COMPLIANCE / ENGINEERING / REMEDIATION

LT Environmental Inc.

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November 6, 2007

Ms. Debbie Baldwin
Colorado Oil and Gas Conservation Commission
1120 Lincoln Street, Suite 801
Denver, Colorado 80203

RE: September 2007 Methane Seep Survey and Other Activities
Bondad, Colorado

Dear Ms. Baldwin:

LT Environmental, Inc. (LTE) is pleased to provide the Colorado Oil and Gas Conservation Commission (COGCC) with this letter summarizing the results of the 14th methane seep survey conducted on September 24, 2007 at the Bondad Gas Seep Site (Site) located in Bondad, Colorado. This is the sixth survey since drilling and re-completion activities were conducted at the Bryce 1-X (API #05-067-09087) well between late July 2006 and early August 2006.

In addition to the soil gas survey, LTE personnel supervised the removal of the Scott Sentinel II® methane detectors and replacement with Macurco solid-state residential-type gas detectors at the three residences east of the Bryce 1-X and the residence in the fire station.

BACKGROUND

At the request of the COGCC, LTE conducted an initial methane gas seep survey of the Site in response to an explosion of a residence located at 4034 US Highway 550 (the former Yoakum Residence). The results of the initial soil gas survey are presented in the *Methane Seep Survey Report* (March 2005). Additional soil gas surveys were performed on the following dates:

- April 19, 2005;
- June 10, 2005;
- November 1, 2005;
- December 2, 2005;
- January 30, 2006;
- April 6, 2006;
- June 28, 2006;
- August 28, 2006;
- September 21, 2006;
- December 13, 2006;
- April 20, 2007; and
- July 20, 2007.

All project reports are available on the COGCC website at www.oil-gas.state.co.us.

LTE conducted a geophysical survey of the seep area in April 2005 which identified several areas suspected of containing buried structures with the potential to act as conduits for methane gas. Exploratory excavation activities were conducted in these suspect areas in August 2005 and

the abandoned Bryce 1-X (API #05-067-09087) well was uncovered in the main gas seep area. In November, 2005, LTE provided oversight during the excavation, inspection, and initial remediation of the Bryce 1-X (API #05-067-09087) well and sandstone bedrock surface. Reports summarizing the geophysical survey, exploratory excavation activities, and the Bryce 1-X (API #05-067-09087) well remediation activities are also available on the COGCC website.

Recent activity at the site has included continued operation and maintenance (O&M) of the methane detection systems located at the fire station, the Weston well house, and the Weston, Meschke (former Wilson), Buddhue, and Bandy (former Grant) residences. LTE also conducted a limited surface inspection of the Nick Spatter #1 (API #05-067-05217) well location to confirm its location and to determine whether methane gas is seeping to the ground surface near this well.

Carl Weston has denied access to his property to conduct methane surveys and O&M of the structures on his property. The methane detection system on his property has been removed.

SITE DESCRIPTION

The Site is located in Bondad, Colorado, approximately 20 miles south of Durango, Colorado (Figure 1). The Site, located approximately 0.25 miles north of the confluence of the Animas River and the Florida River, consists of several tracts of land covering more than 100 acres. The surrounding land use consists of several residential properties, agricultural properties, a fire station, US Highway 550, the Animas River, to the west, and the Florida River, to the east. The majority of land in the area is privately owned.

METHANE GAS SEEP SURVEY

Methodology

On September 24, 2007, LTE was on site to conduct the 14th methane gas seep survey of the Site. The scope of the survey was similar to the previous surveys conducted at the Site. During the soil gas survey, tubing was lowered into each borehole and gas measurements were collected directly from the shallow surface soil approximately three feet below ground surface (bgs). LTE measured the concentration of methane, carbon monoxide, hydrogen sulfide, and oxygen at each sampling location.

LTE created a sampling grid to cover the mapping area systematically and to provide a means to delineate the extent of the gas seepage. LTE collected a soil gas measurement at the corners of each square in the grid. Each sample location was recorded using a Trimble GeoXT® global positioning system (GPS). When methane was detected along the edges of the grid, additional measurements were collected outside of the grid to define the extent of the seep area more completely.

