

# TECHNICAL MEMORANDUM

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**To:** Nevada Environmental Response Trust

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**Cc:** Nevada Division of Environmental Protection

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**From:** David Bohmann and Bounkheana Chhun

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**Date:** January 4, 2019

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**Subject:** AP-5 Operation and Maintenance Summary – October and November 2018  
Nevada Environmental Response Trust Site; Henderson, Nevada

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At the direction of the Nevada Environmental Response Trust (NERT or Trust), Tetra Tech, Inc. (Tetra Tech) has prepared this summary of the operation and maintenance (O&M) activities performed during October and November 2018 for the AP-5 Pond Phase III sediment mixing, Phase IVa solids washing, and decant water transfer. The system was operated and maintained in accordance with the AP-5 Pond Sediment Washing Treatment Process Operations & Maintenance Manual.

## SUMMARY OF O&M ACTIVITIES

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Tetra Tech continued operation and maintenance activities associated with the AP-5 sediment mixing and washing system in October and November 2018 to provide mixing of the AP-5 slurry to keep the sediment in suspension and facilitate extraction of ammonium perchlorate. Operation and maintenance activities associated with solids washing and decant transfer operations were also ongoing during October and November 2018.

## SOLIDS WASHING AND DECANT WATER TRANSFER

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Throughout October and November 2018, routine procedures for washing the solids and transferring decant water were followed. Mixers were run periodically to wash solids while reducing mechanical wear on system components. Approximately 96,653 gallons of AP-5 wash water was decanted from the Process Tanks and transferred to the Day Tank in October 2018 and approximately 120,591 gallons of AP-5 wash water was decanted from the Process Tanks and transferred to the Day Tank in November 2018. A summary of daily AP-5 wash water volumes that were decanted from the Process Tanks and transferred to the Day Tank in October and November 2018 are provided in the attached Tables 1a and 1b. The cumulative total of AP-5 wash water volumes that were decanted from the Process Tanks and transferred to the Day Tank is presented in Table 2a. The cumulative total of Stabilized Lake Mead Water (SLMW) added to the Process Tanks for sediment washing is presented in Table 2b. Note that the SLMW flowmeter readings presented in the routine inspection forms (Attachment A) include both the volume of SLMW added to the Process Tanks for sediment washing and for dilution of AP-5 wash water during transfer (discussed below) and flushing of the lines following each batch transfer.

Once the AP-5 wash water has been decanted from the Process Tanks and transferred to the Day Tank, Envirogen Technologies, Inc. (ETI) transfers the water to the Receiving Tank and subsequently blends the AP-5 water with extracted groundwater for treatment by the Fluidized Bed Reactors. ETI controls and operates the transfer of the AP-5 wash water from the Day Tank to the Receiving Tank, which includes an option to dilute the AP-5 wash water with SLMW to achieve a consistent concentration at the Receiving Tank. The dilution setting is adjustable and has a default setting of 3% perchlorate. During the months of October and November 2018, ETI adjusted the dilution parameters to achieve a lower concentration in the Receiving Tank as a conservative measure to control influent concentrations to the fluidized bed reactors (FBRs). The AP-5 wash water was diluted to an average batch concentration of 1.9% in October and November 2018.

## Perchlorate Mass Removal Estimates

Prior to the start of solids washing, the Process Tanks were sampled to provide an estimate of the starting mass of perchlorate in the Process Tanks. The average starting perchlorate mass estimate is provided on Tables 3 and 4. Following residual solids transfer, the Process Tanks were resampled on July 26 and July 27, 2018 to determine the mass transferred and the resulting mass in the Process Tanks. The updated perchlorate mass estimate is also provided on Tables 3 and 4.

Two methods are used to estimate subsequent perchlorate mass removal resulting from the solids washing process. Due to differing constraints associated with each method, the two methods are intended to provide a range of reasonable estimates for perchlorate mass removal. The first mass removal estimate method uses single-point monthly Process Tank samples to estimate the mass of perchlorate removed from each Process Tank and the remaining perchlorate mass in each tank (Table 3 and Figure 1). The second mass removal estimate method uses the average concentration of each batch of decant water transferred by ETI from the Day Tank to the Receiving Tank. The average batch concentration is estimated by an in-line mass flow meter that continuously measures fluid density and flow rate. The density is converted to perchlorate concentration based on a density-to-perchlorate concentration curve developed from laboratory analysis. An estimate of the total mass of perchlorate removed from the Process Tanks based on the mass flow meter readings is presented in Table 4. Table 4 also includes an estimate of the perchlorate mass added to the Process Tanks as part of final pond closure activities based on single point samples from each Process Tank.

The total perchlorate mass remaining using both methods described above is presented on Figure 2. The deviations in the total mass removal using the two methods is believed to be primarily the result of the use of single monthly samples from each Process Tank. The initial and subsequent comprehensive perchlorate mass estimates developed for the Process Tanks revealed significant variability in individual perchlorate sample results within each tank. Therefore, the mass estimates calculated from the single-point monthly samples are subject to this variability. The mass removal approach using the mass flow meter also has limitations that likely contribute in part to the observed deviation in mass estimates. The mass flow meter approach relies on a density-to-perchlorate concentration curve previously developed from laboratory analysis but does not utilize laboratory data each month. This method also does not include the mass in AP-5 wash water in the Day Tank that has been decanted from the Process Tanks but not yet processed through the mass flow meter. Therefore, the perchlorate mass removal using these two approaches, as summarized in Figure 2, is intended to provide a range of reasonable estimates for perchlorate mass removal.

## Ammonia Mass Removal Estimates

The Process Tanks were sampled on November 1, 2017 to provide an estimate of the mass of ammonia in the tanks at that time. Similar to the sampling for the starting perchlorate mass estimate, the starting ammonia mass estimate incorporates data obtained from sampling of the Process Tanks. The average ammonia mass estimate as of November 1, 2017 is provided as the starting mass on Table 5. The tanks were resampled on July 26 and July 27, 2018 to determine the ammonia mass transferred during pond solids removal and the resulting mass in the Process Tanks. The updated ammonia mass estimate for each tank is shown on Table 5 and Figure 3. Single-

point monthly tank samples resumed in October and November 2018 for estimating the mass of ammonia removed from each Process Tank and the remaining ammonia mass in each tank.

## Treatment Timeline

As part of evaluating the long-term treatment approach for perchlorate and ammonia, a projected treatment timeline was developed using the estimated mass loading to the Process Tanks and expected treatment rates. This treatment timeline projection is routinely updated with operational data (flow rates and concentrations). The treatment timeline projections beyond this reporting period are also routinely updated with actual recent treatment rates as the basis for estimating future treatment rates. The estimated FBR feed rates used for projections are 2 gpm at 2% perchlorate in the summer season and 10 gpm at 2% perchlorate in the winter season. The original and updated projected treatment timelines are provided in the attached Figure 4. The updated projection remains generally consistent with the previous O&M summary report. Based on current information, solids treatment is expected to be completed in the first quarter of 2020. The projected ending date will periodically change since this is a dynamic treatment process with many variables affecting actual treatment rates and mass estimates used to project the treatment timeline.

## ROUTINE INSPECTIONS

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Routine inspections were conducted throughout October and November 2018. Routine inspections are intended to proactively identify potential issues or concerns with key infrastructure, identify and perform routine maintenance tasks, and confirm process equipment is ready for service. During the inspections, Tetra Tech staff visually inspected the Process Tanks, Day Tank, piping, secondary containment, and the liner system for damage and leaks; confirmed mixer operation; and recorded findings on the inspection forms. Inspections, testing, and maintenance of the dilution lines, transfer lines, and Receiving Tank are under the responsibility of ETI as of July 17, 2017. Copies of routine inspection forms are provided in Attachment A. Summaries of the primary inspection activities are included below.

### Process Piping

The piping within the AP-5 Process Area secondary containment area was inspected on a routine basis. AP-5 sediment wash water was decanted from the Process Tanks and transferred to the Day Tank routinely throughout the months of October and November 2018. The findings of the inspections are provided below:

- No visible damage to, or leaks from, the AP-5 process piping were observed.

### Secondary Containment

The AP-5 Process Area secondary containment liner was inspected by 360-degree perimeter inspections on a routine basis. The findings of the inspections are provided below:

- No damage to the secondary containment liner was observed.
- Stormwater accumulated on the secondary containment liner and in equipment pad sumps and was pumped to the Process Tanks on October 21, 2018, November 29, 2018, and November 30, 2018.

### Tanks and Equipment

Process Tanks T-201, T-202 and T-203, and Day Tank T-204 were inspected on a routine basis in October and November 2018. The findings of the inspections are provided below:

- No visible damage to, or leaks from, Process Tanks or the Day Tank were observed.
- Precipitate on the interior sides of the Process Tanks and impeller shafts was routinely washed down in all three tanks.

- The pH sensor on the Day Tank was repaired on November 7, 2018.
- A minor oil leak was discovered from a seal on the T-201 gear box on September 27, 2018. The seal was repaired on October 30, 2018.

## MONTHLY INSPECTION

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The October and November monthly inspections were conducted on October 31, 2018 and November 30, 2018. Monthly inspections are conducted to provide a more thorough investigation of major equipment and parts and to confirm functionality of key control and interlock components. The monthly inspection form is provided in Attachment B. A summary of the findings is provided below:

- Spare parts for operation of the AP-5 slurry treatment system were present and stored on site.
- Air operated double diaphragm pumps were tested, and all were found to be in good working order.
- High-high level alarms for the Process Tanks and Day Tank were tested. All of the level sensors were observed to be functional at the time of the testing.

## NON-ROUTINE TASKS

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As part of final AP-5 Pond closure, the transfer of residual solids from the pond to the Process Tanks began in April 2018 and was complete in July 2018. The cutting and removal of the pond liner and drainage layer was completed in August 2018. Upon completion of the liner system removal, the pond berm was excavated, profiled and properly disposed in September 2018. The depression was backfilled using imported material to achieve final grade established in the closure plan. On October 12, 2018, Tetra Tech completed final closure of the AP-5 Pond.

## CERTIFICATION

### AP-5 Operation and Maintenance Summary – October and November 2018

**Nevada Environmental Response Trust Site  
(Former Tronox LLC Site)  
Henderson, Nevada**

**Nevada Environmental Response Trust (NERT) Representative Certification**

I certify that this document and all attachments submitted to the Division were prepared at the request of, or under the direction or supervision of NERT. Based on my own involvement and/or my inquiry of the person or persons who manage the systems(s) or those directly responsible for gathering the information or preparing the document, or the immediate supervisor of such person(s), the information submitted and provided herein is, to the best of my knowledge and belief, true, accurate, and complete in all material respects.

Office of the Nevada Environmental Response Trust

Le Petomane XXVII, not individually, but solely in its representative capacity as the Nevada Environmental Response Trust Trustee

**Signature:** Jay A Steinberg, not individually, but solely in his representative capacity as President of the Nevada Environmental Response Trust Trustee

*not individually, but solely as Pres*

**Name:** Jay A. Steinberg, not individually, but solely in his representative capacity as President of the Nevada Environmental Response Trust Trustee

**Title:** Solely as President and not individually

**Company:** Le Petomane XXVII, Inc., not individually, but solely in its representative capacity as the Nevada Environmental Response Trust Trustee

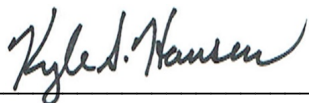
**Date:** 11/4/18

## CERTIFICATION

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I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been prepared in a manner consistent with the current standards of the profession, and to the best of my knowledge, comply with all applicable federal, state, and local statutes, regulations, and ordinances. I hereby certify that all laboratory analytical data was generated by a laboratory certified by the NDEP for each constituent and media presented herein.

**Description of Services Provided:** Prepared AP-5 Operation and Maintenance Summary for October and November 2018.



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**Kyle Hansen, CEM**  
Field Operations Manager/Geologist  
Tetra Tech, Inc.

