

4ALOYD RAY FARMS INSPECTION, OPERATIONS & MAINTENANCE LOG SHEET

IMPORTANT: AN INSPECTION, OPERATIONS & MAINTENANCE LOG SHOULD BE COMPLETED FOR EVERY SITE VISIT; PLEASE REVIEW PREVIOUS LOG ENTRY AND PROVIDE INFORMATION TO UPDATE OR RESOLVE ANY ONGOING ISSUES NOTED (INCLUDING BUT NOT LIMITED TO MAINTENANCE, REPAIRS, OR CORRECTIVE ACTIONS).

Entry Made By: Marvin	Date Thursday 10-25-2018	Remote monitor Start: 7:00 AM Site Visit start AM	Remote Monitor End: 11:30PM Site Visit end PM
Condition: Temperature 39-64	x <input type="checkbox"/> Partly Cloudy <input type="checkbox"/> Balmy		
Precip Past 24 hours:		Wind: (mph): calm 4-10mph	

PURPOSE OF VISIT/ITEMS INSPECTED, OPERATIONS

Monitored system remotely. 7:00 AM – 11:30 PM and whenever I wake during the night this goes on a 24–7 schedule as needed. The timers are working well with the restart of the Digester pumps. I am going to leave them as they are for now. The Flare continues to run on gravity gas flow of 8-10 CFM. No venting since Friday 10-12-2018.

ENVIRONMENTAL SYSTEM OBSERVATIONS:

Equipment Observed:	Operational Status
Fluidyne Aeration System, Including:	
Jet Motive Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Blower	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault:
CP-1 (Control Panel)	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Flush Pumps	<input type="checkbox"/> Auto <input checked="" type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Digester Mixing Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault

CP-1 DATA & SET POINTS;

Cycles	Set Point	Current	Modified Set Pt	Notes
Static	60	60		
Anoxic	90	90		
Aerobic	180	180		
Blower	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Cycle			
Jet Motive Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Pump #1 <input type="checkbox"/> Pump # 2			
Digester Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Sequential			

MOTOR DATA:

Aerobic	Run Time	Set Speed	Notes
Jet Motive Pump # 1		60Hz	
Jet Motive Pump # 2		60Hz	
Blower		30Hz	

Anaerobic			
Mixing Pump 4A		60 Hz	
Mixing Pump 4B		60 Hz	

BIOGAS & POWER SYSTEMS OBSERVATIONS:

Equipment Observed:	Operational Status				
Unison Gas Skid <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flow Rate	Total Flow	Comp. Press.	Outlet Press.	Gauge Press.
	20.9				
Microturbine <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Speed	Exit Temp	Inlet Pressure	Inlet Temp	Power Out
	95852	1174		99	43.7 kw
Biogas System	BlueSens%	Flare On	Flare Flow	Total Flow	Flare Temp
		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	31.2	29.1	301

UNISON GAS CONDITIONING LOG

Pressure Data	PIT 311 -5 to 10 inWC -0.1	PIT 331 88 to 110psig 97.39	PIT 351 88 to 110 psig 91.8	Pressure Differential 2.0	Panel Door	HM 331 Hours 7060	
Temperature Data	TE 141 32 to 45 F 35.1	TE 311 40 to 115 F 83.1	TE 321 35 to 75 F 46.6	TE 331 80 to 220 F 186.5	TE 341 33 to 45 F 35.2	TE 342 65 to 90 F 88.3	TE 31 35 to 115 F
Glycol Piping	TI 141 32 to 45 F	PI 141 35 to 52 psig	FI 141 2.5 to 3.5 gpm	TI 142 35 to 50 F	PI 142 33 to 50 psig	TI 111 38 to 52 F	PI 111 30 to 48 psig
Oil Piping	PI 231 90 to 110 psig	TI 231 178 to 215 F	PI 232 85 to 105 psig	TI 232 130 to 180 F	PI 233 80 to 100 psig	TI 233 168 to 185 F	PI 234 78 to 100psig
Gas Piping	PIT 311 -10 to 10inWC	TI 311 40 to 115 F	TI 321 35 to 75 F	PDI 321 0 to 6 inWC	PI 331 90 to 110 psig	TI 331 80 to 220 F	PI 332 90 to 110psig
Gas Piping	TI 341 80 to 220 F	PI 341 90 to 110 psig	TI 342 115 to 155 F	PI 342 90 to 110 psig	TE 343 33 to 45 F	PI 343 90 to 110 psig	
Gas Piping	TI 351 65 to 90 F	PI 351 88 to 15 psig	Check Indicators	LI 721	LI 231	LI 741	

PERSONNEL PRESENT:

Name	Affiliation	Phone Number/Email

4ALOYD RAY FARMS INSPECTION, OPERATIONS & MAINTENANCE LOG SHEET

IMPORTANT: AN INSPECTION, OPERATIONS & MAINTENANCE LOG SHOULD BE COMPLETED FOR EVERY SITE VISIT; PLEASE REVIEW PREVIOUS LOG ENTRY AND PROVIDE INFORMATION TO UPDATE OR RESOLVE ANY ONGOING ISSUES NOTED (INCLUDING BUT NOT LIMITED TO MAINTENANCE, REPAIRS, OR CORRECTIVE ACTIONS).

Entry Made By: Marvin	Date Friday 10-26-2018	Remote monitor Start: 7:00 AM Site Visit start 6:00 PM	Remote Monitor End: 11:30PM Site Visit end 7:00 PM
Condition: Temperature 39-64	x <input type="checkbox"/> Raining all day <input type="checkbox"/> Balmy		
Precip Past 24 hours: 2,20 inches taken at 6:42PM	Wind: (mph): calm 4-10mph		

PURPOSE OF VISIT/ITEMS INSPECTED, OPERATIONS

Monitored system remotely. 7:00 AM – 11:30 PM and whenever I wake during the night this goes on a 24–7 schedule as needed. Site Visit needed to check system the team viewer was not working dependably we need to install cameras asap to save on visits. The timers are working well with the restart of the Digester pumps. I am going to leave them as they are for now. The Flare continues to run on gravity gas flow of 8-10 CFM. No venting since Friday 10-12-2018.

ENVIRONMENTAL SYSTEM OBSERVATIONS:

Equipment Observed:	Operational Status
Fluidyne Aeration System, Including:	
Jet Motive Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Blower	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault:
CP-1 (Control Panel)	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Flush Pumps	<input type="checkbox"/> Auto <input checked="" type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Digester Mixing Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault

CP-1 DATA & SET POINTS;

Cycles	Set Point	Current	Modified Set Pt	Notes
Static	60	60		
Anoxic	90	90		
Aerobic	180	180		
Blower	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Cycle			
Jet Motive Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Pump #1 <input type="checkbox"/> Pump # 2			
Digester Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Sequential			

MOTOR DATA:

Aerobic	Run Time	Set Speed	Notes
Jet Motive Pump # 1		60Hz	
Jet Motive Pump # 2		60Hz	

Blower		30Hz	
Anaerobic			
Mixing Pump 4A		60 Hz	
Mixing Pump 4B		60 Hz	

BIOGAS & POWER SYSTEMS OBSERVATIONS:

Equipment Observed:	Operational Status				
Unison Gas Skid <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flow Rate	Total Flow	Comp. Press.	Outlet Press.	Gauge Press.
	20.9				
Microturbine <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Speed	Exit Temp	Inlet Pressure	Inlet Temp	Power Out
	95852	1174		99	43.7 kw
Biogas System	BlueSens%	Flare On	Flare Flow	Total Flow	Flare Temp
		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	31.2	29.1	301

UNISON GAS CONDITIONING LOG

Pressure Data	PIT 311 -5 to 10 inWC -0.1	PIT 331 88 to 110psig 97.39	PIT 351 88 to 110 psig 91.8	Pressure Differential 2.0	Panel Door	HM 331 Hours 7060	
Temperature Data	TE 141 32 to 45 F 35.1	TE 311 40 to 115 F 83.1	TE 321 35 to 75 F 46.6	TE 331 80 to 220 F 186.5	TE 341 33 to 45 F 35.2	TE 342 65 to 90 F 88.3	TE 31 35 to 115 F
Glycol Piping	TI 141 32 to 45 F	PI 141 35 to 52 psig	FI 141 2.5 to 3.5 gpm	TI 142 35 to 50 F	PI 142 33 to 50 psig	TI 111 38 to 52 F	PI 111 30 to 48 psig
Oil Piping	PI 231 90 to 110 psig	TI 231 178 to 215 F	PI 232 85 to 105 psig	TI 232 130 to 180 F	PI 233 80 to 100 psig	TI 233 168 to 185 F	PI 234 78 to 100psig
Gas Piping	PIT 311 -10 to 10inWC	TI 311 40 to 115 F	TI 321 35 to 75 F	PDI 321 0 to 6 inWC	PI 331 90 to 110 psig	TI 331 80 to 220 F	PI 332 90 to 110psig
Gas Piping	TI 341 80 to 220 F	PI 341 90 to 110 psig	TI 342 115 to 155 F	PI 342 90 to 110 psig	TE 343 33 to 45 F	PI 343 90 to 110 psig	
Gas Piping	TI 351 65 to 90 F	PI 351 88 to 15 psig	Check Indicators	LI 721	LI 231	LI 741	

PERSONNEL PRESENT:

Name	Affiliation	Phone Number/Email

4ALOYD RAY FARMS INSPECTION, OPERATIONS & MAINTENANCE LOG SHEET

IMPORTANT: AN INSPECTION, OPERATIONS & MAINTENANCE LOG SHOULD BE COMPLETED FOR EVERY SITE VISIT; PLEASE REVIEW PREVIOUS LOG ENTRY AND PROVIDE INFORMATION TO UPDATE OR RESOLVE ANY ONGOING ISSUES NOTED (INCLUDING BUT NOT LIMITED TO MAINTENANCE, REPAIRS, OR CORRECTIVE ACTIONS).

Entry Made By: Marvin	Date Saturday and Sunday 10-27-28-2018	Remote monitor Start: 7:00 AM Site Visit start	Remote Monitor End: 11:30PM Site Visit end
Condition: Temperature 46-68	x <input type="checkbox"/> Partly Cloudy <input type="checkbox"/> Balmy		
Precip	Wind: (mph): calm 4-10mph		

PURPOSE OF VISIT/ITEMS INSPECTED, OPERATIONS

Monitored system remotely. 7:00 AM – 11:30 PM and whenever I wake during the night this goes on a 24–7 schedule as needed. The timers are working well with the restart of the Digester pumps. I am going to leave them as they are for now. The Flare continues to run on gravity gas flow of 8-10 CFM. No venting since Friday 10-12-2018.

