

# 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:** October 24, 2019

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**Subject:** AP-5 Operation and Maintenance Bi-Monthly Progress Report Summary – August and September 2019  
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 August and September 2019 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 August and September 2019 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 August and September 2019.

## SOLIDS WASHING AND DECANT WATER TRANSFER

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Throughout August and September 2019, 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 64,662 gallons of AP-5 wash water was decanted from the Process Tanks and transferred to the Day Tank in August 2019 and approximately 44,774 gallons of AP-5 wash water was decanted from the Process Tanks and transferred to the Day Tank in September 2019. A summary of daily AP-5 wash water volumes that were decanted from the Process Tanks and transferred to the Day Tank in August and September 2019 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. During the months of August and September 2019, 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 0.98% in August and September 2019.

In an effort to provide decant water for feed to the FBRs at consistent concentrations and perchlorate to ammonia ratios, Tank T-203 was used as the source of all decant water transferred to the FBRs in August and September 2019. To facilitate transfer of decant water to the FBRs through Tank T-203, AP-5 wash water was transferred between tanks as part of the solids washing process. In September 2019, AP-5 wash water decanted from tanks T-201 and T-202 were transferred into Tank T-203. The perchlorate and ammonia concentrations in Tanks T-201 and T-202 are lower than that of T-203. The transfer of decant water between Process Tanks resulted in a transfer of mass (i.e. increase in perchlorate and ammonia mass in the Process Tank receiving decant water), which is reflected on Figures 1 and 3.

## 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 3a 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 3b 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 monthly grab samples from the Process Tanks to estimate the mass of perchlorate removed from each Process Tank and the remaining perchlorate mass in each tank (Tables 3a and 3b, Figure 1). In August 2019, one grab sample was collected from each tank for analysis of perchlorate. In September 2019, four grab samples were collected from each tank for analysis of perchlorate. September 2019 samples were collected at four separate locations along the mixer bridge (5, 20, 40, and 55 feet from the sidewall). Four samples were collected in September 2019 to improve concentration estimates over those obtained from a single-point sample. The perchlorate mass estimate for each tank in August and September 2019 as determined by the sampling method is provided on Table 3b. As noted above, AP-5 wash water from solids washing was transferred from tanks T-201 and T-202 to T-203 in September 2019.

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 from May – July 2018 as part of final pond closure activities based on single-point samples from each Process Tank.

The estimated 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

limited monthly grab 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 monthly grab 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 5a. 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 5b and Figure 3. Monthly tank grab samples were completed in August and September 2019 for estimating the mass of ammonia removed from each Process Tank and the remaining ammonia mass in each tank. As noted above, AP-5 wash water from solids washing was transferred from tanks T-201 and T-202 into T-203 in September 2019.

## 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 2.0 gpm at 1.8% 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 for all three tanks is expected to be completed in 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. Based on a composite sample collected from T-201 in July 2019, the solids concentration in T-201 is less than 1% and solids washing activities are considered complete for that tank. The solids in tank T-201 will be characterized for disposal followed by removal of solids from the tank for dewatering and off-site disposal following build out of the solids dewatering area. Tetra Tech initiated planning for solids dewatering in September 2019, including collecting samples from T-201 for field and laboratory testing to evaluate and optimize dewatering procedures and collecting samples for landfill waste disposal profiling. Solids dewatering activities are anticipated to begin in 2020 with T-201 and will continue to T-202 and T-203 as appropriate.

## ROUTINE INSPECTIONS

Routine inspections were conducted throughout August and September 2019. 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 August and September 2019. 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.
- No stormwater accumulation on the secondary containment liner or in equipment pad sumps were observed.

## Tanks and Equipment

Process Tanks T-201, T-202 and T-203, and Day Tank T-204 were inspected on a routine basis in August and September 2019. 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.

## MONTHLY INSPECTION

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The August and September 2019 monthly inspections were conducted on August 30, 2019 and September 30, 2019. 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 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.

## CERTIFICATION

### AP-5 Operation and Maintenance Bi-Monthly Progress Report Summary – August and September 2019

**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

Not Individually, but Solely  
as President of the Trustee

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

**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:** 10/24/19

## 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 Bi-Monthly Progress Report Summary for August and September 2019.



