



NPDES Compliance Sampling Inspection Report

Kedem Winery

1519 RTE 9W
Marlboro, New York 12542

NPDES Permit: NY0219011

Inspection Date: August 20, 2024

Report Prepared by:

**MOLLY
HILLENBRAND** Digitally signed by MOLLY
HILLENBRAND
Date: 2024.09.25 07:29:59
-04'00'

Molly Hillenbrand, Life Scientist

Report Approved by:

PHILIP COCUZZA Digitally signed by PHILIP
COCUZZA
Date: 2024.09.25 06:55:44 -04'00'

Phil Cocuzza, Supervisor Monitoring
Operations Section

1.0 OBJECTIVE

On August 20, 2024, the United States Environmental Protection Agency (USEPA) conducted a National Pollutant Discharge Elimination System (NPDES) Compliance Sampling Inspection (CSI) at Kedem Winery. The objective of the NPDES CSI was to gather information necessary to determine compliance with the requirements and limitations of their NPDES permit number NY0219011. The facilities NPDES Permit became effective on April 8, 2013, and has been administratively extended and is in effect until March 31, 2028.

2.0 KEY PARTICIPANTS

Listed below are key inspection participants and contact information, grouped by organization.

U.S. Environmental Protection Agency

Molly Hillenbrand, Lead Inspector
Hillenbrand.molly@epa.gov, (732) 321-4452

Thuan Tran, Physical Scientist

Kedem Winery

Ruven Herzog, Facility Manager
ruvenherzog@kedem.com, 845-236-4000 Ext 290

Singh Operational Services Inc.

Matt DelCoco, Operator
info@singh-ops.com, 717-278-7338

Chandra Singh, President/ Owner
sludgemanpa@singh-ops.com, 717-464-7395

3.0 FACILITY DESCRIPTION

3.1 General Information

Constructed in 1985, Kedem Winery is located at 1519 US Route 9W, Marlboro, New York 12542. The facility manufactures both grape juice (80%) and wine (20 %), producing approximately 2.5 million gallons per year. Kedem Winery is categorized under Standard Industrial Classification (SIC) Code: 2084 Wines, Brandy, And Brandy Spirits. The processing facility operates from 8am to 5pm, Sunday through Thursday. The facility employs 2 workers at the wastewater treatment plant and 10 workers at the Juice/Wine processing facility.

3.2 Process Information

Kedem Winery utilizes well water for its manufacturing and sanitary systems. The sanitary and process wastewater is separately discharged. Wastewater from domestic usage is sent to a septic field separate from the wastewater treatment plant. The process wastewater and rainwater captured in the drainage system is directed to the on-site wastewater treatment plant and directly discharged to an unnamed tributary which flows to the Hudson River.

The wastewater generated from the juice and wine production processes changes throughout the season. During the Pressing Season, which lasts roughly between mid-September through October, the facility receives grapes from New York suppliers. The trucks unload the grapes into a crusher/ stemmer where the stems are removed, and the grape skins are broken. The crushed grapes are mixed with enzymes. The crushed/ destemmed grapes continue to a screw press where the skins and seed can be pressed out. The pressed juice proceeds to a centrifuge to further remove the pomace (stems, skins, and seed residue). The pomace and stems are disposed of via landfill.

The juice is pumped to the filter room in which it can be filtered/concentrated using either diatomaceous earth (DE) or ceramic membrane filters. The DE can cause disruptions to the wastewater treatment system and therefore a portion of the DE is removed and disposed of via landfill. Juice slurries from the filtering process is routed to the treatment system. The concentrated juice is pumped to a tank for pasteurization. Following pasteurization, the juice is held in storage tanks. The juice or wine may be stored for up to 12 months; during this time the juice is circulated through tanks, refiltered, settled, and pasteurized. When ready to bottle, the juice/wine is transported to Kedem's Bayonne, New Jersey facility. Equipment may be rinsed with water or thoroughly cleaned with water/ caustics. Floor drains throughout the facility capture wastewater and directs it to the wastewater treatment plant.