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January 4, 2019

Date

Nevada CEM Certificate Number: 2167  
Nevada CEM Expiration Date: September 18, 2020

## Figures

Figure 1. Estimate of Perchlorate Mass Remaining in Process Tanks

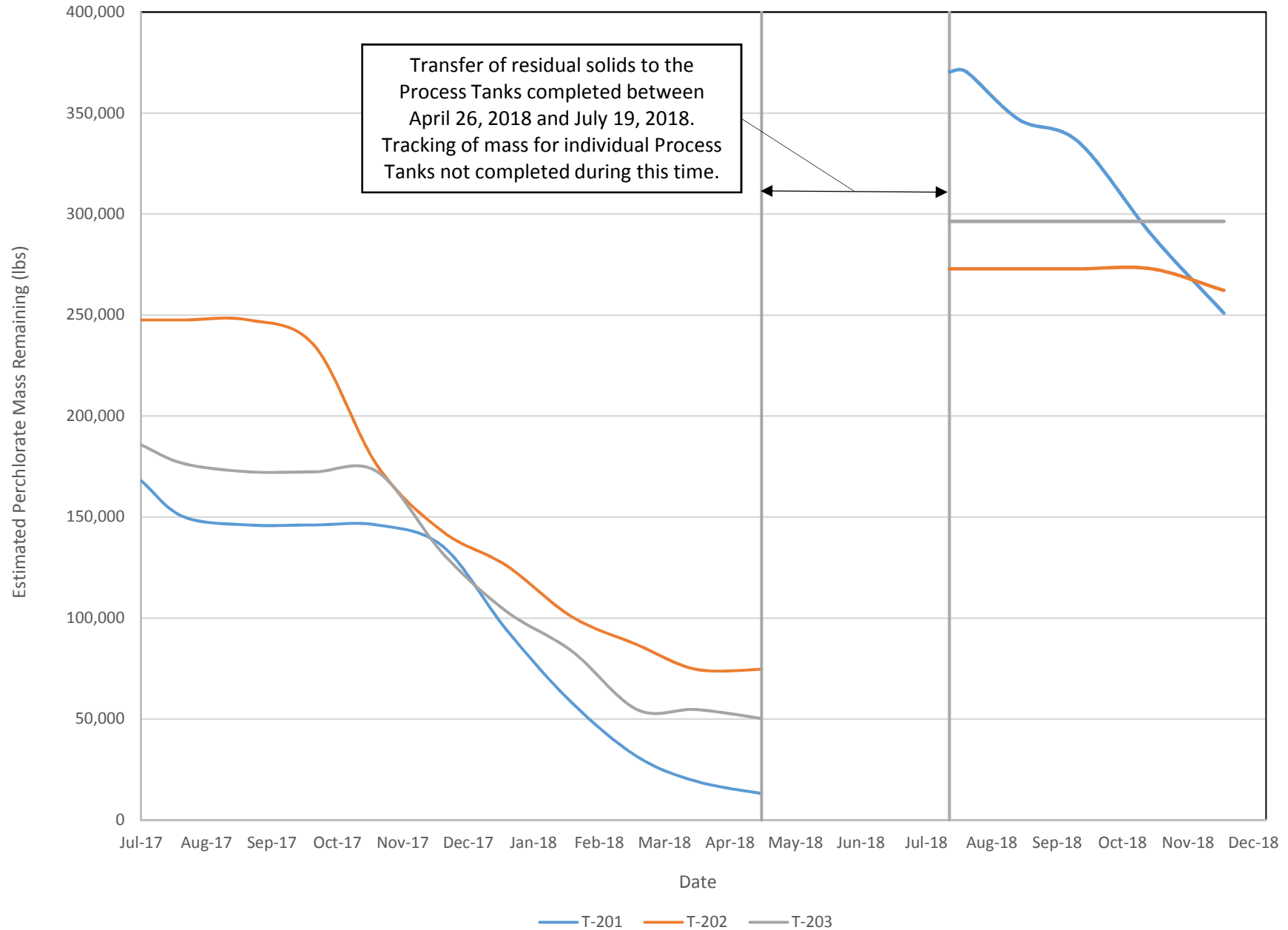




Figure 2. Estimate of Total Perchlorate Mass Remaining in Process Tanks

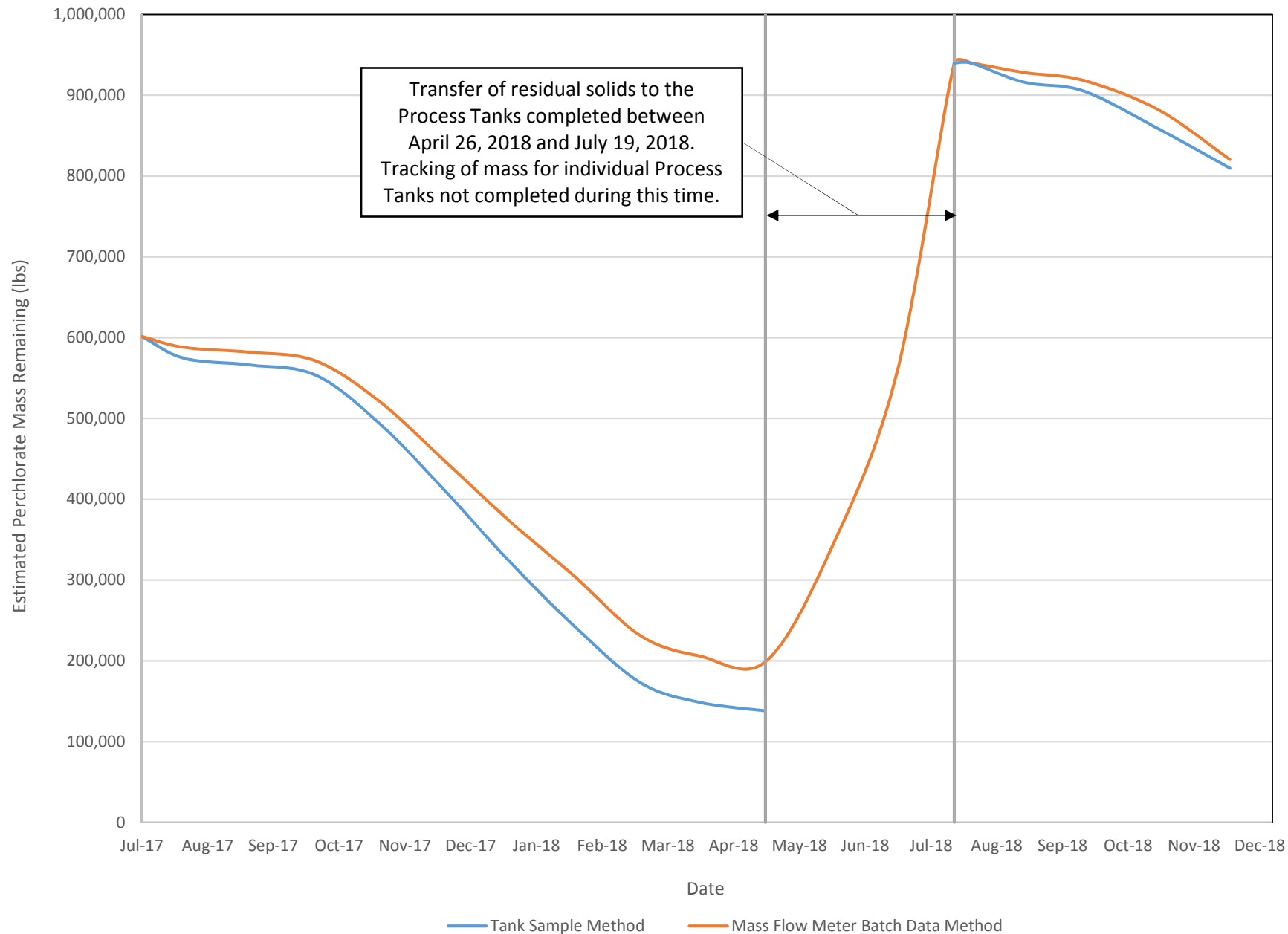


Figure 3. Estimate of Ammonia Mass Remaining in Process Tanks

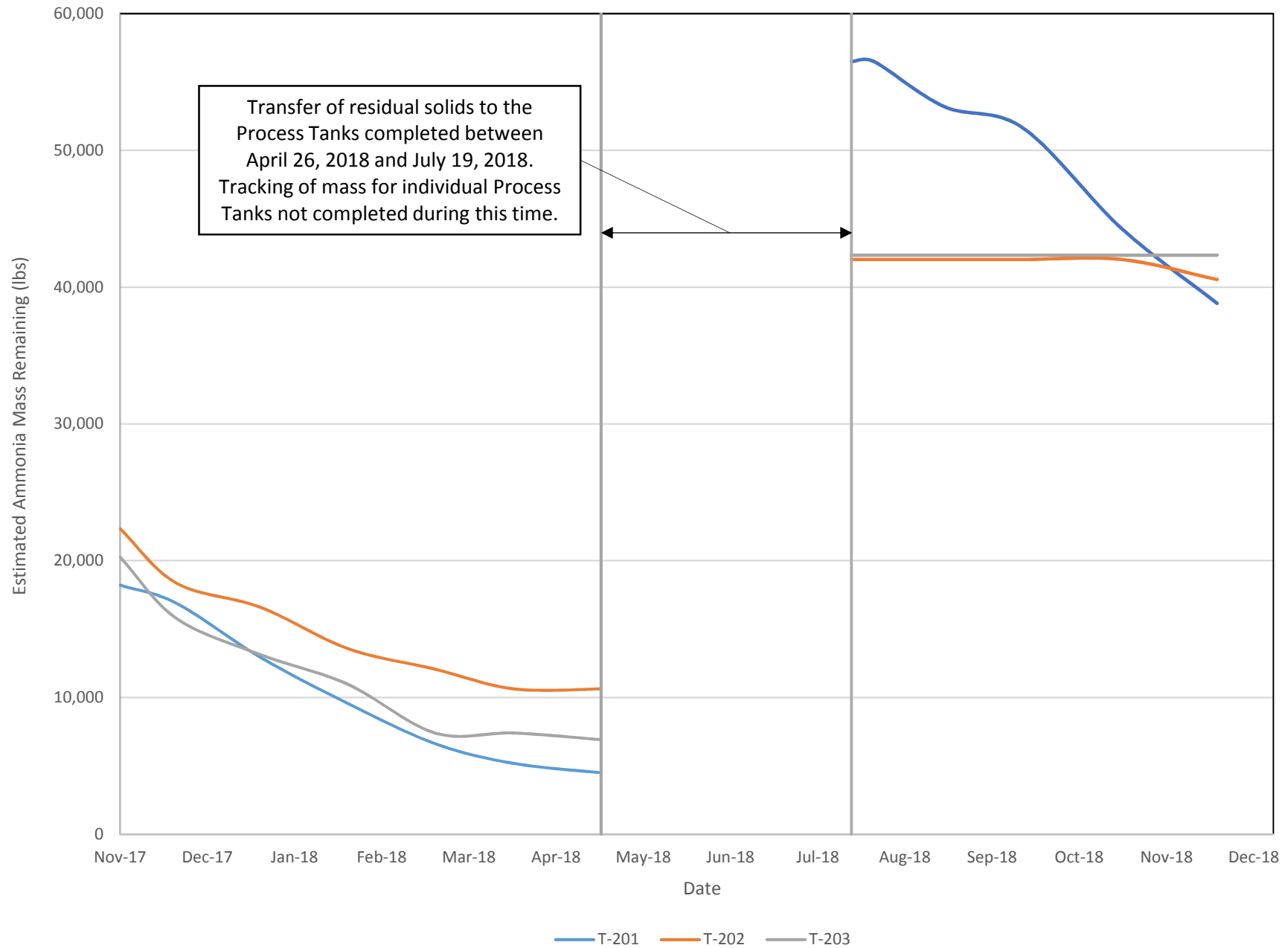
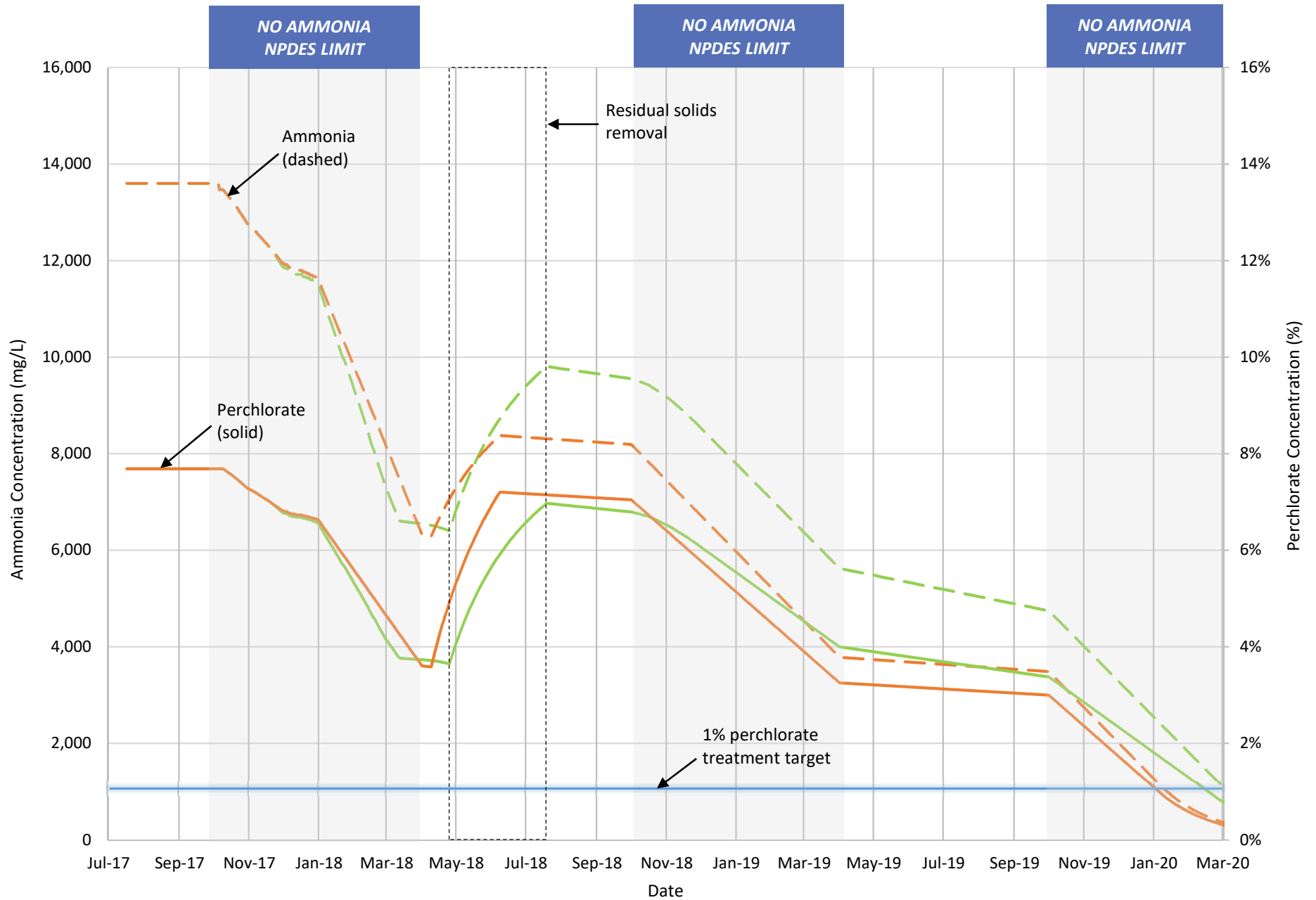


Figure 4. Projected AP-5 Solids Treatment Timeframe



Notes: Orange lines depict November 2017 treatment estimates; Green lines depict current treatment estimates.  
 This model uses simplified assumptions regarding AP-5 decant water treatment feed rate and addition of SLMW for wash water.

