NEVADA DIVISION OF ENVIRONMENTAL PROTECTION
FACT SHEET

(Pursuant to NAC 445A.236)

Permittee Name: Encore Energy, Inc.
16640 Wedge Parkway
Reno, NV 89511

Permit Number: Temporary Discharge Permit # TNEV2009465

Location: Bango Oil, LLC (Bango Oil)
22211 Bango Road
Fallon, NV 89406 (Churchill County)
Latitude: 39° 29' 57" N, Longitude: 119° 02' 28" W
Township 19N, Range 26E, SW¼ NW¼ Section 23

Bureau of Corrective Actions Sites: There is no Bureau of Corrective Actions remediation site located within a one-mile radius of Bango Oil.

Wellhead Protection Area: Bango Oil is located outside the 6,000 ft Drinking Water Protection Area #4 (DWPA #4) for any public supply well. Bango Oil is not located within a delineated wellhead capture zone for any public supply well.

General: On March 5, 2009, the Division (Bureau of Water Pollution Control (BWPC)) received a permit application for a temporary discharge permit (# TNEV2009465) from Encore Energy, Inc. (Bango Oil, LLC). The temporary permit application from Bango Oil, LLC was in response to the Division's Order No. 2146, which required Bango Oil, LLC to treat all of the wastewater generated by the re-refining process to achieve the water quality standards required for surface application or plant reuse. A temporary discharge permit may be issued by the Division (BWPC) for a maximum of a 180 day (6 month) period of time, pursuant to NRS 445A.485, after which time the discharge shall cease or the discharger shall have applied for and received a Permanent Discharge Permit. As part of Order No. 2146, Bango Oil, LLC followed up its temporary permit application with submittal of Permanent Discharge Permit Application # NEV2009509 on March 9, 2009. The Division (BWPC) may issue a permanent discharge permit for a period of five (5) years.

Bango Oil is located one and one-quarter miles northwest of the intersection of Bango Road and U.S. Highway 50 in Churchill County. Bango Oil is an oil recycling facility, which re-refines non-hazardous, used lubrication oil (e.g., used motor oil) into a saleable resource (e.g., lubrication oil). The treated industrial (i.e., non-domestic) wastewater from this facility is proposed to be discharged for dust control on the company's property via water truck application. Internally, the treated water can be reused at the plant for washing down the concrete-lined equipment processing pads and for serving as an emergency water source for fire fighting. The proposed area of dust control application at Bango Oil is the 88-acre company land parcel, of which five acres are fenced and house the operating equipment. Dust control surfaces are defined as non-paved areas including dirt haul roads. The Division routinely permits sources of non-potable water to be used as a roadway dust control agent throughout the State of Nevada.

Bango Oil generates two industrial wastewater streams. The first industrial wastewater stream, accounting for approximately 90% of the total plant volume, will be treated effluent from an oil removal treatment works. This wastewater stream is first generated when the used lubrication oil is processed at the facility to remove tramp moisture (water) impurity content to meet a finished moisture specification (e.g., less than 1% H_2O content). To meet the Division's petroleum hydrocarbon limits for general effluent discharge and to minimize any residual hydrocarbon odor, Bango Oil has proposed an industrial treatment works consisting of chemical flocculation, dissolved air flotation (DAF), particulate filtration, air stripping (w/exhaust afterburner) and adsorption polishing (granular activated carbon or GAC). The treated effluent will be discharged into two non-potable water storage tanks, which then fill the company's water truck, provide pad wash down water and serve as an emergency source of water for fire fighting. DAF solids (sludge) are recovered in a filter press with disposal of the sludge cake at an approved landfill.

The second industrial wastewater stream is non-process contact blow down from the company's two cooling towers units, which are operated for general process cooling. This wastewater stream accounts for the other 10% of the company's industrial wastewater volume. The cooling towers units are supplied with makeup water from an on-site industrial supply well. The cooling tower water is periodically treated with a chemical de-scaling agent to minimize scale formation. During cooling tower operation, evaporation (concentration) of the water occurs, and the basin water is periodically blown down (discharged) and replenished with fresh makeup water to limit salt (TDS or Total Dissolved Solids) buildup. The cooling tower blow down is also discharged into the two non-potable water storage tanks for filling water trucks, providing pad wash down water and serving as an emergency water reserve for fire fighting.

