



February 28, 2006

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

RE: January 30, 2006 Methane Seep Survey and Health and Safety Monitoring Summary
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 sixth methane seep survey conducted at the Bondad Gas Seep Site (Site) located in Bondad, Colorado on January 30, 2006. This letter also provides a summary of recent health and safety monitoring activities performed by LTE during the construction of a drilling pad location for the Bryce 1-X well on January 31, 2006 and February 1, 2006.

BACKGROUND

At the request of the COGCC, LTE conducted an initial methane gas seep survey on the Site in February 2005. The initial methane seep survey was performed in response to an explosion of a residence located at 4034 US Highway 550 (the former Yoakum Residence). During the period from February 21 through February 24, 2005, LTE conducted soil gas survey activities in the project area extending approximately 3,000 feet in all directions from the Bryce 1-X production well (Figure 1). 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 April 19, 2005, June 10, 2005, November 1, 2005, and December 2, 2005. 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 (such as abandoned wells or pipelines) 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 well was uncovered in the main gas seep area. In November, 2005, LTE provided oversight during the complete excavation, inspection, and initial remediation of the Bryce 1-X well and sandstone bedrock surface. Reports summarizing the geophysical survey, exploratory excavation activities, and the Bryce 1-X 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 Weston well house, Fire Station, Wilson residence,

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Buddhue residence, and Bandy (former Grant) residence and health and safety monitoring during well pad construction activities at the Bryce 1-X well.

SITE DESCRIPTION

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

METHANE GAS SEEP SURVEY

Methodology

On January 30, 2006, LTE was on site to conduct a sixth methane gas seep survey of the Site. This survey is the second survey since uncovering and work on the Bryce 1-X well began. 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, oxygen, hydrogen sulfide, and carbon monoxide 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. The grid consisted of approximately 140 squares, each measuring approximately 10,000 square feet in area. 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.

During previous soil gas surveys the concentration of methane and other gases have been measured around four houses in the immediate vicinity of the explosion, the Weston, Bandy (former Grant), Buddhue, and Wilson houses. The January 2006 survey area was expanded to include another house (Williams), which was recently constructed just north of the Site. LTE measured methane concentration in the soil around the exterior of all five houses, near the water wells associated with each of the five houses, and along the valley floor of both the Animas and Florida Rivers.

Soil Gas Survey Results

LTE personnel advanced a total of 201 subsurface probes across the project area. Results of this survey indicated that elevated methane gas was detected in an elliptically-shaped area



around the Bryce 1-X well and covering approximately eight acres. The distribution of the methane gas extends approximately 640 feet north of, 220 feet south of, 250 feet west of, and 175 feet east of the Bryce 1-X well. Detected methane concentrations in the elliptically-shaped seep area ranged from 500 parts per million (ppm) (0.05% methane) to 49% methane.

Methane was detected near the Buddhue water well at a concentration of 64% methane. Methane was detected at a concentration 4,000 ppm (0.4% methane) approximately 25 feet west of the Buddhue residence. Methane was detected near the Wilson well at a concentration of 13% methane. Methane was detected at 7,500 ppm (0.75% methane) approximately 25 feet south of the Wilson residence. Methane was not detected around the Weston, Bandy, or Williams residences nor the water wells associated with these structures.

Methane was detected to the south southeast of the Buddhue residence and the north northwest of the Bandy residence. Concentrations ranged between 3,000 ppm (0.03% methane) and 2.5% methane. This was the first survey to detect methane in this area.

Methane was detected at three points along the flood plain of the Animas River to the south southwest of Spring 2 (Figure 1). The methane concentrations ranged between 5% and 7% methane. During the April 2005 survey event, methane was detected at one point with a concentration of 9% to the east of Spring 2 (Figure 2).

Methane was detected in an isolated area along the abandoned pipeline on the east side of US Highway 550 approximately 260 feet north of the primary seep area. The methane concentration reported at this sampling point was 5% methane. This is the second survey event during which methane has been detected in this area. The reason for this isolated gas seep is not known at this time.

Figure 1 shows all methane concentrations recorded during the January 2006 methane seep survey.

Methane Seep Survey Comparison

With the exception of the February 2005 survey event which included the collection of 372 subsurface gas measurements, the number of subsurface measurements collected during the April 2005, June 2005, November 2005, December 2005, and January 2006 remained relatively consistent ranging from 134 to 201 points. The grid created for the April 2005 methane seep survey and used during the past four survey events allowed LTE to conduct field activities more efficiently and more systematically.

The areal extent of the gas seep around the Wilson and Buddhue residences appears to have increased as compared to previous survey events. The magnitude of the seep (methane concentration) at these locations has remained consistent with previous survey events.



