

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION
FACT SHEET
(Pursuant to NAC 445A.236)

Permittee Name: Vaquero Supplements, LLC
P.O. Box 268
Silver Springs, NV 89429

Permit Number: NEV2009510

Location: Vaquero Supplements, LLC
1700 U.S. Hwy 50 E
Silver Springs, NV 89429
Latitude: 39° 25' 15" N, Longitude: 119° 13' 2" W
Township 18N, Range 25E, Section 18 (S½ of SE¼)

Bureau of Corrective Actions (BCA): The Vaquero Supplements, LLC (Vaquero) manufacturing facility in Silver Springs, Lyon County is located outside the 1-mile radius from any BCA remediation site.

Wellhead Protection Area: Vaquero is located within the 6,000 ft. (Drinking Water Protection Area #4) distance from a public supply well. This well, owned and operated by Sports & Spirits, is defined as a Transient Non-Community supply well located 5,600 ft. southwest of Vaquero. The NDEP – iMap (GIS) application indicates that Vaquero is not located within a delineated wellhead capture zone for any public supply well.

General: In 1987, Vaquero located to its Silver Springs location to manufacture animal feed supplements for cattle and horses. In 1994, Vaquero began manufacture of a cooked molasses feed supplement for horses called Vaquero BRIX™, which are sold in 10 lb. block containers. Vaquero BRIX™ is a feed supplement formulated with cooked (evaporated) sugarcane molasses, cottonseed meal, hydrolyzed vegetable fat (vegetable oil) and a blend of vitamins and minerals. Since 1994, at the end of each production run, the molasses cooker and mixer were washed out with water and the process wastewater discharged into the plant's septic system leach field lines for sub-surface disposal. This disposal practice came to the Bureau's attention last year when the discharge pump failed causing a surface discharge of some 2,500 to 3,000 gallons of rinse water and 25 to 30 gallons of molasses onto Vaquero property. Since NDEP restricts commercial septic systems and leach fields to disposal of only sanitary (domestic) wastewater, a cease-and-desist order was issued to Vaquero last year for the existing practice of process wastewater disposal. In response, Vaquero has applied to the Bureau for a zero-discharge permit to operate a lined evaporation pond for its process wastewater discharge. The existing septic system is to remain only for disposal of the sanitary wastewater discharged from the employee restrooms and break room facilities. The Vaquero evaporation pond will be a 0.86-acre, 10 ft. deep basin lined with a single, 60-mil HDPE liner. For leak detection, a down gradient monitoring well will be installed. The pond will be located at the southwest corner of the property near U.S. Hwy. 50. The pond will be fenced and posted to keep out unauthorized personnel and animals such as wild horses. The pond cleaning schedule is proposed as removal of the concentrated molasses solution upon reaching a depth of 6 in. Proper disposal of the evaporated waste molasses includes hauling to a permitted landfill or a wastewater treatment facility since the sugarcane molasses provides a soluble source of organic material (BOD₅).

Flow: Potable water to Vaquero is now supplied by the Silver Springs Mutual Water Company. Vaquero’s monthly usage averages 58,500 gallons, of which it estimates 50,000 gallons monthly is discharged for molasses line washing. To allow for process expansion, the permit application and engineering consultant requested flow limits of 5,100 (30-day) / 8,000 (daily maximum) gallons per day for discharge into the 1,000,000 gallon capacity pond. To track flow, Vaquero will record the flow at the beginning and end of each molasses line cleaning event using a standard register water meter. The balance of its water usage is that amount used in the employee restrooms and break room.

DMR Analysis:

- *Flow:* Process wastewater flow for the past five years at Vaquero averaged 50,000 gallons per month or 1,680 gallons per day. Approximately 1% of this flow was reported to contain concentrated (evaporated) sugarcane molasses.

Receiving Water Characteristics: The permit application references Well Log # 30494, filed October 1988, to report a depth to groundwater of 24 ft. The presumed groundwater flow gradient is southeast away from the facility and towards Lake Lahontan. The leak detection well will be installed on the outer southeast berm of the evaporation pond. In addition to the standard groundwater monitoring profile (i.e., TDS, Cl, NO₃-N and TN), the facility is also required to monitor Total Oxidizable Carbon (TOC) in the groundwater as an indicator of any molasses leakage from the pond.

