CASE STUDY: WINERY

15,000 GPD MEMPAC™- I
San Luis Obispo County, CA

CLOACINA

DESIGN PARAMETERS

MODEL SUPPLIED: MEMPAC-I

INFLUENT PARAMETERS

AVERAGE DAILY FLOW	15,000 GPD
BIOCHEMICAL OXYGEN DEMAND	3,000 MG/L
TOTAL SUSPENDED SOLIDS	600 MG/L
INFLUENT TYPE	WINERY PROCESS WASTEWATER

EFFLUENT QUALITY

BIOCHEMICAL OXYGEN DEMAND	< 10 MG/L
TOTAL SUSPENDED SOLIDS	< 10 MG/L

PROJECT TEAM

CONSTRUCTION MANAGEMENT

JW DESIGN AND CONSTRUCTION
805.544.3130
www.jwdci.com

EQUIPMENT SALES REP

JBI
Brent Cromar
916.933.5500
www.jbiwater.com

ENGINEER

WALLACE GROUP
Rob Miller
805.544.4011
www.wallacegroup.us

INSTALLATION CONTRACTOR

FLUID RESOURCE MANAGEMENT
Robin Ransford
805.597.7100
www.frm-ops

PROJECT DETAILS

OVERVIEW

Cloacina provided a complete pretreatment system for a family-owned winery

The Cloacina unit was delivered in one, factory-assembled treatment train

The unit was installed and ready to receive process waste within 21 business days from the date of delivery

Cloacina provided the winery staff with an Operations and Maintenance Manual (OMM), operator checklist, draft reporting documents, necessary Standard Operating Procedures (SOP) and on-site training

The Client currently utilizes treated effluent for facility landscaping and irrigation and has yet to discharge wastewater to the sanitary sewer connection

"I would highly recommend Cloacina to anyone looking for a range of projects from septic lift stations to winery wastewater treatment plants."

-Project Owner

For project videos, additional photos and more information, visit cloacina.com/15k-winery-mempac-i

CLOACINA SUPPLIED THE FOLLOWING FOR THIS PROJECT:

LIFT STATION: *Package fiberglass duplex pump station which includes: slide rails, pump bases, pumps, level transducer, redundant floats, valve vault, isolation valves, aluminum lid and two locking hatches*

HEADWORKS: *25,000 gallon equalization storage, equalization pumps, influent flow meter, self-cleaning auger screen, grit trap and automated pH correction system with sensor, pump and controls*

PRIMARY TREATMENT: *Roughing filter, fixed media, distribution header, aeration blower and header and aeration feed valve*

SECONDARY TREATMENT: *Fine bubble aeration diffusers, aeration blower, dissolved oxygen sensor and RAS pump*

CLARIFICATION: *Flat sheet membrane cassette, level transducer, air supply valve, permeate pump, CFM meter, online MLSS meter, clean-in-place pump, effluent pump, effluent flow meter and sludge wasting pump*

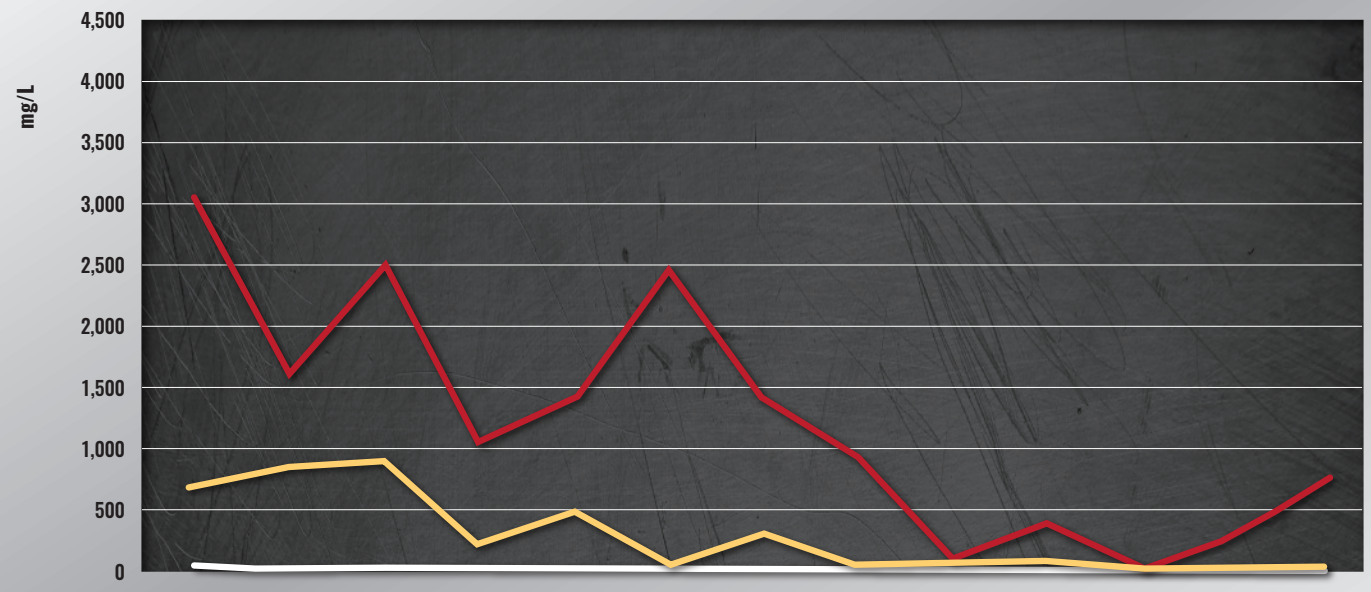
CONTROLS: *Stainless steel MCC panel, touch screen controls computer, SCADA program and isolation switches*