## Tables

**Table 1a. October Monthly AP-5 Wash Water Decant Records**

Date	T-201 (Gallons)	T-202 (Gallons)	T-203 (Gallons)	Daily Total (Gallons)
10/1/2018	-	-	-	-
10/2/2018	-	-	-	-
10/3/2018	20,079	-	-	20,079
10/4/2018	-	-	-	-
10/5/2018	-	-	-	-
10/6/2018	-	-	-	-
10/7/2018	-	-	-	-
10/8/2018	-	-	-	-
10/9/2018	-	-	-	-
10/10/2018	-	-	-	-
10/11/2018	-	-	-	-
10/12/2018	21,461	-	-	21,461
10/13/2018	-	-	-	-
10/14/2018	-	-	-	-
10/15/2018	-	-	-	-
10/16/2018	-	-	-	-
10/17/2018	-	-	-	-
10/18/2018	-	-	-	-
10/19/2018	-	-	-	-
10/20/2018	8,202	-	-	8,202
10/21/2018	-	-	-	-
10/22/2018	-	-	-	-
10/23/2018	22,454	-	-	22,454
10/24/2018	-	-	-	-
10/25/2018	-	-	-	-
10/26/2018	-	-	-	-
10/27/2018	-	-	-	-
10/28/2018	-	-	-	-
10/29/2018	24,457	-	-	24,457
10/30/2018	-	-	-	-
10/31/2018	-	-	-	-
<b>Total</b>	<b>96,653</b>	<b>-</b>	<b>-</b>	<b>96,653</b>

## Notes:

1 - Decant volumes presented are based on the starting and ending volumes in the Day Tank during decant operations, plus the volume that was transferred by ETI to the Receiving Tank during the time decant operations were occurring.

**Table 1b. November Monthly AP-5 Wash Water Decant Records**

Date	T-201 (Gallons)	T-202 (Gallons)	T-203 (Gallons)	Daily Total (Gallons)
11/1/2018	-	-	-	-
11/2/2018	-	-	-	-
11/3/2018	-	-	-	-
11/4/2018	-	-	-	-
11/5/2018	26,399	-	-	26,399
11/6/2018	-	-	-	-
11/7/2018	-	-	-	-
11/8/2018	-	-	-	-
11/9/2018	14,393	-	-	14,393
11/10/2018	-	-	-	-
11/11/2018	-	-	-	-
11/12/2018	-	-	-	-
11/13/2018	-	-	-	-
11/14/2018	21,846	-	-	21,846
11/15/2018	-	-	-	-
11/16/2018	-	-	-	-
11/17/2018	-	-	-	-
11/18/2018	-	-	-	-
11/19/2018	20,640	-	-	20,640
11/20/2018	-	-	-	-
11/21/2018	-	-	-	-
11/22/2018	-	-	-	-
11/23/2018	-	-	-	-
11/24/2018	17,037	-	-	17,037
11/25/2018	-	-	-	-
11/26/2018	-	-	-	-
11/27/2018	-	20,276	-	20,276
11/28/2018	-	-	-	-
11/29/2018	-	-	-	-
11/30/2018	-	-	-	-
<b>Total</b>	<b>100,315</b>	<b>20,276</b>	<b>-</b>	<b>120,591</b>

## Notes:

1 - Decant volumes presented are based on the starting and ending volumes in the Day Tank during decant operations, plus the volume that was transferred by ETI to the Receiving Tank during the time decant operations were occurring.

**Table 2a. Cumulative AP-5 Wash Water Decant and Transfer Records**

<b>Month</b>	<b>T-201 (Gallons)</b>	<b>T-202 (Gallons)</b>	<b>T-203 (Gallons)</b>	<b>Monthly Total (Gallons)</b>
July 2017	38,377		20,906	59,283
August 2017	8,868		9,454	18,322
September 2017		22,819		22,819
October 2017		117,200		117,200
November 2017	26,567	65,048	98,171	189,786
December 2017	88,449	43,485	71,600	203,534
January 2018	95,673	81,036	59,577	236,286
February 2018	108,564	55,620	122,012	286,196
March 2018	75,262	76,737	-	151,999
April 2018	44,177	-	27,290	71,467
May 2018	71,329	-	22,579	93,908
June 2018	49,982	-	-	49,982
July 2018	50,583	-	-	50,583
August 2018	49,377	-	-	49,377
September 2018	23,094	-	-	23,094
October 2018	96,653	-	-	96,653
November 2018	100,315	20,276	-	120,591
<b>Cumulative Total</b>	<b>927,270</b>	<b>482,221</b>	<b>431,589</b>	<b>1,841,080</b>

## Notes:

1 - Stabilized Lake Mead Water (SLMW) volume added to tanks does not include the volume used to routinely wash down precipitate on the interior sides and mixer impellar shafts. The volume of wash down water is approximately 2,000 gallons per tank per month.

2 - The volume of SLMW added to the tanks does not include stormwater that accumulates in the lined secondary containment and equipment pads that is pumped to the Process Tanks.

**Table 2b. Cumulative Stabilized Lake Mead Water Volume Added for Sediment Washing**

<b>Month</b>	<b>T-201 (Gallons)</b>	<b>T-202 (Gallons)</b>	<b>T-203 (Gallons)</b>	<b>Monthly Total (Gallons)<sup>1</sup></b>
July 2017	22,775		6,150	28,925
August 2017	13,970		7,860	21,830
September 2017		20,010		20,010
October 2017		131,247		131,247
November 2017	27,360	65,435	75,440	168,235
December 2017	43,570	39,585	5,485	88,640
January 2018	24,135	30,685	64,205	119,025
February 2018	92,020	22,475	126,845	241,340
March 2018	81,685	79,270	-	160,955
April 2018	465	-	18,805	19,270
May 2018	825	-	390	1,215
June 2018	860	-	-	860
July 2018	480	-	-	480
August 2018	280	-	-	280
September 2018	220	-	-	220
October 2018	1,490	-	-	1,490
November 2018	220,212	310	-	220,522
<b>Cumulative Total</b>	<b>530,347</b>	<b>389,017</b>	<b>305,180</b>	<b>1,224,544</b>

## Notes:

1 - Stabilized Lake Mead Water (SLMW) volume added to tanks does not include the volume used to routinely wash down precipitate on the interior sides and mixer impellar shafts. The volume of wash down water is approximately 2,000 gallons per tank per month.

2 - The volume of SLMW added to the tanks does not include stormwater that accumulates in the lined secondary containment and equipment pads that is pumped to the Process Tanks.



**Table 3a. Estimate of Perchlorate Mass in Process Tanks Based on Tank Samples after Initial Slurry Transfer**

	Mass in T-201 (lbs)	Mass in T-202 (lbs)	Mass in T-203 (lbs)	Total Monthly Mass Removed (lbs)	Total Perchlorate Mass In Process Tanks (lbs)	
<b>Initial Perchlorate Mass<sup>1</sup></b>	<b>168,055</b>	<b>247,579</b>	<b>185,745</b>		<b>601,380</b>	
<i>Approx. Mass Removed</i>	July 2017 <sup>2</sup>	17,828	-	9,189	27,017	574,363
	August 2017	4,120	-	4,155	8,275	566,088
	September 2017	-	12,547	-	12,547	553,540
	October 2017	-	59,663	-	59,663	493,878
	November 2017	10,605	32,571	40,418	83,594	410,284
	December 2017	41,090	16,693	28,582	86,365	323,919
	January 2018	36,195	25,360	19,639	81,195	242,724
	February 2018	26,727	13,925	29,020	69,672	173,051
	March 2018	12,248	12,168	-	24,415	148,636
	April 2018	6,083	-	4,441	10,524	138,112
	May 2018 <sup>3</sup>	<i>INDIVIDUAL PROCESS TANK MASS CALCULATIONS WERE SUSPENDED UNTIL POND SOLIDS TRANSFER COMPLETED.</i>				
June 2018						
<b>Ending Perchlorate Mass</b>					<b>138,112</b>	

**Table 3b. Estimate of Perchlorate Mass in Process Tanks Based on Tank Samples after Residual Solids Transfer**

	Mass in T-201 (lbs)	Mass in T-202 (lbs)	Mass in T-203 (lbs)	Total Monthly Mass Removed (lbs)	Total Perchlorate Mass In Process Tanks (lbs)	
<b>Initial Perchlorate Mass<sup>4</sup></b>	<b>370,459</b>	<b>272,873</b>	<b>296,418</b>		<b>939,750</b>	
	July 2018	370,459	272,873	296,418		939,750
	August 2018 <sup>5</sup>	23,717	-	-	23,717	916,033
	September 2018	10,889	-	-	10,889	905,144
	October 2018	46,380	-	-	46,380	858,764
	November 2018	38,510	10,660	-	49,170	809,594
<b>Ending Perchlorate Mass</b>	<b>250,963</b>	<b>262,213</b>	<b>296,418</b>		<b>809,594</b>	

Notes:

1 - The initial perchlorate mass estimate presented is based on an average of laboratory results. The 95% confidence interval for starting perchlorate mass in all three Process Tanks is 422,491 to 776,030 pounds.

2 - The approximate mass removed for July 2017 is based on the starting concentrations in the Process Tanks. Subsequent mass removal calculations are based on both the starting (prior month) and ending (current month) perchlorate concentrations resulting from single point samples from each tank.

3 - Individual tank mass calculations were suspended until pond closure activities were completed. Following pond closure, a more comprehensive sampling of the Process Tanks was completed to establish new mass estimates.

4 - The perchlorate mass estimate after pond solids transfer is based on an average of laboratory results. The 95% confidence interval for the perchlorate mass in all three Process Tanks is 814,953 to 1,064,163 pounds.

5 - Mass removal estimates on individual tanks resumed in August 2018.

**Table 4. Estimate of Perchlorate Mass in Process Tanks Based on Batch Transfers**

		Estimated Monthly Mass Added (lbs) <sup>3</sup>	Total Monthly Mass Removed (lbs)	Total Perchlorate Mass In Process Tanks (lbs)
<b>Initial Perchlorate Mass<sup>1</sup></b>				<b>601,380</b>
Approx. Mass Removed	July 2017 <sup>2</sup>		13,520	587,860
	August 2017 <sup>2</sup>		6,000	581,860
	September 2017		10,706	571,154
	October 2017		49,990	521,163
	November 2017		74,231	446,933
	December 2017		73,066	373,867
	January 2018		69,363	304,504
	February 2018		73,247	231,257
	March 2018		25,321	205,935
	April 2018		7,030	198,905
	May 2018 <sup>4 5</sup>	151,078	11,126	338,857
	June 2018 <sup>5</sup>	227,250	9,337	556,770
	July 2018 <sup>5</sup>	341,180	9,343	888,608
<b>Perchlorate Mass After Pond Solids Removal<sup>5</sup></b>				<b>939,750</b>
	August 2018		11,710	928,040
	September 2018		9,777	918,264
	October 2018		35,943	882,320
	November 2018		61,959	820,361
<b>Ending Perchlorate Mass</b>				<b>820,361</b>

Notes:

1 - The initial perchlorate mass estimate presented is based on an average of laboratory results as summarized in the August 11, 2017 technical memo *AP-5 Tank Sampling Activities and Mass Estimate Summary*. The 95% confidence interval for starting perchlorate mass in all three Process Tanks is 422,491 to 776,030 pounds.

2 - Individual batch data not available from ETI for July and August 2017. Values presented for these months are based on ETI's estimates. Subsequent monthly estimates are based on ETI records for batch volumes and average batch concentrations transferred from the Day Tank T-204 to the Receiving Tank T-205.

3 - From May to July 2018, estimates of the perchlorate mass added as part of final AP-5 pond closure activities were developed based on single point samples from each Process Tank. Monthly mass added were estimated using a single point sample from each Process Tank and may underestimate the mass contribution from settled residual solids.