LTE prepared a map illustrating the areal extent of methane seepage identified during the February 2005, April 2005, June 2005, November 2005, December 2005, and January 2006 survey events (Figure 2). Comparison of the data indicates that the primary seep area (area around the abandoned Bryce 1-X well) has decreased in both magnitude and extent during the most recent January 2006 survey.

The following table shows the survey dates, number of survey points collected within the primary seep area, and the average subsurface methane concentration detected. Data indicates that the concentrations have been declining since the Bryce 1-X well was uncovered and allowed to vent more directly to the atmosphere on November 3, 2005.

Survey Date	Number of Survey Points	Average Subsurface Methane Concentration (%)
Feb-05	112	23
Apr-05	45	33
Jun-05	37	21
Nov-05	45	32
Dec-05	25	21
Jan-06	31	10

HEALTH AND SAFETY MONITORING SUMMARY

On January 31, 2006 and February 1, 2006, LTE was onsite to conduct health and safety monitoring during construction of the drilling pad around the Bryce 1-X well. The purpose of the monitoring was to make sure construction activities were performed in a safe manner considering the presence of seeping methane gas at elevated concentrations.

Adobe Construction, Inc. (Adobe) of Aztec, New Mexico performed all earthwork activities. Activities included grading of pad area with a bull dozer, construction of a reserve pit, and rerouting of the access road to the Bandy (former Grant) and Buddhue residences.

LTE monitored for the presence or absence of explosive vapors prior to the initiation of any site work. Elevated concentrations of methane were detected in close proximity to the Bryce



1-X well but were found to dissipate quickly at distances of less than 15 feet from the well. Concentrations ranged from 10% of the Lower Explosive Limit (LEL) to 49% LEL. Concentrations of methane ranged from 1% LEL to 2% LEL greater than 15 feet from the Bryce 1-X.

Methane concentrations were measured periodically throughout each day to monitor for any change in conditions.

CONCLUSIONS AND RECOMMENDATIONS

The results of the January 30, 2006, survey indicate that the extent of activity in the primary seep area has decreased in both magnitude and extent since the November 2005 survey. Also during the January 30, 2006, survey, gas seepage was not detected in the vicinity of the Cain 31-2 CBM well, where it had last been detected in November 2005. An increase in seep activity was detected around the Buddhue and Wilson residences, relative to what was found in December 2005. Methane seeps were detected south of the Buddhue residence for the first time since inception of the survey program. Methane seepage also was detected near Spring 2 in the flood plain of the Animas River.

The primary seep activity appears to be associated with the Bryce 1-X abandoned well. Since the work performed on the Bryce 1-X during December 2 through December 4, 2005, the Bryce 1-X is venting gas to the atmosphere and it appears that the well is acting as the preferential pathway for methane gas migration. The preferential flow through the Bryce 1-X well may be decreasing the lateral migration of methane gas beneath the sandstone layer, thereby reducing the magnitude and extent of the surface gas seep. LTE recommends continued monitoring of the methane seep at the Site as a safety precaution for the people living in the area.

The grid mapping system will continue to be used during future seep surveys in an effort to remain consistent with the previous monitoring events. The next soil gas survey event is scheduled for March 27, 2005. LTE also recommends continued O&M of the existing methane detection systems in the four houses and the fire station located within the project area. The monthly O&M will continue to be conducted by Standby Safety of Cortez, Colorado.

LTE recommends continuous health and safety monitoring during upcoming well drilling operations. While the drilling company likely has experience in drilling oil and gas wells, they may not have experience in drilling within a gas seep area covering approximately eight acres of land. Special care should be taken to monitor site activities during placement and operation of drilling equipment across the entire well pad location. The potential for explosive vapors to accumulate in confined space of buildings, trailers, cabins, and break rooms used during drilling activities is high. It may be necessary to design and implement ventilation controls for confined spaces during the site work.



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.