The process water/ rainwater captured in the drainage system is directed to the wastewater treatment plant where it collects in an equalization pump pit (Photograph 1). From the equalization pump pit the wastewater is pumped to an equalization tank. The equalization

tank's aerators have not been in use therefore the equalization tank acts as a settling tank. Wastewater from the equalization tank is pumped through a fine screen (Photograph 2). The screened liquid solid excess is deposited into a collection bin and pumped to the equalization pump pit. The screened effluent continues through a microscreen (Photograph 3) further removing solids. The microscreen is maintained by periodic rinsing to prevent clogging. Rinsed water from the microscreen enters drains and is returned to the equalization pump pit. The screened filtrate flows in sequence through the activated sludge aeration tanks (Photograph 4). When needed, Phosphorous and Urea can be fed into the aeration tanks to promote microbial growth. From the aeration tank, the mixed liquid is directed in sequence through an Ultrafiltration Membrane filter system (photograph 5). The filtered effluent flows through an in-line electromagnetic flow meter and into a collection tank. From the collection tank the effluent continues through a pvc pipe and is discharged at Outfall 001 (Photograph 6).

Sludge from the aeration tanks is either wasted as Waste Activated Sludge (WAS) or returned as Returned Activated Sludge (RAS). Waste activated sludge from the aeration tanks is held in one of the two sludge holding tanks. Wasting is performed at regular intervals. Sludge from the holding tanks is regularly hauled by Earthcare to an offsite disposal location.

3.3 Facility Self-Monitoring Information

Permit compliance sampling is performed and collected by Singh Operational Services Inc. operators contracted by Kedem Winery. On-site samples are collected and analyzed for pH and dissolved oxygen. In coordination with the contract laboratory, Pace Analytical, located in Newburg, NY; grab samples are collected and analyzed for cBOD5, TSS, TKN, Ammonia (NH3) and settleable solids. Samples are transferred into laboratory bottles supplied by Pace Analytical and delivered to the laboratory for analysis. In addition, Pace Analytical calculates the Ultimate Oxygen Demand.

4.0 EPA SAMPLING/INSPECTION ACTIVITIES

4.1 Sampling Activities

Grab samples were collected and analyzed for, pH, settleable solids, and dissolved oxygen. Additionally grab samples were collected for cBOD5, TSS, TNK, and NH3. All samples were collected directly from Outfall 001.

All sample containers, preservation techniques and holding times were in accordance with USEPA requirements specified in 40 CFR Part 136. All samples were transported on ice to the USEPA Laboratory in Edison, New Jersey for analyses.

Facility representatives provided Flow data.

Split samples were collected and given to the facility representative.

4.2 Inspection Activities

A NPDES compliance sampling inspection was conducted on August 20th, 2024. The inspectors met with Ruven Herzog, Kedem Winery, Facility Manager; Matt DelCoco, the contract Operator for Kedem Winery employed by Singh Operational Services Inc., and the president/owner of Singh Operational Services Inc., Chandra Singh. Inspector’s credentials were presented, and the facility representatives were informed that the purpose of the inspection, with supporting on-site activities, was to determine if the facility is in compliance with their NPDES permit NY0219011.

On-site supporting activities consisted of collecting samples at the monitoring location, observing and evaluating the monitoring location, observing and evaluating the flow monitoring equipment, observing and evaluating the facility sampling equipment, reviewing and evaluating the facility’s laboratory data and test procedures, touring the manufacturing operation to observe where process wastewater is generated, touring the On-site Wastewater Treatment System, and interviewing the facility’s representatives. During the closing conference, the facility representatives were briefed on the inspection activities. On-site sample results and concerns observed during the inspection were communicated to the facility representatives.

5.0 ANALYTICAL RESULT

Kedem Winery - Outfall 001
Inspection Dates: 08/20/2024

Parameter	Sample Type	Units	Permit Limit	EPA Result
Flow	Continuous	Gpd	20,000	10,798
pH	Grab	SU	6.5-8.5	8.3
Settleable Solids	Grab	mg/l	0.3	<0.3
Dissolved Oxygen *	Grab	mg/l	7.0	1 st Run: 5.0 2 nd Run:5.1
Ammonia *	Grab	mg/l	1.5	U
TKN	Grab	mg/l	Monitor	0.675 K
TSS	Grab	mg/l lb/day	45 7.51	U
CBOD5	Grab	mg/l	Monitor	3.72
UOD *	Grab	mg/l lb/day	50 8.34	2.5 0.226

Notes: U = analyte was not detected at or above the reporting limit
 K = Result may be biased high. The actual value is expected to be less than the reported value.
 * Monitoring period June 1-Oct 31
 UOD= 1.5 x CBOD5 + 4.5 x TKN

6.0 FINDINGS

6.1 Sampling Result Findings

The EPA analytical results obtained during this inspection show the following parameter(s) as being outside of the acceptable limits:

According to the SPDES Permit, the daily minimum for dissolved oxygen from June 1 – Oct 31 is 7.0 mg/l. The analytical result for dissolved oxygen from the two runs is an average of 5.05 mg/l.