ENVIRONMENTAL SYSTEM OBSERVATIONS:

Equipment Observed:	Operational Status
Fluidyne Aeration System, Including:	
Jet Motive Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Blower	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault:
CP-1 (Control Panel)	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Flush Pumps	<input type="checkbox"/> Auto <input checked="" type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Digester Mixing Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault

CP-1 DATA & SET POINTS:

Cycles	Set Point	Current	Modified Set Pt	Notes
Static	60	60		
Anoxic	90	90		
Aerobic	180	180		
Blower	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Cycle			
Jet Motive Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Pump #1 <input type="checkbox"/> Pump # 2			
Digester Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Sequential			

MOTOR DATA:

Aerobic	Run Time	Set Speed	Notes
Jet Motive Pump # 1		60Hz	
Jet Motive Pump # 2		60Hz	
Blower		30Hz	

Anaerobic			
Mixing Pump 4A		60 Hz	
Mixing Pump 4B		60 Hz	

BIOGAS & POWER SYSTEMS OBSERVATIONS:

Equipment Observed:	Operational Status				
Unison Gas Skid <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flow Rate	Total Flow	Comp. Press.	Outlet Press.	Gauge Press.
	20.9				
Microturbine <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Speed	Exit Temp	Inlet Pressure	Inlet Temp	Power Out
	95852	1174		99	43.7 kw
Biogas System	BlueSens%	Flare On	Flare Flow	Total Flow	Flare Temp
		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	31.2	29.1	301

UNISON GAS CONDITIONING LOG

Pressure Data	PIT 311 -5 to 10 inWC -0.1	PIT 331 88 to 110psig 97.39	PIT 351 88 to 110 psig 91.8	Pressure Differential 2.0	Panel Door	HM 331 Hours 7060	
Temperature Data	TE 141 32 to 45 F 35.1	TE 311 40 to 115 F 83.1	TE 321 35 to 75 F 46.6	TE 331 80 to 220 F 186.5	TE 341 33 to 45 F 35.2	TE 342 65 to 90 F 88.3	TE 31 35 to 115 F
Glycol Piping	TI 141 32 to 45 F	PI 141 35 to 52 psig	FI 141 2.5 to 3.5 gpm	TI 142 35 to 50 F	PI 142 33 to 50 psig	TI 111 38 to 52 F	PI 111 30 to 48 psig
Oil Piping	PI 231 90 to 110 psig	TI 231 178 to 215 F	PI 232 85 to 105 psig	TI 232 130 to 180 F	PI 233 80 to 100 psig	TI 233 168 to 185 F	PI 234 78 to 100psig
Gas Piping	PIT 311 -10 to 10inWC	TI 311 40 to 115 F	TI 321 35 to 75 F	PDI 321 0 to 6 inWC	PI 331 90 to 110 psig	TI 331 80 to 220 F	PI 332 90 to 110psig
Gas Piping	TI 341 80 to 220 F	PI 341 90 to 110 psig	TI 342 115 to 155 F	PI 342 90 to 110 psig	TE 343 33 to 45 F	PI 343 90 to 110 psig	
Gas Piping	TI 351 65 to 90 F	PI 351 88 to 15 psig	Check Indicators	LI 721	LI 231	LI 741	

PERSONNEL PRESENT:

Name	Affiliation	Phone Number/Email

4ALOYD RAY FARMS INSPECTION, OPERATIONS & MAINTENANCE LOG SHEET

IMPORTANT: AN INSPECTION, OPERATIONS & MAINTENANCE LOG SHOULD BE COMPLETED FOR EVERY SITE VISIT; PLEASE REVIEW PREVIOUS LOG ENTRY AND PROVIDE INFORMATION TO UPDATE OR RESOLVE ANY ONGOING ISSUES NOTED (INCLUDING BUT NOT LIMITED TO MAINTENANCE, REPAIRS, OR CORRECTIVE ACTIONS).

Entry Made By: Marvin	Date Monday 10-29-2018	Remote monitor Start: 7:00 AM Site Visit start	Remote Monitor End: 11:30PM Site Visit end
Condition: Temperature 46-68	x <input type="checkbox"/> Partly Cloudy <input type="checkbox"/> Balmy		
Precip	Wind: (mph): calm 4-10mph		

PURPOSE OF VISIT/ITEMS INSPECTED, OPERATIONS

Monitored system remotely. 7:00 AM – 11:30 PM and whenever I wake during the night this goes on a 24–7 schedule as needed. The timers are working well with the restart of the Digester pumps. I am going to leave them as they are for now. The Flare continues to run on gravity gas flow of 8-10 CFM. No venting since Friday 10-12-2018. ProPump was on site installing the Phase converters and setting up for thr wiring change over of Flush Pump back to 3 Phase

ENVIRONMENTAL SYSTEM OBSERVATIONS:

Equipment Observed:	Operational Status
Fluidyne Aeration System, Including:	
Jet Motive Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Blower	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault:
CP-1 (Control Panel)	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Flush Pumps	<input type="checkbox"/> Auto <input checked="" type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Digester Mixing Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault

CP-1 DATA & SET POINTS;

Cycles	Set Point	Current	Modified Set Pt	Notes
Static	60	60		
Anoxic	90	90		
Aerobic	180	180		
Blower	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Cycle			
Jet Motive Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Pump #1 <input type="checkbox"/> Pump # 2			
Digester Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Sequential			

MOTOR DATA:

Aerobic	Run Time	Set Speed	Notes
Jet Motive Pump # 1		60Hz	
Jet Motive Pump # 2		60Hz	
Blower		30Hz	

Anaerobic			
Mixing Pump 4A		60 Hz	
Mixing Pump 4B		60 Hz	

BIOGAS & POWER SYSTEMS OBSERVATIONS:

Equipment Observed:	Operational Status				
Unison Gas Skid <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flow Rate	Total Flow	Comp. Press.	Outlet Press.	Gauge Press.
	20.9				
Microturbine <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Speed	Exit Temp	Inlet Pressure	Inlet Temp	Power Out
	95852	1174		99	43.7 kw
Biogas System	BlueSens%	Flare On	Flare Flow	Total Flow	Flare Temp
		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	31.2	29.1	301

UNISON GAS CONDITIONING LOG

Pressure Data	PIT 311 -5 to 10 inWC -0.1	PIT 331 88 to 110psig 97.39	PIT 351 88 to 110 psig 91.8	Pressure Differential 2.0	Panel Door	HM 331 Hours 7060	
Temperature Data	TE 141 32 to 45 F 35.1	TE 311 40 to 115 F 83.1	TE 321 35 to 75 F 46.6	TE 331 80 to 220 F 186.5	TE 341 33 to 45 F 35.2	TE 342 65 to 90 F 88.3	TE 31 35 to 115 F
Glycol Piping	TI 141 32 to 45 F	PI 141 35 to 52 psig	FI 141 2.5 to 3.5 gpm	TI 142 35 to 50 F	PI 142 33 to 50 psig	TI 111 38 to 52 F	PI 111 30 to 48 psig
Oil Piping	PI 231 90 to 110 psig	TI 231 178 to 215 F	PI 232 85 to 105 psig	TI 232 130 to 180 F	PI 233 80 to 100 psig	TI 233 168 to 185 F	PI 234 78 to 100psig
Gas Piping	PIT 311 -10 to 10inWC	TI 311 40 to 115 F	TI 321 35 to 75 F	PDI 321 0 to 6 inWC	PI 331 90 to 110 psig	TI 331 80 to 220 F	PI 332 90 to 110psig
Gas Piping	TI 341 80 to 220 F	PI 341 90 to 110 psig	TI 342 115 to 155 F	PI 342 90 to 110 psig	TE 343 33 to 45 F	PI 343 90 to 110 psig	
Gas Piping	TI 351 65 to 90 F	PI 351 88 to 15 psig	Check Indicators	LI 721	LI 231	LI 741	

PERSONNEL PRESENT:

Name	Affiliation	Phone Number/Email

4ALOYD RAY FARMS INSPECTION, OPERATIONS & MAINTENANCE LOG SHEET

IMPORTANT: AN INSPECTION, OPERATIONS & MAINTENANCE LOG SHOULD BE COMPLETED FOR EVERY SITE VISIT; PLEASE REVIEW PREVIOUS LOG ENTRY AND PROVIDE INFORMATION TO UPDATE OR RESOLVE ANY ONGOING ISSUES NOTED (INCLUDING BUT NOT LIMITED TO MAINTENANCE, REPAIRS, OR CORRECTIVE ACTIONS).

Entry Made By: Marvin	Date Tuesday 10-30-2018	Remote monitor Start: 7:00 AM Site Visit start 9:45 AM	Remote Monitor End: 11:30PM Site Visit end 2:15 PM
Condition: Temperature 46-68	x <input type="checkbox"/> Partly Cloudy <input type="checkbox"/> Balmy		
Precip	Wind: (mph): calm 4-10mph		

PURPOSE OF VISIT/ITEMS INSPECTED, OPERATIONS

Monitored system remotely. 7:00 AM – 11:30 PM and whenever I wake during the night this goes on a 24–7 schedule as needed. The timers are working well with the restart of the Digester pumps. I am going to leave them as they are for now. The Flare continues to run on gravity gas flow of 8-10 CFM. No venting since Friday 10-12-2018. ProPump was on site installing the Phase converters and setting up for the wiring change over of Flush Pump back to 3 Phase Kevin Harward joined us to assist. We put boat in Basin for the wiring change on Flush Pump

ENVIRONMENTAL SYSTEM OBSERVATIONS:

Equipment Observed:	Operational Status
Fluidyne Aeration System, Including:	
Jet Motive Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Blower	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault:
CP-1 (Control Panel)	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Flush Pumps	<input type="checkbox"/> Auto <input checked="" type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Digester Mixing Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault

CP-1 DATA & SET POINTS;

Cycles	Set Point	Current	Modified Set Pt	Notes
Static	60	60		
Anoxic	90	90		
Aerobic	180	180		
Blower	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Cycle			
Jet Motive Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Pump #1 <input type="checkbox"/> Pump # 2			
Digester Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Sequential			

MOTOR DATA:

Aerobic	Run Time	Set Speed	Notes
Jet Motive Pump # 1		60Hz	
Jet Motive Pump # 2		60Hz	
Blower		30Hz	

Anaerobic			
Mixing Pump 4A		60 Hz	
Mixing Pump 4B		60 Hz	

BIOGAS & POWER SYSTEMS OBSERVATIONS:

Equipment Observed:	Operational Status				
Unison Gas Skid <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flow Rate	Total Flow	Comp. Press.	Outlet Press.	Gauge Press.
	20.9				
Microturbine <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Speed	Exit Temp	Inlet Pressure	Inlet Temp	Power Out
	95852	1174		99	43.7 kw
Biogas System	BlueSens%	Flare On	Flare Flow	Total Flow	Flare Temp
		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	31.2	29.1	301

UNISON GAS CONDITIONING LOG

Pressure Data	PIT 311 -5 to 10 inWC -0.1	PIT 331 88 to 110psig 97.39	PIT 351 88 to 110 psig 91.8	Pressure Differential 2.0	Panel Door	HM 331 Hours 7060	
Temperature Data	TE 141 32 to 45 F 35.1	TE 311 40 to 115 F 83.1	TE 321 35 to 75 F 46.6	TE 331 80 to 220 F 186.5	TE 341 33 to 45 F 35.2	TE 342 65 to 90 F 88.3	TE 31 35 to 115 F
Glycol Piping	TI 141 32 to 45 F	PI 141 35 to 52 psig	FI 141 2.5 to 3.5 gpm	TI 142 35 to 50 F	PI 142 33 to 50 psig	TI 111 38 to 52 F	PI 111 30 to 48 psig
Oil Piping	PI 231 90 to 110 psig	TI 231 178 to 215 F	PI 232 85 to 105 psig	TI 232 130 to 180 F	PI 233 80 to 100 psig	TI 233 168 to 185 F	PI 234 78 to 100psig
Gas Piping	PIT 311 -10 to 10inWC	TI 311 40 to 115 F	TI 321 35 to 75 F	PDI 321 0 to 6 inWC	PI 331 90 to 110 psig	TI 331 80 to 220 F	PI 332 90 to 110psig
Gas Piping	TI 341 80 to 220 F	PI 341 90 to 110 psig	TI 342 115 to 155 F	PI 342 90 to 110 psig	TE 343 33 to 45 F	PI 343 90 to 110 psig	
Gas Piping	TI 351 65 to 90 F	PI 351 88 to 15 psig	Check Indicators	LI 721	LI 231	LI 741	

PERSONNEL PRESENT:

Name	Affiliation	Phone Number/Email

4ALOYD RAY FARMS INSPECTION, OPERATIONS & MAINTENANCE LOG SHEET

IMPORTANT: AN INSPECTION, OPERATIONS & MAINTENANCE LOG SHOULD BE COMPLETED FOR EVERY SITE VISIT; PLEASE REVIEW PREVIOUS LOG ENTRY AND PROVIDE INFORMATION TO UPDATE OR RESOLVE ANY ONGOING ISSUES NOTED (INCLUDING BUT NOT LIMITED TO MAINTENANCE, REPAIRS, OR CORRECTIVE ACTIONS).

