



OGMCOAL DNR <ogmcoal@utah.gov>

Coal Hollow RE: water monitoring well drilling/locations.

Keenan Storrar <kstorrar@utah.gov>

Mon, Mar 7, 2016 at 1:23 PM

To: Dana Dean <danadean@utah.gov>, Erik Petersen <petersen@relia.net>, Erik Petersen <epetersen@petersenhydrologic.com>, OGMCOAL DNR <ogmcoal@utah.gov>, Erik Petersen <erikputter@icloud.com>

I just spoke with Erik Peterson (March 7, 2016 at 10:30 am), Alton Coal Development's hydrologic consultant, regarding their active monitoring well drilling program in the North Private Lease. We went over the approved well locations in ACD's 'Request for Non-Production Well Construction' application with the Utah Division of Water Rights (see Attachment). The locations of the wells were first discussed and agreed upon during a site visit that I conducted with the company on 11-19-2016. In speaking with Erik today he informed me that he lost the field notes that he took during the November site visit. So the current well locations are based upon what he could remember from our site visit and our discussions regarding the well locations. During today's phone conversation, I re-emphasized to Erik the current deficiencies within the NPL Findings that need to be addressed in the groundwater monitoring program prior to approving the application. These deficiencies include:

1. The application does not include a groundwater well that is located up-gradient of the permit area. During our site visit we agreed upon ACD installing a well to the west of Kanab Creek and just north of the Farm Road/NPL permit area. Today I reminded Erik that we agreed that the well will be close to the fence that divides the pivot irrigation field and the overhead wheel line irrigation system. By locating the well here, the casing will not disrupt the wheel line irrigation.
2. The monitoring well program must include at least two wells running along an east-west transect or perpendicular to the open-pits and Kanab Creek. During the site visit in November, Erik and I agreed they would install a grouping of wells directly to the east of the current monitoring Well Y-103 and to the west of Kanab Creek to accomplish this monitoring requirement. However, the current application with Water Rights shows well locations to the south and north of Y-103 and not the east. I stressed that the clusters to the north and south of Y-103 (CN1 and CN3, respectively) are still able to monitor a gradient (Figure 1), if the additional proposed wells to the west of the CN1/CN3 clusters are installed and are not disturbed by mining activities. In short, the anticipated draw-down gradient in the alluvium to the east of the open-pits must be monitored through bond release.
3. The wells at the down-gradient end or just south of the permit must be installed in alluvial deposits and not in the underlying Dakota Sandstone.

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**Request for Non-Production Well Construction.pdf**

1848K

**Proposed monitoring well locations and details
Alton Coal Development, LLC
North Private Lease monitoring wells**

Alton Coal Development, LLC plans to install 9 additional monitoring wells at their North Private Lease mining area. The North Private Lease mining area is located approximately one mile southeast of the town of Alton, Utah. The wells will be used to monitor groundwater quantity and quality in conjunction with future mining activities in the lease and for aquifer testing.

The planned depths for all of the monitoring wells are from 30 to 180 feet. The final constructed depths will be determined based on conditions encountered during the drilling activities but will not exceed 180 feet.

The proposed monitoring well locations are provided in Table 1 below in latitude-longitude coordinates. Proposed drilling locations are also shown on Figure 1. Note that on Figure 1 there are also locations of 24 monitoring wells proposed in a previous application that was approved by the Division of Water Rights in February 2016. The proposed locations provided here are for additional monitoring wells.