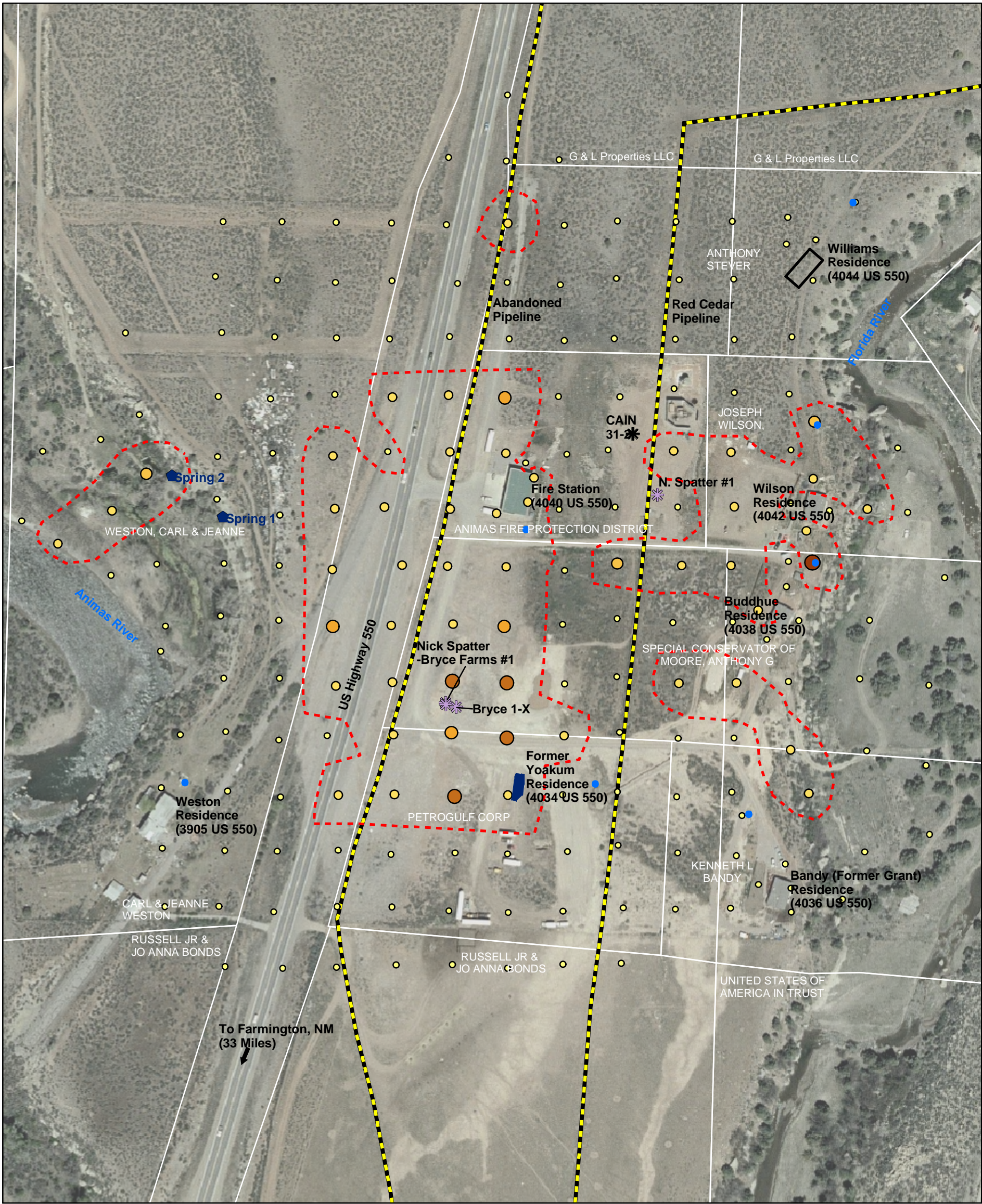
A handwritten signature in black ink, appearing to read 'J.D. Peterson', is written over the printed name.

John D. Peterson, P.G.
Project Manager

Attachments

FIGURES





LEGEND

- | | |
|--|---------------------------------|
| ● Water Supply Well | Subsurface Methane Measurements |
| ◆ Springs | ○ 0 ppm |
| ■ Yoakum Residence | ○ 500 ppm - 5% |
| ✱ Gas Well | ○ 6% - 15% |
| ✱ Former Oil and Gas Well | ○ 16% - 25% |
| Utilities | ○ 26% - 50% |
| — Buried Gas Pipeline | ○ 51% - 75% |
| --- Extent of Methane Seepage | ○ 76% - 100% |
| - - - January 2006 | Parcels |
| Landowner and Property Boundaries Labeled in White | |