Entry Made By: Marvin	Date Wednesday 10-31-2018	Remote monitor Start: 7:00 AM Site Visit start 11:00 AM	Remote Monitor End: 11:30PM Site Visit end 3:15 PM
Condition: Temperature 46-68	x <input type="checkbox"/> Partly Cloudy <input type="checkbox"/> Balmy		
Precip in the past 24 hrs: 0.00 inches		Wind: (mph): calm 4-10mph	

PURPOSE OF VISIT/ITEMS INSPECTED, OPERATIONS

Monitored system remotely. 7:00 AM – 11:30 PM and whenever I wake during the night this goes on a 24–7 schedule as needed. The timers are working well with the restart of the Digester pumps. I am going to leave them as they are for now. The Flare continues to run on gravity gas flow of 8-10 CFM. No venting since Friday 10-12-2018. Kevin Harward came to the farm to install a power part on the Unison system. We tried to start but the chiller had a failure and would not start. We are trying to get help in solving the problem. ProPump will probably need to come back and help with the SCADA. Kevin and I moved the hose to push some of the digester sludge water to the Lagoon

ENVIRONMENTAL SYSTEM OBSERVATIONS:

Equipment Observed:	Operational Status
Fluidyne Aeration System, Including:	
Jet Motive Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Blower	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault:
CP-1 (Control Panel)	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Flush Pumps	<input type="checkbox"/> Auto <input checked="" type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Digester Mixing Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault

CP-1 DATA & SET POINTS;

Cycles	Set Point	Current	Modified Set Pt	Notes
Static	60	60		
Anoxic	90	90		
Aerobic	180	180		
Blower	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Cycle			
Jet Motive Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Pump #1 <input type="checkbox"/> Pump # 2			
Digester Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Sequential			

MOTOR DATA:

Aerobic	Run Time	Set Speed	Notes
Jet Motive Pump # 1		60Hz	
Jet Motive Pump # 2		60Hz	
Blower		30Hz	

Anaerobic			
Mixing Pump 4A		60 Hz	
Mixing Pump 4B		60 Hz	

BIOGAS & POWER SYSTEMS OBSERVATIONS:

Equipment Observed:	Operational Status				
Unison Gas Skid <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flow Rate	Total Flow	Comp. Press.	Outlet Press.	Gauge Press.
	20.9				
Microturbine <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Speed	Exit Temp	Inlet Pressure	Inlet Temp	Power Out
	95852	1174		99	43.7 kw
Biogas System	BlueSens%	Flare On	Flare Flow	Total Flow	Flare Temp
		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	31.2	29.1	301

UNISON GAS CONDITIONING LOG

Pressure Data	PIT 311 -5 to 10 inWC -0.1	PIT 331 88 to 110psig 97.39	PIT 351 88 to 110 psig 91.8	Pressure Differential 2.0	Panel Door	HM 331 Hours 7060	
Temperature Data	TE 141 32 to 45 F 35.1	TE 311 40 to 115 F 83.1	TE 321 35 to 75 F 46.6	TE 331 80 to 220 F 186.5	TE 341 33 to 45 F 35.2	TE 342 65 to 90 F 88.3	TE 31 35 to 115 F
Glycol Piping	TI 141 32 to 45 F	PI 141 35 to 52 psig	FI 141 2.5 to 3.5 gpm	TI 142 35 to 50 F	PI 142 33 to 50 psig	TI 111 38 to 52 F	PI 111 30 to 48 psig
Oil Piping	PI 231 90 to 110 psig	TI 231 178 to 215 F	PI 232 85 to 105 psig	TI 232 130 to 180 F	PI 233 80 to 100 psig	TI 233 168 to 185 F	PI 234 78 to 100psig
Gas Piping	PIT 311 -10 to 10inWC	TI 311 40 to 115 F	TI 321 35 to 75 F	PDI 321 0 to 6 inWC	PI 331 90 to 110 psig	TI 331 80 to 220 F	PI 332 90 to 110psig
Gas Piping	TI 341 80 to 220 F	PI 341 90 to 110 psig	TI 342 115 to 155 F	PI 342 90 to 110 psig	TE 343 33 to 45 F	PI 343 90 to 110 psig	
Gas Piping	TI 351 65 to 90 F	PI 351 88 to 15 psig	Check Indicators	LI 721	LI 231	LI 741	

PERSONNEL PRESENT:

Name	Affiliation	Phone Number/Email

4ALOYD RAY FARMS INSPECTION, OPERATIONS & MAINTENANCE LOG SHEET

IMPORTANT: AN INSPECTION, OPERATIONS & MAINTENANCE LOG SHOULD BE COMPLETED FOR EVERY SITE VISIT; PLEASE REVIEW PREVIOUS LOG ENTRY AND PROVIDE INFORMATION TO UPDATE OR RESOLVE ANY ONGOING ISSUES NOTED (INCLUDING BUT NOT LIMITED TO MAINTENANCE, REPAIRS, OR CORRECTIVE ACTIONS).

Entry Made By: Marvin	Date Friday 11-02-2018	Remote monitor Start: 7:00 AM Site Visit start 11:30 AM	Remote Monitor End: 11:30PM Site Visit end 3:30 PM
Condition: Temperature 46-68	x <input type="checkbox"/> Partly Cloudy <input type="checkbox"/> Balmy		
Precip in the past 24 hrs: 0.00 inches	Wind: (mph): calm 4-10mph		

PURPOSE OF VISIT/ITEMS INSPECTED, OPERATIONS

Monitored system remotely. 7:00 AM – 11:30 PM and whenever I wake during the night this goes on a 24–7 schedule as needed. The timers are working well with the restart of the Digester pumps. I am going to leave them as they are for now.. No venting since Friday 10-12-2018. I did a Site visit to do a manual restart after we had an overnight failure, then working with folks at ProPump trying to get SCADA to talk with Unison skid. The Mt and skid were running again and no flare. I talked more with ProPump by phone setting up for the SCADA repair.

ENVIRONMENTAL SYSTEM OBSERVATIONS:

Equipment Observed:	Operational Status
Fluidyne Aeration System, Including:	
Jet Motive Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Blower	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault:
CP-1 (Control Panel)	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Flush Pumps	<input type="checkbox"/> Auto <input checked="" type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Digester Mixing Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault

CP-1 DATA & SET POINTS;

Cycles	Set Point	Current	Modified Set Pt	Notes
Static	60	60		
Anoxic	90	90		
Aerobic	180	180		
Blower	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Cycle			
Jet Motive Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Pump #1 <input type="checkbox"/> Pump # 2			
Digester Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Sequential			

MOTOR DATA:

Aerobic	Run Time	Set Speed	Notes
Jet Motive Pump # 1		60Hz	
Jet Motive Pump # 2		60Hz	
Blower		30Hz	

Anaerobic			
Mixing Pump 4A		60 Hz	
Mixing Pump 4B		60 Hz	

BIOGAS & POWER SYSTEMS OBSERVATIONS:

Equipment Observed:	Operational Status				
Unison Gas Skid <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flow Rate	Total Flow	Comp. Press.	Outlet Press.	Gauge Press.
	20.9				
Microturbine <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Speed	Exit Temp	Inlet Pressure	Inlet Temp	Power Out
	95852	1174		99	43.7 kw
Biogas System	BlueSens%	Flare On	Flare Flow	Total Flow	Flare Temp
		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	31.2	29.1	301

UNISON GAS CONDITIONING LOG

Pressure Data	PIT 311 -5 to 10 inWC -0.1	PIT 331 88 to 110psig 97.39	PIT 351 88 to 110 psig 91.8	Pressure Differential 2.0	Panel Door	HM 331 Hours 7060	
Temperature Data	TE 141 32 to 45 F 35.1	TE 311 40 to 115 F 83.1	TE 321 35 to 75 F 46.6	TE 331 80 to 220 F 186.5	TE 341 33 to 45 F 35.2	TE 342 65 to 90 F 88.3	TE 31 35 to 115 F
Glycol Piping	TI 141 32 to 45 F	PI 141 35 to 52 psig	FI 141 2.5 to 3.5 gpm	TI 142 35 to 50 F	PI 142 33 to 50 psig	TI 111 38 to 52 F	PI 111 30 to 48 psig
Oil Piping	PI 231 90 to 110 psig	TI 231 178 to 215 F	PI 232 85 to 105 psig	TI 232 130 to 180 F	PI 233 80 to 100 psig	TI 233 168 to 185 F	PI 234 78 to 100psig
Gas Piping	PIT 311 -10 to 10inWC	TI 311 40 to 115 F	TI 321 35 to 75 F	PDI 321 0 to 6 inWC	PI 331 90 to 110 psig	TI 331 80 to 220 F	PI 332 90 to 110psig
Gas Piping	TI 341 80 to 220 F	PI 341 90 to 110 psig	TI 342 115 to 155 F	PI 342 90 to 110 psig	TE 343 33 to 45 F	PI 343 90 to 110 psig	
Gas Piping	TI 351 65 to 90 F	PI 351 88 to 15 psig	Check Indicators	LI 721	LI 231	LI 741	

PERSONNEL PRESENT:

Name	Affiliation	Phone Number/Email

4ALOYD RAY FARMS INSPECTION, OPERATIONS & MAINTENANCE LOG SHEET

IMPORTANT: AN INSPECTION, OPERATIONS & MAINTENANCE LOG SHOULD BE COMPLETED FOR EVERY SITE VISIT; PLEASE REVIEW PREVIOUS LOG ENTRY AND PROVIDE INFORMATION TO UPDATE OR RESOLVE ANY ONGOING ISSUES NOTED (INCLUDING BUT NOT LIMITED TO MAINTENANCE, REPAIRS, OR CORRECTIVE ACTIONS).

Entry Made By: Marvin	Date Saturday 11-03-2018	Remote monitor Start: 7:00 AM Site Visit start 11:00 AM	Remote Monitor End: 11:30PM Site Visit end 12:00 PM
Condition: Temperature 46-68	x <input type="checkbox"/> Partly Cloudy <input type="checkbox"/> Balmy		
Precip in the past 24 hrs: 1.10 inches	Wind: (mph): calm 4-10mph		

PURPOSE OF VISIT/ITEMS INSPECTED, OPERATIONS

Monitored system remotely. 7:00 AM – 11:30 PM and whenever I wake during the night this goes on a 24-7 schedule as needed. The timers are working well with the restart of the Digester pumps. I am going to leave them as they are for now. Steve Cavanaugh made a site visit to start conditioner. The MT failed after several tries it shut down.

