as well as lifting with your knees and not your back. Observe good housekeeping and maintain situational awareness when walking in the dock area. Try to run hoses in an area that is out of the normal walking path and go around if possible.
Energizing pneumatic equipment	Hose whipping Air Leak Noise levels above 85 decibels	 Ensure all connections have whip checks and safety clips in place prior to energizing air lines. If hissing is hear there is a leak in the line and the compressor should be de-energized and the leaking hoses / connections should be replaced prior to continuing operation. Hearing protection required for pneumatic equipment.
Transfer of recovered crude oil	Spill / spray crude oil on employee. Overfilling of frac tank Overcome by vapors Hydrogen Sulfide (H2S) Detected during transfer.	 All hose connections shall be secured with safety clips, then wrapped in sorbent pads and duct tape and rope to prevent spills or contamination of individuals. There will be no hose connections over water and all connections will also be in secondary containment. Prior to transfer the amount of product that can be accepted will be calculated and the PIC of the dock facility will ensure that there is ample room to handle the transferred product. Crude oil is a mixture of all sorts of hydrocarbons. Among them can be benzene, hydrogen sulfide, and other chemicals. There will be a properly calibrated and bump tested 4-gas meter with PID on site during transfer to ensure vapors aren't present. If vapors become an issue, all work will stop and PPE will be upgraded according to the chart found on page 5 of this document. All personnel involved in the transfer process will be wearing a personal H2S Detector worn in their breathing zone. If H2S is detected above 5 PPM, the operations will stop, and all essential personnel will don their Supplied Air Respiratory Protection (SAR) and evacuate all non-essential





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Site Specific Safety Plan
Project Name: MC20 Recovered Crude Oil Transfer

ITEM	HAZARD	PREVENTION
		personnel from the area during the transfer. There will be support personnel upwind with SAR capabilities on site for rescue purposes during this operation. If H2S is detected above the IDLH (100 PPM) then stop work authority will be used, all personnel will evacuate the work area and move to an upwind, safe location until the levels are below 100 PPM.
Transfer of oil into transporter	Spill / spray crude oil on employee. Overfilling of frac tank Overcome by vapors	 All hose connections shall be secured with safety clips, then wrapped in sorbent pads and duct tape and rope to prevent spills or contamination of individuals. There will be no hose connections over water and all connections will also be in secondary containment. Prior to transfer the amount of product that can be accepted will be calculated and the PIC of the dock facility will ensure that there is ample room to handle the transferred product. Crude oil is a mixture of all sorts of hydrocarbons. Among them can be benzene, hydrogen sulfide, and other chemicals. There will be a properly calibrated and bump tested 4-gas meter with PID on site during transfer to ensure vapors aren't present. If vapors become an issue, all work will stop and PPE will be upgraded according to the chart found on page 5 of this document.
Incident Reporting	First Aid OSHA Recordable Medical Only Near Miss	 Employees immediately report all incidents to their immediate supervisor. The immediate supervisor will immediately report the incident to the site safety professional, HSEQ Manager, and Project Manager. As soon as possible the affected employee will complete the required form, if an injury then the first report of injury; if near miss, then a near miss / safety suggestion form will be completed. The supervisor will complete a root cause analysis of all reported incidents and submit to the HSEQ manager within 8 hours of an incident. Determination will be made regarding need for post-incident drug and alcohol testing based on NRC policy. Contact HSEQ Manager for proper USCG reports, if needed and what report is needed.
Prolonged exposure to elements	Dehydration Hypothermia Hyperthermia	If Tyvek is not required, long sleeve shirts should be worn to cover skin. Rain suits should be worn in lieu of chemical protective coveralls during inclement weather Drink plenty of fluids. Appropriate clothing should be worn based on weather conditions.
Break time	Ingestion Fire	Thoroughly wash hands before eating, drinking, smoking, or applying sun screen Do not smoke near petroleum products (ONLY IN DESIGNATED AREA)
Decontaminate Personnel	Absorption Contamination	 Follow decontamination plan for clothing removal / disposal. Do not use knives to cut PPE / use safety scissors Wash hands and face thoroughly.
COVID 19 Protocol	Personnel infected with COVID-19 could spread it to others in the work area.	 Employees will follow all CDC, Local, State, and Federal guidance regarding Social Distancing. All personnel must remain at least 6' from one another on the worksite at all times. Only personnel essential to the operation will be allowed in the work area. If any employee is displaying symptoms related to COVID19





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Site Specific Safety Plan
Project Name: MC20 Recovered Crude Oil Transfer

ITEM	HAZARD	PREVENTION
		 they will be removed from work and follow the US Ecology / NRC return to work guidance issued by corporate. The Symptoms in question are Fever (Above 100.4F, Dry Cough, and Shortness of breath) Dockside personnel will not interact with personnel aboard the M/V during transfer operations. If an emergency were to arise where dockside personnel need to board the M/V they will be wearing proper PPE and will decontaminate anything touched while on board the vessel. All trucks, handles, switches, controls, doors, etc. (frequently touched items) will be decontaminated frequently, at minimum prior to use and once the work task is complete. All personnel on site will have adequate supplies to decontaminate frequently touched surfaces such as disinfectant wipes, hand sanitizer, and a cleaner approved for use as a virucide. All breaks will be taken individually, or employees will set themselves at least 6 feet away from one another to accomplish the social distancing demand due to the current pandemic.
NRC INCIDER REPORTING POLICY		 NRC employees and subcontractors are required to immediately report all incidents to their supervisor. The immediate supervisor will immediately report the incident to the site safety professional, HSEQ Manager, and Project Manager. As soon as possible the affected employee will complete the required form, if an injury then the first report of injury; if near miss, then a near miss / safety suggestion form will be completed. The supervisor will complete a root cause analysis of all reported incidents and submit to the HSEQ manager within 8 hours of an incident. Determination will be made regarding need for post-incident drug and alcohol testing based on NRC policy. Contact HSEQ Manager for proper USCG reports, if needed and what report is needed.
		•
		•
		•





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Site Specific Safety Plan
Project Name: MC20 Recovered Crude Oil Transfer