4 - The May 2018 estimate of mass added from AP-5 Pond closure activities represents the period from April 26, 2018 through May 31, 2018

5 - The perchlorate mass estimate after pond solids transfer is based on an average of laboratory results. The 95% confidence interval for the perchlorate mass in all three Process Tanks is 814,953 to 1,064,163 pounds.

**Table 5a. Estimate of Ammonia Mass in Process Tanks after Initial Pond Transfer**

		Mass in T-201 (lbs)	Mass in T-202 (lbs)	Mass in T-203 (lbs)	Total Monthly Mass Removed (lbs)	Total Ammonia Mass In Process Tanks (lbs)
<b>Initial Ammonia Mass<sup>1</sup></b>		<b>18,217</b>	<b>22,343</b>	<b>20,277</b>		<b>60,837</b>
Approx. Mass Removed	November 2017	1,323	3,979	4,490	9,792	51,045
	December 2017	3,974	1,778	2,659	8,411	42,634
	January 2018	3,353	3,009	2,163	8,526	34,108
	February 2018	2,945	1,509	3,564	8,017	26,091
	March 2018	1,445	1,441	-	2,886	23,206
	April 2018	682	-	490	1,172	22,034
	May 2018 <sup>2</sup> June 2018	INDIVIDUAL PROCESS TANK MASS CALCULATIONS WERE SUSPENDED UNTIL POND SOLIDS TRANSFER COMPLETED.				
<b>Ending Ammonia Mass</b>						<b>22,034</b>

**Table 5b. Estimate of Ammonia Mass in Process Tanks after Residual Pond Solids Transfer**

		Mass in T-201 (lbs)	Mass in T-202 (lbs)	Mass in T-203 (lbs)	Total Monthly Mass Removed (lbs)	Total Ammonia Mass In Process Tanks (lbs)
<b>Initial Ammonia Mass<sup>3</sup></b>		<b>56,496</b>	<b>42,023</b>	<b>42,335</b>		<b>140,854</b>
	July 2018	56,496	42,023	42,335		140,854
	August 2018 <sup>4</sup>	3,294	-	-	3,294	137,560
	September 2018	1,561	-	-	1,561	135,999
	October 2018	7,340	-	-	7,340	128,659
	November 2018	5,483	1,455	-	6,939	121,720
<b>Ending Ammonia Mass</b>		<b>38,817</b>	<b>40,568</b>	<b>42,335</b>		<b>121,720</b>

Notes:

1 - The initial ammonia mass estimate presented is based on an average of laboratory results for slurry and accumulated solids samples collected on November 1, 2017. Ammonia mass estimates are not available prior to this date.

2 - Individual tank mass calculations were suspended until pond closure activities were completed. Following pond closure, a more comprehensive sampling of the Process Tanks was completed to establish new mass estimates.

3 - The ammonia mass estimate after pond solids transfer is based on an average of laboratory results. The 95% confidence interval for the ammonia mass in all three Process Tanks is 118,994 to 162,598 pounds.

4 - Mass removal estimates on individual tanks resumed in August 2018.

**Attachment A**  
**Phase III O&M Routine Inspection Forms**

# K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/1/18 Time: 0815 Inspector Initials: KSH

## PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,256,005 (gallons)

## SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot? Yes  No  
If Yes, pump storm water into one of the Process Tanks.
6. Is there storm water accumulation in equipment pad sumps? Yes  No  
If Yes, pump storm water into one of the process tanks.

## PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out? **	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	<input checked="" type="radio"/> Yes	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed? **	Yes	<input checked="" type="radio"/> No	Yes	<input checked="" type="radio"/> No	Yes	<input checked="" type="radio"/> No
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <i>NA</i>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>78</u> Oil temperature	<u>75</u> °F		<u>77</u> °F		<u>76</u> °F	

# K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/1/18

Time: \_\_\_\_\_

Inspector Initials: KGH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers run intermittently, to reduce wear.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Operator Signature: *Kyle J. Hansen*

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

# K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/2/18 Time: 0907 Inspector Initials: KSH

## PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\* No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\* No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,263,250 (gallons)

## SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes No
5. Is there storm water accumulation greater than 1 foot? Yes No  
If Yes, pump storm water into one of the Process Tanks.
6. Is there storm water accumulation in equipment pad sumps? Yes No  
If Yes, pump storm water into one of the process tanks.

## PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<u>No</u>	Yes*	<u>No</u>	Yes*	<u>No</u>	Yes*	<u>No</u>
All decant valves and transfer valves locked out?*	<u>Yes</u>	No*	<u>Yes</u>	No*	<u>Yes</u>	No*	NA	NA
Are transfer pumps ready for service?	<u>Yes</u>	No*	<u>Yes</u>	No*	<u>Yes</u>	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	<u>Yes*</u>	No	Yes*	<u>No</u>	Yes*	<u>No</u>
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<u>Yes</u>	No	<u>Yes</u>	No	<u>Yes</u>	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<u>Yes</u>	No	<u>Yes</u>	No	<u>Yes</u>	No
Mixer running and turbulence/vortex observed?*	Yes	<u>No*</u>	Yes	<u>No*</u>	Yes	<u>No*</u>
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <u>NA</u>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>77</u> Oil temperature	<u>78</u> °F		<u>77</u> °F		<u>78</u> °F	

# K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/2/18      Time: \_\_\_\_\_      Inspector Initials: KSH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers run intermittently to reduce wear  
- T-201 gearbox leak inspection scheduled for next week

Operator Signature: *Kyle Hansen*

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334



# K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/3/18 Time: 1400 Inspector Initials: KSH

## PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\* No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\* No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,271,210 (gallons)

## SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes No
5. Is there storm water accumulation greater than 1 foot?  
If Yes, pump storm water into one of the Process Tanks. Yes No
6. Is there storm water accumulation in equipment pad sumps?:  
If Yes, pump storm water into one of the process tanks. Yes No

## PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<u>No</u>	Yes*	<u>No</u>	Yes*	<u>No</u>	Yes*	<u>No</u>
All decant valves and transfer valves locked out?*	<u>Yes</u>	No*	<u>Yes</u>	No*	<u>Yes</u>	No*	NA	NA
Are transfer pumps ready for service?	<u>Yes</u>	No*	<u>Yes</u>	No*	<u>Yes</u>	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	<u>Yes*</u>	No	Yes*	<u>No</u>	Yes*	<u>No</u>
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<u>Yes</u>	No	<u>Yes</u>	No	<u>Yes</u>	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<u>Yes</u>	No	<u>Yes</u>	No	<u>Yes</u>	No
Mixer running and turbulence/vortex observed?*	Yes	<u>No*</u>	Yes	<u>No*</u>	Yes	<u>No*</u>
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <u>NA</u>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>88</u> Oil temperature	<u>88</u>	°F	<u>87</u>	°F	<u>88</u>	°F

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/3/18

Time: \_\_\_\_\_

Inspector Initials: KSA

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers run intermittently to reduce wear

Operator Signature: *Kyle S. Hansen*

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

# K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/4/18 Time: 1043 Inspector Initials: RSH

## PROCESS PIPING INSPECTION

- Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
- Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
- Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,271,210 (gallons)

## SECONDARY CONTAINMENT INSPECTION

- Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
- Is there storm water accumulation greater than 1 foot?  
If Yes, pump storm water into one of the Process Tanks. Yes  No
- Is there storm water accumulation in equipment pad sumps?:  
If Yes, pump storm water into one of the process tanks. Yes  No

## PROCESS TANKS AND DAY TANK INSPECTION

- Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out? **	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

- Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	<input checked="" type="radio"/> Yes*	No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed? **	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <i>NA</i>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>75</u> Oil temperature	<u>75</u> °F		<u>76</u> °F		<u>75</u> °F	

# K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/4/18      Time: \_\_\_\_\_      Inspector Initials: KSA

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers run intermittently to reduce wear.  
- T-201 leak inspection scheduled

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Operator Signature: *Kyle S. Hansen*

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

# K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/5/18 Time: 0935 Inspector Initials: KSH

## PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2278,800 (gallons)

## SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot? Yes  No  
If Yes, pump storm water into one of the Process Tanks.
6. Is there storm water accumulation in equipment pad sumps? Yes  No  
If Yes, pump storm water into one of the process tanks.

## PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out?*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
	Yes*	No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Visible oil leaks from gear box?	<input checked="" type="radio"/> Yes*	No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed?*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <span style="margin-left: 20px;">NA</span>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>77</u> Oil temperature			<u>79</u> °F	<u>76</u> °F	<u>75</u> °F	

# K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/5/18      Time: \_\_\_\_\_      Inspector Initials: KSH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers run intermittently to reduce wear
  - T-201 has small leak @ gearbox
- 
- 
- 
- 

Operator Signature: 

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

# K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/6/18 Time: 1807 Inspector Initials: KSF

## PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,286,210 (gallons)

## SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot? Yes  No  
If Yes, pump storm water into one of the Process Tanks.
6. Is there storm water accumulation in equipment pad sumps?: Yes  No  
If Yes, pump storm water into one of the process tanks.

## PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out?*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	<input checked="" type="radio"/> Yes*	No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed?*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <span style="margin-left: 20px;">NA</span>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>75</u> Oil temperature	<u>73</u>	°F	<u>75</u>	°F	<u>74</u>	°F

# K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/6/18      Time: \_\_\_\_\_      Inspector Initials: KSH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers run intermittently  
- T-201 to be inspected by CCC.

Operator Signature: Kyle S. Hansen

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334



# K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/7/18 Time: 0900 Inspector Initials: KSH

## PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\* No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\* No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,286,210 (gallons)

## SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes No
5. Is there storm water accumulation greater than 1 foot?  
If Yes, pump storm water into one of the Process Tanks. Yes No
6. Is there storm water accumulation in equipment pad sumps?:  
If Yes, pump storm water into one of the process tanks. Yes No

## PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<u>No</u>	Yes*	<u>No</u>	Yes*	<u>No</u>	Yes*	<u>No</u>
All decant valves and transfer valves locked out?*	<u>Yes</u>	No*	<u>Yes</u>	No*	<u>Yes</u>	No*	NA	NA
Are transfer pumps ready for service?	<u>Yes</u>	No*	<u>Yes</u>	No*	<u>Yes</u>	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	<u>Yes*</u>	No	Yes*	<u>No</u>	Yes*	<u>No</u>
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<u>Yes</u>	No	<u>Yes</u>	No	<u>Yes</u>	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<u>Yes</u>	No	<u>Yes</u>	No	<u>Yes</u>	No
Mixer running and turbulence/vortex observed?*	Yes	<u>No*</u>	Yes	<u>No*</u>	Yes	<u>No*</u>
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <u>NA</u>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>61</u> Oil temperature	<u>58</u> °F		<u>60</u> °F		<u>59</u> °F	

# K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/7/18      Time: \_\_\_\_\_      Inspector Initials: KSH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

*- Mixers run intermittently to reduce wear.  
- T-201 to be inspected by CCC*

Operator Signature: *Kyle Hansen*

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

# K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/3/18 Time: 0750 Inspector Initials: KSH

## PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,293,650 (gallons)

## SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot? Yes  No  
If Yes, pump storm water into one of the Process Tanks.
6. Is there storm water accumulation in equipment pad sumps?: Yes  No  
If Yes, pump storm water into one of the process tanks.

## PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out? **	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	<input checked="" type="radio"/> Yes*	No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed? **	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <span style="margin-left: 20px;">NA</span>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>62</u> Oil temperature	<u>59</u> °F		<u>61</u> °F		<u>60</u> °F	

# K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10-8-18 Time: \_\_\_\_\_ Inspector Initials: KSH

**NOTES:**

- \* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.
  - \*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.
- Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers run intermittently to reduce wear  
- T-201 Mixer box to be inspected

Operator Signature: Kyle S. Hansen

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

# K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/9/18 Time: 0900 Inspector Initials: KSH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,294,480 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot? Yes  No  
If Yes, pump storm water into one of the Process Tanks.
6. Is there storm water accumulation in equipment pad sumps?: Yes  No  
If Yes, pump storm water into one of the process tanks.

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out? **	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	<input checked="" type="radio"/> Yes*	No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed? **	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <span style="font-size: 1.5em; vertical-align: middle;">NA</span>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>59</u> Oil temperature	<u>59</u> °F		<u>58</u> °F		<u>59</u> °F	

# K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/9/18      Time: \_\_\_\_\_      Inspector Initials: KSH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

*- Mixers run intermittently to reduce wear.  
 - T-201 gearbox inspection next week*

Operator Signature: *Kyle S. Hansen*

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/10/18 Time: 0950 Inspector Initials: KSH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,302,940 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot? Yes  No  
If Yes, pump storm water into one of the Process Tanks.
6. Is there storm water accumulation in equipment pad sumps? Yes  No  
If Yes, pump storm water into one of the process tanks.

