



STATE OF  
COLORADO

Noto - DNR, John <[john.noto@state.co.us](mailto:john.noto@state.co.us)>

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## Smith Estate 1 Pit Permit

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**Noto - DNR, John** <[john.noto@state.co.us](mailto:john.noto@state.co.us)>

Tue, Aug 19, 2014 at 9:04 AM

To: Brown Oil & Gas LLC <[brown\\_oil\\_and\\_gas@hotmail.com](mailto:brown_oil_and_gas@hotmail.com)>

Cc: John Axelson - DNR <[john.axelson@state.co.us](mailto:john.axelson@state.co.us)>, Greg Deranleau - DNR <[greg.deranleau@state.co.us](mailto:greg.deranleau@state.co.us)>, Doug Andrews - DNR <[doug.andrews@state.co.us](mailto:doug.andrews@state.co.us)>

Roberta and Mark,

I suggested that you read Rules 904, and 901.c. for a better understanding of the requirements that may apply to the permitting of this unlined pit. I found analysis of the water from the nearby Gaims Guerrero 22-15 and State 1-16 on pit permits in our database. I looked at this information only for a general understanding of produced water in the vicinity .

The decision tree is no longer used for sensitive area determinations. Instead, each evaluation is now based on site specific geologic and hydrogeologic data. I did note in Box 1 of the decision tree that the produced water is expected to either exceed background levels or allowable concentrations. I also noted that calculated percolation is 22.5 barrels per day based on a nearby pit. COGCC requires the following site-specific data for evaluation prior to permitting the unlined pit:

1. Depth to shallow groundwater (if present),
2. Subsurface lithology (boring logs) to determine potential pathways to deeper groundwater
3. Potential pathways to surface water,
4. On-site percolation tests (if shallow groundwater is present or if there are clear pathways to deeper groundwater), and
5. Although background levels or allowable concentrations are expected to be exceeded, analysis of the shallow groundwater (if present) and produced water may be useful for comparison.

Please feel free to call if you have questions or concerns.

Thank you,

John Noto

[Quoted text hidden]

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John Noto P.G.

Oil and Gas Location Assessment Supervisor



**COLORADO**  
Oil & Gas Conservation  
Commission  
Department of Natural Resources

P 303.894-2100 ext 5182 | C 720.498-5298

1120 Lincoln Street, Suite 801, Denver, CO 80203

[john.noto@state.co.us](mailto:john.noto@state.co.us) | [www.colorado.gov/cogcc](http://www.colorado.gov/cogcc)