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

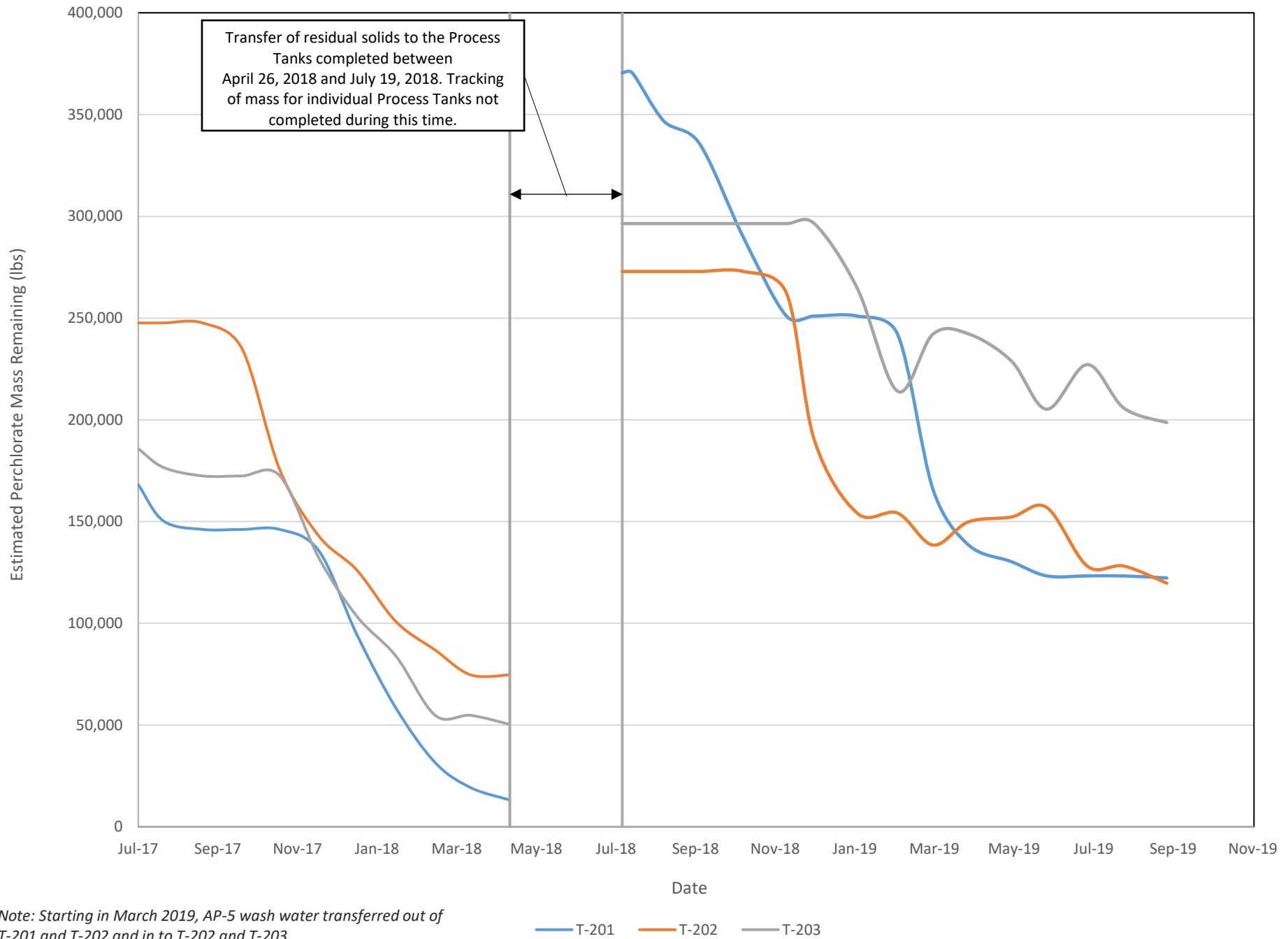
October 24, 2019

Date

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

# Figures

Figure 1. Estimate of Perchlorate Mass Remaining in Process Tanks



Note: Starting in March 2019, AP-5 wash water transferred out of T-201 and T-202 and in to T-202 and T-203.



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

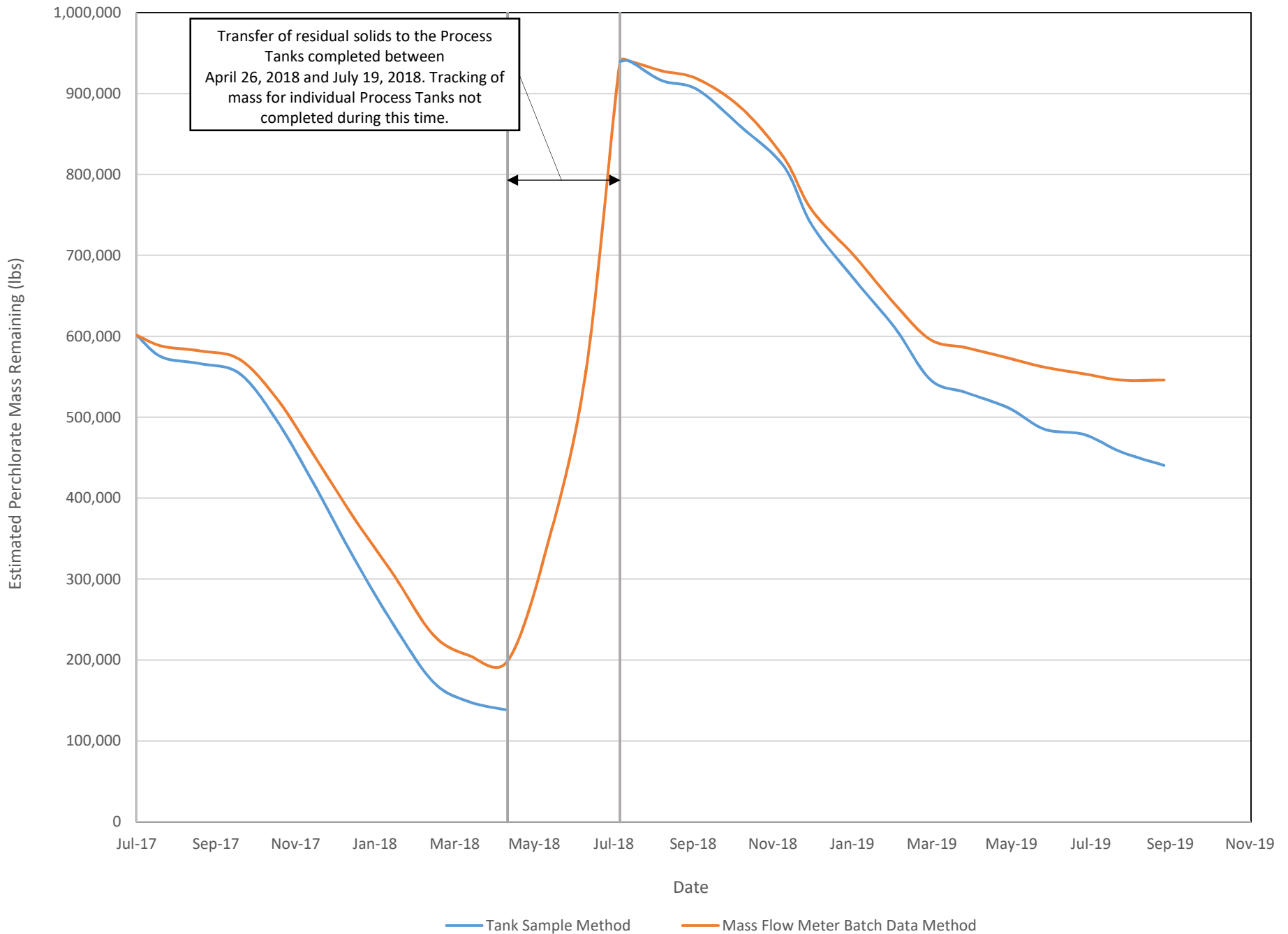
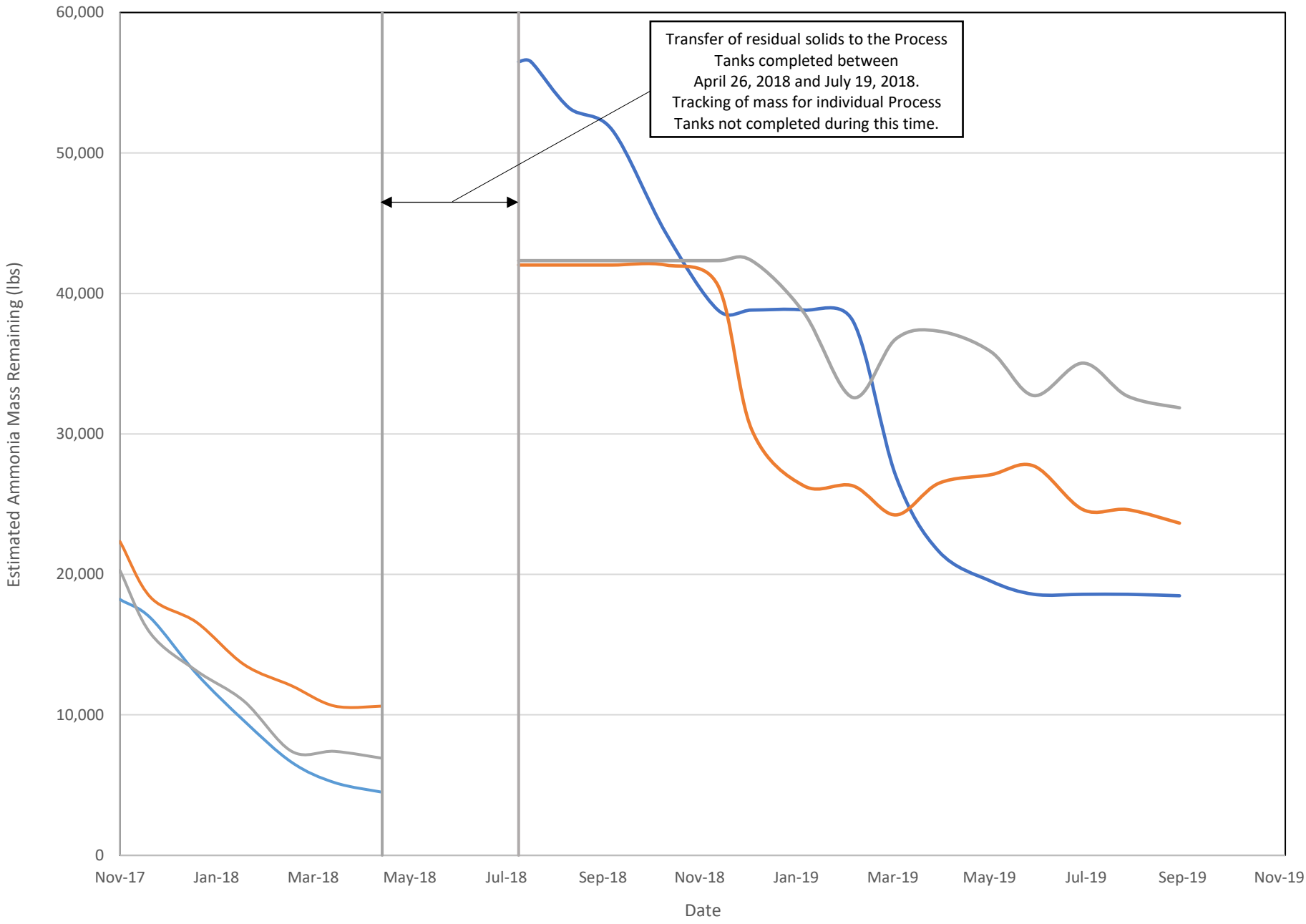