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out?*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	<input checked="" type="radio"/> Yes*	No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed?*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <span style="margin-left: 20px;">NA</span>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>72°</u> Oil temperature	<u>70</u> °F		<u>70</u> °F		<u>71</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/10/18

Time: \_\_\_\_\_

Inspector Initials: KSH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers run intermittently to reduce wear  
- T-201 gearbox leak to be inspected next week.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Operator Signature: *Kyle S. Hansen*

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334



## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/11/18

Time: 1130

Inspector Initials: KSH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\* No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\* No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2309.45 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes No
5. Is there storm water accumulation greater than 1 foot? Yes No  
If Yes, pump storm water into one of the Process Tanks.
6. Is there storm water accumulation in equipment pad sumps?: Yes No  
If Yes, pump storm water into one of the process tanks.

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<u>No</u>	Yes*	<u>No</u>	Yes*	<u>No</u>	Yes*	<u>No</u>
All decant valves and transfer valves locked out?*	<u>Yes</u>	No*	<u>Yes</u>	No*	<u>Yes</u>	No*	NA	NA
Are transfer pumps ready for service?	<u>Yes</u>	No*	<u>Yes</u>	No*	<u>Yes</u>	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	<u>Yes*</u>	No	Yes*	<u>No</u>	Yes*	<u>No</u>
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<u>Yes</u>	No	<u>Yes</u>	No	<u>Yes</u>	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<u>Yes</u>	No	<u>Yes</u>	No	<u>Yes</u>	No
Mixer running and turbulence/vortex observed?*	Yes	<u>No*</u>	Yes	<u>No*</u>	Yes	<u>No*</u>
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <u>NA</u>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>76</u> Oil temperature	<u>74</u> °F		<u>76</u> °F		<u>75</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/11/18      Time: \_\_\_\_\_      Inspector Initials: KSH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

*- Mixers run intermittently to reduce wear*  
*- T-201 slight leak will be inspected next week.*

Operator Signature: *Kyle S. Hansen*

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/12/18 Time: 0925 Inspector Initials: KGH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\* No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\* No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,309,450 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes No
5. Is there storm water accumulation greater than 1 foot?  
If Yes, pump storm water into one of the Process Tanks. Yes No
6. Is there storm water accumulation in equipment pad sumps?:  
If Yes, pump storm water into one of the process tanks. Yes No

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<u>No</u>	Yes*	<u>No</u>	Yes*	<u>No</u>	Yes*	<u>No</u>
All decant valves and transfer valves locked out?*	Yes	<u>No*</u>	<u>Yes</u>	No*	<u>Yes</u>	No*	NA	NA
Are transfer pumps ready for service?	<u>Yes</u>	No*	<u>Yes</u>	No*	<u>Yes</u>	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	<u>Yes*</u>	No	Yes*	<u>No</u>	Yes*	<u>No</u>
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<u>Yes</u>	No	<u>Yes</u>	No	<u>Yes</u>	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<u>Yes</u>	No	<u>Yes</u>	No	<u>Yes</u>	No
Mixer running and turbulence/vortex observed?*	Yes	<u>No*</u>	Yes	<u>No*</u>	Yes	<u>No*</u>
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <u>NA</u>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>69</u> Oil temperature	<u>68</u> °F		<u>67</u> °F		<u>68</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/12/18 Time: \_\_\_\_\_ Inspector Initials: KSH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Decanting from T-201  
 - T-201 leak to be inspected next Tuesday by CCC  
 - Mixers run intermittently to reduce wear.

Operator Signature: Kyle S. Hansen

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/13/18 Time: 0635 Inspector Initials: KSH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,317,655 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot?  
If Yes, pump storm water into one of the Process Tanks. Yes  No
6. Is there storm water accumulation in equipment pad sumps?:  
If Yes, pump storm water into one of the process tanks. Yes  No

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out?*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	<input checked="" type="radio"/> Yes*	No	<input checked="" type="radio"/> Yes*	<input checked="" type="radio"/> No	<input checked="" type="radio"/> Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed?*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <span style="margin-left: 20px;">NA</span>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>62</u> Oil temperature	<u>61</u> °F		<u>63</u> °F		<u>62</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/13/18      Time: \_\_\_\_\_      Inspector Initials: KSH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers run intermittently to reduce wear  
- T-201 leak inspection on 10/10  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Operator Signature: Kyle S. Hansen

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/14/18 Time: 0715 Inspector Initials: JR

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,325,130 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot?  
If Yes, pump storm water into one of the Process Tanks. Yes  No
6. Is there storm water accumulation in equipment pad sumps?:  
If Yes, pump storm water into one of the process tanks. Yes  No

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out? **	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
	Yes*	No	Yes*	No	Yes*	No
Visible oil leaks from gear box?	<input checked="" type="radio"/> Yes*	No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed? **	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>64°F</u> Oil temperature <u>N/A</u>						
	<u>61</u>	°F	<u>61</u>	°F	<u>62</u>	°F

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/14/18 Time: 0715 Inspector Initials: JR

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers run intermittently to reduce wear.  
- T-201 Leak inspection on 10/14/18.

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Operator Signature: *Ray R. Rin*

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334



## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/15/18 Time: 0730 Inspector Initials: JR

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,325,130 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot? Yes  No  
If Yes, pump storm water into one of the Process Tanks.
6. Is there storm water accumulation in equipment pad sumps? Yes  No  
If Yes, pump storm water into one of the process tanks.

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out?*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	<input checked="" type="radio"/> Yes*	No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed?*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>55°F</u> Oil temperature <u>N/A</u>	<u>50</u>	°F	<u>49</u>	°F	<u>50</u>	°F

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/15/18      Time: 0730      Inspector Initials: JR

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.


\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers run intermittently to reduce wear.  
- T-201 Leak Inspection on 10/16.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Operator Signature: 

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/16/18

Time: 1100

Inspector Initials: JR

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,332,620 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot? Yes  No  
If Yes, pump storm water into one of the Process Tanks.
6. Is there storm water accumulation in equipment pad sumps? Yes  No  
If Yes, pump storm water into one of the process tanks.

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out? **	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	<input checked="" type="radio"/> Yes*	No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed? **	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <i>N/A</i>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>68</u> Oil temperature	<u>71</u> °F		<u>72</u> °F		<u>70</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/16/18 Time: 1100 Inspector Initials: JR

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

- Mixers run intermittently to reduce wear.  
- T-201 Leak Inspection on 10/16. Further action required to diagnose leak.

Operator Signature: 

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/17/18 Time: 0630 Inspector Initials: JR

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,339,870 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot? Yes  No  
If Yes, pump storm water into one of the Process Tanks.
6. Is there storm water accumulation in equipment pad sumps? Yes  No  
If Yes, pump storm water into one of the process tanks.

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
	Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*
All decant valves and transfer valves locked out? **	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
	Visible oil leaks from gear box?	<input checked="" type="radio"/> Yes*	No	Yes*	<input checked="" type="radio"/> No	Yes*
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed? **	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>54</u> °F Oil temperature	N/A		<u>51</u> °F	<u>50</u> °F	<u>52</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/17/18 Time: 0630 Inspector Initials: JR

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

- Mixers run intermittently to reduce wear  
- T-201 Leak Inspection on 10/16. Further action  
required to diagnose leak

Operator Signature: 

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/18/18 Time: 0800 Inspector Initials: JR

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\* No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\* No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,343, 290 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes No
5. Is there storm water accumulation greater than 1 foot? Yes No  
If Yes, pump storm water into one of the Process Tanks.
6. Is there storm water accumulation in equipment pad sumps?: Yes No  
If Yes, pump storm water into one of the process tanks.

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<u>No</u>	Yes*	<u>No</u>	Yes*	<u>No</u>	Yes*	<u>No</u>
All decant valves and transfer valves locked out? **	<u>Yes</u>	No*	<u>Yes</u>	No*	<u>Yes</u>	No*	NA	NA
Are transfer pumps ready for service?	<u>Yes</u>	No*	<u>Yes</u>	No*	<u>Yes</u>	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	<u>Yes*</u>	No	Yes*	<u>No</u>	Yes*	<u>No</u>
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<u>Yes</u>	No	<u>Yes</u>	No	<u>Yes</u>	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<u>Yes</u>	No	<u>Yes</u>	No	<u>Yes</u>	No
Mixer running and turbulence/vortex observed? **	Yes	<u>No*</u>	Yes	<u>No*</u>	Yes	<u>No*</u>
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <i>NIA</i>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>59</u> Oil temperature	<u>58</u> °F		<u>57</u> °F		<u>58</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/18/18 Time: 0800 Inspector Initials: JR

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

- mixers run intermittently to reduce wear  
- T-201 Leak inspection on 10/16/18. Further action  
required to diagnose leak.

Operator Signature: 

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334



## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/19/18 Time: 0605 Inspector Initials: JR

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,349,340 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot?  
If Yes, pump storm water into one of the Process Tanks. Yes  No
6. Is there storm water accumulation in equipment pad sumps?:  
If Yes, pump storm water into one of the process tanks. Yes  No

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out? **	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	<input checked="" type="radio"/> Yes*	No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed? **	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <i>N/A</i>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>58</u> Oil temperature	<u>59</u> °F		<u>58</u> °F		<u>58</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/19/18 Time: 0605 Inspector Initials: JR

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers run intermittently to reduce wear  
- T-201 leak inspection on 10/16/18. Further  
action required to diagnose leak.

Operator Signature: 

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/20/18

Time: 0649

Inspector Initials: KSH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,350,450 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot?  
If Yes, pump storm water into one of the Process Tanks. Yes  No
6. Is there storm water accumulation in equipment pad sumps?:  
If Yes, pump storm water into one of the process tanks. Yes  No

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out?*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	Yes*	No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed?*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>60</u> Oil temperature	<u>62</u> °F		<u>63</u> °F		<u>61</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/20/18      Time: \_\_\_\_\_      Inspector Initials: RSA

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixer run intermittently to reduce wear.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Operator Signature: Kyle Hansen

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/21/10 Time: 1440 Inspector Initials: KSL

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,357,120 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot?  
If Yes, pump storm water into one of the Process Tanks. Yes  No
6. Is there storm water accumulation in equipment pad sumps?:  
If Yes, pump storm water into one of the process tanks.  Yes No

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out?*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
	Yes*	No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Visible oil leaks from gear box?	<input checked="" type="radio"/> Yes*	No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed?*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <i>NA</i>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>78</u> Oil temperature	<u>77</u> °F		<u>79</u> °F		<u>78</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/21/18 Time: \_\_\_\_\_ Inspector Initials: KSH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers run intermittently to reduce wear  
- Sumps pumped to remove rainwater accumulation  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Operator Signature: Kyle Hansen

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/22/18 Time: 1600 Inspector Initials: KSH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\* No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\* No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,364,960 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes No
5. Is there storm water accumulation greater than 1 foot?  
If Yes, pump storm water into one of the Process Tanks. Yes No
6. Is there storm water accumulation in equipment pad sumps?:  
If Yes, pump storm water into one of the process tanks. Yes No

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<u>No</u>	Yes*	<u>No</u>	Yes*	<u>No</u>	Yes*	<u>No</u>
All decant valves and transfer valves locked out? **	<u>Yes</u>	No*	<u>Yes</u>	No*	<u>Yes</u>	No*	NA	NA
Are transfer pumps ready for service?	<u>Yes</u>	No*	<u>Yes</u>	No*	<u>Yes</u>	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	<u>Yes*</u>	No	Yes*	<u>No</u>	Yes*	<u>No</u>
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<u>Yes</u>	No	<u>Yes</u>	No	<u>Yes</u>	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<u>Yes</u>	No	<u>Yes</u>	No	<u>Yes</u>	No
Mixer running and turbulence/vortex observed? **	Yes	<u>No*</u>	Yes	<u>No*</u>	Yes	<u>No*</u>
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <span style="float: right;">NA</span>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>78</u> Oil temperature	<u>76</u> °F		<u>79</u> °F		<u>77</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/22/18 Time: \_\_\_\_\_ Inspector Initials: KSII

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers ~~run~~ <sup>run</sup> intermittently to reduce wear.
- Gear box T-201 has minor leak. To be scheduled for repair
- Pumped Equipment Pads

Operator Signature: Kyle Hansen

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334



## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/23/18

Time: 1350

Inspector Initials: KSH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,371,320 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot?  
If Yes, pump storm water into one of the Process Tanks. Yes  No
6. Is there storm water accumulation in equipment pad sumps?:  
If Yes, pump storm water into one of the process tanks. Yes  No

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out?*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	<input checked="" type="radio"/> Yes*	No	<input checked="" type="radio"/> Yes*	<input checked="" type="radio"/> No	<input checked="" type="radio"/> Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed?*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>78</u> Oil temperature	<u>75</u> °F		<u>78</u> °F		<u>76</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/23/18 Time: \_\_\_\_\_ Inspector Initials: KSIF

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers on intermittently to reduce wear  
 - T-201 gear box repair to be scheduled.