Under Order No. 2146 and until the facility obtains its discharge permits (i.e., temporary and permanent) to discharge treated wastewater on-site, the company's industrial wastewater is being hauled by a contractor to Reno Drain Oil Services (# NEV92028), which is located at 11970 Interstate-80 East in Sparks.

Receiving Water Characteristics: Depth to groundwater in the facility's supply well was indicated to be 53 ft below ground surface in 2005 (Well Log # 98431). The facility's non-public supply well is perforated (screened) from 260 to 300 ft below ground surface. A recent analysis (2009) of this groundwater quality by the Division indicates that the local groundwater aquifer exceeds the 10 µg/l (10 ppb) Arsenic (As) drinking water standard as it had tested at 190 µg/l of arsenic level. The source of this arsenic is naturally occurring deposits within the aquifer (i.e., water-bearing formation). The application rate of non-potable water onto the ground surface by a water truck for dust control measure is not expected to adversely impact State groundwater resources since disposal of the effluent is principally by surface evaporation and groundwater recharge is not expected to occur. The proposed permit conditions prohibit any surface runoff from the water trucks and also provide a buffer zone of 100 ft from any irrigation canals.

Flow: A recording flow measurement device is required to track the volume of treated effluent discharged from this treatment works and cooling tower blow down. The permit application requests flow limits of 14,000 gals/day (30-day Average) / 21,000 gals/day (Daily Maximum).

DMR Analysis: Treated effluent data from the Bango Oil treatment works is not presently available to the Division as the untreated wastewater has been hauled off-site to Reno Drain Oil Services while the treatment works at Bango Oil is under construction.

Proposed Effluent Limitations and Special Conditions: Hydrocarbon and VOC limits in Table 1 below follow the Division's guidelines for treatment works, which remediate sources of hydrocarbon contaminants. The sampling location for the hydrocarbon and VOC parameters is the GAC discharge to monitor any sign of column breakthrough. The proposed treatment works design incorporates four (4) GAC columns operated in series-flow arrangement.

Table 1: Plant Discharge Limitations

PARAMETER	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS	
	30-Day Average	Daily Maximum	Measurement Frequency	Sample Type or Location
Flow, gallons/day	14,000	21,000	Continuous	Flow Meter
Benzene, µg/l	5	5	Weekly	GAC Outlet
Ethylbenzene, µg/l	100	100	Weekly	GAC Outlet
Toluene, µg/l	100	100	Weekly	GAC Outlet
Xylenes (Total), µg/l	200	200	Weekly	GAC Outlet
MTBE, µg/l	20	20	Weekly	GAC Outlet
TPH (All Ranges), mg/l	1.0	1.0	Weekly	GAC Outlet
pH, Std. Units	6 – 9	6 – 9	Weekly	Non-Potable H_2O Storage Tanks
TDS, mg/l	M&R	M&R	Weekly	Non-Potable H_2O Tanks
Profile 1 Analysis	M&R (All Parameters)		Monthly	Non-Potable H_2O Tanks

Schedule of Compliance: The Permittee shall submit the following items 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 Division in writing no more than fourteen (14) calendar days following startup of the oil removal treatment works.

- Within thirty (30) days of startup of the oil removal treatment works, the Permittee shall submit a copy of the engineer's Construction Quality Assurance (CQA) letter indicating that the oil removal treatment works 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 oil removal treatment works, the Permittee shall submit a copy of the as-built design plans wet stamped and signed by a Nevada Professional Engineer (P.E.).

- Within ninety (90) days of the startup of the oil removal treatment works, the Permittee shall submit any updates made to the Bango Oil, LLC Operations & Maintenance (O&M) Manual (dated May 2009).

Procedures for Public Comment: The Notice of the Division's intent to issue this temporary discharge permit for a period of 180 days (6 months), subject to the conditions contained within the permit is being sent to the **Lahontan Valley News** and **Reno Gazette-Journal** 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 within a period of fourteen (14) calendar days of 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, June 19, 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 temporary discharge permit for a period of 180 days (6 months).

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

Date: June 2, 2009