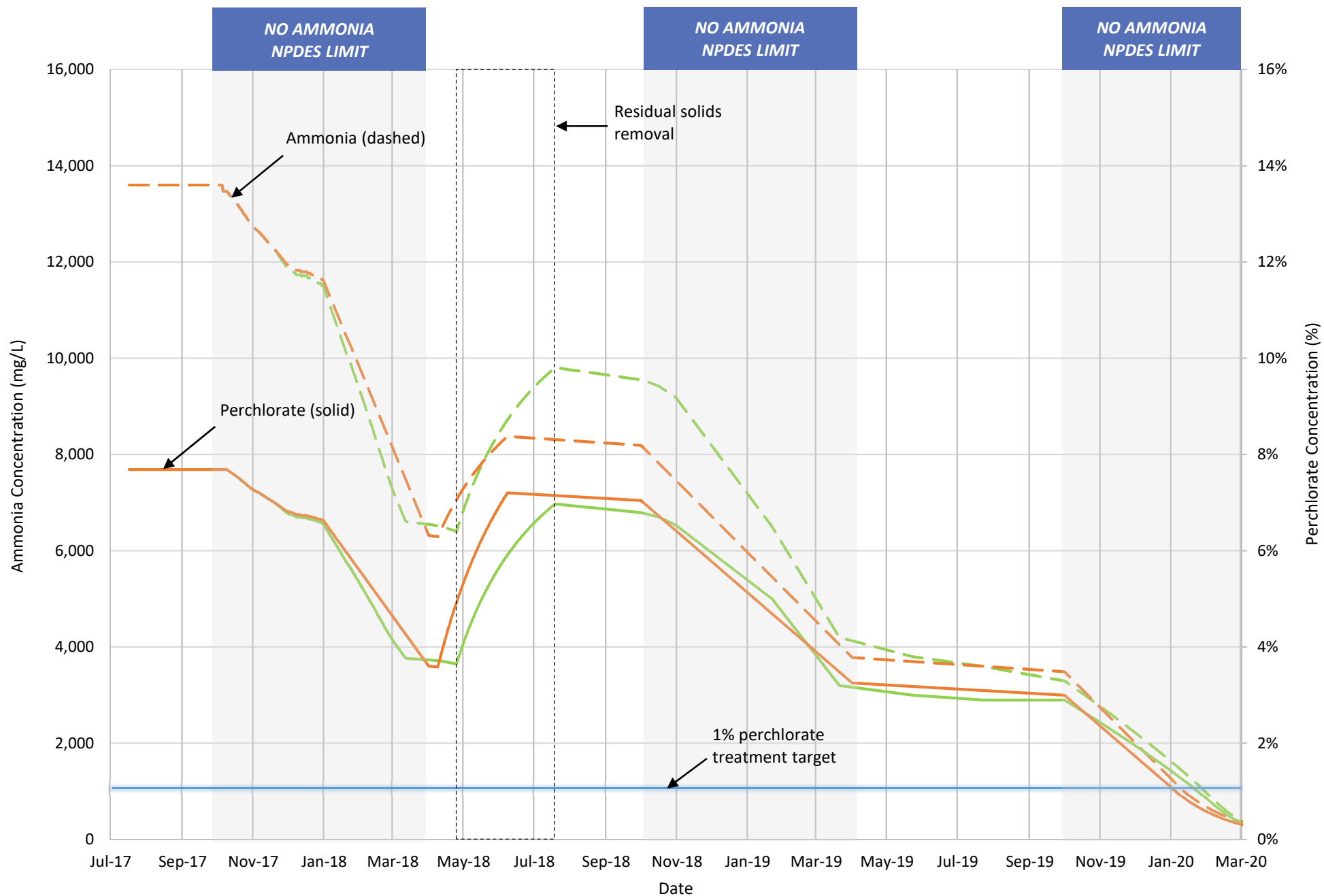
Figure 3. Estimate of Ammonia Mass Remaining in Process Tanks



Note: Starting in March 2019, AP-5 wash water transferred out of T-201 and T-202 and in to T-202 and T-203.