MINIMUM SAFETY EQUIPMENT REQUIRED

1	Eyewash	1	Decon Pool / Supplies See itemization list under Decon		Tinted faceshield, leathers, gauntlets, hot-work cutting gear
1	First Aid Kit	1	Fire Extinguisher, Dry Chemical		Barricades / Traffic Cones / Delineators / Banner Tape
			Fire Extinguisher, Water	1	Ladders
	Harnesses	7	Lanyards / rope		Confined space entry equipment
1	PPE (Task specific)				

TRAINING / DOCUMENTATION REQUIREMENTS

1	HAZWOPER 40	1	Hazwoper Supervisor	1	Current 8 Hour Refresher
1	First Aid /CPR		Confined Space Supervisor	1	Current Medical Fitness For Duty
	NRC Confined Space		t		NRC Confined Space Rescue
1	API Safe Rigging Pr	actices		1	Documentation of compliance with Drug Free Work Place
	Competent Fire Wat	tch Desig	gnated Personnel		Qualified Pressure Washer Operator





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Site Specific Safety Plan
Project Name: MC20 Recovered Crude Oil Transfer

DECONTAMINATION AND DISPOSAL

DECONTAMINA	TION EQUIPMENT			
Usqueen on Ground Carpet on Ground Wooden Pallets Decon Pool / wash boots Boot brushes Decon Pool Rinse Boots Respirator wash bucket Respirator rinse bucket Drying stands or platforms for respirators after washing Wipe rags to clean respirators	Rags for cleaning - wiping Labeled Drums for disposal items Chairs to sit on for PPE removal Plastic zip-lock bags for personal sample pumps Water to wash face / hands Decontamination Assistant Barrier stands Caution tape to designate decon area Shower			
PERSONNEL DECO	NTAMINATION PLAN			
Establish two stage contamination reduction zone with small decon area just inside of containment area Provide wet rags (not saturated) to personnel to wipe exterior of PPE prior to dry decon (stage 1 decon) Place empty lined drums for contaminated PPE with liners removed to waste bin at end of each shift Untape gloves and boots – discard tape Sit on chair prior to removing boots or outer PPE Remove boots and outer gloves (boots will be reused and leather outer gloves may be reuse if still in good condition) Unzip suit / pull off hood Roll down suit / inside out and place into labeled container Remove respirator Use wipes to clean Store respirators in plastic bags after drying Remove inner gloves PPE and debris will be bagged, accounted for, and bulked into the applicable waste bin or container Store respirators in individual plastic bags with employee names				
	AGEMENT PLAN			
Contaminated disposable PPE & debris from operation s	hall be placed in an approved container			





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Site Specific Safety Plan
Project Name: MC20 Recovered Crude Oil Transfer

SITE LAYOUT

Sketch the work area or attach a schematic drawing. Please include the following:

Evacuation Route	Control Entry Point	Exclusion Zone (red security tape)
Decontamination Point (red tape)	Support Zone (yellow caution tape)	Fire Extinguishers
Eyewash / Showers		

See Facility Map



SAFETY IT'S THE WAY TO GO!

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Site Specific Safety Plan
Project Name: MC20 Recovered Crude Oil Transfer

EMERGENCY MEDICAL TREATMENT AND FIRST AID

TYPE CONTACT	FIRST AID		
Eyes	 Flush each eye continuously for 15 minutes Tilt head to side to ensure liquid runs onto floor not other eye Refer to EMT for evaluation 		
Skin	 Remove contaminated clothing immediately Wash skin continuously for 15 minutes Refer to physician if redness, swelling, or pain persists after washing 		
Not Breathing	Call 911 Remove to fresh air immediately if respiratory distress develops Begin CPR until EMT arrives		
Ingestion	 Aspiration hazard Do not induce vomiting Do not give anything by mouth 		

ACCIDENT REPORTING

FIRST AID INJURIES REQUIRING MEDICAL TREATMENT VEHICLE ACCIDENT NEAR MISS	 Employees immediately report all accidents or incidents to the Site Project Manager / Safety Officer Site Project Supervisor will immediately notify the NRC Project Manager via cell phone. If unable to reach the Project Manager, call the NRC Safety Manager. If you get a voice mail; call their cell phones NRC Safety Manager will provide employee disposition guidelines and coordinate an accident investigation either by himself or Project Supervisor NRC Project Manager will relay information to Project Site Superintendent Accident reporting forms are included in Attachment D Determination will be made regarding need for post accident drug testing
---	--

EMERGENCY RESPONSE PLAN

ELEMENT	LOCATION, SPECIFICATION OR REASON FOR USE
NEAREST HOSPITAL	Our Lady of the Sea General Hospital, (985) 632-6401 200 W 134th Pl, Cut Off, LA 70345
NEAREST PHONE	Port Fourchon Facility Phone
FIRST AID KIT	Deck of M/V Brandon Bordelon and the M/V Connor Bordelon/ Fourchon Dock side as well
FIRE EXTINGUISHER	Deck of the vessel discharging product Port Fourchon Facility Dock
EYEWASH STATION	Stage Portable Eyewash Station in Support Zone
EVACUATION ROUTE / MEETING POINT	See site map and follow established emergency procedure





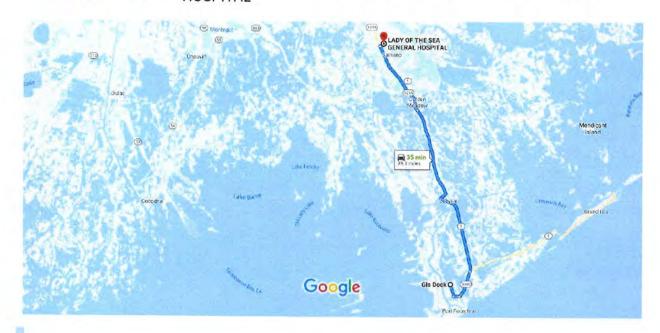
Revision: 08/2019

Site Specific Safety Plan Project Name: MC20 Recovered Crude Oil Transfer

Hospital Route

Google Maps

Gis Dock to LADY OF THE SEA GENERAL Drive 28.1 miles, 35 min HOSPITAL





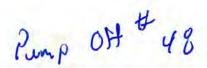
via LA-1 and LA-3235

35 min

Fastest route, the usual traffic

28.1 miles

▲This route has restricted usage or private roads.





Site Specific Safety Plan

Project Name: MC20 Recovered Crude Oil Transfer

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SAFETY PLAN APPROVAL

Site Safety Officer

Jusse Bridges

Date 03-08-23

ACKNOWLEDGMENTS (signed by all NRC site personnel)

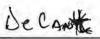
I have read and understand the topics outlined on all pages of this HASP and will follow all the required safety rules.

