

## LOYD 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 8-27-2018	Remote monitor Start: 7:00 AM	Remote Monitor End: 11:30PM
		Site Visit start 10:30AM	Site Visit end 2:30 PM
Condition: Temperature 60-78	x <input type="checkbox"/> Clear	<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Balmy
Precip Past 48 hours: 0.4 inches	Wind: (mph): calm 4-7mph higher during storms		

### 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 to do a system and ground check. I did my on site inspection+. I worked on camera with little success All is well, and all went well

### 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	

<b>Anaerobic</b>			
<b>Mixing Pump 4A</b>		<b>60 Hz</b>	
<b>Mixing Pump 4B</b>		<b>60 Hz</b>	

**BIOGAS & POWER SYSTEMS OBSERVATIONS:**

<b>Equipment Observed:</b>	<b>Operational Status</b>				
<b>Unison Gas Skid</b> <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flow Rate	Total Flow	Comp. Press.	Outlet Press.	Gauge Press.
	20.9				
<b>Microturbine</b> <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
<b>Biogas System</b>	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**

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

**PERSONNEL PRESENT:**

<b>Name</b>	<b>Affiliation</b>	<b>Phone Number/Email</b>

## LOYD 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 8-29-2018	Remote monitor Start: 7:00 AM	Remote Monitor End: 11:30PM
		Site Visit start 11:30AM	Site Visit end 2:30 PM
Condition: Temperature 60-95	x <input type="checkbox"/> Clear	<input checked="" type="checkbox"/> Cloudy	<input type="checkbox"/> Balmy
Precip Past 48 hours: 0.0 inches	Wind: (mph): calm 4-7mph higher during storms		

### 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 to do a system and ground check. I did my on site inspection+. I worked on camera with little success All is well, and all went well

### 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	

<b>Anaerobic</b>			
<b>Mixing Pump 4A</b>		<b>60 Hz</b>	
<b>Mixing Pump 4B</b>		<b>60 Hz</b>	

**BIOGAS & POWER SYSTEMS OBSERVATIONS:**

<b>Equipment Observed:</b>	<b>Operational Status</b>				
<b>Unison Gas Skid</b> <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flow Rate	Total Flow	Comp. Press.	Outlet Press.	Gauge Press.
	20.9				
<b>Microturbine</b> <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
<b>Biogas System</b>	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**

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

**PERSONNEL PRESENT:**

<b>Name</b>	<b>Affiliation</b>	<b>Phone Number/Email</b>

## LOYD 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 8-30-2018	Remote monitor Start: 7:00 AM	Remote Monitor End: 11:30PM
		Site Visit start 12:10 PM	Site Visit end 1:45 PM
Condition: Temperature 60-95	x <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Cloudy <input type="checkbox"/> Balmy		
Precip Past 48 hours: 0.0 inches	Wind: (mph): calm 4-7mph higher during storms		

### 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 to do a system and ground check and found our unison system was down. I tried to hard boot but did not work I will call it in Unison is supposed to be here on 9-10-2018

### 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	

<b>Anaerobic</b>			
<b>Mixing Pump 4A</b>		<b>60 Hz</b>	
<b>Mixing Pump 4B</b>		<b>60 Hz</b>	

**BIOGAS & POWER SYSTEMS OBSERVATIONS:**

<b>Equipment Observed:</b>	<b>Operational Status</b>				
<b>Unison Gas Skid</b> <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flow Rate	Total Flow	Comp. Press.	Outlet Press.	Gauge Press.
	20.9				
<b>Microturbine</b> <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
<b>Biogas System</b>	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**

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

**PERSONNEL PRESENT:**

<b>Name</b>	<b>Affiliation</b>	<b>Phone Number/Email</b>

## LOYD 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 9-10-2018	Remote monitor Start: 7:00 AM	Remote Monitor End: 11:30PM
		Site Visit start 9:00 AM	Site Visit end 7:00 PM
Condition: Temperature 68-90	x <input type="checkbox"/> Clear Partly Cloudy <input checked="" type="checkbox"/> Cloudy <input type="checkbox"/> Balmy		
Precip Past 48 hours: 0.0 inches	Wind: (mph): calm 4-7mph higher during storms		

