

2012 FRUITLAND OUTCROP MONITORING REPORT

LA PLATA COUNTY COLORADO



NOVEMBER 2012



Prepared for:

**THE GROUP
La Plata County, Colorado**



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Prepared by:

**LT ENVIRONMENTAL, INC.
Four Corners Office
2243 Main Avenue, Suite 3
Durango, Colorado 81301
(970) 385-1093**



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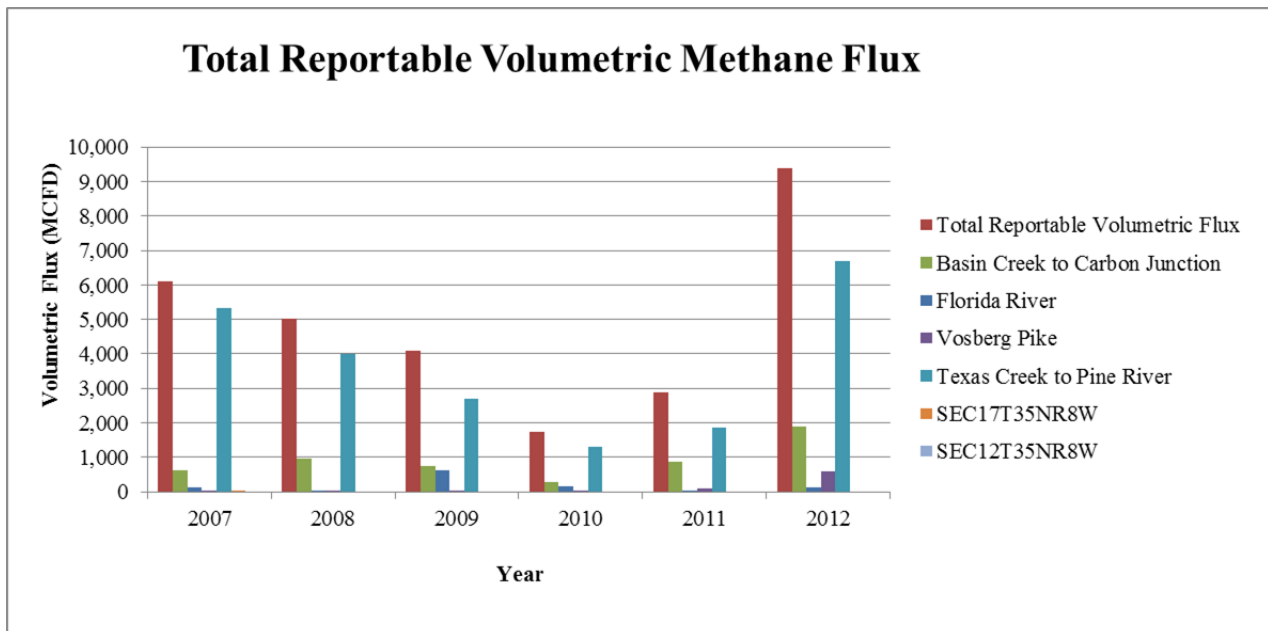
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EXECUTIVE SUMMARY

This 2012 Fruitland Outcrop Monitoring Report has been prepared on behalf of Chevron Corporation (Chevron), BP, Inc. (BP), and XTO Energy, Inc. (XTO). These companies are collectively referred to as “The Group”. The Fruitland Formation (Kf) outcrop monitoring is conducted in order to comply with the Colorado Oil and Gas Conservation Commission (COGCC) Orders 112-156 and 112-157. LTE was tasked with monitoring the magnitude and extent of methane seepage along the Kf outcrop in La Plata County.

The 2012 methane seep survey was conducted over 981 acres of the Kf outcrop from May 29, 2012, through July 17, 2012. The surveys were conducted at four key areas of interest along the Kf outcrop in La Plata County north of the Southern Ute Indian Tribe (SUIT) Reservation boundary, plus three additional abandoned/shut-in well locations. LTE included four suspect seep areas (5, 8, 18, and 29) from the 2011 regional reconnaissance where methane was detected in the subsurface. Two new areas were created; SEC17T35NR8W for suspect seep area 8 and SEC12T35NR8W for suspect seep area 29. Suspect seep area 5 was included in the Carbon Junction mapping area. Suspect seep area 18 was included in the Vosburg Pike mapping area.

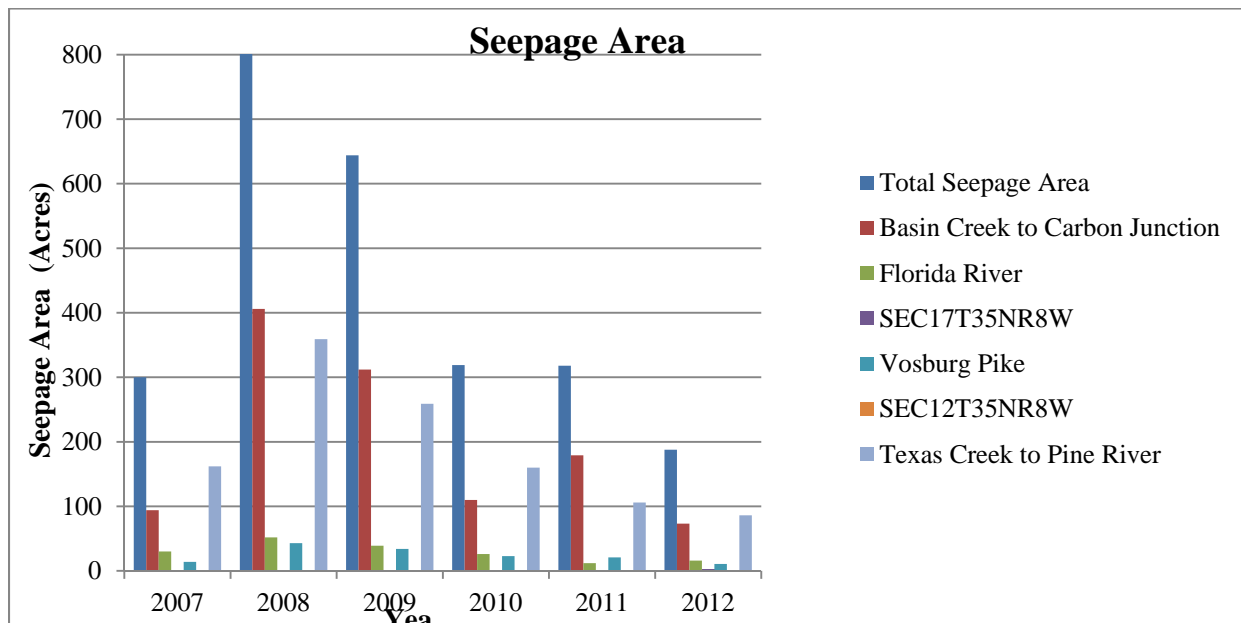
Historically, total reportable methane volumetric flux rates across the project area have decreased from 6,099 thousand cubic feet per day (MCFD) in 2007 to 2,900 MCFD in 2011. However, the total reportable volumetric flux from the 2012 survey is estimated to be 9,371 MCFD. Based on the distribution of reportable methane flux measurements over the Kf outcrop in La Plata, the increased reportable methane flux is located in the Basin Creek to Carbon Junction Area and the South Fork Texas Creek (SFTC) area. Below is a graphical representation of the change in reportable volumetric methane flux over the past five years along the Kf outcrop in La Plata County and by area.



The elevated methane flux reported in 2012 can be attributed primarily to a few key measurement locations within the Basin Creek to Carbon Junction area and the SFTC area with increased methane flux values. These few additional points with greater methane flux values account for the increase in the overall total methane flux in La Plata County during the 2012 monitoring event. LTE uses the Kriging method to interpolate the data points and develop the contours. When adjacent points vary greatly in value, the interpolation can be skewed and resulting contours can bias high the estimated volumetric flux. LTE noted this affect more frequently during the 2012 monitoring event due to the increased frequency of measurements reporting a higher flux value as compared to prior years.

The mitigation systems at SFTC and Pine River appear to have an effect on the methane flux results. While the mitigation systems do capture methane gas, they are not capable of capturing all of methane gas within the footprint of the system due to the mechanical constraints of the system. As a result, the system footprint has created a preferential pathway in which methane gas appears to seep out along the edges of the footprint. The methane seepage at the edges of the system concentrated as compared to the natural seepage flux. Elevated methane flux values have been recorded at the edges of the system footprint with a rapid decrease in methane flux values moving away from the system footprint. These elevated flux values affected interpolation and flux estimation as described above and bias results high.

While the survey area increased by nearly 3.5 times in acreage between 2007 and 2008, the total volumetric methane flux decreased. Total volumetric methane flux had a decreasing trend from 2007 to 2010 with a slight increase from 2010 to 2011. There was an increase in total volumetric methane flux in 2012 that exceeded the highest total volumetric methane flux since using the flux meter in 2007; however the seepage area is less than any of the other five years measured. The seepage area from 2011 to 2012 decreased by 40 percent (%) (see graph below). When comparing the 2012 monitoring event to the 2009 monitoring event where mappable area is similar, the seepage areas decreased by 71%. It appears the methane seep flux rate along the Kf Outcrop in La Plata County has increased within a smaller footprint over time.



The total estimated carbon dioxide volumetric flux rate for mapped areas was 4,538 MCFD. Hydrogen sulfide (H₂S) flux values along the Kf outcrop continue to remain very low and most measured values were reported only slightly above the detection limit of the flux meter. Due to the low flux rates recorded, volumetric flux of H₂S for the mapped areas was not estimated.

Three natural springs were sampled in May 2012. The dissolved methane concentrations in the natural spring water samples were below the 2 milligram per liter (mg/L) COGCC threshold to identify water for further investigation of the origin of methane in the water.

At the request of the COGCC, flux measurements were collected at the areas surrounding the shut-in production well, Pole Barn Monitor Well #1 (API #05-067-07969), and the abandoned production wells Baird 1-25 (API #05-067-06568) and Federal 34-1/2-34-1 (API #05-067-07514). Methane was not detected at any of the shut-in/abandoned production well locations above the flux meter reporting limit.

Based on the results of the 2012 Kf outcrop monitoring event, LTE recommends continuation of the following to meet the COGCC orders:

- Conduct detailed methane seep mapping and flux estimation using the portable flux meter in June 2013 to observe changes in subsurface methane over time and space;
- Sample natural springs every year to assess any changes in the flow rates, and/or the chemistry of natural springs. The next natural spring sampling event will be the spring of 2013; and
- Conduct the next regional reconnaissance IR aerial survey in 2014 to identify any changes to the methane seepage along the Kf outcrop in La Plata County.

1.0 INTRODUCTION

This 2012 Fruitland Outcrop Monitoring Report has been prepared on behalf of Chevron Corporation (Chevron), BP, Inc. (BP), and XTO Energy, Inc. (XTO). These companies are collectively referred to as “The Group”.

Since 1997, LT Environmental, Inc. (LTE) has conducted methane seep monitoring along the Fruitland Formation (Kf) outcrop in La Plata County, Colorado (Figure 1). The project area is located along the north rim of the San Juan Basin, north of the Southern Ute Indian Tribe (SUIT) Reservation boundary. The Kf outcrop monitoring is conducted in order to comply with the Colorado Oil and Gas Conservation Commission (COGCC) Orders 112-156 and 112-157.

1.1 OBJECTIVE

The objective of the methane seep monitoring program is to observe and document the relative change in methane seepage from the Kf outcrop over time and space. In total, the scope of work provides an efficient and repeatable means to characterize gas seepage, if any, in the project area by inspecting those areas with the greatest potential for seeps based on geological characteristics and historical field observations.

1.2 PROJECT AREA

The project area consists of approximately 23 miles of the Kf outcrop extending from the northern boundary of the SUIT Reservation near Basin Creek (southwest of Durango), northeastward to the boundary between La Plata and Archuleta counties (Figure 1).

1.3 BACKGROUND INFORMATION

There have been a number of previous and continuing studies, which support the overall methane seepage evaluation. Some of these studies include:

- Detailed mapping, methane seepage data collection, and mitigation in the Pine River area by BP between 1994 and 2004;
- A reconnaissance survey by Stonebrooke in 1995, on behalf of several oil and gas operators and with assistance from the Bureau of Land Management (BLM). The survey consisted of over 1,100 surface and subsurface methane sample points. In addition to Pine River, this survey identified four additional primary methane gas seepage areas including Basin Creek, Carbon Junction, Florida River, and South Fork Texas Creek (SFTC);
- Installation of 162 permanent soil gas monitoring probes by LTE in 1997, with additional probes installed at various locations since 1997, and ongoing monitoring of the points by the BLM. The probes are sampled by the BLM approximately six times per year;

- Installation of six flux chambers in the primary seep areas and periodic monitoring of the flux chambers from 1998 to 2005. The flux chambers measured gas flow on 10-minute intervals and have since been removed;
- Annual pedestrian reconnaissance surveys of the Kf outcrop by LTE from 1998 through 2001;
- Detailed seep mapping, and an infrared imagery (IR) pilot study performed in August 2002. The pilot study demonstrated that IR imagery is useful in identifying suspect areas based on stressed vegetation, which can be subsequently field-verified for the presence or absence of methane;
- Detailed methane seep mapping in the known seep areas in October 2002, May 2003, May 2004, June 2005, May 2006, September 2007, June 2008, June 2009, June 2010, and June 2011;
- Regional reconnaissance of the 23-mile section of the Kf outcrop in the project area in July 2003, September 2005, October 2008, and August 2011. The regional reconnaissance included the collection of IR imagery, identification of suspect areas, and field verification;
- Natural spring surveys along the 23-mile outcrop in La Plata County, north of the SUIT Reservation boundary, in September 2005, May 2006, October 2007, June and October 2008, May and October 2009, June 2010, and May 2011;
- Private Airborne Natural Gas Emission Lidar (ANGEL) data acquisition by ITT Corporation (ITT) during the summer of 2008;
- Installation of methane mitigation systems at SFTC and at Pine River 2009; and
- Expansion of the SFTC methane mitigation system during June 2010.

1.4 SCOPE OF WORK

The scope of work for the 2012 methane seep monitoring included the following tasks:

- 1) Obtaining permission to access private properties;
- 2) Conducting detailed seep mapping at four key areas of interest;
- 3) Conducting detailed seep mapping at three abandoned/shut-in production well locations;
- 4) Monitoring accessible natural springs; and
- 5) Preparing this report.

1.5 ORGANIZATION OF THE REPORT

This report is organized into eight sections including this introduction (Section 1.0), which presents the objectives of the study and discusses background information related to the project.



The field methods are described in Section 2.0. The results of the detailed flux mapping are summarized in Section 3.0. The natural springs monitoring results are presented in Section 4.0. The results of the abandoned/shut-in wells flux mapping are presented in Section 5.0. The summary, conclusions, and recommendations of this survey are presented in Section 6.0. The report references are listed in Section 7.0. Figures, tables, and appendices follow the text in separate sections.



2.0 FIELD METHODS

2.1 PROPERTY ACCESS

Prior to conducting 2012 field activities, LTE acquired landowner information from the La Plata County Assessor's office. LTE cross-referenced parcel data and the Kf outcrop geometry to identify owners of parcels located on the Kf outcrop. Much of the Kf outcrop is on federal land with unrestricted access. LTE attempted to contact private landowners along the Kf outcrop in La Plata County.

LTE was denied access to several properties; as a result, no investigation activities were conducted on these properties during the 2012 monitoring event.

The 2012 status of property access is presented in Table 1.

2.2 PROJECT AREA

LTE conducted detailed flux surveys at the following four areas of interest along the Kf outcrop in La Plata County (Figure 1):

- Basin Creek to Carbon Junction (subdivided into Basin Creek, Basin Creek North, and Carbon Junction);
- Florida River;
- Vosburg Pike; and
- SFTC to Pine River (subdivided into West SFTC, Central SFTC, East SFTC; BP Highlands, and Pine River).

LTE identified two methane seep areas (SEC17T35NR8W and SEC12T35NR8W) from the 2011 regional reconnaissance activities. As a result, LTE attempted to conduct detail flux surveys at the two seep areas. The property owners for seep SEC12T35NR8W did not respond to the property access letter, therefore, only seep SEC17T35NR8W was surveyed during the 2012 field activities.

To standardize the flux comparison process from year to year, these geographical areas are grouped according to location along the Kf outcrop. Notable observations and field results within the subdivided areas are discussed below.

2.3 DETAILED MAPPING

The grids for detailed mapping areas consisted of a varying number of squares, ranging in area from 2,500 square feet (ft²) to 40,000 ft². In general, 50-foot and 200-foot grid spacings were used, depending on site-specific needs. The smaller grid spacing was used to map the relatively small known methane seep areas. The grid mapping system has proven to be systematic, consistent, repeatable, representative, and successful in delineating the lateral extent of seepage.

LTE collected a flux measurement at the corner of each grid square. When methane was detected along the outer edges of the mapping area, additional grid points were developed and measured to determine the lateral extent of methane seepage.

Full-color spectrum aerial photographs used as base maps for field use and figures for this report are dated 2009 and do not necessarily indicate present surface conditions. The geologic contacts depicted on the aerial photographic maps were derived from geologic maps prepared by the Colorado Geological Survey (CGS) and digitized at a scale of 1:25,000. Accuracy of the formation contact is reduced when aerial photographs are viewed at a smaller scale.

The flux of soil gases moving across the soil surface to the atmosphere were measured using a West Systems, LLC (West Systems) portable gas flux meter. The flux meter has been used to measure soil gas seepage on the Kf outcrop since 2007. The meter measures the flux of methane, hydrogen sulfide, and carbon dioxide by employing individual gas-specific sensors that record the increases, if any, of gas concentrations over time for a given surface area. These increases in concentration over time are proportional to the flux of each gas measured. A brief description of the flux meter is summarized below. Information on the West Systems portable gas flux meter is provided in Appendix A.

The flux meter components include an accumulation chamber connected by circulation tubes to the gas detector unit. At each sampling point, the accumulation chamber was placed on the ground surface to capture gas seeping from the ground. Captured gases are continuously mixed by a small fan within the accumulation chamber during the measurement process. A pump moves the gases in the accumulation chamber to the detector unit. After passing through the detector unit, gases are returned to the chamber. This closed loop process allows soil gases discharging to the chamber to increase over time. Any increases in concentrations are measured and recorded automatically. No gas is allowed to escape the system; however, a vacuum is not created during the process. This enables the measurement of natural seep conditions, if present. The result for each gas is reported as a mass flux in units of moles per square meter per day ($\text{mol}/\text{m}^2 \cdot \text{day}$).

Flux measurement accuracy can be limited by surface conditions. One of the most important factors is the quality of the seal between the accumulation chamber base and the ground surface. To ensure a proper seal between the ground surface and the chamber, LTE personnel chose relatively flat surfaces where possible and placed loose soil around the base of the chamber to reduce the potential for gas loss at the base of the chamber. In addition, LTE personnel attempted to minimize ground disturbance during the measurement process in order to maintain the natural seep conditions. In areas with heterogeneous surfaces, the seal was sometimes difficult to achieve. This scenario was evident at locations with poorly developed soil or where the soil surface was obscured by decayed organic matter on the forest floor.

The accuracy of the total flux estimation within the project area is influenced by the ability of the grid spacing system to represent the actual flux on a detailed level relative to the subsurface fracture system, coal quality, and stratigraphy within the Kf. The accuracy of the field meters also influences the flux estimation.

The methane sensor within the flux meter unit has a range of 60 parts per million (ppm) to 50,000 ppm. The flux meter methane measurement range is 0.0 to 300 mol/m²·day. Methane flux values below 0.2 mol/m²·day are detectable, although with decreased accuracy. Due to the low accuracy and confidence level of methane flux values below 0.2 mol/m²·day, the reporting limit set for the flux meter is 0.2 mol/m²·day. As a result, reporting of methane flux values did not include values below the reporting limit and were not included in methane flux contours or in the calculation of total methane flux volumes. Supporting flux data are included in Appendix B.

The carbon dioxide sensor has a full-scale range of 0.0 ppm to 20,000 ppm and a flux measurement range of 0.0 mol/m²·day to 600 mol/m²·day at an accuracy of ±25 percent (%).

The hydrogen sulfide detector has a full-scale range of 0.0 ppm to 20 ppm and a flux measurement range of 0.0025 mol/m²·day to 0.5 mol/m²·day at an accuracy of ±25%. The sensor is an electrochemical cell that measures hydrogen sulfide through a chemical oxidation process. The sensing process consumes a small amount of the hydrogen sulfide, which is not returned to the flux meter accumulation chamber. Therefore, the flux meter can underestimate hydrogen sulfide flux by as much as 10%.

During the measurement process, gas concentrations were recorded at 1-second intervals and directly downloaded via a Bluetooth[®] connection to a portable digital assistant (PDA) integrated with the Trimble GeoXT[®] global positioning system (GPS) unit (described below). Other measurements recorded included barometric pressure, temperature, date, and time.

Integrated West Systems Flux Manager[®] software on the GPS unit recorded the gas measurement data. The software plotted the curve of gas concentration versus time for each measurement collected. LTE selected the best-fit line for the curve generated. The slope of the best-fit line is proportional to the flux at the measurement point.

LTE conducted internal quality assurance / quality control (QA/QC) measures to verify data reported by the flux meter. LTE personnel did calibrate the flux meter according to manufacturer recommendations and regularly bump-tested the flux meter to confirm the readings of the flux meter were accurate. LTE also looked at the actual flux data and compared it to the best-fit trend lines LTE field personnel recorded for each measurement point and saw a strong correlation between a calculated best fit line and the line recorded in the field. LTE also reviewed project data from other projects using this flux meter to confirm data consistency. Since LTE calibrated and bump-tested the flux meter throughout the flux survey event in 2012, best-fit lines recorded by LTE field personnel matching calculated best-fit lines, and the absence of any significant anomalies on two other similar projects, it appears the data from the flux meter is reliable and accurate for the project.

2.4 GLOBAL POSITIONING SYSTEM DATA MANAGEMENT

Each sample location was recorded using a GPS unit. Soil gas sampling grids were created in ArcView[®] and pre-loaded into the GPS unit so LTE field personnel could quickly and accurately position detection equipment along the project area. Soil gas measurements and other relevant field data were then stored as attributes in the GPS unit along with the associated location data. The data stored in the GPS unit were then downloaded for processing and reporting.

The GPS unit location data were collected in the World Geodetic System 1984 (WGS 84) and projected in Colorado State Plane South (feet), North American Datum 1983 (NAD 83) for use in an ArcView® project file. On average, 25 GPS log positions were collected for each point in order to obtain more accurate positioning.

Readings collected with the GPS unit can be located within 1-meter accuracy; however, the terrain along the Kf outcrop can adversely affect GPS unit accuracy. North-facing slopes and heavily wooded areas can distort or block satellite signals. When satellite signals are limited, positioning accuracy decreases. In locations where the GPS unit could not obtain a signal, LTE field personnel noted measurement data on their field reference maps. Specifications of the GPS unit are included in Appendix A.

2.5 NATURAL SPRINGS MONITORING

At each sampled natural spring, LTE personnel collected water samples and monitored for methane near the springs using the portable flux meter. LTE personnel located the position and elevation using the GPS at each natural spring. A water discharge rate was measured using a graduated cylinder and stopwatch. Water quality measurements, including pH, electrical conductivity (EC), and temperature were collected at each sampled natural spring.

Laboratory analytical water samples were collected at each accessible and flowing natural spring in bottles and containers prepared by the subcontracted analytical laboratories. Each sample bottle was labeled, indicating project and sample identification, and the date and time of sample collection. Samples were delivered directly or shipped to the laboratories under chain-of-custody controls.

The 2012 natural spring water samples were collected and submitted to Four Corners Geoscience, Inc. for analysis of dissolved methane. General water chemistry samples were submitted to Green Analytical Laboratories.

2.6 ABANDONED/SHUT-IN PRODUCTION WELL FLUX MAPPING

At the request of the COGCC, flux measurements were collected at areas surrounding abandoned production wells Baird 1-25 (API #05-067-06568), Federal 34-1/2-34-1 (API #05-067-07514), and Pole Barn Monitor Well #1 (API #05-067-07969).

LTE mapped the collected methane flux points next to each abandoned/shut-in production well utilizing the flux meter. If methane was detected in soil, the seep area was then delineated in all four directions.

3.0 DETAILED MAPPING RESULTS

This section describes the results of the detailed flux mapping conducted from May 29, 2012, through July 17, 2012, in the four main mapping areas and one new methane seep (SEC17T35NR8W). A total of 1,386 flux measurements were collected over 981 acres of land in the project area during the 2012 monitoring event.

Methane and carbon dioxide flux measurements are summarized by Kf outcrop areas of interest in Table 2. Methane and carbon dioxide measurements are presented on Figures 2 through 21. Flux meter data are included as Appendix B.

LTE has reported flux measurements in this document as mass flux with the units of mol/m²·day. Conversion to volumetric flux rates in units of thousand cubic feet per day (MCFD) have been provided as a reference for the natural gas production industry, which typically uses volumetric flow rates. The conversion of mass flux units to volumetric flux is discussed in Section 3.4, with calculation details provided in Appendix C.

3.1 OVERALL METHANE RESULTS

The 2012 monitoring event recorded flux above the reportable limit (0.2 mol/m²·day) at 177 of the 1,388 (12.8%) sample locations. The reportable methane flux values of each measured location area for the entire project area ranged from 0.2 mol/m²·day to a maximum of 2,817.162 mol/m²·day. Methane flux results for each location of interest are discussed in Section 3.5.

3.2 OVERALL CARBON DIOXIDE RESULTS

The 2012 monitoring event detected carbon dioxide flux at 1,314 of the 1,387 (94.7%) sample locations. The carbon dioxide flux values of each measured location area for the entire project area ranged from 0.000234 mol/m²·day to a maximum 143.2593 mol/m²·day. Carbon dioxide flux results for each location of interest are discussed in Section 3.5.

3.3 OVERALL HYDROGEN SULFIDE RESULTS

Hydrogen sulfide flux (though only slightly above sensor detection limits) was recorded at 1,320 sample locations. The flux meter is a highly sensitive field meter capable of detecting very low flux rates of hydrogen sulfide. Thus, it is not surprising that hydrogen sulfide flux was detected at 95.1% of the sampling points during the 2012 detailed mapping event. However, only 597 points (43.0%) were slightly above the unit's reliable detection limit of 0.0025 mol/m²·day. Given the flux meter's accuracy of ±25%, the majority of these measured values are not considered to pose a threat to human health.

Hydrogen sulfide has been identified in the Carbon Junction and SFTC areas since the inception of the monitoring program in 1997, but concentrations in the atmosphere above the ground surface have not been detected at levels that pose a risk to human health. Hydrogen sulfide concentrations have been detected in the shallow subsurface soil; however, concentrations were found to dissipate quickly to below detectable limits above the ground surface. The source of the hydrogen sulfide detected along the Kf outcrop is believed to be from local, near surface,

anaerobic microbial activity, as hydrogen sulfide is not present in the coalbed methane production gas developed within the northern San Juan Basin.

Due to the very low flux values of hydrogen sulfide measured during the 2012 detailed mapping program, maps of hydrogen sulfide measurements were not deemed useful and, therefore, were not prepared. Estimates of total volumetric flux for hydrogen sulfide were also not calculated due to the low levels detected.

3.4 TOTAL FLUX VOLUME ESTIMATIONS

LTE estimated the total volumetric flux of methane and carbon dioxide by combining generally contiguous areas of interest of the Kf outcrop in La Plata County. Flux data were interpolated and gridded and then contoured and processed to estimate the total volumetric flux rates.

The results were converted to volumetric flux rates common to the natural gas production industry in units of MCFD. For a better perspective of the methane flux and carbon dioxide flux rates, LTE converted the mass flux values into volumetric flux units of cubic feet per day (CFD), assuming equal areas. The unit conversion is based on the molecular weight of the gas and the density of the gas at approximately 7,000 feet amsl. For methane flux, the calculation is as follows:

$$\frac{\text{mol CH}_4}{\text{day}} \times \frac{16.04276 \text{ g CH}_4}{\text{mol CH}_4} \times \frac{0.0698 \text{ ft}^3 \text{ CH}_4}{\text{g CH}_4} = \frac{\text{ft}^3 \text{ CH}_4}{\text{day}}$$

For example,

$$1.0 \text{ mole/day CH}_4 = 1.12 \text{ CFD CH}_4$$

For carbon dioxide flux, the calculation is as follows:

$$\frac{\text{mol CO}_2}{\text{day}} \times \frac{44.01 \text{ g CO}_2}{\text{mol CO}_2} \times \frac{0.0253 \text{ ft}^3 \text{ CO}_2}{\text{g CO}_2} = \frac{\text{ft}^3 \text{ CO}_2}{\text{day}}$$

For example,

$$1.0 \text{ mole/day CO}_2 = 1.11 \text{ CFD CO}_2$$

Notes:

CH₄ – methane g – grams mol - mole
 ft³ – cubic feet CO₂ – carbon dioxide

The volumetric flux values calculated herein are estimates and may not represent actual values for the specific areas. Interpolation calculation techniques are highly sensitive to data skewness and can result in large changes in calculated flux values based on measurements made at only a few locations. Methane flux volumes were calculated using values that were at or above the reporting limit as described in Section 2.3. A discussion of the methods and calculations used to determine total methane flux is presented in Appendix C.



The total estimated reportable methane flux volume for the mapped areas on the Kf outcrop in La Plata County was 9,371 MCFD.

The total estimated carbon dioxide volumetric flux for the mapped areas on the Kf outcrop in La Plata County was 4,538 MCFD.

Table 3 summarizes the total flux volumes for each mapping area and includes historical comparisons.

3.5 SPECIFIC AREA RESULTS

3.5.1 Basin Creek to Carbon Junction

The Basin Creek and Carbon Junction survey areas are located just south of the city of Durango and consist of approximately 6.9 miles of the Kf outcrop. The detailed flux mapping of Basin Creek to Carbon Junction area was conducted between May 30 and July 17, 2012.

The Basin Creek mapping area is centered near the Animas-La Plata Ridges Basin Dam. Figures 2 through 5 illustrate methane and carbon dioxide flux results of the detailed mapping in the Basin Creek and Basin Creek North areas, respectively.

The Carbon Junction mapping area is centered on the Animas River near the Wal-Mart shopping center on Highway 160. Suspect seep area 5 from the 2011 regional reconnaissance detected methane in the subsurface and as a result, suspect seep area 5 was included in the Carbon Junction mapping area in 2012. Figures 6 and 7 illustrate methane and carbon dioxide flux results of the detailed mapping in the Carbon Junction area, respectively.

The Basin Creek to Carbon Junction survey area has an estimated methane seepage area of 73 acres with a total reportable volumetric flux rate of 1,904 MCFD. Carbon dioxide was mapped over approximately 419 acres with a total volumetric flux rate of 2,698 MCFD.

Figures 2 through 7 illustrate the methane and carbon dioxide flux results of the Basin Creek to Carbon Junction area. A summary of the flux measurements is presented in Table 2.

3.5.2 Florida River

The survey area at Florida River extends approximately 1.5 miles along the Kf outcrop. The Florida River mapping was conducted on June 20 and 21, 2012. A total of 88 flux sample points were measured. The Florida River mapping area has an estimated methane seepage area of 16 acres with a total reportable volumetric flux of 119 MCFD. Carbon dioxide seepage area is approximately 84 acres with a total volumetric flux of 197 MCFD.

Figures 8 and 9 illustrate the methane and carbon dioxide flux results of the Florida River area, respectively. A summary of the flux measurements is presented in Table 2.



3.5.3 SEC17T35NR8W

LTE detected methane in the subsurface in suspect seep area 8 from the 2011 regional reconnaissance. As a result, the area was included in the 2012 detailed flux survey. The methane seep (SEC17T35NR8W) is located in Section 17, Township 35, Range 8 West, located between Florida River and Vosburg Pike. SEC17T35NR8W seep has an estimated methane seepage of 2 acres with a total reportable volumetric flux of 48 MCFD. Carbon dioxide seepage is approximately 5 acres with an estimated total volumetric flux of 15 MCFD.

Figures 10 and 11 illustrate the methane and carbon dioxide flux results for the SEC17T35NR8W area, respectively. A summary of the flux measurements is presented in Table 2.

3.5.4 Vosburg Pike

The mapping area at Vosburg Pike is an upland portion of the Kf outcrop, located approximately halfway between the Florida River and SFTC mapping areas. The Vosburg Pike mapping area covers approximately 1.3 miles along the Kf outcrop. Suspect seep area 18 from the 2011 regional reconnaissance identified subsurface methane. As a result, suspect seep area 18 was included in the Vosburg Pike mapping area in 2012. Flux mapping occurred between August 9 16, 2012.

A total of 110 flux sample points were measured. The Vosburg Pike mapping area has an estimated methane seepage area of 11 acres with a total reportable volumetric flux rate of 598 MCFD. Carbon dioxide was mapped over approximately 103 acres with a total volumetric flux rate of 155 MCFD.

Figures 12 and 13 illustrate the methane and carbon dioxide flux results for the Vosburg Pike area, respectively. A summary of the flux measurements is presented in Table 2.

3.5.5 SEC12T35NR8W

LTE detected methane in the subsurface within suspect seep area 29 from the 2011 regional reconnaissance. As a result, the area was included in the 2012 detailed flux survey. The methane seep (SEC12T35NR8W) is located in Section 12, Township 35 North, Range 8 West, located between Vosberg Pike and SFTC. The landowners did not grant access to this seep area in 2012 and as a result, the flux survey was not conducted for SEC12T35NR8W.

3.5.6 South Fork Texas Creek to Pine River

The SFTC to Pine River mapping area consists of five individual areas including SFTC West, SFTC Central, SFTC East, BP Highlands, and Pine River. The entire mapping area is approximately 4.4 miles of the Kf outcrop. The flux survey from SFTC to Pine River was conducted between June 21 and July 10, 2012. A summary of the 332 flux measurements is presented in Table 2.

The survey area collectively known as SFTC (SFTC West, SFTC Central, and SFTC East) is located where the creek transects the Kf outcrop (Figures 14 through 19). A large alluvial grass-

covered valley parallels the strike of the outcrop but eventually turns northward and transects the contact between the Kf and Pictured Cliffs Formation (Kpc). The main seep area within SFTC and the Ward and Kurtz properties has been designated SFTC Central (Figures 18 and 19). The seep area located approximately 0.25 miles east of the creek has been labeled SFTC East (Figures 20 and 21). Areas west of the creek are designated Texas Creek West (Figures 16 and 17).

The seep at SFTC is one of the most active methane seeps within the project area and is currently undergoing a pilot study funded by the COGCC and BP to evaluate mitigation technologies for methane seepage. A mitigation system (Figure 16), which was expanded in 2010, is located in SFTC Central. The flow rate of the methane gas captured by the mitigation system is approximately 10 MCFD under normal conditions. The volume of gas captured by the mitigation system exceeds the volume of gas used by the turbine driven electrical generator. This result is based on optimizing the system efficiency and is routinely monitored to maximize the system output. As indicated on Figure 16, methane continues to be detected around the collection system boundary. Due to the excess methane that the system is not capturing, it appears the remaining methane is following preferential pathways to the surface.

The BP Highlands is an upland area directly east of SFTC and west of Pine River (Figures 20 and 21).

The mapping area at Pine River is located where the Pine River transects the Kf outcrop. The seep at Pine River is also currently undergoing a pilot study funded by the COGCC and BP to evaluate mitigation technologies for the methane seepage. According to data, the flow rate of methane captured from the mitigation system is approximately 10 MCFD. Figures 22 and 23 illustrate the methane and carbon dioxide flux results for the survey performed at Pine River, respectively. The location of the mitigation system is illustrated in both figures.

The Texas Creek to Pine River survey area has an estimated methane seepage area of 86 acres with a total reportable volumetric flux rate of 6,701 MCFD. Carbon dioxide was mapped over approximately 487 acres with a total volumetric flux rate of 1,473 MCFD.

3.6 HISTORICAL FLUX DATA COMPARISON

From 2007 to 2008, LTE expanded the detailed survey area from 554 acres to 1,951 acres, roughly 3.5 times the area of the previous survey (Figure 24). The increase in survey area was due largely to the addition of the Horse Gulch mapping area. However, in 2008 reportable methane flux seepage was limited in the Horse Gulch area; therefore, it was not considered an active seep area. As a result, surveys from 2009 to present exclude the Horse Gulch area (Figure 25). The 2012 survey area included 981 acres of the Kf outcrop (Figure 26).

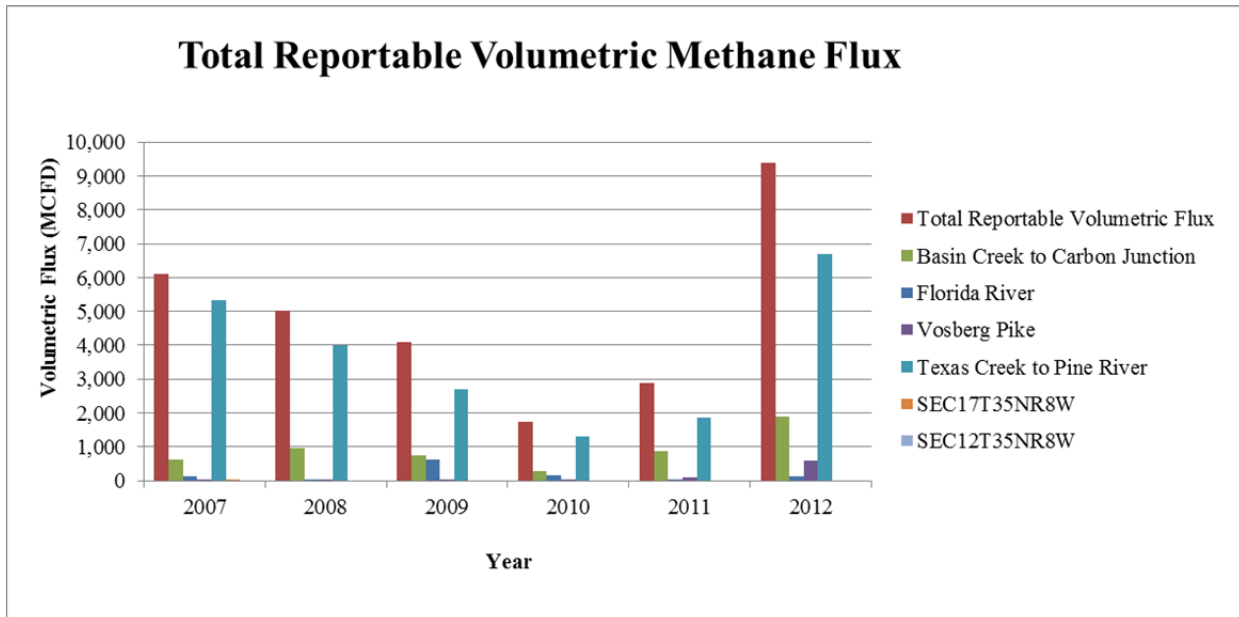
In 2007, LTE estimated the total reportable volumetric methane flux over the accessible Kf outcrop in La Plata County north of the SUT boundary at 6,099 MCFD. Results of the 2008 survey estimated a total reportable volumetric methane flux of 5,011 MCFD, while the results of the 2009 survey estimated a total reportable volumetric methane flux of 4,099 MCFD. The results of the 2010 survey estimated a total reportable volumetric methane flux of 1,748 MCFD. In 2011, the estimated total reportable volumetric flux increased to 2,900 MCFD. The total

reportable volumetric flux from the 2012 survey is estimated to be 9,371 MCFD. Based on the distribution of reportable methane flux measurements over the Kf outcrop in La Plata, the increased reportable methane flux is located in the Basin Creek to Carbon Junction Area (Figures 2 and 4) and the SFTC area (Figures 14, 16, and 18).

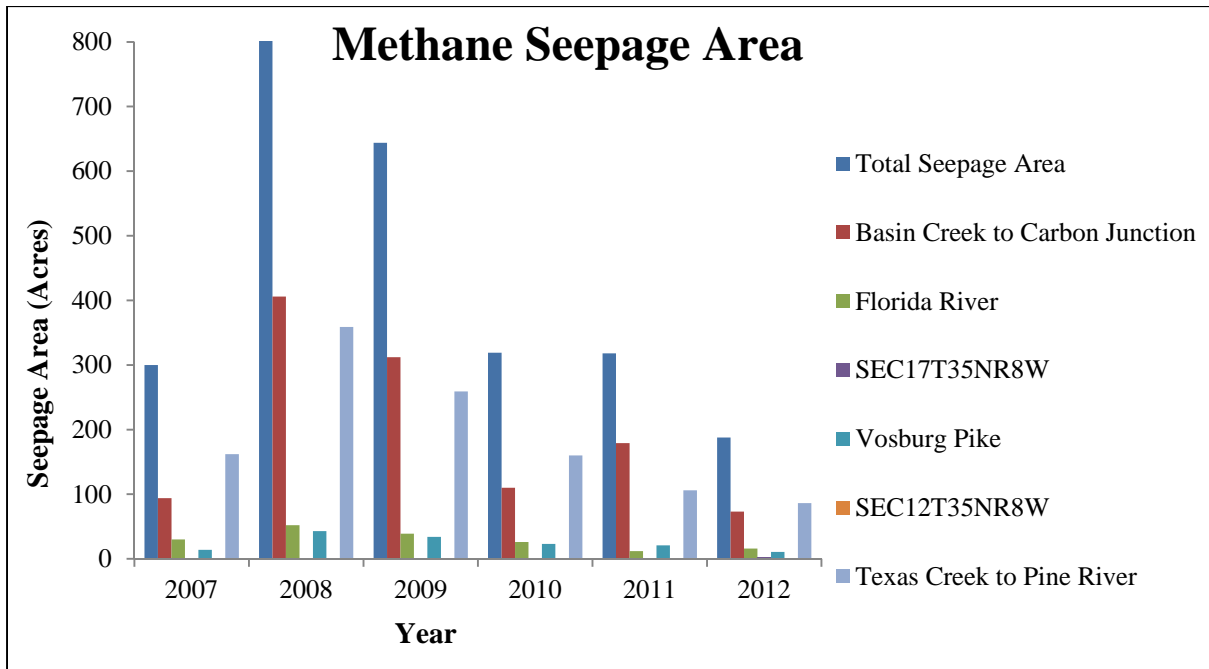
The elevated methane flux reported in 2012 can be attributed primarily to a few key measurement locations. There were 7 methane flux measurements between 100 mol/m²·day and 1,000 mol/m²·day within the SFTC area in 2012 compared to only 2 in 2011. These few additional points with greater methane flux values account for the increase in the overall total methane flux in La Plata County during the 2012 monitoring event. LTE uses the Kriging method to interpolate the data points and develop the contours. When adjacent points vary greatly in value, the interpolation can be skewed and resulting contours can bias high the estimated volumetric flux. LTE noted this affect more frequently during the 2012 monitoring event due to the increased frequency of measurements reporting a higher flux value as compared to prior years.

The mitigation systems at SFTC and Pine River appear to have an effect on the methane flux results. While the mitigation systems do capture methane gas, they are not capable of capturing all of methane gas within the footprint of the system due to the mechanical constraints of the system. As a result, the system footprint has created a preferential pathway in which methane gas appears to seep out along the edges of the footprint. The methane seepage at the edges of the system concentrated as compared to the natural seepage flux. Elevated methane flux values have been recorded at the edges of the system footprint with a rapid decrease in methane flux values moving away from the system footprint. These elevated flux values affected interpolation and flux estimation as described above and bias results high.

Below is a graphical representation of the change in reportable volumetric methane flux over the last six years along the entire Kf outcrop and by area.



While the survey area increased by nearly 3.5 times in acreage between 2007 and 2008 (Figure 27), the total volumetric methane flux decreased. Total volumetric methane flux had a decreasing trend from 2007 to 2010 with a slight increase from 2010 to 2011 . There was an increase in total volumetric methane flux in 2012 that exceeded the highest total volumetric methane flux since using the flux meter in 2007; however the seepage area is less than any of the other five years measured. The seepage area from 2011 to 2012 decreased by 40% (see graph below). When comparing the 2012 monitoring event to the 2009 monitoring event where mappable area is similar, the seepage areas decreased by 71%. Seepage area comparison based on acreage for the past six years is illustrated below. It appears the methane seep flux rate along the Kf Outcrop in La Plata County has increased within a smaller footprint over time.



Figures 24 through 27 depict methane seepage extent compared to the survey area from 2007 through 2012, respectively. Table 3 summarizes the changes in seepage area extent and the volumetric methane flux from 2007 through 2012. In order to compare methane fluxes for each year, the figures depict reportable methane flux measurements. This visual representation of methane flux is able to delineate areas of elevated methane seepage throughout the Kf outcrop and an understanding as to why these specific areas are investigated.

4.0 NATURAL SPRINGS MONITORING

Nine natural springs have been previously identified on the Kf outcrop in La Plata County north of the SUIT boundary. Three out of the nine natural springs were sampled during the 2012 sampling event.

The locations of natural springs are presented on Figures 27 through 30. A summary of natural springs sampled in 2012, along with past natural springs sampling status, is presented in Table 4.

4.1 FIELD OBSERVATIONS

Discharge rates and field parameters were measured at two natural springs (Darwin Rather Spring #2 and Hoier Spring), which were sampled in May 2012. The Darwin Rather Spring #1 did not have a sufficient flow to attempt a flow rate measurement. The remaining six natural springs were dry or inaccessible at the time of sampling. As a result, field parameters and water samples for analysis were not collected at these locations.

The 2012 field observations and measurements for the natural springs, including historical measurements, are summarized in Table 5.

4.2 NATURAL SPRINGS SAMPLING AND ANALYSIS

The COGCC uses 2 milligrams per liter (mg/L) for dissolved methane in domestic water systems as the threshold to identify water for further investigation of the origin of methane. The COGCC holds that water systems containing dissolved methane concentrations above 2 mg/L have an increased risk of desorption from the water, creating potentially explosive conditions in confined spaces.

In 2012, dissolved methane was not detected in the three natural spring water samples. Historically, methane had not been detected in natural spring waters along the Kf in La Plata County at concentrations exceeding the 2 mg/L COGCC threshold necessary for further investigation.

Figure 31 depicts the Tri-Linear diagram for the three springs sampled. Stiff diagrams, illustrated on Figure 32, indicate the water type for each spring sampled is calcium-carbonate.

Laboratory analytical results for dissolved methane, including historical results, are summarized in Table 6. Major ion chemistry of the natural spring samples is summarized in Table 7. Analytical reports are presented in Appendix D.

4.3 SUBSURFACE SOIL GAS MEASUREMENTS

During the May 2012 natural spring sampling event, one subsurface soil gas measurement was collected at each of the three springs using traditional subsurface soil-gas sampling techniques and the multi-gas meter. Subsurface methane was not detected in any of the subsurface soil gas probes at the measured natural springs.

5.0 ABANDONED/SHUT-IN WELLS FLUX RESULTS

LTE conducted detailed flux surveys utilizing the flux meter at three abandoned production gas well sites Baird 1-25 (API #05-067-06568), Federal 34-1/2-34-1 (API #05-067-07514), and Pole Barn Monitor Well #1 (API #05-067-07969). Baird 1-25 and Federal 34-1/2-34-1 were surveyed on May 29 and Pole Barn Monitor Well #1 was surveyed on June 27, 2012. Monitoring was conducted at the request of the COGCC to determine whether methane seepage exists within the vicinity of the sites.

Flux measurements were collected at each location. A total of 25 measurements were collected at Pole Barn Monitor Well #1 (Figure 33), 25 measurements at Federal 34-1/2-34-1 (Figure 34), and 25 measurements at Baird 1-25 (Figure 35). Methane was not detected at any sample location above the reportable limit.

6.0 SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

6.1 SUMMARY

The 2012 Kf outcrop monitoring event was conducted from May 29, 2012, through August 16, 2012. This was the sixth survey event where the portable flux meter was used to conduct methane seep mapping. Mapping was performed at four key areas of interest along the Kf outcrop in La Plata County north of the SUT Reservation boundary, two newly identified seep areas from the 2011 regional reconnaissance, and at three abandoned well locations.

The detailed flux mapping program included the same areas mapped in 2010 and 2011 as well as two new areas (SEC17T35NR8W and SEC12T35NR8W). A total estimated methane volumetric flux rate, for areas mapped along the Kf outcrop in La Plata County utilizing only those values that were greater than the reporting limit, was 9,371 MCFD. The total estimated carbon dioxide volumetric flux rate for those areas mapped along the Kf outcrop in La Plata County was 4,538 MCFD. Hydrogen sulfide flux values along the Kf outcrop continue to remain low and most concentrations were only slightly above the detection limit of the flux meter.

Three natural springs were sampled in May 2012. The dissolved methane concentrations of the three water samples collected during 2012 were below the laboratory method detection limit of 0.02 mg/L and were below the 2 mg/L COGCC threshold to identify water for further investigation of the origin of methane in the water.

At the request of the COGCC, flux measurements were collected at the areas surrounding the shut-in well Pole Barn Monitor Well #1 (API #05-067-07969) and the abandoned production wells Federal 34-1/2-34-1 (API #05-067-07514) and Baird 1-25 (API #05-067-06568), and. Methane was not detected at any of the shut-in/abandoned production wells above the flux meter reporting limit.

6.2 CONCLUSIONS

Historically, total reportable methane volumetric flux rates across the project area have decreased from 6,099 MCFD in 2007 to 2,900 MCFD in 2011. However, the total reportable volumetric flux from the 2012 survey is estimated to be 9,371 MCFD. Based on the distribution of reportable methane flux measurements over the Kf outcrop in La Plata, the increased reportable methane flux is located in the Basin Creek to Carbon Junction Area and the SFTC area.

The elevated methane flux reported in 2012 can be attributed primarily to a few key measurement locations within the Basin Creek to Carbon Junction area and the SFTC area with increased methane flux values. These few additional points with greater methane flux values account for the increase in the overall total methane flux in La Plata County during the 2012 monitoring event. LTE uses the Kriging method to interpolate the data points and develop the contours. When adjacent points vary greatly in value, the interpolation can be skewed and resulting contours can bias high the estimated volumetric flux. LTE noted this affect more frequently during the 2012 monitoring event due to the increased frequency of measurements reporting a higher flux value as compared to prior years.

The mitigation systems at SFTC and Pine River appear to have an effect on the methane flux results. While the mitigation systems do capture methane gas, they are not capable of capturing all of methane gas within the footprint of the system due to the mechanical constraints of the system. As a result, the system footprint has created a preferential pathway in which methane gas appears to seep out along the edges of the footprint. The methane seepage at the edges of the system concentrated as compared to the natural seepage flux. Elevated methane flux values have been recorded at the edges of the system footprint with a rapid decrease in methane flux values moving away from the system footprint. These elevated flux values affected interpolation and flux estimation as described above and bias results high.

While the survey area increased by nearly 3.5 times in acreage between 2007 and 2008, the total volumetric methane flux decreased. Total volumetric methane flux had a decreasing trend from 2007 to 2010 with a slight increase from 2010 to 2011 . There was an increase in total volumetric methane flux in 2012 that exceeded the highest total volumetric methane flux since using the flux meter in 2007; however the seepage area is less than any of the other five years measured. The seepage area from 2011 to 2012 decreased by 40%. When comparing the 2012 monitoring event to the 2009 monitoring event where mappable area is similar, the seepage areas decreased by 71%. It appears the methane seep flux rate along the Kf Outcrop in La Plata County has increased within a smaller footprint over time.

Data continues to indicate that hydrogen sulfide is present in the subsurface at measurable levels in only a few locations. Measured values above the ground surface are very low, if not detected, and are not considered a threat to human health. The source of the hydrogen sulfide is believed to be local, near surface, anaerobic microbial activity.

6.3 RECOMMENDATIONS

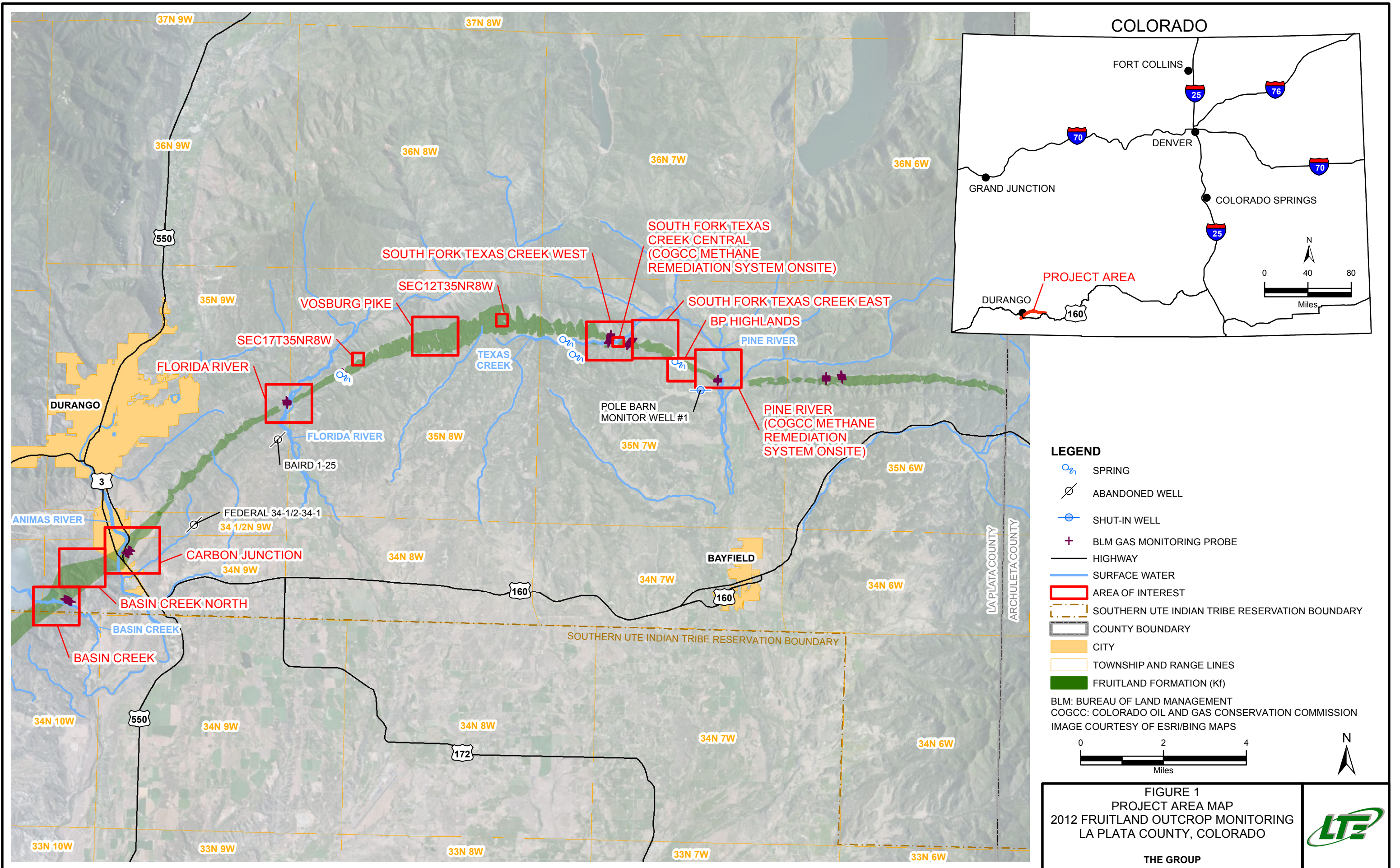
Based on the results of the 2012 Kf outcrop monitoring event, LTE recommends continuation of the following to meet the COGCC orders:

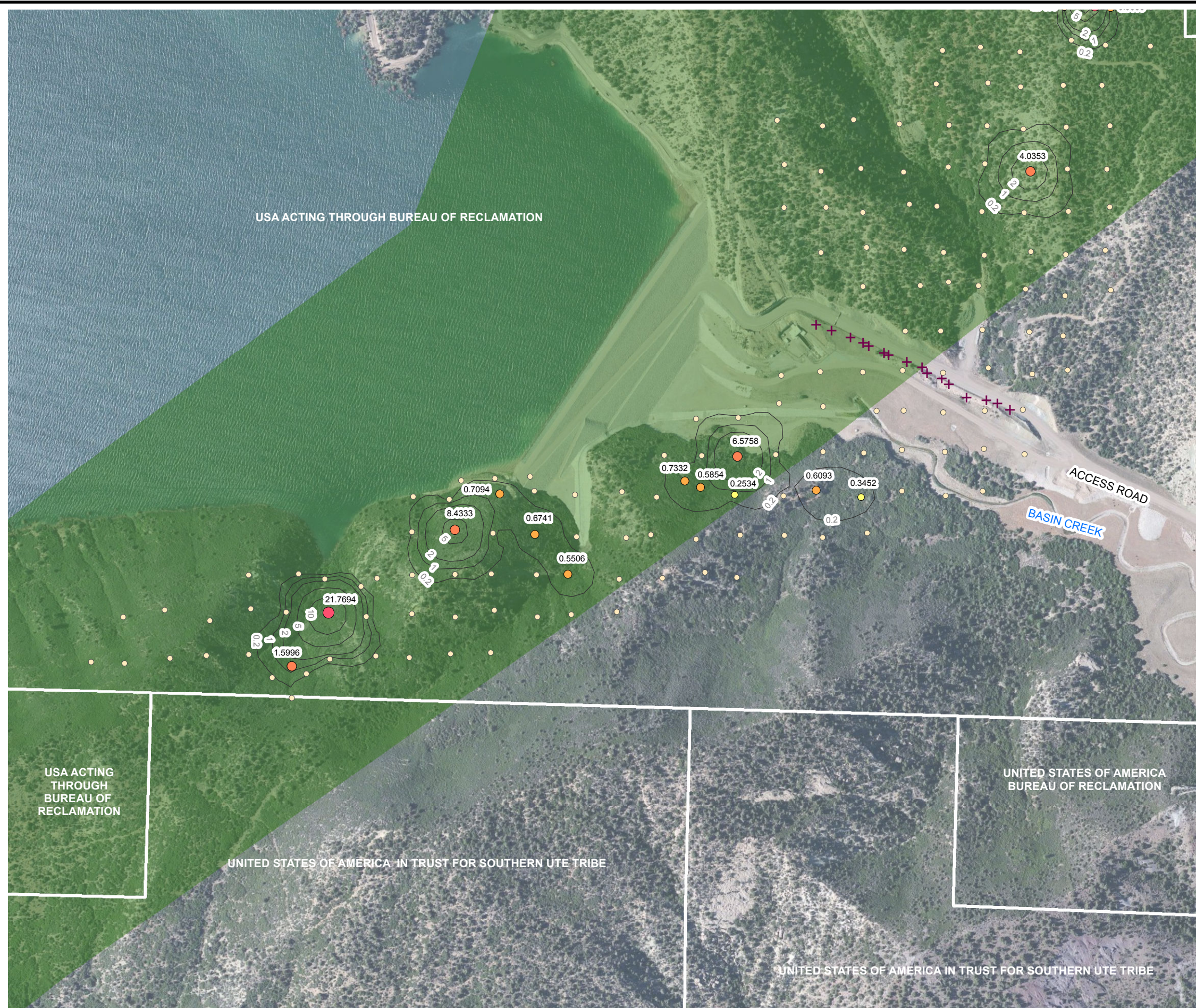
- Conduct detailed methane seep mapping and flux estimation using the portable flux meter in June 2013. LTE will return to the sample locations visited during the 2012 field activities to observe changes in subsurface methane over time and space;
- Sample natural springs every year to assess any changes in the flow rates and/or the chemistry of natural springs. The next natural spring sampling event will be the spring of 2013; and
- Conduct the next regional reconnaissance IR aerial survey in 2014 to confirm the presence or absence of methane seepage along the Kf outcrop in La Plata County.