T-201 T-202 T-203

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

## Tables

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

Date	T-201 (Gallons)	T-202 (Gallons)	T-203 (Gallons)	Daily Total (Gallons)
8/1/2019	-	-	20,104	20,104
8/2/2019	-	-	-	-
8/3/2019	-	-	-	-
8/4/2019	-	-	-	-
8/5/2019	-	-	-	-
8/6/2019	-	-	-	-
8/7/2019	-	-	-	-
8/8/2019	-	-	-	-
8/9/2019	-	-	-	-
8/10/2019	-	-	-	-
8/11/2019	-	-	-	-
8/12/2019	-	-	-	-
8/13/2019	-	-	19,118	19,118
8/14/2019	-	-	-	-
8/15/2019	-	-	-	-
8/16/2019	-	-	-	-
8/17/2019	-	-	-	-
8/18/2019	-	-	-	-
8/19/2019	-	-	-	-
8/20/2019	-	-	-	-
8/21/2019	-	-	-	-
8/22/2019	-	-	-	-
8/23/2019	-	-	-	-
8/24/2019	-	-	-	-
8/25/2019	-	-	-	-
8/26/2019	-	-	25,440	25,440
8/27/2019	-	-	-	-
8/28/2019	-	-	-	-
8/29/2019	-	-	-	-
8/30/2019	-	-	-	-
8/31/2019	-	-	-	-
<b>Total</b>	-	-	<b>64,662</b>	<b>64,662</b>

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. September Monthly AP-5 Wash Water Decant Records**

Date	T-201 (Gallons)	T-202 (Gallons)	T-203 (Gallons)	Daily Total (Gallons)
9/1/2019	-	-	-	-
9/2/2019	-	-	-	-
9/3/2019	-	-	-	-
9/4/2019	-	-	-	-
9/5/2019	-	-	-	-
9/6/2019 <sup>2</sup>	13,000	-	(13,000)	-
9/7/2019	-	-	-	-
9/8/2019	-	-	-	-
9/9/2019	-	-	21,711	21,711
9/10/2019	-	-	-	-
9/11/2019	-	-	-	-
9/12/2019	-	-	-	-
9/13/2019	-	-	-	-
9/14/2019	-	-	-	-
9/15/2019	-	-	-	-
9/16/2019	-	-	-	-
9/17/2019	-	-	-	-
9/18/2019	-	-	-	-
9/19/2019	-	-	-	-
9/20/2019	-	-	-	-
9/21/2019	-	-	-	-
9/22/2019	-	-	-	-
9/23/2019	-	-	-	-
9/24/2019	-	-	23,063	23,063
9/25/2019	-	-	-	-
9/26/2019 <sup>2</sup>	-	33,000	(33,000)	-
9/27/2019	-	-	-	-
9/28/2019	-	-	-	-
9/29/2019	-	-	-	-
9/30/2019	-	-	-	-
<b>Total</b>	<b>13,000</b>	<b>33,000</b>	<b>(1,226)</b>	<b>44,774</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.

2 - Decant volume transferred from T-201 and T-202 to T-203. Transfer into Tank T-203 shown as a negative value.

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

Month	T-201 (Gallons)	T-202 (Gallons)	T-203 (Gallons)	Monthly Total (Gallons)
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
December 2018	-	146,407	-	146,407
January 2019	-	88,720	62,425	151,145
February 2019	29,886	-	97,882	127,768
March 2019	17,897	-	95,684	113,581
April 2019	-	-	20,837	20,837
May 2019	-	-	55,405	55,405
June 2019	-	-	83,194	83,194
July 2019	-	-	22,342	22,342
August 2019	-	-	64,662	64,662
September 2019	-	-	44,774	44,774
<b>Cumulative Total</b>	<b>975,053</b>	<b>717,348</b>	<b>978,794</b>	<b>2,671,195</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**

Month	T-201 (Gallons)	T-202 (Gallons)	T-203 (Gallons)	Monthly Total (Gallons) <sup>1</sup>
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
December 2018	-	2,780	-	2,780
January 2019	-	96,270	950	97,220
February 2019	630	-	1,630	2,260
March 2019	270	-	1,110	1,380
April 2019	86,500	4,500	210	91,210
May 2019	74,000	-	730	74,730
June 2019	85,000	-	1,930	86,930
July 2019	23,360	-	320	23,680
August 2019	10,330	-	850	11,180
September 2019	13,000	-	400	13,400
<b>Cumulative Total</b>	<b>823,437</b>	<b>492,567</b>	<b>313,310</b>	<b>1,629,314</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>	<i>July 2017<sup>2</sup></i>	<i>17,828</i>	<i>-</i>	<i>9,189</i>	<i>27,017</i>	<b>574,363</b>
	<i>August 2017</i>	<i>4,120</i>	<i>-</i>	<i>4,155</i>	<i>8,275</i>	<b>566,088</b>
	<i>September 2017</i>	<i>-</i>	<i>12,547</i>	<i>-</i>	<i>12,547</i>	<b>553,540</b>
	<i>October 2017</i>	<i>-</i>	<i>59,663</i>	<i>-</i>	<i>59,663</i>	<b>493,878</b>
	<i>November 2017</i>	<i>10,605</i>	<i>32,571</i>	<i>40,418</i>	<i>83,594</i>	<b>410,284</b>
	<i>December 2017</i>	<i>41,090</i>	<i>16,693</i>	<i>28,582</i>	<i>86,365</i>	<b>323,919</b>
	<i>January 2018</i>	<i>36,195</i>	<i>25,360</i>	<i>19,639</i>	<i>81,195</i>	<b>242,724</b>
	<i>February 2018</i>	<i>26,727</i>	<i>13,925</i>	<i>29,020</i>	<i>69,672</i>	<b>173,051</b>
	<i>March 2018</i>	<i>12,248</i>	<i>12,168</i>	<i>-</i>	<i>24,415</i>	<b>148,636</b>
	<i>April 2018</i>	<i>6,083</i>	<i>-</i>	<i>4,441</i>	<i>10,524</i>	<b>138,112</b>
	<i>May 2018<sup>3</sup></i>	<i>INDIVIDUAL PROCESS TANK MASS CALCULATIONS WERE SUSPENDED UNTIL POND SOLIDS TRANSFER COMPLETED.</i>				
	<i>June 2018</i>					
	<i>July 2018</i>					
<b>Ending Perchlorate Mass</b>						<b>138,112</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 grab 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.