### 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. Flare is burning gravity gas Marty Kass of Unison came to do service. We found out we had no power I called Salem Electric to do an emergency visit. They came and thought the transformer was bad so I had them do a check to see where to get one

### 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	

<b>Anaerobic</b>			
<b>Mixing Pump 4A</b>		<b>60 Hz</b>	
<b>Mixing Pump 4B</b>		<b>60 Hz</b>	

**BIOGAS & POWER SYSTEMS OBSERVATIONS:**

<b>Equipment Observed:</b>	<b>Operational Status</b>				
<b>Unison Gas Skid</b> <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flow Rate	Total Flow	Comp. Press.	Outlet Press.	Gauge Press.
	20.9				
<b>Microturbine</b> <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
<b>Biogas System</b>	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**

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

**PERSONNEL PRESENT:**

<b>Name</b>	<b>Affiliation</b>	<b>Phone Number/Email</b>

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**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 Tuesdy 9-11-2018	Remote monitor Start: 7:00 AM	Remote Monitor End: 11:30PM
		Site Visit start 9:00 AM	Site Visit end 7:00 PM
Condition: Temperature 68-95	x <input type="checkbox"/> Clear Partly Cloudy <input checked="" type="checkbox"/> Cloudy <input type="checkbox"/> Balmy		
Precip Past 24 hours: 0.0 inches	Wind: (mph): calm 4-7mph higher during storms		

### 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. Flare is burning gravity gas. Marty Kass of Unison came back to continue his service. We still were without power Keith and Bryan from ProPump were on sit an I asked them to look at our no power situation They found that the Phase converter was bad therefor showing like a bad Transformer. They took down the two phase converters to ship them off for a rebuild. The also looked into fixing something to change the flush pump from 3 Phase to single and headed to shop to build IT. Marty Kass could not finish his service but he had another job close by so he went there.

### 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	

<b>Jet Motive Pump # 2</b>		<b>60Hz</b>	
<b>Blower</b>		<b>30Hz</b>	
<b>Anaerobic</b>			
<b>Mixing Pump 4A</b>		<b>60 Hz</b>	
<b>Mixing Pump 4B</b>		<b>60 Hz</b>	

**BIOGAS & POWER SYSTEMS OBSERVATIONS:**

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

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

**PERSONNEL PRESENT:**

<b>Name</b>	<b>Affiliation</b>	<b>Phone Number/Email</b>

## LOYD 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 9-12-2018	Remote monitor Start: 7:00 AM	Remote Monitor End: 11:30PM
		Site Visit start 9:00 AM	Site Visit end 7:00 PM
Condition: Temperature 68-95	x <input type="checkbox"/> Clear Partly Cloudy <input checked="" type="checkbox"/> Cloudy <input type="checkbox"/> Balmy		
Precip Past 24 hours: 0.0 inches	Wind: (mph): calm 4-7mph higher during storms		

### 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. Flare is burning gravity gas. ProPump returned with the converter rig for flush pump and wired it inside building and to the pump. Kevin. We got it all done and was able to flush.

### 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	

<b>Jet Motive Pump # 2</b>		<b>60Hz</b>	
<b>Blower</b>		<b>30Hz</b>	
<b>Anaerobic</b>			
<b>Mixing Pump 4A</b>		<b>60 Hz</b>	
<b>Mixing Pump 4B</b>		<b>60 Hz</b>	

**BIOGAS & POWER SYSTEMS OBSERVATIONS:**

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

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

**PERSONNEL PRESENT:**

<b>Name</b>	<b>Affiliation</b>	<b>Phone Number/Email</b>

## LOYD 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 9-13-2018	Remote monitor Start: 7:00 AM	Remote Monitor End: 11:30PM
		Site Visit start 9:00 AM	Site Visit end 4:00 PM
Condition: Temperature 68-95	x <input type="checkbox"/> Clear Partly Cloudy <input checked="" type="checkbox"/> Cloudy <input type="checkbox"/> Balmy		
Precip Past 24 hours: 0.0 inches		Wind: (mph): calm 4-7mph higher during storms	

### 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: Flare is burning gravity gas. Kevin and I worked on trying to unclog the digester pump but it is still clogged.