7.0 REFERENCES

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FIGURES





LEGEND

- + BLM GAS MONITORING PROBE
- ★ BLM METHANE FLUX CHAMBER
- PARCEL BOUNDARY & OWNER (WHITE)

METHANE FLUX MEASUREMENT (mol/m² · day)

- 0.0000 - 0.1999
- 0.2000 - 0.5000
- 0.5001 - 1.0000
- 1.0001 - 10.0000
- 10.0001 - 50.0000
- 50.0001 - 100.0000
- 100.0001 - 5,000.0000

— METHANE FLUX CONTOUR IN mol/m² · day (INTERVAL VARIES)

■ FRUITLAND FORMATION (Kf)

BLM: BUREAU OF LAND MANAGEMENT

mol/m² · day: MOLES PER SQUARE METER PER DAY

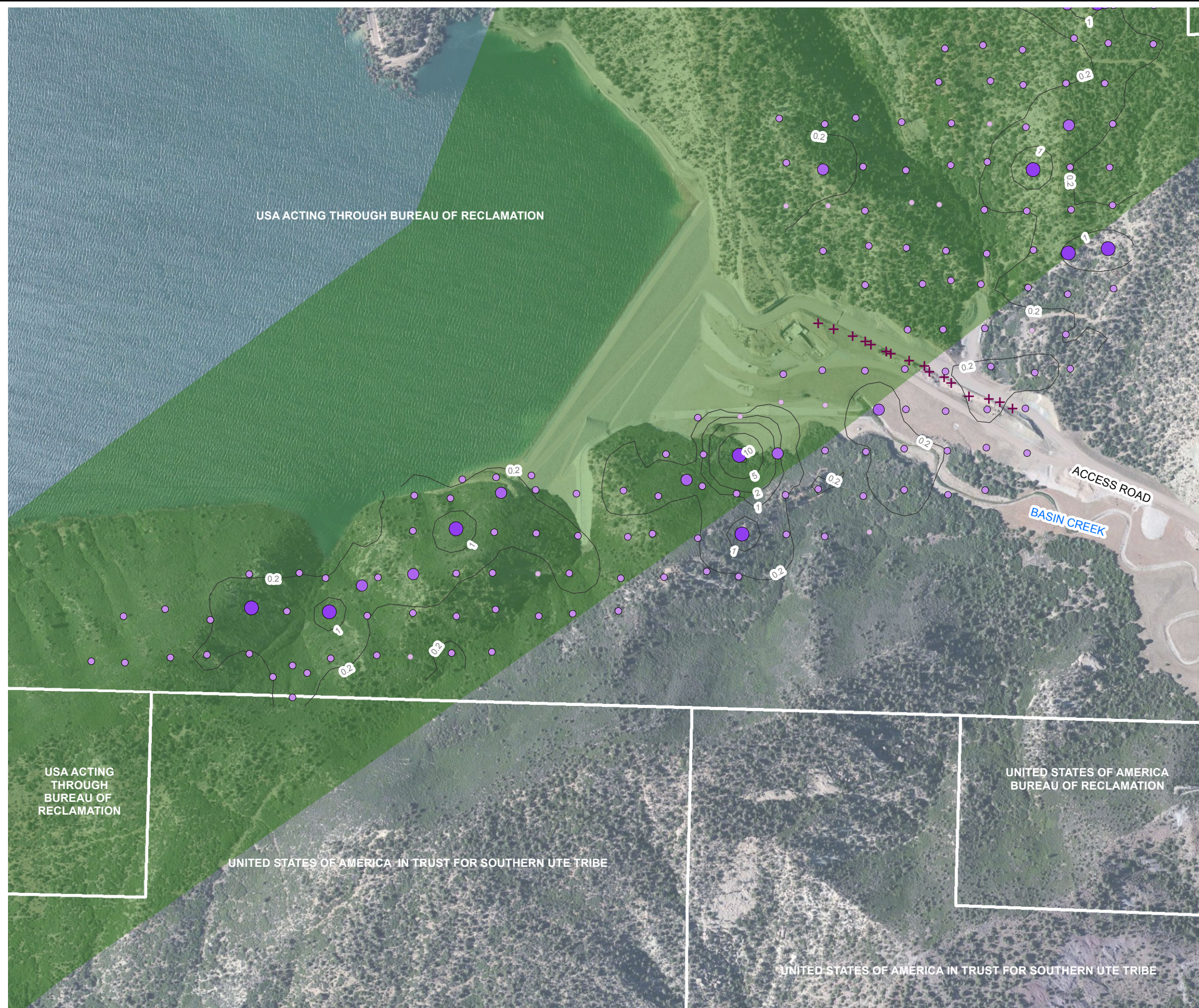
FLUX POINTS NOT LABELED ARE LESS THAN 0.2000 mol/m² · day METHANE



FIGURE 2
METHANE FLUX CONTOURS
BASIN CREEK
2012 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP



IMAGE COURTESY OF ESRI/BING MAPS



LEGEND

- + BLM GAS MONITORING PROBE
- ★ BLM GAS FLUX CHAMBER
- PARCEL BOUNDARY & OWNER (WHITE)
- CARBON DIOXIDE FLUX MEASUREMENT ($\text{mol/m}^2 \cdot \text{day}$)
- 0.0000 - 0.0100
- 0.0101 - 0.5000
- 0.5001 - 1.0000
- 1.0001 - 25.0000
- 25.0001 - 200.0000
- CARBON DIOXIDE FLUX CONTOUR IN $\text{mol/m}^2 \cdot \text{day}$ (INTERVAL VARIES)
- FRUITLAND FORMATION (Kf)
- BLM: BUREAU OF LAND MANAGEMENT
- $\text{mol/m}^2 \cdot \text{day}$: MOLES PER SQUARE METER PER DAY

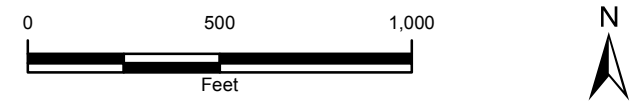
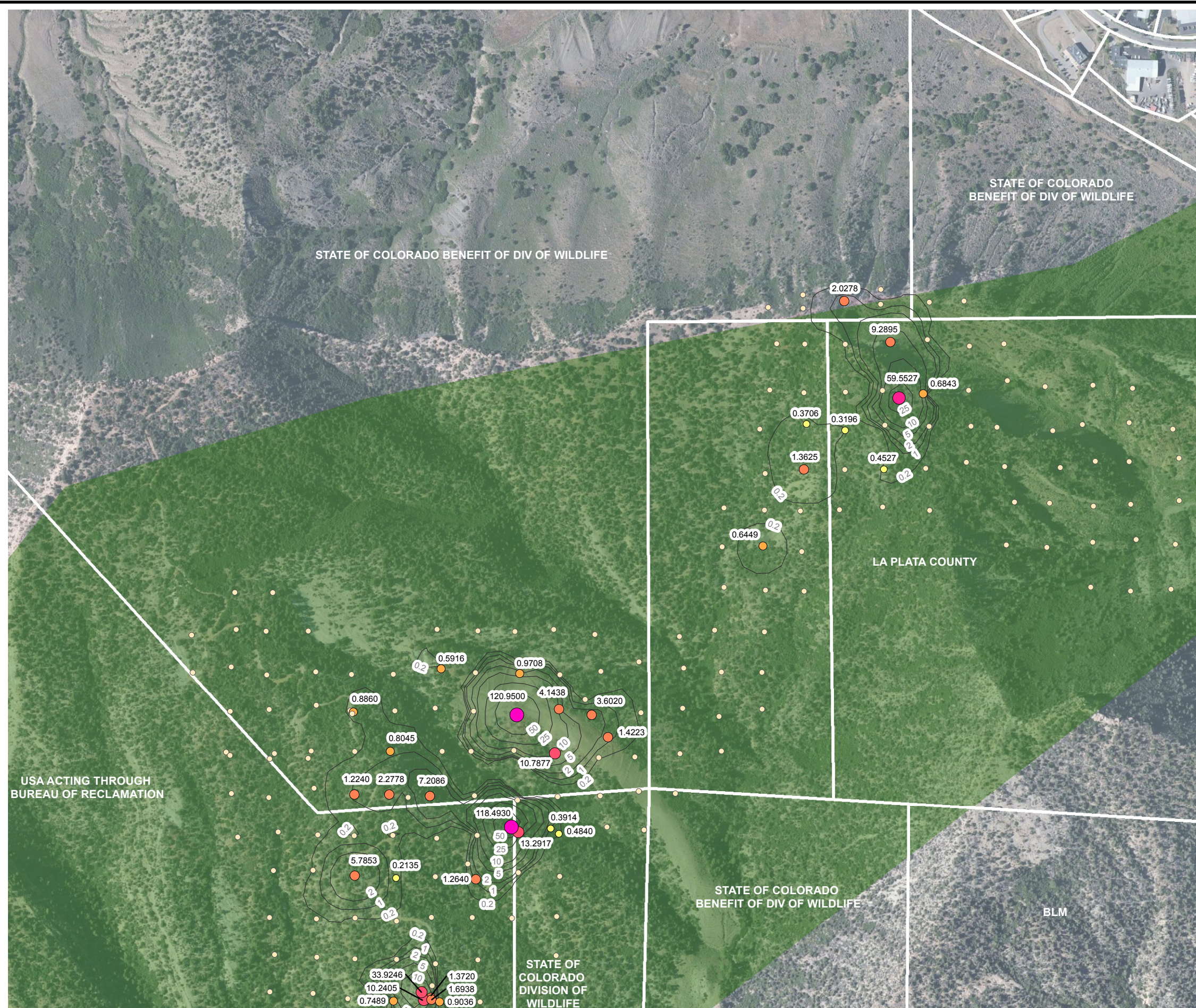


FIGURE 3
CARBON DIOXIDE FLUX CONTOURS
BASIN CREEK
2012 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP



IMAGE COURTESY OF ESRI/BING MAPS



LEGEND

- + BLM GAS MONITORING PROBE
- ★ BLM METHANE FLUX CHAMBER
- PARCEL BOUNDARY & OWNER (WHITE)

METHANE FLUX MEASUREMENT (mol/m² · day)

- 0.0000 - 0.1999
- 0.2000 - 0.5000
- 0.5001 - 1.0000
- 1.0001 - 10.0000
- 10.0001 - 50.0000
- 50.0001 - 100.0000
- 100.0001 - 5,000.0000

— METHANE FLUX CONTOUR IN mol/m² · day (INTERVAL VARIES)

■ FRUITLAND FORMATION (Kf)

BLM: BUREAU OF LAND MANAGEMENT

mol/m² · day: MOLES PER SQUARE METER PER DAY

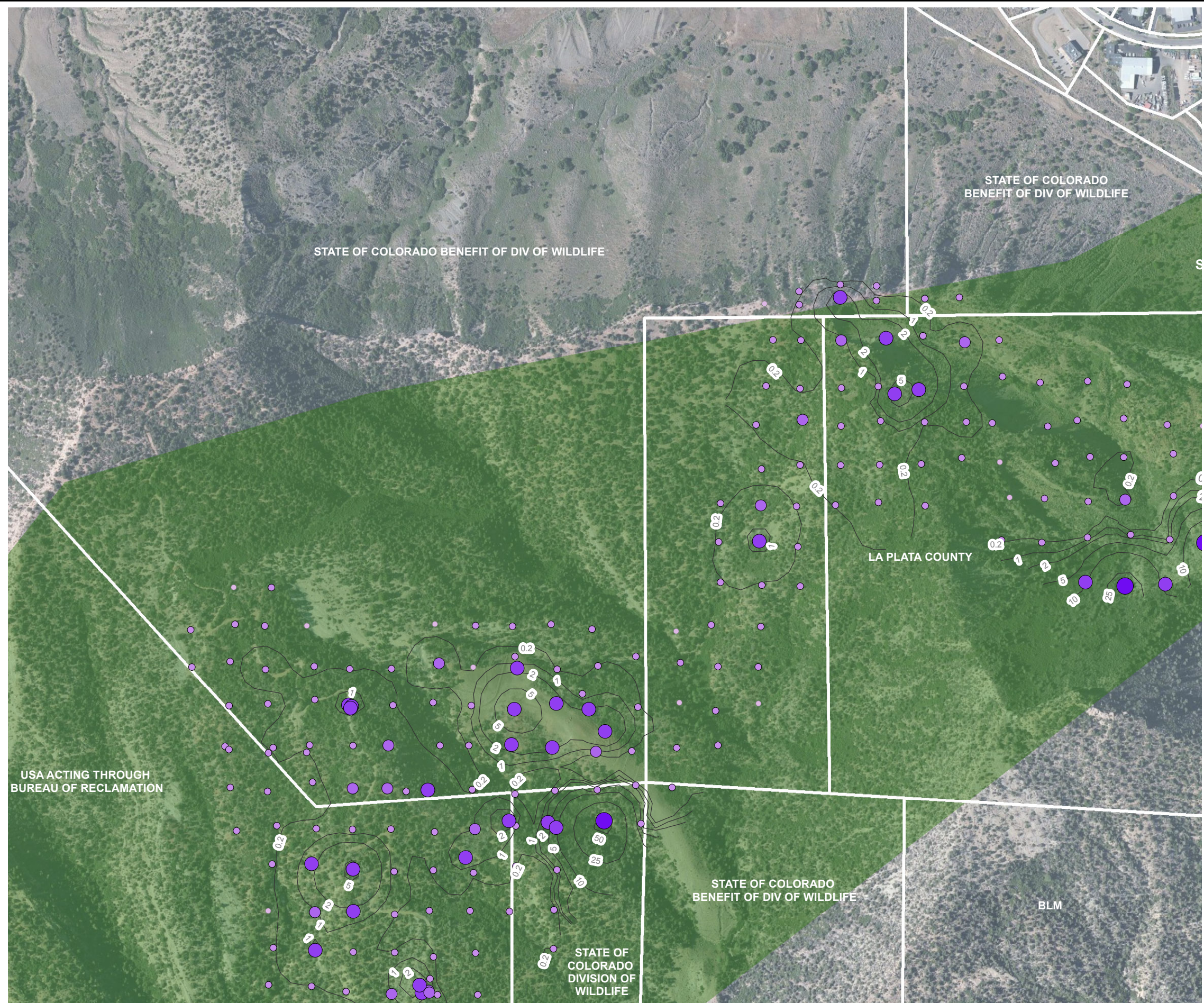
FLUX POINTS NOT LABELED ARE LESS THAN 0.2000 mol/m² · day METHANE



FIGURE 4
METHANE FLUX CONTOURS
BASIN CREEK NORTH
2012 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP



IMAGE COURTESY OF ESRI/BING MAPS



LEGEND

- + BLM GAS MONITORING PROBE
- ★ BLM GAS FLUX CHAMBER
- PARCEL BOUNDARY & OWNER (WHITE)
- CARBON DIOXIDE FLUX MEASUREMENT ($\text{mol/m}^2 \cdot \text{day}$)
- 0.0000 - 0.0100
- 0.0101 - 0.5000
- 0.5001 - 1.0000
- 1.0001 - 25.0000
- 25.0001 - 200.0000
- CARBON DIOXIDE FLUX CONTOUR IN $\text{mol/m}^2 \cdot \text{day}$ (INTERVAL VARIES)
- FRUITLAND FORMATION (Kf)
- BLM: BUREAU OF LAND MANAGEMENT
- $\text{mol/m}^2 \cdot \text{day}$: MOLES PER SQUARE METER PER DAY

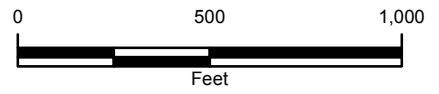


FIGURE 5
CARBON DIOXIDE FLUX CONTOURS
BASIN CREEK NORTH
2012 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP



IMAGE COURTESY OF ESRI/BING MAPS



LEGEND

- + BLM GAS MONITORING PROBE
- ★ BLM METHANE FLUX CHAMBER
- PARCEL BOUNDARY & OWNER (WHITE)

METHANE FLUX MEASUREMENT (mol/m² · day)

- 0.0000 - 0.1999
- 0.2000 - 0.5000
- 0.5001 - 1.0000
- 1.0001 - 10.0000
- 10.0001 - 50.0000
- 50.0001 - 100.0000
- 100.0001 - 5,000.0000

— METHANE FLUX CONTOUR IN mol/m² · day (INTERVAL VARIES)

■ FRUITLAND FORMATION (Kf)

BLM: BUREAU OF LAND MANAGEMENT

mol/m² · day: MOLES PER SQUARE METER PER DAY

FLUX POINTS NOT LABELED ARE LESS THAN 0.2000 mol/m² · day METHANE

0 600 1,200

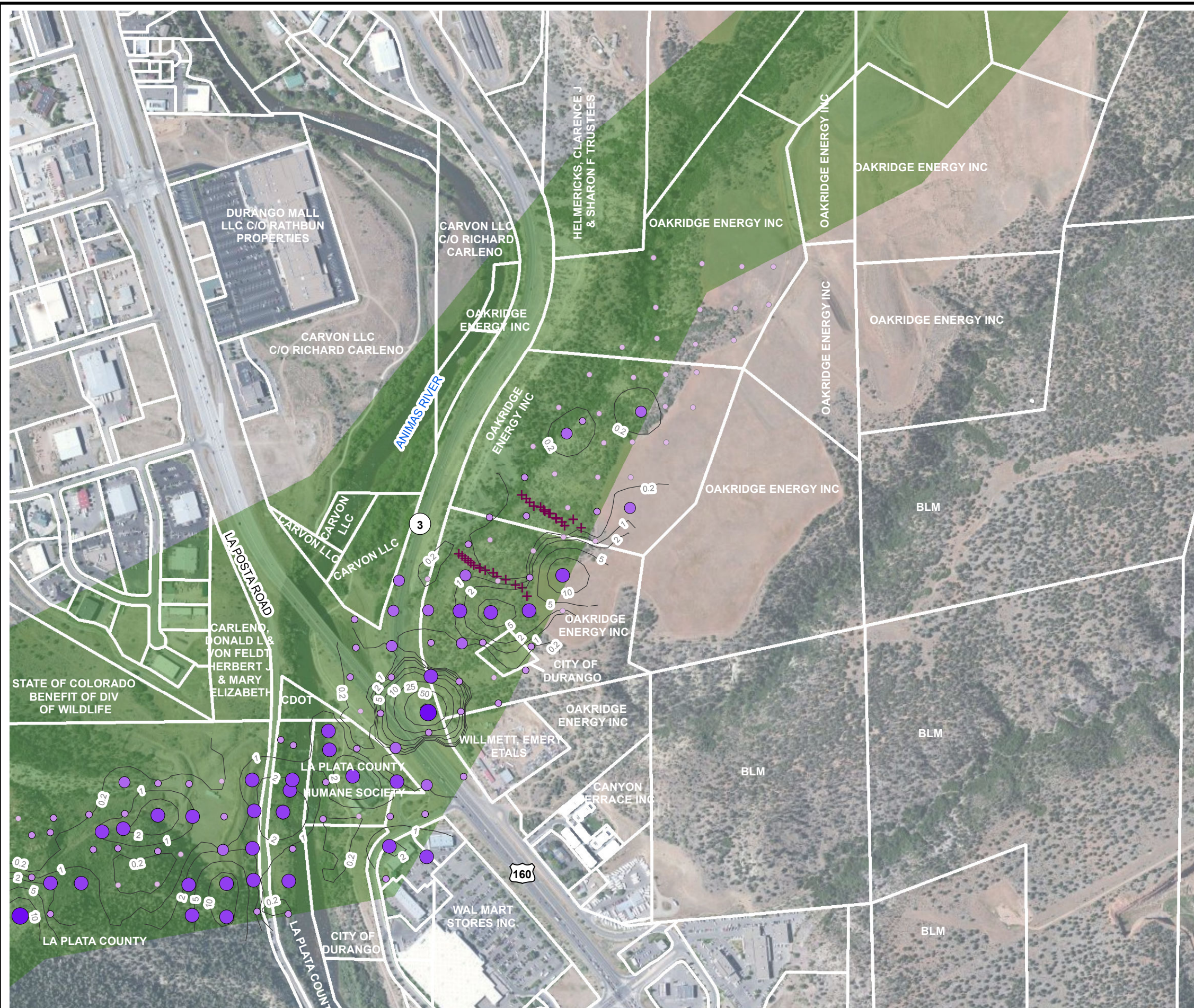
Feet

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FIGURE 6
METHANE FLUX CONTOURS
CARBON JUNCTION
2012 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP



IMAGE COURTESY OF ESRI/BING MAPS



LEGEND

- + BLM GAS MONITORING PROBE
- ★ BLM GAS FLUX CHAMBER
- PARCEL BOUNDARY & OWNER (WHITE)
- CARBON DIOXIDE FLUX MEASUREMENT (mol/m² · day)
 - 0.0000 - 0.0100
 - 0.0101 - 0.5000
 - 0.5001 - 1.0000
 - 1.0001 - 25.0000
 - 25.0001 - 200.0000
- CARBON DIOXIDE FLUX CONTOUR IN mol/m² · day (INTERVAL VARIES)
- FRUITLAND FORMATION (Kf)
- BLM: BUREAU OF LAND MANAGEMENT
- mol/m² · day: MOLES PER SQUARE METER PER DAY

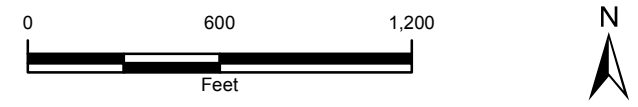


FIGURE 7
CARBON DIOXIDE FLUX CONTOURS
CARBON JUNCTION
2012 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP



IMAGE COURTESY OF ESRI/BING MAPS



LEGEND

- + BLM GAS MONITORING PROBE
- ★ BLM METHANE FLUX CHAMBER
- PARCEL BOUNDARY & OWNER (WHITE)

METHANE FLUX MEASUREMENT (mol/m² · day)

- 0.0000 - 0.1999
- 0.2000 - 0.5000
- 0.5001 - 1.0000
- 1.0001 - 10.0000
- 10.0001 - 50.0000
- 50.0001 - 100.0000
- 100.0001 - 5,000.0000

— METHANE FLUX CONTOUR IN mol/m² · day (INTERVAL VARIES)

■ FRUITLAND FORMATION (Kf)

BLM: BUREAU OF LAND MANAGEMENT

mol/m² · day: MOLES PER SQUARE METER PER DAY

FLUX POINTS NOT LABELED ARE LESS THAN 0.2000 mol/m² · day METHANE

0 500 1,000

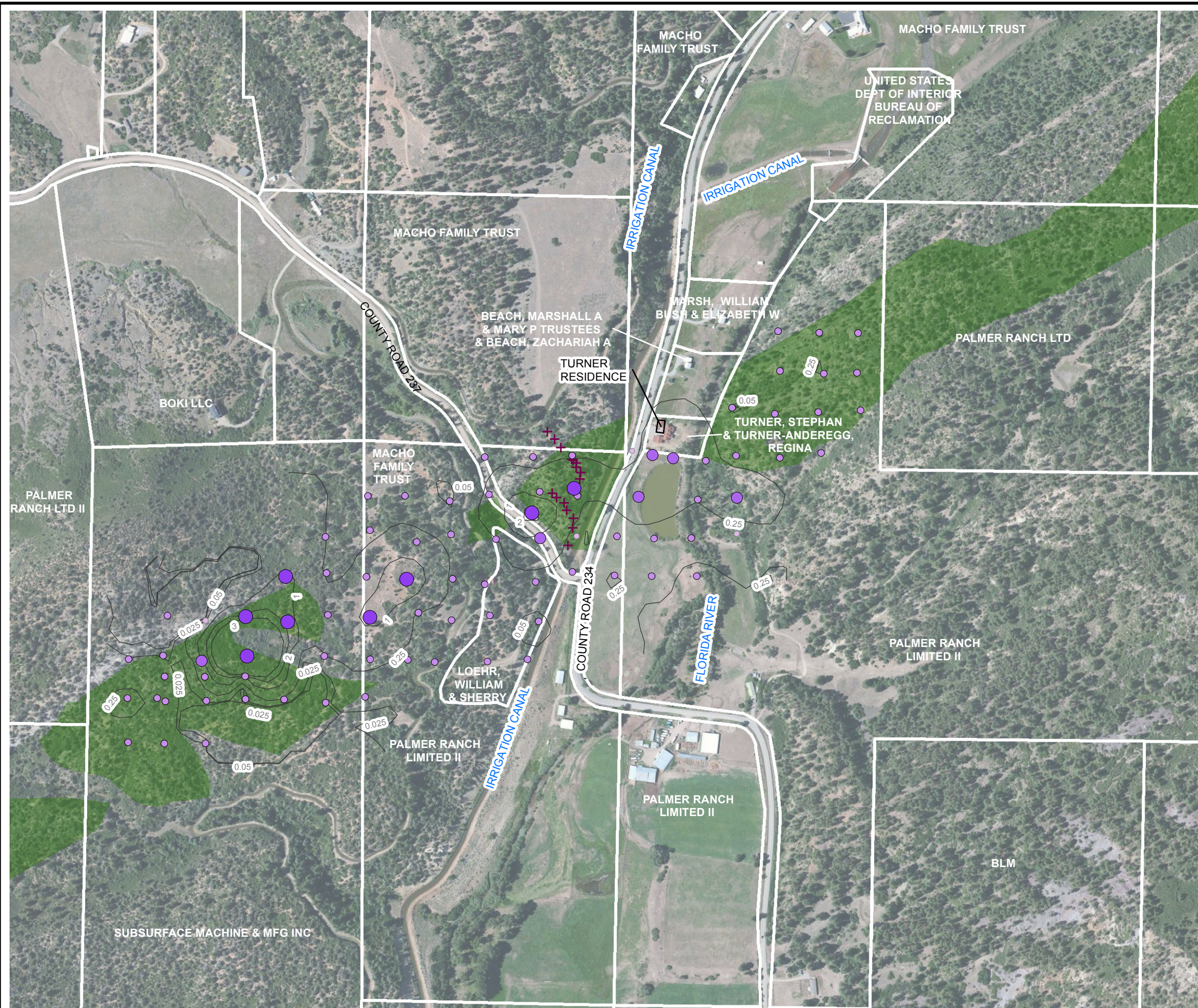
Feet

N

FIGURE 8
METHANE FLUX CONTOURS
FLORIDA RIVER
2012 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP



IMAGE COURTESY OF ESRI/BING MAPS



LEGEND

- + BLM GAS MONITORING PROBE
- ★ BLM GAS FLUX CHAMBER
- PARCEL BOUNDARY & OWNER (WHITE)
- CARBON DIOXIDE FLUX MEASUREMENT ($\text{mol/m}^2 \cdot \text{day}$)
 - 0.0000 - 0.0100
 - 0.0101 - 0.5000
 - 0.5001 - 1.0000
 - 1.0001 - 25.0000
 - 25.0001 - 200.0000
- CARBON DIOXIDE FLUX CONTOUR IN $\text{mol/m}^2 \cdot \text{day}$ (INTERVAL VARIES)
- FRUITLAND FORMATION (Kf)
- BLM: BUREAU OF LAND MANAGEMENT
- $\text{mol/m}^2 \cdot \text{day}$: MOLES PER SQUARE METER PER DAY



FIGURE 9
CARBON DIOXIDE FLUX CONTOURS
FLORIDA RIVER
2012 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP



IMAGE COURTESY OF ESRI/BING MAPS



LEGEND

- + BLM GAS MONITORING PROBE
- ★ BLM METHANE FLUX CHAMBER
- PARCEL BOUNDARY & OWNER (WHITE)
- METHANE FLUX MEASUREMENT (mol/m² · day)
- 0.0000 - 0.1999
- 0.2000 - 0.5000
- 0.5001 - 1.0000
- 1.0001 - 10.0000
- 10.0001 - 50.0000
- 50.0001 - 100.0000
- 100.0001 - 5,000.0000
- METHANE FLUX CONTOUR IN mol/m² · day (INTERVAL VARIES)
- FRUITLAND FORMATION (Kf)
- BLM: BUREAU OF LAND MANAGEMENT
- mol/m² · day: MOLES PER SQUARE METER PER DAY
- FLUX POINTS NOT LABELED ARE LESS THAN 0.2000 mol/m² · day METHANE

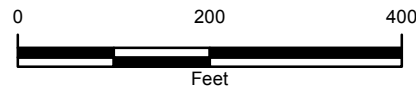


FIGURE 10
METHANE FLUX MEASUREMENTS
SEC17T35NR8W
2012 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP



IMAGE COURTESY OF ESRI/BING MAPS



LEGEND

- + BLM GAS MONITORING PROBE
- ★ BLM GAS FLUX CHAMBER
- PARCEL BOUNDARY & OWNER (WHITE)
- CARBON DIOXIDE FLUX MEASUREMENT (mol/m² · day)
- 0.0000 - 0.0100
- 0.0101 - 0.5000
- 0.5001 - 1.0000
- 1.0001 - 25.0000
- 25.0001 - 200.0000
- CARBON DIOXIDE FLUX CONTOUR IN mol/m² · day (INTERVAL VARIES)
- FRUITLAND FORMATION (Kf)
- BLM: BUREAU OF LAND MANAGEMENT
- mol/m² · day: MOLES PER SQUARE METER PER DAY

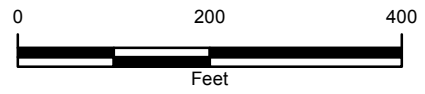
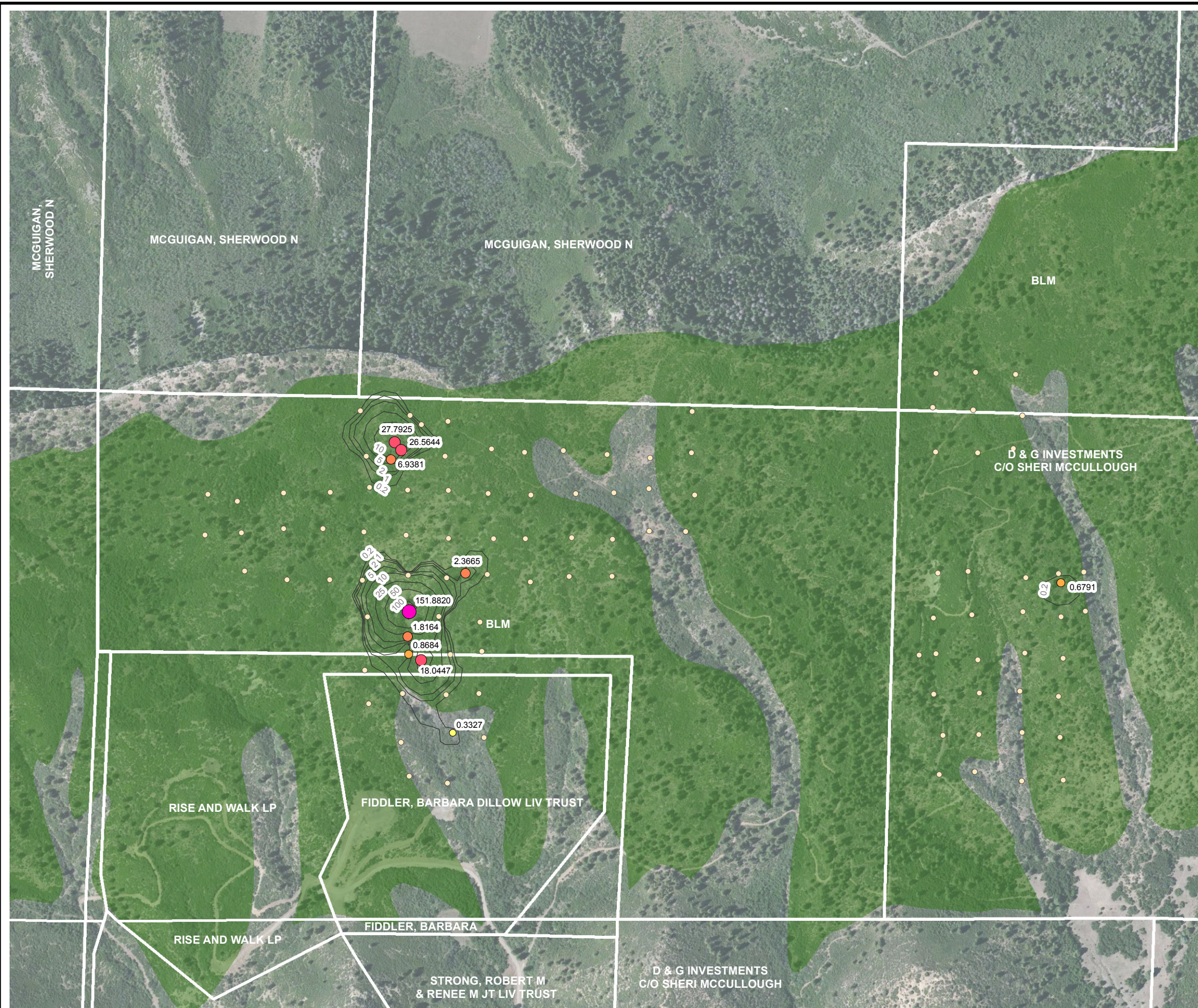


FIGURE 11
CARBON DIOXIDE FLUX CONTOURS
SEC17T35NR8W
2012 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP



IMAGE COURTESY OF ESRI/BING MAPS



LEGEND

- ⊕ BLM GAS MONITORING PROBE
- ★ BLM METHANE FLUX CHAMBER
- PARCEL BOUNDARY & OWNER (WHITE)

METHANE FLUX MEASUREMENT (mol/m² · day)

- 0.0000 - 0.1999
- 0.2000 - 0.5000
- 0.5001 - 1.0000
- 1.0001 - 10.0000
- 10.0001 - 50.0000
- 50.0001 - 100.0000
- 100.0001 - 5,000.0000

— METHANE FLUX CONTOUR IN mol/m² · day (INTERVAL VARIES)

■ FRUITLAND FORMATION (Kf)

BLM: BUREAU OF LAND MANAGEMENT

mol/m² · day: MOLES PER SQUARE METER PER DAY

FLUX POINTS NOT LABELED ARE LESS THAN 0.2000 mol/m² · day METHANE

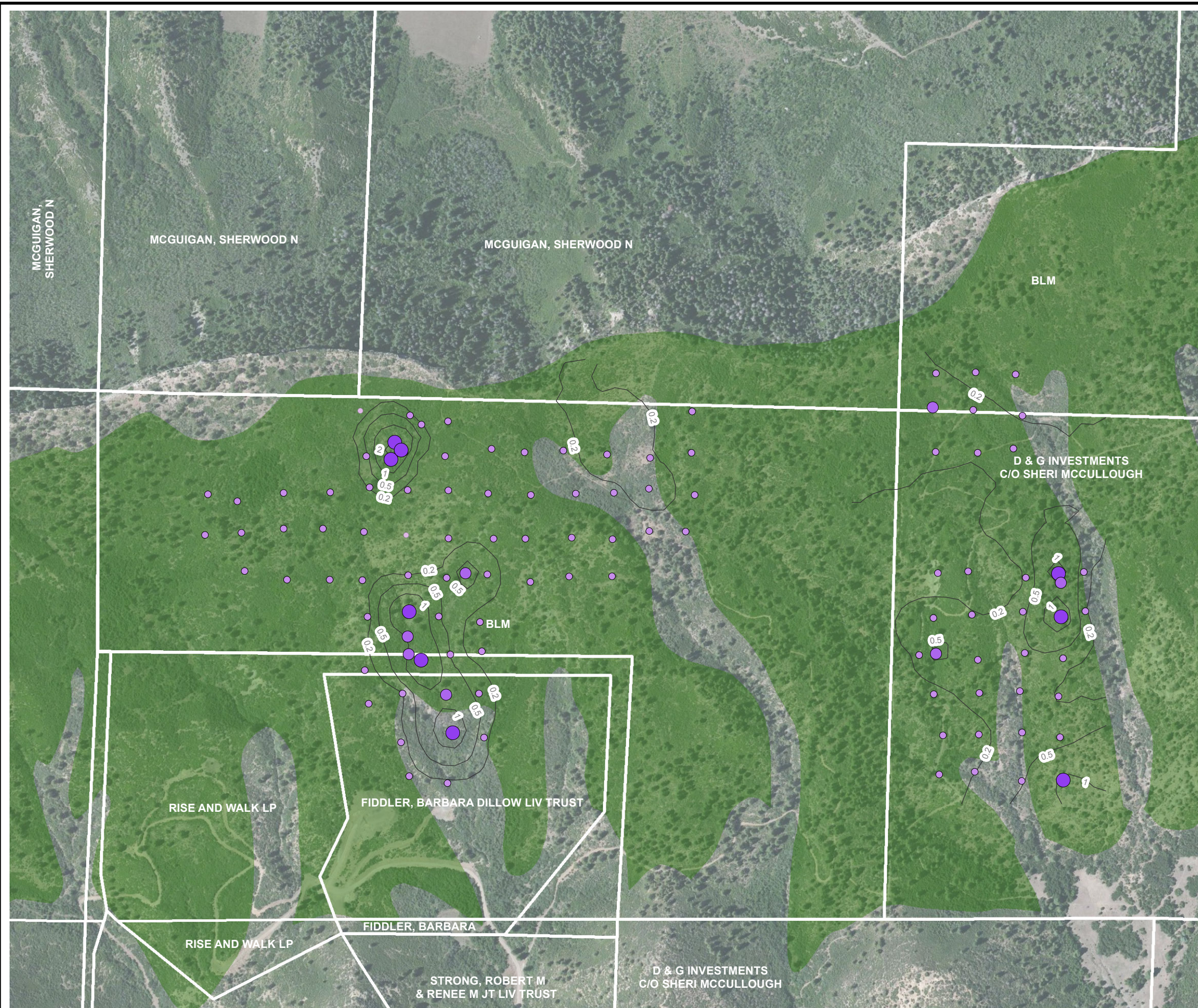
0 500 1,000
Feet

N

FIGURE 12
METHANE FLUX CONTOURS
VOSBURG PIKE
2012 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP



IMAGE COURTESY OF ESRI/BING MAPS



LEGEND

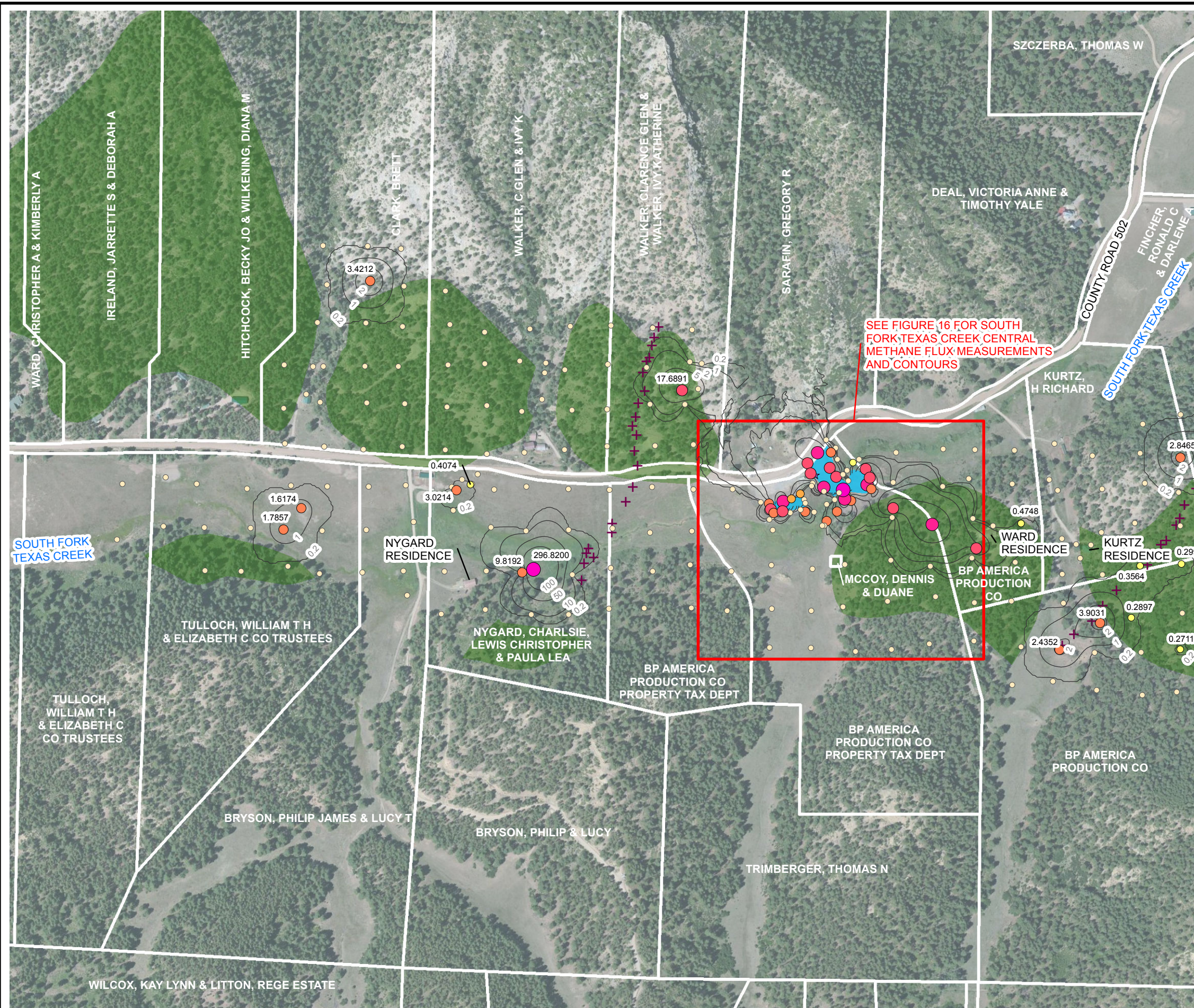
- + BLM GAS MONITORING PROBE
- ★ BLM GAS FLUX CHAMBER
- PARCEL BOUNDARY & OWNER (WHITE)
- CARBON DIOXIDE FLUX MEASUREMENT ($\text{mol/m}^2 \cdot \text{day}$)
- 0.0000 - 0.0100
- 0.0101 - 0.5000
- 0.5001 - 1.0000
- 1.0001 - 25.0000
- 25.0001 - 200.0000
- CARBON DIOXIDE FLUX CONTOUR IN $\text{mol/m}^2 \cdot \text{day}$ (INTERVAL VARIES)
- FRUITLAND FORMATION (Kf)
- BLM: BUREAU OF LAND MANAGEMENT
- $\text{mol/m}^2 \cdot \text{day}$: MOLES PER SQUARE METER PER DAY



FIGURE 13
CARBON DIOXIDE FLUX CONTOURS
VOSBURG PIKE
2012 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP



IMAGE COURTESY OF ESRI/BING MAPS



LEGEND

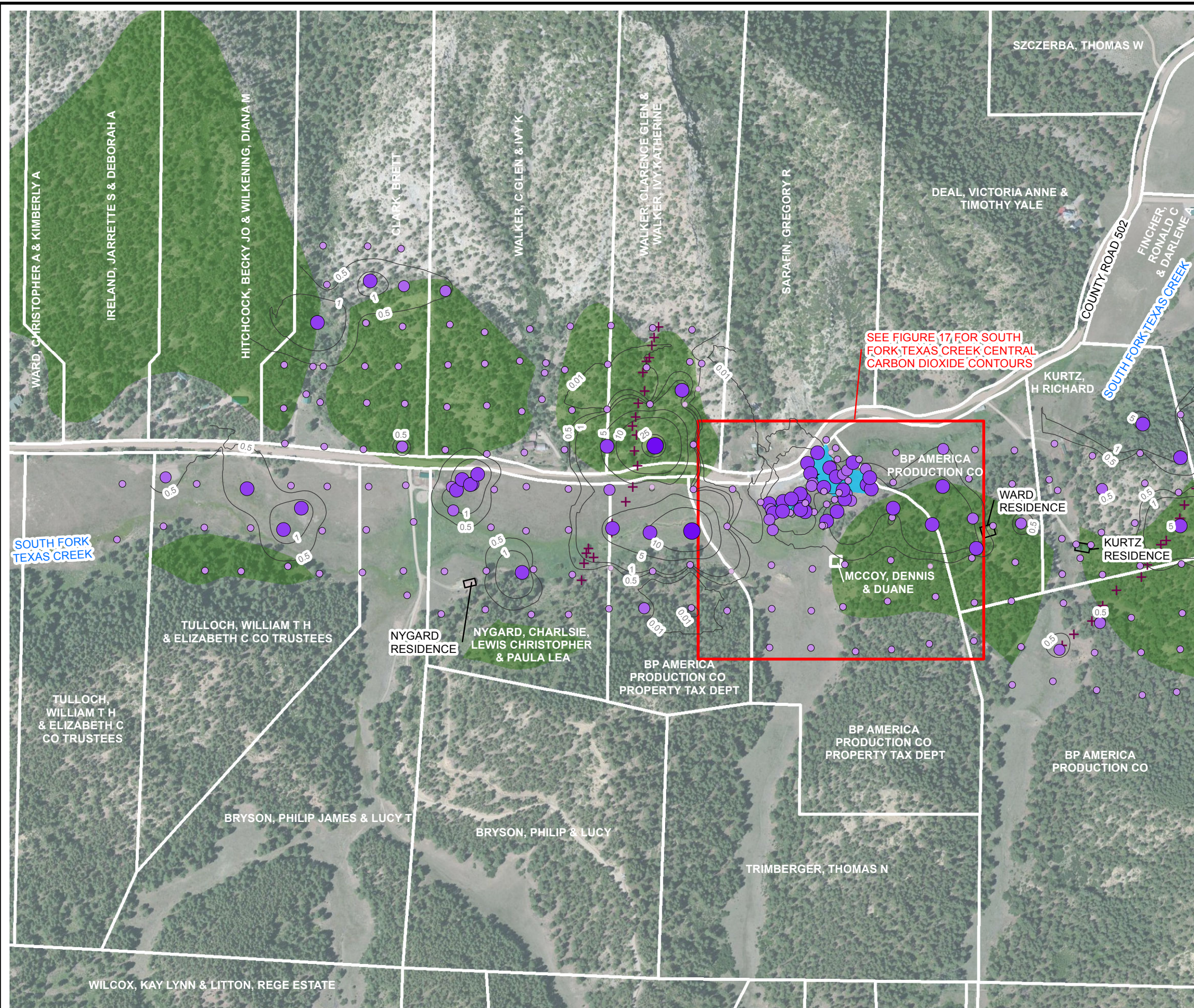
- + BLM GAS MONITORING PROBE
- ☆ BLM METHANE FLUX CHAMBER
- PARCEL BOUNDARY & OWNER (WHITE)
- 4M MITIGATION SYSTEM
- METHANE FLUX MEASUREMENT (mol/m² · day)
- 0.0000 - 0.1999
- 0.2000 - 0.5000
- 0.5001 - 1.0000
- 1.0001 - 10.0000
- 10.0001 - 50.0000
- 50.0001 - 100.0000
- 100.0001 - 5,000.0000
- METHANE FLUX CONTOUR IN mol/m² · day (INTERVAL VARIES)
- SOUTH FORK TEXAS CREEK CENTRAL (FIGURE 16)
- FRUITLAND FORMATION (Kf)
- BLM: BUREAU OF LAND MANAGEMENT
- mol/m² · day: MOLES PER SQUARE METER PER DAY
- FLUX POINTS NOT LABELED ARE LESS THAN 0.2000 mol/m² · day METHANE



FIGURE 14
METHANE FLUX CONTOURS
SOUTH FORK TEXAS CREEK WEST
2012 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP



IMAGE COURTESY OF ESRI/BING MAPS



SEE FIGURE 17 FOR SOUTH FORK TEXAS CREEK CENTRAL CARBON DIOXIDE CONTOURS

LEGEND

- + BLM GAS MONITORING PROBE
- * BLM GAS FLUX CHAMBER
- PARCEL BOUNDARY & OWNER (WHITE)
- 4M MITIGATION SYSTEM
- CARBON DIOXIDE FLUX MEASUREMENT ($\text{mol/m}^2 \cdot \text{day}$)
 - 0.0000 - 0.0100
 - 0.0101 - 0.5000
 - 0.5001 - 1.0000
 - 1.0001 - 25.0000
 - 25.0001 - 200.0000
- CARBON DIOXIDE FLUX CONTOUR IN $\text{mol/m}^2 \cdot \text{day}$ (INTERVAL VARIES)
- SOUTH FORK TEXAS CREEK CENTRAL (FIGURE 17)
- FRUITLAND FORMATION (Kf)
- BLM: BUREAU OF LAND MANAGEMENT
- $\text{mol/m}^2 \cdot \text{day}$: MOLES PER SQUARE METER PER DAY



FIGURE 15
 CARBON DIOXIDE FLUX CONTOURS
 SOUTH FORK TEXAS CREEK WEST
 2012 FRUITLAND OUTCROP MONITORING
 LA PLATA COUNTY, COLORADO
THE GROUP



IMAGE COURTESY OF ESRI/BING MAPS



LEGEND

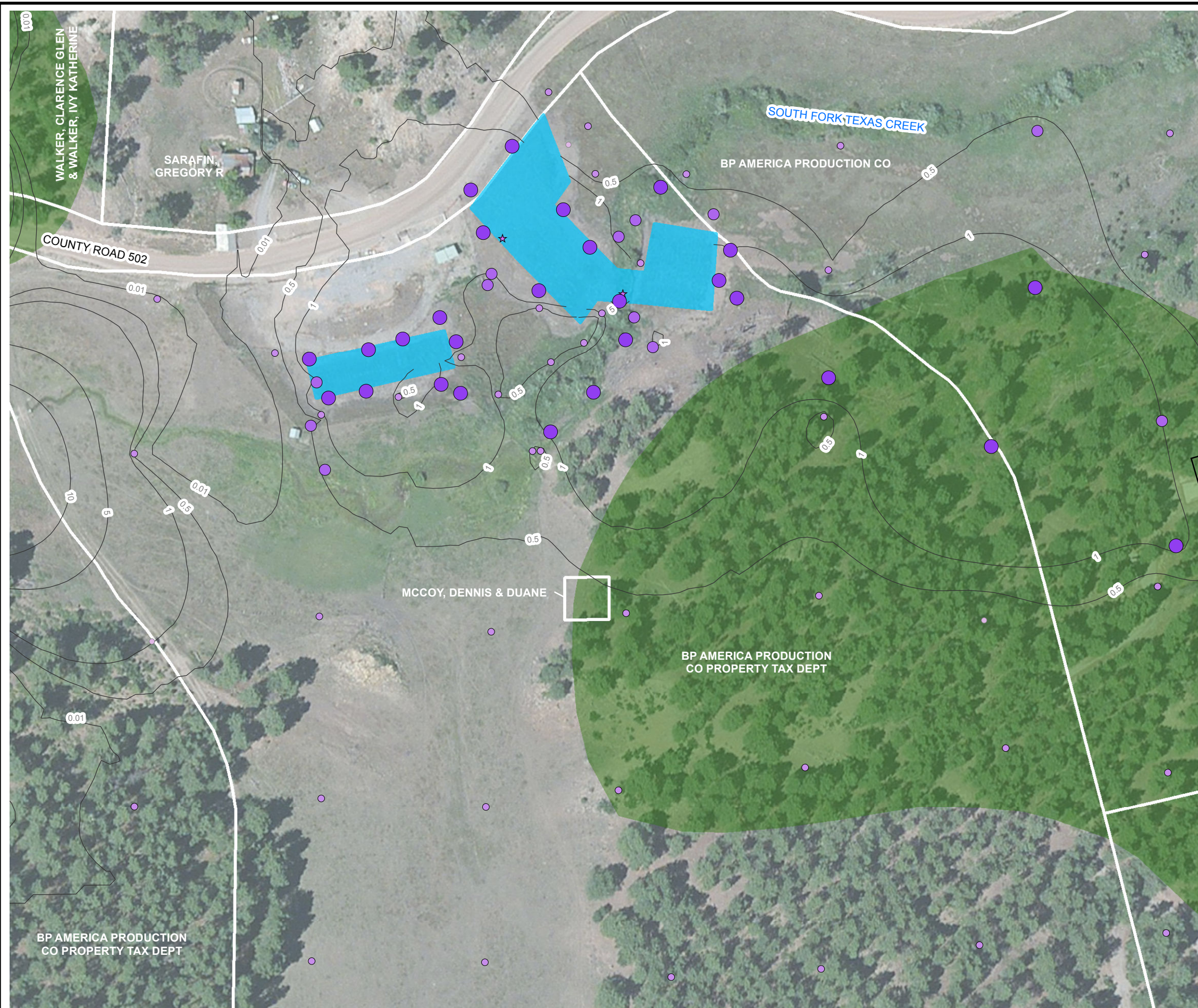
- + BLM GAS MONITORING PROBE
- ★ BLM METHANE FLUX CHAMBER
- PARCEL BOUNDARY & OWNER (WHITE)
- 4M MITIGATION SYSTEM
- METHANE FLUX MEASUREMENT (mol/m² • day)
- 0.0000 - 0.1999
- 0.2000 - 0.5000
- 0.5001 - 1.0000
- 1.0001 - 10.0000
- 10.0001 - 50.0000
- 50.0001 - 100.0000
- 100.0001 - 5,000.0000
- METHANE FLUX CONTOUR IN mol/m² • day (INTERVAL VARIES)
- FRUITLAND FORMATION (Kf)
- BLM: BUREAU OF LAND MANAGEMENT
- mol/m² • day: MOLES PER SQUARE METER PER DAY
- FLUX POINTS NOT LABELED ARE LESS THAN 0.2000 mol/m² • day METHANE



FIGURE 16
METHANE FLUX CONTOURS
SOUTH FORK TEXAS CREEK CENTRAL
2012 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP



IMAGE COURTESY OF ESRI/BING MAPS



LEGEND

- + BLM GAS MONITORING PROBE
- ★ BLM GAS FLUX CHAMBER
- PARCEL BOUNDARY & OWNER (WHITE)
- 4M MITIGATION SYSTEM
- CARBON DIOXIDE FLUX MEASUREMENT ($\text{mol/m}^2 \cdot \text{day}$)
 - 0.0000 - 0.0100
 - 0.0101 - 0.5000
 - 0.5001 - 1.0000
 - 1.0001 - 25.0000
 - 25.0001 - 200.0000
- CARBON DIOXIDE FLUX CONTOUR IN $\text{mol/m}^2 \cdot \text{day}$ (INTERVAL VARIES)
- FRUITLAND FORMATION (Kf)
- BLM: BUREAU OF LAND MANAGEMENT
- $\text{mol/m}^2 \cdot \text{day}$: MOLES PER SQUARE METER PER DAY

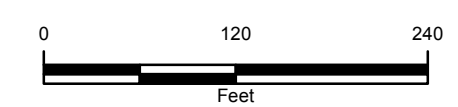


FIGURE 17
CARBON DIOXIDE FLUX CONTOURS
SOUTH FORK TEXAS CREEK CENTRAL
2012 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP



IMAGE COURTESY OF ESRI/BING MAPS



LEGEND

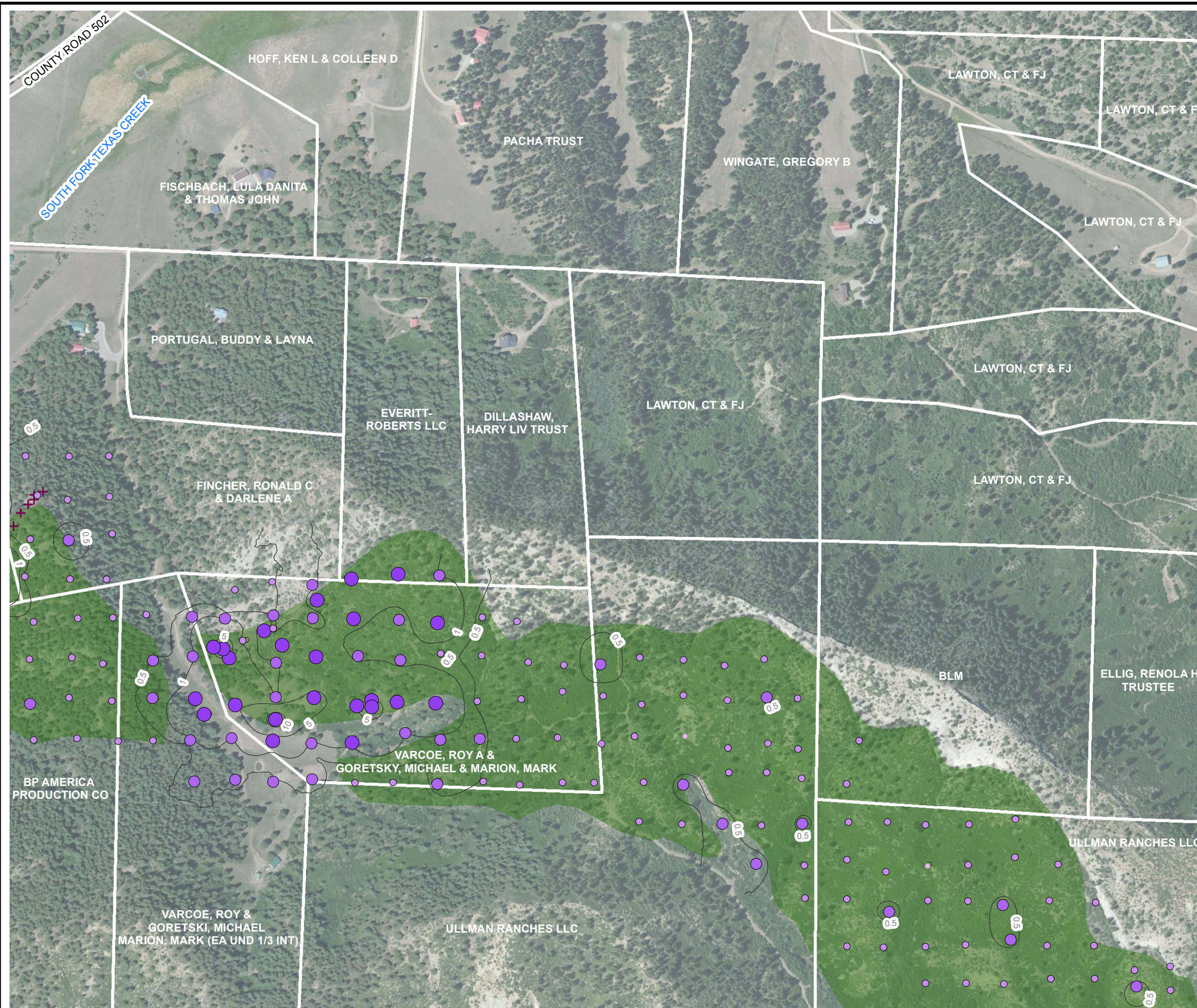
- + BLM GAS MONITORING PROBE
- ★ BLM METHANE FLUX CHAMBER
- PARCEL BOUNDARY & OWNER (WHITE)
- METHANE FLUX MEASUREMENT (mol/m² · day)
 - 0.0000 - 0.1999
 - 0.2000 - 0.5000
 - 0.5001 - 1.0000
 - 1.0001 - 10.0000
 - 10.0001 - 50.0000
 - 50.0001 - 100.0000
 - 100.0001 - 5,000.0000
- METHANE FLUX CONTOUR IN mol/m² · day (INTERVAL VARIES)
- FRUITLAND FORMATION (Kf)
- BLM: BUREAU OF LAND MANAGEMENT
- mol/m² · day: MOLES PER SQUARE METER PER DAY
- FLUX POINTS NOT LABELED ARE LESS THAN 0.2000 mol/m² · day METHANE



FIGURE 18
METHANE FLUX CONTOURS
SOUTH FORK TEXAS CREEK EAST
2012 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP



IMAGE COURTESY OF ESRI/BING MAPS



LEGEND

- + BLM GAS MONITORING PROBE
- ★ BLM GAS FLUX CHAMBER
- PARCEL BOUNDARY & OWNER (WHITE)
- 4M MITIGATION SYSTEM
- CARBON DIOXIDE FLUX MEASUREMENT ($\text{mol/m}^2 \cdot \text{day}$)
 - 0.0000 - 0.0100
 - 0.0101 - 0.5000
 - 0.5001 - 1.0000
 - 1.0001 - 25.0000
 - 25.0001 - 200.0000
- CARBON DIOXIDE FLUX CONTOUR IN $\text{mol/m}^2 \cdot \text{day}$ (INTERVAL VARIES)
- FRUITLAND FORMATION (Kf)
- BLM: BUREAU OF LAND MANAGEMENT
- $\text{mol/m}^2 \cdot \text{day}$: MOLES PER SQUARE METER PER DAY



FIGURE 19
CARBON DIOXIDE FLUX CONTOURS
SOUTH FORK TEXAS CREEK EAST
2012 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP



IMAGE COURTESY OF ESRI/BING MAPS



LEGEND

- + BLM GAS MONITORING PROBE
- ☆ BLM METHANE FLUX CHAMBER
- _n SPRING
- PARCEL BOUNDARY & OWNER (WHITE)

METHANE FLUX MEASUREMENT (mol/m² · day)

- 0.0000 - 0.1999
- 0.2000 - 0.5000
- 0.5001 - 1.0000
- 1.0001 - 10.0000
- 10.0001 - 50.0000
- 50.0001 - 100.0000
- 100.0001 - 5,000.0000

— METHANE FLUX CONTOUR IN mol/m² · day (INTERVAL VARIES)

■ FRUITLAND FORMATION (Kf)

*SUBSURFACE METHANE MEASUREMENTS WERE COLLECTED FROM TEMPORARY SOIL PROBES ADVANCED WITH A SLIDE HAMMER AT EACH SAMPLED NATURAL SPRING LOCATION. THE CONCENTRATION OF SUBSURFACE METHANE WAS 0.0 PARTS PER MILLION FOR ALL MEASUREMENTS TAKEN.

BLM: BUREAU OF LAND MANAGEMENT
 mol/m² · day: MOLES PER SQUARE METER PER DAY
 FLUX POINTS NOT LABELED ARE LESS THAN 0.2000 mol/m² · day METHANE



FIGURE 20
 METHANE FLUX CONTOURS
 BP HIGHLANDS
 2012 FRUITLAND OUTCROP MONITORING
 LA PLATA COUNTY, COLORADO
 THE GROUP



IMAGE COURTESY OF ESRI/BING MAPS



LEGEND

- + BLM GAS MONITORING PROBE
- ★ BLM GAS FLUX CHAMBER
- SPRING
- PARCEL BOUNDARY & OWNER (WHITE)
- 4M MITIGATION SYSTEM
- CARBON DIOXIDE FLUX MEASUREMENT ($\text{mol/m}^2 \cdot \text{day}$)
- 0.0000 - 0.0100
- 0.0101 - 0.5000
- 0.5001 - 1.0000
- 1.0001 - 25.0000
- 25.0001 - 200.0000
- CARBON DIOXIDE FLUX CONTOUR IN $\text{mol/m}^2 \cdot \text{day}$ (INTERVAL VARIES)
- FRUITLAND FORMATION (Kf)
- BLM: BUREAU OF LAND MANAGEMENT
- $\text{mol/m}^2 \cdot \text{day}$: MOLES PER SQUARE METER PER DAY

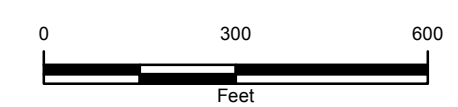


FIGURE 21
CARBON DIOXIDE FLUX CONTOURS
BP HIGHLANDS
2012 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP



IMAGE COURTESY OF ESRI/BING MAPS



LEGEND

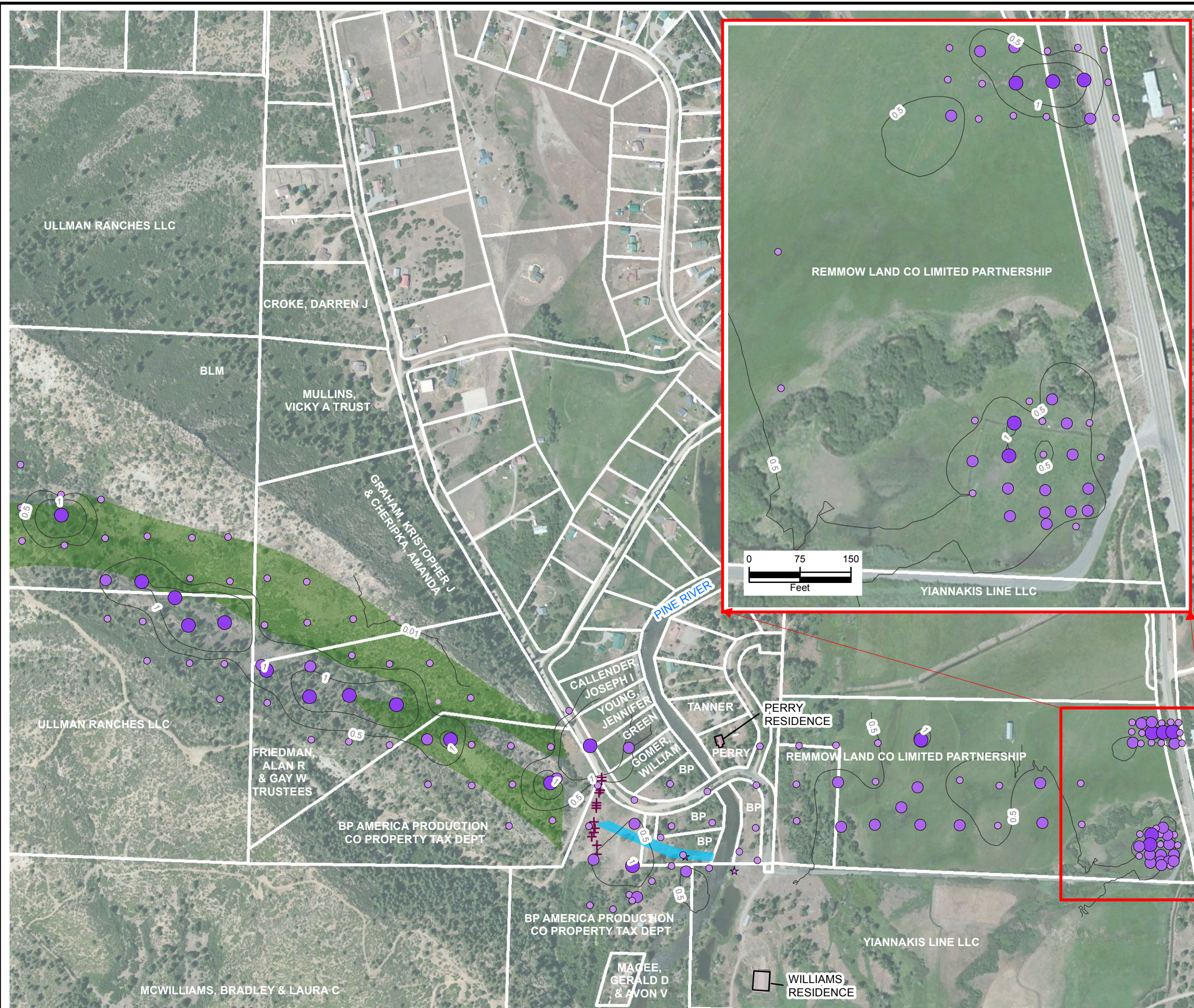
- + BLM GAS MONITORING PROBE
- ★ BLM GAS FLUX CHAMBER
- PARCEL BOUNDARY & OWNER (WHITE)
- 4M MITIGATION SYSTEM
- METHANE FLUX MEASUREMENT (mol/m² · day)
- 0.0000 - 0.1999
- 0.2000 - 0.5000
- 0.5001 - 1.0000
- 1.0001 - 10.0000
- 10.0001 - 50.0000
- 50.0001 - 100.0000
- 100.0001 - 5,000.0000
- METHANE FLUX CONTOUR IN mol/m² · day (INTERVAL VARIES)
- FRUITLAND FORMATION (Kf)
- BLM: BUREAU OF LAND MANAGEMENT
- mol/m² · day: MOLES PER SQUARE METER PER DAY
- FLUX POINTS NOT LABELED ARE LESS THAN 0.2000 mol/m² · day METHANE



FIGURE 22
METHANE FLUX CONTOURS
PINE RIVER
2012 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP



IMAGE COURTESY OF ESRI/BING MAPS



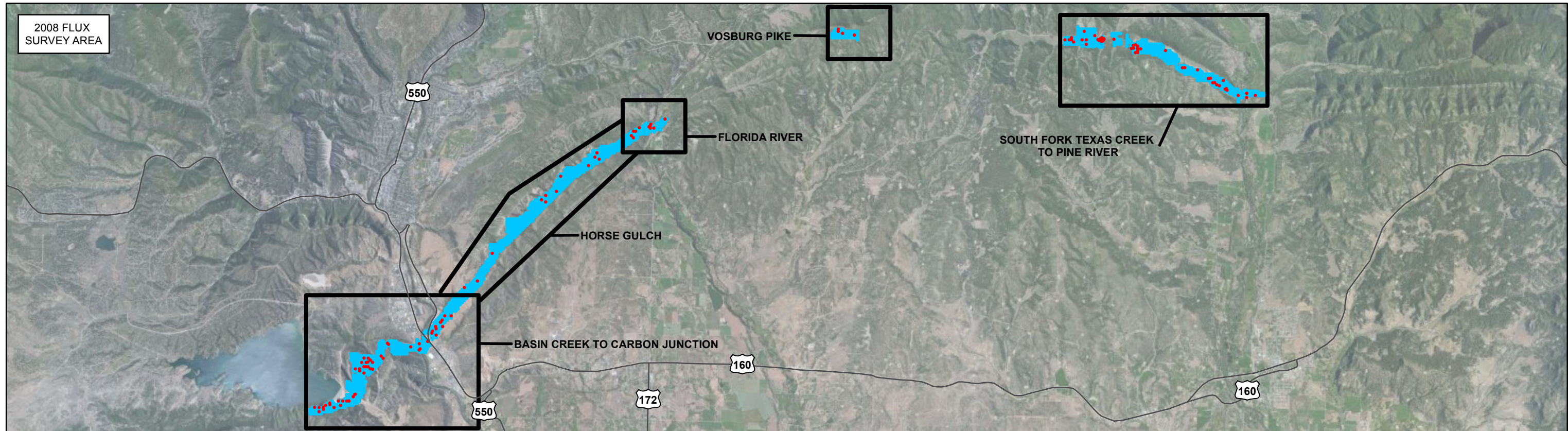
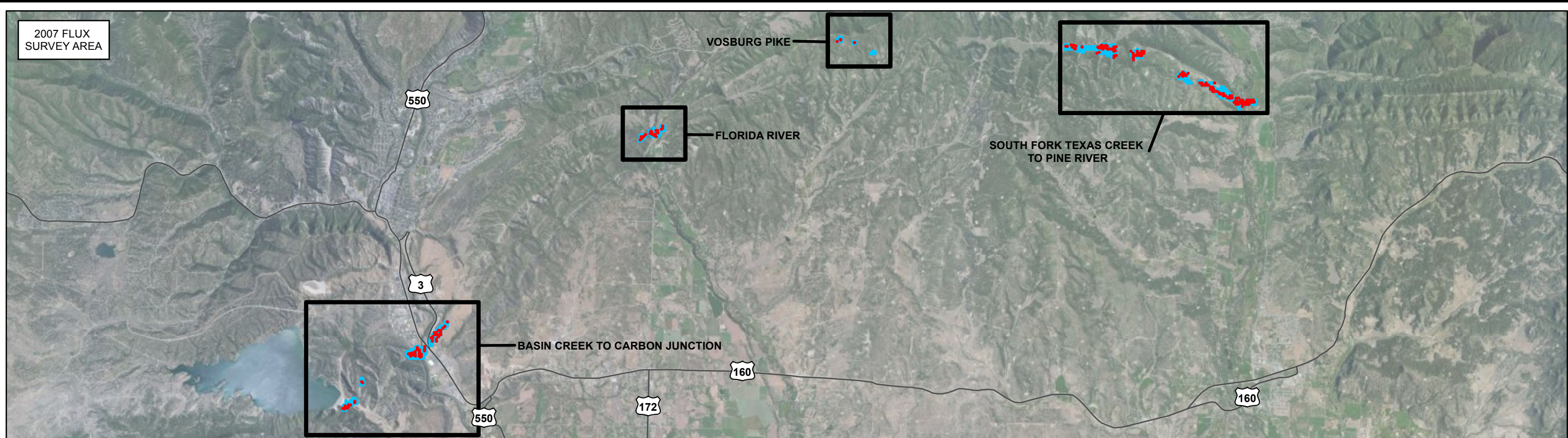
- LEGEND**
- + GAS MONITORING PROBE
 - ★ GAS FLUX CHAMBER
 - PARCEL BOUNDARY & OWNER (WHITE)
 - 4M MITIGATION SYSTEM
- CARBON DIOXIDE FLUX MEASUREMENT (mol/m² · day)**
- 0.0000 - 0.0100
 - 0.0101 - 0.5000
 - 0.5001 - 1.0000
 - 1.0001 - 25.0000
 - 25.0001 - 200.0000
- CARBON DIOXIDE FLUX CONTOUR IN mol/m² · day (INTERVAL VARIES)
- FRUITLAND FORMATION (Kf)
- mol/m² · day: MOLES PER SQUARE METER PER DAY



FIGURE 23
CARBON DIOXIDE FLUX CONTOURS
PINE RIVER
2012 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP



IMAGE COURTESY OF ESRI/BING MAPS



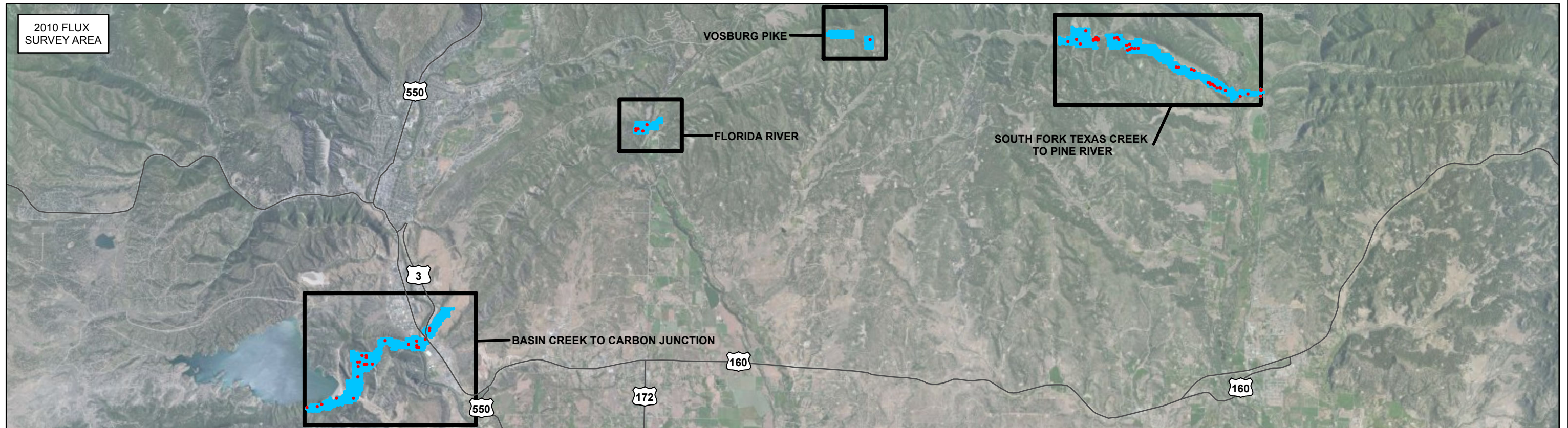
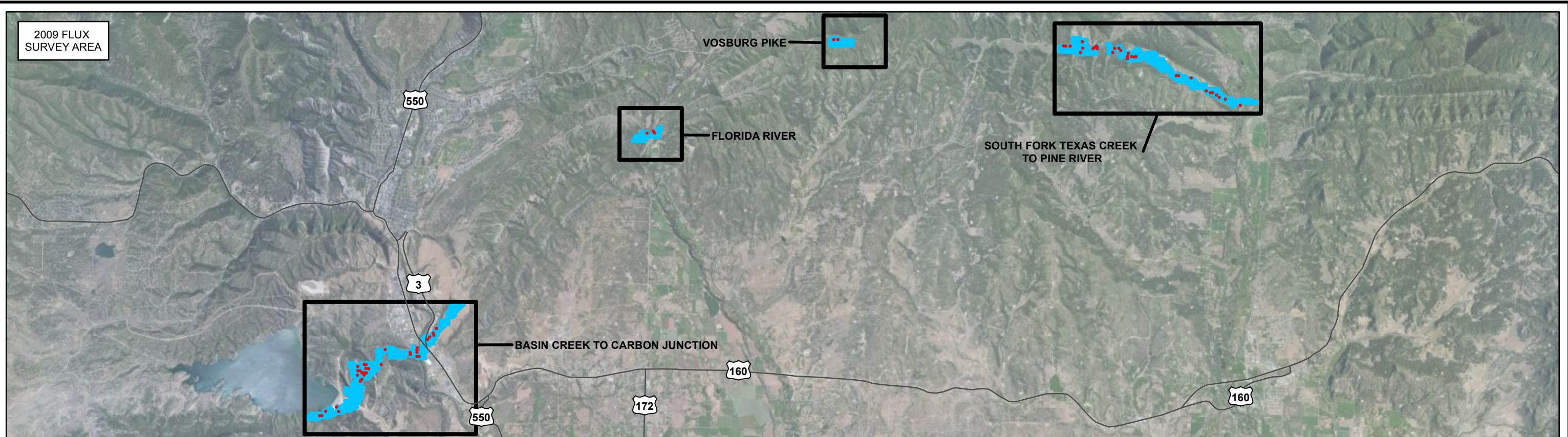
LEGEND

■ METHANE DETECTED GREATER THAN 0.2000 mol/m² · day
 ■ SURVEY BOUNDARY
 mol/m² · day: MOLES PER SQUARE METER PER DAY
 HIGHWAY
 AREA OF INTEREST



FIGURE 24
 METHANE FLUX COMPARISON 2007-2008
 2012 FRUITLAND OUTCROP MONITORING
 LA PLATA COUNTY, COLORADO
THE GROUP





LEGEND

■ METHANE DETECTED GREATER THAN 0.2000 mol/m² · day
■ SURVEY BOUNDARY
 mol/m² · day: MOLES PER SQUARE METER PER DAY
 HIGHWAY
 AREA OF INTEREST

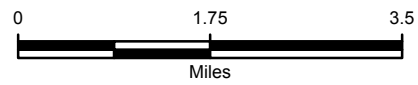
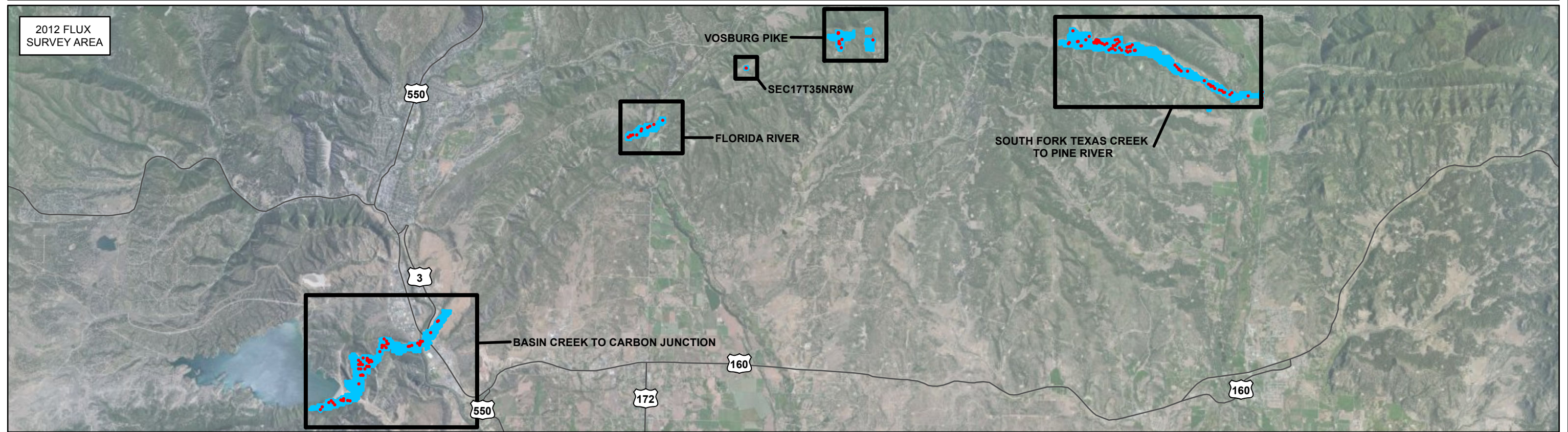
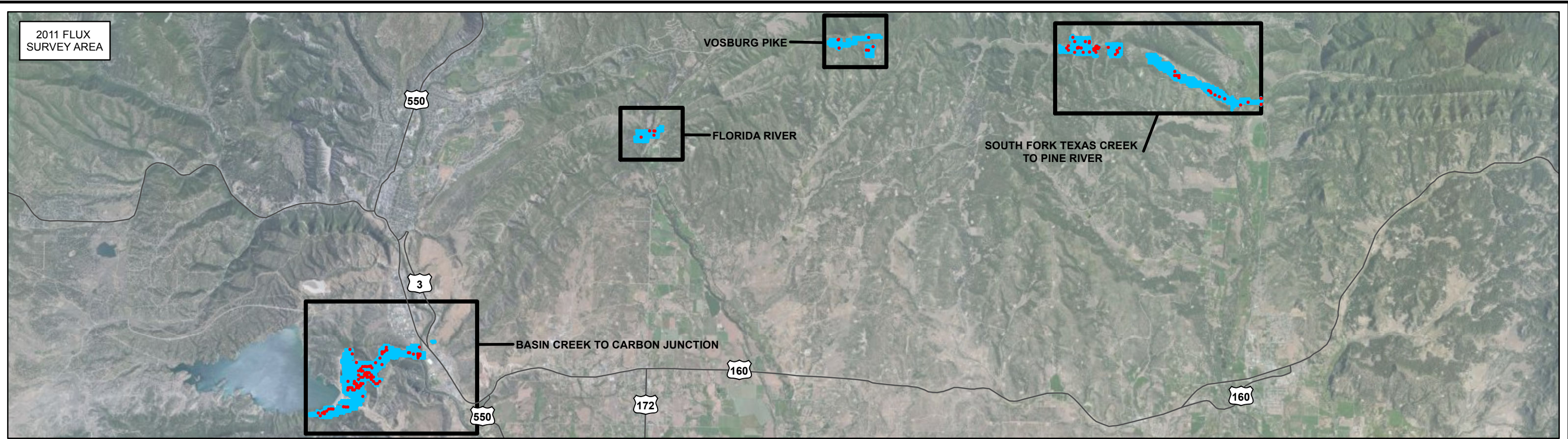


FIGURE 25
 METHANE FLUX COMPARISON 2009-2010
 2012 FRUITLAND OUTCROP MONITORING
 LA PLATA COUNTY, COLORADO



THE GROUP



LEGEND

■ METHANE DETECTED GREATER THAN 0.2000 mol/m² · day
■ SURVEY BOUNDARY
 mol/m² · day: MOLES PER SQUARE METER PER DAY
 HIGHWAY
 AREA OF INTEREST

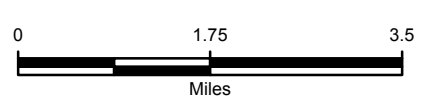


FIGURE 26
 METHANE FLUX COMPARISON 2011-2012
 2012 FRUITLAND OUTCROP MONITORING
 LA PLATA COUNTY, COLORADO
THE GROUP



P:\San Juan Basin GIS\LaPlata\Fruitland_OMR\MXDs\Subgas_Flux\2012\2012_FIG 26 CH4 COMP 2011-2012.mxd



LEGEND

- + BLM GAS MONITORING PROBES
 - PARCEL BOUNDARY & OWNER (WHITE)
- NATURAL SPRING**
- SAMPLED
 - FIELD PARAMETERS ONLY
 - DRY
 - NOT LOCATED
 - NO ACCESS

FRUITLAND FORMATION (Kf)
 BLM: BUREAU OF LAND MANAGEMENT

SUBSURFACE METHANE MEASUREMENTS WERE COLLECTED FROM TEMPORARY SOIL PROBES ADVANCED WITH A SLIDE HAMMER AT EACH SAMPLED NATURAL SPRING LOCATION. THE CONCENTRATION OF SUBSURFACE METHANE WAS 0.0 PARTS PER MILLION FOR ALL MEASUREMENTS TAKEN.