Operator Signature: Kyle Hansen

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/24/14 Time: 0920 Inspector Initials: KSH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\* No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\* No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,378, 265 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes No
5. Is there storm water accumulation greater than 1 foot?  
If Yes, pump storm water into one of the Process Tanks. Yes No
6. Is there storm water accumulation in equipment pad sumps?:  
If Yes, pump storm water into one of the process tanks. Yes No

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<u>No</u>	Yes*	<u>No</u>	Yes*	<u>No</u>	Yes*	<u>No</u>
All decant valves and transfer valves locked out?***	<u>Yes</u>	No*	<u>Yes</u>	No*	<u>Yes</u>	No*	NA	NA
Are transfer pumps ready for service?	<u>Yes</u>	No*	<u>Yes</u>	No*	<u>Yes</u>	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	<u>Yes</u>	No	Yes*	<u>No</u>	Yes*	<u>No</u>
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<u>Yes</u>	No	<u>Yes</u>	No	<u>Yes</u>	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<u>Yes</u>	No	<u>Yes</u>	No	<u>Yes</u>	No
Mixer running and turbulence/vortex observed?***	Yes	<u>No*</u>	Yes	<u>No*</u>	Yes	<u>No*</u>
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <u>NA</u>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>68</u> Oil temperature	<u>105</u> °F		<u>66</u> °F		<u>60</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/24/18      Time: \_\_\_\_\_      Inspector Initials: KGH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Operator Signature: Kyle J Hansen

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/25/18 Time: 1300 Inspector Initials: KSH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,385, 220 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot?  
If Yes, pump storm water into one of the Process Tanks. Yes  No
6. Is there storm water accumulation in equipment pad sumps?:  
If Yes, pump storm water into one of the process tanks. Yes  No

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out?*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	<input checked="" type="radio"/> Yes*	No	<input checked="" type="radio"/> Yes*	<input checked="" type="radio"/> No	<input checked="" type="radio"/> Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed?*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>85</u> Oil temperature <u>84</u> °F				<u>86</u> °F		<u>85</u> °F

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/25/18      Time: \_\_\_\_\_      Inspector Initials: KSH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers run intermittently to reduce wear

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Operator Signature: Kyle S. Hansen

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/26/18 Time: 1055 Inspector Initials: KSH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\* No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\* No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,392,470 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes No
5. Is there storm water accumulation greater than 1 foot?  
If Yes, pump storm water into one of the Process Tanks. Yes No
6. Is there storm water accumulation in equipment pad sumps?:  
If Yes, pump storm water into one of the process tanks. Yes No

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<u>No</u>	Yes*	<u>No</u>	Yes*	<u>No</u>	Yes*	<u>No</u>
All decant valves and transfer valves locked out?***	<u>Yes</u>	No*	<u>Yes</u>	No*	<u>Yes</u>	No*	NA	NA
Are transfer pumps ready for service?	<u>Yes</u>	No*	<u>Yes</u>	No*	<u>Yes</u>	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	<u>Yes*</u>	No	Yes*	<u>No</u>	Yes*	<u>No</u>
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<u>Yes</u>	No	<u>Yes</u>	No	<u>Yes</u>	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<u>Yes</u>	No	<u>Yes</u>	No	<u>Yes</u>	No
Mixer running and turbulence/vortex observed?***	Yes	<u>No*</u>	Yes	<u>No*</u>	Yes	<u>No*</u>
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <i>NA</i>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>16</u> Oil temperature	<u>73</u> °F		<u>75</u> °F		<u>74</u> °F	

**K05 PHASE III O&M ROUTINE INSPECTION FORM**

Date: 10/26/18 Time: \_\_\_\_\_ Inspector Initials: KSJ

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers Run Intermittently  
- Gearbox to be repaired on 10/30.

Operator Signature: Kyle S. Hansen

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334



## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/27/18

Time: 1335

Inspector Initials: KGH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,399,200 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot?  
If Yes, pump storm water into one of the Process Tanks. Yes  No
6. Is there storm water accumulation in equipment pad sumps?:  
If Yes, pump storm water into one of the process tanks. Yes  No

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out?*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	<input checked="" type="radio"/> Yes*	No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed?*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <i>NA</i>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>81</u> Oil temperature	<u>81</u>	°F	<u>80</u>	°F	<u>79</u>	°F

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/27/18

Time: \_\_\_\_\_

Inspector Initials: KS11

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers run intermittently to reduce wear

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Operator Signature: Kyle S. Hansen

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/28/18

Time: 1730

Inspector Initials: KSI

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\* No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\* No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,406,940 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes No
5. Is there storm water accumulation greater than 1 foot?  
If Yes, pump storm water into one of the Process Tanks. Yes No
6. Is there storm water accumulation in equipment pad sumps?:  
If Yes, pump storm water into one of the process tanks. Yes No

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<u>No</u>	Yes*	<u>No</u>	Yes*	<u>No</u>	Yes*	<u>No</u>
All decant valves and transfer valves locked out?*	<u>Yes</u>	No*	<u>Yes</u>	No*	<u>Yes</u>	No*	NA	NA
Are transfer pumps ready for service?	<u>Yes</u>	No*	<u>Yes</u>	No*	<u>Yes</u>	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	<u>Yes*</u>	No	Yes*	<u>No</u>	Yes*	<u>No</u>
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<u>Yes</u>	No	<u>Yes</u>	No	<u>Yes</u>	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<u>Yes</u>	No	<u>Yes</u>	No	<u>Yes</u>	No
Mixer running and turbulence/vortex observed?*	Yes	<u>No*</u>	Yes	<u>No</u>	Yes	<u>No*</u>
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <u>NA</u>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>81</u> Oil temperature	<u>81</u> °F		<u>82</u> °F		<u>80</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/28/18      Time: \_\_\_\_\_      Inspector Initials: KSH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers run intermittently  
- T-201 Gear box to be repaired on 10/30

Operator Signature: Kyle J. Hansen

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/29/18 Time: 1350 Inspector Initials: KGH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,413,900 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot?  
If Yes, pump storm water into one of the Process Tanks. Yes  No
6. Is there storm water accumulation in equipment pad sumps?:  
If Yes, pump storm water into one of the process tanks. Yes  No

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out? **	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
	Yes*	No	Yes*	No	Yes*	No
Visible oil leaks from gear box?	<input checked="" type="radio"/> Yes*	No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed? **	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <span style="float: right; font-size: 1.5em;">NA</span>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>88</u> Oil temperature	<u>85</u> °F		<u>86</u> °F		<u>85</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/29/18 Time: \_\_\_\_\_ Inspector Initials: KSH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

Mixers run intermittently to reduce wear

Operator Signature: Kyle Hansen

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/30/18

Time: 1430

Inspector Initials: KGH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,416,640 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot?  
If Yes, pump storm water into one of the Process Tanks. Yes  No
6. Is there storm water accumulation in equipment pad sumps?:  
If Yes, pump storm water into one of the process tanks. Yes  No

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out?*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203		
Visible oil leaks from gear box?	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	
Mixer running and turbulence/vortex observed?*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?	NA	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>75</u> Oil temperature	<u>74</u> °F		<u>75</u> °F		<u>75</u> °F		

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/30/18      Time: \_\_\_\_\_      Inspector Initials: KGH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.


\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- T-201 Gearbox was repaired today.  
- Mixers run intermittently to reduce bearing wear.

Operator Signature: 

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334



## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/31/18

Time: 0955

Inspector Initials: KSH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,423,700 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot?  
If Yes, pump storm water into one of the Process Tanks. Yes  No
6. Is there storm water accumulation in equipment pad sumps?  
If Yes, pump storm water into one of the process tanks. Yes  No

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out?*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed?*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <i>NA</i>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>60</u> Oil temperature	<u>59</u> °F		<u>61</u> °F		<u>60</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/31/18      Time: \_\_\_\_\_      Inspector Initials: KSH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

Mixers run intermittently to reduce wear

Operator Signature: 

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/1/18

Time: 0810

Inspector Initials: KSH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2, 431, 840 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot?  
If Yes, pump storm water into one of the Process Tanks. Yes  No
6. Is there storm water accumulation in equipment pad sumps?:  
If Yes, pump storm water into one of the process tanks. Yes  No

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out? **	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed? **	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <i>NA</i>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>61</u> Oil temperature	<u>62</u> °F		<u>61</u> °F		<u>60</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 1/1/18 Time: \_\_\_\_\_ Inspector Initials: KSH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers run intermittently to reduce wear.

Operator Signature: Kyle Hansen

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/2/18

Time: 0935

Inspector Initials: KSH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,436, 540 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot?  
If Yes, pump storm water into one of the Process Tanks. Yes  No
6. Is there storm water accumulation in equipment pad sumps?:  
If Yes, pump storm water into one of the process tanks. Yes  No

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out?*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed?*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>68</u> Oil temperature <u>65</u> °F				<u>66</u> °F		<u>66</u> °F

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/2/18      Time: \_\_\_\_\_      Inspector Initials: KSH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers run intermittently to reduce wear

Operator Signature: Kyle S. Hansen

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/3/18 Time: 1015 Inspector Initials: KSH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,245,120 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot?  
If Yes, pump storm water into one of the Process Tanks. Yes  No
6. Is there storm water accumulation in equipment pad sumps?  
If Yes, pump storm water into one of the process tanks. Yes  No

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out? **	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed? **	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <i>NA</i>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>80</u> Oil temperature	<u>80</u> °F		<u>83</u> °F		<u>83</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/3/18 Time: \_\_\_\_\_ Inspector Initials: KSN

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers run intermittently to reduce wear.

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Operator Signature: *Kyle Hansen*

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334



## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/4/18

Time: 1530

Inspector Initials: KSH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,456, 840 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot?  
If Yes, pump storm water into one of the Process Tanks. Yes  No
6. Is there storm water accumulation in equipment pad sumps?:  
If Yes, pump storm water into one of the process tanks. Yes  No

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out?*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed?*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>76</u> Oil temperature	<u>76</u> °F		<u>75</u> °F		<u>77</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/4/18      Time: \_\_\_\_\_      Inspector Initials: KSH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers run intermittently to reduce wear

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Operator Signature: Kyle S. Hansen

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/5/18 Time: 1300 Inspector Initials: KSH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,461,705 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot? Yes  No  
If Yes, pump storm water into one of the Process Tanks.
6. Is there storm water accumulation in equipment pad sumps? Yes  No  
If Yes, pump storm water into one of the process tanks.

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out? **	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed? **	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <span style="float: right;">NA</span>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>71</u> Oil temperature	<u>74</u> °F		<u>75</u> °F		<u>74</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/5/18 Time: \_\_\_\_\_ Inspector Initials: KGH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers run intermittently to reduce wear.

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\_\_\_\_\_

\_\_\_\_\_

Operator Signature: Kyle Hansen

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/6/18 Time: 1215 Inspector Initials: KSH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,468,650 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot?  
If Yes, pump storm water into one of the Process Tanks. Yes  No
6. Is there storm water accumulation in equipment pad sumps?  
If Yes, pump storm water into one of the process tanks. Yes  No

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	No
All decant valves and transfer valves locked out? **	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed? **	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <span style="float: right;">NA</span>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>76</u> Oil temperature	<u>74</u> °F		<u>76</u> °F		<u>73</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/6/08 Time: \_\_\_\_\_ Inspector Initials: KSH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers run intermittently to reduce wear

Operator Signature: *Kyle D. Hansen*

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/7/18 Time: 0956 Inspector Initials: KGH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,475,870 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot? Yes  No  
If Yes, pump storm water into one of the Process Tanks.
6. Is there storm water accumulation in equipment pad sumps?: Yes  No  
If Yes, pump storm water into one of the process tanks.

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out?*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed?*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <span style="margin-left: 20px;">NA</span>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>66</u> Oil temperature	<u>64</u> °F		<u>65</u> °F		<u>64</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/7/08 Time: \_\_\_\_\_ Inspector Initials: KEH

**NOTES:**

- \* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.
  - \*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.
- Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers run intermittently to reduce wear,  
- Repaired pH probe

Operator Signature: Kyle S. Hansen

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334



## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/9/18

Time: 1155

Inspector Initials: KSH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,483,045 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot? Yes  No  
If Yes, pump storm water into one of the Process Tanks.
6. Is there storm water accumulation in equipment pad sumps?: Yes  No  
If Yes, pump storm water into one of the process tanks.

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out? **	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed? **	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <i>NA</i>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>63</u> Oil temperature	<u>62</u> °F		<u>61</u> °F		<u>63</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/8/18      Time: \_\_\_\_\_      Inspector Initials: ICSH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers run intermittently to reduce wear

Operator Signature: *Kyle S. Hansen*

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/9/18 Time: 1108 Inspector Initials: KGD

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,491, 875 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot? Yes  No  
If Yes, pump storm water into one of the Process Tanks.
6. Is there storm water accumulation in equipment pad sumps? Yes  No  
If Yes, pump storm water into one of the process tanks.

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out? **	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed? **	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <span style="margin-left: 20px;">NA</span>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>60</u> Oil temperature	<u>55</u> °F		<u>57</u> °F		<u>56</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/9/18

Time: \_\_\_\_\_

Inspector Initials: FSH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

Mixers ~~are~~ run intermittently to reduce wear.

Operator Signature: \_\_\_\_\_

*Kyle S. Hansen*

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/10/18

Time: 0530

Inspector Initials: K4H

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,498,775 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot? Yes  No  
If Yes, pump storm water into one of the Process Tanks.
6. Is there storm water accumulation in equipment pad sumps? Yes  No  
If Yes, pump storm water into one of the process tanks.