ENVIRONMENTAL SYSTEM OBSERVATIONS:

Equipment Observed:	Operational Status
Fluidyne Aeration System, Including:	
Jet Motive Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Blower	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault:
CP-1 (Control Panel)	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Flush Pumps	<input type="checkbox"/> Auto <input checked="" type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Digester Mixing Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault

CP-1 DATA & SET POINTS;

Cycles	Set Point	Current	Modified Set Pt	Notes
Static	60	60		
Anoxic	90	90		
Aerobic	180	180		
Blower	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Cycle			
Jet Motive Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Pump #1 <input type="checkbox"/> Pump # 2			
Digester Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Sequential			

MOTOR DATA:

Aerobic	Run Time	Set Speed	Notes
Jet Motive Pump # 1		60Hz	
Jet Motive Pump # 2		60Hz	
Blower		30Hz	

Anaerobic			
Mixing Pump 4A		60 Hz	
Mixing Pump 4B		60 Hz	

BIOGAS & POWER SYSTEMS OBSERVATIONS:

Equipment Observed:	Operational Status				
Unison Gas Skid <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flow Rate	Total Flow	Comp. Press.	Outlet Press.	Gauge Press.
	20.9				
Microturbine <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Speed	Exit Temp	Inlet Pressure	Inlet Temp	Power Out
	95852	1174		99	43.7 kw
Biogas System	BlueSens%	Flare On	Flare Flow	Total Flow	Flare Temp
		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	31.2	29.1	301

UNISON GAS CONDITIONING LOG

Pressure Data	PIT 311 -5 to 10 inWC -0.1	PIT 331 88 to 110psig 97.39	PIT 351 88 to 110 psig 91.8	Pressure Differential 2.0	Panel Door	HM 331 Hours 7060	
Temperature Data	TE 141 32 to 45 F 35.1	TE 311 40 to 115 F 83.1	TE 321 35 to 75 F 46.6	TE 331 80 to 220 F 186.5	TE 341 33 to 45 F 35.2	TE 342 65 to 90 F 88.3	TE 31 35 to 115 F
Glycol Piping	TI 141 32 to 45 F	PI 141 35 to 52 psig	FI 141 2.5 to 3.5 gpm	TI 142 35 to 50 F	PI 142 33 to 50 psig	TI 111 38 to 52 F	PI 111 30 to 48 psig
Oil Piping	PI 231 90 to 110 psig	TI 231 178 to 215 F	PI 232 85 to 105 psig	TI 232 130 to 180 F	PI 233 80 to 100 psig	TI 233 168 to 185 F	PI 234 78 to 100psig
Gas Piping	PIT 311 -10 to 10inWC	TI 311 40 to 115 F	TI 321 35 to 75 F	PDI 321 0 to 6 inWC	PI 331 90 to 110 psig	TI 331 80 to 220 F	PI 332 90 to 110psig
Gas Piping	TI 341 80 to 220 F	PI 341 90 to 110 psig	TI 342 115 to 155 F	PI 342 90 to 110 psig	TE 343 33 to 45 F	PI 343 90 to 110 psig	
Gas Piping	TI 351 65 to 90 F	PI 351 88 to 15 psig	Check Indicators	LI 721	LI 231	LI 741	

PERSONNEL PRESENT:

Name	Affiliation	Phone Number/Email

4ALOYD RAY FARMS INSPECTION, OPERATIONS & MAINTENANCE LOG SHEET

IMPORTANT: AN INSPECTION, OPERATIONS & MAINTENANCE LOG SHOULD BE COMPLETED FOR EVERY SITE VISIT; PLEASE REVIEW PREVIOUS LOG ENTRY AND PROVIDE INFORMATION TO UPDATE OR RESOLVE ANY ONGOING ISSUES NOTED (INCLUDING BUT NOT LIMITED TO MAINTENANCE, REPAIRS, OR CORRECTIVE ACTIONS).

Entry Made By: Marvin	Date Sunday 11-04-2018	Remote monitor Start: 7:00 AM Site Visit start 10:45 AM	Remote Monitor End: 11:30PM Site Visit end 11:45 AM
Condition: Temperature 46-68	x <input type="checkbox"/> Partly Cloudy <input type="checkbox"/> Balmy		
Precip in the past 24 hrs: 0.0 inches	Wind: (mph): calm 4-10mph		

PURPOSE OF VISIT/ITEMS INSPECTED, OPERATIONS

Monitored system remotely. 7:00 AM – 11:30 PM and whenever I wake during the night this goes on a 24–7 schedule as needed. The timers are working well with the restart of the Digester pumps. I am going to leave them as they are for now. I made a site visit to start conditioner and MT. I found conditioner running but the MT not running and SCADA not recording properly. The MT failed after several tries it shut down. I then did a hard boot and it has been running since 11:05 AM. The MT is producing 59.6 output 54.9 on 18.3 CFM I will monitor and keep records of out put until SCADA can be fixed.

ENVIRONMENTAL SYSTEM OBSERVATIONS:

Equipment Observed:	Operational Status
Fluidyne Aeration System, Including:	
Jet Motive Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Blower	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault:
CP-1 (Control Panel)	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Flush Pumps	<input type="checkbox"/> Auto <input checked="" type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Digester Mixing Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault

CP-1 DATA & SET POINTS;

Cycles	Set Point	Current	Modified Set Pt	Notes
Static	60	60		
Anoxic	90	90		
Aerobic	180	180		
Blower	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Cycle			
Jet Motive Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Pump #1 <input type="checkbox"/> Pump # 2			
Digester Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Sequential			

MOTOR DATA:

Aerobic	Run Time	Set Speed	Notes
Jet Motive Pump # 1		60Hz	
Jet Motive Pump # 2		60Hz	
Blower		30Hz	

Anaerobic			
Mixing Pump 4A		60 Hz	
Mixing Pump 4B		60 Hz	

BIOGAS & POWER SYSTEMS OBSERVATIONS:

Equipment Observed:	Operational Status				
Unison Gas Skid <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flow Rate	Total Flow	Comp. Press.	Outlet Press.	Gauge Press.
	20.9				
Microturbine <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Speed	Exit Temp	Inlet Pressure	Inlet Temp	Power Out
	95852	1174		99	43.7 kw
Biogas System	BlueSens%	Flare On	Flare Flow	Total Flow	Flare Temp
		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	31.2	29.1	301

UNISON GAS CONDITIONING LOG

Pressure Data	PIT 311 -5 to 10 inWC -0.1	PIT 331 88 to 110psig 97.39	PIT 351 88 to 110 psig 91.8	Pressure Differential 2.0	Panel Door	HM 331 Hours 7060	
Temperature Data	TE 141 32 to 45 F 35.1	TE 311 40 to 115 F 83.1	TE 321 35 to 75 F 46.6	TE 331 80 to 220 F 186.5	TE 341 33 to 45 F 35.2	TE 342 65 to 90 F 88.3	TE 31 35 to 115 F
Glycol Piping	TI 141 32 to 45 F	PI 141 35 to 52 psig	FI 141 2.5 to 3.5 gpm	TI 142 35 to 50 F	PI 142 33 to 50 psig	TI 111 38 to 52 F	PI 111 30 to 48 psig
Oil Piping	PI 231 90 to 110 psig	TI 231 178 to 215 F	PI 232 85 to 105 psig	TI 232 130 to 180 F	PI 233 80 to 100 psig	TI 233 168 to 185 F	PI 234 78 to 100psig
Gas Piping	PIT 311 -10 to 10inWC	TI 311 40 to 115 F	TI 321 35 to 75 F	PDI 321 0 to 6 inWC	PI 331 90 to 110 psig	TI 331 80 to 220 F	PI 332 90 to 110psig
Gas Piping	TI 341 80 to 220 F	PI 341 90 to 110 psig	TI 342 115 to 155 F	PI 342 90 to 110 psig	TE 343 33 to 45 F	PI 343 90 to 110 psig	
Gas Piping	TI 351 65 to 90 F	PI 351 88 to 15 psig	Check Indicators	LI 721	LI 231	LI 741	

PERSONNEL PRESENT:

Name	Affiliation	Phone Number/Email

4ALOYD RAY FARMS INSPECTION, OPERATIONS & MAINTENANCE LOG SHEET

IMPORTANT: AN INSPECTION, OPERATIONS & MAINTENANCE LOG SHOULD BE COMPLETED FOR EVERY SITE VISIT; PLEASE REVIEW PREVIOUS LOG ENTRY AND PROVIDE INFORMATION TO UPDATE OR RESOLVE ANY ONGOING ISSUES NOTED (INCLUDING BUT NOT LIMITED TO MAINTENANCE, REPAIRS, OR CORRECTIVE ACTIONS).

Entry Made By: Marvin	Date Monday 11-05-2018	Remote monitor Start: 7:00 AM Site Visit start 10:45 AM	Remote Monitor End: 11:30PM Site Visit end 4:30 PM
Condition: Temperature 46-68	x <input type="checkbox"/> Partly Cloudy <input type="checkbox"/> Balmy		
Precip in the past 24 hrs: 0.0 inches		Wind: (mph): calm 4-10mph	

PURPOSE OF VISIT/ITEMS INSPECTED, OPERATIONS

Monitored system remotely. 7:00 AM – 11:30 PM and whenever I wake during the night this goes on a 24–7 schedule as needed. The timers are working well with the restart of the Digester pumps. I am going to leave them as they are for now. Bryan from PrpPump came to farm to work on SCADA, I was able to talk him through a restart. He had to drain the water from the gas pump on the south end of the skid and then the skid would start. I made a site visit to meet with Bryan. We were able to get the Skid and SCADA talking and we are now running full bore. We have a lot of gas and I plan to stay as long as possible running both flare wide open and the MT wide open burning about 50 CFM. I shut the Flare off at 4:30 PM

ENVIRONMENTAL SYSTEM OBSERVATIONS:

Equipment Observed:	Operational Status
Fluidyne Aeration System, Including:	
Jet Motive Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Blower	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault:
CP-1 (Control Panel)	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Flush Pumps	<input type="checkbox"/> Auto <input checked="" type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Digester Mixing Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault

CP-1 DATA & SET POINTS;

Cycles	Set Point	Current	Modified Set Pt	Notes
Static	60	60		
Anoxic	90	90		
Aerobic	180	180		
Blower	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Cycle			
Jet Motive Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Pump #1 <input type="checkbox"/> Pump # 2			
Digester Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Sequential			

MOTOR DATA:

Aerobic	Run Time	Set Speed	Notes
Jet Motive Pump # 1		60Hz	
Jet Motive Pump # 2		60Hz	

Blower		30Hz	
Anaerobic			
Mixing Pump 4A		60 Hz	
Mixing Pump 4B		60 Hz	

BIOGAS & POWER SYSTEMS OBSERVATIONS:

Equipment Observed:	Operational Status				
Unison Gas Skid <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flow Rate	Total Flow	Comp. Press.	Outlet Press.	Gauge Press.
	20.9				
Microturbine <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Speed	Exit Temp	Inlet Pressure	Inlet Temp	Power Out
	95852	1174		99	43.7 kw
Biogas System	BlueSens%	Flare On	Flare Flow	Total Flow	Flare Temp
		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	31.2	29.1	301

UNISON GAS CONDITIONING LOG

Pressure Data	PIT 311 -5 to 10 inWC -0.1	PIT 331 88 to 110psig 97.39	PIT 351 88 to 110 psig 91.8	Pressure Differential 2.0	Panel Door	HM 331 Hours 7060	
Temperature Data	TE 141 32 to 45 F 35.1	TE 311 40 to 115 F 83.1	TE 321 35 to 75 F 46.6	TE 331 80 to 220 F 186.5	TE 341 33 to 45 F 35.2	TE 342 65 to 90 F 88.3	TE 31 35 to 115 F
Glycol Piping	TI 141 32 to 45 F	PI 141 35 to 52 psig	FI 141 2.5 to 3.5 gpm	TI 142 35 to 50 F	PI 142 33 to 50 psig	TI 111 38 to 52 F	PI 111 30 to 48 psig
Oil Piping	PI 231 90 to 110 psig	TI 231 178 to 215 F	PI 232 85 to 105 psig	TI 232 130 to 180 F	PI 233 80 to 100 psig	TI 233 168 to 185 F	PI 234 78 to 100psig
Gas Piping	PIT 311 -10 to 10inWC	TI 311 40 to 115 F	TI 321 35 to 75 F	PDI 321 0 to 6 inWC	PI 331 90 to 110 psig	TI 331 80 to 220 F	PI 332 90 to 110psig
Gas Piping	TI 341 80 to 220 F	PI 341 90 to 110 psig	TI 342 115 to 155 F	PI 342 90 to 110 psig	TE 343 33 to 45 F	PI 343 90 to 110 psig	
Gas Piping	TI 351 65 to 90 F	PI 351 88 to 15 psig	Check Indicators	LI 721	LI 231	LI 741	

PERSONNEL PRESENT:

Name	Affiliation	Phone Number/Email

4ALOYD RAY FARMS INSPECTION, OPERATIONS & MAINTENANCE LOG SHEET

IMPORTANT: AN INSPECTION, OPERATIONS & MAINTENANCE LOG SHOULD BE COMPLETED FOR EVERY SITE VISIT; PLEASE REVIEW PREVIOUS LOG ENTRY AND PROVIDE INFORMATION TO UPDATE OR RESOLVE ANY ONGOING ISSUES NOTED (INCLUDING BUT NOT LIMITED TO MAINTENANCE, REPAIRS, OR CORRECTIVE ACTIONS).