**I am aware that I am to sign in at the beginning of the shift and sign out at the end of my shift on the Daily Safety Meeting form.

I must notify the on site supervisor of any injury /accident/ near miss that I had or observed during my shift**

I understand that I have the right to stand down for Safety and report any potential hazards to the NRC Site Supervisor. After an injury/accident/near miss is reported, the Site Supervisor must call the H & S Manager at

Date	Print Name	Signature
3-8-23		
3-8-23		
3-8-23		
3-8-23 3-8-23 3-8-23 3-8-23		,,





Revision: 08/2015

			SUMMARY OF POTENTIAL HAZA	RDS (Chec	k applicable)	
Heavy or a	awkward lifting /		Pinch Points or caught between	The second second		king surfaces; slip, trip, fall
☐ New / Inex	xperienced employe	es	Spill / containment		Heat stress envir	ronment
	or crush hazard		Noise levels (>85 dBA)			onnene .
	s liquids, vapors, wa	ste	☐ Elevated surfaces / Fall / Ladd	arc		
	1		APPLICABLE REGULATION		NEDTE	
□ SMS 19.2 \	Vacuum Trucks		AFFEICABLE REGULATION	7 30 7 5	T T	
_ sino is is	vacuum macks	MI	NIMIM DEDCOMAL PROTECTIVE SC	NUMBER	401 11 11 11 1	
Level A	☐ Hard Hat	IVII	NIMUM PERSONAL PROTECTIVE EC		The second secon	[7] (
Level B Level C Level D	Safety Glass		☐ Long Sleeves / Coveralls ☐ Chemical protective clothing ☐ Respirator:	Dispo	ner Steel Toe Boots osable boot covers orene Steel Toe Boots es:	PFD / Work vest
			JOB HAZARD A	VALYSIS		
	ob Steps		Potential Hazards			asures / Special PPE
	ob Meetings avior Based Safety	or or • Pe ha	ersonnel do not understand the perational plan, relevant hazards their roles/responsibilities ersonnel do not stop work when exards are identified ersonnel do not report injuries, nesses, near misses or incidents	•	to all involved personnel will be encouraged to as any project details Immediate supervisor will Authority and Responsib supervisor if they discov	ed to report any injuries, illnesses,
Site Survey and Equipment Set-up Uneven working surfaces and trip hazards. Equipment not certified, not tested or damaged Improper set-up due to untrained or unqualified personnel Personnel, equipment or hoses struck or crushed by moving vehicles or equipment Vehicles not inspected prior to movements. Unsafe for travel. Unsecured items create dropped object or road hazards.		 Inspect site for correctable walking surface hazards. Flag correct unsafe conditions. Position equipment and hose away from travel paths. Identify "no-go" areas. All equipment will be inspected for current certifications testing and serviceable working condition prior to work Personnel will be pre-selected to perform tasks based or verified competency 				
		• \	 Ground guides will be used for equipment moveme Non-essential personnel will clear the travel path. path will be confirmed as clear prior to movement Vehicles will be inspected by drivers prior to travel a after travel for potential damage. Vehicles will be inspected to ensure that there are n loose items and that loads are secured properly. 			
worki	working near water caught in "line of fire". Personnel pinched or crushed during vessel movements. Personnel fall into the water. Man overboard.		• 1	When tossing the mooring to fall on the ground and catch mooring lines from When mooring the vessel, other body parts from be bits on the dock Never work alone. All persare required to wear a U "man overboard" proced and recovery plan in place	g lines to the shore allow the lines of pick them up. Do not attempt to a the M/V. keep hands, fingers, arms, and all etween the mooring line and the sonnel within 5' of the docks edge ISCG approved PFD. Always discuss lures prior to work. Have life ring ce.	
Personnel crushed or pinched while connecting transfer hoses. Personnel suffer back strain or other ergonomic related injuries during connections or moving hoses Slip/trip/fall hazards while working			identify, communicate and including cam-lock conner parts or equipment. Transfer hoses can be he hoses employees shall us including keeping your bas lifting with your knees.	d avoid all crush/pinch points: ections, vehicles and other moving eavy and when handling these se proper ergonomic practices ack as straight as possible as well		



Revision: 08/2015

O Job Steps	Potential Hazards	Preventive Measures / Special PPE
		awareness when walking in the dock area. Try to run hoses in an area that is out of the normal walking path and go around if possible
Working in potentially hazardous atmospheres	Personnel exposed to hazards related to hazardous atmospheres. Ignition sources create potential for explosive conditions Personnel not equipped to suppress incipient fire	 Calibrated multi-gas meters/detectors will be used to confirm that LEL's, CO and other gases are within safe range for pumping and transfer operations. Operations will transfer operations will stop immediately if LEL's or Carbon Monoxide levels become elevated A protective distance of 100' outside shoreside transfer will be identified, and marked with caution tape and warning signs, to prohibit smoking, sparks and any potential source of ignition within the transfer area perimeter. The M/V will suspend all similar activities for the duration of transfer operations. Fire extinguishers will be placed at the transfer manifolds, compressors, vessel and any other areas of potential ignition.
Energizing pneumatic equipment	Personnel injured when struck by hoses or pressure during hose connection or fitting failure. Air leaks or blowout causing pressure related injuries. Hearing loss/injury due to noise levels above 85 decibels	 All pressurized hoses will have whip checks and safety clips installed prior to energizing. All pneumatic hoses will be inspected prior to use. Pumping operations will be stopped immediately if leaks are detected during operations. Defective hoses will be replaced with new hoses/whips. Hearing protection will be worn in all areas where highnoise machinery and equipment is being operated.
Transfer of recovered crude oil	Personnel contacted by crude oil spray or environmental release. Overfilling tank resulting in spills Personnel overcome by potentially hazardous vapors	 All transfer hoses used will be inspected, certified and tested prior to use. They will be secured with safety clips and wrapped with absorbent pads and duct tape. Polypropylene line will be used as an added retention measure. Personnel will wear Level D PPE and increase protection as appropriate, Spill control kits/supplies will be available on site. The DOI Declaration of Inspection will be completed prior to operations. Prior to transfer the amount of product that can be accepted will be calculated and the PIC will ensure that there is ample room to handle the transferred product. Crude oil is a mixture of various hydrocarbons. Among them can be benzene, hydrogen sulfide, and other chemicals. There will be a properly calibrated and bump tested 4-gas meter on site during transfer to ensure vapors aren't present. All work will stop if hazardous gasses are detected. PPE will be upgraded according to the concentration of hazards detected. If personnel will work at heights above 6': fall protection will be worn and a rescue plan will be in place. Fire extinguishers will be placed at the transfer manifolds, compressors, vessel and any other areas of potential ignition.
9. Transfer of oil into transporter	 Personnel contacted by crude oil spray or environmental release Overfilling transportation vessel resulting in spills Personnel overcome by potentially hazardous vapors Fall hazards present if personnel are working above 6 feet 	 All transfer hoses used will be inspected, certified and tested prior to use. They will be secured with safety clips and wrapped with absorbent pads and duct tape. Polypropylene line will be used as an added retention measure. Personnel will wear Level D PPE and increase protection as appropriate. Spill control kits/supplies will be available on site. Prior to transfer the amount of product that can be accepted will be calculated and the PIC will ensure that there is ample room to handle the transferred product. Crude oil is a mixture of various hydrocarbons. Among them can be benzene, hydrogen sulfide, and other chemicals. There will be a properly calibrated and bump tested 4-gas meter on site during transfer to ensure vapors aren't present. All work will stop if hazardous gasses are