6.2 Inspection Findings

In addition to the sampling, an inspection of the facility operations was conducted as discussed in Section 4.2 above. During this inspection the following observations were noted which may contravene the requirements of the permit or the applicable regulations:

6.2.1 According to the facility representative the flow meter was last calibrated in June 2023. The flow meter should be calibrated at least once a year to ensure flow measurements are accurately recorded. According to 40 CFR Part 122.41(e) – Proper Operation and Maintenance, it states, *“The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit.”*

6.2.2 According to the SPDES Permit, the mass loading calculation for TSS and UOD are in pounds per day (lbs./d). According to, NYSDEC DMR Manual for Completing the Discharge Monitoring Report for State Pollution Discharge Elimination System (SPDES) – 2002, daily is defined as *“the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling.”*, *“For pollutants expressed in units of mass loading (lbs/day or kg/day), the ‘daily discharge’ is calculated as the total mass loading of the pollutant discharged over the day.”* TKN, CBOD5 and TSS are all collected as a singular grab sample and therefore the resulting mass loading calculation for these parameters is not indicative of a calendar day.

7.0 Attachments

Attachment 1: USEPA Chain of Custody for Samples was submitted to the USEPA Region 2 Laboratory in Edison, NJ on August 20, 2024

Attachment 2: The USEPA Analytical Data Package was received on September 2, 2024

Attachment 3: Flow Schematic of Kedem Winery's Wastewater Treatment Plant

Attachment 4: Kedem Winery Wastewater Treatment Plant Diagram

8.0 Photographs

Photograph 1: The Equalization Pump Pit collects the facilities process water and storm water

Photograph 2: The fine screen removes solids from the wastestream. The solids collected in the collection tub are pumped back to the equalization pump pit.

Photograph 3: The microscreen further screens out solids from the waste stream.

Photograph 4: The on-site treatment systems equalization tank (right) is to the right and two aeration tanks (left).

Photograph 5: The effluent then flows in sequence through an Ultra Filter Membrane filter system.

Photograph 6: Outfall 001 identification sign, treated effluent discharges into an unnamed tributary that flows to the Hudson River at Outfall 001.

Photograph 7: Representative samples were collected directly from Outfall 001.

7.0
ATTACHMENTS

**US EPA REGION 2 LABORATORY
CHAIN OF CUSTODY/ FIELD DATA FORM**

SURVEY NAME & LOCALITY Kedem Winery

PROJECT LEADER Molly Hillenbrand

PROGRAM: SF :

SITE ID _____

OPERABLE UNIT _____

PROGRAM RESULTS CODE _____

Decision RCRA RCRA ENF NPDES SDWA AM CAA

TSCA OD FIFRA CRIMINAL ENF

Unit Code Y206

D210 D307

B304

C215

B224

A305

L306

B253

LAB ID/ FIELD ID	CONTERS # OF	MATRIX	CHECK IF SPLIT SAMPLE	DESCRIPTION & INSTRUCTIONS INCLUDING LOCATION, ESTIMATED CONCENTRATIONS, SPECIAL REPORTING LIMITS, SPECIAL TEST REQUIREMENTS & ALIQUOTING	Res CL Checked	Preservative (circle)	Collection Time (24hr clock)		Collection Date mm/dd/yy
							Begin	End	
Outfall 001 (Grab sample)	2	A	<input type="checkbox"/>	2, 1000 ml Plastic Bottle, CBOD5, Grab	240801201 <input type="checkbox"/>	0		12:37	8/20/2024
	1	A	<input type="checkbox"/>	1, 500 ml Plastic Bottle, TSS, Grab	<input type="checkbox"/>	0		12:37	8/20/2024
	1	A	<input type="checkbox"/>	1, 250 ml Plastic bottle, TKN/ NH3, Grab	<input type="checkbox"/>	0,1		12:37	8/20/2024
			<input type="checkbox"/>		<input type="checkbox"/>				
			<input type="checkbox"/>		<input type="checkbox"/>				
			<input type="checkbox"/>		<input type="checkbox"/>				
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			<input type="checkbox"/>		<input type="checkbox"/>				