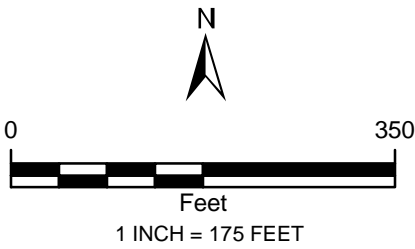
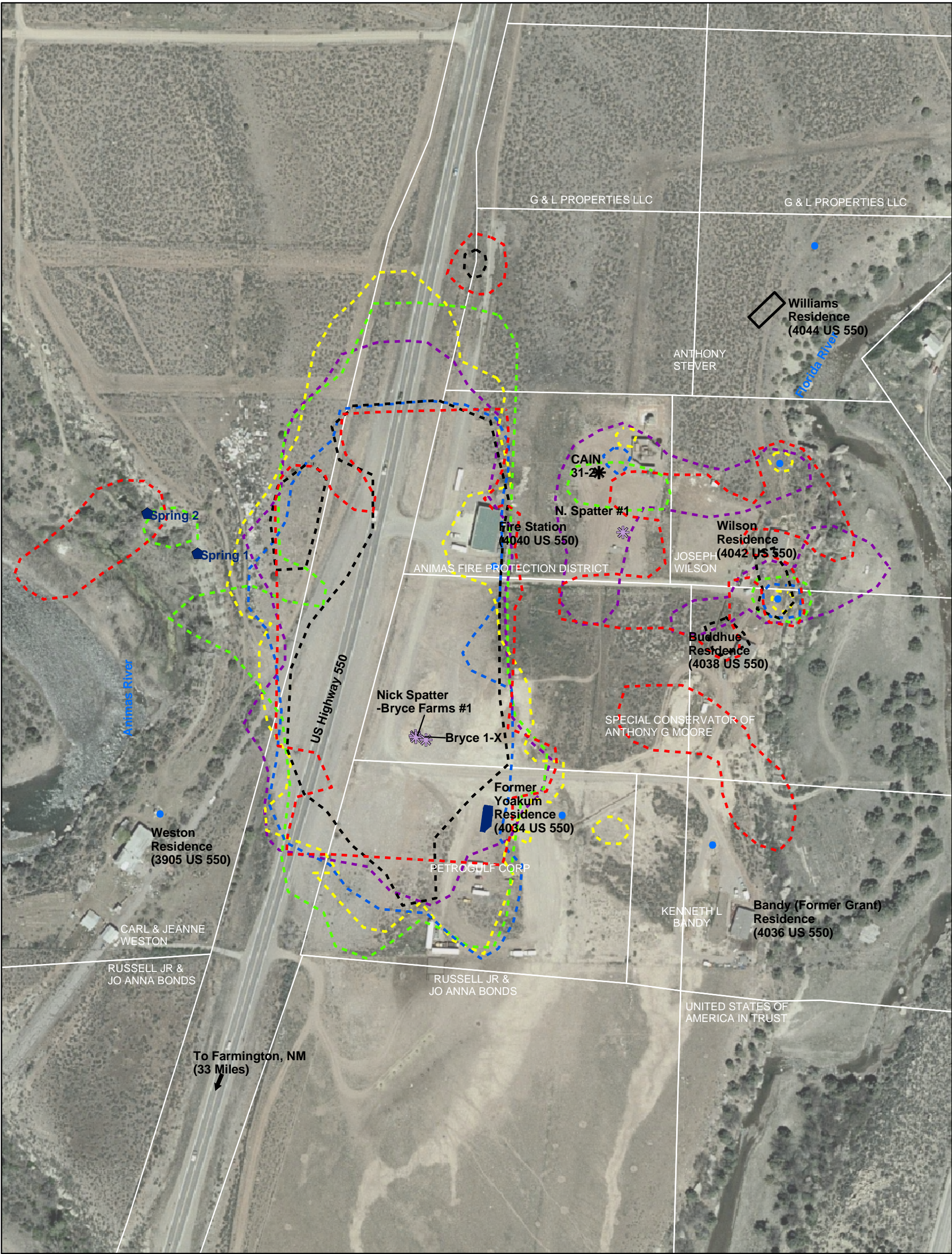


FIGURE 1
SUBSURFACE METHANE MEASUREMENTS
JANUARY 2006
BONDAD GAS SEEP
BONDAD, CO

COLORADO OIL AND GAS CONSERVATION COMMISSION





LEGEND

- Water Supply Well
- ◆ Springs
- Yoakum Residence
- ✱ Gas Well
- ✱ Former Oil and Gas Well
- Methane Seepage
 - February 2005
 - April 2005
 - June 2005
 - November 2005
 - December 2005
 - January 2006
- Landowner and Property Boundaries Labeled in White

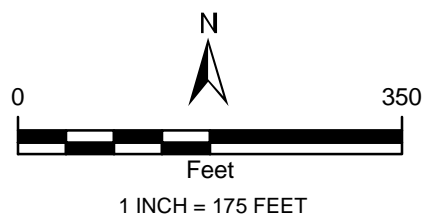


FIGURE 2
HISTORICAL SUBSURFACE
METHANE MEASUREMENTS
FEBURARY 2005 - JANUARY 2006
BONDAD GAS SEEP
BONDAD, CO
COLORADO OIL AND GAS CONSERVATION COMMISSION