**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>
<i>Approx. Mass Removed</i>	<i>August 2018<sup>5</sup></i>	23,717	-	-	23,717	916,033
	<i>September 2018</i>	10,889	-	-	10,889	905,144
	<i>October 2018</i>	46,380	-	-	46,380	858,764
	<i>November 2018</i>	38,510	10,660	-	49,170	809,594
	<i>December 2018</i>	-	72,088	-	72,088	737,507
	<i>January 2019</i>	-	36,002	31,779	67,781	669,726
	<i>February 2019</i>	9,026	-	50,646	59,671	610,055
	<i>March 2019<sup>6</sup></i>	76,234	15,700	(28,139)	63,795	546,260
	<i>April 2019</i>	27,186	(11,423)	(93)	15,670	530,590
	<i>May 2019</i>	8,238	(2,366)	13,346	19,218	511,372
	<i>June 2019</i>	7,006	(4,670)	23,693	26,028	485,344
	<i>July 2019</i>	-	28,762	(21,934)	6,829	478,515
	<i>August 2019</i>	-	-	21,383	21,383	457,132
<i>September 2019</i>	1,021	8,434	7,093	16,548	440,584	
<b>Ending Perchlorate Mass</b>		<b>122,252</b>	<b>119,686</b>	<b>198,647</b>		<b>440,584</b>

Notes:

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.

6 - Starting in March 2019, AP-5 wash water was transferred out of Process Tanks T-201 and T-202 and into Process Tanks T-202 and T-203 to provide consistent concentrations and perchlorate to ammonia ratios for feed to the FBRs.

**Table 4a. Estimate of Perchlorate Mass in Process Tanks Based on Batch Transfers after Initial Slurry Transfer**

		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>
<b>Approx. Mass Removed</b>	July 2017 <sup>2</sup>		13,520	<b>587,860</b>
	August 2017 <sup>2</sup>		6,000	<b>581,860</b>
	September 2017		10,706	<b>571,154</b>
	October 2017		49,990	<b>521,163</b>
	November 2017		74,231	<b>446,933</b>
	December 2017		73,066	<b>373,867</b>
	January 2018		69,363	<b>304,504</b>
	February 2018		73,247	<b>231,257</b>
	March 2018		25,321	<b>205,935</b>
	April 2018		7,030	<b>198,905</b>
	May 2018 <sup>4 5</sup>	151,078	11,126	<b>338,857</b>
	June 2018 <sup>5</sup>	227,250	9,337	<b>556,770</b>
	July 2018 <sup>5</sup>	341,180	9,343	<b>888,608</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 4b. Estimate of Perchlorate Mass in Process Tanks Based on Batch Transfers after Residual Solids Transfer**

		Estimated Monthly Mass Added (lbs) <sup>3</sup>	Total Monthly Mass Removed (lbs)	Total Perchlorate Mass In Process Tanks (lbs)
<b>Perchlorate Mass After Pond Solids Removal<sup>5</sup></b>				<b>939,750</b>
<b>Approx. Mass Removed</b>	<i>August 2018</i>		11,710	<b>928,040</b>
	<i>September 2018</i>		9,777	<b>918,264</b>
	<i>October 2018</i>		35,943	<b>882,320</b>
	<i>November 2018</i>		61,959	<b>820,361</b>
	<i>December 2018</i>		64,395	<b>755,966</b>
	<i>January 2019</i>		57,196	<b>698,770</b>
	<i>February 2019</i>		59,301	<b>639,469</b>
	<i>March 2019</i>		43,614	<b>595,855</b>
	<i>April 2019</i>		9,820	<b>586,035</b>
	<i>May 2019</i>		13,081	<b>572,954</b>
	<i>June 2019</i>		11,009	<b>561,945</b>
	<i>July 2019</i>		8,394	<b>553,551</b>
	<i>August 2019</i>		7,613	<b>545,938</b>
<i>September 2019</i>		8,604	<b>537,334</b>	
<b>Ending Perchlorate Mass</b>				<b>537,334</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>
<i>Approx. Mass Removed</i>	<i>November 2017</i>	1,323	3,979	4,490	9,792	51,045
	<i>December 2017</i>	3,974	1,778	2,659	8,411	42,634
	<i>January 2018</i>	3,353	3,009	2,163	8,526	34,108
	<i>February 2018</i>	2,945	1,509	3,564	8,017	26,091
	<i>March 2018</i>	1,445	1,441	-	2,886	23,206
	<i>April 2018</i>	682	-	490	1,172	22,034
	<i>May 2018<sup>2</sup></i>	<i>INDIVIDUAL PROCESS TANK MASS CALCULATIONS WERE SUSPENDED UNTIL POND SOLIDS TRANSFER COMPLETED.</i>				
	<i>June 2018</i>					
<i>July 2018</i>						
<b>Ending Ammonia Mass</b>						<b>22,034</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.