### 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	

<b>Jet Motive Pump # 2</b>		<b>60Hz</b>	
<b>Blower</b>		<b>30Hz</b>	
<b>Anaerobic</b>			
<b>Mixing Pump 4A</b>		<b>60 Hz</b>	
<b>Mixing Pump 4B</b>		<b>60 Hz</b>	

**BIOGAS & POWER SYSTEMS OBSERVATIONS:**

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

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

**PERSONNEL PRESENT:**

<b>Name</b>	<b>Affiliation</b>	<b>Phone Number/Email</b>

## LOYD 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 9-14-2018	Remote monitor Start: 7:00 AM	Remote Monitor End: 11:30PM
		Site Visit start none	Site Visit end none
Condition: Temperature 68-95	x <input type="checkbox"/> Clear Partly Cloudy <input checked="" type="checkbox"/> Cloudy <input type="checkbox"/> Balmy		
Precip Past 24 hours: 0.0 inches	Wind: (mph): calm 4-7mph higher during storms		

### 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. Flare is burning gravity gas. Monitored Site in prep for up coming storm Florence.

### 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	

<b>Jet Motive Pump # 2</b>		<b>60Hz</b>	
<b>Blower</b>		<b>30Hz</b>	
<b>Anaerobic</b>			
<b>Mixing Pump 4A</b>		<b>60 Hz</b>	
<b>Mixing Pump 4B</b>		<b>60 Hz</b>	

**BIOGAS & POWER SYSTEMS OBSERVATIONS:**

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

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

**PERSONNEL PRESENT:**

<b>Name</b>	<b>Affiliation</b>	<b>Phone Number/Email</b>

## LOYD 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 9-15-2018	Remote monitor Start: 7:00 AM	Remote Monitor End: 11:30PM
		Site Visit start none	Site Visit end none
Condition: Temperature 68-88	x <input type="checkbox"/> Clear Partly Cloudy <input checked="" type="checkbox"/> Cloudy <input type="checkbox"/> Balmy		
Precip Past 48 hours: 4.0 inches	Wind: (mph): calm 4-7mph higher during storms		

### 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. Flare is burning gravity gas

### 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	

<b>Anaerobic</b>			
<b>Mixing Pump 4A</b>		<b>60 Hz</b>	
<b>Mixing Pump 4B</b>		<b>60 Hz</b>	

**BIOGAS & POWER SYSTEMS OBSERVATIONS:**

<b>Equipment Observed:</b>	<b>Operational Status</b>				
<b>Unison Gas Skid</b> <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flow Rate	Total Flow	Comp. Press.	Outlet Press.	Gauge Press.
	20.9				
<b>Microturbine</b> <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
<b>Biogas System</b>	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**

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

**PERSONNEL PRESENT:**

<b>Name</b>	<b>Affiliation</b>	<b>Phone Number/Email</b>

## LOYD 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 9-16-2018	Remote monitor Start: 7:00 AM	Remote Monitor End: 11:30PM
		Site Visit start 1:00 PM	Site Visit end 2:00PM
Condition: Temperature 68-88	x <input type="checkbox"/> Clear Partly Cloudy <input checked="" type="checkbox"/> Cloudy <input type="checkbox"/> Balmy		
Precip Past 48 hours: 4.0 inches		Wind: (mph): calm 4-7mph higher during storms	

### 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. Flare is burning gravity gas Site visit to check system and water levels

### 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	

<b>Anaerobic</b>			
<b>Mixing Pump 4A</b>		<b>60 Hz</b>	
<b>Mixing Pump 4B</b>		<b>60 Hz</b>	

**BIOGAS & POWER SYSTEMS OBSERVATIONS:**

<b>Equipment Observed:</b>	<b>Operational Status</b>				
<b>Unison Gas Skid</b> <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flow Rate	Total Flow	Comp. Press.	Outlet Press.	Gauge Press.
	20.9				
<b>Microturbine</b> <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
<b>Biogas System</b>	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**