ADDITIONAL: *Aluminum stairs and catwalk, automatic cleaning of sensory equipment, stormwater lift station and irrigation pump skid*

SOLIDS DISPOSAL: *8 GPM volute dewatering press with 10,000 gallon aerated storage tank and polymer addition system*

SAMPLE RESULTS: 2016 HARVEST

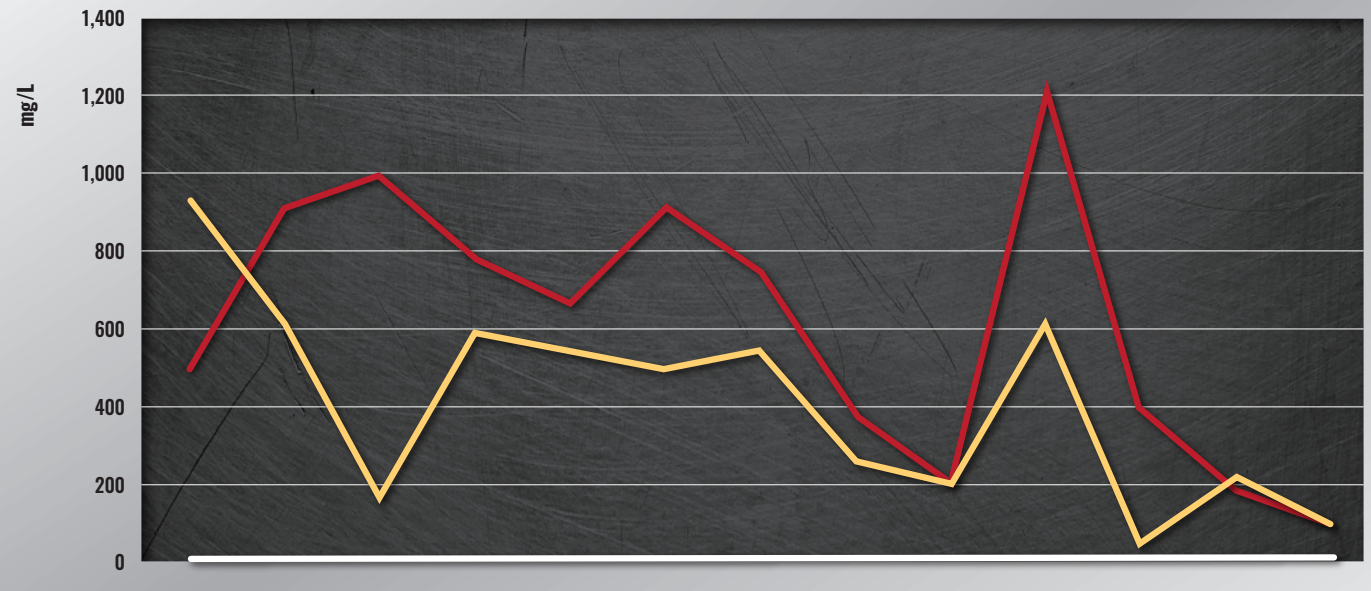
2016 HARVEST - BOD



	10/14	10/18	10/25	11/02	11/09	11/16	11/22	11/30	12/08	12/15	12/21	01/19	01/27
Influent	3,054	1,616	2,520	1,050	1,428	2,466	1,429	936	85	403	24	300	777
Filter	688	852	909	216	479	45	314	46	52	81	9	45	20
Effluent	31	0	5	0	0	0	0	0	0	0	0	0	0

Graph illustrates Biochemical Oxygen Demand (BOD) reduction within the MEMPAC-I from system start-up through 2016 harvest

2016 HARVEST - TSS



	10/14	10/18	10/25	11/02	11/09	11/16	11/22	11/30	12/08	12/15	12/21	01/19	01/27
Influent	485	910	990	780	660	914	743	380	212	1,200	394	176	90
Filter	923	610	156	590	540	491	540	256	204	616	45	212	86
Effluent	0	0	0	0	0	0	0	0	0	0	0	0	0

Graph illustrates Total Suspended Solids(TSS) reduction by the MEMPAC-I from system start-up through 2016 harvest