Table 1

Monitoring Well	Well Depth (feet)	Well Diameter (inches)	Location:	Location	Property Parcel Number
CN1-A	30-180	2 or 3	37.428828	-112.468530	9-6-12-1
CN1-B	30-180	2 or 3	37.428828	-112.468989	9-6-12-1
CN1-C	30-180	2 or 3	37.428828	-112.469421	9-6-12-1
CN3-A	30-180	2 or 3	37.425255	-112.468461	9-6-13-1
CN3-B	30-180	2 or 3	37.425255	-112.468999	9-6-13-1
CN3-C	30-180	2 or 3	37.425255	-112.469673	9-6-13-1
CN5-A	30-180	2 or 3	37.421974	-112.469180	9-6-13-1
CN5-B	30-180	2 or 3	37.421974	-112.469828	9-6-13-1
CN5-C	30-180	2 or 3	37.421974	-112.470177	9-6-13-1

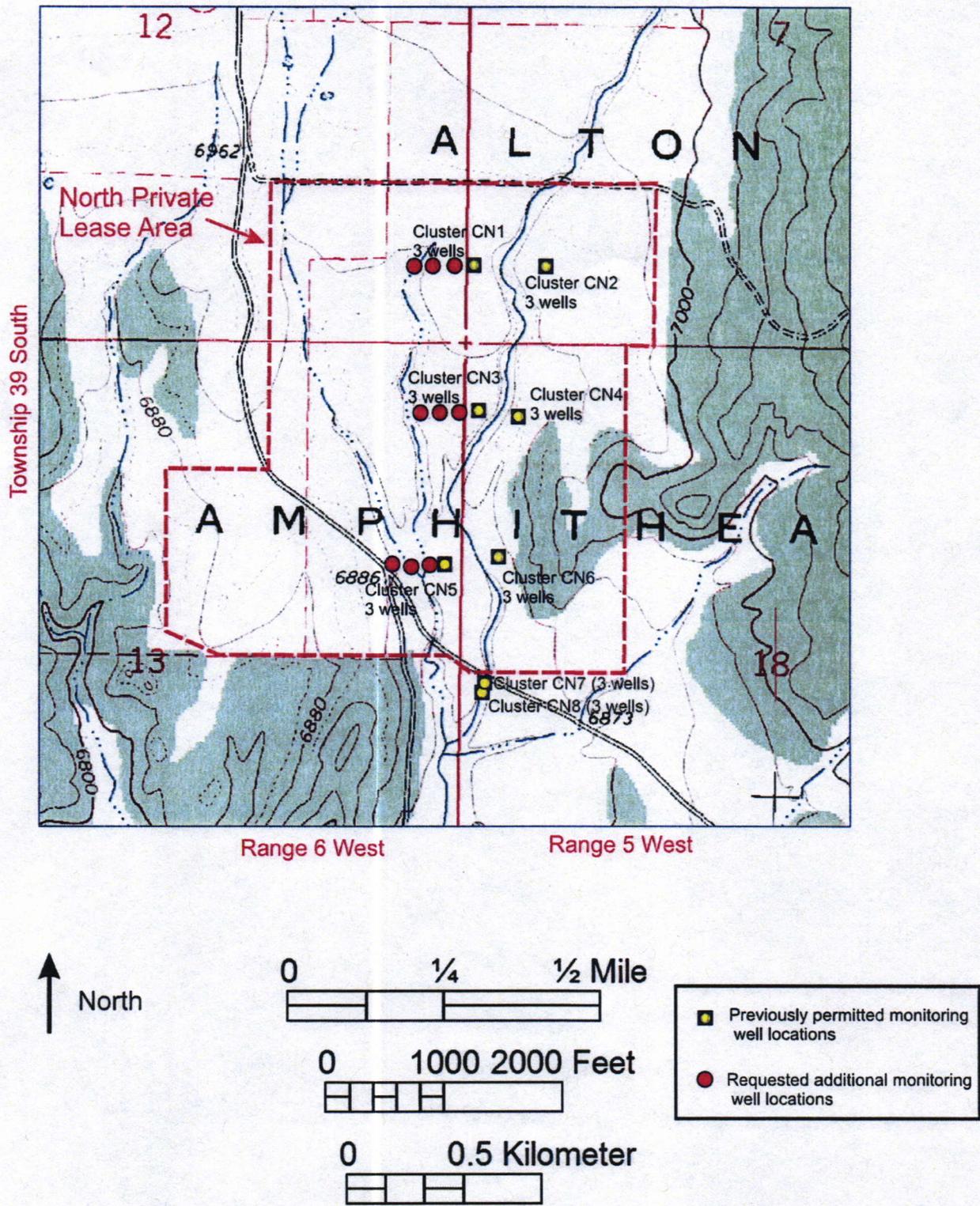


Figure 1 Proposed locations of Alton Coal Development, LLC monitoring wells at the North Private Lease.

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CN3-B	30-180	2 or 3	37.425255	-112.468999	9-6-13-1
CN3-C	30-180	2 or 3	37.425255	-112.469673	9-6-13-1
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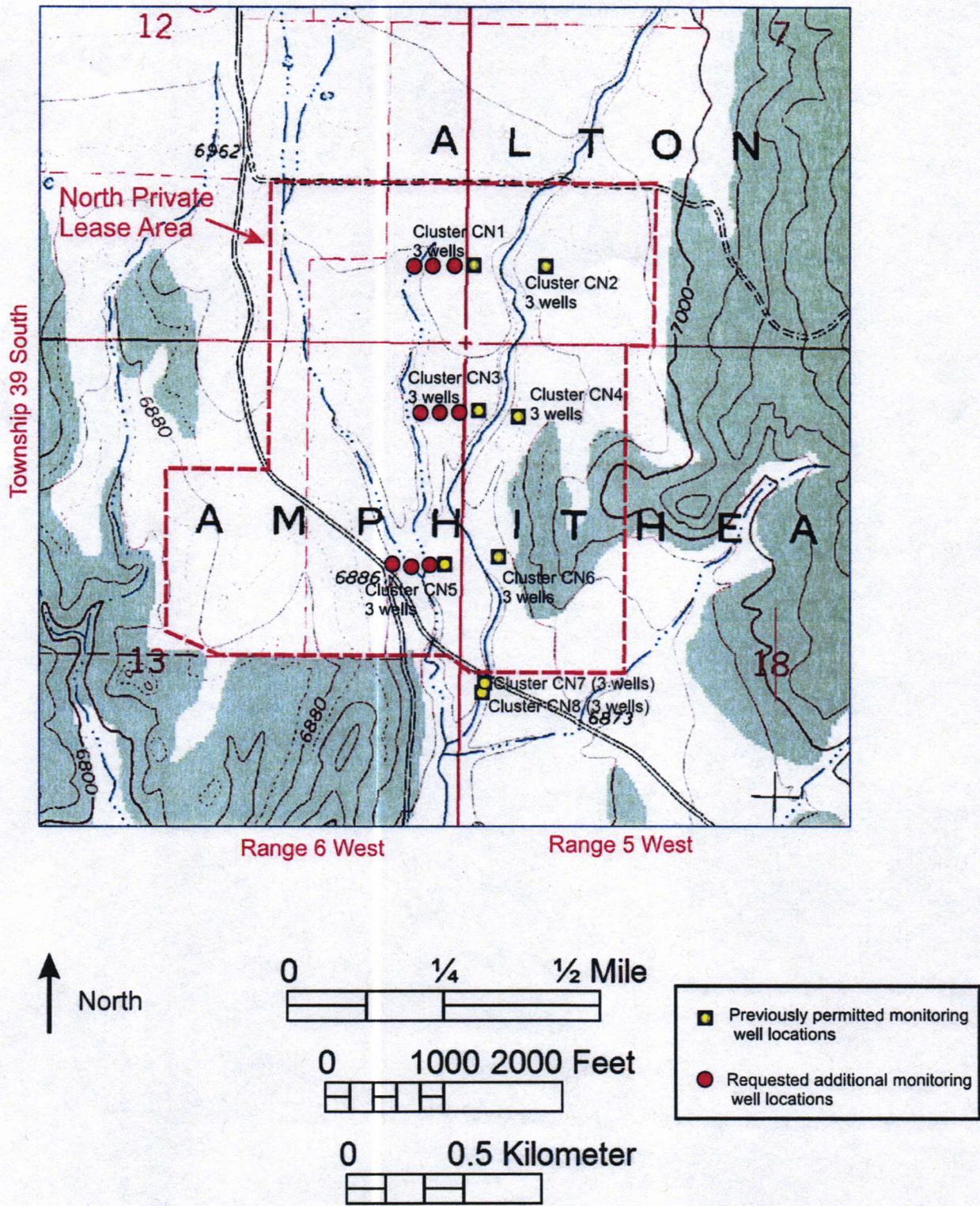