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out? **	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed? **	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <u>NA</u>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>52</u> Oil temperature	<u>52</u> °F		<u>53</u> °F		<u>51</u> °F	

### K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/10/18

Time: \_\_\_\_\_

Inspector Initials: KSH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers run intermittently, to reduce wear

Operator Signature: *Kyle S. Hansen*

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/11/18 Time: 1805 Inspector Initials: KSA

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,505,675 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot? Yes  No  
If Yes, pump storm water into one of the Process Tanks.
6. Is there storm water accumulation in equipment pad sumps?: Yes  No  
If Yes, pump storm water into one of the process tanks.

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out? **	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed? **	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <span style="font-size: 1.5em; vertical-align: middle;">NA</span>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>61</u> Oil temperature	<u>60</u> °F		<u>60</u> °F		<u>61</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 10/11/08      Time: \_\_\_\_\_      Inspector Initials: KGH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

Mixers run intermittently to reduce wear

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Operator Signature: Kyle S. Hansen

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334



## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/12/13

Time: 7:15

Inspector Initials: KSH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2512, 570 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot? Yes  No  
If Yes, pump storm water into one of the Process Tanks.
6. Is there storm water accumulation in equipment pad sumps? Yes  No  
If Yes, pump storm water into one of the process tanks.

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out?*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed?*	Yes	<input checked="" type="radio"/> No	Yes	<input checked="" type="radio"/> No	Yes	<input checked="" type="radio"/> No
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <span style="margin-left: 20px;">NA</span>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>42</u> Oil temperature	<u>47</u> °F		<u>41</u> °F		<u>43</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/12/18

Time: \_\_\_\_\_

Inspector Initials: KGA

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers run intermittently to reduce wear.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Operator Signature: Kyle S. Hansen

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/13/18 Time: 1015 Inspector Initials: KSH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\* No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\* No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,527,145 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes No
5. Is there storm water accumulation greater than 1 foot? Yes No  
If Yes, pump storm water into one of the Process Tanks.
6. Is there storm water accumulation in equipment pad sumps? Yes No  
If Yes, pump storm water into one of the process tanks.

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<u>No</u>	Yes*	<u>No</u>	Yes*	<u>No</u>	Yes*	<u>No</u>
All decant valves and transfer valves locked out?*	<u>Yes</u>	No*	<u>Yes</u>	No*	<u>Yes</u>	No*	NA	NA
Are transfer pumps ready for service?	<u>Yes</u>	No*	<u>Yes</u>	No*	<u>Yes</u>	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	Yes*	<u>No</u>	Yes*	<u>No</u>	Yes*	<u>No</u>
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<u>Yes</u>	No	<u>Yes</u>	No	<u>Yes</u>	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<u>Yes</u>	No	<u>Yes</u>	No	<u>Yes</u>	No
Mixer running and turbulence/vortex observed?*	Yes	<u>No*</u>	Yes	<u>No*</u>	Yes	<u>No*</u>
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <span style="float: right;">NA</span>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>56</u> Oil temperature	<u>49</u> °F		<u>49</u> °F		<u>51</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/13/18

Time: \_\_\_\_\_

Inspector Initials: KGH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Run mixers intermittently to reduce wear.

Operator Signature: \_\_\_\_\_

Kyle S. Hansen

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/14/18 Time: 1610 Inspector Initials: KSH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,535,930 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot? Yes  No  
If Yes, pump storm water into one of the Process Tanks.
6. Is there storm water accumulation in equipment pad sumps? Yes  No  
If Yes, pump storm water into one of the process tanks.

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out? **	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed? **	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <span style="float: right;">NA</span>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>69</u> Oil temperature	<u>67</u> °F		<u>68</u> °F		<u>67</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/14/18      Time: \_\_\_\_\_      Inspector Initials: KSH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

Mixers run intermittently to produce wear.

Operator Signature: \_\_\_\_\_

*Kyle S. Hansen*

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/15/15 Time: 0730 Inspector Initials: KSH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\* No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\* No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,542,290 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes No
5. Is there storm water accumulation greater than 1 foot? Yes No  
If Yes, pump storm water into one of the Process Tanks.
6. Is there storm water accumulation in equipment pad sumps?: Yes No  
If Yes, pump storm water into one of the process tanks.

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<u>No</u>	Yes*	<u>No</u>	Yes*	<u>No</u>	Yes*	<u>No</u>
All decant valves and transfer valves locked out?*	<u>Yes</u>	No*	<u>Yes</u>	No*	<u>Yes</u>	No*	NA	NA
Are transfer pumps ready for service?	<u>Yes</u>	No*	<u>Yes</u>	No*	<u>Yes</u>	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	Yes*	<u>No</u>	Yes*	<u>No</u>	Yes*	<u>No</u>
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<u>Yes</u>	No	<u>Yes</u>	No	<u>Yes</u>	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<u>Yes</u>	No	<u>Yes</u>	No	<u>Yes</u>	No
Mixer running and turbulence/vortex observed?*	Yes	<u>No*</u>	Yes	<u>No*</u>	Yes	<u>No*</u>
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <u>NA</u>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>47</u> Oil temperature	<u>47</u> °F		<u>47</u> °F		<u>47</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/15/18      Time: \_\_\_\_\_      Inspector Initials: KSH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers ran intermittently

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Operator Signature: Kyle S. Hansen

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334



## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/16/18 Time: 0830 Inspector Initials: KSH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,549,860 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot?  
If Yes, pump storm water into one of the Process Tanks. Yes  No
6. Is there storm water accumulation in equipment pad sumps?:  
If Yes, pump storm water into one of the process tanks. Yes  No

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out? **	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Visible oil leaks from gear box?	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed? **	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <span style="float: right;">MA</span>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>52</u> Oil temperature	46 °F		47 °F		47 °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/16/18      Time: \_\_\_\_\_      Inspector Initials: KSH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers run intermittently

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\_\_\_\_\_

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Operator Signature: Kyle D. Hansen

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/17/18 Time: 1510 Inspector Initials: KSH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,564,715 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot?  
If Yes, pump storm water into one of the Process Tanks. Yes  No
6. Is there storm water accumulation in equipment pad sumps?:  
If Yes, pump storm water into one of the process tanks. Yes  No

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out? **	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed? **	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <u>NA</u>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>68</u> Oil temperature	<u>65</u> °F		<u>66</u> °F		<u>65</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/17/18      Time: \_\_\_\_\_      Inspector Initials: KSH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

Mixers run intermittently to reduce wear

Operator Signature: Kyle S. Hansen

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/19/18 Time: 1625 Inspector Initials: KSH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,572,270 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot?  
If Yes, pump storm water into one of the Process Tanks. Yes  No
6. Is there storm water accumulation in equipment pad sumps?  
If Yes, pump storm water into one of the process tanks. Yes  No

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out?*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed?*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>62</u> Oil temperature	<u>61</u> °F		<u>62</u> °F		<u>61</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/18/18 Time: \_\_\_\_\_ Inspector Initials: KSA

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers run interm.ently to reduce wear

Operator Signature: Kyle S. Hansen

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/19/18 Time: 1630 Inspector Initials: KSH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,580,240 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot? Yes  No  
If Yes, pump storm water into one of the Process Tanks.
6. Is there storm water accumulation in equipment pad sumps? Yes  No  
If Yes, pump storm water into one of the process tanks.

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out?*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed?*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <i>NA</i>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>61</u> Oil temperature	<u>60</u> °F		<u>61</u> °F		<u>60</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/19/18      Time: \_\_\_\_\_      Inspector Initials: KSH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

Mixers run intermittently to reduce wear.

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Operator Signature: Kyle S. Hansen

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334



## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 1/20/18 Time: 1205 Inspector Initials: KJA

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,587,780 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot?  
If Yes, pump storm water into one of the Process Tanks. Yes  No
6. Is there storm water accumulation in equipment pad sumps?:  
If Yes, pump storm water into one of the process tanks. Yes  No

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out? **	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed? **	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>65</u> Oil temperature	<u>63</u> °F		<u>64</u> °F		<u>62</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/20/18      Time: \_\_\_\_\_      Inspector Initials: KSH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers run intermittently to reduce wear.

Operator Signature: Kyle S Hansen

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/21/18 Time: 1200 Inspector Initials: KSH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,598,030 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot? Yes  No  
If Yes, pump storm water into one of the Process Tanks.
6. Is there storm water accumulation in equipment pad sumps?: Yes  No  
If Yes, pump storm water into one of the process tanks.

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out?*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed?*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>67</u> Oil temperature	<u>62</u> °F		<u>61</u> °F		<u>60</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/21/18      Time: \_\_\_\_\_      Inspector Initials: KSH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

Mixers run intermittently to reduce wear.

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\_\_\_\_\_

\_\_\_\_\_

Operator Signature: *Kyle Hansen*

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/22/18

Time: 0822

Inspector Initials: KSH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,606,900 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot?  
If Yes, pump storm water into one of the Process Tanks. Yes  No
6. Is there storm water accumulation in equipment pad sumps?:  
If Yes, pump storm water into one of the process tanks. Yes  No

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out?***	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed?***	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <u>NA</u>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>60</u> Oil temperature	<u>58</u> °F		<u>59</u> °F		<u>58</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/22/18 Time: \_\_\_\_\_ Inspector Initials: KSH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers run intermittently to reduce wear.

Operator Signature: Kyle S. Hansen

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/23/18

Time: 1102

Inspector Initials: KSH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\* No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\* No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,619,790 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes No
5. Is there storm water accumulation greater than 1 foot?  
If Yes, pump storm water into one of the Process Tanks. Yes No
6. Is there storm water accumulation in equipment pad sumps?:  
If Yes, pump storm water into one of the process tanks. Yes No

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<u>No</u>	Yes*	<u>No</u>	Yes*	<u>No</u>	Yes*	<u>No</u>
All decant valves and transfer valves locked out? **	<u>Yes</u>	No*	<u>Yes</u>	No*	<u>Yes</u>	No*	NA	NA
Are transfer pumps ready for service?	<u>Yes</u>	No*	<u>Yes</u>	No*	<u>Yes</u>	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	Yes*	<u>No</u>	Yes*	<u>No</u>	Yes*	<u>No</u>
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<u>Yes</u>	No	<u>Yes</u>	No	<u>Yes</u>	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<u>Yes</u>	No	<u>Yes</u>	No	<u>Yes</u>	No
Mixer running and turbulence/vortex observed? **	Yes	<u>No*</u>	Yes	<u>No*</u>	Yes	<u>No*</u>
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <u>NA</u>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>61</u> Oil temperature	<u>59</u> °F		<u>59</u> °F		<u>58</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/23/18      Time: \_\_\_\_\_      Inspector Initials: KSH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers run intermittently to reduce wear.

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Operator Signature: Kyle S. Hansen

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334



## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/24/18 Time: 1645 Inspector Initials: KCH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\* No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\* No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,719, 190 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes No
5. Is there storm water accumulation greater than 1 foot? Yes No  
If Yes, pump storm water into one of the Process Tanks.
6. Is there storm water accumulation in equipment pad sumps?: Yes No  
If Yes, pump storm water into one of the process tanks.

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
	Yes*	<u>No</u>	Yes*	<u>No</u>	Yes*	<u>No</u>	Yes*	<u>No</u>
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<u>No</u>	Yes*	<u>No</u>	Yes*	<u>No</u>	Yes*	<u>No</u>
All decant valves and transfer valves locked out? **	<u>Yes</u>	No*	<u>Yes</u>	No*	<u>Yes</u>	No*	NA	NA
Are transfer pumps ready for service?	<u>Yes</u>	No*	<u>Yes</u>	No*	<u>Yes</u>	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
	Yes*	<u>No</u>	Yes*	<u>No</u>	Yes*	<u>No</u>
Visible oil leaks from gear box?	Yes*	<u>No</u>	Yes*	<u>No</u>	Yes*	<u>No</u>
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<u>Yes</u>	No	<u>Yes</u>	No	<u>Yes</u>	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	Yes	<u>No</u>	<u>Yes</u>	No	<u>Yes</u>	No
Mixer running and turbulence/vortex observed? **	<u>Yes</u>	No*	Yes	<u>No*</u>	Yes	<u>No*</u>
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <u>NA</u>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>63</u> Oil temperature	<u>69</u> °F		<u>65</u> °F		<u>65</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 1/24/18 Time: \_\_\_\_\_ Inspector Initials: KSH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

Mixers Run intermittently to reduce wear

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Operator Signature: Kyle S. Hansen

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/25/18

Time: 1155

Inspector Initials: KSH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,726,660 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot?  
If Yes, pump storm water into one of the Process Tanks. Yes  No
6. Is there storm water accumulation in equipment pad sumps?  
If Yes, pump storm water into one of the process tanks. Yes  No

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out?*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203		
Visible oil leaks from gear box?	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	Yes	<input checked="" type="radio"/> No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	
Mixer running and turbulence/vortex observed?*	<input checked="" type="radio"/> Yes	No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?	NA	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>59</u> Oil temperature	89	°F	59	°F	57	°F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/25/18 Time: \_\_\_\_\_ Inspector Initials: KSA

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers run intermittently to reduce wear

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\_\_\_\_\_

\_\_\_\_\_

Operator Signature: Kyle S. Hansen

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/26/18 Time: 0740 Inspector Initials: KSH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,734,150 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot? Yes  No  
If Yes, pump storm water into one of the Process Tanks.
6. Is there storm water accumulation in equipment pad sumps? Yes  No  
If Yes, pump storm water into one of the process tanks.