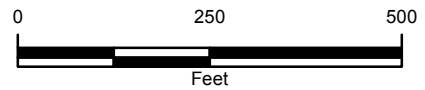


FIGURE 27
 DETAILED NATURAL SPRINGS MAP
 EDMONT RANCH
 2012 FRUITLAND OUTCROP MONITORING
 LA PLATA COUNTY, COLORADO
 THE GROUP



IMAGE COURTESY OF ESRI/BING MAPS



LEGEND

- + BLM GAS MONITORING PROBES
 - PARCEL BOUNDARY & OWNER (WHITE)
 - NATURAL SPRING**
 - SAMPLED
 - FIELD PARAMETERS ONLY
 - DRY
 - NOT LOCATED
 - NO ACCESS
 - FRUITLAND FORMATION (Kf)
- BLM: BUREAU OF LAND MANAGEMENT

SUBSURFACE METHANE MEASUREMENTS WERE COLLECTED FROM TEMPORARY SOIL PROBES ADVANCED WITH A SLIDE HAMMER AT EACH SAMPLED NATURAL SPRING LOCATION. THE CONCENTRATION OF SUBSURFACE METHANE WAS 0.0 PARTS PER MILLION FOR ALL MEASUREMENTS TAKEN.



FIGURE 28
DETAILED NATURAL SPRINGS MAP
WILBOURN
2012 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP



IMAGE COURTESY OF ESRI/BING MAPS



LEGEND

- + BLM GAS MONITORING PROBES
 - PARCEL BOUNDARY & OWNER (WHITE)
 - NATURAL SPRING**
 - SAMPLED
 - FIELD PARAMETERS ONLY
 - DRY
 - NOT LOCATED
 - NO ACCESS
 - FRUITLAND FORMATION (Kf)
- BLM: BUREAU OF LAND MANAGEMENT

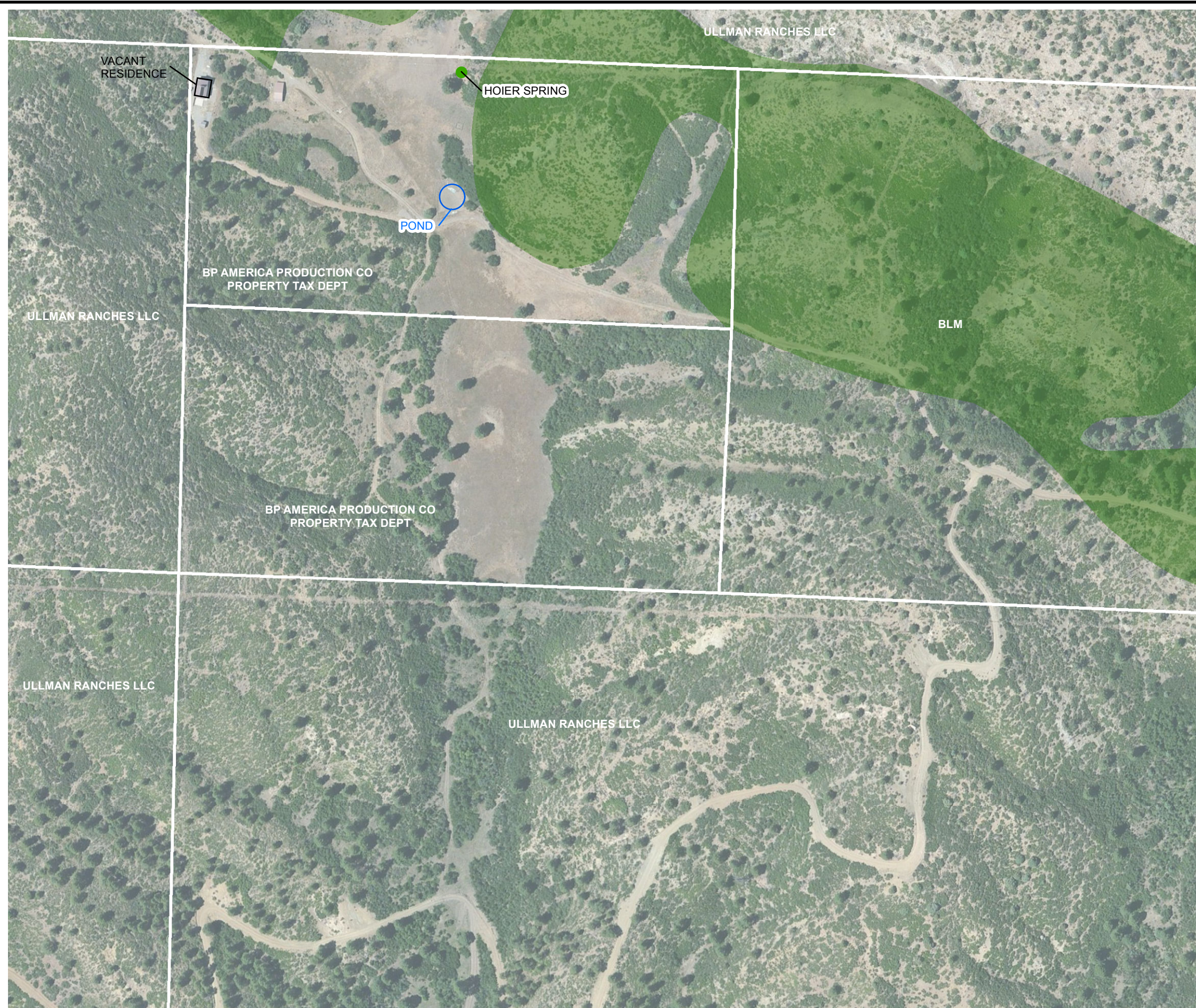
SUBSURFACE METHANE MEASUREMENTS WERE COLLECTED FROM TEMPORARY SOIL PROBES ADVANCED WITH A SLIDE HAMMER AT EACH SAMPLED NATURAL SPRING LOCATION. THE CONCENTRATION OF SUBSURFACE METHANE WAS 0.0 PARTS PER MILLION FOR ALL MEASUREMENTS TAKEN.



FIGURE 29
DETAILED NATURAL SPRINGS MAP
SOUTH FORK TEXAS CREEK
2012 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP



IMAGE COURTESY OF ESRI/BING MAPS



LEGEND

- + BLM GAS MONITORING PROBES
 - PARCEL BOUNDARY & OWNER (WHITE)
- NATURAL SPRING**
- SAMPLED
 - FIELD PARAMETERS ONLY
 - DRY
 - NOT LOCATED
 - NO ACCESS
- FRUITLAND FORMATION (Kf)
- BLM: BUREAU OF LAND MANAGEMENT

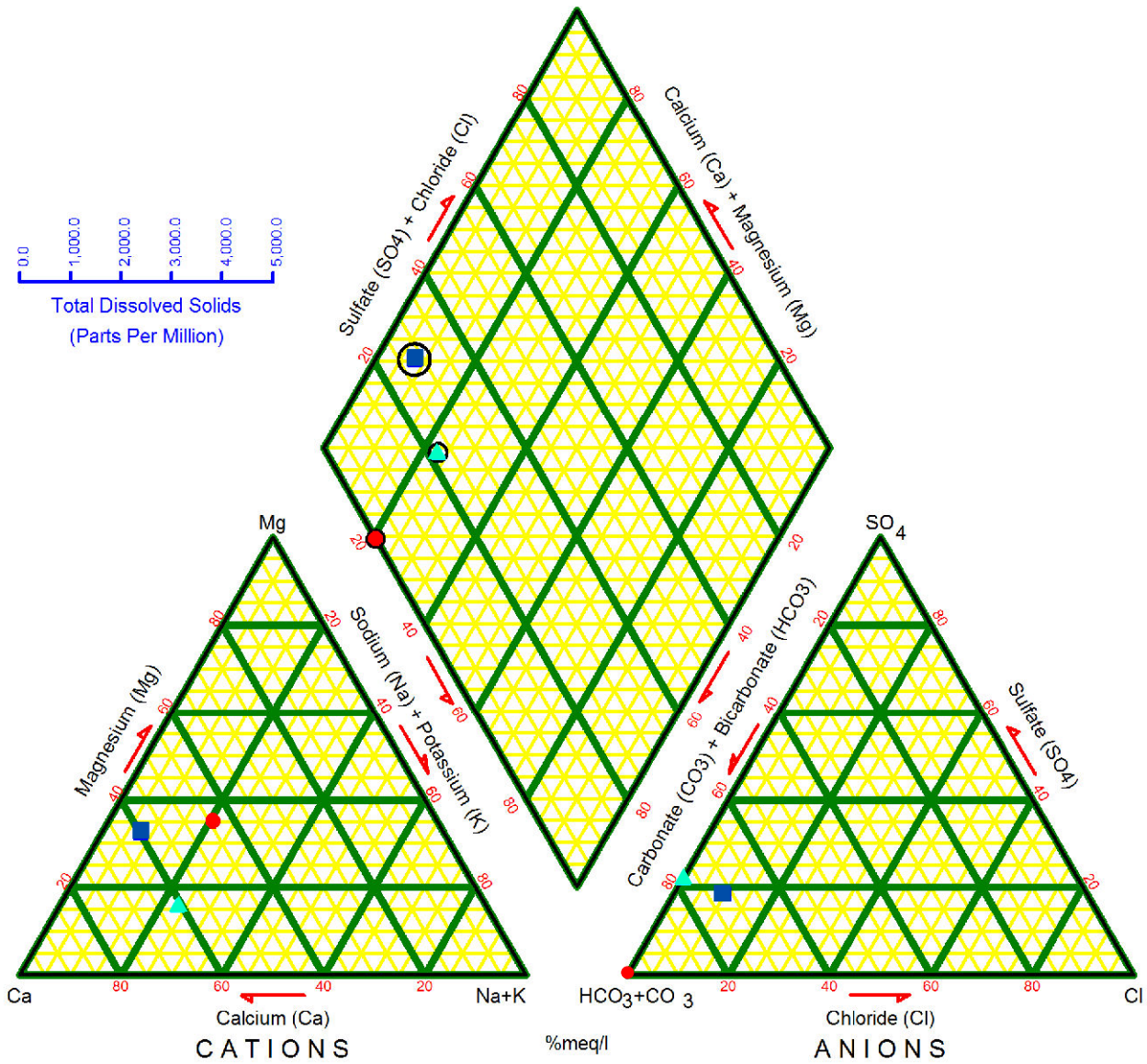
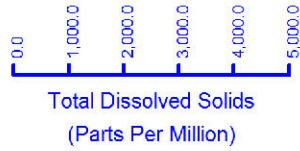
SUBSURFACE METHANE MEASUREMENTS WERE COLLECTED FROM TEMPORARY SOIL PROBES ADVANCED WITH A SLIDE HAMMER AT EACH SAMPLED NATURAL SPRING LOCATION. THE CONCENTRATION OF SUBSURFACE METHANE WAS 0.0 PARTS PER MILLION FOR ALL MEASUREMENTS TAKEN.



FIGURE 30
DETAILED NATURAL SPRING MAP
 BP HIGHLANDS
 2012 FRUITLAND OUTCROP MONITORING
 LA PLATA COUNTY, COLORADO
THE GROUP



IMAGE COURTESY OF ESRI/BING MAPS



LEGEND

- DARWIN RATHER #1
- ▲ DARWIN RATHER #2
- HOIER SPRING

FIGURE 31
 TRI-LINEAR DIAGRAM OF NATURAL SPRING WATERS
 MAY 21, 2012
 2012 FRUITLAND OUTCROP MONITORING
 LA PLATA COUNTY, COLORADO
 THE GROUP



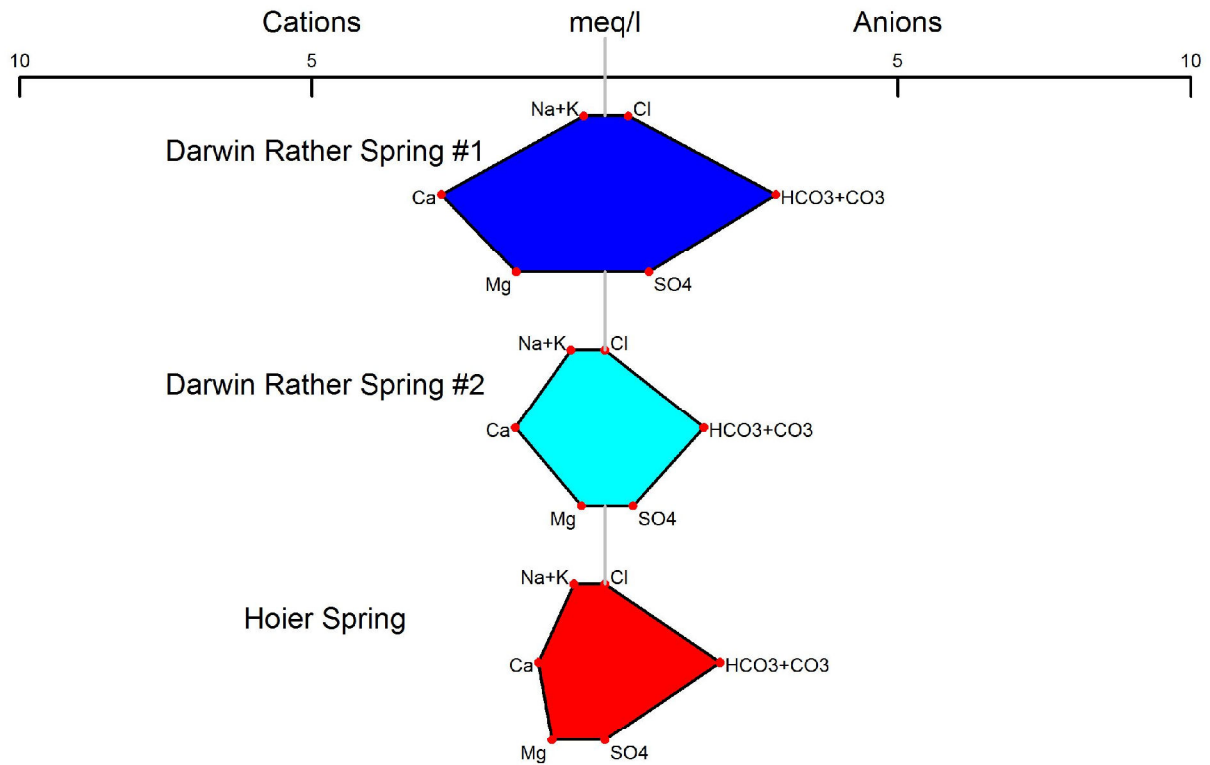


FIGURE 32
 STIFF DIAGRAMS
 MAY 21, 2012
 2012 FRUITLAND OUTCROP MONITORING
 LA PLATA COUNTY, COLORADO
THE GROUP



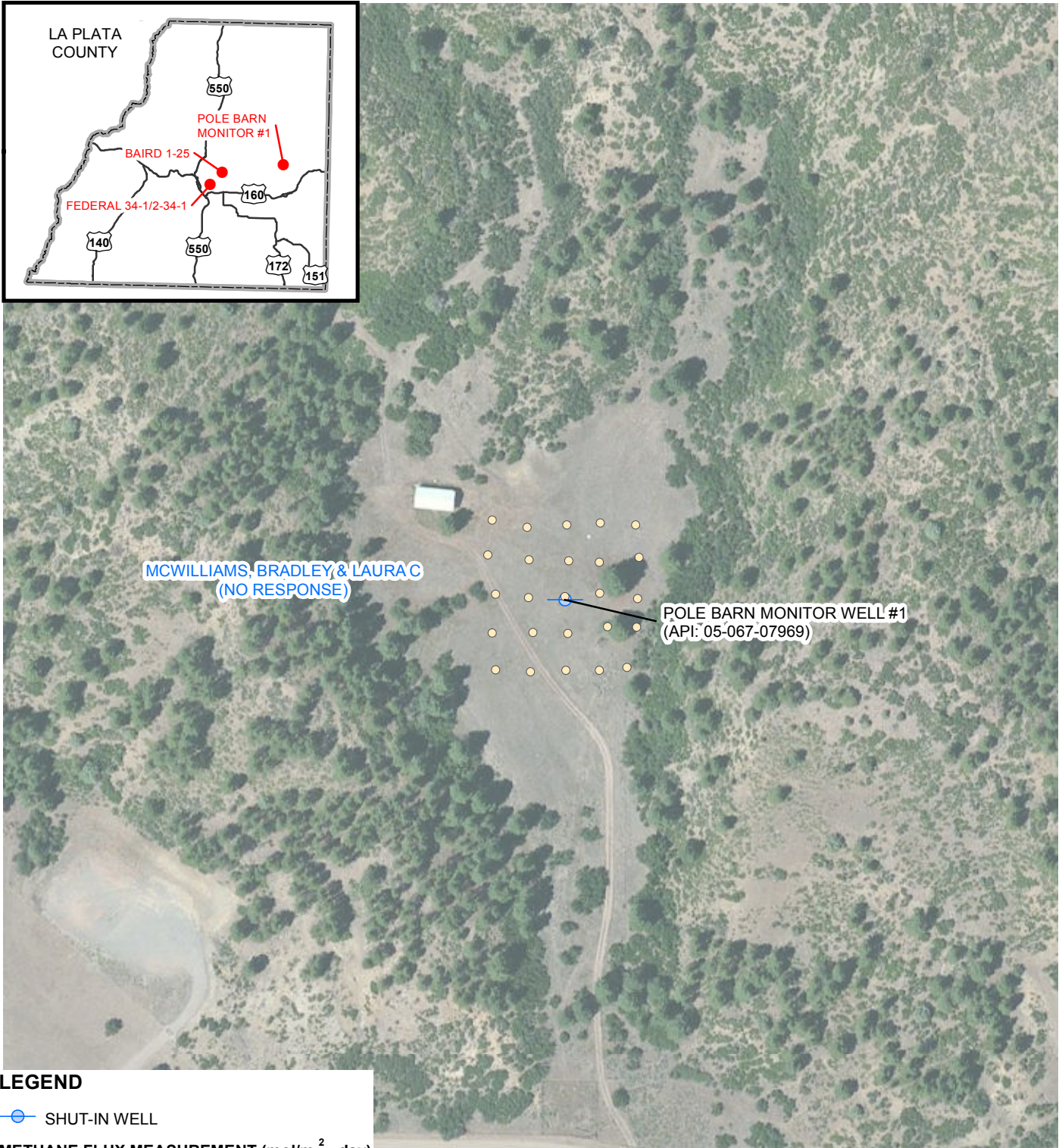
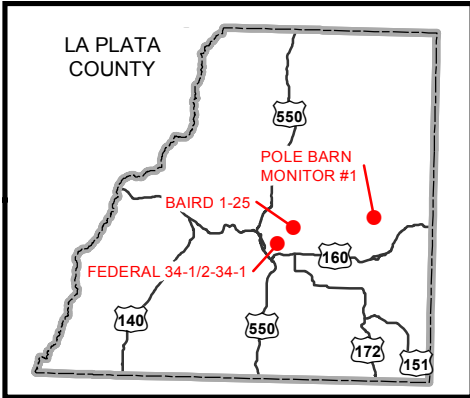


IMAGE COURTESY OF ESRI/BING MAPS

LEGEND

⊖ SHUT-IN WELL

METHANE FLUX MEASUREMENT ($\text{mol/m}^2 \cdot \text{day}$)

- 0.0000 - 0.1999
- 0.2000 - 0.5000
- 0.5001 - 1.0000
- 1.0001 - 10.0000
- 10.0001 - 50.0000
- 50.0001 - 100.0000
- 100.0001 - 1,000.0000

API: AMERICAN PETROLEUM INSTITUTE
 $\text{mol/m}^2 \cdot \text{day}$: MOLES PER SQUARE METER PER DAY
 FLUX POINTS NOT LABELED ARE LESS THAN
 0.2000 $\text{mol/m}^2 \cdot \text{day}$ METHANE

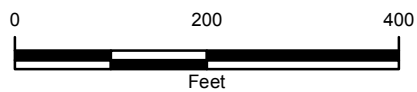
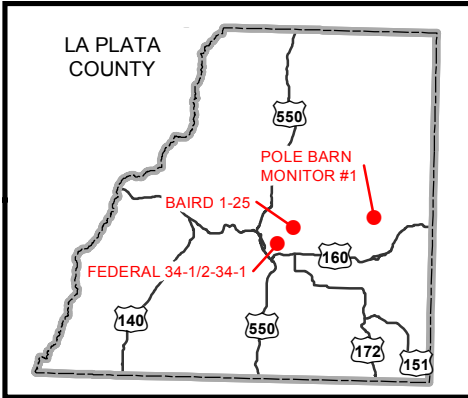


FIGURE 33
METHANE FLUX MEASUREMENTS
POLE BARN MONITOR WELL #1
2012 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP





LEGEND

⊘ ABANDONED WELL

METHANE FLUX MEASUREMENT (mol/m² • day)

- 0.0000 - 0.1999
- 0.2000 - 0.5000
- 0.5001 - 1.0000
- 1.0001 - 10.0000
- 10.0001 - 50.0000
- 50.0001 - 100.0000
- 100.0001 - 1,000.0000

API: AMERICAN PETROLEUM INSTITUTE
 mol/m² • day: MOLES PER SQUARE METER PER DAY
 FLUX POINTS NOT LABELED ARE LESS THAN
 0.2000 mol/m² • day METHANE

IMAGE COURTESY OF ESR/BING MAPS

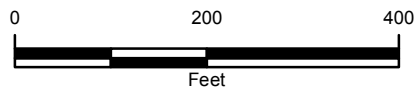


FIGURE 34
METHANE FLUX MEASUREMENTS
FEDERAL 34-1/2-34-1
2012 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP



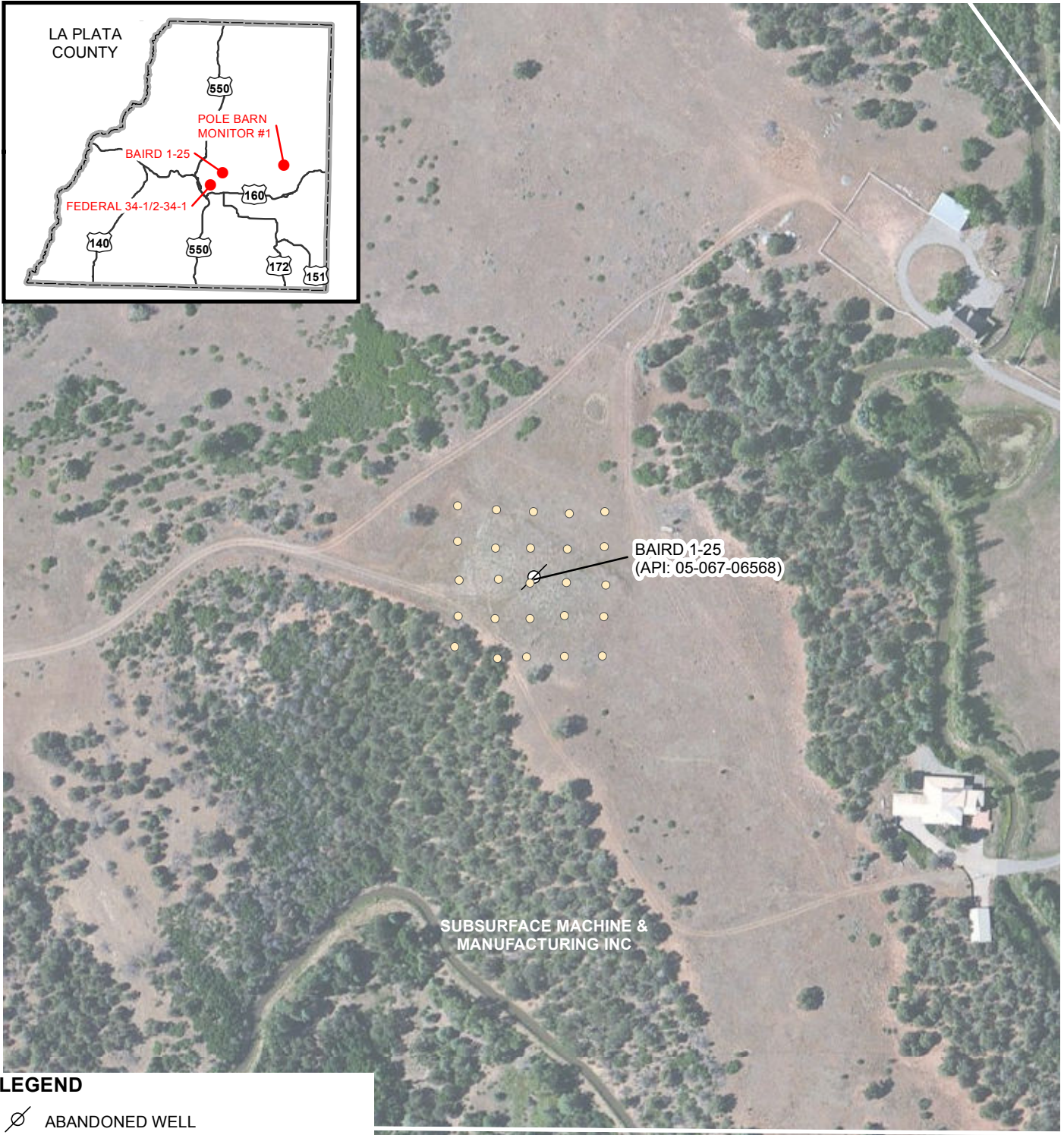
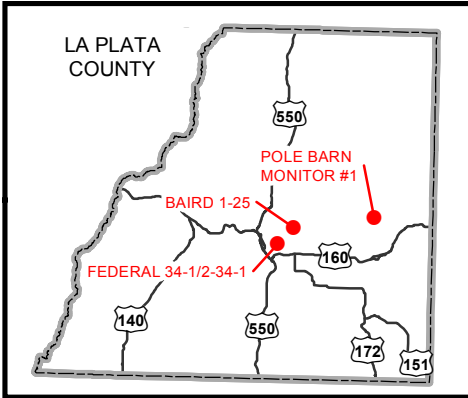


IMAGE COURTESY OF ESR/BING MAPS

LEGEND

⊘ ABANDONED WELL

METHANE FLUX MEASUREMENT (mol/m² • day)

- 0.0000 - 0.1999
- 0.2000 - 0.5000
- 0.5001 - 1.0000
- 1.0001 - 10.0000
- 10.0001 - 50.0000
- 50.0001 - 100.0000
- 100.0001 - 1,000.0000

API: AMERICAN PETROLEUM INSTITUTE
 mol/m² • day: MOLES PER SQUARE METER PER DAY
 FLUX POINTS NOT LABELED ARE LESS THAN
 0.2000 mol/m² • day METHANE

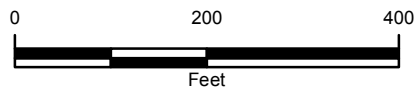


FIGURE 35
METHANE FLUX MEASUREMENTS
BAIRD 1-25
2012 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP



TABLES

**TABLE 1
PROPERTY ACCESS STATUS
2012 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO**

THE GROUP

Parcel Number(s)	Property Owner	City	State	Zip Code	ACCESS Y/N	Access Date
567510300070, 567515100018, 566734400007, 567111200305	BLM	DURANGO	CO	81301	Yes	4/17/2012
567514201007, 567514201004, 567514201016, 567514201006, 567514201008, 567514300017, 567508400263, 567508400193, 567515200183, 567508400169, 567509300144, 567508400192	BP AMERICA PRODUCTION CO PROPERTY TAX DEPT	HOUSTON	TX	77253-3092	Yes	4/21/2012
567508300307	BRYSON, PHILIP JAMES & LUCY T	BAYFIELD	CO	81122	Yes	4/16/2012
567514201020	CALLENDER, JOSEPH I & HELEN B	METAIRIE	LA	70002	Yes	6/10/2012
566905100028	CARLENO, DONALD L & VON FELDT, HERBERT J	DURANGO	CO	81301	Yes	5/2/2012
567514201013	CASSELLA, JOSEPH A	SIMI VALLEY	CA	93065	Yes	4/21/2012
567508200326	CLARK, BRETT	PATASKALA	OH	43062	Yes	5/5/2012
567111300824	D & G INVESTMENTS C/O SHERI MCCULLOUGH	TEMPE	AZ	85283	Yes	4/17/2012
567508100265	DEAL, VICTORIA ANNE & TIMOTHY YALE	CHERRY HILL	NJ	08034	Yes	5/30/2012
567509100178	EVERITT-ROBERTS LLC	LAKE JACKSON	TX	77566	Yes	4/22/2012
	FIDDLER BARBARA DILLOW LIV TRUST				Yes	6/24/2012
567509200375	FINCHER, RONALD C & DARLENE A & FINCHER,	BAYFIELD	CO	81122	Yes	4/17/2012
567514201003	FRIEDMAN, ALAN R & GAY W TRUSTEES	TUCSON	AZ	85705	Yes	4/19/2012
567514201018	GREEN, BRYAN F & JULIE A	ALBUQUERQUE	NM	87114	Yes	4/16/2012
567509200167	KURTZ, H RICHARD	BAYFIELD	CO	81122	Yes	6/12/2012
566905200031, 566905400034	LA PLATA COUNTY BOARD OF COUNTY COMMISSIONERS	DURANGO	CO	81301	Yes	4/24/2012
566905400024	LA PLATA COUNTY HUMANE SOCIETY	DURANGO	CO	81301	Yes	4/27/2012
566524100054	LOEHR, WILLIAM & SHERRY	OJAI	CA	93023	Yes	4/29/2012
566524100806	MACHO FAMILY TRUST	DURANGO	CO	81301	Yes	4/16/2012
567514300014	MCWILLIAMS, BRADLEY & LAURA C	HOUSTON	TX	77024	Yes	4/28/2012
567514201043, 567514201042	NEW AGE CORPORATION C/O JOE D FORD	BAYFIELD	CO	81122	Yes	4/23/2012
566904200068, 566904200067, 566904200808, 566904200809	OAK RIDGE ENERGY INC	WICHITA FALLS	TX	76302	Yes	4/26/2012
567119200898, 566524400831	PALMER RANCH LIMITED II	DURANGO	CO	81301	Yes	5/17/2012
566905400032	PENN DCIL LLC	MIDLAND	TX	79706	Yes	4/25/2012
567514201015	PERRY, OSCAR D & BETTY	BAYFIELD	CO	81122	Yes	4/20/2012
567507400270	RATHER, DARWIN R & MAXINE J	BASALT	CO	81621	Yes	4/26/2012
567514100002, 567513200345, 567514100015	REMMOW LAND CO LIMITED PARTNERSHIP	BAYFIELD	CO	81122	Yes	4/23/2012
566907100035, 566905300033, 566731100023, 566731100023	STATE OF COLORADO DIVISION OF WILDLIFE	DENVER	CO	80216	Yes	5/3/2012
566525100135, 566524400813	SUBSURFACE MACHINE & MFG INC	DURANGO	CO	81301	Yes	4/18/2012
567508300308, 567508300309	TULLOCH, WILLIAM T H & ELIZABETH C CO TRUSTEES	RAMONA	CA	92065	Yes	4/19/2012
567510400009, 567509400065	ULLMAN RANCHES LLC	VALENCIA	CA	91355	Yes	5/1/2012
566301200180, 590710200083	UNITED STATES OF AMERICA BUREAU OF RECLAMATION	DURANGO	CO	81301	Yes	4/18/2012
567509300188, 567509400231	VARCOE, ROY & GORETSKI, MICHAEL MARION, MARK (EA UND 1/3 INT)	WATERFORD	MI	48327	Yes	5/15/2012
567508100113, 567508100165	WALKER, C GLEN & IVY K	BAYFIELD	CO	81122	Yes	4/16/2012
567514201019	YOUNG, JENNIFER SUE	PLACENTIA	CA	92870	Yes	5/10/2012
567119200267	BEACH, MARSHALL A & MARY P TRUSTEES & BEACH, ZACHARIAH A	SANTA FE	NM	87508	No	4/16/2012
567507300278	DEWITT, MICHAEL J TRUSTEE	BAYFIELD	CO	81122	No	4/16/2012
567119200266	MARSH, WILLIAM BUSH & ELIZABETH W	DURANGO	CO	81301	No	4/17/2012
567110300814 new access	RISE AND WALK LLC	LOPEZ ISLAND	WA	98261	No	5/22/2012

**TABLE 1
PROPERTY ACCESS STATUS
2012 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO**

THE GROUP

Parcel Number(s)	Property Owner	City	State	Zip Code	ACCESS Y/N	Access Date
567508100168	SARAFIN, GREGORY R	DURANGO	CO	81302-2754	No	4/17/2012
567119200197	TURNER, STEPHAN & TURNER-ANDEREGG, REGINA	DURANGO	CO	81301	No	4/21/2012
567514201009	BRAME, JOEL L	WILDWOOD	MO	63005	No Response	No Date
566904200021, 566905400803	CITY OF DURANGO	DURANGO	CO	81301	No Response	No Date
567514201012	DAVIS, LINDA B	AUSTIN	TX	78759	No Response	No Date
567509100179	DILLASHAW, HARRY LIV TRUST	HOUSTON	TX	77001	No Response	No Date
567110100820	ELK PARK LIMITED PARTNERSHIP	DURANGO	CO	81301	No Response	No Date
567507200277	FOSTER, CHARLES O	DURANGO	CO	81301	No Response	No Date
567514201017	GOMER, WILLIAM EARL	RIVERTON	UT	84065	No Response	No Date
567514201002	GRAHAM, KRISTOPHER J & CHERIPKA, AMANDA	BAYFIELD	CO	81122	No Response	No Date
566905100002	JRLT LLC	DURANGO	CO	81301	No Response	No Date
567514201014	TANNER, CARLA RENEE NEAL & DOUGLAS ALAN	DURANGO	CO	81302	No Response	No Date
567117301006	VILLELLI, THOMAS R	SAND POINT	ID	83864-0069	No Response	No Date
566904300003	WILLMETT, EMERY ETALS	DURANGO	CO	81301	No Response	No Date
567514400008	YIANNAKIS LINE LLC	BAYFIELD	CO	81122	No Response	No Date

Notes:

Green indicates access granted from landowner

Red indicates access denied from landowner

White indicates no response from landowner requesting access

**TABLE 2
FLUX MEASUREMENTS
2012 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO**

THE GROUP

Mapping Area	Total Number of Sample Points	Methane Flux		Carbon Dioxide Flux	
		Number of Reportable Sample Points w/ CH ₄ ¹	Maximum flux value ²	Number of Sample Points w/ CO ₂	Maximum flux value
Basin Creek to Carbon Junction	488	59	121.0	434	143.00
Florida River	88	12	14.7	86	17.00
SEC17T35NR8W	10	2	87.0	10	23.40
Vosburg Pike	110	10	152.0	108	4.10
SEC12T35NR8W	NM	NM	NM	NM	NM
Texas Creek to Pine River	620	94	2817.0	609	37.00
Total	1,316	177	-----	1,247	-----

Notes:

Flux measurements are in units of moles per square meter per day (mol/m² · day)

CH₄ - Methane

CO₂ - Carbon dioxide

¹ - Based on methane flux values that are greater than the flux meter reportable limit of 0.2 mol/m² · day

² - Statistics based on measurements greater than the flux meter reportable limit

NM - not measured due to no property access at the time of flux survey event



**TABLE 3
HISTORICAL METHANE AND CARBON DIOXIDE FLUX COMPARISON
2012 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO**

THE GROUP

Mapping Area	Methane											
	2007		2008		2009		2010		2011		2012	
	Seepage Area (acres)	Reportable Volumetric Flux* (MCFD)	Seepage Area (acres)	Reportable Volumetric Flux* (MCFD)	Seepage Area (acres)	Reportable Volumetric Flux* (MCFD)	Seepage Area (acres)	Reportable Volumetric Flux* (MCFD)	Seepage Area (acres)	Reportable Volumetric Flux* (MCFD)	Seepage Area (acres)	Reportable Volumetric Flux* (MCFD)
Basin Creek to Carbon Junction	94	641	406	967	312	760	110	293	179	860	73	1,904
Florida River	30	131	52	27	39	622	26	154	12	45	16	119
SEC17T35NR8W	---	---	---	---	---	---	---	---	---	---	2	49
Vosburg Pike	14	2	43	11	34	15	23	1	21	115	11	598
SEC12T35NR8W	---	---	---	---	---	---	---	---	---	---	NM	NM
Texas Creek to Pine River	162	5,325	359	4,006	259	2,702	160	1,300	106	1,880	86	6,701
TOTAL	300	6,099	860	5,011	644	4,099	319	1,748	318	2,900	188	9,371

Mapping Area	Carbon Dioxide											
	2007		2008		2009		2010		2011		2012	
	Seepage Area (acres)	Volumetric Flux (MCFD)	Seepage Area (acres)	Volumetric Flux (MCFD)	Seepage Area (acres)	Volumetric Flux (MCFD)	Seepage Area (acres)	Volumetric Flux (MCFD)	Seepage Area (acres)	Volumetric Flux (MCFD)	Seepage Area (acres)	Volumetric Flux (MCFD)
Basin Creek to Carbon Junction	137	231	582	740	506	747	415	458	515	976	419	2,698
Florida River	48	68	61	73	55	119	61	90	67	126	84	197
SEC17T35NR8W	---	---	---	---	---	---	---	---	---	---	5	15
Vosburg Pike	28	44	55	52	41	56	74	132	106	193	103	155
SEC12T35NR8W	---	---	---	---	---	---	---	---	---	---	---	---
Texas Creek to Pine River	173	715	537	1,161	452	580	441	546	404	649	487	1,473
TOTAL	386	1,058	1,235	2,026	1,054	1,502	991	1,226	1,092	1,944	1,099	4,538

Notes:

MCFD - thousand cubic feet per day

* Reportable methane flux volumes calculated using points greater than 0.2 moles per squared meter per day

-- - Indicates no data available for parameter

NM- not measured due to no property access at the time of the flux survey event



**TABLE 4
 NATURAL SPRINGS SAMPLING STATUS
 2012 FRUITLAND OUTCROP MONITORING
 LA PLATA COUNTY, COLORADO**

THE GROUP

Natural Spring	2005	2006	2007	2008		2009		2010	2011	2012
	September	May	October	June	November	May	October	June	May	May
Rancho Durango North Spring	Not Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Not Sampled	No Access
Rancho Durango East Spring	Not Sampled	Not Sampled	Sampled	Not Sampled	Sampled	Dry	Dry	Not Sampled	Not Sampled	No Access
Rancho Durango LTD Spring	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Not Sampled	No Access
Darwin Rather Spring #1	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled
Darwin Rather Spring #2	Sampled	Sampled	Not Sampled	Sampled	Sampled	Sampled	Dry	Sampled	Sampled	Sampled
Wilbourn Spring #1	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	No Access	No Access	No Access	No Access	Not Sampled
Wilbourn Spring #2	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	No Access	No Access	No Access	No Access	No Access
Wilbourn Spring #6	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	No Access	No Access	No Access	No Access	No Access
Hoier Spring	Not Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Dry	Not Sampled	Not Sampled	Sampled



**TABLE 5
NATURAL SPRINGS FIELD MEASUREMENTS
2012 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO**

THE GROUP

Natural Spring	Date	Temperature (°C)	pH	Electrical Conductivity (µS/cm)	TDS (mg/L)	ORP (mV)	Flow (GPM)	Subsurface Methane (ppm)	
Rancho Durango North Spring	5/24/2006	13.4	7.67	533.2	360.7	87	2.0	NM	
	10/8/2007	19.2	7.28	514.8	263.9	43	<0.5	NM	
	6/23/2008	19	6.93	728	510.8	51	0.38	0	
	10/15/2008	11.4	6.9	617	401	112.8	1.5	0	
	5/12/2009	9.7	7.1	591	NM	NM	2.82	0	
	10/6/2009	12.1	7.25	651	NM	NM	0.6	0	
	6/29/2010	13.7	7.03	586	NM	NM	0.6	0	
	5/4/2011	No Access - Not Measured							
	5/21/2012	No Access - Not Measured							
Rancho Durango East Spring	10/15/2008	7.8	6.5	510	0.334	87.2	0.19	0	
	5/12/2009	Dry - Not Measured							0
	10/6/2009	Dry - Not Measured							0
	6/29/2010	Not Measured							NM
	5/4/2011	No Access - Not Measured							
	5/21/2012	No Access - Not Measured							
Rancho Durango LTD Spring	9/14/2005	14.6	8.05	494.1	338.0	66	>1	NM	
	5/24/2006	19.3	7.38	524.5	345.9	77	1.5	NM	
	10/8/2007	19.0	7.29	499.7	245.8	529	<0.25	NM	
	6/23/2008	12.4	8.02	526	376	20	0.48	0	
	10/15/2008	12.4	7.4	561	365	126.9	1.5	0	
	5/12/2009	10.9	7.36	593	NM	NM	1.47	0	
	10/6/2009	7.1	7.25	635	NM	NM	0.4	0	
	6/29/2010	13.9	7.05	574	NM	NM	0.49	0	
	5/4/2011	No Access - Not Measured							
5/21/2012	No Access - Not Measured								
Darwin Rather Spring #1	9/17/2005	10.6	7.20	479.9	329.2	59	0.50	NM	
	5/24/2006	12.3	7.76	425.9	288.4	52	1.0	NM	
	10/8/2007	15.2	8.05	399.5	210.6	55	1.0	NM	
	6/23/2008	12.6	7.34	432.0	308.9	81	NM	0	
	10/15/2008	Dry - Not Measured							0
	5/12/2009	7.9	7.16	437.0	NM	NM	0.23	0	
	10/6/2009	8.4	7.18	475	NM	NM	NM	0	
	6/29/2010	11.6	6.72	476	NM	NM	NM	0	
	5/4/2012	11.1	6.59	429	216	77.4	NM	0	
	5/21/2012	10.1	6.32	492	244	74.5	NM	0	
Darwin Rather Spring #2	9/17/2005	14.4	7.50	271.4	178.3	45	<0.25	NM	
	5/24/2006	13.0	7.69	344	222.9	-62	<1.0	NM	
	10/8/2007	Dry - Not Measured							NM
	6/26/2008	18	7.31	261.4	180.5	76	0.63	0	
	10/15/2008	10.9	6.9	289	188	3	0.25	0	
	5/12/2009	10.5	7.43	270	NM	NM	1.80	0	
	10/6/2009	Dry - Not Measured							0
	6/29/2010	21.1	7.58	252	NM	NM	NM	0	
	5/4/2011	14.8	7.5	282	142	49.8	NM	0	
	5/21/2012	15.66	7.36	270	134	14.3	2.573	0	
Hoier Spring	5/24/2006	17.5	7.24	670.5	453.9	35	NM	NM	
	10/8/2007	21.0	8.23	221.6	111.9	20	<0.25	NM	
	6/23/2008	20.8	8.2	257.0	173.0	52.0	0.042	NM	
	10/15/2008	12.33	7.78	254	165	90.4	0.031	0	
	5/14/2009	18.1	6.9	380.0	NM	NM	0.050	0	
	10/6/2009	Dry - Not Measured							0
	6/29/2010	Spring pipe cut during monitoring well installation; not enough water to sample							NM
	5/4/2011	Dry - Not Measured							0
	5/21/2012	21.0	6.75	272	135	82.9	0.025	0	

Notes:

°C - degrees Celcius
GPM - gallons per minute
mg/L - milligrams per liter
mV - millivolts
NM - Not measured
ORP - oxidation reduction potential

ppm - parts per million
TDS - total dissolved solids
µS/cm - microSiemens per centimeter
< - less than
> - greater than



TABLE 6
NATURAL SPRINGS LABORATORY METHANE CONCENTRATIONS
2012 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO

THE GROUP

Natural Spring	DISSOLVED METHANE (mg/L)									
	2005	2006	2007	2008		2009		2010	2011	2012
	September	May	October	June	October	May	October	June	May	May
Rancho Durango North Spring	Not Sampled	<0.0010	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	Not Sampled	Not Sampled
Rancho Durango East Spring	Not Sampled				<0.02	Not Sampled		Not Sampled	Not Sampled	Not Sampled
Rancho Durango LTD Spring	<0.0005	0.0016	<0.02	<0.02	<0.02	<0.02	<0.02	0.1	Not Sampled	Not Sampled
Darwin Rather Spring #1	<0.0005	<0.0010	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Darwin Rather Spring #2	0.002	0.0017	Not Sampled	<0.02	<0.02	<0.02	Not Sampled	<0.02	<0.02	<0.02
Hoier Spring	Not Sampled	0.0017	<0.02	<0.02	<0.02	<0.02	Not Sampled	Not Sampled	Not Sampled	<0.02

Notes:

mg/L - milligrams per liter

< - less than the stated laboratory method detection limit



TABLE 7
NATURAL SPRINGS MAJOR IONS CONCENTRATIONS
2012 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO

THE GROUP

Natural Spring	Sample Date	Cations				Anions				TDS (mg/L)
		Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Carbonate (mg/L)	Bicarbonate (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	
Darwin Rather Spring #1	6/23/2008	65.0	21.4	9.0	1.3	<10	212	39	<10	230
	10/15/2008	56.7	18.6	7.5	0.9	<10	208	34	11	230
	5/12/2009	54.7	17.6	7.8	1.1	<10	200	33	10	205
	6/29/2010	59.9	19.6	8.4	1.3	<10	204	44	<10	245
	5/4/2011	52.4	17.3	7.4	2.1	<10	178	38	13	255
	5/21/2012	56.0	18.4	7.5	1.48	<10.0	178	36.0	14.0	255
Darwin Rather Spring #2	6/23/2008	39.3	6.1	13.6	<0.5	<10	138	19	<10	130
	10/15/2008	33.7	6.6	10.9	0.5	<10	133	16	<10	170
	5/12/2009	35.3	6.7	11.3	0.8	<10	123	22	<10	150
	6/29/2010	37.9	6.5	11.8	1.3	<10	119	12	<10	140
	5/4/2011	35.4	6.1	13	0.7	<10	120	28	<10	185
	5/21/2012	30.7	4.89	13.4	<1.00	<10.0	103	23.0	<10.0	170
Rancho Durango LTD Spring	6/23/2008	79.5	20.1	16.7	0.9	<10	252	69	<10	305
	10/15/2008	69.7	17.5	14.9	1.0	<10	252	71	<10	300
	5/12/2009	79.8	19.1	16.4	1.2	<10	258	80	<10	305
	6/29/2010	80.3	18.7	16.9	1.4	<10	250	69	<10	350
	5/4/2011	Not Sampled				Not Sampled				Not Sampled
		Not Sampled				Not Sampled				Not Sampled



TABLE 7
NATURAL SPRINGS MAJOR IONS CONCENTRATIONS
2012 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO

THE GROUP

Natural Spring	Sample Date	Cations				Anions				TDS (mg/L)
		Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Carbonate (mg/L)	Bicarbonate (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	
Rancho Durango North Spring	6/23/2008	108	31.9	14.5	2.0	<10	332	122	<10	460
	10/15/2008	77.1	22.0	13.7	1.1	<10	276	79	<10	355
	5/12/2009	80.1	19.3	15.5	1.1	<10	262	71	<10	335
	6/29/2010	83.4	19.8	16.8	1.1	<10	252	80	<10	340
	5/4/2011	Not Sampled				Not Sampled				Not Sampled
		Not Sampled				Not Sampled				Not Sampled
Rancho Durango East Spring	10/15/2008	60.5	12.9	14.8	0.7	<10	206	42	<10	250
	5/12/2009	Not Sampled				Not Sampled				Not Sampled
	6/29/2010	Not Sampled				Not Sampled				Not Sampled
	5/4/2010	Not Sampled				Not Sampled				Not Sampled
		Not Sampled				Not Sampled				Not Sampled
Hoier Spring	6/23/2008	25.8	12.4	13.9	1.3	<10	144	<10	<10	105
	10/15/2008	23.7	11.8	13.7	1.4	<10	138	<10	<10	135
	5/14/2009	24.0	11.2	11.9	1.2	<10	133	<10	<10	100
	6/29/2010	Not Sampled				Not Sampled				Not Sampled
	5/4/2011	Not Sampled				Not Sampled				Not Sampled
	5/21/2012	22.8	11.0	11.5	1.21	<10.0	120	<10.0	<10.0	185

Notes:

mg/L - milligrams per liter
TDS - total dissolved solids

< - less than laboratory reporting limit

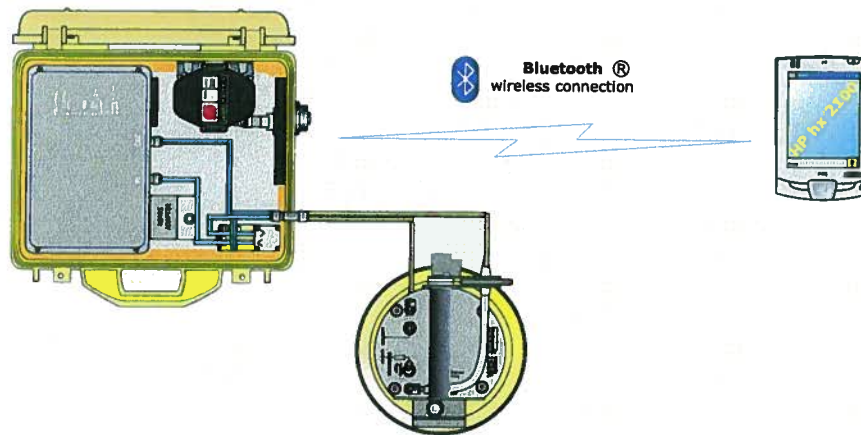


APPENDIX A
EQUIPMENT SPECIFICATIONS



WEST Systems portable soil flux meter for Carbon dioxide, Methane and Hydrogen sulfide fluxes

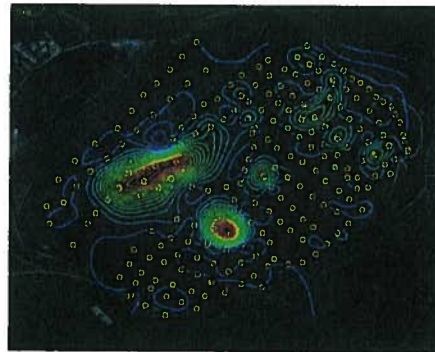
The WEST Systems Fluxmeter is a portable instrument for the measurement of soil gas diffuse degassing phenomena that uses the accumulation chamber method.



This method studied for soil respiration in agronomy (Parkinson) and for soil degassing in volcanic areas (R. Cioni et al.), has been designed by WEST Systems to obtain a portable instrument that allows the performance of measurements with very good accuracy in a short time. The instrument allows a wide range evaluation of the amount of soil gas flux and can be utilized for the evaluation of biogas degassing (landfills), for the survey of non visible degassing phenomena in volcanic and geothermal areas as well as soil respiration rate in agronomy. In the picture below, the results of the degassing survey of a landfill.



Portable fluxmeter



Methane flux contour lines



a group of researchers during a flux mapping fieldwork, using the WS-LI820 flux meter
Courtesy of United States Geological Survey

West Systems Srl
Via Molise 3 - Zona Ind. Gello - 56025 Pontedera (PI) Italy
Phone +39 0587 294216 www.westsystems.com
Fax +39 0587 296068 g.virgili@westsystems.com

WEST
Systems

Portable soil flux meter

Common physical characteristics:

Total Weight = 8.3 Kg/16 lbs. to be carried on the back using the backpack-like support vest. The field operator will also have to carry one of the accumulation chambers and the palmtop:

Warm Up

Only at instrument cold start-up a warm-up time of 20 minutes is required. The typical measurement time ranges from 2 to 4 minutes and the autonomy of the instrument is about 4 hours with a single NiMH 14.4 Volts, 2.6 A/h battery. The instrument comes with two interchangeable batteries.

Accumulation Chamber specifications:

- Accumulation chamber A diameter : 200 mm / Height: 100 mm / weight: 1.5 Kg/3.3 lbs
- Accumulation chamber B diameter : 200 mm / Height: 200mm / weight : 2.2 Kg /4.84 lbs

Palm top computer: PocketPC Color Display based on Windows Mobile operating system.

- PalmTop with cables, 0.3 Kg/0.7 lbs.
- Size 125mm (4.8") x 82mm (3.2") * 25 mm (1").

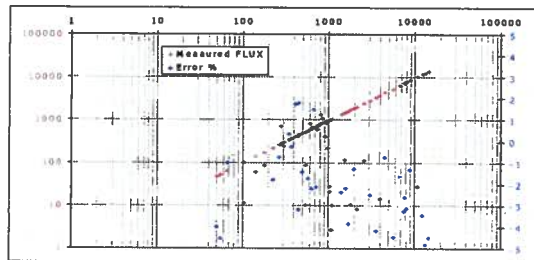
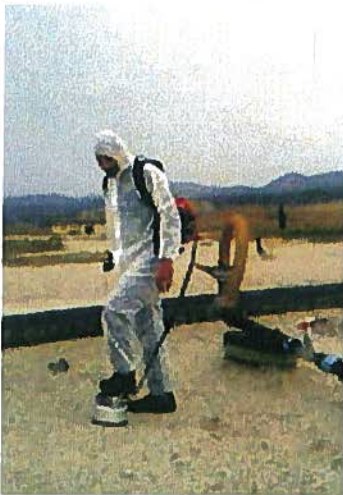
Software The instrument is supplied with a custom software, FluxManager, which allows recording and visualization of the increase in concentration of the target gas in the accumulation chamber, and then the flux calculations. The obtained measurements can be saved on the palmtop computer and then transferred to a desktop PC with a USB connection or using a SD card.

The instrument is supplied complete with:

- backpack-like support vest
- Carrying case for transport and storage
- 2 batteries NiMH 14.4 Volts 2.6 A/h and 1 NiMH battery charger Accumulation chamber A and B
- Palmtop Pocket PC
- User Manual, in English
- FLUX Manager Software for Windows Mobile, in English

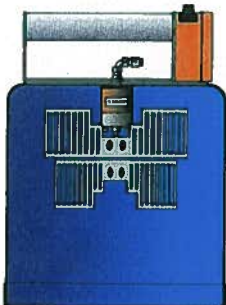
The standard flux meter configuration is supplied with a single gas detector, normally the carbon dioxide detector. The fluxmeter can host two sensors by the way special releases, based on specific customer request, it can be supplied with a maximum of 3 sensors.

Finally we improved the connection between the instrument and the palmtop that now is based on Bluetooth wireless embedded device.



The measured carbon dioxide flux vs imposed flux (grams $m^{-2} day^{-1}$);
The error % vs imposed flux (in blue).

The instrument is extremely versatile and allows measurement of flux in 2/4 minutes. In the picture: Soil bio-gas flux monitoring in a landfill.

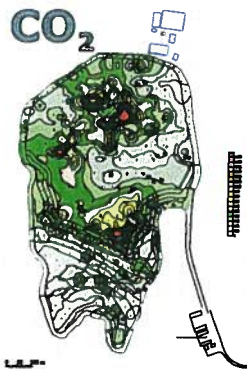


Accumulation Chamber Type B

The accumulation chambers

In the normal use of instrument only the chamber B is used. To extend the instrument sensitivity to very low fluxes the accumulation chamber A is supplied.

	Type A	Type B
net area m^2	0.0314	
net volume m^3	0.003	0.006



CO₂ - LI820

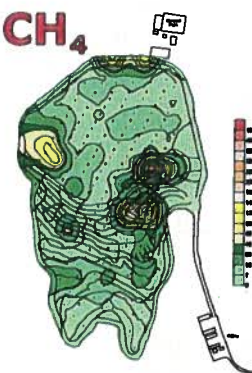
LI820 based Carbon dioxide fluxmeter

The CO₂ Fluxmeter is equipped with the LICOR LI-820 the most accurate and reliable portable carbon dioxide detector. The LI-820 is a double beam infrared sensor compensated for temperature variation in the range from -10 to 45°C and for atmospheric pressure variation in the range 660-1060 HPa. Accuracy 2% repeatability ±5ppm. The full scale range can be set to 1000, 2000, 5000 or 20000 ppmV of carbon dioxide. The characteristics of precision refer to the sensor set to a full scale range of 20000 ppmV. If a very high sensitivity is required, the detector can be set to 1000 or 2000 ppm full scale value to measure with very high precision fluxes in the range from 0 to 10 moles m⁻² day⁻¹

CO₂ FLUX Measurement range:
from 0 up 600 moles m⁻² day⁻¹

The accuracy depends on the measured flux:

0 to 0.5 moles m ⁻² day ⁻¹	25% (Acc.ch.A)
0.5 to 1 moles m ⁻² day ⁻¹	15% (Acc.ch.A or B)
1 to 150 moles m ⁻² day ⁻¹	10% (Acc.ch.B)
150 to 300 moles m ⁻² day ⁻¹	10% (Acc.ch.B)
300 to 600 moles m ⁻² day ⁻¹	20% (Acc.ch.B)



WS-DRAGER CO₂

WS-DRAGER: CO₂ Flux measurement:

A double beam infrared sensor compensated for temperature variation in the range from -20 to 65°C. Accuracy 3%. The full scale value can be set from 2,000 to 300,000 ppm of carbon dioxide. Carbon Dioxide flux measurement range from 0.5 to 1500 moles/m² per day.

The precision depends on the measured flux:

range: 0.5 - 5 moles/m ² per day	25% (Acc. chamber A)
5-350 moles/m ² /day	10% (Acc. chamber B)
350-600 moles/m ² /day	25% (Acc. chamber B)
600-1500 moles/m ² /day	25% (Acc.Ch.B/ F.S.=10%)

WS-HC CH₄

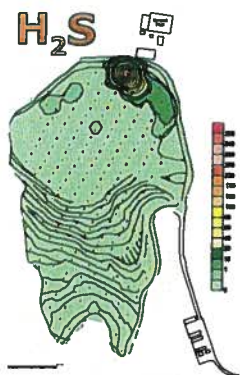
Methane fluxmeter

The methane sensor is an IR spectrometer. The full-scale range is 50000ppm, accuracy of 5% of reading, and repeatability is 2% of span. Detection limit 60 ppm, resolution 22 ppm. The detector was designed to measure the not controlled emissions of landfill, but it can be used to detect methane emission from coal or wherever the 0.2 moles/m²/day detection limit is acceptable.

Methane Flux measurement range

from 0.2 up 300 moles m⁻² day⁻¹
The fluxmeter is provided with 2 accumulation chambers and the accuracy depends on the measured flux:

0.2 to 10 moles m ⁻² day ⁻¹	25% (Acc.Ch.A)
10 to 150 moles m ⁻² day ⁻¹	15% (Acc.Ch.A)
150 to 300 moles m ⁻² day ⁻¹	20% (Acc.Ch.B)



H₂S - WEST

Hydrogen sulfide

The hydrogen sulphide detector is an electrochemical cell with the following specifications:
The full-scale range is 20ppm, with a precision of 3% of reading, and the repeatability is 1.5% of span with a zero offset of 0.3%.

H₂S Flux measurement range: from 0.0025 to 0.5 moles/m² per day.

The precision depends on the measured flux:

0.0025 - 0.05 moles/m ² per day	±25% (Acc. Chamber A)
0.05 - 0.5 moles/m ² per day	±10% (Acc. Chamber B)

NOTE: The hydrogen sulphide flux evaluation can be affected by the presence of large quantities of water in both liquid and vapour phases.

We thanks to N.Lima et al. for the maps.

West Systems Srl
Via Molise 3 - Zona Ind. Gello - 56025 Pontedera (PI) Italy
Phone +39 0587 294216
www.westsystems.com
g.virgili@westsystems.com
Fax +39 0587 296068

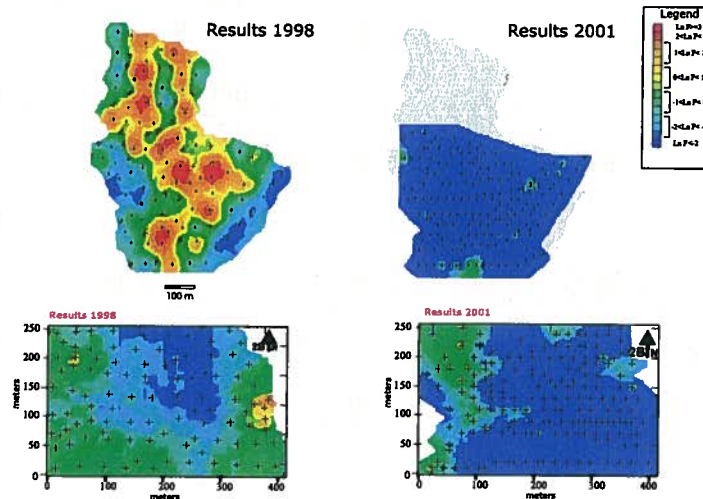
WEST
Systems

Application on a landfill: mapping the biogas non controlled emissions.

The figure shows the compare between the results of the measurement regime of a landfill undertaken in 1998 and 2001: the mapping performed in 1998 gave clear indications of the areas which required intervention to improve the cover and the capture system.

