

NOAV 200348796, 05-123-06116

Ross G Unit #1

Encana Oil & Gas (USA) Inc., # 100185

Corrective actions taken:

2. Provide documentation as to ongoing procedure to prevent accumulation of condensate on produced water tank. May 4th, 2012.

For many years, Encana has instructed all water transport vendors to always first pull any free oil off of top of produced water tank prior to pulling their scheduled produced water load for disposal. Oil can be carried over when water dump valves malfunction or leak through or when lease operators are transferring any free water from condensate tanks to produced water tanks. The process of pulling free oil sitting on top in the produced water tank has been complicated by the installation of hard tops on all produced water tanks. (Hard tops were installed to facilitate reliable compliance with MBTA regulations.) With only one 6-8" opening, our water transporters have lost the flexibility to vacuum the oil from the complete circumference of the tank.

5. Review all tank battery operations in eastern Colorado to identify tanks and other equipment that need repair or replacement to ensure that volatile organic compounds are not being released to the atmosphere in violation of APQD regulations. May 15, 2012

Encana performs regular checks of air pollution control equipment to ensure proper functionality of the equipment. The following summarizes our ongoing efforts and specific projects to ensure volatile organic compounds are not being released to the atmosphere.

- **Ongoing Equipment Inspections:**
 - Daily (not to exceed every 48 hours), and monthly documented Lease Operator Inspections.
 - EHS Coordinator voluntary FLIR Camera inspections to detect and repair leaks. Depending on population density near individual batteries, inspections are conducted on a quarterly, semi annual, or annual basis.
- **Existing measures to ensure non-permitted VOC's do not get released:**
 - Visual inspections of pilot light operation in Scada, (Cygnet), indicates any inoperative periods of combustors and are recorded in reports submitted to the CDPHE on a monthly basis.
 - Visual verification of combustor operation, including pilot light and flame efficiency is performed and noted in Lease Operators "Grease Books" every visit (not to exceed 48 hours).
 - Weekly visual inspections of tank thief hatches, Enardo valves, and combustor problems are recorded and a note in Lease Operators "Grease Books".
 - Monthly Lease Operator Inspections (Form attached) that is recorded in EU identify any equipment problems.

- **Current Projects to ensure non-permitted VOC's do not get released:**
 - 36 month interval pressure testing of Enardo valves will be incorporated in eMaint and piggybacked on PSV testing program to be implemented in 2012.
 - Ongoing separator replacement program. 56 separators were replaced in 2011, with over 20 new combustors added at existing sites. Many older tanks have been replaced with new. Field upgrade and replacement program continues at a similar pace in 2012. with \$500M budgeted for separator replacements, \$250M for additional combustors and \$250 for air emission projects.

6. Provide report that documents causes of the upset conditions identified at this facility and results of field wide operational review. Include documentation of procedures taken to ensure upset conditions are prevented and list of any equipment that required repair or replacement. May 21, 2012.

- **Encana recognizes combustor overloading is an issue that has grown with the growth of multi-well batteries and increased field pressures in the last several years. Beginning with the manufacturer's recommended 300 standard cubic feet per barrel of expected crude production for combustor sizing, Encana adds a safety factor of three times the expected capacity requirements. We are currently looking at that safety factor to verify if that is sufficient. Additionally, we have looked at our wellsite automation strategy to ensure we do not overload combustors by installing well controllers that are programmed to only allow one well to dump to the separator at a time. This is described in more detail below.**
- **Well Synchronization programming to prevent two or more wells from unloading & over-ranging equipment:**
 - Synchronization software has recently been written for the Fischer-ROC/Vincent Production Manager Software (VPM) that will prevent more than one well at a time from cycling, (unloading to separator and pushing slug of vapors to combustors.) We have installed this on the Ross G and will monitor flows from all four Ross G wells to verify successful deployment.
 - Additional software work still needs to be completed for Fisher ROC 809's. We estimate this could be completed by June 1st.
 - Software needs to be field-loaded at several hundred multi well locations throughout the field. Encana will contract this to be completed by July 15th.
 - A portion of Encana's DJ Basin wells are single well batteries, where no syncompation is required, or no multi-well unloading exists.
 - ~275 Wellmaster Controllers still exist in the field and are in the midst of a multi-year phase-out. Many of these are on single wells, and have no effect on synchronization. Prioritization will be made to change all multi-well lease Wellmaster controllers to Vincent Production Manager software within the Fischer ROC's and synchronization software added. It may take until the end of the year to ensure this is completed.
 - Tank level FST's (new software for early warning of potential tank leakage), will be loaded at the same time.