Comments and Special Requirments

1=H2SO4 pH<2	8=ZnAc
2=HNO3 pH<2	9=NaOH pH>12
3=HCl pH<2	10=NH4Cl
4=Na2S2O3	
5=NaOH pH>9	
6=Ascorbic Acid	
Time	Date

Matrix: A=aqueous B=aqueous (chlorinated) C=soil D=sediment E=sludge F=multiphasic G=solvent H=biota I=oil J=other	Relinquished By: Molly Hillenbrand	Person Assuming Responsibility for Sample(s) Molly Hillenbrand	12:37	8/20/2024
	Relinquished By: <i>Molly Hillenbrand</i>	Received By: <i>[Signature]</i>	17:00	8/20/24
	Relinquished By:	Received By:		

Survey Complete? Y N

Direct from sampling, chilling & filtered. at 8/20/24



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

**Region 2 Laboratory
2890 Woodbridge Avenue
Edison , New Jersey 08837
732-906-6886 Phone
732-906-6165 Fax**

August 29, 2024

Philip Cocuzza
Monitoring & Assessment Branch
LSASD/MAB
Edison, NJ 08837

RE: Kedem Winery - 2408012

Enclosed are the results of analyses for samples received by the laboratory on 08/20/2024. The signature below reflects the laboratory's approval of the reported results. If you have any questions concerning this report, please refer to Project Number 2408012 and contact the laboratory.

Sincerely,

A handwritten signature in black ink, appearing to read "John R. Bourbon". The signature is fluid and cursive.

John R. Bourbon
Chief, LSASD/LB



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Final Report

Project: Kedem Winery - 2408012

Project Number: 2408012

Project Narrative:

The National Environmental Laboratory Accreditation Conference Institute (TNI) is a voluntary environmental laboratory accreditation association of State and Federal agencies. TNI established and promoted a National Environmental Laboratory Accreditation Program (NELAP) that provides a uniform set of standards for the generation of environmental data that are of known and defensible quality. The EPA Region 2 Laboratory is NELAP accredited. The Laboratory tests that are accredited have met all the requirements established under the TNI Standards.

Condition Comments

None

Comment(s):

The "Sample Analysis Date and Time" is included in the results section for any analyte with a prescribed holding time of 72 hours or less.

Data Qualifier(s):

- U- The analyte was not detected at or above the Reporting Limit.
- J- The identification of the analyte is acceptable; the reported value is an estimate.
- K- The identification of the analyte is acceptable; the reported value may be biased high.
- L- The identification of the analyte is acceptable; the reported value may be biased low.
- NJ- There is presumptive evidence that the analyte is present; the analyte is reported as a tentative identification. The reported value is an estimate.



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory**

Final Report

Project: Kedem Winery - 2408012

Project Number: 2408012

Reporting Limit(s):

The Laboratory was able to achieve the appropriate limit for each analyte requested.

SUMMARY REPORT FOR SAMPLES

Field ID	Laboratory ID	Matrix	Date Sampled	Date Received
Outfall 001(Grab Sample)	2408012-01	Aqueous	08/20/2024 12:37	08/20/2024 17:00



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Final Report

Project: Kedem Winery - 2408012

Project Number: 2408012

SUMMARY REPORT FOR METHODS

Analysis	Method	Certification	Matrix
Ammonia [As N]	EPA 350.1 SOP C-80 Rev 2.8	NELAP	Aqueous
Biochemical Oxygen Demand, Carb.	SM 5210B SOP C-21 Rev 2.8	NELAP	Aqueous
Nitrogen, Total Kjeldahl	EPA 351.2 SOP C-40 Rev2.8	NELAP	Aqueous
Residue, Non-Filterable	SM 2540D SOP C-33 Rev 3.8	NELAP	Aqueous



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory**

**Final Report
Project: Kedem Winery - 2408012
Project Number: 2408012**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch	Date and Time of Analysis*
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Field ID: Outfall 001(Grab Sample)

Sample ID: 2408012-01

Sanitary

Ammonia [As N]	---	U	0.100	mg/L	B408114	
Biochemical Oxygen Demand, Carb.	3.72		2.00	mg/L	B408105	08/26/2024 07:50
Nitrogen, Total Kjeldahl	0.675	K	0.100	mg/L	B408113	
Total Suspended Solids	---	U	10.0	mg/L	B408106	



