LINN Energy

Linn Operating, Inc.
Piceance Asset
Parachute, Colorado
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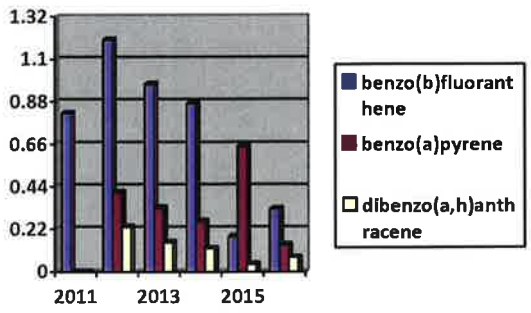
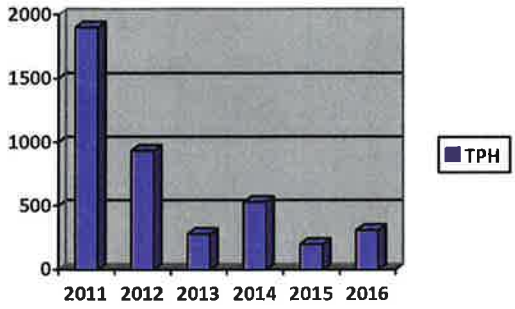
L15 696 Landfarming Plan - Facility #443347

- History – Seven wells were drilled on this well pad in 2010/2011 and completed in 2011. These wells were drilled with diesel based drilling mud. These wells were drilled with a pitless system. Drill cuttings were treated with portland cement and stockpiled on site. Samples of these spoils have been taken annually (except 2013) since 2011.

- Current Status
  - Approximately 5,455 cubic yards of spoil material that is being treated on site by land farming is remnants from drilling and completion operations. The landfarming operations have taken place since the summer of 2011.
  - Samples taken since June 9, 2011 indicate that this material fails COGCC Table 910-1 for:
    - Benzo(b)fluoranthene (0.40 – 1.20) The highest reading was taken on May 5, 2012. The most recent reading taken on October 8, 2016 was 0.364).
    - Benzo(a)pyrene also (0.0433 – 0.41). The highest reading was taken on May 2, 2012. The most recent reading taken on October 8, 2016 was 0.137.
    - Dibenzo(a,h) anthracene (0.023 – 0.21). The highest reading was taken on May 2, 2012. The most recent reading taken on October 8, 2016 was 0.0733.
    - TPH initially failed the standards until 2014. TPH responded favorably to treatment and remains below the standards.
  - As of this date, the material being landfarmed has been spread out on the pad to a depth of approximately 14' – 18" and has been tilled two times. The recommendation from the analysis of the pre-treatment soil samples is to add only fulvic acid only on the first round of treatment. A copy of the pre-treatment lab results is attached to the Form 27.





- Treatment - 2017
    - Spoil will be turned over by an excavator and/or a Kubota farm tractor with a chisel point plow 8 to 10 times (depending on weather and snow conditions) during the warm months in 2017. The soil will be turned over with the frequency established in the plan as a minimum or with a higher frequency if possible. The soil will be spread out to increase exposure to the atmosphere and sunlight as much as possible on the production pad.
    - Pre-treatment samples taken in the early spring will determine the amount of amendments that will be added to the spoil based on an analysis of nutrients present in the spoils.
    - Amendments.
        - Based on analysis, no fertilizer, but fulvic acid will be added to the first tilling operation only to address the benzo(a)pyrene.

- Samples and lab tests
    - Phase I - Composite sample will be taken from 8 locations on the spoil pile in early summer and analyzed.
        - If composite sample passes, discrete samples will be taken to confirm the composite samples.
            - If discrete samples pass, spoil will be buried per COGCC rules and interim reclamation of the pad will take place.
            - If discrete samples fail, landfarming will continue.
        - If composite sample fails, landfarming will continue.
    - Phase II - Composite sample will be taken from 8 locations on the spoil pile in late fall and analyzed.
        - Procedure will be the same as Phase I

- Continuation
    - Process may continue into 2018 until spoil passes COGCC Table 910-1, specifically benzo's.