The interventions were performed only where necessary with a significant economic savings.

The measurement regime of 2001 indicates without any doubt that the interventions were efficient and state-of-the-art.



The obtained results:

- Minor atmospheric emissions;
- Higher quantity and better quality of biogas for cogeneration;
- Optimisation of management costs.

Continuous soil flux monitoring

WEST Systems produces a soil gas station for the continuous monitoring of carbon dioxide and hydrogen sulfide flux, soil temperature, soil water content, soil pressure gradient, soil heat flux and meteorological parameters.

For more information contact your local representative, visit our web site or e-mail to: g.virgili@westsystems.com

Local sales representative

H.Q.

West Systems Srl

Via Molise 3 - Zona Ind. Gello - 56025 Pontedera (PI) Italy
Phone +39 0587 294216 www.westsystems.com (or .it)
Fax +39 0587 296068 g.virgili@westsystems.com (or .it)

Japan

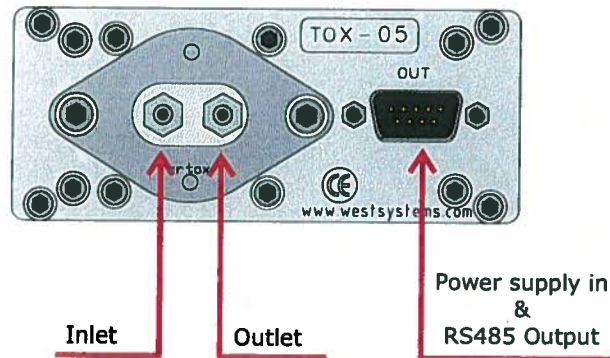
SHOKO CO., LTD.

7-13,1-chome, Shibakoen, Minato-ku Tokyo
105-8432, Japan
TEL : 03-3459-5106 FAX : 03-3459-5081
WEB SITE <http://www.shoko.co.jp>
e-mail s-isotope@shoko.co.jp

West Systems Srl
Via Molise 3 - Zona Ind. Gello - 56025 Pontedera (PI) Italy
Phone +39 0587 294216 www.westsystems.com
Fax +39 0587 296068 g.virgili@westsystems.com

WEST
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Hydrogen Sulfide Detector



Pin	Signal
1	Gnd
2	+VDC
3	Gnd
4	RS485-B
5	RS485-A
6	Gnd
7	+12V
8	Gnd
9	RS485-B

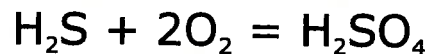
Legenda

Gnd: Ground reference for power supply and RS485
+VDC: 10-28 Volts Power supply input
RS485-A: Digital signal output A
RS485-B: Digital signal output B

Sensor specifications

Ambient conditions:
 Air temperature -40°C to 65 °C
 Air pressure 700 hPa to 1300 hPa
 Air RH 5% - 95% non condensating.
 Expected sensor life > 24 months.
 Chemical cell order code: WEST H2S-BH
 Detector order code: WEST TOX-05-H2S-BH
 Factory calibration : 20 ppm
 RMS Noise <= 0.02 ppm
 Zero Offset <= 0.2 ppm
 Max Overrange >= 200 ppm

The chemical cell reaction is:



the gas sample specific consumption is very low:

$$2.5 \times 10^{-10} \text{ moles/Sec per ppm}$$

Due to this consumption the H2S flux is methodically underestimated by a -10% with the Accumulation Chamber A and by a -5% when using the accumulation chamber B. Then we advise to use the accumulation chamber B except when the flux is very very low.

Appendix M

WS-HC detector

WS-HC Hydrocarbon Flux measurement:

The HydroCarbon detector is based on a double beam infrared spectrometer able to detect methane, hexane, propane and other molecules with HC linkages. The instrument comes calibrated for the methane. *The instrument requires a frequent **zero base-line** calibration that will be done using atmospheric air. The calibration requires 20 second.*

Detector specifications:

Accuracy 5%

Repeatability 2%

Resolution 22 ppm (Methane equivalent)

Full scale range is 50000 ppm of methane.

Detection limit 60 ppm.

Methane flux measurement range from 0.1 to 150 moles/m² per day.
The precision depends on the measured flux:

range 0.1	5	moles/ m ² per day	±25%
	5 - 150	moles/ m ² per day	±10%

The measurement of very low fluxes (< 0.1 moles/m²/day) is possible but the error will increase due to the low detector sensitivity.



RS485 Connector DB9 Male panel

Pin 1	Gnd
Pin 2	+Power supply
Pin 3	Gnd
Pin 4	RS485 B
Pin 5	RS485 A
Pin 6	Gnd
Pin 7	+Power supply
Pin 8	Gnd
Pin 9	RS485 B

The gas fittings can be used with rilsan 6x4 mm tubes or silicon 5x3.2 tubes. Please respect inlet and outlet ports.

LI-820 Specifications

CO₂ Specifications

Measurement Range: 0-1000 ppm, 0-2000 ppm with 14 cm bench; 0-5000 ppm, 0-20000 ppm with 5 cm bench

Accuracy: < 2.5% of reading with 14 cm bench; 4% of reading with 5 cm bench

Calibration Drift

¹**Zero Drift:** < 0.15 ppm / °C

²**Span Drift at 370 ppm:** < 0.03% / °C

³**Total Drift at 370 ppm:** < 0.4 ppm / °C

RMS Noise at 370 ppm with 1 sec Signal Filtering: < 1 ppm

¹ Zero drift is the change with temperature at 0 concentration

² Span drift is the change after re-zeroing following a temperature change

³ Total drift is the change with temperature without re-zeroing or re-spanning

Measurement Principle: Non-Dispersive Infrared

Traceability: Traceable gases to WMO standards from 0-3000 ppm. Traceable gases to EPA protocol gases from 3000 to 20000 ppm

Pressure Compensation Range: 15 kPa-115 kPa

Maximum Gas Flow Rate: 1 liter/minute

Output Signals: Two Analog Voltage (0-2.5 V or 0-5 V) and Two Current (4-20 mA)
Digital: TTL (0-5 V) or Open Collector

DAC Resolution: 14-bits across user-specified range

Source Life: 18000 hours

Power Requirements: Input Voltage 12-30 VDC
1.2A @ 12V (14 W) maximum during warm-up with heaters on
0.3 A @ 12 V (3.6 W) average after warm-up with heaters on

Supply Operating Range: 12-30 VDC

Operating Temperature Range: -20 to 45 °C

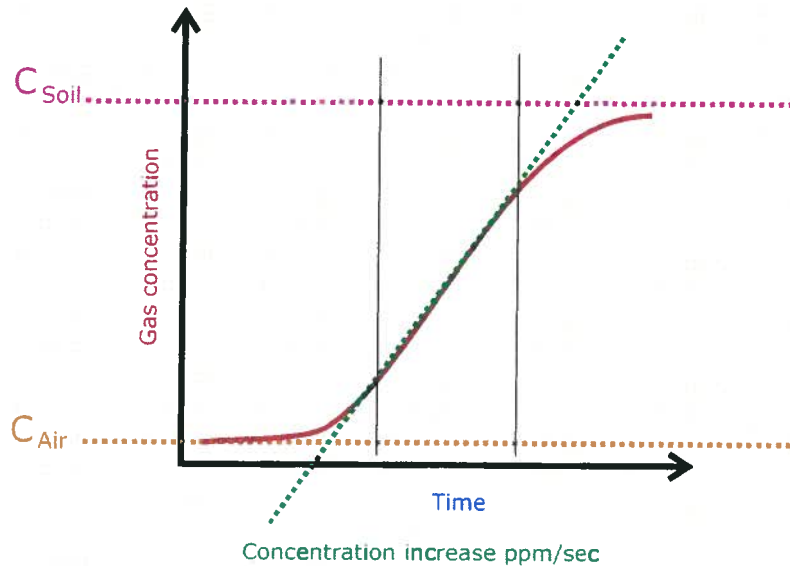
Relative Humidity Range: 0 to 95% RH, Non-Condensing

Dimensions: 8.75" x 6" x 3" (22.23 x 15.25 x 7.62 cm)

Weight: 2.2 lbs (1 kg)

Quantifying the flux

How explained in the chapter 3 the flux is proportional to the concentration increase ratio ppm/sec. The proportionality factor depends on the chamber volume/surface ratio as well as the barometric pressure and the air temperature inside the accumulation chamber.



There are two methods to carry out the field work, in both cases for each measurement you have to record the type of accumulation chamber used, the barometric pressure, and the air temperature.

The variation of few mBar of the pressure and or few degrees of temperature do not affect the evaluation of flux very much, then you can use a mean value for both parameters. Of course that depends on the accuracy you want to reach for the evaluation of flux.

The instrument measures the barometric pressure, using the embedded pressure sensor of the LICOR, with a good accuracy. A platinum Pt100 or a thermo-couple thermometer can be used to measure the air temperature as well as the soil temperature.

Choosing the flux measurement unit

The first measurements made, 10 years ago, with the accumulation chamber was expressed in cm/sec which is a speed, the speed of carbon dioxide flowing out from the soil. During the last ten years several units have been used by volcanologist and by geochemistry researchers. The most common unit is grams/squaremeter per day, but using the same instrument for two gas species to express the flux using this unit means to have two different conversion factors. Actually we use the unit **moles/squaremeter per day** that has two advantages: A single conversion factor for every gas specie and an easy conversion of the flux in grams/sm per day simply multiplying the result expressed in moles/sm per day for the molecular weight of the target gas.

From the [tools][settings] menu you can set the accumulation chamber factor in the "A.c.K." field.

If this factor is set to 1 the instrument will give you results expressed in ppm/sec, that's simply the slope of the curve in the selected interval.

If you set the A.c.K to a value different from 1 the instrument will give you the results expressed in moles per square meter per day.

Please see next page.

Quantifying the flux

Method 1: Measuring the slope

Set the Accumulation Chamber factor to 1 in order to have the flux measurement expressed in the slope unit "ppm/sec" and translate it in the desired unit with a post processing.

Using this method you can focus only on the accumulation chamber interfacing with the soil, the flux curve shape and the other aspects of the measurement, putting off choosing the correct accumulation chamber factor.

Method 2: Measuring the flux directly in moles/sm/day.

To get the results directly in moles/sm/day you have to set the Accumulation Chamber factor to the correct value, taking it from the tables.

For each measurement, if there are variations in the air temperature, or of the barometric pressure, or if you changed the accumulation chamber you have to select the [tools][settings] menu and put the correct accumulation chamber factor in the "A.c.K." field. This operation can be "critical". In any case on the saved files you'll find the results of flux evaluation expressed in both units, the raw ppm/sec and the moles/sm/day computed with the A.c.K. you set.

The accumulation chamber factors

Here following the formula used to compute the A.c.K. :

$$K = \frac{86400 \cdot P}{10^6 \cdot R \cdot T_k} \cdot \frac{V}{A}$$

Where

- **P** is the barometric pressure expressed in mBar (HPa)
- **R** is the gas constant 0.08314510 bar L K⁻¹ mol⁻¹
- **T_k** is the air temperature expressed in Kelvin degree
- **V** is the chamber net volume in cubic meters
- **A** is the chamber inlet net area in square meters.

The dimensions of the A.c.K. are

$$K = \frac{\text{moles} \cdot \text{meter}^{-2} \cdot \text{day}^{-1}}{\text{ppm} \cdot \text{sec}^{-1}}$$

In the table the conversion factors vs temperature and barometric pressure for the Accumulation Chamber Type A and B are reported.

An example:

You're using the accumulation chamber B, the slope of the flux curve is 2.5 ppm/sec, the barometric pressure is 1008 mBar (HPa) and the air temperature is 22 °C.

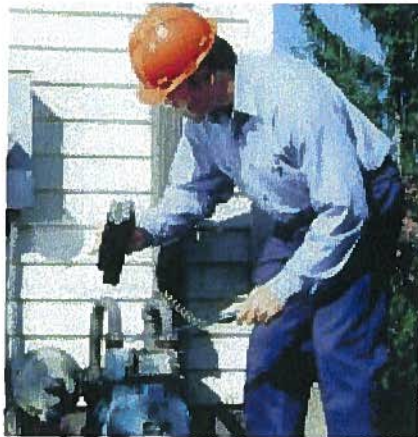
From the table B get the value that correspond to the barometric pressure and temperature. In this case I get the value computed for 25°C and 1013 mBar : 0.696.

Then the flux is: 2.5 x 0.696 = 1.74 moles per square meter per day.

Gasport® Gas Tester

MSA

The Gasport Gas Tester is designed for gas utility workers to detect methane and certain toxic gases. It is a reliable, simple, versatile tool to help your service technicians get the job done quickly! With multiple ranges and sensing capabilities built into one rugged housing, the Gasport Tester simplifies your work by reducing the number of meters you have to carry on the job.



Applications

The Gasport Tester's poison-tolerant methane sensor provides three measurement ranges for your daily service needs:

- Open air, safety sampling
- Small, in-home leak detection
- Street/outdoor service line leak detection

Features and Benefits

- **Proven in field use—rugged and reliable**
Less costly to maintain, less time in repair
- **Multiple functions in one instrument**
No need to buy, carry & maintain multiple instruments
- **New, poison-tolerant combustible gas sensor**
Reduces meter ownership costs
- **User-selectable, "silent" operation mode**
Reduces customer disturbances and worries
- **Fast warm up time**
Fastest warm up time in industry saves time
- **Can monitor up to four gases at a time**
Fewer instruments to carry
- **Show all gas concentrations simultaneously**
Eliminates guesswork on what reading is displayed
- **Autoranging methane sensor**
Automatically switches between 0-5% and 5-100% methane ranges
- **Gas readings recorded for later retrieval**
Can double check readings after job is done
- **Simple manual or automated calibration options**
Reduces training time and helps ensure accuracy
- **Intrinsically safe**
Meets safety standards for work in hazardous areas
- **Lifetime warranty on case and electronics**
Reduced maintenance and lifetime costs



Specifications

Gas	Range	Resolution
Methane	0-5000 ppm	50 ppm
Methane	0-100% LEL or 0-5% CH ₄	1 % LEL or 0.1% CH ₄
Methane	5-100% CH ₄	1% CH ₄
Oxygen	0-25%	0.1%
Carbon Monoxide	0-1000 ppm	1 ppm
Hydrogen Sulfide	0-100 ppm	1 ppm

Battery types:	NiCd and Alkaline
Case material:	Impact resistant, stainless-steel-fiber-filled polycarbonate
Operating temperature:	normal -10 to 40°C; extended -20 to 50°C
Operating humidity:	Continuous: 15-95% RH, non-condensing Intermittent duty: 5-95% RH, non condensing
Warm up time:	Less than 20 seconds to initial readings
Datalog capacity:	12 hours
Input:	3 clearly marked, metal domed keys
Warranty:	Case and Electronics: Lifetime Sensors and consumable parts: 1 year

The answer for gas utilities' gas detection needs

Gasport® Gas Tester

Ordering Information

Battery Chargers

Part No.	Description
494716	Omega 120 VAC 50/60Hz
495965	Omega 220 VAC 50/60Hz
801759	Omega 110/220 VAC, Five Unit, 50/60Hz
800525	Omega 8 - 24VDC for vehicle use

Battery Packs

Part No.	Description
496990	Standard NiCd Rechargeable
800526	Alkaline, Type C
711041	Alkaline, with Thumbscrews
800527	Heavy Duty NiCd Rechargeable

Sensors

Part No.	Description
813693	Combustible Gas
480566	O ₂
812389	CO
812390	H ₂ S

Protective Boots

Part No.	Description
804955	Black, for NiCd Battery Packs
802806	Orange, for NiCd Battery Packs
806751	Black, for Alkaline Battery Packs
806750	Orange, for Alkaline Battery Packs
806749	Black, for HD NiCd Battery Packs
806748	Orange, for HD NiCd Battery Packs
812833	Yellow Soft Carrying Case with Harness
711022	Black padded Vinyl Carrying Case with Harness

Sampling Equipment

Part No.	Description
800332	Probe - 1 ft., plastic
800333	Probe - 3 ft., plastic
803561	Probe - 3 ft., plastic (holes 2" from end) (bar hole probe)
803962	Probe - 3 ft., plastic (holes 2" from handle) (solid probe)
803848	Probe - Hot Gas Sampler
710465	Sampling Line - 5 ft., coiled
497333	Sampling Line - 10 ft.
497334	Sampling Line - 15 ft.
497335	Sampling Line - 25 ft.

Sampling Accessories

Part No.	Description
801582	Replacement Filter, Probe, pkg. of 10
801291	External Filter Holder
014318	Charcoal Filter
711039	Line Scrubber Filter Holder
711059	Line Scrubber Replacement Cartridges, Box of 12
808935	Dust Filter, Pump Module
802897	Water Trap (Teflon) Filter, Pump Module

Calibration Check Equipment

Part No.	Description
477149	Calibration Kit Model RP with 0.25 lpm Regulator
491041	Calibration Gas - methane, 2.5%
473180	Calibration Gas - 300 ppm CO
813718	Calibration Gas - methane, 2.5% oxygen, 15% 60 ppm CO
813720	Calibration Gas - methane, 2.5% oxygen, 15% 300 ppm CO 10 ppm H ₂ S
710288	Gasmiser™ Demand Regulator 0 - 3.0 lpm

Accessories

Part No.	Description
804679	Data Docking Module Kit. Includes the Data Docking Module, MSA Link Software and Instruction Manual

Approvals

The Gasport Gas Tester has been designed to meet intrinsic safety testing requirements in certain hazardous atmospheres.

The Gasport Gas Tester is approved by MET (an OSHA Nationally Recognized Testing Laboratory [NRTL]) for use in Class I, Division I, Groups A, B, C, D; Class II, Division I, Groups E, F, G; and Class III Hazardous locations. Gasport tGas Testers sold in Canada are approved by CSA for use in Class I, Division I, Groups A, B, C, and D locations.

Contact MSA at 1-800-MSA-2222 for more information or with questions regarding the status of approvals.

Gasport Gas Tester Kits

	LEL Display	O ₂	CO	H ₂ S	Alarms Always	Alarms Optional	Leak Detect Page	Peak	Alkaline Battery	NiCd Battery	5ft Coiled Line	1ft Probe	Part No.
4-Gas, Selectable, NiCd	711489
4-Gas, Selectable, Alkaline	711490
3-Gas, Selectable, NiCd	711493
3-Gas, Selectable, Alkaline	711494
2-Gas, Selectable, NiCd	711495
2-Gas, Selectable, Alkaline	711496
4-Gas, Alarms On, NiCd	711491
4-Gas, Alarms On, Alkaline	711492

Assemble-to-Order (ATO) System: You Make the Choices

The ATO System makes it easy to "custom order" the Gasport Gas Tester, configured exactly the way you want it. You can choose from an extensive line of base instrument components and accessories. To obtain a copy of the "ATO System and Price Information for the Gasport Gas Tester," call toll-free 1-800-MSA-2222, and request Bulletin 0804-28. To obtain a copy of the ATO via FAX, call MSA QuickLit Information Service at 1-800-672-9010. At the prompt, request QuickLit Document #2345 (ATO for Gasport Gas Tester).

Note: This Data Sheet contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products.

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Corporate Headquarters
P.O. Box 426
Pittsburgh, PA 15230 USA
Phone (412) 967-3000
www.MSAnet.com

U.S. Customer Service Center
1-800-MSA-2222

MSA International
Phone (412) 967-3354
FAX (412) 967-3451

Offices and representatives worldwide
For further information:



GeoXT

The total GPS platform for all your GIS field requirements

The GeoXT™ handheld, from the GeoExplorer® series, is an essential tool for maintaining your GIS. It's all you need to collect location data, keep existing GIS information up to date, and even mobilize your GIS.

The unique GeoExplorer series combines a Trimble® GPS receiver with a rugged field-ready handheld computer running the Microsoft® Windows Mobile™ 2003 software for Pocket PCs. Plus there's an internal battery that easily lasts for a whole day of GPS operation. The result is tightly integrated, tough, and incredibly powerful.

High-accuracy integrated GPS

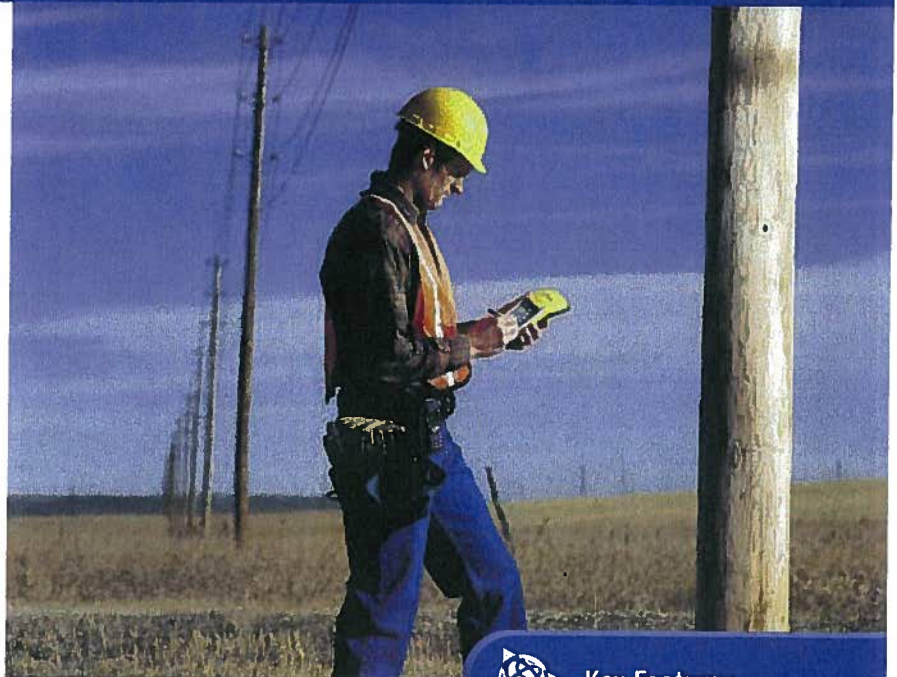
The GeoXT is optimized to provide the reliable, high-accuracy location data you need. Advanced features like EVEREST™ multipath rejection technology let you work under canopy, in urban canyons, or anywhere where accuracy is crucial.

Need submeter accuracy in real-time? Use corrections from a satellite-based augmentation system (SBAS) like WAAS¹ or EGNOS². Want to get that extra edge in precision? Collect data with Trimble's TerraSync™ or GPSCorrect™ software, and then postprocess back in the office.

Because the GPS receiver and antenna are built into the handheld computer, it's never been easier to use GPS in your application. The system is more than just cable-free: it's a totally integrated solution.

Optimized productivity

Take advantage of the power and flexibility of Windows Mobile software for Pocket PCs by choosing from the most comprehensive range of field software available—whether off-the-shelf or purpose-built. Whatever your needs, Windows



Key Features

- High-performance submeter GPS with integrated WAAS/EGNOS
- Windows Mobile 2003 software for Pocket PCs, allowing maximum flexibility in software choice
- Rugged handheld with all-day battery
- Advanced color TFT display with backlight
- Integrated Bluetooth for wireless connectivity

Mobile lets you choose a software solution to match your workflow.

Windows Mobile includes familiar Microsoft productivity tools, including Pocket Word, Pocket Excel, and Pocket Outlook®. Pocket Outlook lets you synchronize e-mails, contacts, appointments, and data with your office computer, so whether you're in the office or in the field, you're always up to date.

Go wireless with integrated Bluetooth®* for connection to other Bluetooth-enabled devices, including cell phones and PCs. You also have the option to use the USB support module to connect to a desktop computer, or use the optional serial clip for cabled connections in the field.

Receive a free copy of Microsoft Streets & Trips** 2004 software with your GeoXT handheld, and take advantage of comprehensive map and travel information for easy navigation and route planning.

All the memory you need

There's plenty of storage space in the GeoXT for all your GIS data. The fast processor and large memory mean even big graphics files load quickly—and they're crisp and crystal-clear on the advanced TFT outdoor color screen.

From data collection to data maintenance, to mobile GIS and beyond ... the GeoXT is the handheld of choice.

* Bluetooth type approvals are country specific. GeoExplorer series handhelds are approved for use with Bluetooth in the USA. For a complete list of other countries with Bluetooth approval please refer to: www.trimble.com/geo_bluetooth.html.
** Microsoft Streets & Trips 2004 software available in US/Canada; Microsoft AutoRoutes® 2004 in Europe.



GeoXT

The total GPS platform for all your GIS field requirements

Standard features

System

- Microsoft Windows Mobile 2003 software for Pocket PCs
- 206 MHz Intel StrongARM processor
- 512 MB non-volatile Flash data storage
- Outdoor color display
- Ergonomic cable-free handheld
- Rugged and water-resistant design
- All-day internally rechargeable battery
- Bluetooth wireless

GPS

- Submeter accuracy
- Integrated WAAS¹/EGNOS²
- RTCM real-time correction support
- NMEA and TSIP protocol support
- EVEREST multipath rejection technology

Software

- GPS Controller for control of Integrated GPS and in-field mission planning
- GPS Connector for connecting Integrated GPS to external ports
- File Explorer, Internet Explorer, Pocket Outlook (Inbox, Calendar, Contacts, Tasks, Notes), Sprite Pocket Backup, Transcriber, Pocket Word, Pocket Excel, Pictures, Windows[®] Media Player, Bluetooth File Transfer, Calculator, ActiveSync[®]
- Microsoft Streets & Trips/AutoRoute 2004 software

Accessories

- Support module with power supply and USB data cable
- Getting Started Guide
- Companion CD Includes Outlook 2002 and ActiveSync 3.7.1
- Hand strap
- Pouch
- Stylus

Optional Features

Software

- TerraSync
- GPSCorrect for ESRI[®] ArcPad[®]
- GPS Pathfinder[®] Tools Software Development Kit (SDK)
- GPS Pathfinder Office
- Trimble GPS Analyst extension for ArcGIS[®]

Accessories

- Serial clip for field data and power input
- Vehicle power adaptor³
- Portable power kit³
- Hurricane antenna
- External patch antenna
- Pole-mountable ground plane
- Baseball cap with antenna sleeve
- Beacon-on-a-Belt (BoB[™]) differential correction receiver³
- Hard carry case
- Null modem cable³
- Backpack kit

Specifications subject to change without notice.

Technical specifications

Physical

Size	21.5 cm × 9.9 cm × 7.7 cm (8.5 in × 3.9 in × 3.0 in)
Weight	0.72 kg (1.59 lb) with battery
Processor	206 MHz Intel StrongARM SA-1110
Memory	64 MB RAM and 512 MB Internal Flash disk
Power	
Low (no GPS)	0.6 Watts
Normal (with GPS)	1.4 Watts
High (with GPS, backlight, and Bluetooth)	2.5 Watts
Battery	Internal lithium-Ion, rapidly rechargeable in unit, 21 Watt-hours

Environmental

Temperature

Operating	-10 °C to +50 °C (14 °F to 122 °F)
Storage	-20 °C to +70 °C (-4 °F to 158 °F)
Humidity	99% non-condensing
Casing	Wind-driven rain and dust-resistant per IP 54 standard Slip-resistant grip, shock- and vibration-resistant

Input/output

Communications	Bluetooth for wireless connectivity USB via support module, serial via optional DE9 serial clip adaptor
----------------	--

Bluetooth

Certification	Bluetooth type approvals are country specific. GeoExplorer series handhelds are approved for use with Bluetooth in the USA. For a complete list of other countries with Bluetooth approval please refer to www.trimble.com/geoxt_us.asp .
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Profiles

Both client and host support	Serial Port, File Transfer (using OBEX)
Client support only	Dial-Up Networking, Lan Access
Host support only	Basic Imaging, Object Push
Display	Advanced outdoor TFT, 240 × 320 pixel, 65,536 colors, with backlight
Audio	Microphone and half duplex speaker, record and playback utilities
Interface	Anti-glare coated touch screen, Soft Input Panel (SIP) virtual keyboard 2 hardware control keys plus 4 programmable permanent touch buttons
	Handwriting recognition software, Audio system events, warnings, and notifications

GPS

Channels	12
Integrated real-time	WAAS ¹ or EGNOS ²
Update rate	1 Hz
Time to first fix	30 sec (typical)
Protocols	NMEA (GGA, VTG, GLL, GSA, ZDA, GSV, RMC), TSIP (Trimble Standard Interface Protocol)

Accuracy (RMS)⁴ after differential correction

Postprocessed ⁵	Submeter
Carrier postprocessed ⁶	
With 10 minutes tracking satellites	30 cm
Real-time	Submeter

1 WAAS (Wide Area Augmentation System). Available in North America only.

For more information, see <http://gps.faa.gov/programs/index.htm>.

2 EGNOS (European Geostationary Navigation Overlay System). Available in Europe only.

For more information, see <http://www.esa.int/export/esaSA/navigation.html>.

3 Serial clip also required.

4 Horizontal accuracy. Requires data to be collected with minimum of 4 satellites, maximum PDOP of 6, minimum SNR of 4, minimum elevation of 15 degrees, and reasonable multipath conditions. Ionospheric conditions, multipath signals or obstruction of the sky by buildings or heavy tree canopy may degrade precision by interfering with signal reception. Accuracy varies with proximity to base station by +1 ppm for postprocessing and real-time, and by +5 ppm for carrier postprocessing.

5 Postprocessing with GPS Pathfinder Office software or GPS Analyst extension for ArcGIS.

6 Requires collection of carrier data. (Only available with the GPS Pathfinder Office software).

NORTH & SOUTH AMERICA

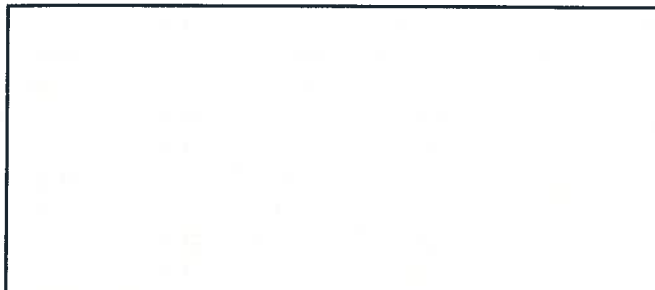
Trimble Navigation Limited
7403 Church Ranch Blvd • Suite 100
Westminster, CO 80021 • USA
+1-720-887-4374 Phone • +1-720-887-8019 Fax

EUROPE, AFRICA & MIDDLE EAST

Trimble GmbH
Am Prime Parc 11 • 65479 Raunheim • GERMANY
+49-6142-2100-0 Phone • +49-6142-2100-550 Fax

ASIA-PACIFIC

Trimble Navigation Australia Pty. Ltd
Level 1 • 123 Gotha St • Fortitude Valley
Queensland 4006 • AUSTRALIA
+61-7-3216-0044 Phone • +61-7-3216-0088 Fax



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www.trimble.com

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ULTRAMETER II™

OVER
50
YEARS



**MYRON L
COMPANY**

Water Quality Instrumentation
Accuracy • Reliability • Simplicity

ULTRAMETER II™

Advanced Design • Superior Performance



pH/ORP Sensor protective cap

Four-digit display for full 9999 readings, with autoranging capability up to 200 mS/200 ppt

Powerful microprocessor based surface-mount circuitry

Display prompts for simple pH calibration

Memory for 100 readings with Date & Time Stamp

Real Time Clock

Factory calibrations stored in microprocessor



Conductivity

Resistivity

TDS

Temperature

pH

ORP

CE

ULTRA-FAST ULTRA-EASY ULTRA-POWERFUL

Since 1957, the Myron L Company has designed and manufactured highly reliable analytical instruments for a wide variety of applications. Thousands of professionals around the world rely every day on the performance of our instruments. Demanding uses range from boiler water testing to ultrapure water control to medical instruments for artificial kidney machines.

We are proud of the trust our handheld instruments and monitor/controllers have earned in the past. Our product line has evolved to a new level of outstanding performance and value in analytical instruments: the Ultrameter II series. While priced like affordable single-parameter instruments, the Ultrameter II does the job of three, four or even six instruments.

Accuracy You Can Trust

Both Ultrameter II models deliver performance of $\pm 1\%$ of reading (not merely full scale). This high level of accuracy has been achieved through advanced four-electrode conductivity cell technology, a unique pH/ORP sensor and powerful microprocessor-based circuitry. With displayed values of up to 9999, the full four-digit LCD ensures resolution levels never before possible in such affordable instruments. Factory calibrated with NIST traceable solutions, each Ultrameter II may be supplied with both certification of traceability and NIST traceable solutions for definitive calibration.

Fast and accurate in the laboratory, both Ultrameter II models are rugged enough for daily in-line controller checks in hostile process applications.

Innovative Engineering

The Ultrameter II is a prime example of how high-tech engineering can greatly simplify and streamline a task. Whether in the lab, industrial plant, or in a remote field location, merely:

1. Fill the cell cup
2. Push a parameter key
3. Take the reading

Temperature compensation and range selection are both rapid and automatic. The Ultrameter II is a true one-hand operation instrument.

Easy to Calibrate

All calibrations are quickly accomplished by pressing the \square or \square keys to agree with our NIST traceable Standard Solution. When calibration is necessary, display prompts simplify pH calibration and make sure the correct buffer is being used. Plus, all parameters (excluding factory-set temperature) have an internal electronic setting that can be used for field calibration and as a check on pH/ORP sensor life.

Advanced Features

- Fully automatic temperature compensation
- User adjustable temperature compensation (up to $9.999\%/^{\circ}\text{C}$) which also allows TC to be disabled for applications requiring non-compensated readings.
- User adjustable conductivity/TDS conversion ratio for greater accuracy when measuring solutions not contained in the microprocessor.
- Auto-shutoff maximizes the life of the single 9V battery to more than 100 hours/5000 tests.
- Non-volatile microprocessor provides data back-up, even when the battery is changed. This assures all calibrations and memory data will be retained.
- Extended life pH/ORP sensor is user replaceable in the field.

High Performance at a Low Cost

Beyond their affordable purchase price, Ultra-Fast, Ultra-Easy, Ultra-Powerful Ultrameter II's save both time and money. Measure for measure, Ultrameter II's give you a better return on your investment than any other handheld instrument. To see for yourself, contact your distributor or the Myron L Company today.

Multiple Applications

Irrigation Water

Hydroponics

Laboratories

Homeland Security

Reverse Osmosis

Deionization

Wastewater

Cooling Towers

Environmental

Desalination

Fountain Solutions

BENEFITS DESIGNED TO SAVE YOU TIME & MONEY



Built-in IR Port allows you to conveniently download your data to a computer. (Requires Myron L uDock™ Accessory Package)

Ample memory provides increased flexibility to record and store 100 separate readings.

Real Time Clock with Date & Time Stamp allows you to maintain the integrity of each individual reading.

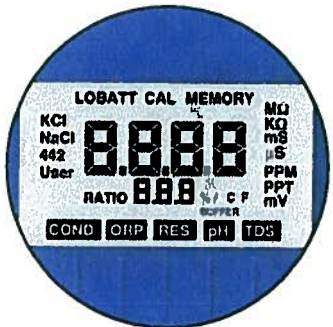
The advanced four-electrode cell for conductivity/resistivity/TDS eliminates polarization, allowing greater accuracy and stability with minimal maintenance.

The pH/ORP sensor chamber provides protection to a unique porous liquid-junction.

The large capacity KCl reservoir guarantees extended life.

A custom LCD helps simplify calibration and operation by using annunciators and prompts to indicate various conditions.

IP67/NEMA 6 rated Ultrameter II's are waterproof and buoyant and can be fully immersed to 3 feet/1 meter.



Features

Ultrameter II™ Models	4PII	6PII
	Conductivity TDS, Resistivity, pH Temperature	Conductivity, TDS Resistivity, pH ORP, Temperature
Autoranging	•	•
Adjustable Temp. Compensation	•	•
Adjustable Cond/TDS ratio	•	•
Memory (100 readings)	•	•
Date & Time Stamp	•	•
pH Calibration Prompts	•	•
Low battery indicator	•	•
Auto-off	•	•

Specifications

Display	4 Digit Liquid Crystal Display
Dimensions LxWxH	196 x 68 x 64 mm/ 7.7 x 2.7 x 2.5 inches
Weight	352 g/12.4 oz.
Case/conductivity cell material	VALOX*
Cell capacities	pH/ORP: 1,2 mV/0.04 oz. Cond/TDS/Res: 5 mV/0.2 oz.
Power	9V alkaline battery
Battery life	>100 hours (5000 readings)
Operating/storage temperature	0 – 55°C/32 – 132°F
Protection ratings	IP67/NEMA 6 Waterproof to 1 meter/3 feet

*™ GENERAL ELECTRIC

Parameters

Ranges	Conductivity	TDS	Resistivity	pH	ORP	Temperature
	0–9999 µS/cm 10–200 mS/cm in 5 autoranges	0–9999 ppm 10–200 ppt in 5 autoranges	10 KΩ–30 MΩ	0–14 pH	±999 mV	0–71°C 32–160°F
Resolution	0.01(<100 µS) 0.1(<1000 µS) 1.0(<10 mS) 0.01(<100 mS) 0.1(<200 mS)	0.01(<100 ppm) 0.1(<1000 ppm) 1.0(<10 ppt) 0.01(<100 ppt) 0.1(<200 ppt)	0.01(<100 KΩ) 0.1(<1000 KΩ) 0.1(>1 MΩ)	±0.01 pH	±1 mV	0.1°C/F
Accuracy	±1% of reading	±1% of reading	±1% of reading	±0.01 pH	±1 mV	±0.1°C
Auto Temperature Compensation	0–71°C 32–160°F	0–71°C 32–160°F	0–71°C 32–160°F	0–71°C 32–160°F	—	—
Adjustable Temperature Compensation to 25°C	0–9.99%/°C	0–9.99%/°C	0–9.99%/°C	—	—	—
Conductivity/TDS Ratios Preprogrammed	KCl, 442*, NaCl	KCl, 442*, NaCl	—	—	—	—
Adjustable Conductivity/TDS Ratio Factor	0.20–7.99	0.20–7.99	—	—	—	—

*442 Natural Water Standard™ Myron L Company

Accessories

uDock™ Accessory Package includes uDock™, USB cable and Macintosh/PC application software for downloading data. MODEL: U2CIP

Certificates confirming the NIST traceability of an Ultrameter II are available (must be specified when placing instrument order). MODEL: MC

Conductivity Standard Solutions are necessary to maintain accuracy and for periodic calibration of conductivity/TDS parameters. All Standard Solutions are NIST traceable for your complete confidence. RECOMMENDED VALUES: KCl-7000 (7 mS), 442-3000 (TDS), or NaCl-14.0 (mS) available in 2 oz/59 ml, 1 qt/1 L, and 1 gal/3.8 L.

pH Buffers are necessary to maintain accuracy and for periodic calibration of pH and ORP parameters. Calibration with pH 7 Buffer is especially important. All pH 4, 7, and 10 Buffers are NIST traceable and are available in 2 oz/59 ml, 1 qt/1 L, and 1 gal/3.8 L.

pH Sensor Storage Solution Available in 2 oz/59 ml, 1 qt/1 L, and 1 gal/3.8 L.

MODEL: SS20Z, SSQ and SSG
Certificate of NIST traceability for pH Buffer or Conductivity Standard Solutions are available (must be specified when placing solution order). MODEL: SC

Hard protective case (small)
MODEL: UPP

Hard protective case (kit) with three buffers (pH 4, 7, and 10), one pH/ORP storage solution, and two standard solutions, (KCl-7000 and 442-3000). All bottles are 2 oz/59 ml. MODEL: PKU

Soft protective case is constructed of padded Nylon and features a belt clip for hands-free mobility.

MODEL: UCC (Blue)
UCCDT (Desert Tan)

Replacement pH/ORP sensor user-replaceable, features a unique/porous liquid-junction. MODEL: RPR



Built on Trust

Founded in 1957, Myron L Company is one of the world's leading manufacturers of water quality instruments. Because of our policy of continuous product improvement, changes in design and the specifications in this brochure are possible. You have our assurance any changes will be guided by our product philosophy: Accuracy, Reliability, Simplicity.

**MYRON L
COMPANY**
Water Quality Instrumentation
Accuracy • Reliability • Simplicity

Limited Warranty

All Myron L Ultrameter II's have a Two (2) Year Limited Warranty. The pH/ORP sensors have a Six (6) Month Limited Warranty. Warranty is limited to the repair or replacement of the Ultrameter II only, at our discretion. Myron L Company assumes no other responsibility or liability.

www.myronl.com

2450 Impala Drive
Carlsbad, California 92010-7226 USA
Tel: +1-760-438-2021
Fax: +1-800-869-7668 / +1-760-931-9189



APPENDIX B
FLUX METER DATA



APPENDIX B - FLUX METER DATA

SitePt	Filename	Site	AreaAbbrev	Northing	Easting	Date	CH4flux	H2Sflux	CO2flux	ACCUMULATION CHAMBER:	PRESSURE (HPa):	TEMP DegC	TIME:	CH4slope	H2Sslope	CO2slope	AcK
baird125_01	baird125_01_29052012_095938.txt	baird125	Baird	1230598.374	2330638.039	5/29/2012	0	0.000729	0.090353	A	784.9	29.1	29-05-2012 09:59:38	0	0.003	0.372000009	0.242884129
baird125_02	baird125_2_29052012_100857.txt	baird125	Baird	1230640.73	2330642.375	5/29/2012	0	0.000482	0.072957	A	784.8	31.7	29-05-2012 10:08:57	0	0.002	0.303000003	0.240781933
baird125_03	baird125_3_29052012_101347.txt	baird125	Baird	1230689.82	2330643.94	5/29/2012	0	0.00072	0.054443	A	784.8	32.9	29-05-2012 10:13:47	0	0.003	0.226999998	0.239837855
baird125_04	baird125_4_29052012_101705.txt	baird125	Baird	1230743.238	2330641.499	5/29/2012	0	0.001676	0.103886	A	784.8	33.5	29-05-2012 10:17:05	0	0.007	0.433999985	0.239368573
baird125_05	baird125_5_29052012_102014.txt	baird125	Baird	1230792.122	2330641.965	5/29/2012	0	0.001434	0.098013	A	784.8	33.9	29-05-2012 10:20:14	0	0.006	0.409999996	0.239056751
baird125_06	baird125_6_29052012_102327.txt	baird125	Baird	1230786.521	2330695.21	5/29/2012	0	0.002149	0.174307	A	784.9	34.3	29-05-2012 10:23:27	0	0.009	0.730000019	0.238776147
baird125_07	baird125_7_29052012_102718.txt	baird125	Baird	1230733.796	2330693.912	5/29/2012	0	0.000477	0.061512	A	785.0	34.8	29-05-2012 10:27:18	0	0.002	0.257999986	0.238418832
baird125_08	baird125_8_29052012_103049.txt	baird125	Baird	1230691.026	2330697.576	5/29/2012	0	0.001191	0.06169	A	785.0	35.1	29-05-2012 10:30:49	0	0.005	0.259000003	0.238186792
baird125_09	baird125_9_29052012_103409.txt	baird125	Baird	1230637.411	2330693.033	5/29/2012	0	0.000476	0.135124	A	784.8	35.4	29-05-2012 10:34:09	-0.011	0.002	0.568000019	0.23789458
baird125_10	baird125_10_29052012_104044.txt	baird125	Baird	1230582.685	2330696.477	5/29/2012	0	0.00095	0.041327	A	784.8	35.9	29-05-2012 10:40:44	0	0.004	0.173999995	0.237509698
baird125_11	baird125_11_29052012_104535.txt	baird125	Baird	1230584.787	2330736.504	5/29/2012	0	0.000475	0.319563	A	785.0	36.1	29-05-2012 10:45:35	0	0.002	1.345999956	0.237416595
baird125_12	baird125_12_29052012_105106.txt	baird125	Baird	1230636.965	2330740.914	5/29/2012	0	0.000949	0.141847	A	784.8	36.3	29-05-2012 10:51:06	0	0.004	0.597999999	0.237202689
baird125_13	baird125_13_29052012_105436.txt	baird125	Baird	1230685.947	2330741.289	5/29/2012	0	0.000948	0.265699	A	784.7	36.5	29-05-2012 10:54:36	0	0.004	1.121000051	0.237019286
baird125_14	baird125_14_29052012_105736.txt	baird125	Baird	1230733.952	2330742.074	5/29/2012	0	0.000474	0.090512	A	784.7	36.6	29-05-2012 10:57:36	0	0.002	0.381999999	0.236942768
baird125_15	baird125_15_29052012_110126.txt	baird125	Baird	1230783.57	2330745.776	5/29/2012	0	0.001421	0.075546	A	784.8	36.8	29-05-2012 11:01:26	0	0.006	0.319000006	0.236820042
baird125_16	baird125_16_29052012_110536.txt	baird125	Baird	1230781.193	2330795.518	5/29/2012	0	0.001893	0.001657	A	784.8	37.0	29-05-2012 11:05:36	-0.025	0.008	0.007	0.236667335
baird125_17	baird125_17_29052012_110914.txt	baird125	Baird	1230732.477	2330792.655	5/29/2012	0	0.001183	0.028855	A	784.8	37.2	29-05-2012 11:09:14	0	0.005	0.122000001	0.236514822
baird125_18	baird125_18_29052012_111249.txt	baird125	Baird	1230686.27	2330791.217	5/29/2012	0	0.001654	0.129274	A	784.7	37.4	29-05-2012 11:12:49	0	0.007	0.546999991	0.236332387
baird125_19	baird125_19_29052012_111605.txt	baird125	Baird	1230640.936	2330788.679	5/29/2012	0	0.001181	0.085497	A	784.7	37.6	29-05-2012 11:16:05	0	0.005	0.361999989	0.236180276
baird125_20	baird125_20_29052012_111944.txt	baird125	Baird	1230585.148	2330788.337	5/29/2012	0	0.001652	0.085442	A	784.7	37.8	29-05-2012 11:19:44	0	0.007	0.361999989	0.236028373
baird125_21	baird125_21_29052012_112408.txt	baird125	Baird	1230585.782	2330840.596	5/29/2012	0	0.001416	0.009674	A	784.7	37.9	29-05-2012 11:24:08	0	0.006	0.041000001	0.235952482
baird125_22	baird125_22_29052012_112830.txt	baird125	Baird	1230639.75	2330842.382	5/29/2012	0	0	0	A	785.0	38.1	29-05-2012 11:28:30	-0.039999999	-0.009	-0.177000001	0.235891014
baird125_23	baird125_23_29052012_113103.txt	baird125	Baird	1230683.431	2330844.947	5/29/2012	0	0.001179	0.111741	A	785.0	38.3	29-05-2012 11:31:03	-0.029999999	0.005	0.474000007	0.235739544
baird125_24	baird125_24_29052012_113431.txt	baird125	Baird	1230735.609	2330843.052	5/29/2012	0	0.001884	0.212225	A	784.6	38.4	29-05-2012 11:34:31	0	0.008	0.901000023	0.235543787
baird125_25	baird125_25_29052012_113724.txt	baird125	Baird	1230783.845	2330844.239	5/29/2012	0	0.001883	0.039311	A	784.6	38.6	29-05-2012 11:37:24	-0.518000007	0.008	0.166999996	0.235392675
BC053012_01	BC053012_01_30052012_094715.txt	BC053012	BC	1209742.865	2304559.544	5/30/2012	0	0	0.064306	A	797.9	25.1	30-05-2012 09:47:15	-2.83100009	0	0.256999999	0.250218332
BC053012_02	BC053012_02_30052012_095439.txt	BC053012	BC	1209961.62	2304551.117	5/30/2012	0	0.000248	0.030541	A	797.9	27.4	30-05-2012 09:54:39	0	0.001	0.123000003	0.248303503
BC053012_03	BC053012_03_30052012_100337.txt	BC053012	BC	1209956.778	2304365.023	5/30/2012	0	0.000739	0.303629	A	797.1	29.6	30-05-2012 10:03:37	-0.029999999	0.003	1.233000004	0.246252
BC053012_04	BC053012_04_30052012_100826.txt	BC053012	BC	1209948.574	2304161.535	5/30/2012	0	0.000491	0.055433	A	797.1	30.8	30-05-2012 10:08:26	-0.014	0.002	0.225999996	0.245279789
BC053012_05	BC053012_05_30052012_101404.txt	BC053012	BC	1210142.133	2304160.719	5/30/2012	0	0	0.20874	A	797.2	31.9	30-05-2012 10:14:04	-0.112000003	0	0.853999972	0.244425982
BC053012_06	BC053012_06_30052012_102021.txt	BC053012	BC	1210347.138	2304148.523	5/30/2012	0	0.00219	0.156452	A	796.7	33.1	30-05-2012 10:20:21	-0.623000026	0.009	0.643000007	0.243315533
BC053012_07	BC053012_07_30052012_102613.txt	BC053012	BC	1210346.733	2303975.191	5/30/2012	0	0.000968	0.110633	A	795.0	34.0	30-05-2012 10:26:13	0	0.004	0.456999987	0.242084906
BC053012_08	BC053012_08_30052012_103206.txt	BC053012	BC	1210570.036	2304048.95	5/30/2012	0	0.000965	0.10469	A	795.0	35.1	30-05-2012 10:32:06	-0.006	0.004	0.433999985	0.241221026
BC053012_09	BC053012_09_30052012_103929.txt	BC053012	BC	1210587.274	2304187.215	5/30/2012	0	0.00072	0.191016	A	793.7	36.2	30-05-2012 10:39:29	0	0.003	0.796000004	0.239970237
BC053012_10	BC053012_10_30052012_104410.txt	BC053012	BC	1210569.18	2304334.005	5/30/2012	0	0.000959	0.203251	A	794.8	37.0	30-05-2012 10:44:10	-0.025	0.004	0.847999999	0.239682972
BC053012_11	BC053012_11_30052012_105108.txt	BC053012	BC	1210352.868	2304352.987	5/30/2012	0	0.001196	0.057875	A	795.6	38.0	30-05-2012 10:51:08	-0.037999999	0.005	0.241999999	0.239153132
BC053012_12	BC053012_12_30052012_105635.txt	BC053012	BC	1210166.81	2304382.629	5/30/2012	0	0.002149	0.2342	A	796.0	38.7	30-05-2012 10:56:35	-0.541000009	0.009	0.981000006	0.238736287
BC053012_13	BC053012_13_30052012_110400.txt	BC053012	BC	1210154.007	2303962.018	5/30/2012	0	0.001431	0.059137	A	796.6	39.3	30-05-2012 11:04:00	-0.064999998	0.006	0.247999996	0.238457441
BC053012_14	BC053012_14_30052012_110754.txt	BC053012	BC	1210145.435	2303767.253	5/30/2012	0	0.000953	0.072422	A	796.6	39.6	30-05-2012 11:07:54	0	0.004	0.303999999	0.238228709
BC053012_15	BC053012_15_30052012_111150.txt	BC053012	BC	1210148.477	2303559.211	5/30/2012	0	0.00119	0.052581	A	796.6	40.0	30-05-2012 11:11:50	0	0.005	0.221000001	0.237924412
BC053012_16	BC053012_16_30052012_111547.txt	BC053012	BC	1210129.44	2303367.988	5/30/2012	0	0.002614	0.082687	A	796.3	40.3	30-05-2012 11:15:47	0	0.011	0.347999999	0.237607181
BC053012_17	BC053012_17_30052012_112916.txt	BC053012	BC	1209992.12	2303357.646	5/30/2012	0	0.000949	0.001897	A	796.6	41.0	30-05-2012 11:29:16	0	0.004	0.008	0.237167045
BC053012_18	BC053012_18_30052012_113552.txt	BC053012	BC	1209977.311	2303572.979	5/30/2012	0	0.000949	0.000237	A	797.5	41.3	30-05-2012 11:35:52	0	0.004	0.001	0.237208471
BC053012_19	BC053012_19_30052012_114317.txt	BC053012	BC	1209955.588	2303834.635	5/30/2012	0	0.00166	0.590224	A	797.5	41.4	30-05-2012 11:43:17	0	0.007	2.489000082	0.237133071
BC053012_20	BC053012_20_30052012_114703.txt	BC053012	BC	1209957.272	2303966.961	5/30/2012	0	0.001896	0.093875	A	797.5	41.5	30-05-2012 11:47:03	0	0.008	0.395999998	0.237057701
BC053012_21	BC053012_21_30052012_120309.txt	BC053012	BC	1210136.67	2304597.66	5/30/2012	0	0.000709	0.355113	A	795.1	41.6	30-05-2012 12:03:09	0	0.003	1.503000021	0.236269206
BC053012_22	BC053012_22_30052012_121025.txt	BC053012	BC	1210155.634	2304770.88	5/30/2012	0	0.002361	0.151116	A	795.1	41.8	30-05-2012 12:10:25	0	0.01	0.639999986	0.236119166
BC053012_23	BC053012_23_30052012_121513.txt	BC053012	BC	1210322.875	2304748.544	5/30/2012	0	0.002356	0.221698	A	794.1	42.1	30-05-2012 12:15:13	0	0.01	0.940999985	0.235597789
BC053012_24	BC053012_24_30052012_122106.txt	BC053012	BC	1210343.31	2304583.378	5/30/2012	0	0.001412	0	A	793.7	42.4	30-05-2012 12:21:06	-0.016000001	0.006	-0.008	0.235255241
BC053012_25	BC053012_25_30052012_122957.txt	BC053012	BC	1210552.45	2304564.635	5/30/2012	0	0.003291	0.411644	A	793.9	42.7	30-05-2012 12:29:57	-0.174999997	0.014	1.751000047	0.235091016
BC053012_26	BC053012_																

APPENDIX B - FLUX METER DATA

SitePt	Filename	Site	AreaAbbrev	Northing	Easting	Date	CH4flux	H2Sflux	CO2flux	ACCUMULATION CHAMBER:	PRESSURE (HPa):	TEMP DegC	TIME:	CH4slope	H2Sslope	CO2slope	AcK
BC053012_33	BC053012_33_30052012_133804.txt	BC053012	BC	1211166.258	2304365.966	5/30/2012	0	0.003512	0.133695	A	793.7	43.9	30-05-2012 13:38:04	0	0.015	0.57099998	0.234142214
BC053012_34	BC053012_34_30052012_134756.txt	BC053012	BC	1211150.65	2304186.037	5/30/2012	0	0.001634	0.027077	A	792.0	44.2	30-05-2012 13:47:56	0	0.007	0.115999997	0.23341985
BC053012_35	BC053012_35_30052012_135343.txt	BC053012	BC	1211355.81	2304190.11	5/30/2012	0	0.002802	0.053243	A	792.6	44.3	30-05-2012 13:53:43	0	0.012	0.228	0.233523101
BC053012_36	BC053012_36_30052012_140414.txt	BC053012	BC	1211352.591	2304376.729	5/30/2012	0	0.002096	0	A	790.8	44.4	30-05-2012 14:04:14	0	0.009	-0.004	0.232919395
BC053012_37	BC053012_37_30052012_141123.txt	BC053012	BC	1211336.3	2304553.846	5/30/2012	0	0.002563	0.239517	A	790.8	44.3	30-05-2012 14:11:23	0	0.011	1.027999997	0.232992768
BC053012_38	BC053012_38_30052012_141923.txt	BC053012	BC	1211346.041	2304763.721	5/30/2012	0	0.002324	0.684806	A	788.7	44.3	30-05-2012 14:19:23	0	0.01	2.947000027	0.232374042
BC053012_39	BC053012_39_30052012_142356.txt	BC053012	BC	1211352.653	2304977.813	5/30/2012	0	0.002777	0.194634	A	785.5	44.3	30-05-2012 14:23:56	0	0.012	0.841000021	0.231431231
BC053012_40	BC053012_40_30052012_142855.txt	BC053012	BC	1211140.236	2304963.318	5/30/2012	0	0.001621	0.015516	A	786.0	44.3	30-05-2012 14:28:55	0	0.007	0.067000002	0.231578544
BC053012_41	BC053012_41_30052012_143327.txt	BC053012	BC	1211140.935	2304769.494	5/30/2012	0	0.002553	0.131365	A	787.5	44.2	30-05-2012 14:33:27	0	0.011	0.565999985	0.232093602
BC053012_42	BC053012_42_30052012_143918.txt	BC053012	BC	1211129.408	2304589.304	5/30/2012	4.035252	0.001862	2.122004	A	789.4	44.1	30-05-2012 14:39:18	17.3390007	0.008	9.118000031	0.232726917
BC053112_01	BC053112_01_31052012_081126.txt	BC053012	BC	1210954.751	2304977.27	5/31/2012	0	0	0.153762	A	792.6	24.8	31-05-2012 08:11:26	0	0	0.617999971	0.248806536
BC053112_02	BC053112_02_31052012_082035.txt	BC053012	BC	1210932.909	2304774.924	5/31/2012	0	0.000742	0.179549	A	792.6	26.6	31-05-2012 08:20:35	0	0.003	0.726000011	0.247312456
BC053112_03	BC053112_03_31052012_083045.txt	BC053012	BC	1210926.738	2304558.425	5/31/2012	0	0.000246	0.070464	A	792.1	28.6	31-05-2012 08:30:45	-0.100000001	0.001	0.287	0.245518282
BC053112_04	BC053112_04_31052012_090326.txt	BC053012	BC	1211550.743	2304749.767	5/31/2012	0	0.001457	0.178747	A	792.1	31.9	31-05-2012 09:03:26	0	0.006	0.736000001	0.242862299
BC053112_05	BC053112_05_31052012_090840.txt	BC053012	BC	1211550.474	2304938.503	5/31/2012	0	0.000964	0.234201	A	787.4	32.5	31-05-2012 09:08:40	0	0.004	0.972000003	0.240947336
BC053112_06	BC053112_06_31052012_091617.txt	BC053012	BC	1211747.036	2304956.052	5/31/2012	0.000481	0.001443	0.316323	A	787.9	33.2	31-05-2012 09:16:17	0.002	0.006	1.315000057	0.24054943
BC053112_07	BC053112_07_31052012_092138.txt	BC053012	BC	1211771.88	2304788.872	5/31/2012	0	0.002156	0.149745	A	786.3	33.8	31-05-2012 09:21:38	0	0.009	0.625	0.239591688
BC053112_08	BC053112_08_31052012_092819.txt	BC053012	BC	1211937.094	2304755.221	5/31/2012	0.748928	0.000478	0.747495	A	786.3	34.6	31-05-2012 09:28:19	3.134000063	0.002	3.128000021	0.238968864
BC053112_09	BC053112_09_31052012_093746.txt	BC053012	BC	1211952.638	2304937.84	5/31/2012	1.372035	0.001667	0.752928	A	786.3	35.7	31-05-2012 09:37:46	5.762000084	0.007	3.161999941	0.238117754
BC053112_10	BC053112_10_31052012_094601.txt	BC053012	BC	1211942.126	2304904.004	5/31/2012	10.24045	0.000949	1.660197	A	786.3	36.8	31-05-2012 09:46:01	43.1590004	0.004	6.997000217	0.23727268
BC053112_11	BC053112_11_31052012_095210.txt	BC053012	BC	1211980.235	2304892.183	5/31/2012	33.92461	0.002362	5.2804	A	784.5	37.5	31-05-2012 09:52:10	143.6289978	0.01	22.3560009	0.236196086
BC053112_12	BC053112_12_31052012_095647.txt	BC053012	BC	1212011.594	2304944.138	5/31/2012	0	0.000943	0.36587	A	784.5	38.1	31-05-2012 09:56:47	-0.016000001	0.004	1.552000046	0.235740766
BC053112_13	BC053112_13_31052012_105430.txt	BC053112	BC	1211943.642	2304941.335	5/31/2012	1.693758	0.00188	0.558397	A	784.6	39.1	31-05-2012 10:54:30	7.206999779	0.008	2.375999928	0.23501575
BC053112_14	BC053112_14_31052012_105849.txt	BC053112	BC	1211932.689	2304981.144	5/31/2012	0.903581	0.001175	0.367447	A	784.6	39.2	31-05-2012 10:58:49	3.845999956	0.005	1.564000001	0.234940514
BC053112_15	BC053112_15_31052012_110532.txt	BC053112	BC	1211742.323	2305176.593	5/31/2012	0	0.002356	0.241677	A	787.4	39.5	31-05-2012 11:05:32	-0.002	0.01	1.026000023	0.235552698
BC053112_16	BC053112_16_31052012_111055.txt	BC053112	BC	1211932.577	2305179.248	5/31/2012	0	0.001176	0.09948	A	787.4	40.0	31-05-2012 11:10:55	0	0.005	0.423000008	0.235176593
BC053112_17	BC053112_17_31052012_111701.txt	BC053112	BC	1212138.612	2305168.465	5/31/2012	0	0.001641	0.194354	A	786.2	40.5	31-05-2012 11:17:01	-0.039000001	0.007	0.828999996	0.234443858
BC053112_18	BC053112_18_31052012_112303.txt	BC053112	BC	1212119.511	2304961.005	5/31/2012	0	0.001169	0.171546	A	785.0	41.0	31-05-2012 11:23:03	0	0.005	0.734000027	0.233713448
BC053112_19	BC053112_19_31052012_113205.txt	BC053112	BC	1212141.072	2304769.919	5/31/2012	0	0.001165	0.128375	A	783.8	41.5	31-05-2012 11:32:05	-0.001	0.005	0.550999999	0.232985362
BC053112_20	BC053112_20_31052012_113815.txt	BC053112	BC	1212328.237	2304770.136	5/31/2012	0	0.00093	0.130372	A	782.3	41.7	31-05-2012 11:38:15	-0.024	0.004	0.560999999	0.232391775
BC053112_21	BC053112_21_31052012_114347.txt	BC053112	BC	1212347.192	2304940.887	5/31/2012	0	0.001161	0.184402	A	782.3	41.9	31-05-2012 11:43:47	0	0.005	0.794000003	0.232244238
BC053112_22	BC053112_22_31052012_115049.txt	BC053112	BC	1212346.125	2305140.992	5/31/2012	0	0.001626	0.12703	A	783.0	42.2	31-05-2012 11:50:49	-0.092	0.007	0.546999991	0.232230917
BC053112_23	BC053112_23_31052012_115742.txt	BC053112	BC	1212342.287	2305335.369	5/31/2012	0	0.001163	0.148401	A	785.0	42.5	31-05-2012 11:57:42	0	0.005	0.638000011	0.23260282
BC053112_24	BC053112_24_31052012_121729.txt	BC053112	BC	1212158.939	2305551.429	5/31/2012	0	0.001628	0.219594	A	786.8	43.2	31-05-2012 12:17:29	0	0.007	0.944000006	0.232620299
BC053112_25	BC053112_25_31052012_122204.txt	BC053112	BC	1212350.912	2305554.546	5/31/2012	0	0.003493	0.054485	A	787.8	43.3	31-05-2012 12:22:04	0	0.015	0.233999997	0.232842356
BC053112_26	BC053112_26_31052012_122656.txt	BC053112	BC	1212547.84	2305568.949	5/31/2012	0	0.002553	0.130194	A	785.7	43.5	31-05-2012 12:26:56	0	0.011	0.560999999	0.232075006
BC053112_27	BC053112_27_31052012_123555.txt	BC053112	BC	1212566.331	2305367.11	5/31/2012	0	0.001621	0.460978	A	784.6	43.8	31-05-2012 12:35:55	-0.075000003	0.007	1.991000056	0.231530741
BC053112_28	BC053112_28_31052012_124103.txt	BC053112	BC	1212533.528	2305158.123	5/31/2012	1.264034	0.001619	0.224589	A	784.3	44.0	31-05-2012 12:41:03	5.465000153	0.007	0.971000016	0.231296256
BC053112_29	BC053112_29_31052012_124548.txt	BC053112	BC	1212608.665	2305119.573	5/31/2012	0	0.002079	2.150914	A	783.9	44.2	31-05-2012 12:45:48	-0.164000005	0.009	9.31000042	0.23103261
BC053112_30	BC053112_30_31052012_125127.txt	BC053112	BC	1212545.947	2304960.239	5/31/2012	0	0.00323	0.207394	A	783.0	44.3	31-05-2012 12:51:27	-0.098999999	0.014	0.898999989	0.230694667
BC053112_31	BC053112_31_31052012_125748.txt	BC053112	BC	1212539.549	2304767.728	5/31/2012	0.213489	0.001383	0.379254	A	783.0	44.5	31-05-2012 12:57:48	0.925999999	0.006	1.644999981	0.23054941
BC053112_32	BC053112_32_31052012_130216.txt	BC053112	BC	1212551.037	2304564.977	5/31/2012	5.785285	0.002067	6.670823	A	780.4	44.6	31-05-2012 13:02:16	25.18499947	0.009	29.04000092	0.229711533
BC053112_33	BC053112_33_31052012_130831.txt	BC053112	BC	1212577.852	2304361.157	5/31/2012	0	0.001605	1.637447	A	778.9	44.6	31-05-2012 13:08:31	-0.01	0.007	7.142000198	0.229270011
BC053112_34	BC053112_34_31052012_131532.txt	BC053112	BC	1212338.984	2304377.652	5/31/2012	0	0.003904	0.857114	A	780.0	44.5	31-05-2012 13:15:32	-0.796000004	0.017000001	3.732000113	0.229666084
BC053112_35	BC053112_35_31052012_132102.txt	BC053112	BC	1212343.855	2304566.357	5/31/2012	0	0.002304	1.515763	A	782.6	44.6	31-05-2012 13:21:02	-0.287999988	0.01	6.579999924	0.230359107
BC053112_36	BC053112_36_31052012_132427.txt	BC053112	BC	1212143.542	2304565.723	5/31/2012	0	0.00161	0.239835	A	781.2	44.6	31-05-2012 13:24:27	-0.718999982	0.007	1.042999983	0.229947016
BC053112_37	BC053112_37_01062012_082907.txt	BC053112	BC	1212748.285	2304751.395	6/1/2012	0	0.000741	0.278685	A	780.7	22.4	01-06-2012 08:29:07	0	0.003	1.128000021	0.247061074
BC053112_38	BC053112_38_01062012_083642.txt	BC053112	BC	1212933.911	2304826.372	6/1/2012	0	0.000245	0.468769	A	780.7	25.3	01-06-2012 08:36:42	-0.039999999	0.001	1.916000009	0.244660407
BC053112_39	BC053112_39_01062012_084139.txt	BC053112	BC	1212948.607	2304734.06	6/1/2012	2.27781	0.000487	0.553878	A	780.7	26.9	01-06-2012 08:4				