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Final Report

Project: Kedem Winery - 2408012

Project Number: 2408012

Sanitary - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B408105									
Blank (B408105-BLK1)									
Biochemical Oxygen Demand, Carb.	--- U	2.00	mg/L						
LCS (B408105-BS1)									
Biochemical Oxygen Demand, Carb.	183		mg/L	198.0		92.5	84.6-115.4		
LCS (B408105-BS2)									
Biochemical Oxygen Demand, Carb.	176		mg/L	198.0		88.9	84.6-115.4		
LCS (B408105-BS3)									
Biochemical Oxygen Demand, Carb.	178		mg/L	198.0		89.7	84.6-115.4		
Matrix Spike (B408105-MS1) Source: 2408012-01									
Biochemical Oxygen Demand, Carb.	317	2.00	mg/L	396.0	3.72	79.2	75-125		
Matrix Spike Dup (B408105-MSD1) Source: 2408012-01									
Biochemical Oxygen Demand, Carb.	322	2.00	mg/L	396.0	3.72	80.3	75-125	1.31	200
Batch B408106									
Blank (B408106-BLK1)									
Residue, Non-Filterable	--- U	10.0	mg/L						
LCS (B408106-BS1)									
Residue, Non-Filterable	45.0	10.0	mg/L	46.40		97.0	85-115		
LCS Dup (B408106-BSD1)									
Residue, Non-Filterable	46.0	10.0	mg/L	46.40		99.1	85-115	2.20	20



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Final Report
Project: Kedem Winery - 2408012
Project Number: 2408012
Sanitary - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B408106									
Duplicate (B408106-DUP1)		Source: 2408012-01							
Residue, Non-Filterable	--- U	10.0	mg/L		ND				20
Batch B408113									
Blank (B408113-BLK1)									
Nitrogen, Total Kjeldahl	--- U	0.100	mg/L						
Blank (B408113-BLK2)									
Nitrogen, Total Kjeldahl	--- U	0.100	mg/L						
LCS (B408113-BS1)									
Nitrogen, Total Kjeldahl	13.5	0.200	mg/L	12.40		109	90-110		
LCS Dup (B408113-BSD1)									
Nitrogen, Total Kjeldahl	13.7	0.200	mg/L	12.40		110	90-110	1	20
Matrix Spike (B408113-MS1)		Source: 2408012-01							
Nitrogen, Total Kjeldahl	5.41	0.100	mg/L	4.000	0.675	118	90-110		
Batch B408114									
Blank (B408114-BLK1)									
Ammonia [As N]	--- U	0.100	mg/L						
LCS (B408114-BS1)									
Ammonia [As N]	1.09	0.100	mg/L	1.030		105	90-110		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