Entry Made By: Marvin	Date Wednesday 11-07-2018	Remote monitor Start: 7:00 AM Site Visit start 5:00 PM	Remote Monitor End: 11:30PM Site Visit end 6:00 PM
Condition: Temperature 46-68	x <input type="checkbox"/> Partly Cloudy <input type="checkbox"/> Balmy		
Precip in the past 48 hrs: 0.9 inches		Wind: (mph): calm 4-10mph	

PURPOSE OF VISIT/ITEMS INSPECTED, OPERATIONS

Monitored system remotely. 7:00 AM – 11:30 PM and whenever I wake during the night this goes on a 24–7 schedule as needed. The timers are working well with the restart of the Digester pumps. I am going to leave them as they are for now. I turned the flare off before I left on Monday and monitored all day Tuesday. Site visit today, the gas is still up and the MT has been running since Monday,

ENVIRONMENTAL SYSTEM OBSERVATIONS:

Equipment Observed:	Operational Status
Fluidyne Aeration System, Including:	
Jet Motive Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Blower	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault:
CP-1 (Control Panel)	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Flush Pumps	<input type="checkbox"/> Auto <input checked="" type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Digester Mixing Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault

CP-1 DATA & SET POINTS;

Cycles	Set Point	Current	Modified Set Pt	Notes
Static	60	60		
Anoxic	90	90		
Aerobic	180	180		
Blower	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Cycle			
Jet Motive Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Pump #1 <input type="checkbox"/> Pump # 2			
Digester Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Sequential			

MOTOR DATA:

Aerobic	Run Time	Set Speed	Notes
Jet Motive Pump # 1		60Hz	
Jet Motive Pump # 2		60Hz	
Blower		30Hz	

Anaerobic			
Mixing Pump 4A		60 Hz	
Mixing Pump 4B		60 Hz	

BIOGAS & POWER SYSTEMS OBSERVATIONS:

Equipment Observed:	Operational Status				
Unison Gas Skid <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flow Rate	Total Flow	Comp. Press.	Outlet Press.	Gauge Press.
	20.9				
Microturbine <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Speed	Exit Temp	Inlet Pressure	Inlet Temp	Power Out
	95852	1174		99	43.7 kw
Biogas System	BlueSens%	Flare On	Flare Flow	Total Flow	Flare Temp
		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	31.2	29.1	301

UNISON GAS CONDITIONING LOG

Pressure Data	PIT 311 -5 to 10 inWC -0.1	PIT 331 88 to 110psig 97.39	PIT 351 88 to 110 psig 91.8	Pressure Differential 2.0	Panel Door	HM 331 Hours 7060	
Temperature Data	TE 141 32 to 45 F 35.1	TE 311 40 to 115 F 83.1	TE 321 35 to 75 F 46.6	TE 331 80 to 220 F 186.5	TE 341 33 to 45 F 35.2	TE 342 65 to 90 F 88.3	TE 31 35 to 115 F
Glycol Piping	TI 141 32 to 45 F	PI 141 35 to 52 psig	FI 141 2.5 to 3.5 gpm	TI 142 35 to 50 F	PI 142 33 to 50 psig	TI 111 38 to 52 F	PI 111 30 to 48 psig
Oil Piping	PI 231 90 to 110 psig	TI 231 178 to 215 F	PI 232 85 to 105 psig	TI 232 130 to 180 F	PI 233 80 to 100 psig	TI 233 168 to 185 F	PI 234 78 to 100psig
Gas Piping	PIT 311 -10 to 10inWC	TI 311 40 to 115 F	TI 321 35 to 75 F	PDI 321 0 to 6 inWC	PI 331 90 to 110 psig	TI 331 80 to 220 F	PI 332 90 to 110psig
Gas Piping	TI 341 80 to 220 F	PI 341 90 to 110 psig	TI 342 115 to 155 F	PI 342 90 to 110 psig	TE 343 33 to 45 F	PI 343 90 to 110 psig	
Gas Piping	TI 351 65 to 90 F	PI 351 88 to 15 psig	Check Indicators	LI 721	LI 231	LI 741	

PERSONNEL PRESENT:

Name	Affiliation	Phone Number/Email

4ALOYD RAY FARMS INSPECTION, OPERATIONS & MAINTENANCE LOG SHEET

IMPORTANT: AN INSPECTION, OPERATIONS & MAINTENANCE LOG SHOULD BE COMPLETED FOR EVERY SITE VISIT; PLEASE REVIEW PREVIOUS LOG ENTRY AND PROVIDE INFORMATION TO UPDATE OR RESOLVE ANY ONGOING ISSUES NOTED (INCLUDING BUT NOT LIMITED TO MAINTENANCE, REPAIRS, OR CORRECTIVE ACTIONS).

Entry Made By: Marvin	Date Thursday 11-08-2018	Remote monitor Start: 7:00 AM Site Visit start 5:00 PM	Remote Monitor End: 11:30PM Site Visit end 6:00 PM
Condition: Temperature 46-68	x <input type="checkbox"/> Cloudy with light showers starting		<input type="checkbox"/> Balmy
Precip in the past 24 hrs: 0. inches		Wind: (mph): calm 4-10mph	

PURPOSE OF VISIT/ITEMS INSPECTED, OPERATIONS

Monitored system remotely. 7:00 AM – 11:30 PM and whenever I wake during the night this goes on a 24–7 schedule as needed. The timers are working well with the restart of the Digester pumps. I am going to leave them as they are for now. I turned the flare off before I left on Monday and monitored all day Tuesday. Site visit today, We had a power blip that shut off team viewer, when I got to the site there were no alarms and the computer was back up the skid was just sitting there and not running and the MT was in stand by mode. I started the skid and when it was ready and sending to the MT the MT would not start it was on but not starting. I had to shut off breaker as before and when I turned it back on the MT started automatically. The gas volume is still up, and I will come back tomorrow and we may need to flare. We have Pigs in 8 of the 9 houses loaded one out just now leaving the 8. the MT has been running since Monday,

ENVIRONMENTAL SYSTEM OBSERVATIONS:

Equipment Observed:	Operational Status
Fluidyne Aeration System, Including:	
Jet Motive Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Blower	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault:
CP-1 (Control Panel)	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Flush Pumps	<input type="checkbox"/> Auto <input checked="" type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Digester Mixing Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault

CP-1 DATA & SET POINTS;

Cycles	Set Point	Current	Modified Set Pt	Notes
Static	60	60		
Anoxic	90	90		
Aerobic	180	180		
Blower	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Cycle			
Jet Motive Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Pump #1 <input type="checkbox"/> Pump # 2			
Digester Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Sequential			

MOTOR DATA:

Aerobic	Run Time	Set Speed	Notes
---------	----------	-----------	-------

Jet Motive Pump # 1		60Hz	
Jet Motive Pump # 2		60Hz	
Blower		30Hz	
Anaerobic			
Mixing Pump 4A		60 Hz	
Mixing Pump 4B		60 Hz	

BIOGAS & POWER SYSTEMS OBSERVATIONS:

Equipment Observed:	Operational Status				
Unison Gas Skid <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flow Rate	Total Flow	Comp. Press.	Outlet Press.	Gauge Press.
	20.9				
Microturbine <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Speed	Exit Temp	Inlet Pressure	Inlet Temp	Power Out
	95852	1174		99	43.7 kw
Biogas System	BlueSens%	Flare On	Flare Flow	Total Flow	Flare Temp
		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	31.2	29.1	301

UNISON GAS CONDITIONING LOG

Pressure Data	PIT 311 -5 to 10 inWC -0.1	PIT 331 88 to 110psig 97.39	PIT 351 88 to 110 psig 91.8	Pressure Differential 2.0	Panel Door	HM 331 Hours 7060	
Temperature Data	TE 141 32 to 45 F 35.1	TE 311 40 to 115 F 83.1	TE 321 35 to 75 F 46.6	TE 331 80 to 220 F 186.5	TE 341 33 to 45 F 35.2	TE 342 65 to 90 F 88.3	TE 31 35 to 115 F
Glycol Piping	TI 141 32 to 45 F	PI 141 35 to 52 psig	FI 141 2.5 to 3.5 gpm	TI 142 35 to 50 F	PI 142 33 to 50 psig	TI 111 38 to 52 F	PI 111 30 to 48 psig
Oil Piping	PI 231 90 to 110 psig	TI 231 178 to 215 F	PI 232 85 to 105 psig	TI 232 130 to 180 F	PI 233 80 to 100 psig	TI 233 168 to 185 F	PI 234 78 to 100psig
Gas Piping	PIT 311 -10 to 10inWC	TI 311 40 to 115 F	TI 321 35 to 75 F	PDI 321 0 to 6 inWC	PI 331 90 to 110 psig	TI 331 80 to 220 F	PI 332 90 to 110psig
Gas Piping	TI 341 80 to 220 F	PI 341 90 to 110 psig	TI 342 115 to 155 F	PI 342 90 to 110 psig	TE 343 33 to 45 F	PI 343 90 to 110 psig	
Gas Piping	TI 351 65 to 90 F	PI 351 88 to 15 psig	Check Indicators	LI 721	LI 231	LI 741	

PERSONNEL PRESENT:

Name	Affiliation	Phone Number/Email

4ALOYD RAY FARMS INSPECTION, OPERATIONS & MAINTENANCE LOG SHEET

IMPORTANT: AN INSPECTION, OPERATIONS & MAINTENANCE LOG SHOULD BE COMPLETED FOR EVERY SITE VISIT; PLEASE REVIEW PREVIOUS LOG ENTRY AND PROVIDE INFORMATION TO UPDATE OR RESOLVE ANY ONGOING ISSUES NOTED (INCLUDING BUT NOT LIMITED TO MAINTENANCE, REPAIRS, OR CORRECTIVE ACTIONS).

Entry Made By: Marvin	Date Friday 11-09-2018	Remote monitor Start: 7:00 AM Site Visit start 1:45 PM	Remote Monitor End: 11:30PM Site Visit end 4:00 PM
Condition: Temperature 46-55 should go down in the 30's tonight	x <input type="checkbox"/> Cloudy and rainy <input type="checkbox"/> Balmy		
Precip in the past 24 hrs: 0.5 inches		Wind: (mph): calm 4-10mph	

PURPOSE OF VISIT/ITEMS INSPECTED, OPERATIONS

Monitored system remotely. 7:00 AM – 11:30 PM and whenever I wake during the night this goes on a 24–7 schedule as needed. The timers are working well with the restart of the Digester pumps. I am going to leave them as they are for now. I turned the flare off before I left on Monday and monitored all day Tuesday. Site visit today, we have been running up until around 12:33PM we had a skid fault of high condensate at 741. I reset and restarted skid and the MT came on as it is supposed to at 2:00 PM. I started the flare to run while I am on site as the gas volume is still up. I did a walk around and up on the cover all is well. I installed a replacement fridge today. I received a new camera and will try and install it next week.