APPENDIX B - FLUX METER DATA

SitePt	Filename	Site	AreaAbbrev	Northing	Easting	Date	CH4flux	H2Sflux	CO2flux	ACCUMULATION CHAMBER:	PRESSURE (HPa):	TEMP DegC	TIME:	CH4slope	H2Sslope	CO2slope	AcK
BC053112_48	BC053112_48_01062012_100552.txt	BC053112	BC	1213938.342	2303977.848	6/1/2012	0	0.000232	0	A	774.9	39.0	01-06-2012 10:05:52	0	0.001	-0.001	0.232184619
BC053112_49	BC053112_49_01062012_101505.txt	BC053112	BC	1213757.013	2303984.64	6/1/2012	0	0.000924	0.094432	A	771.8	39.5	01-06-2012 10:15:05	0	0.004	0.409000009	0.230885923
BC053112_50	BC053112_50_01062012_102556.txt	BC053112	BC	1213728.949	2303766.091	6/1/2012	0	0.000691	0.043966	A	771.2	40.2	01-06-2012 10:25:56	-0.037	0.003	0.191	0.230191052
BC053112_51	BC053112_51_01062012_103338.txt	BC053112	BC	1213545.935	2303771.781	6/1/2012	0	0.001379	0.071475	A	771.2	40.7	01-06-2012 10:33:38	0	0.006	0.31099999	0.229824334
BC053112_52	BC053112_52_01062012_104043.txt	BC053112	BC	1213573.581	2303959.723	6/1/2012	0	0.001609	0.146228	A	772.5	41.1	01-06-2012 10:40:43	0	0.007	0.635999978	0.229918703
BC053112_53	BC053112_53_01062012_104642.txt	BC053112	BC	1213534.367	2304134.34	6/1/2012	0	0.002987	0.392681	A	772.5	41.3	01-06-2012 10:46:42	0	0.013	1.708999991	0.229772478
BC053112_54	BC053112_54_01062012_105433.txt	BC053112	BC	1213356.362	2303955.477	6/1/2012	0	0.001377	0.08288	A	772.6	41.6	01-06-2012 10:54:33	0	0.006	0.361000001	0.229583189
BC053112_55	BC053112_55_01062012_110048.txt	BC053112	BC	1213365.056	2304146.302	6/1/2012	0	0.001147	0.098856	A	772.6	41.9	01-06-2012 11:00:48	0	0.005	0.430999994	0.229364574
BC053112_56	BC053112_56_01062012_110724.txt	BC053112	BC	1213385.569	2304377.087	6/1/2012	0	0.001835	0.349626	A	773.5	42.2	01-06-2012 11:07:24	0	0.008	1.524000049	0.229413301
BC053112_57	BC053112_57_01062012_111311.txt	BC053112	BC	1213359.131	2304542.649	6/1/2012	0	0.001607	1.669036	A	774.9	42.5	01-06-2012 11:13:11	0	0.007	7.269000053	0.2296101
BC053112_58	BC053112_58_01062012_111844.txt	BC053112	BC	1213352.613	2304558.508	6/1/2012	0.886025	0.000918	1.561791	A	775.4	42.8	01-06-2012 11:18:44	3.859999895	0.004	6.803999901	0.229540095
BC053112_59	BC053112_59_01062012_112248.txt	BC053112	BC	1213344.293	2304552.974	6/1/2012	0	0.001835	1.075862	A	775.4	43.0	01-06-2012 11:22:48	0	0.008	4.690000057	0.229394883
BC053112_60	BC053112_60_01062012_112724.txt	BC053112	BC	1213159.7	2304564.75	6/1/2012	0	0.002981	0.34192	A	775.4	43.1	01-06-2012 11:27:24	0	0.013	1.491000056	0.229322344
BC053112_61	BC053112_61_01062012_113313.txt	BC053112	BC	1213125.924	2304337.164	6/1/2012	0	0.001376	0.162863	A	776.1	43.3	01-06-2012 11:33:13	0	0.006	0.709999979	0.229384303
BC053112_62	BC053112_62_01062012_113659.txt	BC053112	BC	1213161.468	2304351.826	6/1/2012	0	0.001604	0.27683	A	775.6	43.4	01-06-2012 11:36:59	0	0.007	1.207999945	0.229164109
BC053112_63	BC053112_63_01062012_114313.txt	BC053112	BC	1213149.676	2304171.502	6/1/2012	0	0.002977	0.334779	A	775.0	43.4	01-06-2012 11:43:13	0	0.013	1.462000012	0.22898683
BC053112_64	BC053112_64_01062012_114611.txt	BC053112	BC	1213123.284	2304148.611	6/1/2012	0	0.002979	0.140699	A	775.8	43.5	01-06-2012 11:46:11	0	0.013	0.614000022	0.229150802
BC053112_65	BC053112_65_01062012_115246.txt	BC053112	BC	1213155.667	2303935.277	6/1/2012	0	0.002979	0.185372	A	776.0	43.6	01-06-2012 11:52:46	0	0.013	0.809000015	0.229137525
BC053112_66	BC053112_66_01062012_115554.txt	BC053112	BC	1213140.51	2303954.468	6/1/2012	0	0.002286	0.093266	A	774.4	43.7	01-06-2012 11:55:54	0	0.01	0.407999992	0.228592902
BC053112_67	BC053112_67_01062012_120311.txt	BC053112	BC	1212953.268	2303961.089	6/1/2012	0	0.001828	0.133888	A	774.5	43.9	01-06-2012 12:03:11	-0.167999998	0.008	0.586000025	0.228478208
BC053112_68	BC053112_68_01062012_120949.txt	BC053112	BC	1212933.815	2304143.943	6/1/2012	0	0.003202	0.226417	A	776.0	44.2	01-06-2012 12:09:49	0	0.014	0.99000001	0.228704304
BC053112_69	BC053112_69_01062012_121756.txt	BC053112	BC	1212979.499	2304366.13	6/1/2012	0	0.001373	0.135703	A	777.2	44.5	01-06-2012 12:17:56	0	0.006	0.592999995	0.228841633
BC053112_70	BC053112_70_01062012_122338.txt	BC053112	BC	1212948.441	2304563.638	6/1/2012	1.224014	0.00137	0.652092	A	776.2	44.7	01-06-2012 12:23:38	5.359000206	0.006	2.855000019	0.228403389
BC053112_71	BC053112_71_01062012_123133.txt	BC053112	BC	1212747.111	2304562.507	6/1/2012	0	0.002513	0.174076	A	776.1	44.6	01-06-2012 12:31:33	0	0.011	0.762000024	0.228445828
BC053112_72	BC053112_72_01062012_123644.txt	BC053112	BC	1212751.1	2304384.546	6/1/2012	0	0.001831	0.309513	A	777.5	44.5	01-06-2012 12:36:44	0	0.008	1.351999998	0.228929967
BC053112_73	BC053112_73_01062012_124259.txt	BC053112	BC	1212765.504	2304190.274	6/1/2012	0	0.002291	0.174599	A	777.7	44.3	01-06-2012 12:42:59	0	0.01	0.762000024	0.229133129
BC053112_74	BC053112_74_01062012_124951.txt	BC053112	BC	1212740.057	2303992.08	6/1/2012	0	0.001607	0.053487	A	778.9	44.2	01-06-2012 12:49:51	0	0.007	0.232999995	0.229558989
BC053112_75	BC053112_75_01062012_125827.txt	BC053112	BC	1212575.824	2304166.72	6/1/2012	0	0.001604	0.054086	A	777.6	44.2	01-06-2012 12:58:27	0	0.007	0.236000001	0.229175851
BC053112_76	BC053112_76_01062012_130656.txt	BC053112	BC	1212346.164	2304147.632	6/1/2012	0	0.00115	0	A	780.3	44.1	01-06-2012 13:06:56	0	0.005	-0.064000003	0.230044097
BC053112_77	BC053112_77_01062012_131049.txt	BC053112	BC	1212164.187	2304172.403	6/1/2012	0	0.002535	0.12927	A	781.6	44.1	01-06-2012 13:10:49	0	0.011	0.56099999	0.230427355
BC053112_78	BC053112_78_01062012_131814.txt	BC053112	BC	1211981.566	2304149.415	6/1/2012	0	0.003695	0.064437	A	783.4	44.1	01-06-2012 13:18:14	0	0.016000001	0.279000014	0.230958015
BC053112_79	BC053112_79_01062012_132653.txt	BC053112	BC	1212152.048	2304378.927	6/1/2012	0	0.003936	1.203351	A	785.0	44.0	01-06-2012 13:26:53	0	0.017000001	5.197999954	0.231502697
BC053112_80	BC053112_80_01062012_133053.txt	BC053112	BC	1211974.134	2304361.07	6/1/2012	0	0.000923	0.147431	A	782.6	44.1	01-06-2012 13:30:53	0	0.004	0.638999999	0.230722174
BC053112_81	BC053112_81_01062012_133543.txt	BC053112	BC	1211948.864	2304530.611	6/1/2012	0	0.001387	0.249163	A	784.0	44.1	01-06-2012 13:35:43	0	0.006	1.077999949	0.231134906
BC060712_01	BC060712_01_07062012_102713.txt	BC060712	BC	1212774.95	2305982.332	6/7/2012	0	0.000731	0.124043	A	789.1	29.7	07-06-2012 10:27:13	-0.001	0.003	0.509000003	0.243700027
BC060712_02	BC060712_02_07062012_103517.txt	BC060712	BC	1212789.161	2305800.994	6/7/2012	0	0.000485	68.30624	A	789.1	31.3	07-06-2012 10:35:17	0	0.002	281.7690125	0.242419288
BC060712_03	BC060712_03_07062012_110124.txt	BC060712	BC	1212782.05	2305525.365	6/7/2012	0.391357	0.004072	1.469145	A	789.1	35.0	07-06-2012 11:01:24	1.633999944	0.017000001	6.133999825	0.239508525
BC060712_04	BC060712_04_07062012_110724.txt	BC060712	BC	1212756.273	2305564.693	6/7/2012	0.484034	0.000476	8.414619	A	787.1	35.9	07-06-2012 11:07:24	2.032000065	0.002	35.32500076	0.238205776
BC060712_05	BC060712_05_07062012_112432.txt	BC060712	BC	1212764.518	2305366.733	6/7/2012	13.29167	0.001657	0.409419	A	787.3	38.0	07-06-2012 11:24:32	56.16400146	0.007	1.730000019	0.236658201
BC060712_06	BC060712_06_07062012_113020.txt	BC060712	BC	1212789.272	2305332.65	6/7/2012	118.4927	0.001177	4.106547	A	785.1	38.7	07-06-2012 11:30:20	503.223999	0.005	17.44000053	0.235467151
BC060712_07	BC060712_07_07062012_113841.txt	BC060712	BC	1212748.34	2305164.717	6/7/2012	0	0.001174	0.931582	A	785.1	39.7	07-06-2012 11:38:41	-0.119000003	0.005	3.969000101	0.234714508
BC060712_08	BC060712_08_07062012_114531.txt	BC060712	BC	1212734.413	2304966.496	6/7/2012	0	0.001401	0.188031	A	782.8	40.3	07-06-2012 11:45:31	-0.016000001	0.006	0.805000007	0.23357892
BC060712_09	BC060712_09_07062012_114531.txt	BC060712	BC	1212940.918	2304933.666	6/7/2012	7.208553	0.000699	1.137702	A	781.6	40.8	07-06-2012 11:53:57	30.95800018	0.003	4.886000156	0.232849434
BC060712_10	BC060712_10_07062012_120657.txt	BC060712	BC	1212942.625	2305151.96	6/7/2012	0	0.002556	0.020213	A	781.6	41.5	07-06-2012 12:06:57	-0.257999986	0.011	0.086999997	0.23233141
BC060712_11	BC060712_11_07062012_122157.txt	BC060712	BC	1212920.895	2305362.587	6/7/2012	0	0.003256	0.032093	A	783.6	42.0	07-06-2012 12:21:57	-0.002	0.014	0.137999997	0.232556358
BC060712_12	BC060712_12_07062012_123038.txt	BC060712	BC	1212937.497	2305559.582	6/7/2012	0	0.002099	0.059017	A	786.5	42.2	07-06-2012 12:30:38	-0.104000002	0.009	0.252999991	0.233268991
BC060712_13	BC060712_13_07062012_124032.txt	BC060712	BC	1212941.915	2305767.993	6/7/2012	0	0.002803	0.182438	A	787.6	42.2	07-06-2012 12:40:32	-0.245000005	0.012	0.781000018	0.233595237
BC060712_14	BC060712_14_07062012_124530.txt	BC060712	BC	1212964.318	2305956.981	6/7/2012	0	0.0014	0.096622	A	786.9	42.2	07-06-2012 12:45:30	0	0.006	0.414000005	0.233387619
BC060712_15	BC060712_15_07062012_124530.txt	BC060712	BC	1212953.063	2306135.629	6/7/2012	0.011435	0.0014	0.15846	A	787.1	42.3	07-06-2012 12:52:03	0.048999999	0.006	0.679000002	0.233372942
BC060712_16	BC060712_16_07062012_130400.txt	BC060712															

APPENDIX B - FLUX METER DATA

SitePt	Filename	Site	AreaAbbrev	Northing	Easting	Date	CH4flux	H2Sflux	CO2flux	ACCUMULATION CHAMBER:	PRESSURE (HPa):	TEMP DegC	TIME:	CH4slope	H2Sslope	CO2slope	AcK
BC060712_24	BC060712_24_07062012_134545.txt	BC060712	BC	1213541.363	2305373.389	6/7/2012	0.970765	0.003464	1.112085	A	783.5	44.2	07-06-2012 13:45:45	4.203999996	0.015	4.815999985	0.230914712
BC060712_25	BC060712_25_07062012_140245.txt	BC060712	BC	1213597.576	2305362.873	6/7/2012	0	0.002301	0.371441	A	781.6	44.5	07-06-2012 14:02:45	-0.071999997	0.01	1.613999963	0.230137184
BC060712_26	BC060712_26_07062012_140820.txt	BC060712	BC	1213746.651	2305350.268	6/7/2012	0	0.00299	0.109692	A	781.5	44.7	07-06-2012 14:08:20	-0.421999991	0.013	0.476999998	0.22996296
BC060712_27	BC060712_27_07062012_141212.txt	BC060712	BC	1213757.045	2305540.094	6/7/2012	0	0.003907	0.15144	A	781.2	44.8	07-06-2012 14:12:12	0	0.017000001	0.658999979	0.22980237
BC060712_28	BC060712_28_07062012_141910.txt	BC060712	BC	1213750.048	2305168.31	6/7/2012	0	0.00276	0.011958	A	782.0	44.9	07-06-2012 14:19:10	-0.071999997	0.012	0.052000001	0.229965389
BC060712_29	BC060712_29_07062012_142249.txt	BC060712	BC	1213757.325	2304968.088	6/7/2012	0	0.001376	0.002752	A	779.9	44.9	07-06-2012 14:22:49	-0.195999995	0.006	0.012	0.229347825
BC060712_30	BC060712_30_07062012_142725.txt	BC060712	BC	1213564.577	2304988.725	6/7/2012	0.591571	0.001145	0.792119	A	778.5	44.9	07-06-2012 14:27:25	2.584000111	0.005	3.460000038	0.228936121
BC060712_31	BC060712_31_07062012_143059.txt	BC060712	BC	1213545.066	2305156.351	6/7/2012	0	0.001832	0.005955	A	778.9	44.9	07-06-2012 14:30:59	-0.050999999	0.008	0.026000001	0.229053751
BC060712_32	BC060712_32_07062012_143546.txt	BC060712	BC	1213338.491	2305359.378	6/7/2012	120.9497	0.001606	10.24258	A	779.7	44.8	07-06-2012 14:35:46	527.3330078	0.007	44.6570015	0.229361132
BC060712_33	BC060712_33_07062012_143919.txt	BC060712	BC	1213356.409	2305147.362	6/7/2012	0	0.002069	0.442366	A	781.6	44.8	07-06-2012 14:39:19	-0.579999983	0.009	1.924000025	0.229920045
BC060712_34	BC060712_34_07062012_144312.txt	BC060712	BC	1213371.909	2304959.658	6/7/2012	0	0.001839	0.027352	A	781.1	44.7	07-06-2012 14:43:12	0	0.008	0.119000003	0.229845256
BC060712_35	BC060712_35_07062012_144741.txt	BC060712	BC	1213160.272	2304993.541	6/7/2012	0	0.001839	0.019999	A	781.2	44.7	07-06-2012 14:47:41	-0.090000004	0.008	0.086999997	0.229874671
BC060712_36	BC060712_36_07062012_145247.txt	BC060712	BC	1213160.422	2305135.472	6/7/2012	0	0.003452	0.098723	A	781.8	44.6	07-06-2012 14:52:47	0	0.015	0.42899999	0.230123624
BC060712_37	BC060712_37_07062012_145813.txt	BC060712	BC	1213164.082	2305344.819	6/7/2012	0	0.002536	2.534971	A	783.2	44.6	07-06-2012 14:58:13	-0.023	0.011	10.99600029	0.230535716
BC060712_38	BC060712_38_07062012_150303.txt	BC060712	BC	1213150.166	2305545.796	6/7/2012	10.78771	0.006689	2.607844	A	783.8	44.7	07-06-2012 15:03:03	46.77299881	0.028999999	11.30700016	0.230639741
BC060712_39	BC060712_39_07062012_150716.txt	BC060712	BC	1213367.121	2305565.782	6/7/2012	4.143781	0.004387	2.634999	A	785.1	44.9	07-06-2012 15:07:16	17.94799995	0.018999999	11.41300011	0.230877012
BC060712_40	BC060712_40_07062012_151500.txt	BC060712	BC	1213732.575	2305741.889	6/7/2012	0	0.002531	0.073871	A	782.8	45.0	07-06-2012 15:15:00	-0.088	0.011	0.32100001	0.230128288
BC060712_41	BC060712_41_08062012_083145.txt	BC060712	BC	1213349.388	2305967.793	6/8/2012	0	0.000247	0.150425	A	785.8	24.4	08-06-2012 08:31:45	-1.177999973	0.001	0.609000027	0.24700354
BC060712_42	BC060712_42_08062012_084122.txt	BC060712	BC	1213371.236	2306171.97	6/8/2012	0	0	0.000492	A	787.7	26.2	08-06-2012 08:41:22	0	0	0.002	0.246111944
BC060712_43	BC060712_43_08062012_084733.txt	BC060712	BC	1213330.818	2306349.765	6/8/2012	0	0.001961	0.154182	A	788.2	27.6	08-06-2012 08:47:33	0	0.008	0.629000008	0.245121777
BC060712_44	BC060712_44_08062012_085316.txt	BC060712	BC	1213161.08	2306361.84	6/8/2012	0	0.00196	0.166831	A	790.1	28.5	08-06-2012 08:53:16	0	0.008	0.680999994	0.24497956
BC060712_45	BC060712_45_08062012_085951.txt	BC060712	BC	1213366.585	2306561.048	6/8/2012	0	0.000488	0	A	788.9	29.4	08-06-2012 08:59:51	-0.064000003	0.002	-0.059	0.24387984
BC060712_46	BC060712_46_08062012_090933.txt	BC060712	BC	1213546.95	2306560.476	6/8/2012	0	0.001698	0.112325	A	787.1	30.3	08-06-2012 09:09:33	-0.136000007	0.007	0.463	0.242601722
BC060712_47	BC060712_47_08062012_091626.txt	BC060712	BC	1213548.741	2306362.165	6/8/2012	0	0.000726	0.043312	A	787.1	31.1	08-06-2012 09:16:26	-0.075999998	0.003	0.179000005	0.241963819
BC060712_48	BC060712_48_08062012_092708.txt	BC060712	BC	1213567.924	2306176.785	6/8/2012	0	0.000724	0.063497	A	787.7	32.0	08-06-2012 09:27:08	-0.016000001	0.003	0.263000011	0.241434082
BC060712_49	BC060712_49_08062012_093748.txt	BC060712	BC	1213598.723	2305957.62	6/8/2012	0	0.000724	0.019556	A	789.0	32.5	08-06-2012 09:37:48	-0.152999997	0.003	0.081	0.241436943
BC060712_50	BC060712_50_08062012_094450.txt	BC060712	BC	1213722.67	2306155.602	6/8/2012	0	0.000481	0	A	787.7	33.0	08-06-2012 09:44:50	-0.920000017	0.002	-0.046	0.240645468
BC060712_51	BC060712_51_08062012_095627.txt	BC060712	BC	1213753.168	2306328.417	6/8/2012	0	0.000481	0.196246	A	788.5	33.5	08-06-2012 09:56:27	-0.158000007	0.002	0.815999985	0.240497097
BC060712_52	BC060712_52_08062012_100331.txt	BC060712	BC	1213744.972	2306572.695	6/8/2012	0	0.000721	0.048773	A	788.5	33.8	08-06-2012 10:03:31	-0.014	0.003	0.202999994	0.240262046
BC060712_53	BC060712_53_08062012_100831.txt	BC060712	BC	1213944.391	2306767.063	6/8/2012	0	0.000478	0.046164	A	785.5	34.0	08-06-2012 10:08:31	-0.013	0.002	0.193000004	0.239192069
BC060712_54	BC060712_54_08062012_101246.txt	BC060712	BC	1213949.495	2306577.463	6/8/2012	0	0.000239	0.111081	A	785.0	34.2	08-06-2012 10:12:46	-0.135000005	0.001	0.465000004	0.23888427
BC060712_55	BC060712_55_08062012_102233.txt	BC060712	BC	1213963.711	2306374.557	6/8/2012	0	0.002144	0.173404	A	784.0	34.7	08-06-2012 10:22:33	-0.02	0.009	0.727999985	0.238192469
BC060712_56	BC060712_56_08062012_103457.txt	BC060712	BC	1214161.565	2306365.483	6/8/2012	0	0.001431	0.210143	A	787.4	35.6	08-06-2012 10:34:57	-0.164000005	0.006	0.880999982	0.238528103
BC060712_57	BC060712_57_08062012_104020.txt	BC060712	BC	1214166.194	2306565.417	6/8/2012	0.64494	0.001902	1.445646	A	786.3	36.1	08-06-2012 10:40:20	2.711999893	0.008	6.078999996	0.237809762
BC060712_58	BC060712_58_08062012_104531.txt	BC060712	BC	1214138.515	2306755.17	6/8/2012	0	0.001186	0.081349	A	785.2	36.5	08-06-2012 10:45:31	-1.167000055	0.005	0.342999995	0.237170309
BC060712_59	BC060712_59_08062012_105430.txt	BC060712	BC	1214337.406	2306748.062	6/8/2012	0	0.002362	0.143392	A	783.1	36.9	08-06-2012 10:54:30	-0.021	0.01	0.606999993	0.236230835
BC060712_60	BC060712_60_08062012_105938.txt	BC060712	BC	1214341.809	2306572.737	6/8/2012	0	0.001178	0.539479	A	781.7	37.2	08-06-2012 10:59:38	-0.030999999	0.005	2.289999962	0.235580578
BC060712_61	BC060712_61_08062012_110350.txt	BC060712	BC	1214352.484	2306374.517	6/8/2012	0	0.003071	0.072999	A	784.4	37.4	08-06-2012 11:03:50	-0.01	0.013	0.308999985	0.236242026
BC060712_62	BC060712_62_08062012_110907.txt	BC060712	BC	1214521.055	2306575.987	6/8/2012	0	0.002125	0.031396	A	784.8	37.8	08-06-2012 11:09:07	-0.032000002	0.009	0.133000001	0.236058444
BC060712_63	BC060712_63_08062012_111605.txt	BC060712	BC	1214541.257	2306766.073	6/8/2012	1.36247	0.000471	0.145239	A	783.1	38.0	08-06-2012 11:16:05	5.788000107	0.002	0.616999984	0.2353957
BC060712_64	BC060712_64_08062012_112337.txt	BC060712	BC	1214343.278	2306940.193	6/8/2012	0	0.000939	0.20882	A	780.8	38.1	08-06-2012 11:23:37	-0.842999995	0.004	0.889999986	0.234628931
BC060712_65	BC060712_65_08062012_112741.txt	BC060712	BC	1214540.464	2306965.695	6/8/2012	0	0.002582	0.497337	A	781.3	38.2	08-06-2012 11:27:41	-1.253999949	0.011	2.118999958	0.234703764
BC060712_66	BC060712_66_08062012_113417.txt	BC060712	BC	1214732.914	2306967.457	6/8/2012	0.319641	0.00351	0.367376	A	779.7	38.5	08-06-2012 11:34:17	1.366000056	0.015	1.570000052	0.233997658
BC060712_67	BC060712_67_08062012_115630.txt	BC060712	BC	1214541.88	2307157.749	6/8/2012	0.452657	0.003253	0.382016	A	778.5	40.2	08-06-2012 11:56:30	1.947999954	0.014	1.644000053	0.232369989
BC060712_68	BC060712_68_08062012_120028.txt	BC060712	BC	1214356.619	2307151.837	6/8/2012	0	0.002789	0.441796	A	779.6	40.6	08-06-2012 12:00:28	-0.001	0.012	1.901000023	0.232401654
BC060712_69	BC060712_69_08062012_120814.txt	BC060712	BC	1214340.518	2307381.347	6/8/2012	0	0.002558	0.131625	A	781.1	41.0	08-06-2012 12:08:14	-0.018999999	0.011	0.565999985	0.23255232
BC060712_70	BC060712_70_08062012_122219.txt	BC060712	BC	1214545.847	2307362.787	6/8/2012	0	0.002318	0.102216	A	780.0	41.6	08-06-2012 12:22:19	-0.01	0.01	0.441000015	0.231782138
BC060712_71	BC060712_71_08062012_123404.txt	BC060712	BC	1214751.89	2307379.124	6/8/2012	0	0.002545	0.109901	A	780.1	42.2	08-06-2012 12:34:04	0	0.011	0.474999994	0.231370807
BC060712_72	BC060712_72_08062012_124458.txt	BC060712	BC	1214911.514	2307350.23	6/8/2012	0.684267										

APPENDIX B - FLUX METER DATA

SitePt	Filename	Site	AreaAbbrev	Northing	Easting	Date	CH4flux	H2Sflux	CO2flux	ACCUMULATION CHAMBER:	PRESSURE (HPa):	TEMP DegC	TIME:	CH4slope	H2Sslope	CO2slope	AcK
BC060712_81	BC060712_81_08062012_135120.txt	BC060712	BC	1214916.859	2306766.213	6/8/2012	0	0.001603	0.119098	A	778.1	44.6	08-06-2012 13:51:20	0	0.007	0.519999981	0.229034528
BC060712_82	BC060712_82_08062012_135614.txt	BC060712	BC	1214920.034	2306968.896	6/8/2012	0	0.006178	0.35352	A	777.6	44.7	08-06-2012 13:56:14	0	0.027000001	1.544999957	0.228815347
BC060712_83	BC060712_83_08062012_140307.txt	BC060712	BC	1214763.061	2306778.006	6/8/2012	0.370577	0.003879	0.783826	A	776.2	45.0	08-06-2012 14:03:07	1.623999953	0.017000001	3.434999943	0.228188008
BC060712_84	BC060712_84_08062012_140812.txt	BC060712	BC	1214738.771	2306548.942	6/8/2012	0	0.003206	0.223473	A	779.1	45.1	08-06-2012 14:08:12	0	0.014	0.976000011	0.22896859
BC061112_01	BC061112_01_11062012_100114.txt	BC061112	BC	1210732.566	2304163.261	6/11/2012	0	0.000494	0.098225	A	801.5	30.6	11-06-2012 10:01:14	0	0.002	0.398000002	0.246796131
BC061112_02	BC061112_02_11062012_100748.txt	BC061112	BC	1210958.087	2304130.193	6/11/2012	0	0.000246	0.001228	A	801.5	32.0	11-06-2012 10:07:48	0	0.001	0.005	0.245663851
BC061112_03	BC061112_3_11062012_102331.txt	BC061112	BC	1211557.687	2304127.302	6/11/2012	0	0.00218	0.066597	A	797.1	34.7	11-06-2012 10:23:31	0	0.009	0.275000006	0.242172465
BC061112_04	BC061112_04_11062012_103011.txt	BC061112	BC	1211562.612	2304380.873	6/11/2012	0	0.001326	0.122557	A	625.3	35.6	11-06-2012 10:30:11	0	0.007	0.647000015	0.189422935
BC061112_05	BC061112_05_11062012_103541.txt	BC061112	BC	1211542.92	2304540.203	6/11/2012	0	0.002403	0.124733	A	794.9	36.2	11-06-2012 10:35:41	0	0.01	0.518999994	0.24033305
BC061112_06	BC061112_06_11062012_104219.txt	BC061112	BC	1211714.715	2304537.66	6/11/2012	0	0.001915	0.020109	A	792.8	36.6	11-06-2012 10:42:19	0	0.008	0.083999999	0.239388585
BC061112_07	BC061112_07_11062012_104925.txt	BC061112	BC	1211737.756	2304344.077	6/11/2012	0	0.001435	0.035407	A	792.8	36.8	11-06-2012 10:49:25	0	0.006	0.148000002	0.23923412
BC061112_08	BC061112_08_11062012_105459.txt	BC061112	BC	1211721.43	2304158.483	6/11/2012	0	0.00239	0.088671	A	792.3	36.9	11-06-2012 10:54:59	0	0.01	0.370999992	0.239006132
BC061112_09	BC061112_09_11062012_110927.txt	BC061112	BC	1211361.49	2303946.324	6/11/2012	0	0.002143	0.084765	A	791.6	37.8	11-06-2012 11:09:27	0	0.009	0.356000006	0.238103807
BC061112_10	BC061112_10_11062012_112450.txt	BC061112	BC	1211382.045	2303721.944	6/11/2012	0	0.002622	0.082243	A	796.1	39.2	11-06-2012 11:24:50	0	0.011	0.344999999	0.238384068
BC061112_11	BC061112_11_11062012_113152.txt	BC061112	BC	1211351.252	2303570.217	6/11/2012	0	0.001896	0.030575	A	793.3	39.9	11-06-2012 11:31:52	0	0.008	0.128999993	0.237014472
BC061112_12	BC061112_12_11062012_113858.txt	BC061112	BC	1211379.08	2303347.954	6/11/2012	0	0.004011	0.061115	A	791.3	40.5	11-06-2012 11:38:58	0	0.017000001	0.259000003	0.235964671
BC061112_13	BC061112_13_11062012_114543.txt	BC061112	BC	1211162.593	2303383.382	6/11/2012	0	0.00282	0.451395	A	789.0	40.9	11-06-2012 11:45:43	0	0.012	1.921000004	0.234979138
BC061112_14	BC061112_14_11062012_115128.txt	BC061112	BC	1211129.535	2303562.037	6/11/2012	0	0.003295	0.889681	A	790.8	41.1	11-06-2012 11:51:28	0	0.014	3.779999971	0.235365331
BC061112_15	BC061112_15_11062012_115639.txt	BC061112	BC	1211143.299	2303758.275	6/11/2012	0	0.002351	0.090512	A	790.4	41.3	11-06-2012 11:56:39	0	0.01	0.384999999	0.235096648
BC061112_16	BC061112_16_11062012_121653.txt	BC061112	BC	1211125.901	2303967.159	6/11/2012	0	0.002355	0.128564	A	792.9	41.8	11-06-2012 12:16:53	-0.32100001	0.01	0.546000004	0.23546584
BC061112_17	BC061112_17_11062012_122752.txt	BC061112	BC	1210967.928	2303995.908	6/11/2012	0	0.001886	0	A	794.5	42.1	11-06-2012 12:27:52	-0.028999999	0.008	-0.241999999	0.235716462
BC061112_18	BC061112_18_11062012_123406.txt	BC061112	BC	1210928.594	2303767.587	6/11/2012	0	0.003292	0.104166	A	792.8	42.2	11-06-2012 12:34:06	-0.017999999	0.014	0.442999989	0.235137507
BC061112_19	BC061112_19_11062012_123948.txt	BC061112	BC	1210952.735	2303587.281	6/11/2012	0	0.001411	0	A	792.8	42.2	11-06-2012 12:39:48	-0.011	0.006	-0.164000005	0.235137507
BC061112_20	BC061112_20_11062012_124539.txt	BC061112	BC	1210951.798	2303381.741	6/11/2012	0	0.00235	0	A	792.6	42.3	11-06-2012 12:45:39	-0.071000002	0.01	0.235003665	
BC061112_21	BC061112_21_11062012_125233.txt	BC061112	BC	1210731.741	2303562.149	6/11/2012	0	0.002819	0.14824	A	792.6	42.4	11-06-2012 12:52:33	0	0.012	0.630999982	0.234929204
BC061112_22	BC061112_22_11062012_125915.txt	BC061112	BC	1210756.189	2303785.778	6/11/2012	0	0.003775	0.220142	A	796.3	42.5	11-06-2012 12:59:15	0	0.016000001	0.933000028	0.235951111
BC061112_23	BC061112_23_11062012_130348.txt	BC061112	BC	1210746.829	2303969.494	6/11/2012	0	0.004712	0.148425	A	795.1	42.5	11-06-2012 13:03:48	0	0.02	0.629999995	0.235595539
BC061112_24	BC061112_24_11062012_130930.txt	BC061112	BC	1210564.995	2303767.941	6/11/2012	0	0.001884	0.025196	A	794.7	42.5	11-06-2012 13:09:30	0	0.008	0.107000001	0.235477015
BC061112_25	BC061112_25_11062012_133019.txt	BC061112	BC	1209769.513	2304360.817	6/11/2012	0	0.005197	0.063547	A	797.0	42.4	11-06-2012 13:30:19	-0.786000013	0.022	0.268999994	0.236233369
BC061112_26	BC061112_26_11062012_133410.txt	BC061112	BC	1209754.623	2304169.754	6/11/2012	0	0.00356	0.210289	A	800.5	42.3	11-06-2012 13:34:10	-0.333000004	0.015	0.885999978	0.237345994
BC061112_27	BC061112_27_11062012_133822.txt	BC061112	BC	1209562.706	2304354.458	6/11/2012	0	0.001901	0.038249	A	801.0	42.2	11-06-2012 13:38:22	-0.057999998	0.008	0.160999998	0.237569556
BC061112_28	BC061112_28_11062012_134249.txt	BC061112	BC	1209539.568	2304173.135	6/11/2012	0	0.002139	0.035891	A	801.4	42.2	11-06-2012 13:42:49	-0.342999995	0.009	0.150999993	0.237688199
BC061112_29	BC061112_29_11062012_134943.txt	BC061112	BC	1209563.431	2303959.317	6/11/2012	0	0.001427	0.436618	A	801.3	42.0	11-06-2012 13:49:43	-0.916000009	0.006	1.835999966	0.23780936
BC061112_30	BC061112_30_11062012_135613.txt	BC061112	BC	1209357.442	2303788.731	6/11/2012	0	0.0076	0	A	800.3	42.0	11-06-2012 13:56:13	-2.726000071	0.032000002	-2.385999918	0.237512574
BC061112_31	BC061112_31_11062012_140355.txt	BC061112	BC	1209335.432	2303570.721	6/11/2012	0	0.005451	0.042661	A	799.1	42.2	11-06-2012 14:03:55	-1.978000045	0.023	0.180000007	0.237006038
BC061112_32	BC061112_32_11062012_140844.txt	BC061112	BC	1209345.728	2303383.17	6/11/2012	0	0.005462	0.246742	A	800.7	42.2	11-06-2012 14:08:44	-0.898999989	0.023	1.039000034	0.237480581
BC061112_33	BC061112_33_11062012_141416.txt	BC061112	BC	1209347.695	2303166.589	6/11/2012	0	0.001891	1.799466	A	797.2	42.3	11-06-2012 14:14:16	-0.002	0.008	7.612999916	0.236367553
BC061112_34	BC061112_34_11062012_141947.txt	BC061112	BC	1209139.813	2303149.509	6/11/2012	0	0.001885	0.04994	A	794.5	42.3	11-06-2012 14:19:47	-1.585999966	0.008	0.211999997	0.235567018
BC061112_35	BC061112_35_11062012_142348.txt	BC061112	BC	1209164.827	2302993.5	6/11/2012	0	0.004003	0.1401	A	794.4	42.4	11-06-2012 14:23:48	-6.397999763	0.017000001	0.595000029	0.235462725
BC061112_36	BC061112_36_11062012_142820.txt	BC061112	BC	1209327.018	2302950.716	6/11/2012	0	0.001409	0.147686	A	792.4	42.5	11-06-2012 14:28:20	-0.026000001	0.006	0.629000008	0.234795511
BC061112_37	BC061112_37_11062012_143839.txt	BC061112	BC	1209581.913	2302972.57	6/11/2012	0.58542	0.002345	0.246974	A	791.8	42.6	11-06-2012 14:38:39	2.496000051	0.01	1.052999973	0.234543413
BC061112_38	BC061112_38_11062012_144304.txt	BC061112	BC	1209612.103	2302895.698	6/11/2012	0.73317	0.007303	0.558123	A	795.6	42.7	11-06-2012 14:43:04	3.111999989	0.030999999	2.368999958	0.235594422
BC061112_39	BC061112_39_11062012_145123.txt	BC061112	BC	1209738.518	2302794.662	6/11/2012	0	0.00212	0.216982	A	795.6	42.7	11-06-2012 14:51:23	-0.008	0.009	0.921000004	0.235594422
BC061112_40	BC061112_40_11062012_145709.txt	BC061112	BC	1209736.607	2302978.16	6/11/2012	0	0.000945	0.154692	A	797.8	42.8	11-06-2012 14:57:09	-2.701999903	0.004	0.654999971	0.236171111
BC061112_41	BC061112_41_11062012_150442.txt	BC061112	BC	1209732.193	2303153.387	6/11/2012	6.575839	0.008748	13.72949	A	798.9	42.9	11-06-2012 15:04:42	27.81399918	0.037	58.0719986	0.236421913
BC061112_42	BC061112_42_11062012_150909.txt	BC061112	BC	1209922.266	2303157.029	6/11/2012	0	0.002602	0	A	799.7	43.0	11-06-2012 15:09:09	-0.869000018	0.011	-0.059	0.236583814
BC061112_43	BC061112_43_11062012_151227.txt	BC061112	BC	1209916.609	2302950.662	6/11/2012	0	0.00071	0.026979	A	800.2	43.1	11-06-2012 15:12:27	-0.888999999	0.003	0.114	0.236656874
BC061112_44	BC061112_44_11062012_152755.txt	BC061112	BC	1209545.089	2303139.429	6/11/2012	0.253361	0.006381	0.483796	A	799.9	43.4	11-06-2012 15:27:55	1.072000027	0.027000001	2.046999931	0.23634395
BC061112_45	BC061112_45_11062012_153350.txt	BC061112	BC	1209539.095	2303379.184	6/11/2012	0	0.002587	0.030806	A	795.9	43.4	11-06-2012 15:33:50	-0.35899999			

APPENDIX B - FLUX METER DATA

SitePt	Filename	Site	AreaAbbrev	Northing	Easting	Date	CH4flux	H2Sflux	CO2flux	ACCUMULATION CHAMBER:	PRESSURE (HPa):	TEMP DegC	TIME:	CH4slope	H2Sslope	CO2slope	AcK
BC061212_06	BC061212_06_12062012_093811.txt	BC061212	BC	1209349.181	2302729.276	6/12/2012	0	0.000242	0.029338	A	795.2	33.6	12-06-2012 09:38:11	0	0.001	0.120999999	0.242461562
BC061212_07	BC061212_07_12062012_094545.txt	BC061212	BC	1209136.326	2302785.3	6/12/2012	0	0.000241	0.065535	A	792.0	34.3	12-06-2012 09:45:45	0	0.001	0.272000015	0.240936056
BC061212_08	BC061212_08_12062012_095230.txt	BC061212	BC	1208971.443	2302561.962	6/12/2012	0	0.000241	0.133502	A	792.0	34.8	12-06-2012 09:52:30	-0.015	0.001	0.555000007	0.240544856
BC061212_09	BC061212_09_12062012_095855.txt	BC061212	BC	1209131.519	2302574.229	6/12/2012	0	0.00024	0.090298	A	792.0	35.3	12-06-2012 09:58:55	-0.015	0.001	0.375999987	0.240154937
BC061212_10	BC061212_10_12062012_100755.txt	BC061212	BC	1209334.183	2302608.476	6/12/2012	0	0.000241	0.067609	A	794.5	35.7	12-06-2012 10:07:55	-0.112000003	0.001	0.280999988	0.240600988
BC061212_11	BC061212_11_12062012_101620.txt	BC061212	BC	1209339.22	2302364.788	6/12/2012	0	0.001929	0.214172	A	797.2	36.0	12-06-2012 10:16:20	-0.063000001	0.008	0.888000011	0.241184369
BC061212_12	BC061212_12_12062012_102332.txt	BC061212	BC	1209155.494	2302322.103	6/12/2012	0.550635	0.000963	0.411892	A	797.2	36.4	12-06-2012 10:23:32	2.286000013	0.004	1.710000038	0.240872711
BC061212_13	BC061212_13_12062012_103117.txt	BC061212	BC	1209152.897	2302169.239	6/12/2012	0	0.00024	0	A	794.1	36.9	12-06-2012 10:31:17	-0.013	0.001	-0.138999999	0.239549115
BC061212_14	BC061212_14_12062012_104614.txt	BC061212	BC	1208958.011	2302339.098	6/12/2012	0	0.000238	0.03503	A	792.0	37.7	12-06-2012 10:46:14	-0.016000001	0.001	0.147	0.238300756
BC061212_15	BC061212_15_12062012_105718.txt	BC061212	BC	1208946.472	2302173.442	6/12/2012	0	0	0.069063	A	792.0	37.9	12-06-2012 10:57:18	0	0	0.289999992	0.238147527
BC061212_16	BC061212_16_12062012_111605.txt	BC061212	BC	1208978.937	2301962.617	6/12/2012	0	0.000474	0.048854	A	792.0	39.2	12-06-2012 11:16:05	0	0.002	0.206	0.237156361
BC061212_17	BC061212_17_12062012_112442.txt	BC061212	BC	1208771.631	2301943.609	6/12/2012	0	0.000709	0.088111	A	790.4	39.8	12-06-2012 11:24:42	0	0.003	0.372999996	0.236223489
BC061212_18	BC061212_18_12062012_113325.txt	BC061212	BC	1208766.152	2301747.633	6/12/2012	0	0.001881	0.268301	A	788.3	40.4	12-06-2012 11:33:25	0	0.008	1.141000032	0.235145047
BC061212_19	BC061212_19_12062012_114829.txt	BC061212	BC	1208747.391	2301545.599	6/12/2012	0			A	n.a.	41.5	12-06-2012 11:48:29	0	0		
BC061212_20	BC061212_20_12062012_121545.txt	BC061212	BC	1208961.75	2301558.048	6/12/2012	0	0.001864	0.134227	A	786.2	42.4	12-06-2012 12:15:45	-6.223000005	0.008	0.575999975	0.233032212
BC061212_21	BC061212_21_12062012_122102.txt	BC061212	BC	1208945.704	2301770.819	6/12/2012	0	0.003726	0.091757	A	786.2	42.6	12-06-2012 12:21:02	-0.001	0.016000001	0.393999994	0.232884616
BC061212_22	BC061212_22_12062012_122810.txt	BC061212	BC	1209157.396	2301946.837	6/12/2012	0	0.001165	0.023999	A	787.1	42.8	12-06-2012 12:28:10	0	0.005	0.103	0.233003616
BC061212_23	BC061212_23_12062012_123332.txt	BC061212	BC	1209155.224	2301769.576	6/12/2012	0	0.003965	0.260963	A	788.3	43.0	12-06-2012 12:33:32	-0.003	0.017000001	1.118999958	0.233211219
BC061212_24	BC061212_24_12062012_124241.txt	BC061212	BC	1209151.372	2301559.575	6/12/2012	0	0.003953	0.684108	A	786.5	43.2	12-06-2012 12:42:41	0	0.017000001	2.941999912	0.232531607
BC061212_25	BC061212_25_12062012_125050.txt	BC061212	BC	1209363.548	2301558.395	6/12/2012	0	0.005122	0.347357	A	787.7	43.3	12-06-2012 12:50:50	-1.995000005	0.022	1.491999984	0.232812807
BC061212_26	BC061212_26_12062012_125944.txt	BC061212	BC	1209372.921	2301768.628	6/12/2012	8.433254	0.00257	2.027065	A	791.0	43.5	12-06-2012 12:59:44	36.09500122	0.011	8.675999641	0.233640492
BC061212_27	BC061212_27_12062012_130826.txt	BC061212	BC	1209356.308	2301955.646	6/12/2012	0	0.000934	0.240076	A	790.4	43.4	12-06-2012 13:08:26	-0.501999974	0.004	1.027999997	0.233537018
BC061212_28	BC061212_28_12062012_131956.txt	BC061212	BC	1209351.163	2302160.605	6/12/2012	0.674068	0.000933	0.435695	A	789.4	43.4	12-06-2012 13:19:56	2.890000105	0.004	1.868000031	0.233241543
BC061212_29	BC061212_29_12062012_132607.txt	BC061212	BC	1209544.644	2302357.269	6/12/2012	0	0.000702	0.046094	A	792.4	43.6	12-06-2012 13:26:07	-0.333999991	0.003	0.196999997	0.233980119
BC061212_30	BC061212_30_12062012_133117.txt	BC061212	BC	1209563.349	2302158.179	6/12/2012	0	0.003523	0.11507	A	795.8	43.8	12-06-2012 13:31:17	-0.203999996	0.015	0.490000001	0.234835789
BC061212_31	BC061212_31_12062012_133919.txt	BC061212	BC	1209548.777	2301989.261	6/12/2012	0.709364	0.002582	0.712885	A	794.7	43.5	12-06-2012 13:39:19	3.022000074	0.011	3.036999941	0.234733373
BC061212_32	BC061212_32_12062012_134751.txt	BC061212	BC	1209522.774	2301741.048	6/12/2012	0	0.003981	0.321733	A	792.0	43.2	12-06-2012 13:47:51	-1.756999969	0.017000001	1.373999953	0.234157711
BC061212_33	BC061212_33_12062012_135526.txt	BC061212	BC	1209535.641	2301564.867	6/12/2012	0	0.003048	0.395942	A	792.9	43.2	12-06-2012 13:55:26	-0.007	0.013	1.689000001	0.234423786
BC061212_34	BC061212_34_12062012_143632.txt	BC061212	BC	1209614.771	2301800.072	6/12/2012	0	0.002108	0.118264	A	793.6	43.8	12-06-2012 14:36:32	-1.248000026	0.009	0.504999995	0.23418659
BC061212_35	BC061212_35_12062012_144151.txt	BC061212	BC	1209624.751	2301964.82	6/12/2012	0	0.008427	0.322333	A	793.5	43.9	12-06-2012 14:41:51	-2.292999983	0.035999998	1.376999974	0.23408322
BC061212_36	BC061212_36_12062012_144813.txt	BC061212	BC	1209633.807	2302137.334	6/12/2012	0	0.002339	0.052626	A	792.6	43.8	12-06-2012 14:48:13	-4.834000111	0.01	0.224999994	0.233891487
BC061212_37	BC061212_37_13062012_095601.txt	BC061212	BC	1208755.153	2301381.83	6/13/2012	0	0.003543	0.082423	A	783.4	37.1	13-06-2012 09:56:01	-7.30700016	0.015	0.349000007	0.236168995
BC061212_38	BC061212_38_13062012_094451.txt	BC061212	BC	1208740.134	2301156.213	6/13/2012	0	0.000947	0.24212	A	782.3	36.0	13-06-2012 09:44:51	0	0.004	1.023000002	0.236676529
BC061212_39	BC061212_39_13062012_100927.txt	BC061212	BC	1208549.109	2300969.983	6/13/2012	0	0.001409	0.281481	A	782.0	38.4	13-06-2012 10:09:27	-1.200999975	0.006	1.199000001	0.23476325
BC061212_40	BC061212_40_13062012_101757.txt	BC061212	BC	1208705.102	2300969.451	6/13/2012	1.599591	0.000937	0.446724	A	781.4	39.0	13-06-2012 10:17:57	6.831999779	0.004	1.907999992	0.234132215
BC061212_41	BC061212_41_13062012_102524.txt	BC061212	BC	1208667.886	2301041.082	6/13/2012	0	0.001879	0.268635	A	784.2	39.2	13-06-2012 10:25:24	-2.069999933	0.008	1.144000053	0.234820738
BC061212_42	BC061212_42_13062012_103513.txt	BC061212	BC	1208649.222	2300874.007	6/13/2012	0	0.006562	0.18281	A	783.2	39.4	13-06-2012 10:35:13	-3.039000034	0.028000001	0.779999971	0.23437123
BC061212_43	BC061212_43_13062012_104246.txt	BC061212	BC	1208762.494	2300759.065	6/13/2012	0	0.000936	0.11256	A	783.0	39.8	13-06-2012 10:42:46	-2.338000059	0.004	0.481000006	0.234011889
BC061212_44	BC061212_44_13062012_105843.txt	BC061212	BC	1208757.48	2300551.401	6/13/2012	0	0.003262	0.243919	A	783.0	41.2	13-06-2012 10:58:43	-0.017000001	0.014	1.047000051	0.232969686
BC061212_45	BC061212_45_13062012_111539.txt	BC061212	BC	1208743.82	2300372.783	6/13/2012	0	0.006914	0.176764	A	779.5	43.2	13-06-2012 11:15:39	-1.050999999	0.029999999	0.767000002	0.23046203
BC061212_46	BC061212_46_13062012_112418.txt	BC061212	BC	1208719.01	2300150.239	6/13/2012	0	0.00367	0.080272	A	777.7	44.0	13-06-2012 11:24:18	-3.415999889	0.016000001	0.349999994	0.229349867
BC061212_47	BC061212_47_13062012_113148.txt	BC061212	BC	1208725.769	2299986.021	6/13/2012	0	0.003896	0.163166	A	778.3	44.5	13-06-2012 11:31:48	-2.483999968	0.017000001	0.712000012	0.229165524
BC061212_48	BC061212_48_13062012_115812.txt	BC061212	BC	1208945.903	2300144.272	6/13/2012	0	0.001842	0.093484	A	782.5	44.7	13-06-2012 11:58:12	0	0.008	0.405999988	0.230257213
BC061212_49	BC061212_49_13062012_123812.txt	BC061212	BC	1208980.405	2300346.993	6/13/2012	0	0	0.035014	A	781.1	44.0	13-06-2012 12:38:12	0	-0.003	0.151999995	0.230352551
BC061212_50	BC061212_50_13062012_125021.txt	BC061212	BC	1208928.035	2300567.673	6/13/2012	0	0.00183	0.118729	A	781.1	46.2	13-06-2012 12:50:21	0	0.008	0.518999994	0.228765652
BC061212_51	BC061212_51_13062012_125855.txt	BC061212	BC	1208986.46	2300769.22	6/13/2012	0	0.002052	1.09769	A	780.1	46.9	13-06-2012 12:58:55	0	0.009	4.815000057	0.227973074
BC061212_52	BC061212_52_13062012_130451.txt	BC061212	BC	1209151.869	2300758.414	6/13/2012	0	0.00206	0.056073	A	783.9	47.2	13-06-2012 13:04:51	0	0.009	0.245000005	0.22869036
BC061212_53	BC061212_53_13062012_131425.txt	BC061212	BC	1208969.779	2300942.293	6/13/2012	0	0.002058	0.068377	A	784.0	47.5	13-06-2012 13:14:25	0	0.009	0.298999995	0.228684083
BC061212_54	BC061212_54_13062012_132842.txt	BC061212	BC	1208967.294	2301149.813	6/13/2012	21.76935	0.00344	1.749878	A	786.5						

APPENDIX B - FLUX METER DATA

SitePt	Filename	Site	AreaAbbrev	Northing	Easting	Date	CH4flux	H2Sflux	CO2flux	ACCUMULATION CHAMBER:	PRESSURE (HPa):	TEMP DegC	TIME:	CH4slope	H2Sslope	CO2slope	AcK
bph062912_04	bph062912_04_29062012_150126.txt	bph062912	BPH	1238345.329	2386170.025	6/29/2012	0	0.000699	0.108763	A	784.0	41.7	29-06-2012 15:01:26	0	0.003	0.467000008	0.232896775
bph062912_05	bph062912_05_29062012_150633.txt	bph062912	BPH	1238546.054	2386168.921	6/29/2012	0	0.000698	0.041884	A	783.8	41.9	29-06-2012 15:06:33	0	0.003	0.180000007	0.232689559
bph062912_06	bph062912_06_29062012_151136.txt	bph062912	BPH	1238570.575	2386066.01	6/29/2012	3.765076	0.000696	1.390493	A	782.3	42.1	29-06-2012 15:11:36	16.22200012	0.003	5.991000175	0.23209691
bph062912_07	bph062912_07_29062012_151621.txt	bph062912	BPH	1238571.99	2385951.066	6/29/2012	2.516655	0.000928	0.635542	A	782.3	42.3	29-06-2012 15:16:21	10.85000038	0.004	2.74000001	0.231949747
bph062912_08	bph062912_08_29062012_152048.txt	bph062912	BPH	1238350.526	2385955.134	6/29/2012	0	0.001852	0.095619	A	781.6	42.6	29-06-2012 15:20:48	-30.49500084	0.008	0.412999988	0.231522024
bph062912_09	bph062912_09_29062012_152528.txt	bph062912	BPH	1238544.167	2385765.487	6/29/2012	0	0.001618	0.10816	A	781.2	43.0	29-06-2012 15:25:28	0	0.007	0.467999995	0.231110752
bph062912_10	bph062912_10_29062012_153010.txt	bph062912	BPH	1238560.557	2385566.01	6/29/2012	0	0.000923	0.149772	A	780.8	43.3	29-06-2012 15:30:10	0	0.004	0.648999989	0.230773434
bph062912_100	bph062912_100_03072012_110548.txt	bph062912	BPH	1240752.936	2381330.792	7/3/2012	0	0.001395	0.215576	A	771.9	37.3	03-07-2012 11:05:48	0	0.006	0.926999986	0.232552215
bph062912_101	bph062912_101_03072012_111259.txt	bph062912	BPH	1240755.963	2381556.549	7/3/2012	0	0.000465	1.111841	A	773.0	38.0	03-07-2012 11:12:59	0	0.002	4.784999847	0.232359692
bph062912_102	bph062912_102_03072012_111729.txt	bph062912	BPH	1240757.151	2381772.861	7/3/2012	0.308139	0.001624	1.532111	A	773.4	38.6	03-07-2012 11:17:29	1.327999949	0.007	6.603000164	0.232032493
bph062912_103	bph062912_103_03072012_112038.txt	bph062912	BPH	1240708.467	2381753.597	7/3/2012	167.7701	0.004867	2.126213	A	773.5	39.0	03-07-2012 11:20:38	723.8800049	0.021	9.173999786	0.231765121
bph062912_104	bph062912_104_03072012_112846.txt	bph062912	BPH	1240960.816	2381975.192	7/3/2012	0	0.002312	0.003931	A	773.7	39.8	03-07-2012 11:28:46	0	0.01	0.017000001	0.231232435
bph062912_105	bph062912_105_03072012_113907.txt	bph062912	BPH	1240944.187	2381774.123	7/3/2012	0	0.002759	0.292928	A	771.3	40.6	03-07-2012 11:39:07	0	0.012	1.274000049	0.229927391
bph062912_106	bph062912_106_03072012_114824.txt	bph062912	BPH	1240945.842	2381578.485	7/3/2012	0.443205	0	0.289576	A	772.3	41.4	03-07-2012 11:48:24	1.929999948	0	1.261000037	0.229639962
bph062912_107	bph062912_107_03072012_115444.txt	bph062912	BPH	1241128.296	2381558.891	7/3/2012	0	0.001603	0.271569	A	771.3	41.9	03-07-2012 11:54:44	-0.675000012	0.007	1.18599999	0.228978634
bph062912_108	bph062912_108_03072012_120332.txt	bph062912	BPH	1241187.431	2381737.247	7/3/2012	0	0.003198	0.059155	A	771.3	42.7	03-07-2012 12:03:32	0	0.014	0.259000003	0.228398666
bph062912_109	bph062912_109_03072012_121247.txt	bph062912	BPH	1241146.418	2381392.226	7/3/2012	1.608525	0.000913	0.706838	A	772.2	43.4	03-07-2012 12:12:47	7.050000191	0.004	3.098000005	0.228159517
bph062912_11	bph062912_11_29062012_153418.txt	bph062912	BPH	1238570.543	2385381.664	6/29/2012	0	0.002763	0.181468	A	779.9	43.6	29-06-2012 15:34:18	0	0.012	0.787999988	0.230289117
bph062912_110	bph062912_110_03072012_121848.txt	bph062912	BPH	1241226.392	2381382.631	7/3/2012	0	0.00431	0.116368	A	768.7	43.8	03-07-2012 12:18:48	0	0.018999999	0.513000011	0.226838738
bph062912_111	bph062912_111_03072012_123442.txt	bph062912	BPH	1241244.987	2381556.837	7/3/2012	0	0.00136	0.073458	A	770.0	44.5	03-07-2012 12:34:42	0	0.006	0.324000001	0.226721644
bph062912_112	bph062912_112_03072012_124906.txt	bph062912	BPH	1240948.43	2381344.683	7/3/2012	0	0.002943	0.320146	A	770.4	45.1	03-07-2012 12:49:06	0	0.013	1.414000034	0.22641176
bph062912_113	bph062912_113_03072012_125900.txt	bph062912	BPH	1240929.665	2381202.008	7/3/2012	0	0.005222	0.257683	A	773.0	45.3	03-07-2012 12:59:00	0	0.023	1.13499999	0.227033183
bph062912_114	bph062912_114_03072012_131638.txt	bph062912	BPH	1241185.116	2381186.772	7/3/2012	0	0.003612	0.149664	A	771.0	46.3	03-07-2012 13:16:38	0	0.016000001	0.662999988	0.225736916
bph062912_115	bph062912_115_03072012_132546.txt	bph062912	BPH	1241346.861	2381183.495	7/3/2012	0	0.001127	0.059074	A	771.3	46.8	03-07-2012 13:25:46	0	0.005	0.261999995	0.225471854
bph062912_116	bph062912_116_03072012_133329.txt	bph062912	BPH	1241558.677	2381191.925	7/3/2012	0	0.001572	0.309075	A	769.1	47.1	03-07-2012 13:33:29	0	0.007	1.376000047	0.224618122
bph062912_117	bph062912_117_03072012_134140.txt	bph062912	BPH	1241567.345	2380963.91	7/3/2012	0	0.000224	0.06378	A	766.5	47.2	03-07-2012 13:41:40	0	0.001	0.284999996	0.223788902
bph062912_118	bph062912_118_03072012_135639.txt	bph062912	BPH	1241745.234	2381007.38	7/3/2012	0	0.002907	0.140429	A	765.9	47.2	03-07-2012 13:56:39	-0.021	0.013	0.628000021	0.223613724
bph062912_119	bph062912_119_03072012_140644.txt	bph062912	BPH	1241780.332	2380796.045	7/3/2012	0	0.00622	0.143956	A	760.9	47.2	03-07-2012 14:06:44	0	0.028000001	0.648000002	0.222153917
bph062912_12	bph062912_12_29062012_153924.txt	bph062912	BPH	1238781.68	2385372.663	6/29/2012	0	0.001149	1.441156	A	778.9	43.9	29-06-2012 15:39:24	0	0.005	6.271999836	0.229776204
bph062912_120	bph062912_120_03072012_141845.txt	bph062912	BPH	1241966.239	2380798.279	7/3/2012	0	0.001561	0.013382	A	763.9	47.2	03-07-2012 14:18:45	0	0.007	0.059999999	0.223029792
bph062912_121	bph062912_121_03072012_142937.txt	bph062912	BPH	1241941.554	2380570.866	7/3/2012	0	0.003546	0.155132	A	759.3	47.3	03-07-2012 14:29:37	0	0.016000001	0.699999988	0.221617594
bph062912_122	bph062912_122_03072012_143944.txt	bph062912	BPH	1241938.865	2380357.705	7/3/2012	0	0.001782	0.108719	A	763.3	47.3	03-07-2012 14:39:44	-0.012	0.008	0.488000005	0.222785071
bph062912_123	bph062912_123_03072012_144654.txt	bph062912	BPH	1241953.119	2380170.629	7/3/2012	0	0.006921	0.259188	A	764.4	47.1	03-07-2012 14:46:54	0	0.030999999	1.161000013	0.223245472
bph062912_124	bph062912_124_03072012_145823.txt	bph062912	BPH	1241708.82	2380163.765	7/3/2012	0	0.002461	0.197558	A	764.4	46.4	03-07-2012 14:58:23	0	0.011	0.883000016	0.223734498
bph062912_125	bph062912_125_03072012_151738.txt	bph062912	BPH	1241567.9	2380369.422	7/3/2012	0	0.003378	0.290276	A	766.5	45.2	03-07-2012 15:17:38	0	0.015	1.289000034	0.225194827
bph062912_126	bph062912_126_03072012_153556.txt	bph062912	BPH	1241737.212	2380367.686	7/3/2012	0	0.000681	0	A	768.0	43.5	03-07-2012 15:35:56	0	0.003	-0.236000001	0.226846889
bph062912_127	bph062912_127_03072012_154303.txt	bph062912	BPH	1241742.352	2380566.66	7/3/2012	0	0.001356	0.070762	A	763.7	42.8	03-07-2012 15:43:03	0	0.006	0.312999994	0.226076558
bph062912_128	bph062912_128_03072012_154840.txt	bph062912	BPH	1241565.068	2380564.753	7/3/2012	0	0.00294	0.177735	A	762.9	42.4	03-07-2012 15:48:40	0	0.013	0.786000013	0.226126015
bph062912_129	bph062912_129_03072012_155641.txt	bph062912	BPH	1241545.549	2380736.712	7/3/2012	0	0.00091	0.637164	A	766.0	41.8	03-07-2012 15:56:41	0	0.004	2.801000118	0.227477401
bph062912_13	bph062912_13_29062012_154321.txt	bph062912	BPH	1238930.434	2385377.012	6/29/2012	0	0.003218	0.936774	A	780.0	44.2	29-06-2012 15:43:21	0	0.014	4.074999809	0.229883194
bph062912_130	bph062912_130_03072012_160521.txt	bph062912	BPH	1241375.814	2380774.853	7/3/2012	0	0.000683	0.617202	A	765.7	41.3	03-07-2012 16:05:21	0	0.003	2.710000038	0.227749884
bph062912_131	bph062912_131_03072012_161422.txt	bph062912	BPH	1241346.941	2380953.259	7/3/2012	0	0.000457	0.055991	A	767.6	41.0	03-07-2012 16:14:22	0	0.002	0.245000005	0.228533044
bph062912_132	bph062912_132_03072012_162048.txt	bph062912	BPH	1241184.374	2380971.447	7/3/2012	0	0.001373	0.252346	A	767.7	40.7	03-07-2012 16:20:48	0	0.006	1.103000045	0.228781298
bph062912_133	bph062912_133_03072012_162826.txt	bph062912	BPH	1240980.965	2381006.883	7/3/2012	0	0.000229	0.165651	A	769.4	40.5	03-07-2012 16:28:26	0	0.001	0.722000003	0.229434118
bph062912_134	bph062912_134_03072012_163627.txt	bph062912	BPH	1240751.054	2380951.835	7/3/2012	0	0.00069	0.176902	A	770.7	40.2	03-07-2012 16:36:27	0	0.003	0.768999994	0.230041802
bph062912_135	bph062912_135_03072012_164220.txt	bph062912	BPH	1240564.105	2381356.011	7/3/2012	0	0.000919	0.103437	A	769.6	40.0	03-07-2012 16:42:20	-1.180999994	0.004	0.449999988	0.229860187
bph062912_14	bph062912_14_29062012_155121.txt	bph062912	BPH	1238788.355	2385568.289	6/29/2012	1.545282	0.002068	1.250428	A	781.0	44.7	29-06-2012 15:51:21	6.723999977	0.009	5.440999985	0.229815826
bph062912_15	bph062912_15_29062012_155818.txt	bph062912	BPH	1238984.828	2385580.978	6/29/2012	0	0.002756	0.070054	A	780.8	44.8	29-06-2012 15:58:18	0	0.012	0.305000007	0.229684711
bph062912_16	bph062912_16_29062012_160422.txt	bph062912	BPH	1239162.897	2385587.454	6/29/2012	0	0.002524	0.05898	A	780.4	44.9	29-06-2012 16:04:22	0	0.011	0.256999999	0.229494