LTE measured the methane concentration in the soil around the exterior of the three houses in the mapping area, and near the water wells associated with each of the structures. LTE also

measured for methane within the interior portions of the fire station, particularly the cracks in the concrete foundation. Carl Weston denied access to LTE to conduct this survey, therefore no survey was performed west of the Highway 550 right-of-way.

Soil Gas Survey Results

LTE personnel advanced a total of 62 subsurface probes across the project area. Results of this survey indicate that methane gas was not detected at any of the measurement locations. To ensure that equipment was working properly, the gas meter was tested three times during the survey with a known concentration of methane. The gas meter was functioning properly at the time of the soil gas survey.

Methane was not detected around the Bandy, Buddhue, or Meschke residences or near the water wells associated with these structures. Methane was not detected in the vicinity of the Cain 31-2 (API #05-067-08114) coal bed methane (CBM) gas well during this September 2007 survey. Methane was not detected in the interior portions of the fire station or within the cracks of the concrete foundation. Figure 1 shows all methane concentrations recorded during the September 2007 methane seep survey.

Methane Seep Survey Comparison

Fewer gas measurements were collected during the September 2007 survey than during previous surveys. The decrease in the number of gas measurements collected is the result of a smaller seep area requiring fewer measurements to define the areal extent of seepage and access restrictions imposed by Carl Weston.

LTE prepared a map illustrating the historical areal extent of methane seepage identified during previous gas survey events on a semi-annual basis (Figure 2). Comparison of the September 2007 data indicates that the areal extent of the primary seep area (near the abandoned Bryce 1-X (API #05-067-09087) well) is no longer present.

The table below presents the number of points reporting detectable concentrations of methane; the average methane concentrations; and the estimated size of the primary seep area during each of the previous soil gas survey events.

Table 1. Primary Seep Area Size Comparison

Survey Date	Number of Survey Points With Methane	Estimated Seep Area (acres)	Average Subsurface Methane Concentration (%)
Feb-05	112	10.3	23
Apr-05	45	10.6	33
Jun-05	37	8.1	21
Nov-05	45	8.8	32
Dec-05	25	5.7	21
Jan-06	31	7.3	10
Apr-06	32	7.7	29
Jun-06	23	5.7	25
Aug-06	13	2.7	2
Sep-06	13	2.4	3
Dec-06	10	2.2	0.63
Apr-07	14	3.1	0.96
Jul-07	1	0.08	1
Sep-07	0	0.00	0

LTE has also noted vegetation growth in the vicinity of the Bryce 1-X well since plugging activities were performed. Photos taken at the time initial survey show little to no vegetation present. Recent photos show vegetative growth around the well site. See photos below.

February 2005, view east.

May 2007, view east.

OTHER ACTIVITIES

During the week of October 15, 2007, LTE personnel were on site to oversee the removal of the Scott Sentinel II® methane detectors from the Meschke, Buddhue, Bandy, and fire station residences. The units were removed in order to be replaced with Macurco brand solid-state gas detectors that have more appealing aesthetics and do not require calibration. The Macurco gas detectors are a better fit for the long term monitoring in these residential structures. The Scott brand gas detector in the fire station garage was left intact. LTE trained local fire station personnel how to conduct the monthly calibration of this detector.

At the residences, LTE removed all control panels, lighting, electrical conduit, and sensors. The replacement units were hard-wired into the existing power supply in the residences. LTE made sure all residents were pleased with the aesthetic condition following the removal and installation of these detectors prior to leaving the site.

CONCLUSIONS AND RECOMMENDATIONS

The results of the September 2007 survey indicate that the methane seepage at the ground surface is no longer present. Continued monitoring of the seepage at the site is recommended to determine if the decrease in seepage is related to seasonal changes or if the gas trapped beneath the sandstone layer at the site has been vented.