Proposed Effluent Limitations and Special Conditions:

Table 1: Discharge Limitations

PARAMETER	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS	
	30-Day Average	Daily Maximum	Measurement Frequency	Sample Type
Evaporation Pond Flow, GPD	5,100	8,000	Continuous	Water Meter (each line rinse)
Pond Freeboard, ft.	≥ 2.0		Monthly	Field Measurement (Staff Gage)
Molasses Hauled (Weight, lbs)	M&R ¹		Monthly	Field Measurement (each pond cleaning)
Visual Pond Liner Inspection	M&R ²		Annually (4 th Quarter)	Field Evaluation

1. The Quarterly DMR shall denote the disposal location of the waste molasses solution each time the evaporation pond is cleaned.
2. Condition of the evaporation pond liner shall be visually observed by the facility annually and the findings recorded in the Annual (4th Quarter) Report.

Table 2: Groundwater Monitoring (MW-1)

PARAMETER	GROUNDWATER LIMITATIONS	MONITORING REQUIREMENTS	
		Measurement Frequency	Sample Type
TDS, mg/L	Monitor & Report	Quarterly	Discrete
Chlorides, mg/L	Monitor & Report	Quarterly	Discrete
Nitrate as N, mg/L	Monitor & Report	Quarterly	Discrete
Total Nitrogen as N, mg/L	10.0	Quarterly	Discrete
Total Oxidizable Carbon (TOC), mg/l	Monitor & Report	Quarterly	Discrete
Depth to Groundwater, ft	Monitor & Report	Quarterly	Field Measurement
Groundwater Elevation, ft	Monitor & Report	Quarterly	Field Measurement

Schedule of Compliance: The Permittee shall submit the following item to the Division for review and approval (**all compliance deliverables shall be addressed to the attention of the Compliance Coordinator, Bureau of Water Pollution Control**):

- The Permittee shall notify the Bureau in writing no more than fourteen (14) calendar days following startup of the evaporation pond.
- Within thirty (30) days of the startup of the evaporation pond, the Permittee shall submit a copy of the engineer's Construction Quality Assurance (CQA) letter indicating that the evaporation pond was installed in accordance with the approved design plans. The CQA letter shall be wet stamped and signed by a Nevada Professional Engineer (P.E.).
- Within thirty (30) days of the startup of the evaporation pond, the Permittee shall submit a copy of the as-built design plans wet stamped and signed by a Nevada Professional Engineer (P.E.).
- Within thirty (30) days of the startup of the evaporation pond, the Permittee shall submit a copy of the well driller's log for documentation of installation of the leak detection monitoring well.
- Within ninety (90) days of the startup of the evaporation pond, the Permittee shall submit a copy of an Operations & Maintenance (O&M) Manual for the disposal pond and sampling plan, prepared in accordance with the Division's WTS-2 guidance: *Minimum Information Required for an Operations and Maintenance Manual*.

Procedures for Public Comment: The Notice of the Division's intent to issue a zero-discharge

permit for operation of an evaporation pond, subject to the conditions contained within the permit is being sent to the **Reno Gazette-Journal** and **Fernley Leader** newspapers for publication. The notice is also being electronically mailed to interested persons on our public notification mailing list.

Anyone wishing to comment on the proposed permit can do so in writing for a period of thirty (30) days following the date of publication of the public notice in the newspaper. The comment period can be extended at the discretion of the Administrator. The deadline date and time by which all comments are to be submitted (via postmarked mail or time-stamped faxes, e-mails, or hand-delivered items) to the Division is **Friday, October 2, 2009, by 5:00 P.M. PST.**

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator or any interested agency, person or group of persons.

The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted.

Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determines to be appropriate. All public hearings must be conducted in accordance with NAC 445A.238.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

Proposed Determination: The Division has made the tentative determination to issue the proposed zero-discharge effluent permit for a period of five (5) years.

Prepared by: Mark A. Kaminski, P.E.
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Technical Services Branch
NDEP Bureau of Water Pollution Control

Date: August 25, 2009