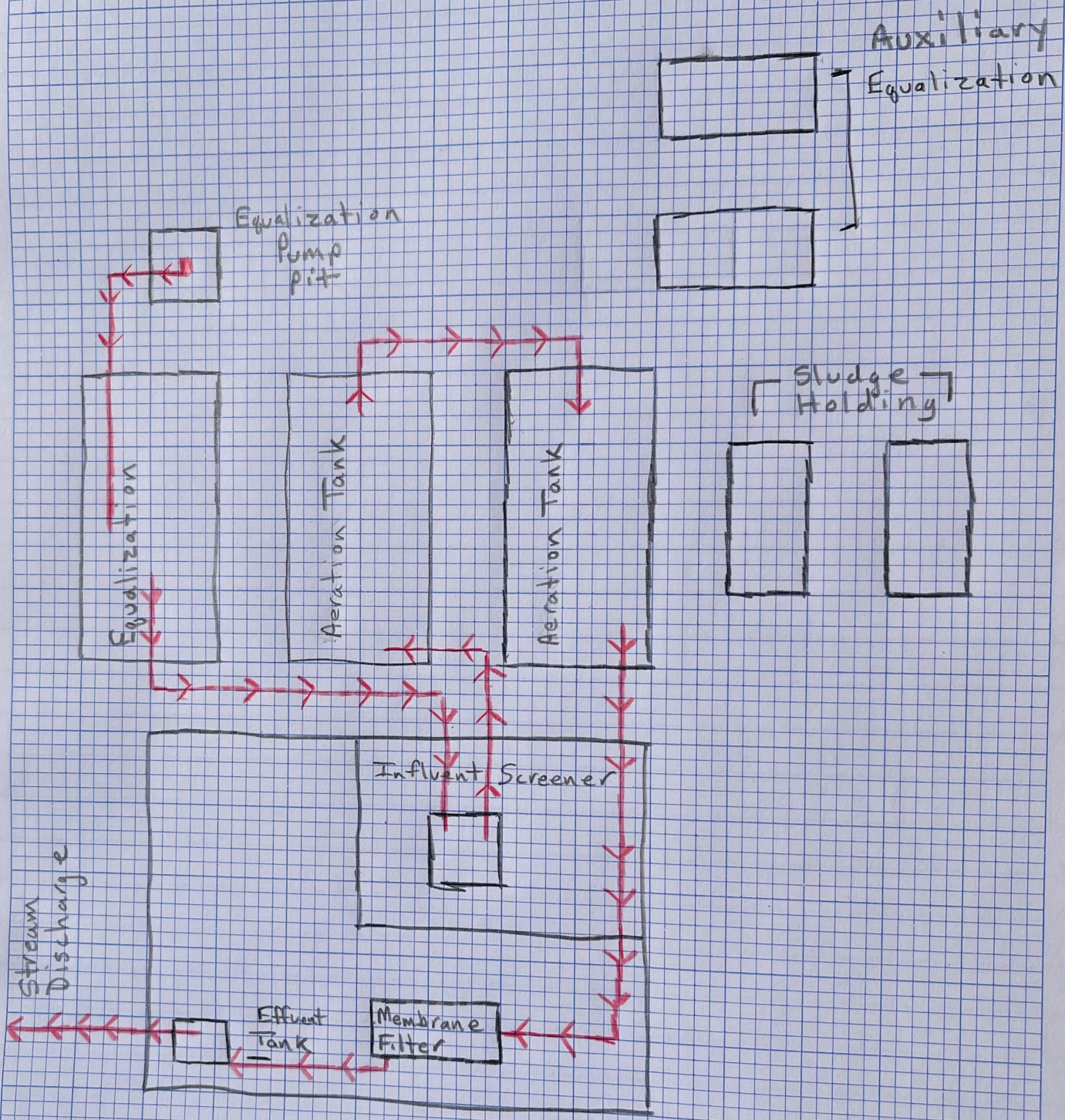
Final Report

Project: Kedem Winery - 2408012

Project Number: 2408012

Sanitary - Quality Control

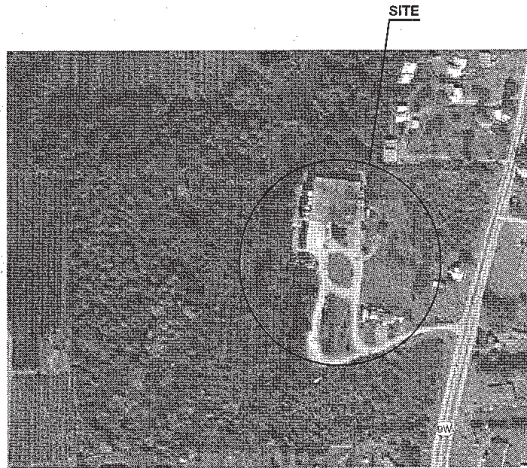
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B408114									
LCS Dup (B408114-BSD1)									
Ammonia [As N]	1.06	0.100	mg/L	1.030		103	90-110	3	20
Matrix Spike (B408114-MS1)									
Source: 2408012-01									
Ammonia [As N]	0.550	0.100	mg/L	0.5000	0.0638	97	90-110		



KEDEM WINERY

MARLBORO, NEW YORK

WASTEWATER TREATMENT SYSTEM UPGRADE



VICINITY MAP

DRAWING INDEX:

000	COVER SHEET
101	PROCESS AND INSTRUMENTATION DIAGRAM
102	SITE PLAN
103	YARD PIPING PLAN
104	ENLARGED YARD PIPING PLAN
105	GRADING, SOIL EROSION AND SEDIMENTATION CONTROL PLAN
△ 106	HYDRAULIC PROFILE
201	BUILDING PLAN AND SECTIONS
202	BUILDING ELEVATIONS
203	BLOWERS PLAN AND SECTION, TANK PLAN AND SECTION
401	HVAC BUILDING PLAN, SCHEDULES AND DETAILS
501	SINGLE LINE DIAGRAM
502	ELECTRICAL SITE PLAN
503	BUILDING LIGHTING PLAN

No.	ISSUED FOR / REVISION DESCRIPTION	DATE	BY
4	CONSTRUCTION	6/17/13	ACH
3	DEC PERMITTING	5/6/13	ACH
2	BIDS	4/26/13	ACH
1	GMP PROPOSAL	12/6/12	ACH
0	PRELIMINARY BIDS	10/11/12	ACH