ENVIRONMENTAL SYSTEM OBSERVATIONS:

Equipment Observed:	Operational Status
Fluidyne Aeration System, Including:	
Jet Motive Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Blower	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault:
CP-1 (Control Panel)	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Flush Pumps	<input type="checkbox"/> Auto <input checked="" type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Digester Mixing Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault

CP-1 DATA & SET POINTS;

Cycles	Set Point	Current	Modified Set Pt	Notes
Static	60	60		
Anoxic	90	90		
Aerobic	180	180		
Blower	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Cycle			
Jet Motive Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Pump #1 <input type="checkbox"/> Pump # 2			
Digester Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Sequential			

MOTOR DATA:

Aerobic	Run Time	Set Speed	Notes
Jet Motive Pump # 1		60Hz	
Jet Motive Pump # 2		60Hz	
Blower		30Hz	
Anaerobic			
Mixing Pump 4A		60 Hz	
Mixing Pump 4B		60 Hz	

BIOGAS & POWER SYSTEMS OBSERVATIONS:

Equipment Observed:	Operational Status				
Unison Gas Skid <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flow Rate	Total Flow	Comp. Press.	Outlet Press.	Gauge Press.
	20.9				
Microturbine <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Speed	Exit Temp	Inlet Pressure	Inlet Temp	Power Out
	95852	1174		99	43.7 kw
Biogas System	BlueSens%	Flare On	Flare Flow	Total Flow	Flare Temp
		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	31.2	29.1	301

UNISON GAS CONDITIONING LOG

Pressure Data	PIT 311 -5 to 10 inWC -0.1	PIT 331 88 to 110psig 97.39	PIT 351 88 to 110 psig 91.8	Pressure Differential 2.0	Panel Door	HM 331 Hours 7060	
Temperature Data	TE 141 32 to 45 F 35.1	TE 311 40 to 115 F 83.1	TE 321 35 to 75 F 46.6	TE 331 80 to 220 F 186.5	TE 341 33 to 45 F 35.2	TE 342 65 to 90 F 88.3	TE 31 35 to 115 F
Glycol Piping	TI 141 32 to 45 F	PI 141 35 to 52 psig	FI 141 2.5 to 3.5 gpm	TI 142 35 to 50 F	PI 142 33 to 50 psig	TI 111 38 to 52 F	PI 111 30 to 48 psig
Oil Piping	PI 231 90 to 110 psig	TI 231 178 to 215 F	PI 232 85 to 105 psig	TI 232 130 to 180 F	PI 233 80 to 100 psig	TI 233 168 to 185 F	PI 234 78 to 100psig
Gas Piping	PIT 311 -10 to 10inWC	TI 311 40 to 115 F	TI 321 35 to 75 F	PDI 321 0 to 6 inWC	PI 331 90 to 110 psig	TI 331 80 to 220 F	PI 332 90 to 110psig
Gas Piping	TI 341 80 to 220 F	PI 341 90 to 110 psig	TI 342 115 to 155 F	PI 342 90 to 110 psig	TE 343 33 to 45 F	PI 343 90 to 110 psig	
Gas Piping	TI 351 65 to 90 F	PI 351 88 to 15 psig	Check Indicators	LI 721	LI 231	LI 741	

PERSONNEL PRESENT:

Name	Affiliation	Phone Number/Email

4ALOYD RAY FARMS INSPECTION, OPERATIONS & MAINTENANCE LOG SHEET

IMPORTANT: AN INSPECTION, OPERATIONS & MAINTENANCE LOG SHOULD BE COMPLETED FOR EVERY SITE VISIT; PLEASE REVIEW PREVIOUS LOG ENTRY AND PROVIDE INFORMATION TO UPDATE OR RESOLVE ANY ONGOING ISSUES NOTED (INCLUDING BUT NOT LIMITED TO MAINTENANCE, REPAIRS, OR CORRECTIVE ACTIONS).

Entry Made By: Marvin	Date Saturday 11-10-2018	Remote monitor Start: 7:00 AM Site Visit start PM	Remote Monitor End: 11:30PM Site Visit end PM
Condition: Temperature 46-55 should go down in the 30's tonight	x <input type="checkbox"/> Cloudy and rainy <input type="checkbox"/> Balmy		
Precip in the past 24 hrs: 0.5 inches		Wind: (mph): calm 4-10mph	

PURPOSE OF VISIT/ITEMS INSPECTED, OPERATIONS

Monitored system remotely. 7:00 AM – 11:30 PM and whenever I wake during the night this goes on a 24–7 schedule as needed. The timers are working well with the restart of the Digester pumps. I am going to leave them as they are for now. I monitored remotely all day we had three shutdowns and then late we had a MT fault. No site visit

ENVIRONMENTAL SYSTEM OBSERVATIONS:

Equipment Observed:	Operational Status
Fluidyne Aeration System, Including:	
Jet Motive Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Blower	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault:
CP-1 (Control Panel)	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Flush Pumps	<input type="checkbox"/> Auto <input checked="" type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Digester Mixing Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault

CP-1 DATA & SET POINTS;

Cycles	Set Point	Current	Modified Set Pt	Notes
Static	60	60		
Anoxic	90	90		
Aerobic	180	180		
Blower	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Cycle			
Jet Motive Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Pump #1 <input type="checkbox"/> Pump # 2			
Digester Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Sequential			

MOTOR DATA:

Aerobic	Run Time	Set Speed	Notes
Jet Motive Pump # 1		60Hz	
Jet Motive Pump # 2		60Hz	
Blower		30Hz	
Anaerobic			
Mixing Pump 4A		60 Hz	
Mixing Pump 4B		60 Hz	

BIOGAS & POWER SYSTEMS OBSERVATIONS:

Equipment Observed:	Operational Status				
Unison Gas Skid <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flow Rate	Total Flow	Comp. Press.	Outlet Press.	Gauge Press.
	20.9				
Microturbine <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Speed	Exit Temp	Inlet Pressure	Inlet Temp	Power Out
	95852	1174		99	43.7 kw
Biogas System	BlueSens%	Flare On	Flare Flow	Total Flow	Flare Temp
		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	31.2	29.1	301

UNISON GAS CONDITIONING LOG

Pressure Data	PIT 311 -5 to 10 inWC -0.1	PIT 331 88 to 110psig 97.39	PIT 351 88 to 110 psig 91.8	Pressure Differential 2.0	Panel Door	HM 331 Hours 7060	
Temperature Data	TE 141 32 to 45 F 35.1	TE 311 40 to 115 F 83.1	TE 321 35 to 75 F 46.6	TE 331 80 to 220 F 186.5	TE 341 33 to 45 F 35.2	TE 342 65 to 90 F 88.3	TE 31 35 to 115 F
Glycol Piping	TI 141 32 to 45 F	PI 141 35 to 52 psig	FI 141 2.5 to 3.5 gpm	TI 142 35 to 50 F	PI 142 33 to 50 psig	TI 111 38 to 52 F	PI 111 30 to 48 psig
Oil Piping	PI 231 90 to 110 psig	TI 231 178 to 215 F	PI 232 85 to 105 psig	TI 232 130 to 180 F	PI 233 80 to 100 psig	TI 233 168 to 185 F	PI 234 78 to 100psig
Gas Piping	PIT 311 -10 to 10inWC	TI 311 40 to 115 F	TI 321 35 to 75 F	PDI 321 0 to 6 inWC	PI 331 90 to 110 psig	TI 331 80 to 220 F	PI 332 90 to 110psig
Gas Piping	TI 341 80 to 220 F	PI 341 90 to 110 psig	TI 342 115 to 155 F	PI 342 90 to 110 psig	TE 343 33 to 45 F	PI 343 90 to 110 psig	
Gas Piping	TI 351 65 to 90 F	PI 351 88 to 15 psig	Check Indicators	LI 721	LI 231	LI 741	

PERSONNEL PRESENT:

Name	Affiliation	Phone Number/Email

4ALOYD RAY FARMS INSPECTION, OPERATIONS & MAINTENANCE LOG SHEET

IMPORTANT: AN INSPECTION, OPERATIONS & MAINTENANCE LOG SHOULD BE COMPLETED FOR EVERY SITE VISIT; PLEASE REVIEW PREVIOUS LOG ENTRY AND PROVIDE INFORMATION TO UPDATE OR RESOLVE ANY ONGOING ISSUES NOTED (INCLUDING BUT NOT LIMITED TO MAINTENANCE, REPAIRS, OR CORRECTIVE ACTIONS).

Entry Made By: Marvin	Date Sunday 11-11-2018	Remote monitor Start: 7:00 AM Site Visit start 10:45 AM	Remote Monitor End: 11:30PM Site Visit end 12:00 PM
Condition: Temperature 27-49 should go down to 31 tonight	x <input type="checkbox"/> Sunny-Partly Cloudy <input type="checkbox"/> Balmy		
Precip in the past 48 hrs: 0.0 inches	Wind: (mph): calm 4-10mph		

PURPOSE OF VISIT/ITEMS INSPECTED, OPERATIONS

Monitored system remotely. 7:00 AM – 11:30 PM and whenever I wake during the night this goes on a 24–7 schedule as needed. The timers are working well with the restart of the Digester pumps. I am going to leave them as they are for now. Site visit to restart the MT I found a fault showing on the screen and the breaker had tripped. I had cut the skid off when the MT was in fault so I restarted it, reset the breaker and opened the Flare valve. Everything restarted as it should have.

ENVIRONMENTAL SYSTEM OBSERVATIONS:

Equipment Observed:	Operational Status
Fluidyne Aeration System, Including:	
Jet Motive Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Blower	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault:
CP-1 (Control Panel)	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Flush Pumps	<input type="checkbox"/> Auto <input checked="" type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Digester Mixing Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault

CP-1 DATA & SET POINTS;

Cycles	Set Point	Current	Modified Set Pt	Notes
Static	60	60		
Anoxic	90	90		
Aerobic	180	180		
Blower	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Cycle			
Jet Motive Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Pump #1 <input type="checkbox"/> Pump # 2			
Digester Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Sequential			

MOTOR DATA:

Aerobic	Run Time	Set Speed	Notes
Jet Motive Pump # 1		60Hz	
Jet Motive Pump # 2		60Hz	
Blower		30Hz	
Anaerobic			
Mixing Pump 4A		60 Hz	
Mixing Pump 4B		60 Hz	

BIOGAS & POWER SYSTEMS OBSERVATIONS:

Equipment Observed:	Operational Status				
Unison Gas Skid <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flow Rate	Total Flow	Comp. Press.	Outlet Press.	Gauge Press.
	20.9				
Microturbine <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Speed	Exit Temp	Inlet Pressure	Inlet Temp	Power Out
	95852	1174		99	43.7 kw
Biogas System	BlueSens%	Flare On	Flare Flow	Total Flow	Flare Temp
		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	31.2	29.1	301

UNISON GAS CONDITIONING LOG

Pressure Data	PIT 311 -5 to 10 inWC -0.1	PIT 331 88 to 110psig 97.39	PIT 351 88 to 110 psig 91.8	Pressure Differential 2.0	Panel Door	HM 331 Hours 7060	
Temperature Data	TE 141 32 to 45 F 35.1	TE 311 40 to 115 F 83.1	TE 321 35 to 75 F 46.6	TE 331 80 to 220 F 186.5	TE 341 33 to 45 F 35.2	TE 342 65 to 90 F 88.3	TE 31 35 to 115 F
Glycol Piping	TI 141 32 to 45 F	PI 141 35 to 52 psig	FI 141 2.5 to 3.5 gpm	TI 142 35 to 50 F	PI 142 33 to 50 psig	TI 111 38 to 52 F	PI 111 30 to 48 psig
Oil Piping	PI 231 90 to 110 psig	TI 231 178 to 215 F	PI 232 85 to 105 psig	TI 232 130 to 180 F	PI 233 80 to 100 psig	TI 233 168 to 185 F	PI 234 78 to 100psig
Gas Piping	PIT 311 -10 to 10inWC	TI 311 40 to 115 F	TI 321 35 to 75 F	PDI 321 0 to 6 inWC	PI 331 90 to 110 psig	TI 331 80 to 220 F	PI 332 90 to 110psig
Gas Piping	TI 341 80 to 220 F	PI 341 90 to 110 psig	TI 342 115 to 155 F	PI 342 90 to 110 psig	TE 343 33 to 45 F	PI 343 90 to 110 psig	
Gas Piping	TI 351 65 to 90 F	PI 351 88 to 15 psig	Check Indicators	LI 721	LI 231	LI 741	

PERSONNEL PRESENT:

Name	Affiliation	Phone Number/Email

4ALOYD RAY FARMS INSPECTION, OPERATIONS & MAINTENANCE LOG SHEET

IMPORTANT: AN INSPECTION, OPERATIONS & MAINTENANCE LOG SHOULD BE COMPLETED FOR EVERY SITE VISIT; PLEASE REVIEW PREVIOUS LOG ENTRY AND PROVIDE INFORMATION TO UPDATE OR RESOLVE ANY ONGOING ISSUES NOTED (INCLUDING BUT NOT LIMITED TO MAINTENANCE, REPAIRS, OR CORRECTIVE ACTIONS).