Revision: 08/2015

Job Hazard Analysis

O Job Steps	Potential Hazards	Preventive Measures / Special PPE
		detected. PPE will be upgraded according to the concentration of hazards detected. If personnel will work at heights above 6': fall protection will be worn and a rescue plan will be in place. Fire extinguishers will be placed at the transfer manifolds, compressors, vessel and any other areas of potential ignition.
Prolonged exposure to elements (Heat Stress)	 Inadequate hydration Extended work periods without rest resulting in heat stress 	 Personnel will be encouraged to hydrate frequently. Water to sports drink ratio will be 3:1 (1 sports drink to 3 waters consumed). Work to rest schedules will be determined based on the ambient temperature, acclimatization of personnel and work being performed. Heat stress potential and signs/symptoms will be discussed at all safety meetings, tailgate meetings and during breaks. Personnel will be encouraged to self-report any early symptoms of heat stress. All personnel will be advised that stop work authority applies to potential heat stress symptoms they may be experiencing, (or that they suspect with coworkers).
11. Break time	Potential for ingestion of petroleum product or other contaminants. Fire hazards from unrestricted smoking Direct sun reduces recovery time for workers during breaks Inadequate water	 Personnel will wash hands before smoking, eating, drinking or any other activity where contaminants might be ingested. This hazard will be stressed in break areas. Only smoke in designated areas. Ensure that break areas have adequate shade and cooling potential for personnel Personnel are more likely to hydrate when cool water is available. Ensure an adequate supply and include sports drinks with electrolytes to be consumed sparingly.
12. Decontaminate Personnel	Potential for secondary contamination by absorption, injection, or ingestion	 Follow decontamination plan for clothing removal and disposal when protective outerwear is required and becomes contaminated. Only use safety scissors (never knives) to cut Tyvek from personnel. Ensure that workers wash hands and face thoroughly.
NRC INCIDENT REPORTING POLICY	First Aid OSHA recordable Illness/Injury Near Miss Equipment/Vehicle Damage	 NRC employees and subcontractors are required to immediately report all incidents to their supervisor. The immediate supervisor will immediately report the incident to the site safety professional, HSEQ Manager, and Project Manager. As soon as possible the affected employee will complete the required form, if an injury then the first report of injury; if near miss, then a near miss / safety suggestion form will be completed. The supervisor will complete a root cause analysis of all reported incidents and submit to the HSEQ manager within 8 hours of an incident. Determination will be made regarding need for post-incident drug and alcohol testing based on NRC policy. Contact HSEQ Manager for proper USCG reports, if needed and what report is needed.

REVIEW

Development Team	Position/Title	Reviewed By	Position/Title	Date
				7/27/20
			bw	3-27-2

	ACKNOW	LEDGEIVIENT	
Employee Name	N	Signature	Date
			3-27-23
	-		3-27-23



SAFETY IT'S THE WAY TO GOT

Job Hazard Analysis

Revision: 08/2015

3/27/25

Trucks 2 #48



SAFETY MANAGEMENT SYSTEM

Joh Hazard Analysis

		JOD Mazaru	Arialysis		Revision: 08/2015
TASK DESC	CRIPTION: MC	20 Recovered Crude Oil / Ves	sel to Shore	Transfer 3	-28-23
		SUMMARY OF POTENTIAL	HAZARDS (Check		
Heavy or a movement	wkward lifting /	Pinch Points or caught be	etween	en Working and walking surfaces; slip, tri	
☐ New / Inex	perienced employe	ees Spill / containment		Heat stress environment	
Struck by o	r crush hazard	☑ Noise levels (>85 dBA)			
	liquids, vapors, wa	ste Elevated surfaces / Fall /	Ladders		
		APPLICABLE REGULA	TION / SOPS / AL	LERTS	
SMS 19.2 V	acuum Trucks				
		MINIMUM PERSONAL PROTECTI	VE EQUIPMENT (Check applicable)	
Level A	☐ Hard Hat	High Visibility Vest		er Steel Toe Boots	☑ PFD / Work vest
Level B	Safety Glass	es	☐ Dispos	able boot covers	
Level C	Face Shield	☐ Chemical protective cloth	ning Neopr	ene Steel Toe Boots	
□ Level D	Hearing Prot	ection Respirator:		:	
		JOB HAZAR	RD ANALYSIS		
	b Steps b Meetings	Potential Hazards Personnel do not understand the			asures / Special PPE zards and controls will be explained
	vior Based Safety	operational plan, relevant hazard or their roles/responsibilities Personnel do not stop work whe hazards are identified Personnel do not report injuries, illnesses, near misses or incident	n Ir	to all involved personne will be encouraged to a any project details mediate supervisor wi Authority and Responsi supervisor if they disco	el in Safety/Ops meeting. Personnel ask questions if they are unsure of ill remind their crews of their bility to Stop work and contact their ver a hazard ted to report any injuries, illnesses,
Equipment Set-up hazards. Equipment not cor damaged Improper set-up or unqualified por unqu		hazards. • Equipment not certified, not test or damaged	ed : Al	correct unsafe condition way from travel paths away from travel paths ll equipment will be ins testing and serviceable	ble walking surface hazards. Flag or ons. Position equipment and hoses s. Identify "no-go" areas. spected for current certifications, e working condition prior to work elected to perform tasks based on
		struck or crushed by moving vehicles or equipment • Vehicles not inspected prior to movements. Unsafe for travel.	• Gi ! • Ve • Ve	round guides will be us Non-essential personn path will be confirmed ehicles will be inspecte after travel for potentia ehicles will be inspecte	sed for equipment movements. el will clear the travel path. Travel as clear prior to movements. ed by drivers prior to travel and al damage. ed to ensure that there are no lads are secured properly.
worki	ing Vessel and ng near water	 Personnel struck by thrown lines caught in "line of fire". Personnel pinched or crushed during vessel movements. Personnel fall into the water. Ma overboard. 	to fall on the ground and pick them up. Do not catch mooring lines from the M/V. When mooring the vessel, keep hands, fingers, a other body parts from between the mooring lines.		ng lines to the shore allow the lines and pick them up. Do not attempt to me the M/V. I, keep hands, fingers, arms, and all between the mooring line and the resonnel within 5' of the docks edge USCG approved PFD. Always discuss dures prior to work. Have life ring
5. Conne	ecting hoses	Personnel crushed or pinched while connecting transfer hoses. Personnel suffer back strain or other ergonomic related injuries during connections or moving hoses Slip/trip/fall hazards while working transfer to the connection of the connection o	• Id ii F • Ti ii a	entify, communicate ar ncluding cam-lock conn parts or equipment transfer hoses can be hoses employees shall un ncluding keeping your to as lifting with your knee	nd avoid all crush/pinch points: nections, vehicles and other moving eavy and when handling these use proper ergonomic practices back as straight as possible as well