Figure 1 Proposed locations of Alton Coal Development, LLC monitoring wells at the North Private Lease.



GARY R. HERBERT
Governor
SPENCER J. COX
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

Division of Water Rights

MICHAEL R. STYLER
Executive Director

KENT L. JONES
State Engineer/Division Director

March 3, 2016

ALTON COAL DEVELOPMENT, LLC
C/O KIRK NICHOLS
463 N 100 W SUITE 1
CEDAR CITY, UT 84721

Dear Applicant:

RE: MONITOR WELL#: 1685002M00

Regarding your request to drill 9 MONITOR WELL(S), the anticipated drilling depths will exceed the minimum regulated and reporting depth of 30 feet, thereby requiring permission from the Division of Water Rights to proceed with this project.

The specifications outlined in your non-production well project application meet the State Engineer's requirements and permission is **HEREBY GRANTED**. Therefore, this letter is your authorization to proceed with the construction of the well(s) in accordance with those specifications and with respect to the following provisions:

- 1) Small diameter casing is to be used in the construction of the well(s) and no more water is to be diverted than is necessary to determine the quality of the groundwater by obtaining representative samples as required by the project.
- 2) The well(s) must be drilled by a currently licensed Utah driller and must be drilled in a manner consistent with the construction standards cited in the Utah State Administrative Rules for Well Drillers (R655-4 UAC).
- 3) The enclosed Driller (START) Card form must be given to the licensed driller for his submittal prior to commencing well construction. The other enclosed form is the 'Applicant Card.' It is **YOUR RESPONSIBILITY** to sign and return this Applicant Card form to our office upon well completion.
- 4) At such time as the well(s) are no longer utilized to monitor ground water or the intent of the project is terminated, the well(s) must be permanently abandoned in a manner consistent with the Administrative Rules (R655-4 UAC).
- 5) **THIS PERMIT MAY NOT BE THE ONLY AUTHORIZATION NEEDED TO DRILL A WELL.** The applicant is responsible for obtaining other permits/authorizations from federal agencies, other state agencies, and/or local jurisdictions as applicable. Moreover, if the applicant is not the landowner, it is the applicant's responsibility to ensure that approvals/permissions have been obtained to trespass and drill a well(s) on the property. **THIS PERMIT DOES NOT GIVE AUTHORIZATION TO TRESPASS ON PRIVATE PROPERTY.**

NOTE: Please be aware that your permission to proceed with the drilling under this authorization expires September 3, 2016.

Sincerely,


Jim V. Goddard, P.G.
Well Drilling Program

APPLICANT CARD for MONITOR WELL#: 1685002M00

IMPORTANT: THIS CARD MUST BE COMPLETED, SIGNED AND RETURNED BY THE WELL OWNER/APPLICANT AS SOON AS THE WELL IS DRILLED BY A LICENSED UTAH WATER WELL DRILLER.

OWNER/APPLICANT NAME: ALTON COAL DEVELOPMENT, LLC

MAILING ADDRESS: C/O KIRK NICHOLS, 463 N 100 W SUITE 1, CEDAR CITY, UT

PHONE NUMBER: 435-691-1551

WELL LOCATION: You are authorized to drill 9 MONITOR WELLS. SEE BELOW.