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

**PERSONNEL PRESENT:**

<b>Name</b>	<b>Affiliation</b>	<b>Phone Number/Email</b>

## LOYD 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 9-17-2018	Remote monitor Start: 7:00 AM	Remote Monitor End: 11:30PM
		Site Visit none	Site Visit end
Condition: Temperature 68-88	x <input type="checkbox"/> Clear Partly Cloudy <input checked="" type="checkbox"/> Cloudy <input type="checkbox"/> Balmy		
Precip Past 48 hours: 4.0 inches	Wind: (mph): calm 4-7mph higher during storms		

### 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. Flare is burning gravity gas

### 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	

<b>Anaerobic</b>			
<b>Mixing Pump 4A</b>		<b>60 Hz</b>	
<b>Mixing Pump 4B</b>		<b>60 Hz</b>	

**BIOGAS & POWER SYSTEMS OBSERVATIONS:**

<b>Equipment Observed:</b>	<b>Operational Status</b>				
<b>Unison Gas Skid</b> <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flow Rate	Total Flow	Comp. Press.	Outlet Press.	Gauge Press.
	20.9				
<b>Microturbine</b> <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
<b>Biogas System</b>	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**

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

**PERSONNEL PRESENT:**

<b>Name</b>	<b>Affiliation</b>	<b>Phone Number/Email</b>

## LOYD 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 9-18-2018	Remote monitor Start: 7:00 AM	Remote Monitor End: 11:30PM
		Site Visit start 4:00 PM	Site Visit end 6:45 PM
Condition: Temperature 68-88	x <input type="checkbox"/> Clear Partly Cloudy <input checked="" type="checkbox"/> Cloudy <input type="checkbox"/> Balmy		
Precip Past 48 hours: 4.0 inches		Wind: (mph): calm 4-7mph higher during storms	

### 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 to do a system and ground check and found our digester pump stilled clogged I tried to back flush but was not able to get valves open. The balloon is growing so I vented for one hour. The auto bilge pump failed so I pumped surface water with two pumps for 2 hours.

### 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	

<b>Anaerobic</b>			
<b>Mixing Pump 4A</b>		<b>60 Hz</b>	
<b>Mixing Pump 4B</b>		<b>60 Hz</b>	

**BIOGAS & POWER SYSTEMS OBSERVATIONS:**

<b>Equipment Observed:</b>	<b>Operational Status</b>				
<b>Unison Gas Skid</b> <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flow Rate	Total Flow	Comp. Press.	Outlet Press.	Gauge Press.
	20.9				
<b>Microturbine</b> <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
<b>Biogas System</b>	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**

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

**PERSONNEL PRESENT:**

<b>Name</b>	<b>Affiliation</b>	<b>Phone Number/Email</b>

## LOYD 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 9-22-2018	Remote monitor Start: 7:00 AM	Remote Monitor End: 11:30PM
		Site Visit start5:30 PM	Site Visit end 6:00 PM
Condition: Temperature 64-88	<input checked="" type="checkbox"/> Clear Partly Cloudy <input type="checkbox"/> Balmy		
Precip Past 24 hours: 0.0 inches	Wind: (mph): calm 4-7mph higher during storms		

### 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 to check gas levels. I am still flaring but no venting only once.

### 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	

<b>Anaerobic</b>			
<b>Mixing Pump 4A</b>		<b>60 Hz</b>	
<b>Mixing Pump 4B</b>		<b>60 Hz</b>	

**BIOGAS & POWER SYSTEMS OBSERVATIONS:**

<b>Equipment Observed:</b>	<b>Operational Status</b>				
<b>Unison Gas Skid</b> <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flow Rate	Total Flow	Comp. Press.	Outlet Press.	Gauge Press.
	20.9				
<b>Microturbine</b> <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
<b>Biogas System</b>	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**

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

**PERSONNEL PRESENT:**

<b>Name</b>	<b>Affiliation</b>	<b>Phone Number/Email</b>

## LOYD 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 9-23-2018	Remote monitor Start: 7:00 AM  No Site Visit start	Remote Monitor End: 11:30PM  No Site Visit end
Condition: Temperature 64-85	x <input type="checkbox"/> Clear Partly Cloudy <input type="checkbox"/> Balmy		
Precip Past 24 hours: 0.0 inches	Wind: (mph): calm 4-7mph higher during storms		