Revision: 08/2015

O Job Steps	Potential Hazards	Preventive Measures / Special PPE
		awareness when walking in the dock area. Try to run hoses in an area that is out of the normal walking path and go around if possible
6. Working in potentially hazardous atmospheres	Personnel exposed to hazards related to hazardous atmospheres. Ignition sources create potential for explosive conditions Personnel not equipped to suppress incipient fire	 Calibrated multi-gas meters/detectors will be used to confir that LEL's, CO and other gases are within safe range for pumping and transfer operations. Operations will transfer operations will stop immediately if LEL's or Carbon Monoxide levels become elevated A protective distance of 100' outside shoreside transfer will be identified, and marked with caution tape and warning signs to prohibit smoking, sparks and any potential source of ignition within the transfer area perimeter. The M/V will suspend all similar activities for the duration of transfer operations. Fire extinguishers will be placed at the transfer manifolds, compressors, vessel and any other areas of potential ignition.
Energizing pneumatic equipment	Personnel injured when struck by hoses or pressure during hose connection or fitting failure. Air leaks or blowout causing pressure related injuries. Hearing loss/injury due to noise levels above 85 decibels	 All pressurized hoses will have whip checks and safety clips installed prior to energizing. All pneumatic hoses will be inspected prior to use. Pumping operations will be stopped immediately if leaks are detected during operations. Defective hoses will be replaced with new hoses/whips. Hearing protection will be worn in all areas where highnolse machinery and equipment is being operated.
8. Transfer of recovered crude oil	Personnel contacted by crude oil spray or environmental release. Overfilling tank resulting in spills Personnel overcome by potentially hazardous vapors	 All transfer hoses used will be inspected, certified and tested prior to use. They will be secured with safety clips and wrapped with absorbent pads and duct tape. Polypropyler line will be used as an added retention measure. Personne will wear Level D PPE and increase protection as appropriate. Spill control kits/supplies will be available on site. The DOI Declaration of Inspection will be completed prior to operations. Prior to transfer the amount of product that can be accepted will be calculated and the PIC will ensure that there is ample room to handle the transferred product. Crude oil is a mixture of various hydrocarbons. Among the can be benzene, hydrogen sulfide, and other chemicals. There will be a properly calibrated and bump tested 4-gas meter on site during transfer to ensure vapors aren't present. All work will stop if hazardous gasses are detected. PPE will be upgraded according to the concentration of hazards detected. If personnel will work at heights above 6': fall protection will be worn and a rescue plan will be in place. Fire extinguishers will be placed at the transfer manifolds, compressors, vessel and any other areas of potential ignition.
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SAFETY IT'S THE VOICE TO GO!

Job Hazard Analysis

Revision: 0	8/2015
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O Job Steps	Potential Hazards	Preventive Measures / Special PPE
		 detected. PPE will be upgraded according to the concentration of hazards detected. If personnel will work at heights above 6': fall protection will be worn and a rescue plan will be in place. Fire extinguishers will be placed at the transfer manifolds, compressors, vessel and any other areas of potential ignition.
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11. Break time	Potential for ingestion of petroleum product or other contaminants. Fire hazards from unrestricted smoking Direct sun reduces recovery time for workers during breaks Inadequate water	 Personnel will wash hands before smoking, eating, drinking or any other activity where contaminants might be ingested. This hazard will be stressed in break areas. Only smoke in designated areas. Ensure that break areas have adequate shade and cooling potential for personnel Personnel are more likely to hydrate when cool water is available. Ensure an adequate supply and include sports drinks with electrolytes to be consumed sparingly.
12. Decontaminate Personnel	Potential for secondary contamination by absorption, injection, or ingestion	 Follow decontamination plan for clothing removal and disposal when protective outerwear is required and becomes contaminated. Only use safety scissors (never knives) to cut Tyvek from personnel. Ensure that workers wash hands and face thoroughly.
NRC INCIDENT REPORTING POLICY	First Aid OSHA recordable illness/Injury Near Miss Equipment/Vehicle Damage	 NRC employees and subcontractors are required to immediately report all inddents to their supervisor. The immediate supervisor will immediately report the incident to the site safety professional, HSEQ Manager, and Project Manager. As soon as possible the affected employee will complete the required form, if an injury then the first report of injury; if near miss, then a near miss / safety suggestion form will be completed. The supervisor will complete a root cause analysis of all reported incidents and submit to the HSEQ manager within 8 hours of an incident. Determination will be made regarding need for post-incident drug and alcohol testing based on NRC policy. Contact HSEQ Manager for proper USCG reports, if needed and what report is needed.