APPENDIX B - FLUX METER DATA

SitePt	Filename	Site	AreaAbbrev	Northing	Easting	Date	CH4flux	H2Sflux	CO2flux	ACCUMULATION CHAMBER:	PRESSURE (HPa):	TEMP DegC	TIME:	CH4slope	H2Sslope	CO2slope	AcK
bph062912_25	bph062912_25_02072012_092729.txt	bph062912	BPH	1238937.268	2385135.925	7/2/2012	71.03474	0.002609	0.984254	A	779.3	34.1	02-07-2012 09:27:29	299.4379883	0.011	4.149000168	0.237226874
bph062912_26	bph062912_26_02072012_093427.txt	bph062912	BPH	1239134.096	2385151.422	7/2/2012	0	0.000946	0.117061	A	779.4	35.1	02-07-2012 09:34:27	0	0.004	0.495000005	0.236487627
bph062912_27	bph062912_27_02072012_094233.txt	bph062912	BPH	1239145.295	2385361.558	7/2/2012	0	0.000236	0.116888	A	779.7	36.3	02-07-2012 09:42:33	0	0.001	0.495999992	0.235661238
bph062912_28	bph062912_28_02072012_094742.txt	bph062912	BPH	1239346.26	2385359.408	7/2/2012	0	0	0.117171	A	778.9	37.1	02-07-2012 09:47:42	0	0	0.499000013	0.234812394
bph062912_29	bph062912_29_02072012_095225.txt	bph062912	BPH	1239363.812	2385164.775	7/2/2012	0	0.000468	0.104336	A	777.5	37.7	02-07-2012 09:52:25	0	0.002	0.446000001	0.233937934
bph062912_30	bph062912_30_02072012_100121.txt	bph062912	BPH	1239566.719	2384972.295	7/2/2012	0	0.000699	0.120629	A	777.2	39.0	02-07-2012 10:01:21	0	0.003	0.518000007	0.232873768
bph062912_31	bph062912_31_02072012_100747.txt	bph062912	BPH	1239562.959	2384795.064	7/2/2012	0	0	0.081631	A	776.2	39.9	02-07-2012 10:07:47	0	-0.001	0.351999998	0.23190549
bph062912_32	bph062912_32_02072012_101324.txt	bph062912	BPH	1239570.597	2384575.509	7/2/2012	0	0.000463	0.10507	A	776.1	40.5	02-07-2012 10:13:24	0	0.002	0.453999996	0.23143205
bph062912_33	bph062912_33_02072012_102334.txt	bph062912	BPH	1239347.436	2384548.112	7/2/2012	8.526682	0.000924	1.086877	A	777.3	41.7	02-07-2012 10:23:34	36.92699814	0.004	4.706999779	0.230906457
bph062912_34	bph062912_34_02072012_102918.txt	bph062912	BPH	1239268.271	2384711.839	7/2/2012	1.649242	0.001152	1.445766	A	777.2	42.3	02-07-2012 10:29:18	7.157000065	0.005	6.274000168	0.230437621
bph062912_35	bph062912_35_02072012_103447.txt	bph062912	BPH	1239363.429	2384786.007	7/2/2012	0	0.001842	0.047429	A	778.0	42.9	02-07-2012 10:34:47	0	0.008	0.206	0.230236888
bph062912_36	bph062912_36_02072012_104055.txt	bph062912	BPH	1239348.862	2384981.282	7/2/2012	0	0.002758	0.107811	A	778.0	43.4	02-07-2012 10:40:55	0	0.012	0.469000012	0.229873225
bph062912_37	bph062912_37_02072012_104849.txt	bph062912	BPH	1239145.474	2384956.133	7/2/2012	1.629665	0.002522	3.343485	A	777.3	43.9	02-07-2012 10:48:49	7.106999874	0.011	14.58100033	0.229304209
bph062912_38	bph062912_38_02072012_105409.txt	bph062912	BPH	1238943.036	2384954.543	7/2/2012	0	0.001838	0.066151	A	779.1	44.1	02-07-2012 10:54:09	0	0.008	0.287999988	0.229690313
bph062912_39	bph062912_39_02072012_105934.txt	bph062912	BPH	1238769.751	2384932.554	7/2/2012	0	0.00573	0.149671	A	777.7	44.2	02-07-2012 10:59:34	0	0.025	0.652999997	0.229205325
bph062912_40	bph062912_40_02072012_111241.txt	bph062912	BPH	1238946.304	2384782.93	7/2/2012	0	0.001143	0.071119	A	776.4	44.4	02-07-2012 11:12:41	0	0.005	0.31099999	0.228678077
bph062912_41	bph062912_41_02072012_111850.txt	bph062912	BPH	1239132.389	2384777.767	7/2/2012	21.74068	0.002055	2.009889	A	776.0	44.7	02-07-2012 11:18:50	95.20999908	0.009	8.802000046	0.22834453
bph062912_42	bph062912_42_02072012_113102.txt	bph062912	BPH	1238958.505	2384574.127	7/2/2012	0	0.00137	0.044988	A	777.3	45.2	02-07-2012 11:31:02	0	0.006	0.196999997	0.228367835
bph062912_43	bph062912_43_02072012_113726.txt	bph062912	BPH	1239151.267	2384553.474	7/2/2012	0	0.001135	0.101448	A	773.7	45.7	02-07-2012 11:37:26	0	0.005	0.446999997	0.226953715
bph062912_44	bph062912_44_02072012_114215.txt	bph062912	BPH	1239164.764	2384379.627	7/2/2012	0	0.004998	0.30236	A	775.4	46.1	02-07-2012 11:42:15	0	0.022	1.33099997	0.227167398
bph062912_45	bph062912_45_02072012_114923.txt	bph062912	BPH	1239353.615	2384371.822	7/2/2012	0	0.003622	0.595511	A	773.8	46.6	02-07-2012 11:49:23	0	0.016000001	2.631000042	0.226344153
bph062912_46	bph062912_46_02072012_121543.txt	bph062912	BPH	1239560.439	2384368.513	7/2/2012	0	0.004311	0.102324	A	775.4	46.5	02-07-2012 12:15:43	0	0.018999999	0.451000005	0.226883128
bph062912_47	bph062912_47_02072012_121957.txt	bph062912	BPH	1239750.7	2384348.549	7/2/2012	0	0.0025	0.063402	A	776.4	46.4	02-07-2012 12:19:57	0	0.011	0.279000014	0.227246821
bph062912_48	bph062912_48_02072012_122450.txt	bph062912	BPH	1239774.704	2384151.643	7/2/2012	0	0.002044	0.291576	A	775.6	46.3	02-07-2012 12:24:50	0	0.009	1.284000039	0.227083728
bph062912_49	bph062912_49_02072012_122903.txt	bph062912	BPH	1239674.341	2384153.072	7/2/2012	117.7799	0.001135	3.157372	A	775.6	46.3	02-07-2012 12:29:03	518.6630249	0.005	13.90400028	0.227083728
bph062912_50	bph062912_50_02072012_123514.txt	bph062912	BPH	1239525.524	2384168.028	7/2/2012	0	0.006348	0.302898	A	774.6	46.4	02-07-2012 12:35:14	0	0.028000001	1.335999966	0.226719975
bph062912_51	bph062912_51_02072012_124031.txt	bph062912	BPH	1239547.52	2383959.626	7/2/2012	0	0.002942	0.147557	A	773.7	46.6	02-07-2012 12:40:31	0	0.013	0.65200001	0.226314902
bph062912_52	bph062912_52_02072012_124557.txt	bph062912	BPH	1239711.531	2383955.009	7/2/2012	0	0.003163	0.372094	A	772.6	46.7	02-07-2012 12:45:57	0	0.014	1.646999955	0.22592248
bph062912_53	bph062912_53_02072012_125406.txt	bph062912	BPH	1239921.969	2383952.881	7/2/2012	0	0.004068	0.138547	A	773.4	46.9	02-07-2012 12:54:06	0	0.017999999	0.612999976	0.226015091
bph062912_54	bph062912_54_02072012_125904.txt	bph062912	BPH	1239941.117	2383812.241	7/2/2012	0	0.00339	0.15277	A	773.8	47.1	02-07-2012 12:59:04	0	0.015	0.675999999	0.225990772
bph062912_55	bph062912_55_02072012_130429.txt	bph062912	BPH	1239772.821	2383770.833	7/2/2012	0	0.005191	0.656607	A	773.1	47.2	02-07-2012 13:04:29	0	0.023	2.90899992	0.225715846
bph062912_56	bph062912_56_02072012_131113.txt	bph062912	BPH	1239748.598	2383549.714	7/2/2012	0	0.003385	0.362912	A	773.5	47.4	02-07-2012 13:11:13	0	0.015	1.60800004	0.225691736
bph062912_57	bph062912_57_02072012_131847.txt	bph062912	BPH	1239966.311	2383577.35	7/2/2012	0	0.003606	0.120592	A	773.0	47.6	02-07-2012 13:18:47	0	0.016000001	0.535000026	0.225405201
bph062912_58	bph062912_58_02072012_132329.txt	bph062912	BPH	1240125.886	2383549.629	7/2/2012	0	0.00585	0.133876	A	772.1	47.8	02-07-2012 13:23:29	0	0.026000001	0.595000029	0.225002468
bph062912_59	bph062912_59_02072012_132915.txt	bph062912	BPH	1240347.239	2383364.577	7/2/2012	0	0.001346	0.076958	A	770.4	48.0	02-07-2012 13:29:15	0	0.006	0.342999995	0.224367246
bph062912_60	bph062912_60_02072012_133429.txt	bph062912	BPH	1240155.417	2383366.681	7/2/2012	0	0.002019	0.039476	A	770.4	48.1	02-07-2012 13:34:29	0	0.009	0.175999999	0.224297404
bph062912_61	bph062912_61_02072012_133830.txt	bph062912	BPH	1239977.665	2383366.982	7/2/2012	0	0.00224	0.043455	A	769.6	48.2	02-07-2012 13:38:30	0	0.01	0.194000006	0.223994762
bph062912_62	bph062912_62_02072012_134322.txt	bph062912	BPH	1239775.31	2383343.779	7/2/2012	0	0.005384	0.335799	A	770.7	48.2	02-07-2012 13:43:22	0	0.024	1.496999979	0.224314928
bph062912_63	bph062912_63_02072012_134813.txt	bph062912	BPH	1239769.081	2383204.474	7/2/2012	0	0.002697	0.230116	A	772.1	48.2	02-07-2012 13:48:13	0	0.012	1.024000049	0.2247224
bph062912_64	bph062912_64_02072012_135425.txt	bph062912	BPH	1239958.062	2383165.718	7/2/2012	0	0.00247	0.1855	A	771.6	48.2	02-07-2012 13:54:25	0	0.011	0.825999975	0.224576876
bph062912_65	bph062912_65_02072012_135856.txt	bph062912	BPH	1240131.579	2383163.704	7/2/2012	0	0.002243	0.135479	A	770.9	48.3	02-07-2012 13:58:56	0	0.01	0.603999972	0.224303335
bph062912_66	bph062912_66_02072012_140505.txt	bph062912	BPH	1240366.361	2383181.256	7/2/2012	0	0.003583	0.20961	A	769.9	48.4	02-07-2012 14:05:05	0	0.016000001	0.93599999	0.223942697
bph062912_67	bph062912_67_02072012_141218.txt	bph062912	BPH	1240531.376	2382999.741	7/2/2012	0	0.002456	0.102722	A	768.2	48.6	02-07-2012 14:12:18	0	0.011	0.460000008	0.223309323
bph062912_68	bph062912_68_02072012_141847.txt	bph062912	BPH	1240351.766	2382943.421	7/2/2012	0	0.002008	0.055549	A	767.2	48.5	02-07-2012 14:18:47	-0.037	0.009	0.248999998	0.223087966
bph062912_69	bph062912_69_02072012_142340.txt	bph062912	BPH	1240166.852	2382977.332	7/2/2012	0	0.00425	0.090143	A	769.0	48.4	02-07-2012 14:23:40	0	0.018999999	0.402999997	0.223680913
bph062912_70	bph062912_70_02072012_143117.txt	bph062912	BPH	1239924.512	2382940.076	7/2/2012	0	0.002912	0.09296	A	770.1	48.4	02-07-2012 14:31:17	0	0.013	0.414999992	0.224000871
bph062912_71	bph062912_71_02072012_143524.txt	bph062912	BPH	1239935.844	2382785.685	7/2/2012	0	0.003138	0.06052	A	770.6	48.4	02-07-2012 14:35:24	0	0.014	0.270000011	0.224146321
bph062912_72	bph062912_72_02072012_144047.txt	bph062912	BPH	1240147.307	2382782.39	7/2/2012	0	0.00157	0.048441	A	771.0	48.4	02-07-2012 14:40:47	-0.022	0.007	0.216000006	0.22426267
bph062912_73	bph062912_73_02072012_144455.txt	bph062912	BPH	1240357.726	2382779.523	7/2/2012	0	0.002242	0.079364	A	771.0	48.5	02-07-2012 14:44:55	0	0.01	0.354000002	0.224192947
bph062912_74	bph062912_74_02072012_145308.txt	bph062912	BPH	1240546.025	2382792.194	7/2/2012	0	0.004027									

APPENDIX B - FLUX METER DATA

SitePt	Filename	Site	AreaAbbrev	Northing	Easting	Date	CH4flux	H2Sflux	CO2flux	ACCUMULATION CHAMBER:	PRESSURE (HPa):	TEMP DegC	TIME:	CH4slope	H2Sslope	CO2slope	AcK
bph062912_82	bph062912_82_02072012_154525.txt	bph062912	BPH	1240336.817	2382403.415	7/2/2012	0	0.003832	0.128949	A	771.9	47.1	02-07-2012 15:45:25	0	0.017000001	0.572000027	0.225435868
bph062912_83	bph062912_83_02072012_155041.txt	bph062912	BPH	1240555.841	2382365.674	7/2/2012	0	0.002481	0	A	771.3	46.7	02-07-2012 15:50:41	0	0.011	-0.018999999	0.225542337
bph062912_84	bph062912_84_02072012_155439.txt	bph062912	BPH	1240763.284	2382347.184	7/2/2012	0	0.001126	0.125654	A	769.6	46.5	02-07-2012 15:54:39	0	0.005	0.558000028	0.225186035
bph062912_85	bph062912_85_03072012_092904.txt	bph062912	BPH	1240340.073	2381766.85	7/3/2012	0	0.000978	0.169188	A	776.5	23.9	03-07-2012 09:29:04	0	0.004	0.691999972	0.244491071
bph062912_86	bph062912_86_03072012_093356.txt	bph062912	BPH	1240152.664	2381952.819	7/3/2012	0	0	0.087469	A	775.3	25.3	03-07-2012 09:33:56	0	-0.001	0.360000014	0.242968127
bph062912_87	bph062912_87_03072012_093743.txt	bph062912	BPH	1240144.894	2382162.791	7/3/2012	0	0.000485	0.150496	A	775.9	26.3	03-07-2012 09:37:43	0	0.002	0.620999992	0.242344156
bph062912_88	bph062912_88_03072012_095257.txt	bph062912	BPH	1240534.003	2382183.029	7/3/2012	0	0	0.029739	A	775.3	29.2	03-07-2012 09:52:57	0	0	0.123999998	0.2398341
bph062912_89	bph062912_89_03072012_100023.txt	bph062912	BPH	1240751.958	2382179.282	7/3/2012	0	0	0.213274	A	770.8	30.4	03-07-2012 10:00:23	0	0	0.898000002	0.237499431
bph062912_90	bph062912_90_03072012_100555.txt	bph062912	BPH	1240760.663	2381969.503	7/3/2012	0	0.000947	0.095392	A	770.5	31.3	03-07-2012 10:05:55	0	0.004	0.402999997	0.236705184
bph062912_91	bph062912_91_03072012_102005.txt	bph062912	BPH	1240580.875	2381969.932	7/3/2012	0.33184	0.000236	0.198113	A	772.0	33.0	03-07-2012 10:20:05	1.406999946	0.001	0.839999974	0.235849053
bph062912_92	bph062912_92_03072012_102537.txt	bph062912	BPH	1240354.98	2381954.447	7/3/2012	0	0.000471	0.055377	A	773.1	33.7	03-07-2012 10:25:37	0	0.002	0.234999999	0.235646322
bph062912_93	bph062912_93_03072012_102958.txt	bph062912	BPH	1240343.959	2382178.974	7/3/2012	0	0.000471	0.029459	A	774.2	34.1	03-07-2012 10:29:58	0	0.002	0.125	0.235674381
bph062912_94	bph062912_94_03072012_103841.txt	bph062912	BPH	1240563.39	2381753.774	7/3/2012	0	0.00047	0.110123	A	773.1	34.8	03-07-2012 10:38:41	0	0.002	0.469000012	0.234804586
bph062912_95	bph062912_95_03072012_104343.txt	bph062912	BPH	1240558.714	2381592.642	7/3/2012	0	0.001174	0.124251	A	774.6	35.3	03-07-2012 10:43:43	0	0.005	0.528999984	0.234878808
bph062912_96	bph062912_96_03072012_104754.txt	bph062912	BPH	1240332.153	2381546.672	7/3/2012	0	0.000469	0.0772	A	774.6	35.6	03-07-2012 10:47:54	0	0.002	0.328999996	0.234650582
bph062912_97	bph062912_97_03072012_105122.txt	bph062912	BPH	1240390.974	2381364.881	7/3/2012	0	0.000703	0.086005	A	774.6	36.0	03-07-2012 10:51:22	0	0.003	0.367000014	0.234346971
bph062912_98	bph062912_98_03072012_105634.txt	bph062912	BPH	1240531.184	2381169.629	7/3/2012	0	0.002103	0.0617	A	773.5	36.4	03-07-2012 10:56:34	0	0.009	0.263999999	0.233711794
bph062912_99	bph062912_99_03072012_110115.txt	bph062912	BPH	1240753.339	2381163.491	7/3/2012	0	0.000233	0.028877	A	772.0	36.9	03-07-2012 11:01:15	0	0.001	0.123999998	0.23288241
bph070512_01	bph070512_01_05072012_092803.txt	bph070512	BPH	1240967.863	2380771.053	7/5/2012	0	0.004323	0.204361	A	772.7	27.8	05-07-2012 09:28:03	-4.085000038	0.017999999	0.851000011	0.240141749
bph070512_02	bph070512_02_05072012_093211.txt	bph070512	BPH	1241158.597	2380741.621	7/5/2012	0	0.010302	0.0345	A	772.7	28.5	05-07-2012 09:32:11	-0.898999989	0.043000001	0.143999994	0.239584491
bph070512_03	bph070512_03_05072012_093653.txt	bph070512	BPH	1241162.859	2380555.639	7/5/2012	0	0.005734	0.320616	A	771.8	29.0	05-07-2012 09:36:53	-0.666999996	0.024	1.342000008	0.238909423
bph070512_04	bph070512_04_05072012_094240.txt	bph070512	BPH	1241350.947	2380553.283	7/5/2012	0	0.008115	0.277111	A	772.6	29.6	05-07-2012 09:42:40	-0.136000007	0.034000002	1.161000013	0.23868309
bph070512_05	bph070512_05_05072012_094719.txt	bph070512	BPH	1241341.608	2380357.822	7/5/2012	0	0.009727	0.178405	A	769.2	30.1	05-07-2012 09:47:19	-0.989000022	0.041000001	0.751999974	0.237240911
bph070512_06	bph070512_06_05072012_095613.txt	bph070512	BPH	1241512.853	2380179.043	7/5/2012	0	0.00877	0.625999	A	770.8	31.0	05-07-2012 09:56:13	-1.593000054	0.037	2.641000032	0.237030923
bph070512_07	bph070512_07_05072012_100412.txt	bph070512	BPH	1241338.724	2380152.023	7/5/2012	0	0.0052	0.159319	A	770.7	31.8	05-07-2012 10:04:12	-1.917999983	0.022	0.674000025	0.236378416
bph070512_08	bph070512_08_05072012_100922.txt	bph070512	BPH	1241343.284	2379972.736	7/5/2012	0	0.021954	0.189562	A	771.2	32.4	05-07-2012 10:09:22	-1.988999963	0.093000002	0.802999973	0.23606731
bph070512_09	bph070512_09_05072012_101428.txt	bph070512	BPH	1241574.645	2379971.742	7/5/2012	0	0.008737	0.34191	A	772.4	32.8	05-07-2012 10:14:28	-1.379999995	0.037	1.447999954	0.236125514
bph070512_10	bph070512_10_05072012_102624.txt	bph070512	BPH	1241768.343	2379972.611	7/5/2012	0	0.010826	0.188286	A	771.9	33.6	05-07-2012 10:26:24	-2.062999964	0.046	0.800000012	0.235357255
bph070512_11	bph070512_11_05072012_103141.txt	bph070512	BPH	1241952.159	2379980.259	7/5/2012	0	0.010992	0.197147	A	768.0	34.0	05-07-2012 10:31:41	-0.962000012	0.046999998	0.842999995	0.23386316
bph070512_12	bph070512_12_05072012_103811.txt	bph070512	BPH	1242139.681	2379971.354	7/5/2012	0	0.011219	0.308285	A	768.3	34.3	05-07-2012 10:38:11	-2.407999992	0.048	1.319000006	0.233726233
bph070512_13	bph070512_13_05072012_104434.txt	bph070512	BPH	1242351.484	2380032.313	7/5/2012	0	0.01025	0.105527	A	766.5	34.6	05-07-2012 10:44:34	-1.720000029	0.044	0.453000009	0.232951343
bph070512_14	bph070512_14_05072012_105442.txt	bph070512	BPH	1242559.315	2379730.836	7/5/2012	0	0.008357	0.374686	A	764.6	34.9	05-07-2012 10:54:42	-3.042999983	0.035999998	1.613999963	0.232147589
bph070512_15	bph070512_15_05072012_110121.txt	bph070512	BPH	1242751.651	2379566.68	7/5/2012	0	0.012265	0.172177	A	762.7	35.1	05-07-2012 11:01:21	-1.870000005	0.052999999	0.744000018	0.231420472
bph070512_16	bph070512_16_05072012_111618.txt	bph070512	BPH	1242719.651	2379327.694	7/5/2012	0	0.01014	0.292218	A	761.0	35.7	05-07-2012 11:16:18	-2.000999928	0.044	1.268000007	0.230456069
bph070512_17	bph070512_17_05072012_112108.txt	bph070512	BPH	1242748.027	2379171.1	7/5/2012	0	0.008281	0.394485	A	760.3	36.0	05-07-2012 11:21:08	-2.546000004	0.035999998	1.715000033	0.230020657
bph070512_18	bph070512_18_05072012_112535.txt	bph070512	BPH	1242759.174	2378956.403	7/5/2012	0	0.010377	0.196008	A	762.7	36.2	05-07-2012 11:25:35	-3.125999928	0.045000002	0.850000024	0.230597571
bph070512_19	bph070512_19_05072012_113059.txt	bph070512	BPH	1242725.664	2378764.508	7/5/2012	0	0.005755	0.898728	A	761.9	36.4	05-07-2012 11:30:59	-2.342000008	0.025	3.904000044	0.230206862
bph070512_20	bph070512_20_05072012_113708.txt	bph070512	BPH	1242722.874	2378585.191	7/5/2012	0	0.006011	0.225858	A	765.6	36.6	05-07-2012 11:37:08	-4.356999874	0.026000001	0.976999998	0.231175452
bph070512_21	bph070512_21_05072012_114153.txt	bph070512	BPH	1242736.897	2378409.972	7/5/2012	0	0.012495	0.411409	A	766.8	36.8	05-07-2012 11:41:53	-1.088999987	0.054000001	1.777999997	0.23138839
bph070512_22	bph070512_22_05072012_114630.txt	bph070512	BPH	1242936.601	2378354.928	7/5/2012	0	0.005084	0.053847	A	766.1	36.9	05-07-2012 11:46:30	-3.878999949	0.022	0.232999995	0.231102601
bph070512_23	bph070512_23_05072012_115044.txt	bph070512	BPH	1242956.298	2378185.184	7/5/2012	0	0.010423	0.251768	A	768.3	37.1	05-07-2012 11:50:44	-5.303999901	0.045000002	1.087000012	0.231616855
bph070512_24	bph070512_24_05072012_115525.txt	bph070512	BPH	1242769.356	2378181.973	7/5/2012	0	0.01203	0.142741	A	767.9	37.3	05-07-2012 11:55:25	-2.500999928	0.052000001	0.616999984	0.231347129
bph070512_25	bph070512_25_05072012_120015.txt	bph070512	BPH	1242545.194	2378160.371	7/5/2012	0	0.007623	0.34997	A	767.5	37.6	05-07-2012 12:00:15	-1.199000001	0.033	1.514999986	0.231003389
bph070512_26	bph070512_26_05072012_120656.txt	bph070512	BPH	1242555.889	2378376.276	7/5/2012	0	0.010177	0.367754	A	769.2	37.9	05-07-2012 12:06:56	-1.376999974	0.044	1.590000033	0.231291771
bph070512_27	bph070512_27_05072012_121431.txt	bph070512	BPH	1242592.102	2378578.303	7/5/2012	0	0.007392	0.318077	A	768.7	38.1	05-07-2012 12:14:31	-1.601999998	0.032000002	1.376999974	0.230992898
bph070512_28	bph070512_28_05072012_122434.txt	bph070512	BPH	1242366.479	2378554.145	7/5/2012	0	0.015629	0.134685	A	765.1	38.2	05-07-2012 12:24:34	-3.318000078	0.068000004	0.586000025	0.229837269
bph070512_29	bph070512_29_05072012_122858.txt	bph070512	BPH	1242361.615	2378350.982	7/5/2012	0	0.009432	0.334489	A	765.8	38.2	05-07-2012 12:28:58	-1.483000004	0.041000001	1.453999996	0.230047539
bph070512_30	bph070512_30_05072012_123424.txt	bph070512	BPH	1242360.959	2378173.058	7/5/2012	0	0.0127	0.58188	A	768.9	38.3	05-07-2012 12:34:24	-2.154999971	0.055	2.519999981	0.230904624
bph070512_31	bph070512_31_05072012_124104.txt	bph070512	BPH	1242151.926	2378189.954	7/5/2012	0	0.0									

APPENDIX B - FLUX METER DATA

SitePt	Filename	Site	AreaAbbrev	Northing	Easting	Date	CH4flux	H2Sflux	CO2flux	ACCUMULATION CHAMBER:	PRESSURE (HPa):	TEMP DegC	TIME:	CH4slope	H2Sslope	CO2slope	AcK
bph070512_40	bph070512_40_05072012_135017.txt	bph070512	BPH	1242564.361	2379579.161	7/5/2012	0	0.003188	0.526417	A	761.6	39.7	05-07-2012 13:50:17	0	0.014	2.312000036	0.227688909
bph070512_41	bph070512_41_05072012_135904.txt	bph070512	BPH	1242337.927	2379585.383	7/5/2012	0	0.000227	0.406951	A	760.7	39.8	05-07-2012 13:59:04	-0.316000015	0.001	1.789999962	0.22734718
bph070512_42	bph070512_42_05072012_140433.txt	bph070512	BPH	1242311.146	2379732.943	7/5/2012	0	0.002059	0.209982	A	765.6	39.9	05-07-2012 14:04:33	0	0.009	0.917999983	0.228738531
bph070512_43	bph070512_43_05072012_141028.txt	bph070512	BPH	1242167.377	2379750.587	7/5/2012	0	0.001371	0.250048	A	765.5	40.1	05-07-2012 14:10:28	0	0.006	1.093999982	0.228562638
bph070512_44	bph070512_44_05072012_141435.txt	bph070512	BPH	1242196.123	2379579.454	7/5/2012	0	0.001602	0.105264	A	766.9	40.3	05-07-2012 14:14:35	0	0.007	0.460000008	0.22883454
bph070512_45	bph070512_45_05072012_142109.txt	bph070512	BPH	1242196.034	2379393.492	7/5/2012	0	0.000687	0.130216	A	767.2	40.4	05-07-2012 14:21:09	0	0.003	0.569000006	0.22885105
bph070512_46	bph070512_46_05072012_142642.txt	bph070512	BPH	1242315.597	2379389.051	7/5/2012	0	0.004812	0.237597	A	768.1	40.4	05-07-2012 14:26:42	0	0.021	1.036999941	0.229119509
bph070512_47	bph070512_47_05072012_143127.txt	bph070512	BPH	1242373.243	2379178.899	7/5/2012	0	0.0016	0	A	766.7	40.5	05-07-2012 14:31:27	0	0.007	-0.071999997	0.228628978
bph070512_48	bph070512_48_05072012_143729.txt	bph070512	BPH	1242373.324	2378931.571	7/5/2012	0	0.003888	0.087816	A	766.9	40.5	05-07-2012 14:37:29	0	0.017000001	0.384000003	0.228688627
bph070512_49	bph070512_49_05072012_144640.txt	bph070512	BPH	1242136.174	2379169.76	7/5/2012	0	0.002511	0.698185	A	765.4	40.4	05-07-2012 14:46:40	0	0.011	3.058000088	0.228314117
bph070512_50	bph070512_50_05072012_145312.txt	bph070512	BPH	1242148.119	2378976.331	7/5/2012	0	0.004359	0.035335	A	768.7	40.2	05-07-2012 14:53:12	0	0.018999999	0.153999999	0.229444832
bph070512_51	bph070512_51_05072012_145750.txt	bph070512	BPH	1241955.366	2378953.828	7/5/2012	0	0.002061	0.218448	A	766.9	40.1	05-07-2012 14:57:50	0	0.009	0.953999996	0.228980646
bph070512_52	bph070512_52_05072012_150236.txt	bph070512	BPH	1241942.331	2379163.804	7/5/2012	0	0.002526	0.269805	A	768.8	40.0	05-07-2012 15:02:36	0	0.011	1.174999952	0.229621246
bph070512_53	bph070512_53_05072012_150859.txt	bph070512	BPH	1241944.15	2379362.318	7/5/2012	0	0.00161	0.669321	A	769.6	39.8	05-07-2012 15:08:59	0	0.007	2.910000086	0.230007082
bph070512_54	bph070512_54_05072012_151420.txt	bph070512	BPH	1241935.425	2379553.247	7/5/2012	0	0.002763	0.182826	A	770.2	39.7	05-07-2012 15:14:20	0	0.012	0.794000003	0.230259985
bph070512_55	bph070512_55_05072012_152031.txt	bph070512	BPH	1241944.986	2379753.865	7/5/2012	0	0.0023	0.592952	A	769.1	39.6	05-07-2012 15:20:31	0	0.01	2.578000069	0.230004638
bph070512_56	bph070512_56_05072012_152923.txt	bph070512	BPH	1241747.758	2379527.366	7/5/2012	0	0.005061	0.615342	A	769.2	39.6	05-07-2012 15:29:23	0	0.022	2.674999952	0.230034545
bph070512_57	bph070512_57_05072012_153607.txt	bph070512	BPH	1241739.59	2379763.1	7/5/2012	0	0.002075	0.180493	A	771.3	39.8	05-07-2012 15:36:07	-0.324000001	0.009	0.782999992	0.230515152
bph070512_58	bph070512_58_05072012_154118.txt	bph070512	BPH	1241580.347	2379766.416	7/5/2012	0	0.006218	0.245724	A	771.3	40.1	05-07-2012 15:41:18	-0.001	0.027000001	1.067000031	0.230294392
bph070512_59	bph070512_59_05072012_155253.txt	bph070512	BPH	1241161.824	2380357.362	7/5/2012	0	0.000921	0.272248	A	771.5	40.4	05-07-2012 15:52:53	0	0.004	1.182999969	0.230133712
CJ061412_01	CJ061412_01_14062012_092345.txt	CJ061412	CJ	1215352.103	2310884.129	6/14/2012	0	0	0.046506	A	804.3	26.1	14-06-2012 09:23:45	-3.941999912	0	0.185000002	0.2513825
CJ061412_02	CJ061412_02_14062012_092819.txt	CJ061412	CJ	1215566.762	2310704.815	6/14/2012	0	0	0.068578	A	803.2	27.0	14-06-2012 09:28:19	-1.509999999	0	0.273999989	0.250285953
CJ061412_03	CJ061412_03_14062012_093623.txt	CJ061412	CJ	1215365.417	2310766.116	6/14/2012	0	0.00025	0	A	804.8	28.3	14-06-2012 09:36:23	0	0.001	-0.203999996	0.24970302
CJ061412_04	CJ061412_04_14062012_094730.txt	CJ061412	CJ	1215137.614	2310582.307	6/14/2012	6.725613	0.00769	1.52556	A	805.6	30.6	14-06-2012 09:47:30	27.11300087	0.030999999	6.150000095	0.248058602
CJ061412_05	CJ061412_05_14062012_095410.txt	CJ061412	CJ	1215248.201	2310576.912	6/14/2012	0	0.003703	2.056099	A	805.5	32.0	14-06-2012 09:54:10	-3.611999989	0.015	8.328000069	0.246889874
CJ061412_06	CJ061412_06_14062012_100053.txt	CJ061412	CJ	1215144.126	2310743.413	6/14/2012	0	0.000984	0.379091	A	805.5	33.1	14-06-2012 10:00:53	0	0.004	1.541000009	0.246003091
CJ061412_07	CJ061412_07_14062012_100430.txt	CJ061412	CJ	1215147.975	2310972.465	6/14/2012	0	0.000981	0.782743	A	804.5	33.6	14-06-2012 10:04:30	-1.378999949	0.004	3.190999985	0.245297194
CJ061412_08	CJ061412_08_14062012_100916.txt	CJ061412	CJ	1214929.722	2311156.232	6/14/2012	0	0.000734	0.703399	A	804.0	34.1	14-06-2012 10:09:16	0	0.003	2.874000072	0.244745806
CJ061412_09	CJ061412_09_14062012_101455.txt	CJ061412	CJ	1214758.528	2311146.48	6/14/2012	0	0	0.285048	A	803.7	34.6	14-06-2012 10:14:55	0	0	1.167000055	0.244257003
CJ061412_10	CJ061412_10_14062012_102015.txt	CJ061412	CJ	1214506.361	2311155.759	6/14/2012	0	0.002683	2.012644	A	803.3	34.9	14-06-2012 10:20:15	-0.061999999	0.011	8.251999855	0.243897676
CJ061412_11	CJ061412_11_14062012_102634.txt	CJ061412	CJ	1214375.999	2310915.484	6/14/2012	0	0.012429	0.46206	A	803.7	35.3	14-06-2012 10:26:34	-2.539999962	0.050999999	1.896000028	0.24370268
CJ061412_12	CJ061412_12_14062012_103016.txt	CJ061412	CJ	1214567.922	2310935.933	6/14/2012	0	0.014611	2.573704	A	803.6	35.5	14-06-2012 10:30:16	-0.122000001	0.059999999	10.569000024	0.243514463
CJ061412_13	CJ061412_13_14062012_103809.txt	CJ061412	CJ	1214743.858	2310941.067	6/14/2012	0	0	0.367841	A	803.6	36.0	14-06-2012 10:38:09	-0.675000012	0	1.513000011	0.243120611
CJ061412_14	CJ061412_14_14062012_104139.txt	CJ061412	CJ	1214949.068	2310980.443	6/14/2012	0	0.001215	1.194433	A	804.3	36.4	14-06-2012 10:41:39	0	0.005	4.914999962	0.243017957
CJ061412_15	CJ061412_15_14062012_104607.txt	CJ061412	CJ	1214745.325	2310755.709	6/14/2012	0	0.001215	0	A	804.7	36.7	14-06-2012 10:46:07	-0.028000001	0.005	-0.037999999	0.242903411
CJ061412_16	CJ061412_16_14062012_105122.txt	CJ061412	CJ	1214729.199	2310544.418	6/14/2012	0	0.001698	0.124894	A	804.7	37.2	14-06-2012 10:51:22	0	0.007	0.514999986	0.242512077
CJ061412_17	CJ061412_17_14062012_105722.txt	CJ061412	CJ	1214946.133	2310561.722	6/14/2012	0	0.003151	0.246513	A	805.6	37.7	14-06-2012 10:57:22	0	0.013	1.016999996	0.242392793
CJ061412_18	CJ061412_18_14062012_110132.txt	CJ061412	CJ	1214981.256	2310720.104	6/14/2012	0	0.014041	6.220037	A	805.6	38.1	14-06-2012 11:01:32	0	0.057999998	25.694000024	0.242081285
CJ061412_19	CJ061412_19_14062012_112545.txt	CJ061412	CJ	1215957.193	2310959.574	6/14/2012	0	0.001202	0.634379	A	803.3	39.4	14-06-2012 11:25:45	-0.002	0.005	2.638999939	0.240386114
CJ061412_20	CJ061412_20_14062012_112955.txt	CJ061412	CJ	1215749.258	2310949.388	6/14/2012	0	0.002883	0.786323	A	803.6	39.7	14-06-2012 11:29:55	0	0.012	3.273000002	0.240245283
CJ061412_21	CJ061412_21_14062012_113323.txt	CJ061412	CJ	1215565.618	2310948.091	6/14/2012	0	0.002879	0.081345	A	803.4	40.0	14-06-2012 11:33:23	0	0.012	0.338999987	0.239955395
CJ061412_22	CJ061412_22_14062012_113822.txt	CJ061412	CJ	1215739.708	2310738.259	6/14/2012	0	0.002897	0.085702	A	808.8	40.2	14-06-2012 11:38:22	0	0.012	0.354999989	0.241414055
CJ061412_23	CJ061412_23_14062012_114232.txt	CJ061412	CJ	1215906.41	2310730.776	6/14/2012	0	0.00168	0.239451	A	804.6	40.5	14-06-2012 11:42:32	0	0.007	0.998000026	0.239930719
CJ061412_24	CJ061412_24_14062012_114900.txt	CJ061412	CJ	1216135.627	2310992.831	6/14/2012	0.00024	0.002637	0.682947	A	804.9	40.9	14-06-2012 11:49:00	0.001	0.011	2.848999977	0.239714459
CJ061412_25	CJ061412_25_14062012_115347.txt	CJ061412	CJ	1216143.792	2311160.392	6/14/2012	0	0.001673	0	A	803.4	41.3	14-06-2012 11:53:47	0	0.007	-1.738000035	0.238963366
CJ061412_26	CJ061412_26_14062012_120416.txt	CJ061412	CJ	1215960.523	2311164.309	6/14/2012	0	0.00167	0.58648	A	803.2	41.7	14-06-2012 12:04:16	-0.07	0.007	2.457999945	0.238600373
CJ061412_27	CJ061412_27_14062012_121426.txt	CJ061412	CJ	1215768.76	2311181.429	6/14/2012	0	0.001904	0.065224	A	802.6	42.2	14-06-2012 12:14:26	-0.015	0.008	0.273999989	0.238044098
CJ061412_28	CJ061412_28_14062012_121822.txt	CJ061412	CJ	1215570.884	2311180.48	6/14/2012	0	0.00404	2.087571	A	801.8	42.4	14-06-2012 12:18:22	0	0.017000001	8.784000397	0.237656102
CJ061412_29	CJ061412_29_14062012_122405.txt	CJ061412	CJ	1215356.926	2311164.701	6/14/2012	0.008794	0.001426	143.2593	A	802.4	42.6	14-06-2012 12:24:05	0.037	0.006	602.7319946	0.237683296
CJ061412_30	CJ061412_30_14062012_122730.txt	CJ061412	CJ	1215239.15													

APPENDIX B - FLUX METER DATA

SitePt	Filename	Site	AreaAbbrev	Northing	Easting	Date	CH4flux	H2Sflux	CO2flux	ACCUMULATION CHAMBER:	PRESSURE (HPa):	TEMP DegC	TIME:	CH4slope	H2Sslope	CO2slope	AcK
CJ061412_38	CJ061412_38_14062012_131258.txt	CJ061412	CJ	1216166.554	2311957.602	6/14/2012	0	0.003049	21.88939	A	794.9	43.8	14-06-2012 13:12:58	0	0.013	93.31700134	0.234570205
CJ061412_39	CJ061412_39_14062012_131927.txt	CJ061412	CJ	1216153.248	2311763.334	6/14/2012	0	0.00211	0.079005	A	794.7	43.9	14-06-2012 13:19:27	-0.018999999	0.009	0.337000012	0.234437227
CJ061412_40	CJ061412_40_14062012_132438.txt	CJ061412	CJ	1216367.823	2312150.608	6/14/2012	0	0.001641	0	A	794.9	44.0	14-06-2012 13:24:38	0	0.007	-208.9320068	0.234422281
CJ061412_41	CJ061412_41_14062012_132824.txt	CJ061412	CJ	1216563.327	2312354.978	6/14/2012	0	0.001873	0.655212	A	794.3	44.1	14-06-2012 13:28:24	-0.044	0.008	2.798000097	0.23417151
CJ061412_42	CJ061412_42_14062012_133207.txt	CJ061412	CJ	1216542.213	2312160.919	6/14/2012	0	0.001637	0.019882	A	793.9	44.3	14-06-2012 13:32:07	0	0.007	0.085000001	0.23390612
CJ061412_43	CJ061412_43_14062012_133609.txt	CJ061412	CJ	1216743.94	2312358.559	6/14/2012	0	0.001637	0	A	794.0	44.4	14-06-2012 13:36:09	0	0.007	-140.0659943	0.233861908
CJ061412_44	CJ061412_44_14062012_133953.txt	CJ061412	CJ	1216744.921	2312164.561	6/14/2012	0	0.001636	0	A	793.7	44.5	14-06-2012 13:39:53	0	0.007	-170.2420044	0.233699962
CJ061412_45	CJ061412_45_14062012_134444.txt	CJ061412	CJ	1216950.729	2312568.73	6/14/2012	0	0.002804	0	A	793.9	44.6	14-06-2012 13:44:44	0	0.012	-153.8670044	0.233685285
CJ061412_46	CJ061412_46_14062012_135103.txt	CJ061412	CJ	1216951.975	2312368.411	6/14/2012	0	0.002102	0	A	793.6	44.6	14-06-2012 13:51:03	0	0.009	-111.112999	0.233596966
CJ061412_47	CJ061412_47_14062012_135614.txt	CJ061412	CJ	1217162.707	2312563.153	6/14/2012	0	0.003503	0	A	793.6	44.7	14-06-2012 13:56:14	0	0.015	-165.7380066	0.233523473
CJ061412_48	CJ061412_48_14062012_140041.txt	CJ061412	CJ	1217156.411	2312726.545	6/14/2012	0	0.004435	0	A	793.2	44.7	14-06-2012 14:00:41	0	0.018999999	-51.21900177	0.233405784
CJ061412_49	CJ061412_49_14062012_140427.txt	CJ061412	CJ	1217362.945	2312747.334	6/14/2012	0	0.0021	0	A	793.0	44.7	14-06-2012 14:04:27	0	0.009	-96.27300262	0.233346924
CJ061412_50	CJ061412_50_14062012_140826.txt	CJ061412	CJ	1217529.128	2312740.71	6/14/2012	0	0.001166	0	A	792.8	44.8	14-06-2012 14:08:26	0	0.005	-138.0670013	0.233214706
CJ061412_51	CJ061412_51_14062012_141223.txt	CJ061412	CJ	1217552.146	2312966.369	6/14/2012	0	0.002566	0	A	792.9	44.8	14-06-2012 14:12:23	0	0.011	-127.9520035	0.233244121
CJ061412_52	CJ061412_52_14062012_141615.txt	CJ061412	CJ	1217762.73	2313172.335	6/14/2012	0	0.003962	0	A	792.5	44.9	14-06-2012 14:16:15	0	0.017000001	-133.7279968	0.233053148
CJ061412_53	CJ061412_53_14062012_141945.txt	CJ061412	CJ	1217741.281	2312976.018	6/14/2012	0	0.002563	0	A	792.5	45.0	14-06-2012 14:19:45	0	0.011	-108.4229965	0.232979894
CJ061412_54	CJ061412_54_14062012_142412.txt	CJ061412	CJ	1217986.228	2313200.548	6/14/2012	0	0.002797	0	A	792.9	45.0	14-06-2012 14:24:12	0	0.012	-123.4179993	0.233097494
CJ061412_55	CJ061412_55_14062012_142715.txt	CJ061412	CJ	1217987.338	2313014.943	6/14/2012	0	0.002096	0	A	792.5	45.1	14-06-2012 14:27:15	0	0.009	-223.0149994	0.232906699
CJ061412_56	CJ061412_56_14062012_143039.txt	CJ061412	CJ	1218004.182	2312779.592	6/14/2012	0	0.001397	0	A	792.4	45.1	14-06-2012 14:30:39	0	0.006	-174.7330017	0.232877299
CJ061412_57	CJ061412_57_14062012_143523.txt	CJ061412	CJ	1217733.152	2312768.001	6/14/2012	0	0.002563	0	A	792.5	45.0	14-06-2012 14:35:23	0	0.011	-27.00600052	0.232979894
CJ061412_58	CJ061412_58_14062012_144345.txt	CJ061412	CJ	1217351.638	2312564.864	6/14/2012	0	0.002098	0	A	792.8	44.9	14-06-2012 14:43:45	0	0.009	-136.2680054	0.233141378
CJ061412_59	CJ061412_59_14062012_145039.txt	CJ061412	CJ	1216947.531	2312200.94	6/14/2012	0	0.004431	0	A	793.0	44.9	14-06-2012 14:50:39	0	0.018999999	-131.9850006	0.233200192
CJ061412_60	CJ061412_60_14062012_145900.txt	CJ061412	CJ	1216392.184	2311962.595	6/14/2012	0	0.002099	0	A	793.7	45.1	14-06-2012 14:59:00	0	0.009	-159.7700043	0.233259365
CJ061412_61	CJ061412_61_14062012_150634.txt	CJ061412	CJ	1216310.153	2311785.105	6/14/2012	0	0.002333	0	A	794.0	45.2	14-06-2012 15:06:34	0	0.01	-101.1169968	0.233274221
CJ061412_62	CJ061412_62_14062012_151329.txt	CJ061412	CJ	1216133.143	2311576.177	6/14/2012	0	0.003033	0	A	794.5	45.4	14-06-2012 15:13:29	0	0.013	-33.03099823	0.233274579
CJ061412_63	CJ061412_63_14062012_151738.txt	CJ061412	CJ	1215947.06	2311533.733	6/14/2012	0	0.00187	9.279533	A	796.4	45.5	14-06-2012 15:17:38	0	0.008	39.6969986	0.233759061
CJ061412_64	CJ061412_64_15062012_114821.txt	CJ061412	CJ	1215539.846	2311347.27	6/15/2012	0	0.003185	0.358701	A	802.0	33.0	15-06-2012 11:48:21	-0.025	0.013	1.463999987	0.245014176
CJ061412_65	CJ061412_65_15062012_115316.txt	CJ061412	CJ	1215563.624	2311552.911	6/15/2012	0.000244	0.007083	0	A	802.1	34.0	15-06-2012 11:53:16	0.001	0.028999999	0	0.24424693
CJ061412_66	CJ061412_66_15062012_120041.txt	CJ061412	CJ	1215770.022	2311487.183	6/15/2012	0	0.002184	0.102903	A	800.9	35.5	15-06-2012 12:00:41	-0.003	0.009	0.423999995	0.242696285
CJ061412_67	CJ061412_67_15062012_120439.txt	CJ061412	CJ	1215764.863	2311363.951	6/15/2012	0	0.002902	0.95311	A	799.9	36.2	15-06-2012 12:04:39	-0.045000002	0.012	3.940999985	0.241844758
CJ061412_68	CJ061412_68_15062012_120939.txt	CJ061412	CJ	1215955.919	2311352.003	6/15/2012	2.755366	0.000724	1.013343	A	800.9	37.1	15-06-2012 12:09:39	11.4119997	0.003	4.197000027	0.241444662
CJ061412_69	CJ061412_69_15062012_121646.txt	CJ061412	CJ	1216165.988	2311384.714	6/15/2012	0	0.002883	0.890729	A	800.9	38.6	15-06-2012 12:16:46	-0.043000001	0.012	3.707000017	0.240282938
CJ061412_70	CJ061412_70_15062012_122608.txt	CJ061412	CJ	1216348.811	2311401.82	6/15/2012	0	0.003348	0.273119	A	801.5	40.3	15-06-2012 12:26:08	-0.001	0.014	1.14199996	0.239158794
CJ061412_71	CJ061412_71_15062012_123015.txt	CJ061412	CJ	1216508.708	2311527.111	6/15/2012	0	0.003828	0.295475	A	803.6	41.0	15-06-2012 12:30:15	0	0.016000001	1.235000014	0.239251122
CJ061412_72	CJ061412_72_15062012_123459.txt	CJ061412	CJ	1216744.436	2311733.893	6/15/2012	0	0.003819	0.144417	A	803.3	41.6	15-06-2012 12:34:59	0	0.016000001	0.605000019	0.238705888
CJ061412_73	CJ061412_73_15062012_124023.txt	CJ061412	CJ	1216926.302	2311783.864	6/15/2012	0	0.001427	0.001427	A	802.4	42.3	15-06-2012 12:40:23	0	0.006	0.006	0.237909347
CJ061412_74	CJ061412_74_15062012_124532.txt	CJ061412	CJ	1217156.432	2311934.547	6/15/2012	0	0.003556	0	A	801.0	42.9	15-06-2012 12:45:32	-0.744000018	0.015	-0.916999996	0.237043381
CJ061412_75	CJ061412_75_15062012_125134.txt	CJ061412	CJ	1217350.609	2312115.5	6/15/2012	0	0.002126	0	A	800.0	43.6	15-06-2012 12:51:34	-0.005	0.009	-1.567999959	0.236224249
CJ061412_76	CJ061412_76_15062012_130057.txt	CJ061412	CJ	1217511.762	2312308.599	6/15/2012	0	0.007532	0	A	799.4	44.5	15-06-2012 13:00:57	-1.838000059	0.032000002	-449.6289978	0.23537828
CJ061412_77	CJ061412_77_15062012_131334.txt	CJ061412	CJ	1217745.932	2312507.086	6/15/2012	0	0.016663	0	A	798.8	45.2	15-06-2012 13:13:34	-0.001	0.071000002	-0.059	0.234684452
CJ061412_78	CJ061412_78_15062012_131852.txt	CJ061412	CJ	1218039.762	2312493.702	6/15/2012	0	0.003281	0	A	798.5	45.5	15-06-2012 13:18:52	-3.01699996	0.014	-1.363000035	0.234375447
CJ061412_79	CJ061412_79_15062012_132949.txt	CJ061412	CJ	1217563.244	2312513.955	6/15/2012	0	0.003042	0	A	797.9	45.8	15-06-2012 13:29:49	0	0.013	-1.348999977	0.233979046
CJ061412_80	CJ061412_80_15062012_133706.txt	CJ061412	CJ	1217333.687	2312375.682	6/15/2012	0	0.002337	0	A	796.9	45.8	15-06-2012 13:37:06	-1.238999963	0.01	-0.591000021	0.233685806
CJ061412_81	CJ061412_81_15062012_135819.txt	CJ061412	CJ	1217130.835	2312420.09	6/15/2012	0	0.007022	0.836609	A	797.5	45.5	15-06-2012 13:58:19	-1.472000003	0.029999999	3.573999882	0.234081924
CJ061412_82	CJ061412_82_15062012_140409.txt	CJ061412	CJ	1217119.884	2312173.138	6/15/2012	0	0.004671	0.000234	A	795.9	45.6	15-06-2012 14:04:09	0	0.02	0.001	0.233539
CJ061412_83	CJ061412_83_15062012_141000.txt	CJ061412	CJ	1217076.421	2312074.947	6/15/2012	0.47794	0.003513	0.477238	A	798.3	45.7	15-06-2012 14:10:00	2.040999889	0.015	2.038000107	0.234169766
CJ061412_84	CJ061412_84_15062012_141600.txt	CJ061412	CJ	1217002.068	2311981.587	6/15/2012	74.32027	0.016861	0.540497	A	798.6	45.8	15-06-2012 14:16:00	317.3580017	0.071999997	2.308000088	0.234184325
CJ061412_85	CJ061412_85_15062012_142251.txt	CJ061412	CJ	1216764.069	2311910.941	6/15/2012	0	0.005627	0	A	799.8	45.9	15-06-2012 14:22:51	-0.128999993	0.024	-0.986000001	0.234462693
CJ061412_86	CJ061412_86_15062012_142931.txt	CJ061412	CJ	1216564.904	2311987.375	6/15/2012	0	0.000234	0	A	798.8	46.1	15-06-2012 14:29:31	-0.014	0.001	-0.612999976	0.234022856
CJ061412_87	CJ061412_87_15062012_143632.txt	CJ061412	CJ	1216516.66	2311743.812	6/15/2012	0	0.005602	0.096176	A	797.3	46.3	15-06-2012 14:36:32	-1.861999989	0.		

APPENDIX B - FLUX METER DATA

SitePt	Filename	Site	AreaAbbrev	Northing	Easting	Date	CH4flux	H2Sflux	CO2flux	ACCUMULATION CHAMBER:	PRESSURE (HPa):	TEMP DegC	TIME:	CH4slope	H2Sslope	CO2slope	AcK
CJ061812_07	CJ061812_07_18062012_093215.txt	CJ061812	CJ	1214161.357	2309772.445	6/18/2012	0	0.000487	3.746301	A	800.7	34.5	18-06-2012 09:32:15	0	0.002	15.39000034	0.243424356
CJ061812_08	CJ061812_08_18062012_093658.txt	CJ061812	CJ	1214341.376	2309752.37	6/18/2012	0	0.000242	2.256128	A	799.1	35.3	18-06-2012 09:36:58	0	0.001	9.31099987	0.242307842
CJ061812_09	CJ061812_09_18062012_094849.txt	CJ061812	CJ	1214521.518	2309705.435	6/18/2012	0	0.000241	0.006023	A	799.4	37.2	18-06-2012 09:48:49	0	0.001	0.025	0.240914807
CJ061812_10	CJ061812_10_18062012_100853.txt	CJ061812	CJ	1214345.668	2309566.481	6/18/2012	0	0.001914	0	A	800.3	39.7	18-06-2012 10:08:53	0	0.008	0	0.239258721
CJ061812_11	CJ061812_11_18062012_110855.txt	CJ061812	CJ	1214339.189	2309336.7	6/18/2012	0	0.001177	0	A	796.0	43.1	18-06-2012 11:08:55	0	0.005	0	0.235414729
CJ061812_12	CJ061812_12_18062012_112029.txt	CJ061812	CJ	1214350.395	2309118.639	6/18/2012	0	0.000937	2.32817	A	793.3	43.6	18-06-2012 11:20:29	-0.039000001	0.004	9.93900013	0.234245867
CJ061812_13	CJ061812_13_18062012_113550.txt	CJ061812	CJ	1214351.269	2308937.634	6/18/2012	0	0.001635	1.99132	A	792.0	43.9	18-06-2012 11:35:50	-0.054000001	0.007	8.522999763	0.233640715
CJ061812_14	CJ061812_14_18062012_120057.txt	CJ061812	CJ	1214157.563	2308758.294	6/18/2012	0	0.000701	25.02508	A	790.7	43.5	18-06-2012 12:00:57	-0.016000001	0.003	107.1500015	0.233551875
CJ061812_15	CJ061812_15_18062012_122201.txt	CJ061812	CJ	1213954.063	2308564.406	6/18/2012	0	0.001394	4.993757	A	785.9	43.2	18-06-2012 12:22:01	-0.725000024	0.006	21.49200058	0.232354224
CJ061812_16	CJ061812_16_18062012_123134.txt	CJ061812	CJ	1213945.212	2308366.216	6/18/2012	0	0.000698	40.53639	A	785.9	42.9	18-06-2012 12:31:34	0	0.003	174.2940063	0.232574776
CJ061812_17	CJ061812_17_18062012_124925.txt	CJ061812	CJ	1213963.926	2308171.016	6/18/2012	0	0.001164	7.069994	A	786.5	42.8	18-06-2012 12:49:25	-0.284000009	0.005	30.36599922	0.232825994
CJ061812_18	CJ061812_18_18062012_130518.txt	CJ061812	CJ	1214159.236	2307956.272	6/18/2012	0	0.001162	0.250773	A	785.6	43.0	18-06-2012 13:05:18	0	0.005	1.078999996	0.232412457
CJ061812_19	CJ061812_19_18062012_131619.txt	CJ061812	CJ	1214171.132	2307757.68	6/18/2012	0	0.001857	0.043649	A	785.8	43.4	18-06-2012 13:16:19	0	0.008	0.187999994	0.232177868
CJ061812_20	CJ061812_20_18062012_132443.txt	CJ061812	CJ	1214381.04	2307797.609	6/18/2012	0	0.000693	0	A	783.0	43.8	18-06-2012 13:24:43	0	0.003	-0.112999998	0.231058583
CJ061812_21	CJ061812_21_18062012_133300.txt	CJ061812	CJ	1214555.079	2307749.458	6/18/2012	0	0.001382	0	A	782.3	44.4	18-06-2012 13:33:00	-0.018999999	0.006	-0.101000004	0.230415836
CJ061812_22	CJ061812_22_18062012_133833.txt	CJ061812	CJ	1214576.176	2307561.609	6/18/2012	0	0.001149	0.079756	A	781.1	44.7	18-06-2012 13:38:33	-0.026000001	0.005	0.347000003	0.229845256
CJ061812_23	CJ061812_23_18062012_134540.txt	CJ061812	CJ	1214752.247	2307583.957	6/18/2012	0	0.001145	0.435747	A	779.3	45.0	18-06-2012 13:45:40	0	0.005	1.90199995	0.229099348
CJ061812_24	CJ061812_24_18062012_135106.txt	CJ061812	CJ	1214747.41	2307711.783	6/18/2012	0	0.001602	0.125378	A	778.5	45.1	18-06-2012 13:51:06	-0.014	0.007	0.547999978	0.22879225
CJ061812_25	CJ061812_25_18062012_140258.txt	CJ061812	CJ	1214549.978	2308021.676	6/18/2012	0	0.002517	0.080313	A	779.3	45.4	18-06-2012 14:02:58	0	0.011	0.351000011	0.228811666
CJ061812_26	CJ061812_26_18062012_140819.txt	CJ061812	CJ	1214376.207	2307969.596	6/18/2012	0	0.001841	0.018178	A	784.2	45.6	18-06-2012 14:08:19	0	0.008	0.079000004	0.230105907
CJ061812_27	CJ061812_27_18062012_142327.txt	CJ061812	CJ	1214184.597	2308181.154	6/18/2012	0	0.000923	0.026993	A	787.0	45.9	18-06-2012 14:23:27	0	0.004	0.116999999	0.230710357
CJ061812_28	CJ061812_28_18062012_142931.txt	CJ061812	CJ	1214360.619	2308184.53	6/18/2012	0	0.003229	0.175054	A	787.0	46.0	18-06-2012 14:29:31	-0.039999999	0.014	0.759000003	0.230638072
CJ061812_29	CJ061812_29_18062012_144043.txt	CJ061812	CJ	1214580.566	2308193.463	6/18/2012	0	0.001842	0.069091	A	786.6	46.3	18-06-2012 14:40:43	-0.014	0.008	0.300000012	0.23030436
CJ061812_30	CJ061812_30_18062012_145507.txt	CJ061812	CJ	1214579.509	2308359.056	6/18/2012	0	0.00253	0.248122	A	785.9	46.5	18-06-2012 14:55:07	-0.027000001	0.011	1.078999996	0.229955435
CJ061812_31	CJ061812_31_18062012_150338.txt	CJ061812	CJ	1214370.183	2308366.477	6/18/2012	0	0.002539	0.622368	A	789.2	46.6	18-06-2012 15:03:38	0	0.011	2.696000099	0.230848804
CJ061812_32	CJ061812_32_18062012_151321.txt	CJ061812	CJ	1214197.327	2308393.561	6/18/2012	0	0.001615	0.206222	A	788.6	46.6	18-06-2012 15:13:21	0	0.007	0.893999994	0.230673298
CJ061812_33	CJ061812_33_18062012_152537.txt	CJ061812	CJ	1214174.6	2308586.13	6/18/2012	0	0.002075	0.048654	A	788.8	46.8	18-06-2012 15:25:37	0	0.009	0.210999995	0.230587572
CJ061812_34	CJ061812_34_18062012_153223.txt	CJ061812	CJ	1214169.278	2308936.485	6/18/2012	0	0.001609	0.019081	A	786.9	47.0	18-06-2012 15:32:23	0	0.007	0.082999997	0.229888454
cj061912_01	cj061912_01_19062012_094518.txt	cj061912	CJ	1214751.333	2309571.093	6/19/2012	11.13122	0.00373	4.419911	A	798.6	27.2	19-06-2012 09:45:18	44.75999832	0.015	17.773000072	0.24868682
cj061912_02	cj061912_02_19062012_095116.txt	cj061912	CJ	1214936.065	2309755.012	6/19/2012	0	0.005928	0.41789	A	798.4	29.2	19-06-2012 09:51:16	-0.006	0.024	1.692000031	0.246979937
cj061912_03	cj061912_03_19062012_095632.txt	cj061912	CJ	1214940.131	2309571.42	6/19/2012	0	0.009331	0.064577	A	799.0	31.2	19-06-2012 09:56:32	-0.007	0.037999999	0.263000011	0.245541319
cj061912_04	cj061912_04_19062012_100307.txt	cj061912	CJ	1214945.898	2309373.272	6/19/2012	0	0.006592	0.711464	A	798.4	32.7	19-06-2012 10:03:07	-0.043000001	0.027000001	2.914000034	0.244153619
cj061912_05	cj061912_05_19062012_100748.txt	cj061912	CJ	1214759.821	2309375.98	6/19/2012	0	0.005581	0.199221	A	796.1	33.7	19-06-2012 10:07:48	-1.281000018	0.023	0.82099998	0.242656872
cj061912_06	cj061912_06_19062012_101117.txt	cj061912	CJ	1214672.746	2309367.196	6/19/2012	2.004439	0.008469	2.581284	A	795.9	34.5	19-06-2012 10:11:17	8.284000397	0.035	10.66800022	0.241965085
cj061912_07	cj061912_07_19062012_101702.txt	cj061912	CJ	1214556.317	2309336.119	6/19/2012	0	0.004099	0.226159	A	795.4	35.4	19-06-2012 10:17:02	-0.015	0.017000001	0.938000023	0.241107732
cj061912_08	cj061912_08_19062012_102352.txt	cj061912	CJ	1214653.986	2309242.085	6/19/2012	23.71341	0.005756	1.516459	A	793.5	36.3	19-06-2012 10:23:52	98.875	0.024	6.322999954	0.239832237
cj061912_09	cj061912_09_19062012_102908.txt	cj061912	CJ	1214549.495	2309189.728	6/19/2012	0	0.00671	0.201069	A	794.7	37.0	19-06-2012 10:29:08	-0.022	0.028000001	0.838999987	0.239652812
cj061912_10	cj061912_10_19062012_105823.txt	cj061912	CJ	1214958.952	2310126.825	6/19/2012	1.261451	0.010887	1.912767	A	792.4	40.0	19-06-2012 10:58:23	5.329999924	0.046	8.081999779	0.236669973
cj061912_11	cj061912_11_19062012_110323.txt	cj061912	CJ	1214777.344	2310138.757	6/19/2012	0	0.010259	1.02158	A	799.8	40.4	19-06-2012 11:03:23	-5.704999924	0.043000001	4.282000065	0.238575429
cj061912_12	cj061912_12_19062012_110806.txt	cj061912	CJ	1214556.041	2310128.391	6/19/2012	0	0.012642	1.835936	A	800.4	40.7	19-06-2012 11:08:06	-1.812000036	0.052999999	7.697000027	0.23852618
cj061912_13	cj061912_13_19062012_111256.txt	cj061912	CJ	1214368.198	2310134.247	6/19/2012	0	0.010011	1.455652	A	800.6	41.0	19-06-2012 11:12:56	-2.571000099	0.041999999	6.106999874	0.238357946
cj061912_14	cj061912_14_19062012_111755.txt	cj061912	CJ	1214183.544	2310155.702	6/19/2012	0	0.007381	0.166185	A	800.2	41.2	19-06-2012 11:17:55	-3.130000114	0.030999999	0.698000014	0.238087282
cj061912_15	cj061912_15_19062012_112207.txt	cj061912	CJ	1214169.208	2310339.325	6/19/2012	0	0.006898	0.272112	A	800.2	41.5	19-06-2012 11:22:07	-2.917999983	0.028999999	1.144000053	0.237860277
cj061912_16	cj061912_16_19062012_112638.txt	cj061912	CJ	1214363.283	2310342.552	6/19/2012	0	0.008574	1.14743	A	801.7	41.7	19-06-2012 11:26:38	-0.063000001	0.035999998	4.81799984	0.238154784
cj061912_17	cj061912_17_19062012_113132.txt	cj061912	CJ	1214553.213	2310365.847	6/19/2012	0	0.00119	0.453936	A	801.9	42.1	19-06-2012 11:31:32	-3.891000032	0.005	1.907999992	0.23791194
cj061912_18	cj061912_18_19062012_113643.txt	cj061912	CJ	1214770.751	2310308.227	6/19/2012	15.18288	0.00523	6.512689	A	802.0	42.4	19-06-2012 11:36:43	63.86999893	0.022	27.39699936	0.237715393
cj061912_19	cj061912_19_19062012_114251.txt	cj061912	CJ	1214898.156	2310350.198	6/19/2012	2.880627	0.009261	2.071126	A	801.9	42.7	19-06-2012 11:42:51	12.13099957	0.039000001	8.722000122	0.237459987
cj061912_20	cj061912_20_19062012_114801.txt	cj061912	CJ	1214959.912	2310364.185	6/19/2012	0.439012	0.010199	2.139323	A	801.7	43.0	19-06-2012 11:48:01	1.850999951	0.043000001	9.020000458	0.237175494
cj061912_21	cj061912_21_19062012_115436.txt	cj061912	CJ	1215164.054	2310370.192	6/19/2012											

APPENDIX B - FLUX METER DATA

SitePt	Filename	Site	AreaAbbrev	Northing	Easting	Date	CH4flux	H2Sflux	CO2flux	ACCUMULATION CHAMBER:	PRESSURE (HPa):	TEMP DegC	TIME:	CH4slope	H2Sslope	CO2slope	AcK
cj071712_08	cj071712_08_17072012_073832.txt	cj071712	CJ	1214595.632	2308603.593	7/17/2012	0	0	0.02554	A	797.0	30.4	17-07-2012 07:38:32	0	0	0.104000002	0.245572194
cj071712_09	cj071712_09_17072012_074349.txt	cj071712	CJ	1214738.274	2308573.814	7/17/2012	0	0.00049	0.013952	A	795.2	30.7	17-07-2012 07:43:49	0	0.002	0.057	0.244775668
cj071712_10	cj071712_10_17072012_075216.txt	cj071712	CJ	1214770.064	2308359.074	7/17/2012	0	0.000977	0.045439	A	795.2	31.3	17-07-2012 07:52:16	0	0.004	0.186000004	0.244293272
cj071712_11	cj071712_11_17072012_075747.txt	cj071712	CJ	1214938.733	2308375.546	7/17/2012	0	0	0.052338	A	793.7	31.8	17-07-2012 07:57:47	0	0	0.215000004	0.243432671
cj071712_12	cj071712_12_17072012_080451.txt	cj071712	CJ	1214953.585	2308181.51	7/17/2012	0	0.000244	0.050425	A	795.8	32.4	17-07-2012 08:04:51	0	0.001	0.207000002	0.243597463
cj071712_13	cj071712_13_17072012_081019.txt	cj071712	CJ	1214761.068	2308129.912	7/17/2012	0	0.000242	0.117403	A	792.1	32.9	17-07-2012 08:10:19	0	0.001	0.485000014	0.242068753
cj071712_14	cj071712_14_17072012_081731.txt	cj071712	CJ	1214730.7	2307984.776	7/17/2012	0	0.000485	0.074641	A	794.8	33.6	17-07-2012 08:17:31	0	0.002	0.307999998	0.242339611
cj071712_15	cj071712_15_17072012_082328.txt	cj071712	CJ	1214946.678	2307947.465	7/17/2012	0	0.000481	0.141786	A	789.7	34.2	17-07-2012 08:23:28	0	0.002	0.589999974	0.240314528
cj071712_16	cj071712_16_17072012_082859.txt	cj071712	CJ	1214975.737	2307762.761	7/17/2012	0	0	0.018799	A	793.3	34.7	17-07-2012 08:28:59	0	0	0.078000002	0.241017967
cj071712_17	cj071712_17_17072012_083446.txt	cj071712	CJ	1215155.869	2307745.631	7/17/2012	0	0.00048	0.030504	A	792.1	35.3	17-07-2012 08:34:46	0	0.002	0.127000004	0.240185261
cj071712_18	cj071712_18_17072012_083904.txt	cj071712	CJ	1215145.479	2307576.606	7/17/2012	0	0.000479	0.503227	A	791.3	35.7	17-07-2012 08:39:04	0	0.002	2.099999905	0.239631921
cj071712_19	cj071712_19_17072012_084701.txt	cj071712	CJ	1214928.605	2307572.586	7/17/2012	0	0.002386	0.107134	A	789.7	36.4	17-07-2012 08:47:01	0	0.01	0.449000001	0.238606587
cj071712_20	cj071712_20_17072012_085426.txt	cj071712	CJ	1215366.372	2307550.239	7/17/2012	0	0.000475	0.118288	A	787.9	37.1	17-07-2012 08:54:26	0	0.002	0.497999996	0.237525597
cj071712_21	cj071712_21_17072012_085929.txt	cj071712	CJ	1215360.021	2307379.818	7/17/2012	0	0.001183	0.102679	A	785.8	37.5	17-07-2012 08:59:29	0	0.005	0.433999985	0.236587495
cj071712_22	cj071712_22_17072012_090345.txt	cj071712	CJ	1215176.591	2307370.81	7/17/2012	0	0.000947	0.156571	A	787.5	37.8	17-07-2012 09:03:45	0	0.004	0.661000013	0.236870572
cj071712_23	cj071712_23_17072012_091128.txt	cj071712	CJ	1215165.059	2307189.292	7/17/2012	9.289459	0.001657	4.281797	A	788.1	38.2	17-07-2012 09:11:28	39.23799896	0.007	18.08600044	0.236746505
cj071712_24	cj071712_24_17072012_091624.txt	cj071712	CJ	1215349.886	2307141.641	7/17/2012	0	0.000942	0.025193	A	784.8	38.6	17-07-2012 09:16:24	0	0.004	0.107000001	0.235452682
cj071712_25	cj071712_25_17072012_092136.txt	cj071712	CJ	1215422.747	2307142.661	7/17/2012	0	0.001649	0.054171	A	785.8	38.9	17-07-2012 09:21:36	0	0.007	0.230000004	0.235526055
cj071712_26	cj071712_26_17072012_092804.txt	cj071712	CJ	1215429.073	2306964.22	7/17/2012	0	0	0.030136	A	786.0	39.1	17-07-2012 09:28:04	0	-0.002	0.128000006	0.235435098
cj071712_27	cj071712_27_17072012_093230.txt	cj071712	CJ	1215396.105	2306760.877	7/17/2012	0	0.001176	0.073353	A	785.4	39.3	17-07-2012 09:32:30	0	0.005	0.312000006	0.235104784
cj071712_28	cj071712_28_17072012_093644.txt	cj071712	CJ	1215335.242	2306591.146	7/17/2012	0	0.001407	0.002579	A	783.8	39.5	17-07-2012 09:36:44	0	0.006	0.011	0.234475747
cj071712_29	cj071712_29_17072012_094134.txt	cj071712	CJ	1215156.869	2306632.331	7/17/2012	0	0.000934	0.164557	A	780.5	39.6	17-07-2012 09:41:34	0	0.004	0.704999983	0.233413891
cj071712_30	cj071712_30_17072012_103134.txt	cj071712	CJ	1214539.08	2309570.644	7/17/2012	0	0.000467	0.213354	A	780.3	39.5	17-07-2012 10:31:34	0	0.002	0.913999975	0.233428717
federal_01	federal_1_29052012_131244.txt	federal	Federal	1219727.53	2320136.632	5/29/2012	0	0.000484	0	A	789.8	32.1	29-05-2012 13:12:44	0	0.002	-0.093999997	0.241998434
federal_02	federal_2_29052012_131834.txt	federal	Federal	1219724.214	2320084.235	5/29/2012	0	0.000717	0	A	789.8	35.8	29-05-2012 13:18:34	-0.033	0.003	-0.01	0.239100263
federal_03	federal_3_29052012_132249.txt	federal	Federal	1219718.969	2320041.917	5/29/2012	0	0.002386	0.560558	A	789.8	36.4	29-05-2012 13:22:49	0	0.01	2.348999977	0.238636807
federal_04	federal_4_29052012_132644.txt	federal	Federal	1219723.507	2319987.142	5/29/2012	0	0.002141	0.24363	A	788.7	36.9	29-05-2012 13:26:44	0	0.009	1.024000049	0.23792015
federal_05	federal_5_29052012_133031.txt	federal	Federal	1219721.036	2319936.363	5/29/2012	0	0.002377	0.214159	A	788.7	37.2	29-05-2012 13:30:31	-0.034000002	0.01	0.901000023	0.237690166
federal_06	federal_6_29052012_133406.txt	federal	Federal	1219774.698	2319937.101	5/29/2012	0	0.002374	0.2051	A	788.7	37.6	29-05-2012 13:34:06	0	0.01	0.864000022	0.2373842
federal_07	federal_7_29052012_133756.txt	federal	Federal	1219824.259	2319941.183	5/29/2012	0	0.000949	0.222661	A	788.6	37.9	29-05-2012 13:37:56	0	0.004	0.939000001	0.237125188
federal_08	federal_8_29052012_134136.txt	federal	Federal	1219883.026	2319936.898	5/29/2012	0	0.002843	0.101392	A	788.6	38.2	29-05-2012 13:41:36	-0.052999999	0.012	0.428000003	0.236896709
federal_09	federal_9_29052012_134530.txt	federal	Federal	1219922.487	2319937.887	5/29/2012	0	0.001184	0.12074	A	788.6	38.4	29-05-2012 13:45:30	-0.003	0.005	0.509999999	0.236744627
federal_10	federal_10_29052012_134932.txt	federal	Federal	1219927.551	2319983.704	5/29/2012	0	0.001892	0.100724	A	788.6	38.8	29-05-2012 13:49:32	-0.026000001	0.008	0.425999999	0.236441061
federal_11	federal_11_29052012_135324.txt	federal	Federal	1219877.575	2319982.152	5/29/2012	0	0.001181	0.058345	A	788.6	39.1	29-05-2012 13:53:24	0	0.005	0.246999994	0.236213893
federal_12	federal_12_29052012_135631.txt	federal	Federal	1219824.849	2319979.338	5/29/2012	0	0.002124	0.27725	A	788.5	39.4	29-05-2012 13:56:31	0	0.009	1.174999952	0.235957235
federal_13	federal_13_29052012_140009.txt	federal	Federal	1219777.934	2319977.456	5/29/2012	0	0.002357	0.160072	A	788.3	39.6	29-05-2012 14:00:09	0	0.01	0.679000002	0.235746533
federal_14	federal_14_29052012_140420.txt	federal	Federal	1219779.108	2320034.819	5/29/2012	0	0.001178	0.068563	A	788.6	39.9	29-05-2012 14:04:20	0	0.005	0.291000009	0.235610247
federal_15	federal_15_29052012_140733.txt	federal	Federal	1219827.036	2320035.771	5/29/2012	0	0.000706	0	A	788.6	40.1	29-05-2012 14:07:33	0	0.003	-0.112999998	0.235459819
federal_16	federal_16_29052012_141047.txt	federal	Federal	1219878.178	2320033.867	5/29/2012	0	0.000941	0.048238	A	788.6	40.3	29-05-2012 14:10:47	-0.014	0.004	0.204999998	0.235309586
federal_17	federal_17_29052012_141416.txt	federal	Federal	1219933.188	2320037.34	5/29/2012	0	0.000705	0.018571	A	788.3	40.5	29-05-2012 14:14:16	-0.017999999	0.003	0.079000004	0.23507008
federal_18	federal_18_29052012_141836.txt	federal	Federal	1219924.275	2320084.554	5/29/2012	0	0.00094	0	A	788.1	40.6	29-05-2012 14:18:36	-0.012	0.004	-0.166999996	0.234935537
federal_19	federal_19_29052012_142229.txt	federal	Federal	1219877.837	2320084.188	5/29/2012	0	0.002348	0.185481	A	788.1	40.8	29-05-2012 14:22:29	-0.037	0.01	0.790000021	0.23478587
federal_20	federal_20_29052012_142551.txt	federal	Federal	1219828.077	2320086.452	5/29/2012	0	0.000939	0.083552	A	788.3	41.0	29-05-2012 14:25:51	-0.134000003	0.004	0.356000006	0.234695941
federal_21	federal_21_29052012_142924.txt	federal	Federal	1219772.02	2320084.689	5/29/2012	0	0.000938	0.004221	A	788.2	41.2	29-05-2012 14:29:24	-0.011	0.004	0.017999999	0.234516859
federal_22	federal_22_29052012_143252.txt	federal	Federal	1219775.308	2320127.023	5/29/2012	0	0.001172	0.117887	A	788.2	41.4	29-05-2012 14:32:52	0	0.005	0.503000021	0.234367758
federal_23	federal_23_29052012_143621.txt	federal	Federal	1219831.192	2320140.074	5/29/2012	0	0.000938	0	A	788.5	41.5	29-05-2012 14:36:21	-0.012	0.004	-0.356000006	0.234382436
federal_24	federal_24_29052012_144008.txt	federal	Federal	1219881.279	2320134.766	5/29/2012	0	0.000936	0	A	788.1	41.7	29-05-2012 14:40:08	0	0.004	-0.209999993	0.234114736
federal_25	federal_25_29052012_144429.txt	federal	Federal	1219929.871	2320132.28	5/29/2012	0	0.001638	0	A	787.8	41.8	29-05-2012 14:44:29	0	0.007	-0.126000002	0.2339513
FR062012_01	FR062012_01_20062012_070042.txt	FR062012	FR	1234977.294	2331958.303	6/20/2012	0	0	0.216172	A	785.8	20.6	20-06-2012 07:00:42	0	0	0.864000022	0.250198811
FR062012_02	FR062012_02_20062012_070641.txt	FR062012	FR	1234959.159	2332165.091	6/20/2012	0	0.000997	0.301464	A	785.8	21.6	20-06-2012 07:06:41	0	0.004	1.208999991	0.249349967
FR062012_03	FR062012_03_20062012_071111.txt	FR062012	FR	1235151.336	2332176.574	6/20/2012	0	0.000497	0.135499	A	785.1	22.2	20-06-2012 07:11:11	0	0.002	0.545000017	0.248621747
FR062012_04	FR062012_04_20062012_071645.txt	FR062012	FR	1235140.345	2332358.416	6/20/2012	0	0.000496	0.148814	A	784.8	22.8	20-06-2012 07:16:45	0	0		