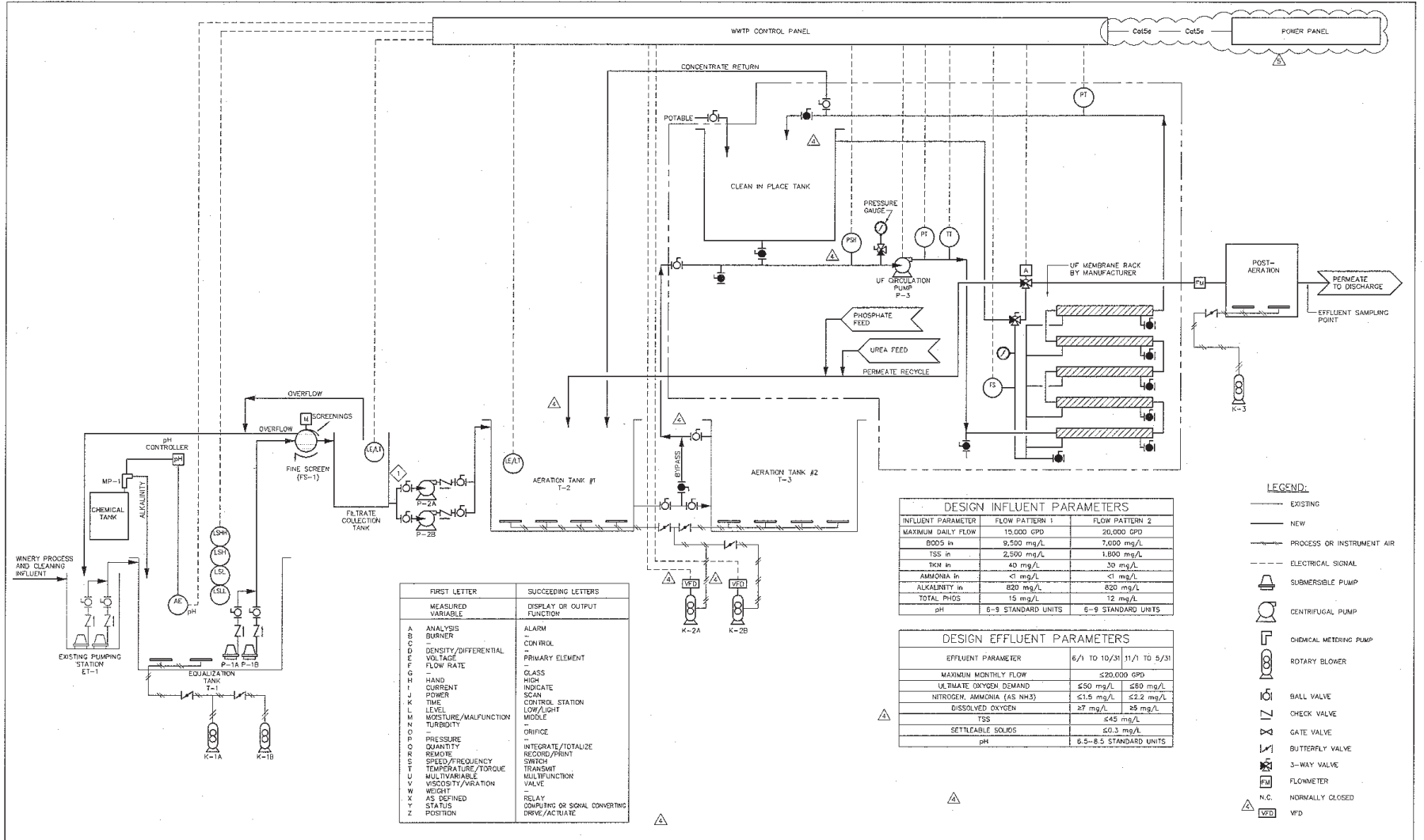


FRAZER, PENNSYLVANIA
(610) 407-4100
KEGI.NET

KEDEM WINERY
MARLBORO, NY

COVER SHEET

Drawn By: CMB/KOR
Designed By: JRA
Approved By: ACH
Date: 7/23/12
Scale: NONE
Drawing No.
000