REVIEW

Development Team	Position/Title	Reviewed By	Position/Title	Date
			1	7/27/20
			J&W/	3-28-2

ACKNOWLEDGEMENT

Employee Name	21	Signature	Date
			3-28-23





Job Hazard Analysis

3/25/23
3-28-23



#48

SAFETY IT'S THE WAY TO GO!

						IT'S THE WAY TO GO!
			Job Hazard An	alysis		Revision: 08/2015
TASK DESC	CRIPTION: MC	20 Rec	covered Crude Oil / Vessel	to Shore	Transfer	3-29-23
			SUMMARY OF POTENTIAL HAZA		- A-7. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	
Heavy or a movement	awkward lifting /		☑ Pinch Points or caught between	100		lking surfaces; slip, trip, fall
☐ New / Inex	perienced employe	ees	Spill / containment		Heat stress envir	ronment
Struck by o			Noise levels (>85 dBA)			
	liquids, vapors, wa	ste	☐ Elevated surfaces / Fall / Ladd	ers		
			APPLICABLE REGULATION	/SOPS/A	LERTS	
SMS 19.2 \	Vacuum Trucks					
		M	INIMUM PERSONAL PROTECTIVE EC	QUIPMENT	(Check applicable)	
Level A Level B Level C Level D	□ Hard Hat □ Safety Glass □ Face Shield □ Hearing Prot		 ☐ High Visibility Vest ☑ Long Sleeves / Coveralls ☐ Chemical protective clothing ☐ Respirator: 	 ✓ Leather Steel Toe Boots ✓ Disposable boot covers ✓ Neoprene Steel Toe Boots ✓ Gloves: 		PFD / Work vest
			JOB HAZARD AI	4		
	ob Steps		Potential Hazards		Preventive Mea	asures / Special PPE
Personnel do not report injuries, illnesses, near misses or incidents Uneven working surfaces and trip hazards. Equipment Set-up hazards. Equipment not certified, not tested or damaged Improper set-up due to untrained		 The operational plan, hazards and controls will be explain to all involved personnel in Safety/Ops meeting. Personn will be encouraged to ask questions if they are unsure of any project details Immediate supervisor will remind their crews of their Authority and Responsibility to Stop work and contact th supervisor if they discover a hazard Personnel will be instructed to report any injuries, illnessed near misses or incidents 				
		azards. quipment not certified, not tested r damaged nproper set-up due to untrained r unqualified personnel	correct unsafe conditions. Positi away from travel paths. Identify All equipment will be inspected for testing and serviceable working		pected for current certifications, working condition prior to work ected to perform tasks based on	
str ve • Ve m		ersonnel, equipment or hoses ruck or crushed by moving chicles or equipment chicles not inspected prior to covements. Unsafe for travel. nsecured items create dropped oject or road hazards.	 Ground guides will be used for equipment mo Non-essential personnel will clear the travel path will be confirmed as clear prior to move Vehicles will be inspected by drivers prior to trafter travel for potential damage. Vehicles will be inspected to ensure that there loose items and that loads are secured proper. 		el will clear the travel path. Travel as clear prior to movements. d by drivers prior to travel and al damage. d to ensure that there are no	
4. Mooring Vessel and working near water • Per du • Per du • Per du		ersonnel struck by thrown lines or leight in "line of fire". ersonnel pinched or crushed uring vessel movements. ersonnel fall into the water. Man verboard.	 loose items and that loads are secured properly. When tossing the mooring lines to the shore allow the fall on the ground and pick them up. Do not atticated mooring lines from the M/V. When mooring the vessel, keep hands, fingers, arms other body parts from between the mooring line arbits on the dock Never work alone. All personnel within 5' of the dock are required to wear a USCG approved PFD. Always 		g lines to the shore allow the lines of pick them up. Do not attempt to the M/V. If keep hands, fingers, arms, and all etween the mooring line and the sonnel within 5' of the docks edge	

Personnel crushed or pinched

Personnel suffer back strain or

hoses

while connecting transfer hoses.

other ergonomic related injuries during connections or moving

Slip/trip/fall hazards while working

Connecting hoses

"man overboard" procedures prior to work. Have life ring

including cam-lock connections, vehicles and other moving

Transfer hoses can be heavy and when handling these hoses employees shall use proper ergonomic practices including keeping your back as straight as possible as well as lifting with your knees and not your back

Observe good housekeeping and maintain situational

Identify, communicate and avoid all crush/pinch points:

and recovery plan in place.

parts or equipment



Revision: 08/2015

O Job Ste	eps Potential Hazards	Preventive Measures / Special PPE
		awareness when walking in the dock area. Try to run hoses in an area that is out of the normal walking path and go around if possible
6. Working in hazardous atmospher	es Personnel exposed to hazards related to hazardous atmosphers Ignition sources create potent for explosive conditions Personnel not equipped to suppress incipient fire	 Calibrated multi-gas meters/detectors will be used to confirm that LEL's, CO and other gases are within safe range for
7. Energizing p equipment	Personnel injured when struck hoses or pressure during hose connection or fitting failure. Air leaks or blowout causing pressure related injuries. Hearing loss/injury due to nois levels above 85 decibels	 All pressurized hoses will have whip checks and safety clips installed prior to energizing. All pneumatic hoses will be inspected prior to use. Pumping operations will be stopped immediately if leaks are detected during operations. Defective hoses will be
8. Transfer of crude oil	Personnel contacted by crude spray or environmental release Overfilling tank resulting in spi Personnel overcome by potent hazardous vapors	oil All transfer hoses used will be inspected, certified and tested prior to use. They will be secured with safety clips and wrapped with absorbent pads and duct tape. Polypropylene
9. Transfer of c transporter	Personnel contacted by crude of spray or environmental release Overfilling transportation vessed resulting in spills Personnel overcome by potent hazardous vapors Fall hazards present if personnel are working above 6 feet	prior to use. They will be secured with safety clips and wrapped with absorbent pads and duct tape. Polypropylene line will be used as an added retention measure. Personnel will wear Level D PPE and increase protection as appropriate. Spill control kits/supplies will be available on site.



