

Dave Kubeczko - DNR

From: Dave Kubeczko - DNR
Sent: Monday, November 24, 2014 8:57 AM
To: dave.kubeczko@state.co.us
Subject: FW: Lynch Wellsite
Attachments: Figure 3.pdf; CAT_LynchWellWetlands_FindingsLetter_14-1006.pdf

Categories: Operator Correspondence

Scan No 2107161 CORRESPONDENCE 2A#400607994

From: Nolan Redmond [mailto:nredmond@catamountep.com]
Sent: Monday, October 20, 2014 7:35 AM
To: Dave Kubeczko - DNR
Subject: Lynch Wellsite

Dave,

The last time we talked you said the county had concerns about wetlands. Peter Jensen went out there a couple weeks ago to do a wetlands investigation and he sent us his findings (attached).

I also asked our landman about SUA status and he hadn't heard from Mr. Lynch's attorney regarding our latest proposal. I'll let you know if that changes.

Let me know if you need anything else.

Thanks,

Nolan Redmond
Catamount Energy Partners
1801 Broadway
Suite 1000
Denver CO 80202
nredmond@catamountep.com
720-484-2347 Office
303-909-3587 Cell





6 October 2014

Mr. Rusty Kelly
Catamount Energy Partners
1801 Broadway STE 1000
Denver, CO 80202
rkelly@catamountep.com

Subject: Lynch 34-6-18 #1 Well Pad Wetland Investigation

Dear Mr. Kelly,

I investigated the well pad for establishing stormwater controls on 2 October 2014. At that time I noted small areas of hydric vegetative species along the eastern edge of the well pad boundary, near to a drainage ditch outward of that boundary. Also within these areas are small and scattered sand-bar willow (*Salix exigua*). I chose a location of relatively dense wetland type-vegetation (within the well-pad boundary) and employed wetland delineation methods as established by the United States Army Corps of Engineers Version 2 of the Arid West Regional Supplement to the 1987 Wetland Delineation Manual. Despite the visual nature of these areas all indicators for wetlands were not identified. This letter presents my findings.

Preceding the investigation a period of elevated rainfall had been experienced in the area. Some areas to the south of the project area received up to two inches of rain near the 27th of September. Heavier rains also occurred the week prior to that event. Moisture from this precipitation was evident across the project areas—including those spots in areas of wholly xeric (upland) vegetation.

Much of the well pad site is within an irrigated field (confirmed by aerial photography as well as visual indications—including irrigation pipe up-gradient of the well site). Much of the field is dominated by xeric and mesic species such as thickspike wheatgrass, western wheatgrass, and timothy. Transition to more mesic to hydric species occurs near the cross-field drainage ditch transitioning to more red-clover, timothy, field fescue, foxtail barely (a typical fringe indicator of irrigated fields in this region), plantain, rush, and sedge. These areas occurred within 5 to 10 feet of the cross-field ditch—primarily within remnant carrier-ditch depressions along the main ditch. This area is also proximate to the primary natural stream drainage feeding Harper Pond to the south-west of the project site.

Despite the visual vegetation transition, upon employing field methods for wetland determination, vegetation did not meet wetland parameters. Regardless, a pit was dug in accordance with the delineation procedures. Soils and hydrology are within the area, but primary and secondary indicators for hydrology were not positive for wetland criteria based on the investigation.

Despite the small areas' wetter nature and following an investigation of these areas, they do



not meet the necessary criteria to qualify as wetlands for purposes of the United States Army Corps of Engineers definition.

Attached are photographs of the investigation site, the soil profile analyzed, and the height of groundwater identified. Also attached is the Corps of Engineers Wetland Determination Data Form and a map showing the juxtaposition of the investigation site to the surveyed well-pad boundary.

Should you have further questions as regards this matter, please do not hesitate to contact me.

Sincerely,

Tegre Corporation

A handwritten signature in black ink, appearing to read "Peter Jensen", with a horizontal line extending to the right.

Biologist / President

Direct: [\(970\) 828-1805](tel:9708281805) / Office: [\(970\) 828-4732](tel:9708284732) / Mobile: [\(970\) 946-4935](tel:9709464935)

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www.tegrecorp.com

Attachments:

- Photographs
- Corps Determination Form
- Site Map



East Edge of Well Pad Looking West to Access Road Entry



Investigation Point Soil Profile



Investigation Point Ground Water at Weathered Sandstone Layer (16 inches)

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Lynch Well City/County: La Plata Co Sampling Date: 10/4/2014
 Applicant/Owner: CATAMOUNT E. State: CO Sampling Point: PT9-W1
 Investigator(s): J. JENSEN Section, Township, Range: 18U T34N R6W N4PM
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): concave Slope (%): 0.5-1
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: Arboles clay / Archuleta loam NWI classification: none
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No _____ Wetland Hydrology Present? Yes _____ No _____	Is the Sampled Area within a Wetland? Yes _____ No _____
Remarks: <u>↑ recent rain, soil moisture throughout area high</u>	

VEGETATION – Use scientific names of plants.