APPENDIX B - FLUX METER DATA

SitePt	Filename	Site	AreaAbbrev	Northing	Easting	Date	CH4flux	H2Sflux	CO2flux	ACCUMULATION CHAMBER:	PRESSURE (HPa):	TEMP DegC	TIME:	CH4slope	H2Sslope	CO2slope	AcK
FR062012_10	FR062012_10_20062012_074949.txt	FR062012	FR	1235569.834	2332251.324	6/20/2012	0	0.003208	0	A	785.2	24.5	20-06-2012 07:49:49	0	0.013	-44.02700043	0.246732026
FR062012_11	FR062012_11_20062012_075432.txt	FR062012	FR	1235344.514	2332282.717	6/20/2012		0.000247	0.51821	A	785.2	24.6	20-06-2012 07:54:32		0.001	2.101000071	0.246649161
FR062012_12	FR062012_12_20062012_080602.txt	FR062012	FR	1235163.888	2332763.281	6/20/2012	0	0	0	A	785.1	25.1	20-06-2012 08:06:02	0	0	-137.7489929	0.246204302
FR062012_13	FR062012_13_20062012_081228.txt	FR062012	FR	1235331.538	2332572.61	6/20/2012	0	0.000738	0.226063	A	785.2	25.4	20-06-2012 08:12:28	0	0.003	0.91900003	0.245988235
FR062012_14	FR062012_14_20062012_081823.txt	FR062012	FR	1235340.1	2332764.655	6/20/2012	0	0	0.735012	A	785.2	25.6	20-06-2012 08:18:23	0	-0.001	2.99000001	0.245823547
FR062012_15	FR062012_15_20062012_083609.txt	FR062012	FR	1235559.684	2333176.879	6/20/2012	0	0	0.223269	A	785.0	26.1	20-06-2012 08:36:09	0	-0.002	0.910000026	0.245350301
FR062012_16	FR062012_16_20062012_084339.txt	FR062012	FR	1235759.179	2333162.721	6/20/2012	0	0	0.035184	A	782.8	26.5	20-06-2012 08:43:39	0	-0.002	0.143999994	0.244336098
FR062012_17	FR062012_17_20062012_085055.txt	FR062012	FR	1235947.605	2333190.578	6/20/2012	0.384025	0	0.263561	A	781.5	27.2	20-06-2012 08:50:55	1.577999949	0	1.082999945	0.243361831
FR062012_18	FR062012_18_20062012_085859.txt	FR062012	FR	1235768.288	2333370.652	6/20/2012	0	0	0.043309	A	779.3	28.1	20-06-2012 08:58:59	0	-0.003	0.179000005	0.241951734
FR062012_19	FR062012_19_20062012_090432.txt	FR062012	FR	1235951.819	2333352.821	6/20/2012	0	0.000484	0.108407	A	781.2	28.8	20-06-2012 09:04:32	0	0.002	0.448000014	0.241979361
FR062012_20	FR062012_20_20062012_091010.txt	FR062012	FR	1236146.707	2333358.091	6/20/2012	0	0.000722	0.170856	A	779.2	29.7	20-06-2012 09:10:10	0	0.003	0.709999979	0.240642577
FR062012_21	FR062012_21_20062012_092113.txt	FR062012	FR	1236148.353	2333167.461	6/20/2012	0	0.001909	0.230762	A	777.3	31.5	20-06-2012 09:21:13	0	0.008	0.967000008	0.238637447
FR062012_22	FR062012_22_20062012_093016.txt	FR062012	FR	1236155.837	2332965.934	6/20/2012	0	0	0.167867	A	779.4	33.0	20-06-2012 09:30:16	0	0	0.704999983	0.238109782
FR062012_23	FR062012_23_20062012_094021.txt	FR062012	FR	1235961.05	2332975.512	6/20/2012	0	0	0.220802	A	782.8	33.9	20-06-2012 09:40:21	-0.140000001	-0.004	0.925999999	0.238447532
FR062012_24	FR062012_24_20062012_094549.txt	FR062012	FR	1235750.997	2332950.238	6/20/2012	0	0.001428	0.145849	A	781.6	34.1	20-06-2012 09:45:49	-0.017999999	0.006	0.612999976	0.23792702
FR062012_25	FR062012_25_20062012_095134.txt	FR062012	FR	1235536.034	2332974.353	6/20/2012	0	0.001902	0.067523	A	781.3	34.2	20-06-2012 09:51:34	0	0.008	0.284000009	0.237758324
FR062012_26	FR062012_26_20062012_095636.txt	FR062012	FR	1235545.942	2332760.4	6/20/2012	0	0	0.069447	A	782.3	34.5	20-06-2012 09:56:36	0	0	0.291999996	0.23783049
FR062012_27	FR062012_27_20062012_100605.txt	FR062012	FR	1235781.339	2332741.28	6/20/2012	0	0	0.037329	A	783.6	35.1	20-06-2012 10:06:05	-0.011	0	0.157000005	0.237762004
FR062012_28	FR062012_28_20062012_101535.txt	FR062012	FR	1235521.139	2332612.307	6/20/2012	0	0.000475	0.389888	A	783.8	35.4	20-06-2012 10:15:35	0	0.002	1.641000032	0.23759146
FR062012_29	FR062012_29_20062012_104555.txt	FR062012	FR	1235151.844	2331979.041	6/20/2012	0	0.000474	0.00071	A	785.6	37.2	20-06-2012 10:45:55	0	0.002	0.003	0.236755908
FR062012_30	FR062012_30_20062012_105200.txt	FR062012	FR	1235349.716	2331983.857	6/20/2012	0	0.000472	0.209295	A	785.1	37.7	20-06-2012 10:52:00	0	0.002	0.885999978	0.236224651
FR062012_31	FR062012_31_20062012_105454.txt	FR062012	FR	1235386.276	2331966.945	6/20/2012	1.072988	0	1.273776	A	784.0	38.0	20-06-2012 10:54:54	4.552999973	0	5.40500021	0.23566623
FR062012_32	FR062012_32_20062012_105948.txt	FR062012	FR	1235546.66	2331957.611	6/20/2012	0	0.000705	0.164554	A	783.8	38.7	20-06-2012 10:59:48	0	0.003	0.699999988	0.235077262
FR062012_33	FR062012_33_20062012_110522.txt	FR062012	FR	1235540.416	2331765.794	6/20/2012	0	0.001172	0.072205	A	783.4	39.4	20-06-2012 11:05:22	0	0.005	0.307999998	0.234431073
FR062012_34	FR062012_34_20062012_111527.txt	FR062012	FR	1235369.652	2331798.575	6/20/2012	0	0.001168	0.43642	A	782.8	40.4	20-06-2012 11:15:27	-0.028999999	0.005	1.868999958	0.233504429
FR062012_35	FR062012_35_20062012_111943.txt	FR062012	FR	1235266.362	2331759.877	6/20/2012	14.74744	0.001401	2.831403	A	783.4	40.7	20-06-2012 11:19:43	63.16899872	0.006	12.12800026	0.233460039
FR062012_36	FR062012_36_20062012_112407.txt	FR062012	FR	1235356.208	2331550.122	6/20/2012	0.003503	0.008642	0.310874	A	784.5	41.0	20-06-2012 11:24:07	0.015	0.037	1.33099997	0.233564585
FR062012_37	FR062012_37_20062012_112814.txt	FR062012	FR	1235539.318	2331529.823	6/20/2012	0	0.003733	0.154239	A	784.5	41.3	20-06-2012 11:28:14	0	0.016000001	0.661000013	0.233341753
FR062012_38	FR062012_38_20062012_113234.txt	FR062012	FR	1235142.255	2331801.318	6/20/2012	0	0.002329	0.665852	A	784.0	41.7	20-06-2012 11:32:34	0	0.01	2.858999968	0.232896775
FR062012_39	FR062012_39_20062012_113651.txt	FR062012	FR	1234927.726	2331778.252	6/20/2012	0	0.004659	0.166554	A	784.9	42.0	20-06-2012 11:36:51	0	0.02	0.714999974	0.232942179
FR062012_40	FR062012_40_20062012_114131.txt	FR062012	FR	1234734.199	2331793.625	6/20/2012	0	0.001628	0.015352	A	784.5	42.3	20-06-2012 11:41:31	0	0.007	0.066	0.232602045
FR062012_41	FR062012_41_20062012_114613.txt	FR062012	FR	1234548.32	2331738.877	6/20/2012	0	0.001395	0.069074	A	784.9	42.5	20-06-2012 11:46:13	0	0.006	0.296999991	0.232573181
FR062012_42	FR062012_42_20062012_115114.txt	FR062012	FR	1234538.129	2331542.9	6/20/2012	0	0.000929	0.086402	A	784.6	42.8	20-06-2012 11:51:14	0	0.004	0.372000009	0.23226355
FR062012_43	FR062012_43_20062012_115518.txt	FR062012	FR	1234763.925	2331554.599	6/20/2012	0	0.002085	0.090127	A	783.4	43.1	20-06-2012 11:55:18	0	0.009	0.388999999	0.231688321
FR062012_44	FR062012_44_20062012_115954.txt	FR062012	FR	1234916.491	2331529.238	6/20/2012	0	0.006013	0.157952	A	782.7	43.4	20-06-2012 11:59:54	0	0.026000001	0.683000028	0.231261924
FR062012_45	FR062012_45_20062012_121115.txt	FR062012	FR	1235136.868	2331584.679	6/20/2012	0	0.002308	0.144478	A	782.6	44.0	20-06-2012 12:11:15	0	0.01	0.625999987	0.230794922
FR062012_46	FR062012_46_20062012_124522.txt	FR062012	FR	1235160.111	2331364.349	6/20/2012	0	0.006668	0.125081	A	783.1	45.4	20-06-2012 12:45:22	-1.991999984	0.028999999	0.54400003	0.229927406
FR062012_47	FR062012_47_20062012_124920.txt	FR062012	FR	1234942.798	2331371.929	6/20/2012	0	0.00413	0.11037	A	782.0	45.6	20-06-2012 12:49:20	-3.125	0.017999999	0.481000006	0.229460359
FR062012_48	FR062012_48_20062012_125338.txt	FR062012	FR	1234740.595	2331367.006	6/20/2012	0	0.002522	0.146533	A	782.0	45.8	20-06-2012 12:53:38	-2.670000076	0.011	0.638999999	0.229316473
FR062012_49	FR062012_49_20062012_125734.txt	FR062012	FR	1234535.228	2331284.233	6/20/2012	0	0.004586	0.182296	A	782.2	45.9	20-06-2012 12:57:34	0	0.02	0.795000017	0.229303226
FR062012_50	FR062012_50_20062012_130206.txt	FR062012	FR	1234545.855	2331152.939	6/20/2012	0	0.001833	0.102853	A	781.9	46.1	20-06-2012 13:02:06	-1.151000023	0.008	0.449000001	0.229071692
FR062012_51	FR062012_51_20062012_130635.txt	FR062012	FR	1234548.659	2330968.618	6/20/2012	0	0.001374	0.345975	A	781.8	46.2	20-06-2012 13:06:35	-1.991000056	0.006	1.511000037	0.228970677
FR062012_52	FR062012_52_20062012_130932.txt	FR062012	FR	1234754.118	2330966.62	6/20/2012	0	0.001373	1.312979	A	781.4	46.3	20-06-2012 13:09:32	-1.088999987	0.006	5.738999844	0.228781879
FR062012_53	FR062012_53_20062012_131223.txt	FR062012	FR	1234776.672	2331204.216	6/20/2012	0	0.002287	0.088717	A	781.2	46.4	20-06-2012 13:12:23	-0.024	0.01	0.388000011	0.228651747
FR062012_54	FR062012_54_20062012_131603.txt	FR062012	FR	1234941.514	2331146.515	6/20/2012	12.85645	0.003657	1.990363	A	781.4	46.6	20-06-2012 13:16:03	56.2480011	0.016000001	8.708000183	0.228567228
FR062012_55	FR062012_55_20062012_131933.txt	FR062012	FR	1235123.78	2331195.987	6/20/2012	0.306106	0.01165	0.390856	A	781.2	46.7	20-06-2012 13:19:33	1.340000033	0.050999999	1.710999966	0.22843729
FR062012_56	FR062012_56_20062012_132308.txt	FR062012	FR	1235323.794	2331357.736	6/20/2012	0	0.00274	0.027861	A	781.2	46.8	20-06-2012 13:23:08	-0.007	0.012	0.122000001	0.228365883
FR062012_57	FR062012_57_20062012_132628.txt	FR062012	FR	1235349.628	2331138.556	6/20/2012	0	0.00274	0.176928	A	781.2	46.9	20-06-2012 13:26:28	-2.819999933	0.012	0.774999976	0.228294536
FR062012_58	FR062012_58_20062012_132930.txt	FR062012	FR	1235348.468	2330956.697	6/20/2012	0	0.003192	0.054956	A	780.8	47.1	20-06-2012 13:29:30	-2.378000021	0.014	0.240999997	0.228035137
FR062012_59	FR062012_59_20062012_133226.txt	FR062012	FR	1235181.374	2330967.2												

APPENDIX B - FLUX METER DATA

SitePt	Filename	Site	AreaAbbrev	Northing	Easting	Date	CH4flux	H2Sflux	CO2flux	ACCUMULATION CHAMBER:	PRESSURE (HPa):	TEMP DegC	TIME:	CH4slope	H2Sslope	CO2slope	AcK
FR062012_67	FR062012_67_20062012_140225.txt	FR062012	FR	1234351.829	2330546.501	6/20/2012	0	0.013668	0.131208	A	780.7	47.4	20-06-2012 14:02:25	0	0.059999999	0.575999975	0.227792546
FR062012_68	FR062012_68_21062012_081245.txt	FR062012	FR	1234554.934	2330582.316	6/21/2012	0	0.000249	0.176995	A	786.1	22.2	21-06-2012 08:12:45	0	0.001	0.711000025	0.248938426
FR062012_69	FR062012_69_21062012_081838.txt	FR062012	FR	1234732.312	2330564.433	6/21/2012	0	0	1.3243	A	785.6	23.3	21-06-2012 08:18:38	0	-0.001	5.342999935	0.24785696
FR062012_70	FR062012_70_21062012_082307.txt	FR062012	FR	1234954.574	2330554.112	6/21/2012	0	0.000988	1.314712	A	785.6	24.4	21-06-2012 08:23:07	0	0.004	5.323999882	0.246940672
FR062012_71	FR062012_71_21062012_083225.txt	FR062012	FR	1234564.842	2330365.581	6/21/2012	1.426614	0	17.00634	A	785.9	26.0	21-06-2012 08:32:25	5.806000233	0	69.21199799	0.245713711
FR062012_72	FR062012_72_21062012_083851.txt	FR062012	FR	1234758.038	2330358.686	6/21/2012	0	0	1.728933	A	785.6	27.4	21-06-2012 08:38:51	0	0	7.072000027	0.244475782
FR062012_73	FR062012_73_21062012_085019.txt	FR062012	FR	1234738.615	2330161.984	6/21/2012	0	0	0.000485	A	785.1	29.4	21-06-2012 08:50:19	-0.026000001	-0.001	0.002	0.242705122
FR062012_74	FR062012_74_21062012_085645.txt	FR062012	FR	1234541.049	2330142.519	6/21/2012	0.741947	0	0.521003	A	783.6	30.7	21-06-2012 08:56:45	3.075999975	0	2.160000086	0.241204992
FR062012_75	FR062012_75_21062012_090221.txt	FR062012	FR	1234566.694	2329954.654	6/21/2012	0	0.00024	0.065842	A	784.0	32.0	21-06-2012 09:02:21	0	0.001	0.273999989	0.240300015
FR062012_76	FR062012_76_21062012_090905.txt	FR062012	FR	1234762.805	2329975.045	6/21/2012	0	0.000478	0.021968	A	783.4	33.7	21-06-2012 09:09:05	0	0.002	0.092	0.238785833
FR062012_77	FR062012_77_21062012_091934.txt	FR062012	FR	1234342.944	2329965.469	6/21/2012	0.363702	0.00071	0.176168	A	781.9	35.7	21-06-2012 09:19:34	1.536000013	0.003	0.744000018	0.236785293
FR062012_78	FR062012_78_21062012_092352.txt	FR062012	FR	1234358.724	2329925.299	6/21/2012	0.725805	0.000474	0.221083	A	784.5	36.5	21-06-2012 09:23:52	3.062999964	0.002	0.933000028	0.236958876
FR062012_79	FR062012_79_21062012_092943.txt	FR062012	FR	1234464.089	2329961.891	6/21/2012	0	0.000472	0.118487	A	784.2	37.6	21-06-2012 09:29:43	0	0.002	0.501999974	0.236029789
FR062012_80	FR062012_80_21062012_093804.txt	FR062012	FR	1234549.298	2329785.081	6/21/2012	0	0.001174	0.044619	A	784.0	39.1	21-06-2012 09:38:04	0	0.005	0.189999998	0.234836027
FR062012_81	FR062012_81_21062012_094400.txt	FR062012	FR	1234358.398	2329779.199	6/21/2012	0	0.002102	0.329155	A	782.4	40.1	21-06-2012 09:44:00	0	0.009	1.409000039	0.233608618
FR062012_82	FR062012_82_21062012_095020.txt	FR062012	FR	1234142.367	2329782.508	6/21/2012	0	0.001402	0.15613	A	784.3	40.7	21-06-2012 09:50:20	0	0.006	0.667999983	0.233728245
FR062012_83	FR062012_83_21062012_095501.txt	FR062012	FR	1234136.145	2329960.106	6/21/2012	0	0.002105	0.105712	A	785.8	41.1	21-06-2012 09:55:01	0	0.009	0.451999992	0.233877182
FR062012_84	FR062012_84_21062012_095931.txt	FR062012	FR	1234136.782	2330161.568	6/21/2012	0	0.001636	0.084142	A	785.8	41.3	21-06-2012 09:59:31	0	0.007	0.360000014	0.233728424
FR062012_85	FR062012_85_21062012_100418.txt	FR062012	FR	1234345.693	2330165.794	6/21/2012	0	0.001169	0.074335	A	786.4	41.5	21-06-2012 10:04:18	0	0.005	0.317999989	0.233758211
FR062012_86	FR062012_86_21062012_100832.txt	FR062012	FR	1234462.721	2330158.385	6/21/2012	0.677963	0.0007	0.490625	A	785.1	41.6	21-06-2012 10:08:32	2.905999989	0.003	2.102999926	0.233297646
FR062012_87	FR062012_87_21062012_101324.txt	FR062012	FR	1234465.099	2330356.424	6/21/2012	0	0.001165	0.030746	A	784.6	41.9	21-06-2012 10:13:24	0	0.005	0.131999999	0.232927054
FR062012_88	FR062012_88_21062012_101741.txt	FR062012	FR	1234353.572	2330357.771	6/21/2012	0	0.001398	0.157316	A	785.8	42.2	21-06-2012 10:17:41	0	0.006	0.675000012	0.233061373
pbmw1_01	pbmw1_01_27062012_141227.txt	pbmw1	PBMW1	1237031.339	2384491.097	6/27/2012	0	0.004469	0.137836	A	783.0	38.2	27-06-2012 14:12:27	0	0.018999999	0.586000025	0.235214457
pbmw1_02	pbmw1_02_27062012_141600.txt	pbmw1	PBMW1	1237079.685	2384496.727	6/27/2012	0	0.003517	0.081124	A	783.0	39.2	27-06-2012 14:16:00	0	0.015	0.345999986	0.234461412
pbmw1_03	pbmw1_03_27062012_141822.txt	pbmw1	PBMW1	1237069.693	2384544.741	6/27/2012	0	0.000936	0.057333	A	783.0	39.8	27-06-2012 14:18:22	0	0.004	0.245000005	0.234011889
pbmw1_04	pbmw1_04_27062012_142041.txt	pbmw1	PBMW1	1237072.774	2384599.856	6/27/2012	0	0.001169	0.042076	A	783.4	40.3	27-06-2012 14:20:41	0	0.005	0.180000007	0.233757958
pbmw1_05	pbmw1_05_27062012_142304.txt	pbmw1	PBMW1	1237075.573	2384645.94	6/27/2012	0	0.000467	0.127887	A	783.1	40.7	27-06-2012 14:23:04	0	0.002	0.547999978	0.233370632
pbmw1_06	pbmw1_06_27062012_142508.txt	pbmw1	PBMW1	1237072.963	2384694.154	6/27/2012	0	0.001398	0.107214	A	783.1	41.1	27-06-2012 14:25:08	0	0.006	0.460000008	0.233073577
pbmw1_07	pbmw1_07_27062012_142726.txt	pbmw1	PBMW1	1237028.241	2384699.329	6/27/2012	0	0.00163	0.066363	A	783.1	41.4	27-06-2012 14:27:26	0	0.007	0.284999996	0.232851282
pbmw1_08	pbmw1_08_27062012_142922.txt	pbmw1	PBMW1	1236971.525	2384697.298	6/27/2012	0	0.00163	0.118724	A	783.4	41.6	27-06-2012 14:29:22	0	0.007	0.509999999	0.232792482
pbmw1_09	pbmw1_09_27062012_143147.txt	pbmw1	PBMW1	1236932.024	2384695.776	6/27/2012	0	0.001163	0.033955	A	783.4	41.9	27-06-2012 14:31:47	0	0.005	0.145999998	0.232570797
pbmw1_10	pbmw1_10_27062012_143406.txt	pbmw1	PBMW1	1236876.527	2384682.499	6/27/2012	0	0.001627	0.089727	A	783.5	42.1	27-06-2012 14:34:06	0	0.007	0.386000007	0.232452929
pbmw1_11	pbmw1_11_27062012_143604.txt	pbmw1	PBMW1	1236872.682	2384644.669	6/27/2012	0	0.002555	0.073864	A	783.4	42.3	27-06-2012 14:36:04	0	0.011	0.317999989	0.232275903
pbmw1_12	pbmw1_12_27062012_143812.txt	pbmw1	PBMW1	1236872.964	2384598.351	6/27/2012	0	0.006732	0.168525	A	783.4	42.5	27-06-2012 14:38:12	0	0.028999999	0.726000011	0.232128724
pbmw1_13	pbmw1_13_27062012_144006.txt	pbmw1	PBMW1	1236870.552	2384549.601	6/27/2012	0	0.003247	0.083028	A	783.2	42.7	27-06-2012 14:40:06	0	0.014	0.358000001	0.231922507
pbmw1_14	pbmw1_14_27062012_144209.txt	pbmw1	PBMW1	1236873.632	2384501.33	6/27/2012	0	0.001391	0.084825	A	783.4	43.0	27-06-2012 14:42:09	0	0.006	0.365999997	0.231761605
pbmw1_15	pbmw1_15_27062012_144416.txt	pbmw1	PBMW1	1236924.184	2384496.981	6/27/2012	0	0.002778	0.074783	A	783.1	43.2	27-06-2012 14:44:16	0	0.012	0.323000014	0.23152639
pbmw1_16	pbmw1_16_27062012_144618.txt	pbmw1	PBMW1	1236977.518	2384501.396	6/27/2012	0	0.002545	0.033781	A	783.1	43.4	27-06-2012 14:46:18	0	0.011	0.145999998	0.231380105
pbmw1_17	pbmw1_17_27062012_144818.txt	pbmw1	PBMW1	1237024.808	2384547.737	6/27/2012	0	0.001618	0.046689	A	783.0	43.7	27-06-2012 14:48:18	0	0.007	0.202000007	0.231131509
pbmw1_18	pbmw1_18_27062012_145022.txt	pbmw1	PBMW1	1237023.667	2384602.326	6/27/2012	0	0.000924	0.057523	A	783.1	43.9	27-06-2012 14:50:22	0	0.004	0.248999998	0.231015205
pbmw1_19	pbmw1_19_27062012_145212.txt	pbmw1	PBMW1	1237021.224	2384644.036	6/27/2012	0	0.003239	0.06616	A	784.9	44.2	27-06-2012 14:52:12	0	0.014	0.286000013	0.231327325
pbmw1_20	pbmw1_20_27062012_145508.txt	pbmw1	PBMW1	1236978.997	2384645.245	6/27/2012	0	0.001153	0.088531	A	783.0	44.5	27-06-2012 14:55:08	0	0.005	0.384000003	0.23054941
pbmw1_21	pbmw1_21_27062012_145719.txt	pbmw1	PBMW1	1236932.908	2384655.572	6/27/2012	0	0.002073	0.05736	A	783.1	44.8	27-06-2012 14:57:19	0	0.009	0.248999998	0.230361298
pbmw1_22	pbmw1_22_27062012_145913.txt	pbmw1	PBMW1	1236923.532	2384601.333	6/27/2012	0	0.001381	0.120864	A	783.1	45.0	27-06-2012 14:59:13	0	0.006	0.524999976	0.230216473
pbmw1_23	pbmw1_23_27062012_150110.txt	pbmw1	PBMW1	1236924.936	2384553.289	6/27/2012	0	0.00483	0.14122	A	783.1	45.3	27-06-2012 15:01:10	0	0.021	0.614000022	0.229999602
pbmw1_24	pbmw1_24_27062012_150317.txt	pbmw1	PBMW1	1236972.915	2384546.746	6/27/2012	0	0.004367	0.090322	A	783.0	45.5	27-06-2012 15:03:17	0	0.018999999	0.393000007	0.229825884
pbmw1_25	pbmw1_25_27062012_150506.txt	pbmw1	PBMW1	1236974.21	2384597.286	6/27/2012	0	0.001607	0.126515	A	783.0	45.8	27-06-2012 15:05:06	0	0.007	0.550999999	0.229609713
pr062812_01	pr062812_01_28062012_122304.txt	pr062812	PR	1237977.646	2387573.805	6/28/2012	0	0.000477	0.309881	A	790.7	37.1	28-06-2012 12:23:04	0	0.002	1.299999952	0.238369703
pr062812_02	pr062812_02_28062012_122702.txt	pr062812	PR	1238019.47	2387485.355	6/28/2012	0	0.000238	0.058669	A	790.7	38.2	28-06-2012 12:27:02	0	0.001	0.246999994	0.237527549
pr062812_03	pr062812_03_28062012_123040.txt	pr062812	PR	1238137.433	2387565.252	6/28/2012	0	0.002606	0.168449	A	790.7	39.0	28-06-2012 12:30:40	0	0.011	0.711000025	0.236918792
pr062812_04	pr062812_04_28062012_123410.txt	pr062812	PR	1238347.347	2387568.249	6/28/2012	0	0.002363	0.39112								

APPENDIX B - FLUX METER DATA

SitePt	Filename	Site	AreaAbbrev	Northing	Easting	Date	CH4flux	H2Sflux	CO2flux	ACCUMULATION CHAMBER:	PRESSURE (HPa):	TEMP DegC	TIME:	CH4slope	H2Sslope	CO2slope	AcK
pr062812_11	pr062812_11_28062012_131134.txt	pr062812	PR	1238142.126	2387985.305	6/28/2012	0	0	0.765204	A	790.3	43.4	28-06-2012 13:11:34	0	-0.003	3.27699995	0.233507469
pr062812_12	pr062812_12_28062012_131548.txt	pr062812	PR	1238152.541	2388150.968	6/28/2012	0	0.008865	0.801622	A	790.1	43.6	28-06-2012 13:15:48	0	0.037999999	3.436000109	0.233300969
pr062812_13	pr062812_13_28062012_131944.txt	pr062812	PR	1238364.054	2388154.136	6/28/2012	0	0.011423	0.388152	A	790.0	43.8	28-06-2012 13:19:44	0	0.048999999	1.664999962	0.233124241
pr062812_14	pr062812_14_28062012_132309.txt	pr062812	PR	1238554.195	2388165.89	6/28/2012	0	0.018172	0.476438	A	790.0	44.0	28-06-2012 13:23:09	0	0.078000002	2.045000076	0.232977241
pr062812_15	pr062812_15_28062012_132817.txt	pr062812	PR	1238569.363	2388377.588	6/28/2012	0	0.01909	1.110693	A	789.9	44.2	28-06-2012 13:28:17	0	0.082000002	4.770999908	0.232800931
pr062812_16	pr062812_16_28062012_133130.txt	pr062812	PR	1238336.746	2388360.688	6/28/2012	0	0.017682	0.746355	A	789.9	44.4	28-06-2012 13:31:30	0	0.075999998	3.207999945	0.232654318
pr062812_17	pr062812_17_28062012_133427.txt	pr062812	PR	1238237.948	2388280.42	6/28/2012	0.500409	0.002792	0.943355	A	790.1	44.5	28-06-2012 13:34:27	2.151000023	0.012	4.054999828	0.232639953
pr062812_18	pr062812_18_28062012_133745.txt	pr062812	PR	1238152.044	2388374.008	6/28/2012	0	0.019533	0.696449	A	790.0	44.6	28-06-2012 13:37:45	0	0.083999999	2.994999886	0.232537314
pr062812_19	pr062812_19_28062012_134054.txt	pr062812	PR	1238150.083	2388567.107	6/28/2012	0	0.014176	0.659061	A	790.0	44.8	28-06-2012 13:40:54	0	0.061000001	2.835999966	0.23239103
pr062812_20	pr062812_20_28062012_134416.txt	pr062812	PR	1238371.249	2388568.547	6/28/2012	0	0.013473	0.29431	A	789.9	44.9	28-06-2012 13:44:16	0	0.057999998	1.26699996	0.232288554
pr062812_21	pr062812_21_28062012_134852.txt	pr062812	PR	1238344.788	2388762.065	6/28/2012	0	0.010217	0.422865	A	789.9	45.0	28-06-2012 13:48:52	0	0.044	1.820999998	0.232215554
pr062812_22	pr062812_22_28062012_135222.txt	pr062812	PR	1238147.907	2388754.766	6/28/2012	0	0.005802	0.345341	A	789.7	45.1	28-06-2012 13:52:22	0	0.025	1.488000035	0.232083812
pr062812_23	pr062812_23_28062012_135555.txt	pr062812	PR	1238161.347	2388974.468	6/28/2012	0	0.008816	0.852872	A	789.7	45.2	28-06-2012 13:55:55	0	0.037999999	3.676000118	0.232010901
pr062812_24	pr062812_24_28062012_135948.txt	pr062812	PR	1238357.166	2388962.913	6/28/2012	0	0.012293	0.600951	A	789.7	45.3	28-06-2012 13:59:48	0	0.052999999	2.591000008	0.231938049
pr062812_25	pr062812_25_28062012_140255.txt	pr062812	PR	1238355.575	2389162.753	6/28/2012	0	0.006721	0.278097	A	789.3	45.4	28-06-2012 14:02:55	0	0.028999999	1.200000048	0.231747791
pr062812_26	pr062812_26_28062012_140618.txt	pr062812	PR	1238154.207	2389167.272	6/28/2012	0	0.002781	0.410169	A	789.5	45.5	28-06-2012 14:06:18	0	0.012	1.769999981	0.231733769
pr062812_27	pr062812_27_28062012_141155.txt	pr062812	PR	1238556.074	2389418.19	6/28/2012	0	0.007649	0.932501	A	789.7	45.5	28-06-2012 14:11:55	0	0.033	4.022999763	0.231792465
pr062812_28	pr062812_28_28062012_141418.txt	pr062812	PR	1238609.331	2389412.998	6/28/2012	0	0.012505	0.181553	A	789.2	45.6	28-06-2012 14:14:18	0	0.054000001	0.783999979	0.231573045
pr062812_29	pr062812_29_28062012_141645.txt	pr062812	PR	1238656.08	2389415.537	6/28/2012	0	0.008797	0.126399	A	789.2	45.7	28-06-2012 14:16:45	0	0.037999999	0.546000004	0.231500417
pr062812_30	pr062812_30_28062012_141916.txt	pr062812	PR	1238651.003	2389460.508	6/28/2012	0	0.015035	0.75546	A	788.8	45.8	28-06-2012 14:19:16	0	0.064999998	3.266000032	0.231310531
pr062812_31	pr062812_31_28062012_142201.txt	pr062812	PR	1238603.266	2389463.779	6/28/2012	0	0.005782	0.244481	A	789.0	45.9	28-06-2012 14:22:01	0	0.025	1.057000041	0.231296659
pr062812_32	pr062812_32_28062012_142437.txt	pr062812	PR	1238551.228	2389458.696	6/28/2012	0	0.00509	0.083519	A	789.2	45.9	28-06-2012 14:24:37	0	0.022	0.361000001	0.231355295
pr062812_33	pr062812_33_28062012_142719.txt	pr062812	PR	1238555.934	2389509.792	6/28/2012	0	0.013877	0.319402	A	789.2	46.0	28-06-2012 14:27:19	0	0.059999999	1.381000042	0.2312828
pr062812_34	pr062812_34_28062012_142947.txt	pr062812	PR	1238604.432	2389513.609	6/28/2012	0	0.00347	1.138518	A	789.3	46.0	28-06-2012 14:29:47	0	0.015	4.921999931	0.231312111
pr062812_35	pr062812_35_28062012_143221.txt	pr062812	PR	1238656.978	2389511.42	6/28/2012	0	0.009945	0.62747	A	789.2	46.0	28-06-2012 14:32:21	0	0.043000001	2.713000059	0.2312828
pr062812_36	pr062812_36_28062012_143449.txt	pr062812	PR	1238651.436	2389560.045	6/28/2012	0	0.013874	0.219909	A	789.3	46.1	28-06-2012 14:34:49	0	0.059999999	0.950999975	0.231239647
pr062812_37	pr062812_37_28062012_143811.txt	pr062812	PR	1238606.59	2389567.936	6/28/2012	1.01961	0.002312	2.197098	A	789.0	46.1	28-06-2012 14:38:11	4.410999775	0.01	9.505000114	0.23115176
pr062812_38	pr062812_38_28062012_144044.txt	pr062812	PR	1238554.624	2389558.681	6/28/2012	0	0.012712	0.440982	A	788.9	46.1	28-06-2012 14:40:44	0	0.055	1.907999992	0.231122464
pr062812_39	pr062812_39_28062012_144658.txt	pr062812	PR	1238551.906	2389623.032	6/28/2012	0	0.003007	0.532644	A	789.2	46.0	28-06-2012 14:46:58	0	0.013	2.302999973	0.2312828
pr062812_40	pr062812_40_28062012_144954.txt	pr062812	PR	1238608.799	2389614.206	6/28/2012	1.647495	0.00185	1.103724	A	788.9	46.0	28-06-2012 14:49:54	7.125999928	0.008	4.774000168	0.231194884
pr062812_41	pr062812_41_28062012_145215.txt	pr062812	PR	1238656.692	2389604.882	6/28/2012	0	0.006009	0.367947	A	788.9	46.1	28-06-2012 14:52:15	0	0.026000001	1.592000008	0.231122464
pr062812_42	pr062812_42_28062012_145443.txt	pr062812	PR	1238653.663	2389643.63	6/28/2012	0	0.004851	0.245575	A	788.8	46.2	28-06-2012 14:54:43	0	0.021	1.062999964	0.231020808
pr062812_43	pr062812_43_28062012_145735.txt	pr062812	PR	1238605.218	2389649.476	6/28/2012	0	0.009932	0.360556	A	788.9	46.3	28-06-2012 14:57:35	0	0.043000001	1.560999999	0.230977759
pr062812_44	pr062812_44_28062012_150011.txt	pr062812	PR	1238553.159	2389661.013	6/28/2012	0	0.002308	0.040391	A	788.8	46.5	28-06-2012 15:00:11	0	0.01	0.174999997	0.230803981
pr062812_45	pr062812_45_29062012_104403.txt	pr062812	PR	1238003.969	2389556.97	6/29/2012	0.61587	0.015366	0.76928	A	790.3	25.1	29-06-2012 10:44:03	2.484999895	0.061999999	3.104000092	0.247834995
pr062812_46	pr062812_46_29062012_104837.txt	pr062812	PR	1237971.145	2389556.229	6/29/2012	0	0.010857	0.599132	A	790.3	26.4	29-06-2012 10:48:37	-0.01	0.044	2.427999973	0.24675943
pr062812_47	pr062812_47_29062012_105134.txt	pr062812	PR	1237965.691	2389504.837	6/29/2012	0	0.021113	0.812097	A	789.4	27.6	29-06-2012 10:51:34	0	0.086000003	3.308000088	0.245494977
pr062812_48	pr062812_48_29062012_105408.txt	pr062812	PR	1238006.334	2389501.934	6/29/2012	0.412288	0.014681	0.547108	A	789.4	28.6	29-06-2012 10:54:08	1.684999943	0.059999999	2.236000061	0.244681403
pr062812_49	pr062812_49_29062012_105740.txt	pr062812	PR	1238056.503	2389554.188	6/29/2012	0	0.005363	0.278899	A	789.4	29.7	29-06-2012 10:57:40	-0.179000005	0.022	1.144000053	0.243792683
pr062812_50	pr062812_50_29062012_110014.txt	pr062812	PR	1238056.339	2389597.179	6/29/2012	0.403497	0.018716	0.889637	A	789.4	30.6	29-06-2012 11:00:14	1.659999967	0.077	3.660000086	0.243070334
pr062812_51	pr062812_51_29062012_110301.txt	pr062812	PR	1238052.278	2389638.894	6/29/2012	0	0.007755	0.25762	A	789.4	31.5	29-06-2012 11:03:01	0	0.032000002	1.062999964	0.242352247
pr062812_52	pr062812_52_29062012_110654.txt	pr062812	PR	1238006.092	2389620.368	6/29/2012	0	0.007244	0.624951	A	789.4	32.6	29-06-2012 11:06:54	-0.694999993	0.029999999	2.588000059	0.241480336
pr062812_53	pr062812_53_29062012_110937.txt	pr062812	PR	1237972.336	2389594.656	6/29/2012	0.257754	0.018084	0.863439	A	789.5	33.1	29-06-2012 11:09:37	1.069000006	0.075000003	3.581000009	0.241116613
pr062812_54	pr062812_54_29062012_111218.txt	pr062812	PR	1237950.478	2389602.096	6/29/2012	0	0.005292	0.15276	A	789.5	33.8	29-06-2012 11:12:18	-1.70599997	0.022	0.634999999	0.24056676
pr062812_55	pr062812_55_29062012_111534.txt	pr062812	PR	1237954.073	2389558.954	6/29/2012	0	0.008166	0.603321	A	789.5	34.3	29-06-2012 11:15:34	-0.184	0.034000002	2.512000084	0.24017553
pr062812_56	pr062812_56_29062012_111838.txt	pr062812	PR	1237973.638	2389619.46	6/29/2012	0	0.018463	0.708566	A	789.5	34.8	29-06-2012 11:18:38	-0.504999995	0.077	2.954999924	0.239785567
pr062812_57	pr062812_57_29062012_112215.txt	pr062812	PR	1238103.23	2389622.192	6/29/2012	0	0.015793	0.495567	A	789.4	35.4	29-06-2012 11:22:15	-1.952000022	0.066	2.071000099	0.239288971
pr062812_58	pr062812_58_29062012_112438.txt	pr062812	PR	1238102.395	2389588.566	6/29/2012	0	0.015537	0.720425	A	789.3	35.7	29-06-2012 11:24:38	-1.351999998	0.064999998	3.013999939	0.239026248
pr062812_59	pr062812_59_29062012_112718.txt	pr062812	PR	1238105.798	2389552.488	6/29/2012	0										

APPENDIX B - FLUX METER DATA

SitePt	Filename	Site	AreaAbbrev	Northing	Easting	Date	CH4flux	H2Sflux	CO2flux	ACCUMULATION CHAMBER:	PRESSURE (HPa):	TEMP DegC	TIME:	CH4slope	H2Sslope	CO2slope	AcK
pr062812_68	pr062812_68_29062012_122524.txt	pr062812	PR	1238353.147	2387144.789	6/29/2012	0.000237	0.002839	0.241749	A	789.2	38.9	29-06-2012 12:25:24	0.001	0.012	1.021999955	0.236545131
pr062812_69	pr062812_69_29062012_122826.txt	pr062812	PR	1238315.643	2387327.382	6/29/2012	0	0	0.392384	A	789.2	39.5	29-06-2012 12:28:26	0	-0.002	1.661999941	0.236091182
pr062812_70	pr062812_70_29062012_123510.txt	pr062812	PR	1238713.068	2386648.448	6/29/2012	0	0.000941	0.270014	A	789.0	40.6	29-06-2012 12:35:10	-2.826999903	0.004	1.148000002	0.235203817
pr062812_71	pr062812_71_29062012_123810.txt	pr062812	PR	1238540.683	2386751.606	6/29/2012	1.918541	0.012208	4.68108	A	788.8	41.1	29-06-2012 12:38:10	8.171999931	0.052000001	19.93899918	0.234770074
pr062812_72	pr062812_72_29062012_125035.txt	pr062812	PR	1238157.461	2386970.157	6/29/2012	0	0.010761	0.581332	A	789.0	42.3	29-06-2012 12:50:35	-2.209000111	0.046	2.484999895	0.23393628
pr062812_73	pr062812_73_29062012_125341.txt	pr062812	PR	1238346.095	2386788.744	6/29/2012	0	0.001168	0.126657	A	788.9	42.6	29-06-2012 12:53:41	-0.917999983	0.005	0.541999996	0.233684391
pr062812_74	pr062812_74_29062012_125656.txt	pr062812	PR	1238145.569	2386745.966	6/29/2012	0	0.001634	0.10179	A	788.9	42.9	29-06-2012 12:56:56	-0.601000011	0.007	0.435999999	0.233462572
pr062812_75	pr062812_75_29062012_125957.txt	pr062812	PR	1237980.812	2386767.896	6/29/2012	0	0.0014	0.543157	A	788.9	43.1	29-06-2012 12:59:57	-1	0.006	2.328000069	0.233314931
pr062812_76	pr062812_76_29062012_130329.txt	pr062812	PR	1237756.802	2386751.217	6/29/2012	0	0.002798	0.268842	A	788.9	43.3	29-06-2012 13:03:29	-0.808000028	0.012	1.152999997	0.23316747
pr062812_77	pr062812_77_29062012_131021.txt	pr062812	PR	1237807.902	2386944.483	6/29/2012	0	0.003495	0.218532	A	789.0	43.6	29-06-2012 13:10:21	-0.514999986	0.015	0.938000023	0.232976168
pr062812_78	pr062812_78_29062012_131347.txt	pr062812	PR	1237797.364	2386982.145	6/29/2012	0	0.017926	0.530318	A	788.9	43.8	29-06-2012 13:13:47	-1.139999986	0.077	2.278000116	0.232799649
pr062812_79	pr062812_79_29062012_131650.txt	pr062812	PR	1237780.133	2386958.508	6/29/2012	0	0.004657	0.335507	A	789.0	43.8	29-06-2012 13:16:50	-1.276999995	0.02	1.440999985	0.232829154
pr062812_80	pr062812_80_29062012_131955.txt	pr062812	PR	1237737.211	2386863.819	6/29/2012	0	0.01094	0.438279	A	789.0	43.9	29-06-2012 13:19:55	-1.363000035	0.046999998	1.883000016	0.232755721
pr062812_81	pr062812_81_29062012_132335.txt	pr062812	PR	1237875.785	2387054.668	6/29/2012	0	0.003027	0.333856	A	789.2	43.9	29-06-2012 13:23:35	-0.764999986	0.013	1.434000015	0.232814714
pr062812_82	pr062812_82_29062012_132639.txt	pr062812	PR	1237951.635	2386960.14	6/29/2012	0	0.000931	1.1109	A	789.3	43.9	29-06-2012 13:26:39	-2.012000084	0.004	4.770999908	0.232844219
pr062812_83	pr062812_83_29062012_132954.txt	pr062812	PR	1237949.458	2387151.962	6/29/2012	0	0.004889	0.263795	A	789.0	43.8	29-06-2012 13:29:54	-1.315000057	0.021	1.133000016	0.232829154
pr062812_84	pr062812_84_29062012_133332.txt	pr062812	PR	1237923.586	2387222.907	6/29/2012	0	0.005358	0.596382	A	789.2	43.7	29-06-2012 13:33:32	-0.776000023	0.023	2.559999943	0.23296167
pr062812_85	pr062812_85_29062012_133807.txt	pr062812	PR	1237939.13	2387336.47	6/29/2012	0	0.002563	0.443233	A	789.2	43.6	29-06-2012 13:38:07	-1.434000015	0.011	1.901999995	0.233035222
pr062812_86	pr062812_86_29062012_134409.txt	pr062812	PR	1238004.195	2387208.366	6/29/2012	0	0.000932	0.158008	A	789.0	43.5	29-06-2012 13:44:09	-1.218000054	0.004	0.677999973	0.233049735
pr062812_87	pr062812_87_29062012_134918.txt	pr062812	PR	1238162.074	2387351.868	6/29/2012	0	0.004897	0.037542	A	789.2	43.4	29-06-2012 13:49:18	-1.682000041	0.021	0.160999998	0.23318246
pr062812_88	pr062812_88_29062012_135327.txt	pr062812	PR	1238145.991	2387151.54	6/29/2012	0	0.002333	0.176364	A	789.3	43.3	29-06-2012 13:53:27	-1.319000006	0.01	0.755999982	0.233285695
pr062812_89	pr062812_89_29062012_135601.txt	pr062812	PR	1238090.049	2387098.118	6/29/2012	0	0.0007	0.24173	A	789.2	43.2	29-06-2012 13:56:01	-0.601999998	0.003	1.036000013	0.233329877
pr062812_90	pr062812_90_29062012_140809.txt	pr062812	PR	1238530.713	2386941.294	6/29/2012	0	0.01006	0.512821	A	789.3	42.4	29-06-2012 14:08:09	-3.101999998	0.043000001	2.191999912	0.233951062
pr062812_91	pr062812_91_29062012_142015.txt	pr062812	PR	1238534.705	2386558.266	6/29/2012	0	0.000234	0.142	A	788.8	41.7	29-06-2012 14:20:15	0	0.001	0.606000006	0.234322667
pr062812_92	pr062812_92_29062012_142602.txt	pr062812	PR	1238379.962	2386587.607	6/29/2012	0	0.000468	0.738678	A	786.9	41.5	29-06-2012 14:26:02	0	0.002	3.157999992	0.233906835
pr062812_93	pr062812_93_29062012_142903.txt	pr062812	PR	1238358.557	2386557.75	6/29/2012	1.906402	0.000467	2.036814	A	786.5	41.6	29-06-2012 14:29:03	8.156999588	0.002	8.715000153	0.233713657
pr062812_94	pr062812_94_29062012_143437.txt	pr062812	PR	1238174.009	2386566.945	6/29/2012	0	0.000701	0.090413	A	786.2	41.6	29-06-2012 14:34:37	-0.048999999	0.003	0.386999995	0.233624518
sftc071012_01	sftc071012_01_10072012_092453.txt	sftc071012	SFTC	1242756.562	2376944.493	7/10/2012	0	0.000242	1.804669	A	780.0	28.5	10-07-2012 09:24:53	0	0.001	7.461999893	0.241847932
sftc071012_02	sftc071012_02_10072012_092912.txt	sftc071012	SFTC	1242801.653	2376914.616	7/10/2012	114.2528	0.000483	11.55327	A	780.0	29.0	10-07-2012 09:29:12	473.1990051	0.002	47.84999847	0.241447717
sftc071012_03	sftc071012_03_10072012_093307.txt	sftc071012	SFTC	1242842.793	2377011.274	7/10/2012	982.5049	0.001686	0.326635	A	779.2	29.4	10-07-2012 09:33:07	4078.794922	0.007	1.355999947	0.24088119
sftc071012_04	sftc071012_04_10072012_093754.txt	sftc071012	SFTC	1242891.126	2377115.719	7/10/2012	561.1855	0.000482	1.541236	A	780.5	29.7	10-07-2012 09:37:54	2328.14502	0.002	6.394000053	0.241044059
sftc071012_05	sftc071012_05_10072012_094214.txt	sftc071012	SFTC	1242902.332	2377160.101	7/10/2012	0	0	0.278792	A	779.4	29.9	10-07-2012 09:42:14	-0.150999993	0	1.159000039	0.240545496
sftc071012_06	sftc071012_06_10072012_094808.txt	sftc071012	SFTC	1242966.377	2377161.102	7/10/2012	0	0.000239	0.502216	A	776.5	30.1	10-07-2012 09:48:08	-0.360000014	0.001	2.096999884	0.239492416
sftc071012_07	sftc071012_07_10072012_095440.txt	sftc071012	SFTC	1243130.42	2377154.761	7/10/2012	0	0	0.490409	A	778.8	30.3	10-07-2012 09:54:40	0	0	2.042999983	0.240043476
sftc071012_08	sftc071012_08_10072012_100239.txt	sftc071012	SFTC	1242820.379	2377204.425	7/10/2012	1.094762	0.001436	4.032716	A	777.3	30.6	10-07-2012 10:02:39	4.573999882	0.006	16.849000093	0.239344522
sftc071012_09	sftc071012_09_10072012_100650.txt	sftc071012	SFTC	1242734.287	2377173.909	7/10/2012	0	0.001915	0.72644	A	778.1	30.8	10-07-2012 10:06:50	0	0.008	3.03399992	0.239433199
sftc071012_10	sftc071012_10_10072012_101125.txt	sftc071012	SFTC	1242564.624	2377172.791	7/10/2012	0	0.001197	0.775656	A	779.0	31.1	10-07-2012 10:11:25	0	0.005	3.239000082	0.23947379
sftc071012_11	sftc071012_11_10072012_101439.txt	sftc071012	SFTC	1242455.845	2377171.459	7/10/2012	8.850021	0.002875	14.56361	A	780.0	31.3	10-07-2012 10:14:39	36.93299866	0.012	60.77700043	0.239623681
sftc071012_12	sftc071012_12_10072012_101807.txt	sftc071012	SFTC	1242350.622	2377158.763	7/10/2012	0	0.005269	1.745792	A	780.4	31.6	10-07-2012 10:18:07	0	0.022	7.289000034	0.239510551
sftc071012_13	sftc071012_13_10072012_102139.txt	sftc071012	SFTC	1242150.076	2377160.484	7/10/2012	0	0.002153	0.506748	A	780.6	32.0	10-07-2012 10:21:39	0	0.009	2.118000031	0.239257902
sftc071012_14	sftc071012_14_10072012_102502.txt	sftc071012	SFTC	1242159.626	2376974.321	7/10/2012	0	0.005719	0.576616	A	778.4	32.4	10-07-2012 10:25:02	0	0.024	2.420000076	0.238271251
sftc071012_15	sftc071012_15_10072012_102833.txt	sftc071012	SFTC	1242363.926	2376955.888	7/10/2012	8.333781	0.004293	0.828154	A	780.5	32.9	10-07-2012 10:28:33	34.93899918	0.017999999	3.471999884	0.238523751
sftc071012_16	sftc071012_16_10072012_103224.txt	sftc071012	SFTC	1242526.939	2376974.211	7/10/2012	0	0.003812	4.954598	A	781.2	33.5	10-07-2012 10:32:24	0	0.016000001	20.79400063	0.238270551
sftc071012_17	sftc071012_17_10072012_103654.txt	sftc071012	SFTC	1242810.329	2376867.258	7/10/2012	15.54034	0.001902	3.461256	A	781.2	34.1	10-07-2012 10:36:54	65.34899902	0.008	14.55500031	0.237805262
sftc071012_18	sftc071012_18_10072012_104106.txt	sftc071012	SFTC	1242950.787	2376924.081	7/10/2012	0	0.003321	0.707196	A	781.1	34.8	10-07-2012 10:41:06	0	0.014	2.980999947	0.237234339
sftc071012_19	sftc071012_19_10072012_104501.txt	sftc071012	SFTC	1243091.496	2376972.443	7/10/2012	0	0.000946	0.324222	A	779.9	35.3	10-07-2012 10:45:01	0	0.004	1.371000051	0.236485898
sftc071012_20	sftc071012_20_10072012_104920.txt	sftc071012	SFTC	1242959.061	2376762.886	7/10/2012	0	0.00118	0.702742	A	780.0	35.9	10-07-2012 10:49:20	0	0.005	2.976999998	0.236057043
sftc071012_21	sftc071012_21_10072012_105321.txt	sftc071012	SFTC	1242765.138	2376766.141	7/10/2012	0	0.000945	0.7686	A	781.5	36.4	10-07-2012 10:53:21	0	0.004	3.25500	

APPENDIX B - FLUX METER DATA

SitePt	Filename	Site	AreaAbbrev	Northing	Easting	Date	CH4flux	H2Sflux	CO2flux	ACCUMULATION CHAMBER:	PRESSURE (HPa):	TEMP DegC	TIME:	CH4slope	H2Sslope	CO2slope	AcK
sftc071012_31	sftc071012_31_10072012_115542.txt	sftc071012	SFTC	1242562.51	2377360.126	7/10/2012	0	0.004699	5.902039	A	779.4	37.1	10-07-2012 11:55:42	0	0.02	25.11899948	0.234963134
sftc071012_32	sftc071012_32_10072012_120011.txt	sftc071012	SFTC	1242762.685	2377369.963	7/10/2012	0	0.001875	1.800815	A	778.1	37.3	10-07-2012 12:00:11	0	0.008	7.68200016	0.234420106
sftc071012_33	sftc071012_33_10072012_120534.txt	sftc071012	SFTC	1242952.354	2377354.393	7/10/2012	0	0.001169	0.543333	A	777.1	37.6	10-07-2012 12:05:34	0	0.005	2.322999954	0.233892813
sftc071012_34	sftc071012_34_10072012_120910.txt	sftc071012	SFTC	1243040.834	2377375.494	7/10/2012	2.000656	0.000933	1.639148	A	775.4	37.8	10-07-2012 12:09:10	8.578000069	0.004	7.027999878	0.233231038
sftc071012_35	sftc071012_35_10072012_121346.txt	sftc071012	SFTC	1243115.59	2377351.482	7/10/2012	0	0.003961	0.772132	A	775.1	38.0	10-07-2012 12:13:46	0	0.017000001	3.313999891	0.23299095
sftc071012_36	sftc071012_36_10072012_122239.txt	sftc071012	SFTC	1243144.971	2377543.689	7/10/2012	0	0.002561	1.84596	A	775.0	38.2	10-07-2012 12:22:39	-0.011	0.011	7.928999901	0.232811242
sftc071012_37	sftc071012_37_10072012_123010.txt	sftc071012	SFTC	1242949.389	2377553.97	7/10/2012	0	0.003237	1.40457	A	769.9	38.3	10-07-2012 12:30:10	0	0.014	6.074999809	0.231204927
sftc071012_38	sftc071012_38_10072012_123557.txt	sftc071012	SFTC	1242766.95	2377576.154	7/10/2012	0	0.000926	0.541354	A	771.2	38.5	10-07-2012 12:35:57	0	0.004	2.338999987	0.231446698
sftc071012_39	sftc071012_39_10072012_124113.txt	sftc071012	SFTC	1242549.477	2377642.554	7/10/2012	239.4802	0.004654	4.713124	A	775.8	38.7	10-07-2012 12:41:13	1029.234985	0.02	20.25600052	0.232677907
sftc071012_40	sftc071012_40_10072012_124448.txt	sftc071012	SFTC	1242517.132	2377643.807	7/10/2012	114.7696	0.005113	7.071733	A	775.1	38.8	10-07-2012 12:44:48	493.8590088	0.022	30.43000031	0.232393444
sftc071012_41	sftc071012_41_10072012_124923.txt	sftc071012	SFTC	1242522.584	2377569.939	7/10/2012	0.472531	0.002562	4.77235	A	777.0	38.9	10-07-2012 12:49:23	2.029000044	0.011	20.49200058	0.232888445
sftc071012_42	sftc071012_42_10072012_125647.txt	sftc071012	SFTC	1242342.101	2377546.694	7/10/2012	0	0.00789	1.151279	A	775.0	39.2	10-07-2012 12:56:47	-0.066	0.034000002	4.960999966	0.232065886
sftc071012_43	sftc071012_43_10072012_130238.txt	sftc071012	SFTC	1242145.039	2377560.663	7/10/2012	0	0.002553	0.31635	A	776.1	39.6	10-07-2012 13:02:38	0	0.011	1.363000035	0.232098043
sftc071012_44	sftc071012_44_10072012_130644.txt	sftc071012	SFTC	1242146.728	2377747.772	7/10/2012	0	0.001395	0.216064	A	778.2	39.8	10-07-2012 13:06:44	0	0.006	0.92900002	0.232577324
sftc071012_45	sftc071012_45_10072012_131100.txt	sftc071012	SFTC	1242139.492	2377964.23	7/10/2012	0	0.006495	0.604696	A	776.6	40.0	10-07-2012 13:11:00	-0.039000001	0.028000001	2.607000113	0.231950909
sftc071012_46	sftc071012_46_10072012_131845.txt	sftc071012	SFTC	1242356.988	2377979.123	7/10/2012	0	0.002768	0.757931	A	773.0	40.3	10-07-2012 13:18:45	0	0.012	3.286000013	0.230654716
sftc071012_47	sftc071012_47_10072012_132433.txt	sftc071012	SFTC	1242388.913	2377807.281	7/10/2012	0	0.006226	0.961523	A	773.0	40.4	10-07-2012 13:24:33	0	0.027000001	4.170000076	0.230581149
sftc071012_48	sftc071012_48_10072012_133228.txt	sftc071012	SFTC	1242540.626	2377767.903	7/10/2012	0	0.001847	3.34013	A	774.6	40.6	10-07-2012 13:32:28	0	0.008	14.46500015	0.230911136
sftc071012_49	sftc071012_49_10072012_133714.txt	sftc071012	SFTC	1242535.761	2377956.744	7/10/2012	0	0.006703	3.017497	A	776.1	40.9	10-07-2012 13:37:14	0	0.028999999	13.05500031	0.231137276
sftc071012_50	sftc071012_50_10072012_134426.txt	sftc071012	SFTC	1242778.794	2377981.275	7/10/2012	0	0.002076	0.379236	A	775.3	41.2	10-07-2012 13:44:26	0	0.009	1.644000053	0.230678663
sftc071012_51	sftc071012_51_10072012_134833.txt	sftc071012	SFTC	1242929.505	2377965.931	7/10/2012	0	0.005036	2.416265	A	770.3	41.6	10-07-2012 13:48:33	-0.013	0.022	10.55599976	0.228899717
sftc071012_52	sftc071012_52_10072012_135357.txt	sftc071012	SFTC	1243161.778	2377974.479	7/10/2012	0	0.004349	0.984225	A	771.0	41.9	10-07-2012 13:53:57	0	0.018999999	4.300000191	0.22888957
sftc071012_53	sftc071012_53_10072012_135841.txt	sftc071012	SFTC	1243168.704	2377772.565	7/10/2012	0	0.005222	1.401373	A	765.3	42.1	10-07-2012 13:58:41	0	0.023	6.171999931	0.227053255
sftc071012_54	sftc071012_54_10072012_140528.txt	sftc071012	SFTC	1242944.229	2377776.871	7/10/2012	0	0.003878	0.609233	A	768.8	42.1	10-07-2012 14:05:28	0	0.017000001	2.671000004	0.228091657
sftc071012_55	sftc071012_55_10072012_141035.txt	sftc071012	SFTC	1242746.637	2377783.683	7/10/2012	0	0.007756	0.549969	A	769.1	42.2	10-07-2012 14:10:35	-0.01	0.034000002	2.411000013	0.228108302
sftcw062112_01	sftcw062112_01_21062012_122255.txt	sftcw062112	SFTC	1243476.328	2373938.14	6/21/2012	20.3174	0.003979	1.538463	A	778.9	38.1	21-06-2012 12:22:55	86.80500031	0.017000001	6.572999954	0.234057978
sftcw062112_02	sftcw062112_02_21062012_123035.txt	sftcw062112	SFTC	1243527.75	2373986.83	6/21/2012	64.93536	0.0021	1.233897	A	778.9	39.0	21-06-2012 12:30:35	278.2349854	0.009	5.287000179	0.233383134
sftcw062112_03	sftcw062112_03_21062012_123440.txt	sftcw062112	SFTC	1243591.268	2374029.707	6/21/2012	0	0.009793	0.252295	A	779.2	39.4	21-06-2012 12:34:40	-4.923999786	0.041999999	1.082000017	0.233174235
sftcw062112_04	sftcw062112_04_21062012_123812.txt	sftcw062112	SFTC	1243551.334	2374076.048	6/21/2012	0	0.01234	0.226545	A	779.3	39.9	21-06-2012 12:38:12	-0.003	0.052999999	0.97299999	0.232831687
sftcw062112_05	sftcw062112_05_21062012_124128.txt	sftcw062112	SFTC	1243529.555	2374052.93	6/21/2012	9.391458	0.01163	0	A	779.5	40.3	21-06-2012 12:41:28	40.3769989	0.050000001	-23.76300049	0.232594237
sftcw062112_06	sftcw062112_06_21062012_124516.txt	sftcw062112	SFTC	1243495.428	2374084.574	6/21/2012	0	0.003019	0.200189	A	779.3	40.7	21-06-2012 12:45:16	-0.120999999	0.013	0.861999989	0.232238203
sftcw062112_07	sftcw062112_07_21062012_124823.txt	sftcw062112	SFTC	1243453.205	2374047.066	6/21/2012	37.23286	0.003712	2.755721	A	779.5	41.1	21-06-2012 12:48:23	160.4850006	0.016000001	11.87800026	0.232002109
sftcw062112_08	sftcw062112_08_21062012_125108.txt	sftcw062112	SFTC	1243459.605	2373997.89	6/21/2012	3.422086	0.004866	2.269188	A	779.2	41.4	21-06-2012 12:51:08	14.77000046	0.021	9.793999672	0.231691644
sftcw062112_09	sftcw062112_09_21062012_125346.txt	sftcw062112	SFTC	1243426.171	2373952.917	6/21/2012	34.8724	0.006249	3.048775	A	779.1	41.7	21-06-2012 12:53:46	150.6750031	0.027000001	13.17300034	0.23144117
sftcw062112_10	sftcw062112_10_21062012_125630.txt	sftcw062112	SFTC	1243422.608	2373987.004	6/21/2012	0	0.002081	0.476084	A	779.1	42.0	21-06-2012 12:56:30	-1.432000041	0.009	2.059000015	0.231220856
sftcw062112_11	sftcw062112_11_21062012_125908.txt	sftcw062112	SFTC	1243411.222	2374031.317	6/21/2012	0	0.001156	0.016639	A	779.2	42.2	21-06-2012 12:59:08	-1.552000046	0.005	0.071999997	0.231103867
sftcw062112_12	sftcw062112_12_21062012_130207.txt	sftcw062112	SFTC	1243377.791	2373962.609	6/21/2012	0	0.002079	0.937918	A	779.2	42.4	21-06-2012 13:02:07	0	0.009	4.06099987	0.230957389
sftcw062112_13	sftcw062112_13_21062012_130554.txt	sftcw062112	SFTC	1243364.542	2373957.973	6/21/2012	0	0.004382	0.510888	A	778.9	42.7	21-06-2012 13:05:54	-1.054999948	0.018999999	2.214999914	0.230649188
sftcw062112_14	sftcw062112_14_21062012_130822.txt	sftcw062112	SFTC	1243358.007	2374018.187	6/21/2012	68.5602	0.010373	2.422589	A	778.9	42.9	21-06-2012 13:08:22	297.4370117	0.045000002	10.51000023	0.230503231
sftcw062112_15	sftcw062112_15_21062012_131049.txt	sftcw062112	SFTC	1243337.409	2374018.902	6/21/2012	0	0.00576	0.266362	A	779.1	43.1	21-06-2012 13:10:49	-0.017000001	0.025	1.156000018	0.230416611
sftcw062112_16	sftcw062112_16_21062012_131314.txt	sftcw062112	SFTC	1243408.974	2374078.293	6/21/2012	36.10181	0.010367	2.584558	A	779.2	43.2	21-06-2012 13:13:14	156.7100067	0.045000002	11.21899986	0.230373338
sftcw062112_17	sftcw062112_17_21062012_131539.txt	sftcw062112	SFTC	1243421.398	2374112.101	6/21/2012	0	0.001382	0.522454	A	779.3	43.4	21-06-2012 13:15:39	0	0.006	2.269000053	0.230257332
sftcw062112_18	sftcw062112_18_21062012_131901.txt	sftcw062112	SFTC	1243440.708	2374131.763	6/21/2012	0	0.015192	0.670988	A	779.3	43.5	21-06-2012 13:19:01	-0.01	0.066	2.914999962	0.230184615
sftcw062112_19	sftcw062112_19_21062012_132219.txt	sftcw062112	SFTC	1243479.466	2374161.467	6/21/2012	0.305492	0.029445	1.035407	A	779.3	43.7	21-06-2012 13:22:19	1.327999949	0.128000006	4.500999928	0.230039313
sftcw062112_20	sftcw062112_20_21062012_132520.txt	sftcw062112	SFTC	1243494.979	2374191.577	6/21/2012	0	0.002069	0.225756	A	779.3	43.9	21-06-2012 13:25:20	0	0.009	0.981999993	0.229894206
sftcw062112_21	sftcw062112_21_21062012_132819.txt	sftcw062112	SFTC	1243447.832	2374223.53	6/21/2012	12.10531	0.001149	0.85226	A	779.2	44.1	21-06-2012 13:28:19	52.69599915	0.005	3.710000038	0.229719803
sftcw062112_22	sftcw062112_22_21062012_133205.txt	sftcw062112	SFTC	1243382.915	2374134.717	6/21/2012	2817.162	0.021584	0.377033	A	779.1	44.2	21-06-2012 13:32:05	12268.91113	0.093999997	1.641999996	0.229617938
sftcw062112_23	sftcw062112_23_21062012_133700.txt	sft															