The primary methane seep appears to have been caused by gas migrating from the Fruitland Formation up the well bore of the Bryce 1-X (API #05-067-09087) well. The gas moved vertically upward along the well bore and then migrated laterally into permeable layers and aquifers of the Nacimiento Formation where well casing was absent and/or structurally

compromised. It appears that the plugging of the Bryce 1-X (API #05-067-09087) has eliminated the gas seepage at the ground surface. LTE recommends continued monitoring of the methane seep at the Site as a safety precaution for the residents in the area and to monitor the effectiveness of the plugging activities. The next soil gas survey event is scheduled for January 2008.

The replacement methane detectors appear to be functioning according to manufacturer's specifications. Further monitoring and maintenance of these residential units is no longer needed. Monitoring and maintenance of the Scott brand detector in the fire station will be performed by fire department personnel.

LTE is currently overseeing the installation of three frost-proof hydrants to facilitate future groundwater sampling events at the fire station, Buddhue, and Meschke water wells. This work should be completed no later than December 1, 2007.

LTE appreciates the opportunity to provide environmental services to the COGCC. If you have any questions regarding this report or would like additional information, please contact us at (303) 433-9788.

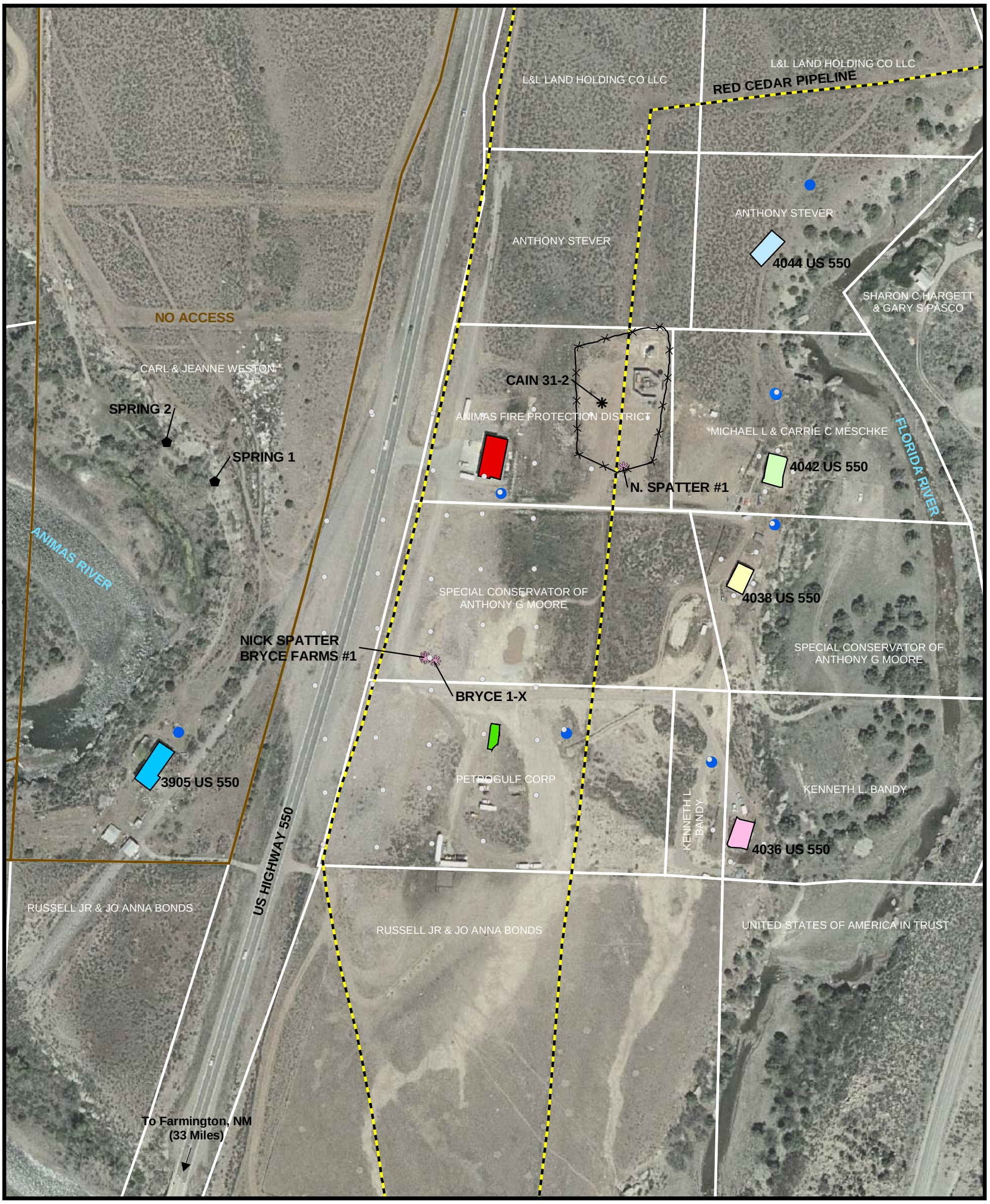
Sincerely,

LT ENVIRONMENTAL, INC.

John D. Peterson, P.G.
Project Manager

Attachments

FIGURES



LEGEND

- Water Supply Well
- Springs
- Gas Well
- Former Oil and Gas Well

Utilities

- Buried Gas Pipeline
- No Access

Structures

- Williams Residence
- Fire Station
- Meschke (former Wilson) Residence