### 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. No Site Visit. I am still flaring but no venting only once.

### 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	

<b>Anaerobic</b>			
<b>Mixing Pump 4A</b>		<b>60 Hz</b>	
<b>Mixing Pump 4B</b>		<b>60 Hz</b>	

**BIOGAS & POWER SYSTEMS OBSERVATIONS:**

<b>Equipment Observed:</b>	<b>Operational Status</b>				
<b>Unison Gas Skid</b> <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flow Rate	Total Flow	Comp. Press.	Outlet Press.	Gauge Press.
	20.9				
<b>Microturbine</b> <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
<b>Biogas System</b>	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**

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

**PERSONNEL PRESENT:**

<b>Name</b>	<b>Affiliation</b>	<b>Phone Number/Email</b>

## LOYD 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 9-24-2018	Remote monitor Start: 7:00 AM	Remote Monitor End: 11:30PM
		No Site Visit start	No Site Visit end
Condition: Temperature 64-85	x <input type="checkbox"/> Clear Partly Cloudy <input type="checkbox"/> Balmy		
Precip Past 24 hours: 0.0 inches	Wind: (mph): calm 4-7mph higher during storms		

### 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. No Site Visit. I am still flaring but no venting only once.

### 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	

<b>Anaerobic</b>			
<b>Mixing Pump 4A</b>		<b>60 Hz</b>	
<b>Mixing Pump 4B</b>		<b>60 Hz</b>	

**BIOGAS & POWER SYSTEMS OBSERVATIONS:**

<b>Equipment Observed:</b>	<b>Operational Status</b>				
<b>Unison Gas Skid</b> <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flow Rate	Total Flow	Comp. Press.	Outlet Press.	Gauge Press.
	20.9				
<b>Microturbine</b> <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
<b>Biogas System</b>	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**

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

**PERSONNEL PRESENT:**

<b>Name</b>	<b>Affiliation</b>	<b>Phone Number/Email</b>

## LOYD 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 9-25-2018	Remote monitor Start: 7:00 AM	Remote Monitor End: 11:30PM
		Site Visit start12:30 PM	Site Visit end 5:30 PM
Condition: Temperature 64-85	x <input type="checkbox"/> Clear Partly Cloudy <input type="checkbox"/> Balmy		
Precip Past 24 hours: 0.0 inches	Wind: (mph): calm 4-7mph higher during storms		

### 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 to do a system and ground check and found our digester pump stilled clogged I tried to back flush to see if I could break it free. but was not able to get break it free. I am still flaring but no venting only once. The auto bilge pump failed so I pumped surface water with two pumps for the entire 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	

<b>Anaerobic</b>			
<b>Mixing Pump 4A</b>		<b>60 Hz</b>	
<b>Mixing Pump 4B</b>		<b>60 Hz</b>	

**BIOGAS & POWER SYSTEMS OBSERVATIONS:**

<b>Equipment Observed:</b>	<b>Operational Status</b>				
<b>Unison Gas Skid</b> <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flow Rate	Total Flow	Comp. Press.	Outlet Press.	Gauge Press.
	20.9				
<b>Microturbine</b> <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
<b>Biogas System</b>	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**

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

**PERSONNEL PRESENT:**

<b>Name</b>	<b>Affiliation</b>	<b>Phone Number/Email</b>

## LOYD 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 9-26-2018	Remote monitor Start: 7:00 AM	Remote Monitor End: 11:30PM
		Site Visit start 12:30 PM	Site Visit end 5:45 PM
Condition: Temperature 64-76	<input checked="" type="checkbox"/> Clear Partly Cloudy <input checked="" type="checkbox"/> Cloudy and raining off and on <input type="checkbox"/> Balmy		
Precip Past 24 hours: 0.0 inches	Wind: (mph): calm 4-7mph higher during storms		

### 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 to do a system and ground check and found our digester pump stilled clogged I tried to back flush to see if I could break it free. but was not able to get break it free. I am still flaring but no venting only once. The auto bilge pump failed so I pumped surface water with two pumps for the entire 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	

<b>Jet Motive Pump # 2</b>		<b>60Hz</b>	
<b>Blower</b>		<b>30Hz</b>	
<b>Anaerobic</b>			
<b>Mixing Pump 4A</b>		<b>60 Hz</b>	
<b>Mixing Pump 4B</b>		<b>60 Hz</b>	