**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>
<i>Approx. Mass Removed</i>	<i>August 2018<sup>4</sup></i>	3,294	-	-	3,294	137,560
	<i>September 2018</i>	1,561	-	-	1,561	135,999
	<i>October 2018</i>	7,340	-	-	7,340	128,659
	<i>November 2018</i>	5,483	1,455	-	6,939	121,720
	<i>December 2018</i>	-	10,263	-	10,263	111,457
	<i>January 2019</i>	-	3,998	3,699	7,697	103,760
	<i>February 2019</i>	773	-	6,045	6,818	96,942
	<i>March 2019<sup>5</sup></i>	11,041	2,074	(4,173)	8,942	88,000
	<i>April 2019</i>	5,363	(2,253)	(548)	2,561	85,438
	<i>May 2019</i>	2,124	(610)	1,460	2,974	82,465
	<i>June 2019</i>	934	(623)	3,124	3,436	79,029
	<i>July 2019</i>	-	3,105	(2,313)	792	78,237
	<i>August 2019</i>	-	-	2,347	2,347	75,889
<i>September 2019</i>	103	964	836	1,902	73,987	
<b>Ending Ammonia Mass</b>		<b>18,480</b>	<b>23,649</b>	<b>31,858</b>		<b>73,987</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.
- 5 - Starting in March 2019, AP-5 wash water was transferred out of Process Tanks T-201 and T-202 and into Process Tanks T-202 and T-203 to provide consistent concentrations and perchlorate to ammonia ratios for feed to the FBRs.

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

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 8/1/19

Time: 1430

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: 4,621,140 (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="margin-left: 20px;"><u>NA</u></span>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>105</u> Oil temperature	<u>108</u> °F		<u>106</u> °F		<u>106</u> °F	



## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 8/1/19 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 bearing 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: 8/2/19 Time: 0840 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: 4,621,140 (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>92</u> Oil temperature	<u>93</u> °F		<u>93</u> °F		<u>93</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 8/2/19 Time: 0 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 bearing 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: 8/3/19

Time: 0710

Inspector Initials: RSH

### 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: 4,621,140 (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>84</u> Oil temperature	<u>84</u> °F		<u>84</u> °F		<u>84</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 8/3/19

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.)*

- Run mixers intermittently to reduce bearing 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: 8/4/19

Time: 0605

Inspector Initials: RSH

### 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: 4,621,140 (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>86</u> Oil temperature	<u>88</u> °F		<u>89</u> °F		<u>89</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 8/4/19      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 bearing 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: 8/5/19

Time: 1025

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: 4,676,395 (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>102</u> Oil temperature	<u>100</u> °F		<u>101</u> °F		<u>101</u> °F	



## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 8/5/19      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 bearing 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: 8/6/19 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: 4,626, 395 (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>99</u> Oil temperature	<u>102</u> °F		<u>101</u> °F		<u>102</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 8/6/19      Time: \_\_\_\_\_      Inspector Initials: KSfl

**NOTES:**

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

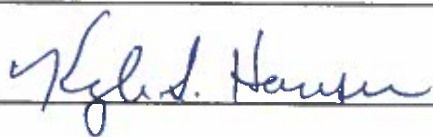
\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

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 bearing wear.  
- Fill jump tank.

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: 8/7/19 Time: 0810 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: 4,626, 465 (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>86</u> Oil temperature	92 °F		91 °F		91 °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 8/7/19      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 to reduce bearing 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: 8/8/19

Time: 1030

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: 4,629,215 (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? <i>NA</i>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>93</u> Oil temperature	<u>97</u> °F		<u>96</u> °F		<u>96</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 8/8/19      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 bearing 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: 8/9/19

Time: 0800

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: 4,631,435 (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>81</u> Oil temperature	<u>89</u> °F		<u>88</u> °F		<u>89</u> °F	



## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 8/9/19 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 bearing 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: 8/10/19

Time: 0610

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: 4,631,435 (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*	<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? <i>NA</i>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>92</u> Oil temperature	<u>93</u> °F		<u>92</u> °F		<u>93</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 8/10/19      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 bearing 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: 8/11/19 Time: 1345 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: 4, 636, 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	
	Yes*	<input checked="" type="radio"/> No	Yes*	<input checked="" type="radio"/> No	Yes*	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*	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;">NA</span>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>100</u> Oil temperature <u>99</u> °F				<u>100</u> °F		<u>100</u> °F

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 8/11/19

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

Inspector Initials: \_\_\_\_\_

**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 bearing 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: 8/12/19

Time: 1200

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: 4,036,646 (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? <span style="float: right; margin-right: 20px;"><u>NA</u></span>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>78</u> Oil temperature	<u>97</u> °F		<u>98</u> °F		<u>97</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 8/12/19      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 bearing 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: 8/13/19 Time: 1415 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: 4,637,060 (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*	<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?	NA	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>107</u> Oil temperature	<u>111</u>	°F	<u>110</u>	°F	<u>111</u>	°F	



## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 8/13/19      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 bearing 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: 8/14/19 Time: 0737 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: 4,637,060 (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>84</u> Oil temperature	<u>86</u> °F		<u>87</u> °F		<u>86</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 8/14/19 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 bearing 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: 8/15/19

Time: 1025

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: 4, 647, 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*	<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>102</u> Oil temperature	<u>104</u> °F		<u>103</u> °F		<u>102</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 2/15/19 Time: \_\_\_\_\_ Inspector Initials: KSJH

**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.)*

- Added  $\approx$  4,000 gallons of SUMW to T-201 to make up for evaporative losses

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: 8/16/19 Time: 0910 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: 4,645,950 (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?  
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>94</u> Oil temperature	<u>97</u> °F		<u>97</u> °F		<u>96</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 8/16/19      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 intermittent ly to reduce bearing 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: 8/17/19 Time: 0610 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: 4,645,950 (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.

### 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.	<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>83</u> Oil temperature	<u>82</u> °F		<u>83</u> °F		<u>83</u> °F	



## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 8/17/19      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 bearing wear

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\_\_\_\_\_

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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: 8/18/19 Time: 0730 Inspector Initials: KS11

### 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: 4,649,670 (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>82</u> Oil temperature	<u>84</u> °F		<u>84</u> °F		<u>82</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 8/18/19 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 bearing 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: 8/19/19 Time: 0755 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: 4,649,670 (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>81</u> Oil temperature	<u>82</u> °F		<u>83</u> °F		<u>81</u> °F		

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 9/19/19      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 bearing 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: 8/20/19 Time: 1832 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: 4,652,930 (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*	<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.	Yes	<u>No</u>	Yes	<u>No</u>	Yes	<u>No</u>
Mixer running and turbulence/vortex observed? **	<u>Yes</u>	No*	<u>Yes</u>	No*	<u>Yes</u>	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>84</u> Oil temperature	<u>90</u> °F		<u>91</u> °F		<u>92</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 8/20/19 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.)*

x 19 run prior to monthly sampling for  
4? W1

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: 8/21/19 Time: 1030 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: 4,657,310 (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*	<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.	<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>97</u> Oil temperature	<u>99</u> °F		<u>98</u> °F		<u>99</u> °F	



## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 8/21/19 Time: \_\_\_\_\_ Inspector Initials: KSF

**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 bearing wear  
- Place 4000 gallons of SLMW into T-201 to make up for evaporative losses

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: 8/22/19

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: 4,661,510 (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>93</u> Oil temperature	<u>94</u> °F		<u>94</u> °F		<u>93</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 8/22/19      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 bearing 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: 8/23/19 Time: 0930 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: 4,661,510 (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?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>91</u> Oil temperature	<u>91</u> °F		<u>92</u> °F		<u>91</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 8/23/19      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 bearing 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: 8/24/19 Time: 0610 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: 4,607,120 (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>81</u> Oil temperature	<u>82</u> °F		<u>83</u> °F		<u>82</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 8/24/19      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 bearing 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: 8/25/19

Time: 0738

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: 4,667,120 (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>86</u> Oil temperature	<u>89</u> °F		<u>88</u> °F		<u>89</u> °F	



## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 9/25/19      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 intermitently 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: 8/26/19 Time: 1500 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: 4,673,000 (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*	<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?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>109</u> Oil temperature	<u>110</u> °F		<u>111</u> °F		<u>110</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 8/20/19      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 bearing 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: 8/27/19 Time: 1320 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: 4,673,000 (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>107</u> Oil temperature	<u>110</u>	°F	<u>110</u>	°F	<u>109</u>	°F

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 8/27/19      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 bearing 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: 8/29/19 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: 4,673,000 (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*	<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="margin-left: 20px;">NA</span>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>94</u> Oil temperature	<u>96</u> °F		<u>95</u> °F		<u>94</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 8/28/19 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 bearing 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: 8/29/19 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: 4,675, 330 (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?	NA	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>97</u> Oil temperature			<u>99</u> °F		<u>99</u> °F	<u>98</u> °F	



## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 8/29/19 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 bearing wear.  
- added 2,330 gallons to T-201 to make up for  
evaporative losses

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: 8/30/19 Time: 0715 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: 4,681,900 (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*	<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="margin-left: 20px;">NA</span>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>93</u> Oil temperature	<u>95</u> °F		<u>94</u> °F		<u>94</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 8/30/19      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 bearing 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: 8/31/19 Time: 2:05 Inspector Initials: KG H

### 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: 4,681,900 (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? 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?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>100</u> Oil temperature	<u>104</u> °F		<u>103</u> °F		<u>104</u> °F	

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

Date: 8/31/19 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 bearing 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: 9/1/19 Time: 0630 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: 4,696,145 (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? <i>NA</i>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>87</u> Oil temperature	<u>89</u>	°F	<u>90</u>	°F	<u>89</u>	°F

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 9/1/19      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 bearing 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: 9/2/19 Time: 1020 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: 4,686,145 (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?  
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>91</u> Oil temperature	<u>92</u> °F		<u>92</u> °F		<u>91</u> °F	



## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 9/2/19 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 bearing 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: 9/3/19 Time: 1230 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: 4,686, 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?  
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>102</u> Oil temperature			<u>103</u> °F	<u>102</u> °F	<u>103</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 9/3/19 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 bearing 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: 9/4/19 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: 4,686,145 (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*	<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*	<input checked="" type="radio"/> 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>90</u> Oil temperature	<u>89</u> °F		<u>91</u> °F		<u>91</u> °F		

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

Date: 9/4/19

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 bearing 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: 9/5/19 Time: 1000 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: 4,691,445 (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>94</u> Oil temperature	<u>93</u> °F		<u>95</u> °F		<u>95</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 9/5/19      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 bearing 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: 9/6/19 Time: 0845 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: 4,691,445 (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>89</u> Oil temperature	<u>89</u> °F		<u>91</u> °F		<u>90</u> °F	



## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 9/6/19 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 bearing wear.  
- Added 13,000 gallons to T-201 to Flush salts & transfer to T-203

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: 9/7/19 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: 4,704,610 (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>X/A</u>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>88</u> Oil temperature	<u>89</u> °F		<u>90</u> °F		<u>89</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 9/7/19      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 bearing 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: 9/8/19 Time: 0722 Inspector Initials: RSH

### 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: 4,710,355 (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>NH</u>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>81</u> Oil temperature	<u>81</u> °F		<u>81</u> °F		<u>80</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 7/8/19      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 bearing 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: 9/9/19 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: 4,711,960 (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	
	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="margin-left: 20px;">NA</span>	Yes	No*	Yes	No*	Yes	No*	
Ambient air temperature <u>97</u> Oil temperature			<u>98</u> °F			<u>97</u> °F	<u>97</u> °F

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 9/9/19      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 bearing 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: 9/10/19

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: 4,711,960 (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	
	Yes*	No	Yes*	No	Yes*	No	Yes*	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?	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>85</u> Oil temperature			<u>87</u> °F	<u>86</u> °F	<u>85</u> °F	



## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 9/10/19      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 bearing 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: 9/11/19

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: 4,717,960 (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*	<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>76</u> Oil temperature			<u>78</u> °F	<u>77</u> °F	<u>79</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 9/11/19      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 intermittently, to reduce bearing 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: 9/12/19 Time: 1145 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: 4,717,960 (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? 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>90</u> Oil temperature	<u>92</u> °F		<u>91</u> °F		<u>92</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 9/12/19      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 bearing 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: 9/13/19 Time: 1100 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: 4,717,960 (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? 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>90</u> Oil temperature	<u>91</u> °F		<u>90</u> °F		<u>90</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 9/13/19      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 to reduce bearing 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: 9/14/19 Time: 10:53 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: 4,723,030 (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?  
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>98</u> Oil temperature	<u>99</u> °F		<u>100</u> °F		<u>98</u> °F	



## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 9/14/19      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 bearing 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: 9/15/19 Time: 1000 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: 4,723,030 (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*	<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>92</u> Oil temperature	<u>92</u> °F		<u>91</u> °F		<u>93</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 9/15/19      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 intermittently to reduce bearing 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: 9/16/19

Time: 1025

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: 4,723,030 (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? <span style="float: right;">NA</span>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>93</u> Oil temperature	<u>93</u> °F		<u>93</u> °F		<u>93</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 9/16/19 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 bearing wear

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Operator Signature: Kyle L. 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: 9/17/19 Time: 0840 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: 4,729,130 (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?	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>79</u>	°F	<u>77</u>	°F	<u>79</u>	°F