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out? **	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	Yes	<input checked="" type="radio"/> No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed? **	<input checked="" type="radio"/> Yes	No*	Yes	<input checked="" type="radio"/> No	Yes	<input checked="" type="radio"/> No
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <span style="margin-left: 20px;">NA</span>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>48</u> Oil temperature	<u>52</u> °F		<u>42</u> °F		<u>43</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/26/18

Time: \_\_\_\_\_

Inspector Initials: RSH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

Mixers run intermittently to reduce wear.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Operator Signature: Kyle S. Hansen

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/27/18 Time: 1326 Inspector Initials: KSII

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,878, D10 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot?  
If Yes, pump storm water into one of the Process Tanks. Yes  No
6. Is there storm water accumulation in equipment pad sumps?:  
If Yes, pump storm water into one of the process tanks. Yes  No

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out? **	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed? **	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <i>NA</i>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>63</u> Oil temperature	<u>78</u> °F		<u>59</u> °F		<u>58</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/27/18 Time: \_\_\_\_\_ Inspector Initials: KS/H

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

Mixers run intermittently to reduce wear

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Operator Signature: Kyle Hansen

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334



## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/28/16

Time: 1350

Inspector Initials: LC/A

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,885,540 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot? Yes  No  
If Yes, pump storm water into one of the Process Tanks.
6. Is there storm water accumulation in equipment pad sumps? Yes  No  
If Yes, pump storm water into one of the process tanks.

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out? **	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed? **	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>66</u> Oil temperature	<u>58</u> °F		<u>59</u> °F		<u>59</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 1/28/18

Time: \_\_\_\_\_

Inspector Initials: KSH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers run intermittently to reduce wear

Operator Signature: \_\_\_\_\_

*Kyle S. Hansen*

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/29/18 Time: 0900 Inspector Initials: KSH

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,893,950 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot? Yes  No  
If Yes, pump storm water into one of the Process Tanks.
6. Is there storm water accumulation in equipment pad sumps?  Yes  No  
If Yes, pump storm water into one of the process tanks.  
*p.m. rain ... begin pumping 1500*

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out? **	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed? **	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <i>NA</i>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>60</u> Oil temperature	<u>59</u> °F		<u>58</u> °F		<u>57</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/29/18

Time: \_\_\_\_\_

Inspector Initials: KSH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers run intermittently to reduce wear  
- Pumping secondary containment to remove rainwater (0.5 in)

Operator Signature: *Kyle S. Hansen*

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11-30-18

Time: 0930

Inspector Initials: KSA

### PROCESS PIPING INSPECTION

1. Observe piping between Process Tank secondary containment and FBR secondary containment.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
2. Observe piping in Process Tank secondary containment area.  
Any leaks, punctures, damage, bulges visible? Yes\*  No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.  
Flowmeter: 2,907,850 (gallons)

### SECONDARY CONTAINMENT INSPECTION

4. Perform 360 perimeter walk to observe liner system for potential wear and tear.  
Any leaks, punctures, or other damage visible? Yes  No
5. Is there storm water accumulation greater than 1 foot?  
If Yes, pump storm water into one of the Process Tanks. Yes  No
6. Is there storm water accumulation in equipment pad sumps?:  
If Yes, pump storm water into one of the process tanks.  Yes  No  
*Pumps*

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
All decant valves and transfer valves locked out? **	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA
Are transfer pumps ready for service?	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	NA	NA

8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> Yes	No
Mixer running and turbulence/vortex observed? **	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*	Yes	<input checked="" type="radio"/> No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan? <i>NA</i>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>60</u> Oil temperature	<u>55</u> °F		<u>56</u> °F		<u>55</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/30/18      Time: \_\_\_\_\_      Inspector Initials: KSH

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

- Mixers run intermittently to reduce wear.  
- Pumping secondary containment.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Operator Signature: *Kyle S. Hansen*

**EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

**Attachment B**  
**Phase III O&M Monthly Inspection Forms**

# K05 PHASE III O&M MONTHLY INSPECTION FORM

Date: 10/31/18

Time: 1300

Inspector Initials: JR

### INSPECT MATERIALS AND PARTS

1. Are all spare parts present?  Yes  No  
 If no, list which parts need to be ordered and inform Site Implementation Manager: \_\_\_\_\_

2. Are all safety materials, resources, and supplies to perform work present?  Yes  No  
 If no, list what needs to be ordered and inform Site Implementation Manager: \_\_\_\_\_

### PUMP OPERATION INSPECTION

3. Check if all AODD transfer pumps are in good condition and working order. Provide notes and contact the Site Implementation Manager if any repairs are required:

P-201	<input checked="" type="checkbox"/>	_____
P-202	<input checked="" type="checkbox"/>	_____
P-203	<input checked="" type="checkbox"/>	_____
P-204	<input checked="" type="checkbox"/>	_____
P-205	<input checked="" type="checkbox"/>	_____
P-206	<input checked="" type="checkbox"/>	_____

### HIGH-HIGH LEVEL ALARMS INSPECTIONS

4. Check if the high-high level warning alarm system is in good condition for each tank. Provide notes and contact the Site Implementation Manager if any repairs are required:

	T-201		T-202		T-203		T-204	
Check what level the High-High alarm signals – is it consistent with the set points?	<input checked="" type="radio"/> Yes	<input type="radio"/> No*	<input checked="" type="radio"/> Yes	<input type="radio"/> No*	<input checked="" type="radio"/> Yes	<input type="radio"/> No*	<input checked="" type="radio"/> Yes	<input type="radio"/> No*
Test reset procedure – were there any issues?	<input type="radio"/> Yes*	<input checked="" type="radio"/> No	<input type="radio"/> Yes*	<input checked="" type="radio"/> No	<input type="radio"/> Yes*	<input checked="" type="radio"/> No	<input type="radio"/> Yes*	<input checked="" type="radio"/> No
Are all alarm status lights in good working order?	<input checked="" type="radio"/> Yes	<input type="radio"/> No*	<input checked="" type="radio"/> Yes	<input type="radio"/> No*	<input checked="" type="radio"/> Yes	<input type="radio"/> No*	<input checked="" type="radio"/> Yes	<input type="radio"/> No*
Are the shut-off devices in good working order?	<input checked="" type="radio"/> Yes	<input type="radio"/> No*	<input checked="" type="radio"/> Yes	<input type="radio"/> No*	<input checked="" type="radio"/> Yes	<input type="radio"/> No*	<input checked="" type="radio"/> Yes	<input type="radio"/> No*
Visible damages to the alarm cords and cables?	<input type="radio"/> Yes*	<input checked="" type="radio"/> No	<input type="radio"/> Yes*	<input checked="" type="radio"/> No	<input type="radio"/> Yes*	<input checked="" type="radio"/> No	<input type="radio"/> Yes*	<input checked="" type="radio"/> No

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



# K05 PHASE III O&M MONTHLY INSPECTION FORM

Date: 10/31/18 Time: 1300 Inspector Initials: JR

## INSPECT PROCESS TANK MIXERS

5. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Is there adequate oil in Process Tank mixer motors?	<input checked="" type="radio"/> Yes	<input type="radio"/> No*	<input checked="" type="radio"/> Yes	<input type="radio"/> No*	<input checked="" type="radio"/> Yes	<input type="radio"/> No*
Control panel mixer run time**	9278.1 hrs		9580.6 hrs		9615.8 hrs	

## INSPECT MAINTENANCE ITEMS

6. Check if equipment requiring maintenance is in good condition and working order. Provide the date of next required maintenance and contact the Site Implementation if anything is in need of maintenance:

Activity	Date of Next Replacement or Maintenance	Comments
Replace 3" decant transfer hoses	2/1/2019	
Replace 3" solid transfer hoses	2/1/2019	
Replace 1.5" SLMW flush hose	12/15/2018	
Replace 3" stainless steel doublesphere expansion joints	2/1/2019	
Replace air compressor filter element	10/16/2022	
Service air compressor	1/26/2019	
Change process tank mixer gear box oil**	1/4/2020	
Grease gear seals on process tank mixer	12/21/2018	

### NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Date of next oil change is approximate. The timing for process tank mixer gear box oil change is based on actual run time (10,000 hours). Each mixer ran for the following hours after the last oil change and prior to control panel set up, and these hours need to be added to the control panel readings to arrive at the total run time for the mixers:

M-201 = 1,276.2 hours, M-202 = 1,253.2 hours, M-203 = 1,277.5 hours

### COMMENTS:

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

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Operator Signature: 

# K05 PHASE III O&M MONTHLY INSPECTION FORM

Date: 10/31/18 Time: 1300 Inspector Initials: JR

## EMERGENCY CONTACTS:

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

# K05 PHASE III O&M MONTHLY INSPECTION FORM

Date: 11/30/18

Time: 1050

Inspector Initials: JR

## INSPECT MATERIALS AND PARTS

1. Are all spare parts present?  Yes  No  
 If no, list which parts need to be ordered and inform Site Implementation Manager: \_\_\_\_\_

2. Are all safety materials, resources, and supplies to perform work present?  Yes  No  
 If no, list what needs to be ordered and inform Site Implementation Manager: \_\_\_\_\_

## PUMP OPERATION INSPECTION

3. Check if all AODD transfer pumps are in good condition and working order. Provide notes and contact the Site Implementation Manager if any repairs are required:

P-201	<input checked="" type="checkbox"/>	_____
P-202	<input checked="" type="checkbox"/>	_____
P-203	<input checked="" type="checkbox"/>	_____
P-204	<input checked="" type="checkbox"/>	_____
P-205	<input checked="" type="checkbox"/>	_____
P-206	<input checked="" type="checkbox"/>	_____

## HIGH-HIGH LEVEL ALARMS INSPECTIONS

4. Check if the high-high level warning alarm system is in good condition for each tank. Provide notes and contact the Site Implementation Manager if any repairs are required:

	T-201		T-202		T-203		T-204	
Check what level the High-High alarm signals – is it consistent with the set points?	<input checked="" type="radio"/> Yes	<input type="radio"/> No*	<input checked="" type="radio"/> Yes	<input type="radio"/> No*	<input checked="" type="radio"/> Yes	<input type="radio"/> No*	<input checked="" type="radio"/> Yes	<input type="radio"/> No*
Test reset procedure – were there any issues?	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No
Are all alarm status lights in good working order?	<input checked="" type="radio"/> Yes	<input type="radio"/> No*	<input checked="" type="radio"/> Yes	<input type="radio"/> No*	<input checked="" type="radio"/> Yes	<input type="radio"/> No*	<input checked="" type="radio"/> Yes	<input type="radio"/> No*
Are the shut-off devices in good working order?	<input checked="" type="radio"/> Yes	<input type="radio"/> No*	<input checked="" type="radio"/> Yes	<input type="radio"/> No*	<input checked="" type="radio"/> Yes	<input type="radio"/> No*	<input checked="" type="radio"/> Yes	<input type="radio"/> No*
Visible damages to the alarm cords and cables?	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
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# K05 PHASE III O&M MONTHLY INSPECTION FORM

Date: 11/30/18

Time: 1050

Inspector Initials: JR

**INSPECT PROCESS TANK MIXERS**

5. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Is there adequate oil in Process Tank mixer motors?	<input checked="" type="radio"/> Yes	<input type="radio"/> No*	<input checked="" type="radio"/> Yes	<input type="radio"/> No*	<input checked="" type="radio"/> Yes	<input type="radio"/> No*
Control panel mixer run time**	9322.1 hrs		9580.6 hrs		9615.8 hrs	

**INSPECT MAINTENANCE ITEMS**

6. Check if equipment requiring maintenance is in good condition and working order. Provide the date of next required maintenance and contact the Site Implementation if anything is in need of maintenance:

Activity	Date of Next Replacement or Maintenance	Comments
Replace 3" decant transfer hoses	2/1/2019	
Replace 3" solid transfer hoses	2/1/2019	
Replace 1.5" SLMW flush hose	12/15/2018	
Replace 3" stainless steel doublesphere expansion joints	2/1/2019	
Replace air compressor filter element	10/16/2022	
Service air compressor	1/26/2019	
Change process tank mixer gear box oil**	1/4/2020	
Grease gear seals on process tank mixer	12/21/2018	

**NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Date of next oil change is approximate. The timing for process tank mixer gear box oil change is based on actual run time (10,000 hours). Each mixer ran for the following hours after the last oil change and prior to control panel set up, and these hours need to be added to the control panel readings to arrive at the total run time for the mixers:

M-201 = 1,276.2 hours, M-202 = 1,253.2 hours, M-203 = 1,277.5 hours

**COMMENTS:**

*(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)*

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Operator Signature: 

# K05 PHASE III O&M MONTHLY INSPECTION FORM

Date: 11/30/18

Time: 1050

Inspector Initials: FR

## EMERGENCY CONTACTS:

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334