Stratum	Plot size	Absolute % Cover	Dominant Species?	Indicator Status	
<u>Tree Stratum</u>	<u>(Plot size: none)</u>				
1.					
2.					
3.					
4.					
_____ = Total Cover					
<u>Sapling/Shrub Stratum</u>	<u>(Plot size: none)</u>				
1.					
2.					
3.					
4.					
5.					
_____ = Total Cover					
<u>Herb Stratum</u>	<u>(Plot size: 6' r)</u>				
1.	<u>Carex sp.</u>	<u>35</u>	<u>✓</u>	<u>OBL</u>	
2.	<u>Festuca pratensis</u>	<u>15</u>	<u>✓</u>	<u>FACU</u>	
3.	<u>Phleum pratensis</u>	<u>20</u>	<u>✓</u>	<u>FACU</u>	
4.	<u>Hordeum jubatum</u>	<u>5</u>	<u>✓</u>	<u>FAC</u>	
5.	<u>Trisetum repens pratense</u>	<u>20</u>	<u>✓</u>	<u>FACU</u>	
6.	<u>Juncus carthagenus</u>	<u>2</u>		<u>FAC</u>	
7.	<u>Plantago major</u>	<u>41</u>		<u>FAC</u>	
8.					
		<u>78</u>			<u>= Total Cover 495/11.0</u>
<u>Woody Vine Stratum</u>	<u>(Plot size: none)</u>				
1.					
2.					
_____ = Total Cover					
<u>% Bare Ground in Herb Stratum</u>		<u>2</u>	<u>% Cover of Biotic Crust</u>		<u>0</u>

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>35</u>	x 1 = <u>35</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>55</u>	x 4 = <u>220</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>98</u> (A)	<u>279</u> (B)

Prevalence Index = B/A = 2.84

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0¹

___ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks: _____

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14.5	10YR 3/2	100	2.5YR 3/6	5	C	M/P	clayln	clayey - moist - not sat
14.5-23'	10YR 4/3	100	—	—	—	—	sandy	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: clayey
Depth (inches): 0-14

Hydric Soil Present? Yes No

Remarks:

Flood irrigated fields - patterns visible on aerial imagery

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): 116"
 Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Water allowed to stabilize w/in hole for >10 min. no sign of recent filling in area.



VICINITY MAP

0 0.350.7 1.4 2.1 2.8 Miles



Section 8 of Township 33 N, Range 7 W
N.M.P.M.
La Plata Co., Colorado

NOTE: Data presented in the maps has been obtained or modified from data available from many different sources, including data gathered from field surveys conducted on multiple occasions by Tegrre Corp personnel. Outside data sources include the La Plata County GIS Dept., Client, SJ PLC, and the NDIS. Political boundaries may change. Drought, precipitation and other natural events cause constant change in vegetation distribution, environmental conditions, and the resulting use by wildlife inhabitants. As such the information provided in these maps is only valid for the time period in which it was obtained and transcribed. Moreover, the information's accuracy, as presented, is only as accurate scale from which it was obtained. Care should be taken in interpreting these data. Written documents may accompany these maps and should be referenced. The information portrayed on these maps should not replace field studies necessary for more localized planning efforts. Data discrepancies may become apparent at scales different than those at which data was created. The areas portrayed here are graphic representations of phenomena that are difficult to reduce to two dimensions. ANY DATA OR INFORMATION PROVIDED BY THESE MAPS IS "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Data or information provided by these maps shall be used and relied upon only at the user's sole risk, and the user agrees to indemnify and hold harmless Tegrre Corp, its officials, officers and employees from any liability arising out of the use of the data or information provided.

Legend

- Wetland Data Pit
- Survey Points
- Proposed Pad

0 75 150 300 450 600 Feet

LA PLATA COUNTY 2007 DIGITAL ORTHOPHOTO

**Catamount Energy Partners
Lynch 34-6-18 #1
Wetland Investigation**

-- Figure 3 --

**Lynch 34-6-18 #1
La Plata County, CO**



Cartography By: MJW

Checked by: JPJ

Date: 10/6/2014 Time: 3:53:18 PM