- Buddhue Residence
- Bandy (former Grant) Residence
- Former Yoakum Residence
- Weston Residence

Subsurface Methane Measurements

- 0
- 500 ppm - 5%
- 6% - 15%
- 16% - 25%
- 26% - 50%
- 51% - 75%
- 75% - 100%

0 180 360
Feet

N

Landowner and Property Boundaries Labeled in White

FIGURE 1
SUBSURFACE METHANE MEASUREMENTS
SEPTEMBER 2007
BONDAD GAS SEEP
BONDAD, CO
COLORADO OIL AND GAS CONSERVATION COMMISSION

P:\COGCC Bondad\GIS\MXD\figure_1_NEW.mxd

L&L LAND HOLDING CO LLC

L&L LAND HOLDING CO LLC

ANTHONY STEVER

ANTHONY STEVER

4044 US 550

SHARON C HARGETT & GARY S PASCO

NO ACCESS

CARL & JEANNE WESTON

SPRING 2

SPRING 1

CAIN 31-2

ANIMAS FIRE PROTECTION DISTRICT

MICHAEL L & CARRIE C MESCHKE

4042 US 550

N. SPATTER #1

FLORIDA RIVER

ANIMAS RIVER

SPECIAL CONSERVATOR OF ANTHONY G MOORE

4038 US 550

SPECIAL CONSERVATOR OF ANTHONY G MOORE

NICK SPATTER BRYCE FARMS #1

BRYCE 1-X

3905 US 550

PETROGULF CORP

KENNETH L BANDY

KENNETH L BANDY

4036 US 550

US HIGHWAY 550

RUSSELL JR & JO ANNA BONDS

RUSSELL JR & JO ANNA BONDS

UNITED STATES OF AMERICA IN TRUST

To Farmington, NM (33 Miles)

LEGEND

Extent of Methane Seepage

- September 2007 - No Seep Detected
- July 2007
- April 2007
- September 2006
- April 2006
- November 2005
- April 2005
- Water Supply Well
- Springs
- Gas Well
- Former Oil and Gas Well
- No Access

Landowner and Property Boundaries Labeled in White

Structures

- Williams Residence
- Fire Station
- Meschke (former Wilson) Residence
- Buddhue Residence
- Bandy (former Grant) Residence
- Former Yoakum Residence
- Weston Residence

0 180 360

Feet

N

FIGURE 2
HISTORICAL SUBSURFACE METHANE MEASUREMENTS
APRIL 2005 - SEPTEMBER 2007
BONDAD GAS SEEP
BONDAD, CO
COLORADO OIL AND GAS CONSERVATION COMMISSION

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