**BIOGAS & POWER SYSTEMS OBSERVATIONS:**

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

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

**PERSONNEL PRESENT:**

<b>Name</b>	<b>Affiliation</b>	<b>Phone Number/Email</b>

## LOYD 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 9-27-2018	Remote monitor Start: 7:00 AM	Remote Monitor End: 11:30PM
		Site Visit start10:30 AM	Site Visit end 3:30 PM
Condition: Temperature 64-76	<input type="checkbox"/> Clear Partly Cloudy <input checked="" type="checkbox"/> Cloudy and raining off and on <input type="checkbox"/> Balmy		
Precip Past 24 hours: 0.20 inches	Wind: (mph): calm 4-7mph higher during storms		

### 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 to do a system and ground check and found our digester pump stilled clogged I tried to back flush to see if I could break it free. I finally got the Digester pump to work and I plan to let it run all night to get it cleaned out. I am still flaring but no venting only once. The auto bilge pump failed so I pumped surface water with two pumps for the entire 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	

<b>Jet Motive Pump # 2</b>		<b>60Hz</b>	
<b>Blower</b>		<b>30Hz</b>	
<b>Anaerobic</b>			
<b>Mixing Pump 4A</b>		<b>60 Hz</b>	
<b>Mixing Pump 4B</b>		<b>60 Hz</b>	

**BIOGAS & POWER SYSTEMS OBSERVATIONS:**

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

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

**PERSONNEL PRESENT:**

<b>Name</b>	<b>Affiliation</b>	<b>Phone Number/Email</b>

## LOYD 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 9-28-2018	Remote monitor Start: 7:00 AM	Remote Monitor End: 11:30PM
		Site Visit start 11:30 AM	Site Visit end 3:30 PM
Condition: Temperature 64-76	x <input type="checkbox"/> Clear Partly Cloudy <input type="checkbox"/> Balmy		
Precip Past 24 hours: 1.30 inches		Wind: (mph): calm 4-7mph higher during storms	

### 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 to do a system and ground check and found our digester pump still working so I put it on the auto cycle. Pumped surface water during site visit. Vented at 2 ports for 2 hours.

### 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	

<b>Anaerobic</b>			
<b>Mixing Pump 4A</b>		<b>60 Hz</b>	
<b>Mixing Pump 4B</b>		<b>60 Hz</b>	

**BIOGAS & POWER SYSTEMS OBSERVATIONS:**

<b>Equipment Observed:</b>	<b>Operational Status</b>				
<b>Unison Gas Skid</b> <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flow Rate	Total Flow	Comp. Press.	Outlet Press.	Gauge Press.
	20.9				
<b>Microturbine</b> <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
<b>Biogas System</b>	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**

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

**PERSONNEL PRESENT:**

<b>Name</b>	<b>Affiliation</b>	<b>Phone Number/Email</b>

## LOYD 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 10-01-2018	Remote monitor Start: 7:00 AM	Remote Monitor End: 11:30PM
		Site Visit start 9:30 AM	Site Visit end 2:00 PM
Condition: Temperature 64-76	x <input type="checkbox"/> Clear Partly Cloudy <input type="checkbox"/> Balmy		
Precip Past 24 hours: 0.00 inches	Wind: (mph): calm 4-7mph higher during storms		

### 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 to do a system and ground check and found our digester pump still working so I kept it on the auto cycle. Pumped surface water during 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	

<b>Anaerobic</b>			
<b>Mixing Pump 4A</b>		<b>60 Hz</b>	
<b>Mixing Pump 4B</b>		<b>60 Hz</b>	

**BIOGAS & POWER SYSTEMS OBSERVATIONS:**

<b>Equipment Observed:</b>	<b>Operational Status</b>				
<b>Unison Gas Skid</b> <i>Fault?</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flow Rate	Total Flow	Comp. Press.	Outlet Press.	Gauge Press.
	20.9				
<b>Microturbine</b> <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
<b>Biogas System</b>	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**

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

**PERSONNEL PRESENT:**

<b>Name</b>	<b>Affiliation</b>	<b>Phone Number/Email</b>