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Job Hazard Analysis

Revision: 08/2015

O Job Steps	Potential Hazards	Preventive Measures / Special PPE
		 detected. PPE will be upgraded according to the concentration of hazards detected. If personnel will work at heights above 6': fall protection wi be worn and a rescue plan will be in place. Fire extinguishers will be placed at the transfer manifolds, compressors, vessel and any other areas of potential ignition.
Prolonged exposure to elements (Heat Stress)	Inadequate hydration Extended work periods without rest resulting in heat stress	 Personnel will be encouraged to hydrate frequently. Water t sports drink ratio will be 3:1 (1 sports drink to 3 waters consumed). Work to rest schedules will be determined based on the ambient temperature, acclimatization of personnel and work being performed. Heat stress potential and signs/symptoms will be discussed at all safety meetings, tailgate meetings and during breaks. Personnel will be encouraged to self-report any early symptoms of heat stress. All personnel will be advised that stop work authority applies to potential heat stress symptoms they may be experiencing, (or that they suspect with coworkers).
11. Break time	 Potential for ingestion of petroleum product or other contaminants. Fire hazards from unrestricted smoking Direct sun reduces recovery time for workers during breaks Inadequate water 	 Personnel will wash hands before smoking, eating, drinking or any other activity where contaminants might be ingested. This hazard will be stressed in break areas. Only smoke in designated areas. Ensure that break areas have adequate shade and cooling potential for personnel Personnel are more likely to hydrate when cool water is available. Ensure an adequate supply and include sports drinks with electrolytes to be consumed sparingly.
12. Decontaminate Personnel	Potential for secondary contamination by absorption, injection, or ingestion	 Follow decontamination plan for clothing removal and disposal when protective outerwear is required and becomes contaminated. Only use safety scissors (never knives) to cut Tyvek from personnel. Ensure that workers wash hands and face thoroughly.
NRC INCIDENT REPORTING POLICY	First Aid OSHA recordable Illness/Injury Near Miss Equipment/Vehicle Damage	 NRC employees and subcontractors are required to immediately report all incidents to their supervisor. The immediate supervisor will immediately report the incident to the site safety professional, HSEQ Manager, and Project Manager. As soon as possible the affected employee will complete the required form, if an injury then the first report of injury; if near miss, then a near miss / safety suggestion form will be completed. The supervisor will complete a root cause analysis of all reported incidents and submit to the HSEQ manager within 8 hours of an incident. Determination will be made regarding need for post-incident drug and alcohol testing based on NRC policy. Contact HSEQ Manager for proper USCG reports, if needed and what report is needed.

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Development Team	Position/Title	Reviewed By	Position/Title	Date
				7/27/20
			PM	3-29-

ACKNOWLEDGEMENT

Employee Name	△ Signature	Date
		3-29-23
		3-24-73





Job Hazard Analysis

Revision: 08/2015

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3-29-23
J-25-23



y Water 2 True

Revision: 08/2015

			SUMMARY OF POTENTIAL HAZA	ARDS (Check	k applicable)	3-30-23
Heavy or a movement	awkward lifting /		Pinch Points or caught between	en	Working and wal	king surfaces; slip, trip, fall
☐ New / Inex	xperienced employe	ees	Spill / containment		Heat stress envir	onment
Struck by	Struck by or crush hazard		☑ Noise levels (>85 dBA)			
	liquids, vapors, wa	ste	⊠ Elevated surfaces / Fall / Ladders			
			APPLICABLE REGULATION			
☐ SMS 19.2 \	Vacuum Trucks				In	
		MIN	NIMUM PERSONAL PROTECTIVE EC	HIDMENT	(Check applicable)	
Level A Level B Level C Level D	☐ Hard Hat ☐ Safety Glasso ☐ Face Shield ☐ Hearing Prot	es	☐ High Visibility Vest ☐ Long Sleeves / Coveralls ☐ Chemical protective clothing ☐ Respirator:	Leath □ Dispo	er Steel Toe Boots sable boot covers rene Steel Toe Boots	PFD / Work vest
			JOB HAZARD AI			
	ob Steps		Potential Hazards		Preventive Mea	sures / Special PPE
 Pre-job Meetings Behavior Based Safety Personnel do not understand the operational plan, relevant hazards or their roles/responsibilities Personnel do not stop work when hazards are identified The operational plan, have to all involved personn will be encouraged to any project details Immediate supervisor was Authority and Respons supervisor if they discovered. 		cted to report any injuries, illnesses,				
Site Survey and Equipment Set-up Uneven working surfaces and trip hazards. Equipment not certified, not tested or damaged Improper set-up due to untrained or unqualified personnel Personnel, equipment or hoses struck or crushed by moving vehicles or equipment Vehicles not inspected prior to movements. Unsafe for travel. Unsecured items create dropped object or road hazards.		 Inspect site for correctable walking surface hazards. Flag correct unsafe conditions. Position equipment and hose away from travel paths. Identify "no-go" areas. All equipment will be inspected for current certifications, testing and serviceable working condition prior to work Personnel will be pre-selected to perform tasks based on verified competency 				
		stru veh • Veh mo	uck or crushed by moving nicles or equipment nicles not inspected prior to vements. Unsafe for travel.	prior to travel. Non-essential personnel will clear the path will be confirmed as clear prior to Vehicles will be inspected by drivers prior travel. After travel for potential damage.		I will clear the travel path. Travel as clear prior to movements. d by drivers prior to travel and I damage. d to ensure that there are no
worki	ring Vessel and íng near water	 Personnel struck by thrown lines or caught in "line of fire". Personnel pinched or crushed during vessel movements. Personnel fall into the water. Man overboard. When tossing the mooring lines to the to fall on the ground and pick them to catch mooring lines from the M/V. When mooring the vessel, keep hands other body parts from between the n bits on the dock Never work alone. All personnel within are required to wear a USCG approve "man overboard" procedures prior to and recovery plan in place. 		g lines to the shore allow the lines of pick them up. Do not attempt to the M/V. It keep hands, fingers, arms, and all etween the mooring line and the sonnel within 5' of the docks edge ISCG approved PFD. Always discuss ures prior to work, Have life ring		
5. Conn	ecting hoses	 Whi Per oth dur hos 	sonnel crushed or pinched ile connecting transfer hoses. sonnel suffer back strain or er ergonomic related injuries ing connections or moving ses /trip/fall hazards while working	• 10	dentify, communicate and including cam-lock conne parts or equipment Transfer hoses can be he hoses employees shall us including keeping your boas as lifting with your knees	d avoid all crush/pinch points: ections, vehicles and other moving eavy and when handling these se proper ergonomic practices ack as straight as possible as well





