

## DEPARTMENT OF NATURAL RESOURCES

John W. Hickenlooper, Governor 1120 Lincoln St. Suite 801 Denver, CO 80203

Phone: (303) 894-2100 FAX: (303) 894-2109 www.colorado.gov/cogcc

September14, 2011

Dorothy Mintle 13229 WCR 18.5 Fort Lupton, Colorado 80621

RE: Agriculture Property Issues NENW Section 20, T2N, R66W Weld County, Colorado COGCC Complaint #200320763

Dear Ms. Mintle:

Around June 1, 2011 you contacted Jim Precup, COGCC Area Field Inspector with some concerns on your property reported to you by your tenant farmer that you thought may be related to former oil & gas activities. The location is proximal to the former NESSSU No. 17 well, which was properly plugged & abandoned (P&A) in 1995. Your tenant farmer was reporting "mushy" soils and stunted vegetation (corn) in the area when compared to adjacent cultivated areas. Mr. Precup visited the location on June 1, 2011 and observed the following:

- No evidence of any "mushy" type of soils or evidence of any earlier wet soils.
- The juvenile corn plants in the area (approximately 75 foot circular area) did appear to be "stunted" in growth when compared with adjacent planted areas.

Because of the location of the former O&G well and the area with the "stunted" corn coincided, he brought the issue to my attention as a possible O&G soils impact. On June 6, 2011 I visited the location and observed the following:

- No evidence of any "mushy" soils.
- Juvenal corn plants appeared to be somewhat "stunted" in their growth when compared with adjacent planted areas.
- Several shallow (less than 1 foot depth) test pits dug did not indicate any gross differences in soils within the area of "stunted" corn growth when compared to an area with "normal" corn growth.

• No soil gases (methane or carbon dioxide) were detected with a gas meter.

I saw no obvious evidence on any soils impact related to O&G. I have attached several photographs taken on June 6 showing the location.

On September 1, 2001 I visited the location with an agricultural specialist with AgriTech Consulting, of Morrison, Colorado. Corn growth in the area was the same as adjacent cultivated areas with most mature plants around 7 feet in height or higher. Inspection of the corn plants in the subject area show no outward signs of any vegetation stress or other anomalies and the plants appeared to be healthy and normal. The agricultural specialist noted the following items:

- Based on the earlier observation of subdued growth with young plants verses later normal growth of mature plants indicates a growth limiting factor located in the surface or near surface as opposed to a limiting growth factor at depth (corn root depth normally equal to height of plant, for instance, a 6-inch plant would have a 6-inch root depth or a 7-foot high plant would have a 7-foot root depth).
- Growth limiting factors for a immature plant could include soils salinity, localized differences in soil types, farming chemical application (such as fertilizers, pesticides, herbicides, or nutrient additions), farming practices (tilling depths and/or frequencies), and because of close proximity to road, pest/weed control activities on road ROW may have affected local soils. The agricultural specialist recommended that any further shallow soils investigations be based on full knowledge of the farming practices, etc. which would help to direct any follow on soils characterization (sampling, etc).

I have attached two photos of the September 1, 2011 site visit.

Based on the COGCC investigation of your complaint, there does not appear that the earlier "stunted" vegetation has any connection to former O&G operations on this section of your property. Vegetation effects are attributed to surface or shallow subsurface (less than 2 feet deep) and are the result of either natural soils conditions or the effects of farming practices and/or pest/weed control on the adjacent road.

Should you have any questions, please call me at (303) 894-2100 ext.112.

Respectfully,

Robert H. Chesson, C.P.G., P.G. Environmental Protection Specialist

cc: Steve Lindblom, COGCC Jim Precup, COGCC