Entry Made By: Marvin	Date Monday 11-12-2018	Remote monitor Start: 7:00 AM Site Visit start 10:45 AM	Remote Monitor End: 11:30PM Site Visit end 12:30 PM
Condition: Temperature 31-42 we are 36 now at 12:30 PM	x <input type="checkbox"/> Cloudy and raining <input type="checkbox"/> Balmy		
Precip in the past 24 hrs: 0.1 inches	Wind: (mph): calm 4-10mph		

PURPOSE OF VISIT/ITEMS INSPECTED, OPERATIONS

Monitored system remotely. 7:00 AM – 11:30 PM and whenever I wake during the night this goes on a 24–7 schedule as needed. The timers are working well with the restart of the Digester pumps. I am going to leave them as they are for now. Site visit to restart the MT I found a fault showing on the screen and the breaker had tripped. I had cut the skid off when the MT was in fault so I restarted it, reset the breaker and opened the Flare valve. Everything restarted as it should have. This is the same as Sunday. I started the Gravity flow Flare and it is running 10+ CFM even though it does not seem to register on SCADA

ENVIRONMENTAL SYSTEM OBSERVATIONS:

Equipment Observed:	Operational Status
Fluidyne Aeration System, Including:	
Jet Motive Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Blower	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault:
CP-1 (Control Panel)	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Flush Pumps	<input type="checkbox"/> Auto <input checked="" type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Digester Mixing Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault

CP-1 DATA & SET POINTS;

Cycles	Set Point	Current	Modified Set Pt	Notes
Static	60	60		
Anoxic	90	90		
Aerobic	180	180		
Blower	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Cycle			
Jet Motive Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Pump #1 <input type="checkbox"/> Pump # 2			
Digester Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Sequential			

MOTOR DATA:

Aerobic	Run Time	Set Speed	Notes
Jet Motive Pump # 1		60Hz	
Jet Motive Pump # 2		60Hz	
Blower		30Hz	
Anaerobic			
Mixing Pump 4A		60 Hz	
Mixing Pump 4B		60 Hz	

BIOGAS & POWER SYSTEMS OBSERVATIONS:

Equipment Observed:	Operational Status				
Unison Gas Skid Fault? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flow Rate	Total Flow	Comp. Press.	Outlet Press.	Gauge Press.
	20.9				
Microturbine Fault? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Speed	Exit Temp	Inlet Pressure	Inlet Temp	Power Out
	95852	1174		99	43.7 kw
Biogas System	BlueSens%	Flare On	Flare Flow	Total Flow	Flare Temp
		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	31.2	29.1	301

UNISON GAS CONDITIONING LOG

Pressure Data	PIT 311 -5 to 10 inWC -0.1	PIT 331 88 to 110psig 97.39	PIT 351 88 to 110 psig 91.8	Pressure Differential 2.0	Panel Door	HM 331 Hours 7060	
Temperature Data	TE 141 32 to 45 F 35.1	TE 311 40 to 115 F 83.1	TE 321 35 to 75 F 46.6	TE 331 80 to 220 F 186.5	TE 341 33 to 45 F 35.2	TE 342 65 to 90 F 88.3	TE 31 35 to 115 F
Glycol Piping	TI 141 32 to 45 F	PI 141 35 to 52 psig	FI 141 2.5 to 3.5 gpm	TI 142 35 to 50 F	PI 142 33 to 50 psig	TI 111 38 to 52 F	PI 111 30 to 48 psig
Oil Piping	PI 231 90 to 110 psig	TI 231 178 to 215 F	PI 232 85 to 105 psig	TI 232 130 to 180 F	PI 233 80 to 100 psig	TI 233 168 to 185 F	PI 234 78 to 100psig
Gas Piping	PIT 311 -10 to 10inWC	TI 311 40 to 115 F	TI 321 35 to 75 F	PDI 321 0 to 6 inWC	PI 331 90 to 110 psig	TI 331 80 to 220 F	PI 332 90 to 110psig
Gas Piping	TI 341 80 to 220 F	PI 341 90 to 110 psig	TI 342 115 to 155 F	PI 342 90 to 110 psig	TE 343 33 to 45 F	PI 343 90 to 110 psig	
Gas Piping	TI 351 65 to 90 F	PI 351 88 to 15 psig	Check Indicators	LI 721	LI 231	LI 741	

PERSONNEL PRESENT:

Name	Affiliation	Phone Number/Email

4ALOYD RAY FARMS INSPECTION, OPERATIONS & MAINTENANCE LOG SHEET

IMPORTANT: AN INSPECTION, OPERATIONS & MAINTENANCE LOG SHOULD BE COMPLETED FOR EVERY SITE VISIT; PLEASE REVIEW PREVIOUS LOG ENTRY AND PROVIDE INFORMATION TO UPDATE OR RESOLVE ANY ONGOING ISSUES NOTED (INCLUDING BUT NOT LIMITED TO MAINTENANCE, REPAIRS, OR CORRECTIVE ACTIONS).

Entry Made By: Marvin	Date Tuesday and Wednesday 11-13-14 -2018	Remote monitor Start: 7:00 AM Site Visit start AM	Remote Monitor End: 11:30PM Site Visit end PM
Condition: Temperature 31-42 we are 36 now at 12:30 PM	x <input type="checkbox"/> Cloudy and raining <input type="checkbox"/> Balmy		
Precip in the past 48 hrs: inches	Wind: (mph): calm 4-10mph		

PURPOSE OF VISIT/ITEMS INSPECTED, OPERATIONS

Monitored system remotely. 7:00 AM – 11:30 PM and whenever I wake during the night this goes on a 24–7 schedule as needed. The timers are working well with the restart of the Digester pumps. I am going to leave them as they are for now. I started the Gravity flow Flare and it is running 10+ CFM even though it does not seem to register on SCADA and I am glad because we had a shut down on Tuesday.

ENVIRONMENTAL SYSTEM OBSERVATIONS:

Equipment Observed:	Operational Status
Fluidyne Aeration System, Including:	
Jet Motive Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Blower	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault:
CP-1 (Control Panel)	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Flush Pumps	<input type="checkbox"/> Auto <input checked="" type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Digester Mixing Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault

CP-1 DATA & SET POINTS;

Cycles	Set Point	Current	Modified Set Pt	Notes
Static	60	60		
Anoxic	90	90		
Aerobic	180	180		
Blower	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Cycle			
Jet Motive Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Pump #1 <input type="checkbox"/> Pump # 2			
Digester Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Sequential			

MOTOR DATA:

Aerobic	Run Time	Set Speed	Notes
Jet Motive Pump # 1		60Hz	
Jet Motive Pump # 2		60Hz	
Blower		30Hz	
Anaerobic			
Mixing Pump 4A		60 Hz	
Mixing Pump 4B		60 Hz	

BIOGAS & POWER SYSTEMS OBSERVATIONS:

Equipment Observed:	Operational Status				
Unison Gas Skid Fault? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flow Rate	Total Flow	Comp. Press.	Outlet Press.	Gauge Press.
	20.9				
Microturbine Fault? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Speed	Exit Temp	Inlet Pressure	Inlet Temp	Power Out
	95852	1174		99	43.7 kw
Biogas System	BlueSens%	Flare On	Flare Flow	Total Flow	Flare Temp
		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	31.2	29.1	301

UNISON GAS CONDITIONING LOG

Pressure Data	PIT 311 -5 to 10 inWC -0.1	PIT 331 88 to 110psig 97.39	PIT 351 88 to 110 psig 91.8	Pressure Differential 2.0	Panel Door	HM 331 Hours 7060	
Temperature Data	TE 141 32 to 45 F 35.1	TE 311 40 to 115 F 83.1	TE 321 35 to 75 F 46.6	TE 331 80 to 220 F 186.5	TE 341 33 to 45 F 35.2	TE 342 65 to 90 F 88.3	TE 31 35 to 115 F
Glycol Piping	TI 141 32 to 45 F	PI 141 35 to 52 psig	FI 141 2.5 to 3.5 gpm	TI 142 35 to 50 F	PI 142 33 to 50 psig	TI 111 38 to 52 F	PI 111 30 to 48 psig
Oil Piping	PI 231 90 to 110 psig	TI 231 178 to 215 F	PI 232 85 to 105 psig	TI 232 130 to 180 F	PI 233 80 to 100 psig	TI 233 168 to 185 F	PI 234 78 to 100psig
Gas Piping	PIT 311 -10 to 10inWC	TI 311 40 to 115 F	TI 321 35 to 75 F	PDI 321 0 to 6 inWC	PI 331 90 to 110 psig	TI 331 80 to 220 F	PI 332 90 to 110psig
Gas Piping	TI 341 80 to 220 F	PI 341 90 to 110 psig	TI 342 115 to 155 F	PI 342 90 to 110 psig	TE 343 33 to 45 F	PI 343 90 to 110 psig	
Gas Piping	TI 351 65 to 90 F	PI 351 88 to 15 psig	Check Indicators	LI 721	LI 231	LI 741	

PERSONNEL PRESENT:

Name	Affiliation	Phone Number/Email

4ALOYD RAY FARMS INSPECTION, OPERATIONS & MAINTENANCE LOG SHEET

IMPORTANT: AN INSPECTION, OPERATIONS & MAINTENANCE LOG SHOULD BE COMPLETED FOR EVERY SITE VISIT; PLEASE REVIEW PREVIOUS LOG ENTRY AND PROVIDE INFORMATION TO UPDATE OR RESOLVE ANY ONGOING ISSUES NOTED (INCLUDING BUT NOT LIMITED TO MAINTENANCE, REPAIRS, OR CORRECTIVE ACTIONS).

Entry Made By: Marvin	Date Thursday 11-15-2018	Remote monitor Start: 7:00 AM Site Visit start 2:30 PM	Remote Monitor End: 11:30PM Site Visit end 5:30 PM
Condition: Temperature 31-42 we are 36 now at 12:30 PM	x <input type="checkbox"/> Cloudy and raining <input type="checkbox"/> Balmy		
Precip in the past 48 hrs: 2.8 inches	Wind: (mph): calm 4-10mph		

PURPOSE OF VISIT/ITEMS INSPECTED, OPERATIONS

Monitored system remotely. 7:00 AM – 11:30 PM and whenever I wake during the night this goes on a 24–7 schedule as needed. The timers are working well with the restart of the Digester pumps. I am going to leave them as they are for now. I started the Gravity flow Flare and it is running 10+ CFM even though it does not seem to register on SCADA and I am glad because we had a shut down on Tuesday. Site visit to restart system it refused but after 3 tries I finally got her going.