Job Steps	Potential Hazards	Preventive Measures / Special PPE
		awareness when walking in the dock area. Try to run hoses in an area that is out of the normal walking path and go around if possible
6. Working in potentially hazardous atmospheres	 Personnel exposed to hazards related to hazardous atmospheres. Ignition sources create potential for explosive conditions Personnel not equipped to suppress incipient fire 	 Calibrated multi-gas meters/detectors will be used to confire that LEL's, CO and other gases are within safe range for pumping and transfer operations. Operations will transfer operations will stop immediately if LEL's or Carbon Monoxide levels become elevated A protective distance of 100' outside shoreside transfer will be identified, and marked with caution tape and warning signs, to prohibit smoking, sparks and any potential source of ignition within the transfer area perimeter. The M/V will suspend all similar activities for the duration of transfer operations. Fire extinguishers will be placed at the transfer manifolds, compressors, vessel and any other areas of potential ignition.
Energizing pneumatic equipment	Personnel injured when struck by hoses or pressure during hose connection or fitting failure. Air leaks or blowout causing pressure related injuries. Hearing loss/injury due to noise levels above 85 decibels	 All pressurized hoses will have whip checks and safety clips installed prior to energizing. All pneumatic hoses will be inspected prior to use. Pumping operations will be stopped immediately if leaks are detected during operations. Defective hoses will be replaced with new hoses/whips. Hearing protection will be worn in all areas where highnoise machinery and equipment is being operated.
8. Transfer of recovered crude oil	Personnel contacted by crude cill spray or environmental release Overfilling tank resulting in spills Personnel overcome by potentially hazardous vapors	 All transfer hoses used will be inspected, certified and tester prior to use. They will be secured with safety clips and wrapped with absorbent pads and duct tape. Polypropylen line will be used as an added retention measure. Personne will wear Level D PPE and increase protection as appropriate. Spill control kits/supplies will be available on site. The DOI Declaration of Inspection will be completed prior to operations. Prior to transfer the amount of product that can be accepted will be calculated and the PIC will ensure that there is ample room to handle the transferred product. Crude oil is a mixture of various hydrocarbons. Among ther can be benzene, hydrogen sulfide, and other chemicals. There will be a properly calibrated and bump tested 4-gas meter on site during transfer to ensure vapors aren't present. All work will stop if hazardous gasses are detected. PPE will be upgraded according to the concentration of hazards detected. If personnel will work at heights above 6': fall protection will be worn and a rescue plan will be in place. Fire extinguishers will be placed at the transfer manifolds, compressors, vessel and any other areas of potential ignition.
9. Transfer of oil into transporter	Personnel contacted by crude oil spray or environmental release Overfilling transportation vesse resulting in spills Personnel overcome by potentially hazardous vapors Fall hazards present if personnel are working above 6 feet	 All transfer hoses used will be inspected, certified and tested prior to use. They will be secured with safety clips and wrapped with absorbent pads and duct tape. Polypropylene line will be used as an added retention measure. Personnel will wear Level D PPE and increase protection as appropriate. Spill control kits/supplies will be available on site. Prior to transfer the amount of product that can be accepted will be calculated and the PIC will ensure that there is ample room to handle the transferred product. Crude oil is a mixture of various hydrocarbons. Among them can be benzene, hydrogen sulfide, and other chemicals. There will be a properly calibrated and bump tested 4-gas meter on site during transfer to ensure vapors aren't present. All work will stop if hazardous gasses are





Job Hazard Analysis

O Job Steps	Potential Hazards	Preventive Measures / Special PPE
		 detected. PPE will be upgraded according to the concentration of hazards detected. If personnel will work at heights above 6': fall protection will be worn and a rescue plan will be in place. Fire extinguishers will be placed at the transfer manifolds, compressors, vessel and any other areas of potential ignition.
Prolonged exposure to elements (Heat Stress)	Inadequate hydration Extended work periods without rest resulting in heat stress	 Personnel will be encouraged to hydrate frequently. Water to sports drink ratio will be 3:1 (1 sports drink to 3 waters consumed). Work to rest schedules will be determined based on the ambient temperature, acclimatization of personnel and work being performed. Heat stress potential and signs/symptoms will be discussed at all safety meetings, tailgate meetings and during breaks. Personnel will be encouraged to self-report any early symptoms of heat stress. All personnel will be advised that stop work authority applies to potential heat stress symptoms they may be experiencing, (or that they suspect with coworkers).
11. Break time	Potential for ingestion of petroleum product or other contaminants. Fire hazards from unrestricted smoking Direct sun reduces recovery time for workers during breaks Inadequate water	 Personnel will wash hands before smoking, eating, drinking or any other activity where contaminants might be ingested. This hazard will be stressed in break areas. Only smoke in designated areas. Ensure that break areas have adequate shade and cooling potential for personnel Personnel are more likely to hydrate when cool water is available. Ensure an adequate supply and include sports drinks with electrolytes to be consumed sparingly.
12. Decontaminate Personnel	Potential for secondary contamination by absorption, injection, or ingestion	 Follow decontamination plan for clothing removal and disposal when protective outerwear is required and becomes contaminated. Only use safety scissors (never knives) to cut Tyvek from personnel. Ensure that workers wash hands and face thoroughly.
NRC INCIDENT REPORTING POLICY	First Aid OSHA recordable Illness/Injury Near Miss Equipment/Vehicle Damage	 NRC employees and subcontractors are required to immediately report all incidents to their supervisor. The immediate supervisor will immediately report the incident to the site safety professional, HSEQ Manager, and Project Manager. As soon as possible the affected employee will complete the required form, if an injury then the first report of injury; if near miss, then a near miss / safety suggestion form will be completed. The supervisor will complete a root cause analysis of all reported incidents and submit to the HSEQ manager within 8 hours of an incident. Determination will be made regarding need for post-incident drug and alcohol testing based on NRC policy. Contact HSEQ Manager for proper USCG reports, if needed and what report is needed.

REVIEW

Development Team	Position/Title	Reviewed By	Position/Title	Date
				7/27/20
			AM	3-30-27

Employee Name		Signature	Date
			3-30-23
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Job Hazard Analysis

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