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 9/17/19 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 bearing wear

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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: 9/18/19 Time: 0930 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: 4,729,130 (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?	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	Yes	<input checked="" type="radio"/> No	Yes	<input checked="" type="radio"/> No
Mixer running and turbulence/vortex observed? **	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	No*	<input checked="" type="radio"/> Yes	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>78</u> °F	<u>79</u> °F	<u>78</u> °F	



## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 9/18/19      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 operated prior to monthly samples.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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: 9/19/19

Time: 0850

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: 4,729, 360 (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?	NA	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>80</u> Oil temperature			<u>82</u> °F			<u>81</u> °F	<u>81</u> °F

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 9/19/19      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 bearing wear.  
- Removed old jump tank water & replaced

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: 9/20/19

Time: 1300

Inspector Initials: RSH

### 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: 4,736, 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?  
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>82</u> Oil temperature	<u>81</u>	°F	<u>82</u>	°F	<u>81</u>	°F

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 9/20/19      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 bearing 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: 9/21/19 Time: 0610 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: 4,736,875 (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?  
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*	<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.	<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>77</u> Oil temperature	<u>79</u> °F		<u>80</u> °F		<u>79</u> °F	

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

Date: 9/21/19      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 bearing 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: 9/22/19 Time: 1415 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: 4,736, 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?  
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>90</u> Oil temperature	<u>90</u>	°F	<u>90</u>	°F	<u>91</u>	°F	



## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 9/22/19      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 bearing 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: 9/23/19 Time: 1230 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: 4,742, 510 (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>91</u> Oil temperature <u>90</u> °F						

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 9/23/19

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 bearing 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: 9/24/19 Time: 1500 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: 4,743,070 (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>93</u> Oil temperature	<u>94</u>	°F	<u>94</u>	°F	<u>95</u>	°F

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 9/24/19      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 bearing 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: 9/25/19 Time: 0930 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: 4,743,070 (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: 1.2em; color: blue;">NA</span>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>76</u> Oil temperature	<u>79</u> °F		<u>79</u> °F		<u>78</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 9/25/19      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 bearing 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: 9/26/19 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: 4,750,350 (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>88</u> Oil temperature	<u>89</u> °F		<u>88</u> °F		<u>87</u> °F	



## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 9/26/19 Time: 1600 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 bearing wear  
 - Transfer ~ 33,000 gallons from T-202 to T-203 to provide a consistent feed to ET1

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: 9/27/19

Time: 1000

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: 4,750, 680 (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? <span style="margin-left: 20px;"><u>NA</u></span>	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>84</u> Oil temperature	<u>85</u> °F		<u>84</u> °F		<u>83</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 9/27/19      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 to reduce bearing 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: 9/28/19 Time: 0710 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: 4,750,680 (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>77</u> Oil temperature	<u>76</u> °F		<u>76</u> °F		<u>77</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 9/28/19      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 bearing 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: 9/29/19 Time: 1445 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: 4,757,265 (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*	<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	<input checked="" type="radio"/> 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>79</u> Oil temperature	<u>79</u> °F		<u>80</u> °F		<u>79</u> °F	

## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 9/29/19

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 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: 9/30/19 Time: 1200 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: 4,757,265 (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*	<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>74</u> Oil temperature	<u>74</u> °F		<u>75</u> °F		<u>73</u> °F	



## K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 9/30/19      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 bearing 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

**Attachment B**  
**Phase III O&M Monthly Inspection Forms**

# K05 PHASE III O&M MONTHLY INSPECTION FORM

Date: 8/30/19

Time: 0900

Inspector Initials: JR/JB

## 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: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

# K05 PHASE III O&M MONTHLY INSPECTION FORM

Date: 8/30/19

Time: 0900

Inspector Initials: JR / JB

## 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**	9521.4 hrs		9590.1 hrs		9654.8 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	2/11/2020	
Replace 3" solid transfer hoses	2/11/2020	
Replace 1.5" SLMW flush hose	2/15/2020	
Replace 3" stainless steel doublesphere expansion joints	2/11/2020	
Replace air compressor filter element	10/16/2022	
Service air compressor	1/26/2021	
Change process tank mixer gear box oil**	1/4/2020	
Grease gear seals on process tank mixer	12/21/2019	

### 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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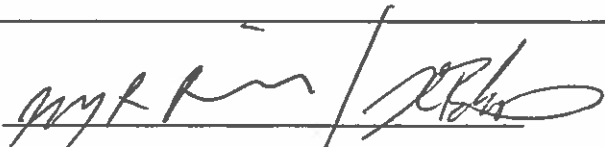
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Operator Signature: 

# K05 PHASE III O&M MONTHLY INSPECTION FORM

Date: 8/30/19

Time: 0900

Inspector Initials: JR/JB

## 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: 9/30/19      Time: 0600      Inspector Initials: JRB

### 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"/>	<u>All transfer pumps are in good condition and working order</u>
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	
	Yes	No*	Yes	No*	Yes	No*	Yes	No*
Check what level the High-High alarm signals – is it consistent with the set points?	<input checked="" type="radio"/>	No*	<input checked="" type="radio"/>	No*	<input checked="" type="radio"/>	No*	<input checked="" 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"/>	No*	<input checked="" type="radio"/>	No*	<input checked="" type="radio"/>	No*	<input checked="" type="radio"/>	No*
Are the shut-off devices in good working order?	<input checked="" type="radio"/>	No*	<input checked="" type="radio"/>	No*	<input checked="" type="radio"/>	No*	<input checked="" 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: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

## K05 PHASE III O&M MONTHLY INSPECTION FORM

Date: 9/30/19 Time: 0600 Inspector Initials: JRB

### INSPECT PROCESS TANK MIXERS

5. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
	Yes	No*	Yes	No*	Yes	No*
Is there adequate oil in Process Tank mixer motors?	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
Control panel mixer run time**	9521.9 hrs		9590.6 hrs		9655.3 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	2/1/20	
Replace 3" solid transfer hoses	2/1/20	
Replace 1.5" SLMW flush hose	2/15/20	
Replace 3" stainless steel doublesphere expansion joints	2/1/20	
Replace air compressor filter element	10/16/22	
Service air compressor	1/26/21	
Change process tank mixer gear box oil**	1/4/20	
Grease gear seals on process tank mixer	12/21/19	

#### 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: 9/30/19 Time: 0600 Inspector Initials: JRT

**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	
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