FIRST LETTER	SUCCESSING LETTERS
MEASURED VARIABLE	DISPLAY OR OUTPUT FUNCTION
A ANALYSIS	ALARM
B BURNER	CONTROL
C DENSITY/DIFFERENTIAL VOLTAGE	PRIMARY ELEMENT
F FLOW RATE	GLASS
G HIGH	HIGH
I CURRENT	INDICATE
J POWER	SCAN
K TIME	CONTROL STATION
L LEVEL	LOW/LIGHT
M MOISTURE/MALFUNCTION	MIDDLE
N TURBIDITY	ORIFICE
P PRESSURE	INTEGRATE/TOTALIZE
Q QUANTITY	RECORD/PRINT
R REMOVE	SWITCH
S SPEED/FREQUENCY	TRANSMIT
T TEMPERATURE/TORQUE	MULTIFUNCTION VALVE
U MULTIVARIABLE	RELAY
V VISCOSITY/VIBRATION	COMPUTING OR SIGNAL CONVERTING DRIVE/ACTUATE
W WEIGHT	
X AS DESTINED	
Y STATUS	
Z POSITION	

INFLUENT PARAMETER	DESIGN INFLUENT PARAMETERS	
	FLOW PATTERN 1	FLOW PATTERN 2
MAXIMUM DAILY FLOW	15,000 GPD	20,000 GPD
BOD5 in	9,500 mg/L	7,600 mg/L
TSS in	2,500 mg/L	1,800 mg/L
TKN in	40 mg/L	30 mg/L
AMMONIA in	<1 mg/L	<1 mg/L
ALKALINITY in	820 mg/L	820 mg/L
TOTAL PHOS	15 mg/L	12 mg/L
pH	6-9 STANDARD UNITS	6-9 STANDARD UNITS

EFFLUENT PARAMETER	DESIGN EFFLUENT PARAMETERS	
	6/1 TO 10/31	11/1 TO 5/31
MAXIMUM MONTHLY FLOW	≤20,000 GPD	
ULTIMATE OXYGEN DEMAND	≤50 mg/L	≤80 mg/L
NITROGEN, AMMONIA (AS NH3)	≤1.5 mg/L	≤2.2 mg/L
DISSOLVED OXYGEN	≥7 mg/L	≥5 mg/L
TSS	≤45 mg/L	
SETTLABLE SOLIDS	≤0.3 mg/L	
pH	6.5-8.5 STANDARD UNITS	

- LEGEND:**
- EXISTING
 - NEW
 - PROCESS OR INSTRUMENT AIR
 - ELECTRICAL SIGNAL
 - ⊕ SUBMERSIBLE PUMP
 - ⊕ CENTRIFUGAL PUMP
 - ⊕ CHEMICAL METERING PUMP
 - ⊕ ROTARY BLOWER
 - ⊕ BALL VALVE
 - ⊕ CHECK VALVE
 - ⊕ GATE VALVE
 - ⊕ BUTTERFLY VALVE
 - ⊕ 3-WAY VALVE
 - ⊕ FLOWMETER
 - N.C. NORMALLY CLOSED
 - ⊕ VFD

No.	ISSUED FOR / REVISION DESCRIPTION	DATE	BY
5	CONSTRUCTION	6/12/13	ACH
4	DEC PERMITTING	5/6/13	ACH
3	BIDS	4/26/13	ACH
2	DEC SPODES PERMIT	11/23/12	ACH
1	GMP PROPOSAL	12/6/12	ACH
0	PRELIMINARY BIDS	10/1/12	ACH



FRAZER, PENNSYLVANIA
(610) 407-6100
KEGI.NET

KEDEM WINERY
MARLBORO, NY

PROCESS AND INSTRUMENTATION DIAGRAM

Drawn By: CJB/RDR
 Designed By: JA
 Approved By: ADI
 Date: 7/23/12
 Scale: AS NOTED
Drawing No. 101

8.0
PHOTOGRAPHS



Photograph 1: The Equalization Pump Pit collects the facilities process water and storm water.



Photograph 2: The fine screen removes solids from the wastestream. The solids collected in the collection tub are pumped back to the equalization pump pit.



Photograph 3: The microscreen further screens out solids from the wastestream.



Photograph 4: The on-site treatment systems equalization tank (right) is to the right and two aeration tanks (left).



Photograph 5: The effluent then flows in sequence through an Ultra Filter Membrane filter system.



Photograph 6: Outfall 001 identification sign, treated effluent discharges into an unnamed tributary that flows to the Hudson River at Outfall 001.



Photograph 7: Representative samples were collected directly from Outfall 001