ENVIRONMENTAL SYSTEM OBSERVATIONS:

Equipment Observed:	Operational Status
Fluidyne Aeration System, Including:	
Jet Motive Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Blower	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault:
CP-1 (Control Panel)	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Flush Pumps	<input type="checkbox"/> Auto <input checked="" type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Digester Mixing Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault

CP-1 DATA & SET POINTS;

Cycles	Set Point	Current	Modified Set Pt	Notes
Static	60	60		
Anoxic	90	90		
Aerobic	180	180		
Blower	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Cycle			
Jet Motive Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Pump #1 <input type="checkbox"/> Pump # 2			
Digester Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Sequential			

MOTOR DATA:

Aerobic	Run Time	Set Speed	Notes
Jet Motive Pump # 1		60Hz	
Jet Motive Pump # 2		60Hz	
Blower		30Hz	
Anaerobic			
Mixing Pump 4A		60 Hz	
Mixing Pump 4B		60 Hz	

BIOGAS & POWER SYSTEMS OBSERVATIONS:

Equipment Observed:	Operational Status				
Unison Gas Skid Fault? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flow Rate	Total Flow	Comp. Press.	Outlet Press.	Gauge Press.
	20.9				
Microturbine Fault? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Speed	Exit Temp	Inlet Pressure	Inlet Temp	Power Out
	95852	1174		99	43.7 kw
Biogas System	BlueSens%	Flare On	Flare Flow	Total Flow	Flare Temp
		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	31.2	29.1	301

UNISON GAS CONDITIONING LOG

Pressure Data	PIT 311 -5 to 10 inWC -0.1	PIT 331 88 to 110psig 97.39	PIT 351 88 to 110 psig 91.8	Pressure Differential 2.0	Panel Door	HM 331 Hours 7060	
Temperature Data	TE 141 32 to 45 F 35.1	TE 311 40 to 115 F 83.1	TE 321 35 to 75 F 46.6	TE 331 80 to 220 F 186.5	TE 341 33 to 45 F 35.2	TE 342 65 to 90 F 88.3	TE 31 35 to 115 F
Glycol Piping	TI 141 32 to 45 F	PI 141 35 to 52 psig	FI 141 2.5 to 3.5 gpm	TI 142 35 to 50 F	PI 142 33 to 50 psig	TI 111 38 to 52 F	PI 111 30 to 48 psig
Oil Piping	PI 231 90 to 110 psig	TI 231 178 to 215 F	PI 232 85 to 105 psig	TI 232 130 to 180 F	PI 233 80 to 100 psig	TI 233 168 to 185 F	PI 234 78 to 100psig
Gas Piping	PIT 311 -10 to 10inWC	TI 311 40 to 115 F	TI 321 35 to 75 F	PDI 321 0 to 6 inWC	PI 331 90 to 110 psig	TI 331 80 to 220 F	PI 332 90 to 110psig
Gas Piping	TI 341 80 to 220 F	PI 341 90 to 110 psig	TI 342 115 to 155 F	PI 342 90 to 110 psig	TE 343 33 to 45 F	PI 343 90 to 110 psig	
Gas Piping	TI 351 65 to 90 F	PI 351 88 to 15 psig	Check Indicators	LI 721	LI 231	LI 741	

PERSONNEL PRESENT:

Name	Affiliation	Phone Number/Email

4ALOYD RAY FARMS INSPECTION, OPERATIONS & MAINTENANCE LOG SHEET

IMPORTANT: AN INSPECTION, OPERATIONS & MAINTENANCE LOG SHOULD BE COMPLETED FOR EVERY SITE VISIT; PLEASE REVIEW PREVIOUS LOG ENTRY AND PROVIDE INFORMATION TO UPDATE OR RESOLVE ANY ONGOING ISSUES NOTED (INCLUDING BUT NOT LIMITED TO MAINTENANCE, REPAIRS, OR CORRECTIVE ACTIONS).

Entry Made By: Marvin	Date Friday 11-16-2018	Remote monitor Start: 7:00 AM Site Visit start 4:00 PM	Remote Monitor End: 11:30PM Site Visit end 5:30 PM
Condition: Temperature 31-56 we are 41 now at 5:00 PM	x <input type="checkbox"/> Cloudy and raining <input type="checkbox"/> Balmy		
Precip in the past 24 hrs: 0.2 inches	Wind: (mph): calm 4-10mph		

PURPOSE OF VISIT/ITEMS INSPECTED, OPERATIONS

Monitored system remotely. 7:00 AM – 11:30 PM and whenever I wake during the night this goes on a 24–7 schedule as needed. The timers are working well with the restart of the Digester pumps. I am going to leave them as they are for now. I started the Gravity flow Flare and it is running 10+ CFM even though it does not seem to register on SCADA and I am glad because we had a shut down on Tuesday and Wednesday and died during the evening on Thursday. Site visit to restart system and I found that the skid is not communicating with the SCADA and I am unable to start and stop or monitor skid data. I was able to start the skid and the flare continues to burn on gravity as above. The MT started as it should and is running fine. I will monitor but if we shut down then it will be Sunday before I can manually restart. We need to burn all the gas that we can the volume is high.

ENVIRONMENTAL SYSTEM OBSERVATIONS:

Equipment Observed:	Operational Status
Fluidyne Aeration System, Including:	
Jet Motive Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Blower	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault:
CP-1 (Control Panel)	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Flush Pumps	<input type="checkbox"/> Auto <input checked="" type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Digester Mixing Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault

CP-1 DATA & SET POINTS;

Cycles	Set Point	Current	Modified Set Pt	Notes
Static	60	60		
Anoxic	90	90		
Aerobic	180	180		
Blower	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Cycle			
Jet Motive Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Pump #1 <input type="checkbox"/> Pump # 2			
Digester Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Sequential			

MOTOR DATA:

Aerobic	Run Time	Set Speed	Notes
---------	----------	-----------	-------

Jet Motive Pump # 1		60Hz	
Jet Motive Pump # 2		60Hz	
Blower		30Hz	
Anaerobic			
Mixing Pump 4A		60 Hz	
Mixing Pump 4B		60 Hz	

BIOGAS & POWER SYSTEMS OBSERVATIONS:

Equipment Observed:	Operational Status				
Unison Gas Skid <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flow Rate	Total Flow	Comp. Press.	Outlet Press.	Gauge Press.
	20.9				
Microturbine <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Speed	Exit Temp	Inlet Pressure	Inlet Temp	Power Out
	95852	1174		99	43.7 kw
Biogas System	BlueSens%	Flare On	Flare Flow	Total Flow	Flare Temp
		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	31.2	29.1	301

UNISON GAS CONDITIONING LOG

Pressure Data	PIT 311 -5 to 10 inWC -0.1	PIT 331 88 to 110psig 97.39	PIT 351 88 to 110 psig 91.8	Pressure Differential 2.0	Panel Door	HM 331 Hours 7060	
Temperature Data	TE 141 32 to 45 F 35.1	TE 311 40 to 115 F 83.1	TE 321 35 to 75 F 46.6	TE 331 80 to 220 F 186.5	TE 341 33 to 45 F 35.2	TE 342 65 to 90 F 88.3	TE 31 35 to 115 F
Glycol Piping	TI 141 32 to 45 F	PI 141 35 to 52 psig	FI 141 2.5 to 3.5 gpm	TI 142 35 to 50 F	PI 142 33 to 50 psig	TI 111 38 to 52 F	PI 111 30 to 48 psig
Oil Piping	PI 231 90 to 110 psig	TI 231 178 to 215 F	PI 232 85 to 105 psig	TI 232 130 to 180 F	PI 233 80 to 100 psig	TI 233 168 to 185 F	PI 234 78 to 100psig
Gas Piping	PIT 311 -10 to 10inWC	TI 311 40 to 115 F	TI 321 35 to 75 F	PDI 321 0 to 6 inWC	PI 331 90 to 110 psig	TI 331 80 to 220 F	PI 332 90 to 110psig
Gas Piping	TI 341 80 to 220 F	PI 341 90 to 110 psig	TI 342 115 to 155 F	PI 342 90 to 110 psig	TE 343 33 to 45 F	PI 343 90 to 110 psig	
Gas Piping	TI 351 65 to 90 F	PI 351 88 to 15 psig	Check Indicators	LI 721	LI 231	LI 741	

PERSONNEL PRESENT:

Name	Affiliation	Phone Number/Email

4ALOYD RAY FARMS INSPECTION, OPERATIONS & MAINTENANCE LOG SHEET

IMPORTANT: AN INSPECTION, OPERATIONS & MAINTENANCE LOG SHOULD BE COMPLETED FOR EVERY SITE VISIT; PLEASE REVIEW PREVIOUS LOG ENTRY AND PROVIDE INFORMATION TO UPDATE OR RESOLVE ANY ONGOING ISSUES NOTED (INCLUDING BUT NOT LIMITED TO MAINTENANCE, REPAIRS, OR CORRECTIVE ACTIONS).

Entry Made By: Marvin	Date Saturday 11-17-2018	Remote monitor Start: 7:00 AM Site Visit start PM	Remote Monitor End: 11:30PM Site Visit end PM
Condition: Temperature 31-56 we are 41 now at 5:00 PM	x <input type="checkbox"/> Cloudy and raining <input type="checkbox"/> Balmy		
Precip in the past 24 hrs: 0. inches	Wind: (mph): calm 4-10mph		

PURPOSE OF VISIT/ITEMS INSPECTED, OPERATIONS

Monitored system remotely. 7:00 AM – 11:30 PM and whenever I wake during the night this goes on a 24–7 schedule as needed. The timers are working well with the restart of the Digester pumps. I am going to leave them as they are for now. I started the Gravity flow Flare and it is running 10+ CFM even though it does not seem to register on SCADA and I am glad because we had a shut down on Tuesday and Wednesday and died during the evening on Thursday and again after site visit on Friday. Monitored off and on Saturday Flare burned at 10+CFM all the time. We need to burn all the gas that we can the volume is high.

ENVIRONMENTAL SYSTEM OBSERVATIONS:

Equipment Observed:	Operational Status
Fluidyne Aeration System, Including:	
Jet Motive Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Blower	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault:
CP-1 (Control Panel)	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Flush Pumps	<input type="checkbox"/> Auto <input checked="" type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault
Digester Mixing Pumps	<input checked="" type="checkbox"/> Auto <input type="checkbox"/> Hand On <input type="checkbox"/> Off <input type="checkbox"/> In Fault

CP-1 DATA & SET POINTS;

Cycles	Set Point	Current	Modified Set Pt	Notes
Static	60	60		
Anoxic	90	90		
Aerobic	180	180		
Blower	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Cycle			
Jet Motive Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Pump #1 <input type="checkbox"/> Pump # 2			
Digester Pumps	<input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Both <input type="checkbox"/> Sequential			

MOTOR DATA:

Aerobic	Run Time	Set Speed	Notes

Jet Motive Pump # 1		60Hz	
Jet Motive Pump # 2		60Hz	
Blower		30Hz	
Anaerobic			
Mixing Pump 4A		60 Hz	
Mixing Pump 4B		60 Hz	

BIOGAS & POWER SYSTEMS OBSERVATIONS:

Equipment Observed:	Operational Status				
Unison Gas Skid <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flow Rate	Total Flow	Comp. Press.	Outlet Press.	Gauge Press.
	20.9				
Microturbine <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Speed	Exit Temp	Inlet Pressure	Inlet Temp	Power Out
	95852	1174		99	43.7 kw
Biogas System	BlueSens%	Flare On	Flare Flow	Total Flow	Flare Temp
		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	31.2	29.1	301

UNISON GAS CONDITIONING LOG

Pressure Data	PIT 311 -5 to 10 inWC -0.1	PIT 331 88 to 110psig 97.39	PIT 351 88 to 110 psig 91.8	Pressure Differential 2.0	Panel Door	HM 331 Hours 7060	
Temperature Data	TE 141 32 to 45 F 35.1	TE 311 40 to 115 F 83.1	TE 321 35 to 75 F 46.6	TE 331 80 to 220 F 186.5	TE 341 33 to 45 F 35.2	TE 342 65 to 90 F 88.3	TE 31 35 to 115 F
Glycol Piping	TI 141 32 to 45 F	PI 141 35 to 52 psig	FI 141 2.5 to 3.5 gpm	TI 142 35 to 50 F	PI 142 33 to 50 psig	TI 111 38 to 52 F	PI 111 30 to 48 psig
Oil Piping	PI 231 90 to 110 psig	TI 231 178 to 215 F	PI 232 85 to 105 psig	TI 232 130 to 180 F	PI 233 80 to 100 psig	TI 233 168 to 185 F	PI 234 78 to 100psig
Gas Piping	PIT 311 -10 to 10inWC	TI 311 40 to 115 F	TI 321 35 to 75 F	PDI 321 0 to 6 inWC	PI 331 90 to 110 psig	TI 331 80 to 220 F	PI 332 90 to 110psig
Gas Piping	TI 341 80 to 220 F	PI 341 90 to 110 psig	TI 342 115 to 155 F	PI 342 90 to 110 psig	TE 343 33 to 45 F	PI 343 90 to 110 psig	
Gas Piping	TI 351 65 to 90 F	PI 351 88 to 15 psig	Check Indicators	LI 721	LI 231	LI 741	

PERSONNEL PRESENT:

Name	Affiliation	Phone Number/Email