WELL UTM COORDINATES:

WELL ACTIVITY: NEW REPAIR () REPLACE () ABANDON ()
CLEAN () DEEPEN ()

WELL COMPLETION DATE:

NAME OF DRILLING COMPANY/LICENSEE:

Owner/Applicant Signature

Date

***COMPLETE, SIGN AND RETURN THIS PORTION UPON FINAL WELL COMPLETION - DO NOT GIVE THIS CARD TO LICENSED WELL DRILLER - YOU MUST RETURN IT.

STATE OF UTAH DIVISION OF WATER RIGHTS Phone No. 801-538-7416
Fax No. 801-538-7467

COMMENTS:

MONITOR WELL LOCATIONS:

- (1) N 674 W 278 from the SE corner, S12 T 39S R 6W SLBM
- (2) N 676 W 411 from the SE corner, S12 T 39S R 6W SLBM
- (3) N 678 W 537 from the SE corner, S12 T 39S R 6W SLBM
- (4) S 627 W 278 from the NE corner, S13 T 39S R 6W SLBM
- (5) S 625 W 434 from the NE corner, S13 T 39S R 6W SLBM
- (6) S 622 W 630 from the NE corner, S13 T 39S R 6W SLBM
- (7) N 839 W 457 from the E4 corner, S13 T 39S R 6W SLBM
- (8) N 841 W 645 from the E4 corner, S13 T 39S R 6W SLBM
- (9) N 843 W 747 from the E4 corner, S13 T 39S R 6W SLBM

START/APPLICANT CARD INSTRUCTIONS: First, for each well, you must give a Driller (Start) Card to the licensed driller with whom you contract to construct the well. Second, it is your responsibility to sign and return this Applicant Card to this office immediately after completion of the well. **CAUTION: There may be local health requirements for the actual siting of your well. Please check with the proper local authority before construction begins. See the enclosed sheet addressing construction information.**

DRILLER (START) CARD for MONITOR WELL#: 1685002M00

IMPORTANT: THIS CARD MUST BE RECEIVED BY THE DIVISION OF WATER RIGHTS PRIOR TO THE BEGINNING OF WELL CONSTRUCTION -- REQUIRED ONLY FOR WELLS DEEPER THAN 30 FT.
OWNER/APPLICANT NAME: ALTON COAL DEVELOPMENT, LLC
MAILING ADDRESS: C/O KIRK NICHOLS, 463 N 100 W SUITE 1, CEDAR CITY, UT
PHONE NUMBER: 435-691-1551
WELL LOCATION: You are authorized to drill 9 MONITOR WELLS. SEE BELOW.
WELL UTM COORDINATES:
WELL ACTIVITY: NEW REPAIR () REPLACE () ABANDON ()
CLEAN () DEEPEN ()

For surface seals in unconsolidated formations (clay, silt, sand, and gravel), will you be using a temporary conductor casing or other formation stabilizer (e.g., drilling mud) in the surface seal interval to maintain the required annular space?

YES or NO (Circle one).

Answering 'NO' suggests that you will be placing the surface seal in an open and unstabilized annular space, which may require onsite inspection of seal placement by the State Engineer's Office.

PROPOSED START DATE: _____

PROJECTED COMPLETION DATE: _____

LICENSE #: _____ LICENSEE/COMPANY: _____

Licensee Signature

Date

NOTICE TO APPLICANT: THIS CARD IS TO BE GIVEN TO A UTAH LICENSED WATER WELL DRILLER FOR SUBMITTAL TO THE DIVISION OF WATER RIGHTS PRIOR TO WELL CONSTRUCTION.
STATE OF UTAH DIVISION OF WATER RIGHTS Phone No. 801-538-7416
Fax No. 801-538-7467

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