APPENDIX B - FLUX METER DATA

SitePt	Filename	Site	AreaAbbrev	Northing	Easting	Date	CH4flux	H2Sflux	CO2flux	ACCUMULATION CHAMBER:	PRESSURE (HPa):	TEMP DegC	TIME:	CH4slope	H2Sslope	CO2slope	AcK
sftcw062112_34	sftcw062112_34_22062012_122808.txt	sftcw062112	SFTC	1243345.574	2374113.05	6/22/2012	142.5925	0.001639	7.532351	A	777.5	37.4	22-06-2012 12:28:08	608.9429932	0.007	32.16699982	0.23416391
sftcw062112_35	sftcw062112_35_22062012_123140.txt	sftcw062112	SFTC	1243331.295	2374092.485	6/22/2012	0	0.001401	0.406112	A	777.4	38.2	22-06-2012 12:31:40	-0.689999998	0.006	1.738999963	0.233532205
sftcw062112_36	sftcw062112_36_22062012_123454.txt	sftcw062112	SFTC	1243296.626	2374071.266	6/22/2012	0	0.003731	0.27631	A	777.7	38.8	22-06-2012 12:34:54	0	0.016000001	1.184999943	0.233172983
sftcw062112_37	sftcw062112_37_22062012_124141.txt	sftcw062112	SFTC	1243273.951	2374032.441	6/22/2012	0	0.002091	0.45608	A	777.4	39.8	22-06-2012 12:41:41	-0.011	0.009	1.963000059	0.232338235
sftcw062112_38	sftcw062112_38_22062012_124554.txt	sftcw062112	SFTC	1243236.022	2373970.713	6/22/2012	0	0.001854	0.398679	A	777.3	40.5	22-06-2012 12:45:54	-0.046	0.008	1.720000029	0.231789887
sftcw062112_39	sftcw062112_39_22062012_125100.txt	sftcw062112	SFTC	1243237.267	2373926.139	6/22/2012	4.403234	0.000925	4.349561	A	777.3	41.1	22-06-2012 12:51:00	19.03300095	0.004	18.8010006	0.231347337
sftcw062112_40	sftcw062112_40_22062012_125431.txt	sftcw062112	SFTC	1243298.004	2373921.065	6/22/2012	0	0.001386	1.943813	A	777.1	41.5	22-06-2012 12:54:31	-0.013	0.006	8.414999962	0.230993778
sftcw062112_41	sftcw062112_41_22062012_125748.txt	sftcw062112	SFTC	1243326.39	2373901.876	6/22/2012	0.504643	0.001845	1.310503	A	776.9	41.9	22-06-2012 12:57:48	2.187999964	0.008	5.68200016	0.230641127
sftcw062112_42	sftcw062112_42_22062012_130122.txt	sftcw062112	SFTC	1243233.014	2373853.24	6/22/2012	0	0.002304	0.24609	A	776.9	42.2	22-06-2012 13:01:22	-0.129999995	0.01	1.067999959	0.230421707
sftcw062112_43	sftcw062112_43_22062012_130508.txt	sftcw062112	SFTC	1243288.465	2373818.028	6/22/2012	52.86451	0.008061	2.129864	A	777.0	42.4	22-06-2012 13:05:08	229.5410004	0.035	9.248000145	0.230305314
sftcw062112_44	sftcw062112_44_22062012_130835.txt	sftcw062112	SFTC	1243262.015	2373806.91	6/22/2012	17.36604	0.00414	5.873631	A	777.0	42.8	22-06-2012 13:08:35	75.5	0.017999999	25.5359993	0.230013728
sftcw062112_45	sftcw062112_45_22062012_131207.txt	sftcw062112	SFTC	1243259.218	2373799.035	6/22/2012	0	0.001837	0.027098	A	776.5	43.1	22-06-2012 13:12:07	0	0.008	0.118000001	0.229647666
sftcw062112_46	sftcw062112_46_22062012_131532.txt	sftcw062112	SFTC	1243211.933	2373762.458	6/22/2012	0	0.002754	0.224683	A	776.5	43.3	22-06-2012 13:15:32	0	0.012	0.978999972	0.229502529
sftcw062112_47	sftcw062112_47_22062012_131833.txt	sftcw062112	SFTC	1243277.537	2373748.382	6/22/2012	1.92395	0.002293	1.630657	A	776.6	43.6	22-06-2012 13:18:33	8.390000343	0.01	7.111000061	0.229314685
sftcw062112_48	sftcw062112_48_22062012_132117.txt	sftcw062112	SFTC	1243284.546	2373708.019	6/22/2012	0	0.003896	0.293338	A	776.6	43.8	22-06-2012 13:21:17	-0.961000025	0.017000001	1.279999971	0.229169995
sftcw062112_49	sftcw062112_49_22062012_132505.txt	sftcw062112	SFTC	1243250.189	2373757.017	6/22/2012	21.4323	0.001602	0.904936	A	776.5	44.1	22-06-2012 13:25:05	93.62200165	0.007	3.953000069	0.228923798
sftcw062112_50	sftcw062112_50_22062012_132827.txt	sftcw062112	SFTC	1243231.683	2373770.956	6/22/2012	9.760194	0.004118	5.027888	A	776.5	44.3	22-06-2012 13:28:27	42.66199875	0.017999999	21.97699928	0.228779569
sftcw062112_51	sftcw062112_51_22062012_133111.txt	sftcw062112	SFTC	1243239.802	2373815.209	6/22/2012	13.17829	0.003657	4.462704	A	776.5	44.6	22-06-2012 13:31:11	57.6570015	0.016000001	19.52499962	0.228563577
sftcw062112_52	sftcw062112_52_22062012_133421.txt	sftcw062112	SFTC	1243247.832	2373903.418	6/22/2012	0	0.003427	1.000836	A	776.6	44.8	22-06-2012 13:34:21	-0.015	0.015	4.381000042	0.228449211
sftcw062112_53	sftcw062112_53_22062012_133740.txt	sftcw062112	SFTC	1243279.765	2373927.102	6/22/2012	0	0.00137	0.319957	A	776.6	44.9	22-06-2012 13:37:40	-0.015	0.006	1.401000023	0.228377387
sftcw062112_54	sftcw062112_54_22062012_134051.txt	sftcw062112	SFTC	1243301.054	2373858.31	6/22/2012	0.753075	0.003879	1.433124	A	776.5	45.1	22-06-2012 13:40:51	3.299999952	0.017000001	6.28000021	0.228204474
sftcw062112_55	sftcw062112_55_22062012_134318.txt	sftcw062112	SFTC	1243277.848	2373861.608	6/22/2012	0	0.002052	1.122208	A	776.2	45.2	22-06-2012 13:43:18	-0.071000002	0.009	4.921000004	0.228044659
sftcw062112_56	sftcw062112_56_22062012_134926.txt	sftcw062112	SFTC	1243191.859	2374032.083	6/22/2012	1.006346	0.000912	1.162747	A	776.5	45.4	22-06-2012 13:49:26	4.414000034	0.004	5.099999905	0.227989554
sftcw062112_57	sftcw062112_57_22062012_135447.txt	sftcw062112	SFTC	1243169.495	2374020.281	6/22/2012	0	0.008887	0.283685	A	776.3	45.5	22-06-2012 13:54:47	-0.071999997	0.039000001	1.245000005	0.227859303
sftcw062112_58	sftcw062112_58_22062012_140052.txt	sftcw062112	SFTC	1242978.708	2374120.79	6/22/2012	0	0.003875	0.391357	A	776.3	45.4	22-06-2012 14:00:52	0	0.017000001	1.717000008	0.227930844
sftcw062112_59	sftcw062112_59_22062012_140603.txt	sftcw062112	SFTC	1243169.3	2374010.727	6/22/2012	0	0.007977	0.497993	A	776.0	45.3	22-06-2012 14:06:03	0	0.035	2.184999943	0.227914304
sftcw062112_60	sftcw062112_60_22062012_141449.txt	sftcw062112	SFTC	1243147.294	2373766.874	6/22/2012	0	0.004561	0.581253	A	776.4	45.3	22-06-2012 14:14:49	0	0.02	2.549000025	0.228031784
sftcw062112_61	sftcw062112_61_22062012_141848.txt	sftcw062112	SFTC	1243199.077	2373750.193	6/22/2012	0	0.005014	0.566563	A	776.2	45.4	22-06-2012 14:18:48	0	0.022	2.486000061	0.227901474
sftcw062112_62	sftcw062112_62_22062012_142910.txt	sftcw062112	SFTC	1242974.921	2373760.312	6/22/2012	0	0.006152	0.152663	A	775.8	45.3	22-06-2012 14:29:10	0	0.027000001	0.670000017	0.227855563
sftcw062112_63	sftcw062112_63_22062012_143404.txt	sftcw062112	SFTC	1242761.025	2373762.407	6/22/2012	0	0.006156	0.186948	A	776.0	45.2	22-06-2012 14:34:04	-0.078000002	0.027000001	0.819999993	0.227985889
sftcw062112_64	sftcw062112_64_22062012_143814.txt	sftcw062112	SFTC	1242569.802	2373751.325	6/22/2012	0	0.006606	0.111157	A	775.3	45.2	22-06-2012 14:38:14	0	0.028999999	0.488000005	0.227780238
sftcw062112_65	sftcw062112_65_22062012_144213.txt	sftcw062112	SFTC	1242568.389	2373954.752	6/22/2012	0	0.007286	0.15277	A	774.7	45.1	22-06-2012 14:42:13	0	0.032000002	0.671000004	0.227675483
sftcw062112_66	sftcw062112_66_22062012_144700.txt	sftcw062112	SFTC	1242751.003	2373956.087	6/22/2012	0	0.006836	0.148104	A	775.3	45.1	22-06-2012 14:47:00	-0.056000002	0.029999999	0.649999976	0.227851808
sftcw062112_67	sftcw062112_67_22062012_145119.txt	sftcw062112	SFTC	1242957.014	2373962.322	6/22/2012	0	0.00205	0.035761	A	775.3	45.2	22-06-2012 14:51:19	0	0.009	0.157000005	0.227780238
sftcw062112_68	sftcw062112_68_22062012_145624.txt	sftcw062112	SFTC	1242770.524	2374111.882	6/22/2012	0	0.003872	0.17881	A	775.8	45.4	22-06-2012 14:56:24	0	0.017000001	0.785000026	0.227784038
sftcw062112_69	sftcw062112_69_22062012_150236.txt	sftcw062112	SFTC	1242551	2374173.73	6/22/2012	0	0.00432	0.159391	A	774.9	45.6	22-06-2012 15:02:36	0	0.018999999	0.700999975	0.227377027
sftcw062112_70	sftcw062112_70_22062012_150759.txt	sftcw062112	SFTC	1242560.637	2374350.112	6/22/2012	0.101521	0.003407	0.062684	A	774.5	45.8	22-06-2012 15:07:59	0.446999997	0.015	0.275999993	0.227117151
sftcw062112_71	sftcw062112_71_22062012_151339.txt	sftcw062112	SFTC	1242588.556	2374536.21	6/22/2012	0	0.003859	0.126879	A	774.5	46.0	22-06-2012 15:13:39	-1.001000047	0.017000001	0.559000015	0.226974815
sftcw062112_72	sftcw062112_72_22062012_151928.txt	sftcw062112	SFTC	1242820.091	2374567.082	6/22/2012	0	0.002268	0.12249	A	774.5	46.2	22-06-2012 15:19:28	0	0.01	0.540000021	0.226832673
sftcw062112_73	sftcw062112_73_22062012_152339.txt	sftcw062112	SFTC	1242797.39	2374331.27	6/22/2012	0	0.002264	0.194044	A	773.1	46.2	22-06-2012 15:23:39	0	0.01	0.856999993	0.226422653
sftcw062112_74	sftcw062112_74_22062012_152802.txt	sftcw062112	SFTC	1242999.344	2374347.342	6/22/2012	0	0.002719	0.186683	A	773.8	46.3	22-06-2012 15:28:02	0	0.012	0.824000001	0.226556718
sftcw062112_75	sftcw062112_75_22062012_153240.txt	sftcw062112	SFTC	1242970.256	2374541.607	6/22/2012	0	0.004756	0	A	773.5	46.3	22-06-2012 15:32:40	0	0.021	-0.130999997	0.226468876
sftcw062112_76	sftcw062112_76_22062012_153845.txt	sftcw062112	SFTC	1243174.778	2374549.97	6/22/2012	50.24976	0.001131	3.640333	A	772.7	46.4	22-06-2012 15:38:45	222.1829987	0.005	16.09600067	0.226163849
sftcw062112_77	sftcw062112_77_22062012_154345.txt	sftcw062112	SFTC	1243209.704	2374353.317	6/22/2012	0	0.002946	0.258781	A	774.2	46.4	22-06-2012 15:43:45	-0.014	0.013	1.14199996	0.226602897
sftcw062112_78	sftcw062112_78_22062012_154802.txt	sftcw062112	SFTC	1243255.556	2374358.857	6/22/2012	41.57959	0.002039	1.931911	A	774.4	46.5	22-06-2012 15:48:02	183.5010071	0.009	8.526000023	0.226590529
sftcw062112_79	sftcw062112_79_22062012_155320.txt	sftcw062112	SFTC	1243382.137	2374358.652	6/22/2012	0	0.0034	0.496588	A	774.6	46.5	22-06-2012 15:53:20	0	0.015	2.190999985	0.226649046
sftcw062112_80	sftcw062112_80_22062012_155715.txt	sftcw062112	SFTC	1243528.403	2374372.875	6/22/2012	0	0.001588	0.15794	A	775.3	46.4	22-06-2012 15:57:15	-0.022	0.007	0.695999998	0.226924852
sftcw062112_81	sftcw062112_81_22062012_160620.txt	sftcw062112	SFTC	1243238.517													

APPENDIX B - FLUX METER DATA

SitePt	Filename	Site	AreaAbbrev	Northing	Easting	Date	CH4flux	H2Sflux	CO2flux	ACCUMULATION CHAMBER:	PRESSURE (HPa):	TEMP DegC	TIME:	CH4slope	H2Sslope	CO2slope	AcK
sftcw062512_10	sftcw062512_10_25062012_123142.txt	sftcw062512	SFTC	1242732.931	2372763.529	6/25/2012	0	0.000457	0.081862	A	776.6	44.5	25-06-2012 12:31:42	0	0.002	0.35800001	0.228664964
sftcw062512_100	sftcw062512_100_26062012_133346.txt	sftcw062512	SFTC	1244353.143	2371576.138	6/26/2012	0	0.002745	0.224366	A	772.6	42.8	26-06-2012 13:33:46	-2.312000036	0.012	0.981000006	0.228711218
sftcw062512_101	sftcw062512_101_26062012_133740.txt	sftcw062512	SFTC	1244167.547	2371529.276	6/26/2012	0	0.00389	2.387437	A	772.7	42.7	26-06-2012 13:37:40	-1.167000055	0.017000001	10.43400002	0.228813231
sftcw062512_102	sftcw062512_102_26062012_134322.txt	sftcw062512	SFTC	1244164.834	2371768.179	6/26/2012	0	0.004579	0.226214	A	773.2	42.7	26-06-2012 13:43:22	-0.028999999	0.02	0.987999976	0.228961289
sftcw062512_103	sftcw062512_103_26062012_134706.txt	sftcw062512	SFTC	1244147.648	2371947.876	6/26/2012	0	0.006394	0.182	A	771.4	42.8	26-06-2012 13:47:06	-1.56099999	0.028000001	0.796999991	0.228355974
sftcw062512_104	sftcw062512_104_26062012_135130.txt	sftcw062512	SFTC	1243951.797	2371926.695	6/26/2012	0	0.005247	0.211923	A	770.6	42.8	26-06-2012 13:51:30	-1.266000032	0.023	0.92900002	0.22811915
sftcw062512_105	sftcw062512_105_26062012_135505.txt	sftcw062512	SFTC	1243953.022	2371763.273	6/26/2012	0	0.002736	0.180784	A	770.6	43.0	26-06-2012 13:55:05	-1.396999955	0.012	0.792999983	0.227974847
sftcw062512_106	sftcw062512_106_26062012_135856.txt	sftcw062512	SFTC	1243772.443	2371771.705	6/26/2012	0	0.006849	0.251573	A	771.9	43.1	26-06-2012 13:58:56	-2.095000029	0.029999999	1.101999998	0.228287235
sftcw062512_107	sftcw062512_107_26062012_140213.txt	sftcw062512	SFTC	1243768.555	2371958.923	6/26/2012	0	0.002745	0.040262	A	773.5	43.1	26-06-2012 14:02:13	-2.974999905	0.012	0.175999999	0.228760421
sftcw062512_108	sftcw062512_108_26062012_140610.txt	sftcw062512	SFTC	1243557.285	2371945.883	6/26/2012	0	0.002973	0.645899	A	773.6	43.2	26-06-2012 14:06:10	-1.261000037	0.013	2.823999882	0.228717685
sftcw062512_109	sftcw062512_109_26062012_141019.txt	sftcw062512	SFTC	1243544.047	2371755.157	6/26/2012	0	0.007565	0.188214	A	775.4	43.2	26-06-2012 14:10:19	-1.444000006	0.033	0.820999998	0.22924985
sftcw062512_11	sftcw062512_11_25062012_123753.txt	sftcw062512	SFTC	1242732.737	2372580.04	6/25/2012	0	0.00137	0.129726	A	776.4	44.8	25-06-2012 12:37:53	0	0.006	0.568000019	0.228390381
sftcw062512_110	sftcw062512_110_26062012_141408.txt	sftcw062512	SFTC	1243557.825	2371563.111	6/26/2012	0	0.006186	0.126464	A	774.9	43.2	26-06-2012 14:14:08	-2.782999992	0.027000001	0.551999986	0.22910203
sftcw062512_111	sftcw062512_111_26062012_142633.txt	sftcw062512	SFTC	1243814.834	2371474.472	6/26/2012	0	0.000687	0.108094	A	774.6	43.2	26-06-2012 14:26:33	-2.654999971	0.003	0.472000003	0.229013339
sftcw062512_112	sftcw062512_112_26062012_142941.txt	sftcw062512	SFTC	1243951.949	2371559.038	6/26/2012	0	0.005261	0.479427	A	773.9	43.3	26-06-2012 14:29:41	-0.016000001	0.023	2.095999956	0.228734076
sftcw062512_113	sftcw062512_113_26062012_143313.txt	sftcw062512	SFTC	1243950.705	2371508.124	6/26/2012	0	0.006859	0.420683	A	773.8	43.4	26-06-2012 14:33:13	-1.544000003	0.029999999	1.840000033	0.228632271
sftcw062512_114	sftcw062512_114_26062012_143702.txt	sftcw062512	SFTC	1243959.269	2371366.37	6/26/2012	0	0.002285	0.10968	A	773.6	43.5	26-06-2012 14:37:02	-2.071000099	0.01	0.479999989	0.228500992
sftcw062512_115	sftcw062512_115_26062012_144204.txt	sftcw062512	SFTC	1243746.181	2371363.334	6/26/2012	0	0.004336	0.188066	A	772.7	43.5	26-06-2012 14:42:04	-1.355999947	0.018999999	0.824000001	0.228235155
sftcw062512_116	sftcw062512_116_26062012_144529.txt	sftcw062512	SFTC	1243775.818	2371542.992	6/26/2012	0	0.003887	0.100592	A	774.0	43.5	26-06-2012 14:45:29	-2.578000069	0.017000001	0.439999998	0.228619143
sftcw062512_117	sftcw062512_117_26062012_144900.txt	sftcw062512	SFTC	1243572.312	2371369.843	6/26/2012	0	0.003429	0.363962	A	774.0	43.5	26-06-2012 14:49:00	-2.243000031	0.015	1.592000008	0.228619143
sftcw062512_118	sftcw062512_118_26062012_145523.txt	sftcw062512	SFTC	1243541.978	2372157.694	6/26/2012	0	0.004801	0.205543	A	774.3	43.6	26-06-2012 14:55:23	-2.220000029	0.021	0.898999989	0.22863555
sftcw062512_119	sftcw062512_119_26062012_145951.txt	sftcw062512	SFTC	1243521.702	2372361.834	6/26/2012	0	0.004578	0.24697	A	775.4	43.7	26-06-2012 14:59:51	-1.458999991	0.02	1.078999996	0.228888094
sftcw062512_12	sftcw062512_12_25062012_124303.txt	sftcw062512	SFTC	1242756.814	2372354.156	6/25/2012	0	0.001598	0.090375	A	776.8	45.2	25-06-2012 12:43:03	0	0.007	0.395999998	0.228220925
sftcw062512_120	sftcw062512_120_26062012_150329.txt	sftcw062512	SFTC	1243528.263	2372545.956	6/26/2012	0	0.001371	0.163197	A	774.8	43.9	26-06-2012 15:03:29	-1.758999944	0.006	0.713999987	0.228566706
sftcw062512_121	sftcw062512_121_26062012_150729.txt	sftcw062512	SFTC	1243542.774	2372743.646	6/26/2012	0	0.005252	0.131766	A	774.6	44.1	26-06-2012 15:07:29	-3.052999973	0.023	0.577000022	0.228363648
sftcw062512_123	sftcw062512_123_27062012_093056.txt	sftcw062512	SFTC	1243361.593	2374601.627	6/27/2012	0	0.011147	1.382928	A	778.6	33.9	27-06-2012 09:30:56	-0.001	0.046999998	5.830999851	0.237168178
sftcw062512_124	sftcw062512_124_27062012_093431.txt	sftcw062512	SFTC	1243545.703	2374604.158	6/27/2012	0	0.008541	0.553958	A	779.6	34.2	27-06-2012 09:34:31	-0.007	0.035999998	2.335000038	0.237240985
sftcw062512_125	sftcw062512_125_27062012_093836.txt	sftcw062512	SFTC	1243542.914	2374759.993	6/27/2012	0	0.010193	0.303429	A	780.0	34.6	27-06-2012 09:38:36	0	0.043000001	1.279999971	0.237054199
sftcw062512_126	sftcw062512_126_27062012_094500.txt	sftcw062512	SFTC	1243400.327	2374730.362	6/27/2012	0	0.004971	0.159299	A	780.1	35.1	27-06-2012 09:45:00	0	0.021	0.672999978	0.236700028
sftcw062512_127	sftcw062512_127_27062012_094946.txt	sftcw062512	SFTC	1243204.655	2374750.542	6/27/2012	0	0.004961	0.992924	A	779.6	35.5	27-06-2012 09:49:46	-2.121999979	0.021	4.203000069	0.236241758
sftcw062512_128	sftcw062512_128_27062012_095450.txt	sftcw062512	SFTC	1243168.269	2374849.935	6/27/2012	0	0.003297	0.134923	A	777.8	35.8	27-06-2012 09:54:50	-3.065999985	0.014	0.573000014	0.235467434
sftcw062512_129	sftcw062512_129_27062012_095947.txt	sftcw062512	SFTC	1243010.07	2374745.556	6/27/2012	0	0.005639	0.198547	A	776.9	36.1	27-06-2012 09:59:47	-0.697000027	0.024	0.845000029	0.234966815
sftcw062512_13	sftcw062512_13_25062012_124736.txt	sftcw062512	SFTC	1242734.76	2372137.867	6/25/2012	0	0.001597	0.093056	A	776.8	45.4	25-06-2012 12:47:36	-0.02	0.007	0.407999992	0.22807765
sftcw062512_130	sftcw062512_130_27062012_100340.txt	sftcw062512	SFTC	1243057.923	2374767.3	6/27/2012	11.51469	0.003524	1.134341	A	777.6	36.4	27-06-2012 10:03:40	49.00899887	0.015	4.828000069	0.234950602
sftcw062512_131	sftcw062512_131_27062012_101055.txt	sftcw062512	SFTC	1242791.332	2374757.586	6/27/2012	0	0.013393	0.484968	A	777.9	36.5	27-06-2012 10:10:55	-0.921000004	0.057	2.063999981	0.234965339
sftcw062512_132	sftcw062512_132_27062012_101505.txt	sftcw062512	SFTC	1242602.8	2374755.567	6/27/2012	0	0.017389	0.142398	A	777.7	36.4	27-06-2012 10:15:05	-1.710000038	0.074000001	0.606000006	0.234980807
sftcw062512_133	sftcw062512_133_27062012_102156.txt	sftcw062512	SFTC	1242573.523	2374986.621	6/27/2012	0	0.021668	0.362474	A	779.0	36.2	27-06-2012 10:21:56	-2.40199995	0.092	1.539000034	0.235525772
sftcw062512_134	sftcw062512_134_27062012_103127.txt	sftcw062512	SFTC	1242559.144	2375176.49	6/27/2012	2.435188	0.007075	0.633913	A	779.0	35.8	27-06-2012 10:31:27	10.326000021	0.029999999	2.687999964	0.235830709
sftcw062512_135	sftcw062512_135_27062012_103640.txt	sftcw062512	SFTC	1242386.698	2374943.632	6/27/2012	0	0.01463	0.230776	A	779.2	35.7	27-06-2012 10:36:40	-1.569000006	0.061999999	0.977999985	0.235967636
sftcw062512_136	sftcw062512_136_27062012_104018.txt	sftcw062512	SFTC	1242404.319	2375143.347	6/27/2012	0	0.008959	0.12495	A	778.5	35.7	27-06-2012 10:40:18	-5.100999832	0.037999999	0.529999971	0.235755652
sftcw062512_137	sftcw062512_137_27062012_104335.txt	sftcw062512	SFTC	1242360.906	2375358.747	6/27/2012	0	0.003537	0.205827	A	778.8	35.8	27-06-2012 10:43:35	-5.399000168	0.015	0.873000026	0.235770166
sftcw062512_138	sftcw062512_138_27062012_105213.txt	sftcw062512	SFTC	1242545.101	2375349.005	6/27/2012	0	0.011063	0.11251	A	778.0	36.0	27-06-2012 10:52:13	-1.649999976	0.046999998	0.477999985	0.235375613
sftcw062512_139	sftcw062512_139_27062012_105618.txt	sftcw062512	SFTC	1242546.688	2375577.239	6/27/2012	0	0.004944	0.195189	A	778.5	36.1	27-06-2012 10:56:18	-1.623000026	0.021	0.828999996	0.235450715
sftcw062512_14	sftcw062512_14_25062012_125531.txt	sftcw062512	SFTC	1242827.113	2371970.753	6/25/2012	0	0.004565	0.188538	A	777.4	45.4	25-06-2012 12:55:31	0	0.02	0.825999975	0.228253812
sftcw062512_140	sftcw062512_140_27062012_110153.txt	sftcw062512	SFTC	1242562.006	2375769.628	6/27/2012	0.271125	0.003527	0.181064	A	778.0	36.3	27-06-2012 11:01:53	1.152999997	0.015	0.769999981	0.235147417
sftcw062512_141	sftcw062512_141_27062012_110643.txt	sftcw062512	SFTC	1242337.047	2375582.987	6/27/2012	0	0.004459	0.188002	A	776.8	36.4	27-06-2012 11:06:43	-2.750999928	0.018999999	0.800999999	0.234708875
sftcw062512_142	sftcw062512_142_27062012_111043.txt	sftcw062512	SFTC	1242351.521	2375751.613	6/27/2012	0	0.00399	0.136835	A	777.3	36.6					

APPENDIX B - FLUX METER DATA

SitePt	Filename	Site	AreaAbbrev	Northing	Easting	Date	CH4flux	H2Sflux	CO2flux	ACCUMULATION CHAMBER:	PRESSURE (HPa):	TEMP DegC	TIME:	CH4slope	H2Sslope	CO2slope	AcK
sftcw062512_152	sftcw062512_152_27062012_115918.txt	sftcw062512	SFTC	1242951.903	2376202.513	6/27/2012	0	0.003247	0.167244	A	774.9	39.3	27-06-2012 11:59:18	-1.909999967	0.014	0.721000016	0.231961682
sftcw062512_153	sftcw062512_153_27062012_120234.txt	sftcw062512	SFTC	1242758.847	2376173.263	6/27/2012	0.286894	0.02036	0.180234	A	773.9	39.7	27-06-2012 12:02:34	1.24000001	0.088	0.778999984	0.231366143
sftcw062512_154	sftcw062512_154_27062012_120606.txt	sftcw062512	SFTC	1242751.64	2375966.045	6/27/2012	0	0.004622	0.162222	A	773.7	40.0	27-06-2012 12:06:06	-1.881000042	0.02	0.702000022	0.231084749
sftcw062512_155	sftcw062512_155_27062012_121034.txt	sftcw062512	SFTC	1242934.007	2375985.595	6/27/2012	0	0.003702	0.412997	A	775.4	40.3	27-06-2012 12:10:34	-1.016000032	0.016000001	1.784999967	0.231370851
sftcw062512_156	sftcw062512_156_27062012_121553.txt	sftcw062512	SFTC	1242980.772	2375774.985	6/27/2012	0.299782	0.003233	0.242967	A	775.0	40.7	27-06-2012 12:15:53	1.297999978	0.014	1.052000046	0.230956763
sftcw062512_157	sftcw062512_157_27062012_121958.txt	sftcw062512	SFTC	1242739.388	2375779.738	6/27/2012	0	0.005314	0.156892	A	776.1	41.0	27-06-2012 12:19:58	-1.81099999	0.023	0.67900002	0.231063709
sftcw062512_158	sftcw062512_158_27062012_122428.txt	sftcw062512	SFTC	1242717.059	2375528.745	6/27/2012	0.289729	0.023354	0.439103	A	776.9	41.1	27-06-2012 12:24:28	1.253000021	0.101000004	1.899000049	0.231228277
sftcw062512_159	sftcw062512_159_27062012_122841.txt	sftcw062512	SFTC	1242971.933	2375572.13	6/27/2012	0.356393	0.015043	0.333945	A	778.3	41.4	27-06-2012 12:28:41	1.539999962	0.064999998	1.442999959	0.231424034
sftcw062512_16	sftcw062512_16_25062012_130324.txt	sftcw062512	SFTC	1242939.696	2371750.386	6/25/2012	0	0.003198	0.206717	A	778.2	45.5	25-06-2012 13:03:24	-0.02	0.014	0.904999971	0.228416994
sftcw062512_160	sftcw062512_160_27062012_123258.txt	sftcw062512	SFTC	1242928.881	2375386.931	6/27/2012	0	0.005543	0.163513	A	777.2	41.6	27-06-2012 12:32:58	-1.085999966	0.024	0.708000004	0.230950102
sftcw062512_161	sftcw062512_161_27062012_123744.txt	sftcw062512	SFTC	1242691.119	2375375.23	6/27/2012	3.903089	0.004622	0.536189	A	778.5	41.9	27-06-2012 12:37:44	16.88800049	0.02	2.319999933	0.231116116
sftcw062512_162	sftcw062512_162_27062012_124125.txt	sftcw062512	SFTC	1242788.283	2375195.406	6/27/2012	0	0.012234	0.290373	A	778.0	42.1	27-06-2012 12:41:25	-3.381999969	0.052999999	1.258000016	0.230821162
sftcw062512_163	sftcw062512_163_27062012_124513.txt	sftcw062512	SFTC	1242931.023	2375189.743	6/27/2012	0	0.012939	0.151576	A	779.3	42.3	27-06-2012 12:45:13	-3.532999992	0.056000002	0.656000018	0.231060252
sftcw062512_164	sftcw062512_164_27062012_125808.txt	sftcw062512	SFTC	1242798.293	2374939.694	6/27/2012	0	0.003691	0.066209	A	779.3	42.8	27-06-2012 12:58:08	-3.585000038	0.016000001	0.287	0.230694592
sftcw062512_165	sftcw062512_165_27062012_130220.txt	sftcw062512	SFTC	1242989.046	2374958.69	6/27/2012	0	0.00414	0.115446	A	777.6	43.1	27-06-2012 13:02:20	-2.117000103	0.017999999	0.501999974	0.229972988
sftcw062512_166	sftcw062512_166_27062012_130534.txt	sftcw062512	SFTC	1243180.358	2374986.963	6/27/2012	0.474809	0.017917	0.721517	A	777.2	43.3	27-06-2012 13:05:34	2.066999912	0.078000002	3.141000032	0.229709417
sftcw062512_167	sftcw062512_167_27062012_130859.txt	sftcw062512	SFTC	1243374.386	2374944.07	6/27/2012	0	0.004134	0.147226	A	777.6	43.5	27-06-2012 13:08:59	-0.194000006	0.017999999	0.640999973	0.229682475
sftcw062512_168	sftcw062512_168_27062012_131208.txt	sftcw062512	SFTC	1243539.366	2374954.639	6/27/2012	0	0.003449	0.114501	A	778.9	43.7	27-06-2012 13:12:08	-1.491999984	0.015	0.497999996	0.229921252
sftcw062512_169	sftcw062512_169_28062012_082354.txt	sftcw062512	SFTC	1243572.06	2375151.201	6/28/2012	0	0.017185	0.176023	A	783.9	25.5	28-06-2012 08:23:54	-1.777999997	0.07	0.717000008	0.245498732
sftcw062512_17	sftcw062512_17_25062012_130922.txt	sftcw062512	SFTC	1242933.193	2371539.341	6/25/2012	0.002969	0.001599	0.149594	A	778.1	45.5	25-06-2012 13:09:22	0.013	0.007	0.654999971	0.228387639
sftcw062512_170	sftcw062512_170_28062012_083005.txt	sftcw062512	SFTC	1243395.488	2375125.271	6/28/2012	0	0.01196	0.130101	A	782.8	26.8	28-06-2012 08:30:05	-0.017000001	0.048999999	0.532999992	0.244091734
sftcw062512_171	sftcw062512_171_28062012_083351.txt	sftcw062512	SFTC	1243342.398	2375166.863	6/28/2012	0	0.00609	0.133982	A	782.8	27.4	28-06-2012 08:33:51	-0.002	0.025	0.550000012	0.243604437
sftcw062512_172	sftcw062512_172_28062012_084248.txt	sftcw062512	SFTC	1243105.017	2375187.603	6/28/2012	0	0.009468	0.129637	A	782.7	28.4	28-06-2012 08:42:48	-1.166000009	0.039000001	0.533999979	0.242765576
sftcw062512_173	sftcw062512_173_28062012_084557.txt	sftcw062512	SFTC	1243077.946	2375258.187	6/28/2012	0	0.00097	0.135762	A	782.4	28.7	28-06-2012 08:45:57	-0.783999979	0.004	0.560000002	0.242431343
sftcw062512_174	sftcw062512_174_28062012_084922.txt	sftcw062512	SFTC	1243009.726	2375277.96	6/28/2012	0	0.002906	0.166376	A	782.1	28.9	28-06-2012 08:49:22	-0.933000028	0.012	0.686999977	0.242177933
sftcw062512_175	sftcw062512_175_28062012_085303.txt	sftcw062512	SFTC	1243074.351	2375330.257	6/28/2012	0	0.004598	0.05881	A	782.1	29.1	28-06-2012 08:53:03	-1.368999958	0.018999999	0.243000001	0.242017671
sftcw062512_176	sftcw062512_176_28062012_085708.txt	sftcw062512	SFTC	1243136.067	2375381.716	6/28/2012	0	0.000483	0.013296	A	782.0	29.4	28-06-2012 08:57:08	-4.127999783	0.002	0.055	0.241746783
sftcw062512_177	sftcw062512_177_28062012_090054.txt	sftcw062512	SFTC	1243349.61	2375384.976	6/28/2012	0	0.001207	0.653031	A	780.9	29.5	28-06-2012 09:00:54	-2.313999891	0.005	2.70600009	0.241326973
sftcw062512_178	sftcw062512_178_28062012_090624.txt	sftcw062512	SFTC	1243512.701	2375338.274	6/28/2012	0	0.010121	0.022893	A	780.3	29.7	28-06-2012 09:06:24	-1.052000046	0.041999999	0.094999999	0.240982294
sftcw062512_179	sftcw062512_179_28062012_091435.txt	sftcw062512	SFTC	1243525.548	2375571.762	6/28/2012	0	0.000241	0.214734	A	781.4	30.1	28-06-2012 09:14:35	-1.327999949	0.001	0.890999973	0.241003692
sftcw062512_18	sftcw062512_18_25062012_131450.txt	sftcw062512	SFTC	1242969.455	2371384.239	6/25/2012	0	0.004336	0.375864	A	777.5	45.5	25-06-2012 13:14:50	-0.118000001	0.018999999	1.646999955	0.228211537
sftcw062512_180	sftcw062512_180_28062012_092029.txt	sftcw062512	SFTC	1243377.408	2375595.175	6/28/2012	0	0.012719	0.079194	A	778.6	30.3	28-06-2012 09:20:29	-2.403000116	0.052999999	0.330000013	0.23998183
sftcw062512_181	sftcw062512_181_28062012_092439.txt	sftcw062512	SFTC	1243182.034	2375545.816	6/28/2012	0	0.000479	0.04167	A	777.5	30.5	28-06-2012 09:24:39	-2.11500001	0.002	0.173999995	0.239484951
sftcw062512_182	sftcw062512_182_28062012_093045.txt	sftcw062512	SFTC	1243168.717	2375769.311	6/28/2012	0	0.00384	6.11837	A	779.6	30.7	28-06-2012 09:30:45	-1.355999947	0.016000001	25.49600029	0.239973724
sftcw062512_183	sftcw062512_183_28062012_093551.txt	sftcw062512	SFTC	1243332.726	2375761.218	6/28/2012	0	0.001195	0.173469	A	777.0	31.0	28-06-2012 09:35:51	-1.016999996	0.005	0.726000011	0.238937497
sftcw062512_184	sftcw062512_184_28062012_093935.txt	sftcw062512	SFTC	1243503.718	2375769.991	6/28/2012	2.846526	0.000715	1.280197	A	775.9	31.2	28-06-2012 09:39:35	11.93799973	0.003	5.368999958	0.238442436
sftcw062512_185	sftcw062512_185_28062012_094802.txt	sftcw062512	SFTC	1243555.066	2376004.45	6/28/2012	0.780551	0.008813	0.176261	A	776.1	31.6	28-06-2012 09:48:02	3.27699995	0.037	0.74000001	0.23819086
sftcw062512_186	sftcw062512_186_28062012_095232.txt	sftcw062512	SFTC	1243339.882	2375969.552	6/28/2012	0	0.001662	0.08784	A	774.3	31.9	28-06-2012 09:52:32	-1.904999971	0.007	0.370000005	0.237404719
sftcw062512_187	sftcw062512_187_28062012_100432.txt	sftcw062512	SFTC	1243156.247	2375942.351	6/28/2012	0.275258	0.001419	0.246645	A	773.8	32.9	28-06-2012 10:04:32	1.164000034	0.006	1.042999983	0.236476213
sftcw062512_188	sftcw062512_188_28062012_100948.txt	sftcw062512	SFTC	1243144.078	2376164.397	6/28/2012	0	0.004732	0.268296	A	775.7	33.5	28-06-2012 10:09:48	-1.827999949	0.02	1.133999944	0.236593023
sftcw062512_189	sftcw062512_189_28062012_101827.txt	sftcw062512	SFTC	1243143.087	2376343.798	6/28/2012	0	0.006376	0.214906	A	776.3	34.3	28-06-2012 10:18:27	0	0.027000001	0.910000026	0.236159921
sftcw062512_19	sftcw062512_19_25062012_132212.txt	sftcw062512	SFTC	1242945.183	2371154.668	6/25/2012	0	0.001826	0.113434	A	777.1	45.3	25-06-2012 13:22:12	0	0.008	0.497000009	0.228237376
sftcw062512_190	sftcw062512_190_28062012_102405.txt	sftcw062512	SFTC	1243335.396	2376157.967	6/28/2012	1.981421	0.003541	0.927559	A	777.3	34.8	28-06-2012 10:24:05	8.392999649	0.015	3.928999901	0.236080199
sftcw062512_191	sftcw062512_191_28062012_102951.txt	sftcw062512	SFTC	1243533.024	2376151.805	6/28/2012	0	0.000939	0.155459	A	774.7	35.4	28-06-2012 10:29:51	-3.434999943	0.004	0.662	0.234832987
sftcw062512_192	sftcw062512_192_28062012_103440.txt	sftcw062512	SFTC	1243366.72	2376371.063	6/28/2012	0	0.00141	0.080615	A	776.6	35.9	28-06-2012 10:34:40	-1.529999971	0.006	0.342999995	0.235028073
sftcw062512_193	sftcw062512_193_28062012_103941.txt	sftcw062512	SFTC	1243547.944	2376357.316	6/28/2012	0	0.003535	0.094023	A	779.4	36.2	28-06-2012 10:39:41	-1.353000045	0.015	0.398999989	0.23564671
sftcw062512_194	sftcw062512_194_28062012_104443.txt	sftcw062512	SFTC	1243747.097</													

APPENDIX B - FLUX METER DATA

SitePt	Filename	Site	AreaAbbrev	Northing	Easting	Date	CH4flux	H2Sflux	CO2flux	ACCUMULATION CHAMBER:	PRESSURE (HPa):	TEMP DegC	TIME:	CH4slope	H2Sslope	CO2slope	AcK
sftcw062512_26	sftcw062512_26_25062012_141409.txt	sftcw062512	SFTC	1243373.955	2370935.995	6/25/2012	0	0.003434	0.122483	A	776.8	44.2	25-06-2012 14:14:09	0	0.015	0.535000026	0.228940085
sftcw062512_27	sftcw062512_27_25062012_141728.txt	sftcw062512	SFTC	1243351.356	2371183.539	6/25/2012	0	0.001831	1.000868	A	777.0	44.3	25-06-2012 14:17:28	0	0.008	4.372000217	0.228926882
sftcw062512_28	sftcw062512_28_25062012_142108.txt	sftcw062512	SFTC	1243157.678	2371200.998	6/25/2012	0	0.002288	0.154666	A	776.8	44.4	25-06-2012 14:21:08	0	0.01	0.675999999	0.228795886
sftcw062512_29	sftcw062512_29_25062012_142424.txt	sftcw062512	SFTC	1243150.052	2371363.176	6/25/2012	1.785649	0.001601	1.547258	A	777.0	44.5	25-06-2012 14:24:24	7.804999828	0.007	6.763000011	0.228782743
sftcw062512_30	sftcw062512_30_25062012_142744.txt	sftcw062512	SFTC	1243255.268	2371450.621	6/25/2012	1.617442	0.00183	1.590683	A	777.0	44.6	25-06-2012 14:27:44	7.072000027	0.008	6.954999924	0.228710741
sftcw062512_31	sftcw062512_31_25062012_143050.txt	sftcw062512	SFTC	1243366.082	2371399.639	6/25/2012	0	0.002742	0.051186	A	776.8	44.8	25-06-2012 14:30:50	0	0.012	0.224000007	0.22850804
sftcw062512_32	sftcw062512_32_25062012_143454.txt	sftcw062512	SFTC	1243362.11	2371577.509	6/25/2012	0	0.002968	0.077167	A	776.6	45.0	25-06-2012 14:34:54	-0.028000001	0.013	0.338	0.228305608
sftcw062512_33	sftcw062512_33_25062012_143823.txt	sftcw062512	SFTC	1243144.107	2371552.667	6/25/2012	0	0.007983	0.288535	A	776.6	45.3	25-06-2012 14:38:23	-0.033	0.035	1.264999986	0.228090525
sftcw062512_34	sftcw062512_34_25062012_144336.txt	sftcw062512	SFTC	1243361.39	2371781.229	6/25/2012	0	0.001823	0.104342	A	776.9	45.8	25-06-2012 14:43:36	0	0.008	0.458000004	0.227820933
sftcw062512_35	sftcw062512_35_25062012_144750.txt	sftcw062512	SFTC	1243367.408	2371963.59	6/25/2012	0	0.00091	0.089438	A	776.8	46.1	25-06-2012 14:47:50	0	0.004	0.393000007	0.227577552
sftcw062512_36	sftcw062512_36_25062012_145302.txt	sftcw062512	SFTC	1243187.297	2372002.164	6/25/2012	0	0.000227	0.032057	A	777.0	46.5	25-06-2012 14:53:02	0	0.001	0.141000003	0.227351293
sftcw062512_37	sftcw062512_37_25062012_150218.txt	sftcw062512	SFTC	1243148.138	2371769.213	6/25/2012	0	0.003177	0.214218	A	777.0	47.1	25-06-2012 15:02:18	-0.050999999	0.014	0.944000006	0.226925343
sftcw062512_38	sftcw062512_38_25062012_150730.txt	sftcw062512	SFTC	1242944.17	2372154.004	6/25/2012	0	0.001589	0.137988	A	777.1	47.1	25-06-2012 15:07:30	0	0.007	0.607999998	0.22695455
sftcw062512_39	sftcw062512_39_25062012_151257.txt	sftcw062512	SFTC	1242947.136	2372359.875	6/25/2012	0	0.001362	0.429838	A	777.0	46.9	25-06-2012 15:12:57	-0.039000001	0.006	1.893000007	0.227067143
sftcw062512_40	sftcw062512_40_25062012_151823.txt	sftcw062512	SFTC	1242939.172	2372535.287	6/25/2012	9.819158	0.000454	3.001598	A	776.8	46.6	25-06-2012 15:18:23	43.2140007	0.002	13.21000004	0.227221683
sftcw062512_41	sftcw062512_41_25062012_152308.txt	sftcw062512	SFTC	1242954.356	2372591.226	6/25/2012	296.8203	0.010238	0.057105	A	777.3	46.4	25-06-2012 15:23:08	1304.645996	0.045000002	0.250999987	0.227510244
sftcw062512_42	sftcw062512_42_25062012_152841.txt	sftcw062512	SFTC	1242928.2	2372781.936	6/25/2012	0	0.00501	0.433587	A	777.3	46.1	25-06-2012 15:28:41	-0.233999997	0.022	1.904000044	0.227724031
sftcw062512_43	sftcw062512_43_25062012_153614.txt	sftcw062512	SFTC	1243148.902	2372763.328	6/25/2012	0	0.001366	0.142519	A	777.1	46.1	25-06-2012 15:36:14	-0.017999999	0.006	0.625999987	0.227665439
sftcw062512_44	sftcw062512_44_25062012_154053.txt	sftcw062512	SFTC	1243143.518	2372554.365	6/25/2012	0	0.003641	0.240081	A	777.0	46.2	25-06-2012 15:40:53	0	0.016000001	1.054999948	0.227564871
sftcw062512_45	sftcw062512_45_25062012_154437.txt	sftcw062512	SFTC	1243161.116	2372381.999	6/25/2012	0	0.004777	0.162864	A	776.9	46.3	25-06-2012 15:44:37	0	0.021	0.716000021	0.227464348
sftcw062512_46	sftcw062512_46_25062012_154829.txt	sftcw062512	SFTC	1243244.084	2372196.819	6/25/2012	0	0.006142	0.790666	A	776.9	46.3	25-06-2012 15:48:29	-0.052000001	0.027000001	3.476000071	0.227464348
sftcw062512_47	sftcw062512_47_25062012_155154.txt	sftcw062512	SFTC	1243359.011	2372189.503	6/25/2012	0	0.003184	0.960458	A	776.8	46.3	25-06-2012 15:51:54	0	0.014	4.223000005	0.227435067
sftcw062512_48	sftcw062512_48_25062012_155519.txt	sftcw062512	SFTC	1243343.73	2372213.252	6/25/2012	3.021379	0.001364	4.124382	A	776.6	46.3	25-06-2012 15:55:19	13.28800011	0.006	18.13899994	0.227376521
sftcw062512_49	sftcw062512_49_25062012_155835.txt	sftcw062512	SFTC	1243396.387	2372240.556	6/25/2012	0	0.001592	1.783546	A	776.8	46.3	25-06-2012 15:58:35	0	0.007	7.842000008	0.227435067
sftcw062512_50	sftcw062512_50_25062012_160101.txt	sftcw062512	SFTC	1243374.721	2372289.594	6/25/2012	0	0.003182	1.715928	A	776.6	46.4	25-06-2012 16:01:01	0	0.014	7.548999786	0.227305353
sftcw062512_51	sftcw062512_51_25062012_160415.txt	sftcw062512	SFTC	1243370.76	2372280.788	6/25/2012	0.407379	0.000909	1.729484	A	776.5	46.5	25-06-2012 16:04:15	1.792999983	0.004	7.611999989	0.227204993
sftcw062512_52	sftcw062512_52_25062012_160712.txt	sftcw062512	SFTC	1243422.016	2372316.934	6/25/2012	0.18551	0.000908	2.335342	A	776.5	46.7	25-06-2012 16:07:12	0.816999972	0.004	10.28499985	0.227062926
sftcw062512_53	sftcw062512_53_25062012_161031.txt	sftcw062512	SFTC	1243347.026	2372398.12	6/25/2012	0	0.003404	0.208779	A	776.3	46.8	25-06-2012 16:10:31	0	0.015	0.920000017	0.226933479
sftcw062512_54	sftcw062512_54_25062012_161348.txt	sftcw062512	SFTC	1243361.399	2372555.98	6/25/2012	0	0.003177	0.145475	A	776.6	46.9	25-06-2012 16:13:48	0	0.014	0.640999973	0.226950243
sftcw062512_55	sftcw062512_55_25062012_161657.txt	sftcw062512	SFTC	1243349.597	2372763.086	6/25/2012	0	0.002495	0.081418	A	776.3	47.0	25-06-2012 16:16:57	0	0.011	0.358999997	0.226791725
sftcw062512_56	sftcw062512_56_26062012_090818.txt	sftcw062512	SFTC	1243348.082	2373377.284	6/26/2012	0	0.000973	0.118198	A	778.4	26.2	26-06-2012 09:08:18	-0.273000002	0.004	0.486000001	0.243206218
sftcw062512_57	sftcw062512_57_26062012_091456.txt	sftcw062512	SFTC	1243142.951	2373369.91	6/26/2012	0	0.000724	25.83901	A	778.4	28.4	26-06-2012 09:14:56	-0.046	0.003	107.0240021	0.241431877
sftcw062512_58	sftcw062512_58_26062012_091913.txt	sftcw062512	SFTC	1243135.309	2373163.661	6/26/2012	0	0.002403	10.74898	A	778.2	29.8	26-06-2012 09:19:13	0	0.01	44.74000168	0.240254417
sftcw062512_59	sftcw062512_59_26062012_092439.txt	sftcw062512	SFTC	1242961.234	2372971.191	6/26/2012	0.131754	0.001435	0	A	778.1	31.2	26-06-2012 09:24:39	0.550999999	0.006	-91.31500244	0.239118516
sftcw062512_60	sftcw062512_60_26062012_093018.txt	sftcw062512	SFTC	1243155.995	2372979.496	6/26/2012	0	0.001188	7.680076	A	776.9	32.8	26-06-2012 09:30:18	0	0.005	32.3370018	0.237501174
sftcw062512_61	sftcw062512_61_26062012_093353.txt	sftcw062512	SFTC	1243345.182	2372964.71	6/26/2012	0	0.000237	0.813209	A	777.8	33.6	26-06-2012 09:33:53	0	0.001	3.428999901	0.237156197
sftcw062512_62	sftcw062512_62_26062012_093747.txt	sftcw062512	SFTC	1243359.394	2373173.765	6/26/2012	0	0.000473	0	A	777.5	34.4	26-06-2012 09:37:47	0	0.002	-15.369999989	0.236448079
sftcw062512_63	sftcw062512_63_26062012_094428.txt	sftcw062512	SFTC	1243511.381	2372999.458	6/26/2012	2566.117	0.189784	0.500512	A	778.0	35.5	26-06-2012 09:44:28	10884.58887	0.805000007	2.122999907	0.235756904
sftcw062512_64	sftcw062512_64_26062012_094909.txt	sftcw062512	SFTC	1243559.231	2372953.032	6/26/2012	0	0	6.630585	A	776.8	36.2	26-06-2012 09:49:09	-0.782999992	-0.002	28.23200035	0.234860629
sftcw062512_65	sftcw062512_65_26062012_095406.txt	sftcw062512	SFTC	1243562.081	2373188.831	6/26/2012	0	0	36.97686	A	776.8	36.9	26-06-2012 09:54:06	0	-0.002	157.7980042	0.234330371
sftcw062512_66	sftcw062512_66_26062012_100805.txt	sftcw062512	SFTC	1243567.572	2373377.078	6/26/2012	0	0	0.196974	A	775.9	37.8	26-06-2012 10:08:05	0	0	0.843999982	0.233381435
sftcw062512_67	sftcw062512_67_26062012_101433.txt	sftcw062512	SFTC	1243765.009	2373335.657	6/26/2012	0.062297	0.001867	0	A	776.2	38.0	26-06-2012 10:14:33	0.26699999	0.008	-70.7009964	0.233321592
sftcw062512_68	sftcw062512_68_26062012_101817.txt	sftcw062512	SFTC	1243834.504	2373320.803	6/26/2012	17.68912	0.000698	1.979077	A	774.5	38.3	26-06-2012 10:18:17	76.05400085	0.003	8.508999825	0.232586339
sftcw062512_69	sftcw062512_69_26062012_103012.txt	sftcw062512	SFTC	1243840.943	2373400.481	6/26/2012				A	n.a.	39.1	26-06-2012 10:30:12	0	0	0.188999996	
sftcw062512_70	sftcw062512_70_26062012_103627.txt	sftcw062512	SFTC	1243965.716	2373417.978	6/26/2012	0	0.000927	0.041473	A	774.5	39.5	26-06-2012 10:36:27	0	0.004	0.179000005	0.23169364
sftcw062512_71	sftcw062512_71_26062012_103954.txt	sftcw062512	SFTC	1243974.278	2373359.657	6/26/2012	0	0.000462	0.045956	A	772.7	39.8	26-06-2012 10:39:54	0	0.002	0.199000001	0.230933562
sftcw062512_72	sftcw062512_72_26062012_104400.txt	sftcw062512	SFTC	1244131.948	2373370.293	6/26/2012	0	0	0.116986	A	772.8	40.1	26-06-2012 10:44:00	0	0	0.507000029	0.230742261
sftcw062512_73	sftcw062512_73_26062012_104905.txt	sftcw062512	SFTC	1244141.392	2373176.909	6/26/2012	0	0	0.197659	A	771.4	40.4	26-06-2012 10:49:05	0	-0.001	0.859000027	0.23010388
sftcw062512_74	sftcw062512_74_26062012_105542.txt	sftcw062512															

APPENDIX B - FLUX METER DATA

SitePt	Filename	Site	AreaAbbrev	Northing	Easting	Date	CH4flux	H2Sflux	CO2flux	ACCUMULATION CHAMBER:	PRESSURE (HPa):	TEMP DegC	TIME:	CH4slope	H2Sslope	CO2slope	AcK
sftcw062512_83	sftcw062512_83_26062012_114540.txt	sftcw062512	SFTC	1243968.605	2372651.642	6/26/2012	0	0.00046	0.166902	A	775.2	41.8	26-06-2012 11:45:40	-0.407999992	0.002	0.725000024	0.230209514
sftcw062512_84	sftcw062512_84_26062012_115141.txt	sftcw062512	SFTC	1244149.009	2372772.099	6/26/2012	0	0.00069	0.458589	A	774.3	41.9	26-06-2012 11:51:41	0	0.003	1.995000005	0.229869246
sftcw062512_85	sftcw062512_85_26062012_115612.txt	sftcw062512	SFTC	1244135.814	2372573.423	6/26/2012	0	0.003211	0.344944	A	772.8	42.0	26-06-2012 11:56:12	0	0.014	1.503999949	0.229351148
sftcw062512_86	sftcw062512_86_26062012_120052.txt	sftcw062512	SFTC	1243978.671	2372523.362	6/26/2012	0	0.000919	0.23747	A	773.6	41.9	26-06-2012 12:00:52	-0.012	0.004	1.034000039	0.229661435
sftcw062512_87	sftcw062512_87_26062012_120916.txt	sftcw062512	SFTC	1243730.644	2372533.524	6/26/2012	0	0	0.029193	A	773.8	41.7	26-06-2012 12:09:16	-0.041000001	0	0.127000004	0.229866743
sftcw062512_88	sftcw062512_88_26062012_123330.txt	sftcw062512	SFTC	1243759.634	2372362.28	6/26/2012	0	0.003452	0.119899	A	774.2	41.5	26-06-2012 12:33:30	-10.48600006	0.015	0.521000028	0.230131745
sftcw062512_89	sftcw062512_89_26062012_123715.txt	sftcw062512	SFTC	1243752.679	2372166.016	6/26/2012	0	0.002991	0.059129	A	774.0	41.5	26-06-2012 12:37:15	-5.002999783	0.013	0.256999999	0.230072305
sftcw062512_90	sftcw062512_90_26062012_124135.txt	sftcw062512	SFTC	1243959.021	2372171.133	6/26/2012	0	0.005059	0.289992	A	773.9	41.6	26-06-2012 12:41:35	-5.006999969	0.022	1.261000037	0.229969487
sftcw062512_91	sftcw062512_91_26062012_124448.txt	sftcw062512	SFTC	1243965.319	2372352.02	6/26/2012	0	0.002753	0.099798	A	772.3	41.7	26-06-2012 12:44:48	-1.800999999	0.012	0.435000002	0.229421154
sftcw062512_92	sftcw062512_92_26062012_124853.txt	sftcw062512	SFTC	1244120.571	2372351.018	6/26/2012	0	0.004585	0.159544	A	771.9	41.8	26-06-2012 12:48:53	-0.100000001	0.02	0.695999998	0.22922951
sftcw062512_93	sftcw062512_93_26062012_125219.txt	sftcw062512	SFTC	1244157.324	2372180.023	6/26/2012	0	0.002973	0.118244	A	770.4	41.9	26-06-2012 12:52:19	-0.075000003	0.013	0.517000002	0.228711441
sftcw062512_94	sftcw062512_94_26062012_125829.txt	sftcw062512	SFTC	1244322.8	2372158.708	6/26/2012	0	0.004799	0.569285	A	770.3	42.1	26-06-2012 12:58:29	-0.025	0.021	2.490999937	0.22853668
sftcw062512_95	sftcw062512_95_26062012_131329.txt	sftcw062512	SFTC	1244346.241	2371954.943	6/26/2012	0	0.002738	0.896042	A	770.3	42.6	26-06-2012 13:13:29	-0.81099999	0.012	3.927000046	0.228174791
sftcw062512_96	sftcw062512_96_26062012_131737.txt	sftcw062512	SFTC	1244371.511	2371788.574	6/26/2012	3.421163	0.003192	1.405214	A	770.1	42.8	26-06-2012 13:17:37	15.00699997	0.014	6.164000034	0.227971137
sftcw062512_97	sftcw062512_97_26062012_132148.txt	sftcw062512	SFTC	1244530.297	2371940.183	6/26/2012	0	0.002512	0.031281	A	771.3	42.8	26-06-2012 13:21:48	-0.806999981	0.011	0.136999995	0.22832638
sftcw062512_98	sftcw062512_98_26062012_132534.txt	sftcw062512	SFTC	1244542.711	2371776.109	6/26/2012	0	0.00205	0.076069	A	769.6	42.9	26-06-2012 13:25:34	-2.75999999	0.009	0.333999991	0.227751046
sftcw062512_99	sftcw062512_99_26062012_133015.txt	sftcw062512	SFTC	1244545.313	2371556.881	6/26/2012	0	0.006155	0.339202	A	770.3	42.9	26-06-2012 13:30:15	-1.016000032	0.027000001	1.488000035	0.227958202
vp080912_01	vp080912_01_09082012_095550.txt	vp080912	VP	1244329.384	2352783.692	8/9/2012	0	0.001419	0.180645	A	764.6	29.3	09-08-2012 09:55:50	0	0.006	0.763999999	0.236445919
vp080912_02	vp080912_02_09082012_100238.txt	vp080912	VP	1244531.808	2352750.299	8/9/2012	0	0.000469	0.105763	A	764.6	31.8	09-08-2012 10:02:38	0	0.002	0.451000005	0.234507516
vp080912_03	vp080912_03_09082012_101054.txt	vp080912	VP	1244542.612	2352554.542	8/9/2012	0	0.000698	0.07611	A	764.6	34.1	09-08-2012 10:10:54	0	0.003	0.326999992	0.232752055
vp080912_04	vp080912_04_09082012_101951.txt	vp080912	VP	1244536.848	2352359.781	8/9/2012	0	0.001838	0.220748	A	760.0	36.3	09-08-2012 10:19:51	0	0.008	0.961000025	0.229706988
vp080912_05	vp080912_05_09082012_102648.txt	vp080912	VP	1244370.331	2352343.977	8/9/2012	0	0.001373	0.529659	A	760.0	37.4	09-08-2012 10:26:48	0	0.006	2.313999891	0.22889334
vp080912_06	vp080912_06_09082012_103059.txt	vp080912	VP	1244357.678	2352542.819	8/9/2012	0	0.002056	0.307039	A	760.0	38.0	09-08-2012 10:30:59	0	0.009	1.343999982	0.228451967
vp080912_07	vp080912_07_09082012_103601.txt	vp080912	VP	1244152.037	2352358.363	8/9/2012	0	0.002285	0.234187	A	761.3	38.5	09-08-2012 10:36:01	0	0.01	1.024999976	0.228475586
vp080912_08	vp080912_08_09082012_104206.txt	vp080912	VP	1244147.68	2352564.082	8/9/2012	0	0.001597	0.188268	A	762.1	39.2	09-08-2012 10:42:06	0	0.007	0.824999988	0.228203118
vp080912_09	vp080912_09_09082012_104706.txt	vp080912	VP	1244168.745	2352739.461	8/9/2012	0	0.001368	0.299843	A	762.7	39.7	09-08-2012 10:47:06	0	0.006	1.315000057	0.228017777
vp080912_10	vp080912_10_09082012_111147.txt	vp080912	VP	1243567.01	2352517.289	8/9/2012	0	0.001362	0.103261	A	763.0	41.3	09-08-2012 11:11:47	0	0.006	0.455000013	0.226946786
vp080912_11	vp080912_11_09082012_111935.txt	vp080912	VP	1243559.149	2352369.001	8/9/2012	0	0.00319	0.017775	A	766.4	41.4	09-08-2012 11:19:35	0	0.014	0.078000002	0.227885619
vp080912_12	vp080912_12_09082012_112552.txt	vp080912	VP	1243339.016	2352347.438	8/9/2012	0	0.002959	0.3901	A	766.4	41.8	09-08-2012 11:25:52	0	0.013	1.713999987	0.227596194
vp080912_13	vp080912_13_09082012_113457.txt	vp080912	VP	1243354.639	2352535.636	8/9/2012	0	0.001823	0.217149	A	768.5	42.3	09-08-2012 11:34:57	0	0.008	0.953000009	0.227858096
vp080912_14	vp080912_14_09082012_114200.txt	vp080912	VP	1243370.082	2352786.174	8/9/2012	0	0.003184	0.346129	A	767.5	42.5	09-08-2012 11:42:00	0	0.014	1.521999955	0.227417409
vp080912_15	vp080912_15_09082012_114828.txt	vp080912	VP	1243536.566	2352799.571	8/9/2012	0	0.00091	0.123692	A	767.6	42.6	09-08-2012 11:48:28	0	0.004	0.544000003	0.227375001
vp080912_16	vp080912_16_09082012_115244.txt	vp080912	VP	1243556.652	2352960.209	8/9/2012	0	0.007263	1.451974	A	766.5	42.7	09-08-2012 11:52:44	0	0.032000002	6.396999836	0.226977274
vp080912_17	vp080912_17_09082012_115704.txt	vp080912	VP	1243511.084	2352971.671	8/9/2012	0.679051	0.003629	0.881361	A	766.4	42.9	09-08-2012 11:57:04	2.993999958	0.016000001	3.885999918	0.226804048
vp080912_18	vp080912_18_09082012_120228.txt	vp080912	VP	1243563.937	2353083.787	8/9/2012	0	0.002725	0.25051	A	767.7	43.0	09-08-2012 12:02:28	-0.115000002	0.012	1.103000045	0.227116913
vp080912_19	vp080912_19_09082012_120653.txt	vp080912	VP	1243372.165	2353091.923	8/9/2012	0	0.001362	0.081483	A	767.7	43.2	09-08-2012 12:06:53	0	0.006	0.358999997	0.226973325
vp080912_20	vp080912_20_09082012_121237.txt	vp080912	VP	1243344.953	2352972.176	8/9/2012	0	0.004087	1.60742	A	768.4	43.4	09-08-2012 12:12:37	0	0.017999999	7.079999924	0.227036744
vp080912_21	vp080912_21_09082012_121740.txt	vp080912	VP	1243141.442	2352982.746	8/9/2012	0	0.002494	0.262572	A	767.9	43.6	09-08-2012 12:17:40	0	0.011	1.157999992	0.226745754
vp080912_22	vp080912_22_09082012_122238.txt	vp080912	VP	1243167.218	2352794.756	8/9/2012	0	0.003405	0.425599	A	769.2	43.8	09-08-2012 12:22:38	0	0.015	1.875	0.226986289
vp080912_23	vp080912_23_09082012_122909.txt	vp080912	VP	1243133.492	2352564.71	8/9/2012	0	0.002497	0.243352	A	770.0	44.1	09-08-2012 12:29:09	0	0.011	1.072000027	0.227007493
vp080912_24	vp080912_24_09082012_123410.txt	vp080912	VP	1243163.767	2352360.068	8/9/2012	0	0.003172	0.639559	A	768.7	44.2	09-08-2012 12:34:10	-0.021	0.014	2.822999954	0.226552829
vp080912_25	vp080912_25_09082012_123927.txt	vp080912	VP	1243157.578	2352277.604	8/9/2012	0	0.002265	0.225622	A	769.1	44.4	09-08-2012 12:39:27	0	0.01	0.995999992	0.226527959
vp080912_26	vp080912_26_09082012_124414.txt	vp080912	VP	1242965.788	2352349.429	8/9/2012	0	0.002489	0.095032	A	768.7	44.6	09-08-2012 12:44:14	0	0.011	0.419999987	0.226267636
vp080912_27	vp080912_27_09082012_124908.txt	vp080912	VP	1242971.233	2352572.468	8/9/2012	0	0.00272	0.296746	A	770.4	44.7	09-08-2012 12:49:08	0	0.012	1.309000015	0.226696685
vp080912_28	vp080912_28_09082012_125449.txt	vp080912	VP	1242980.939	2352771.102	8/9/2012	0	0.001586	0.399284	A	770.1	44.7	09-08-2012 12:54:49	0	0.007	1.761999965	0.22660841
vp080912_29	vp080912_29_09082012_130033.txt	vp080912	VP	1242954.383	2352959.669	8/9/2012	0	0.002271	0.172136	A	771.5	44.6	09-08-2012 13:00:33	0	0.01	0.758000016	0.227091819
vp080912_30	vp080912_30_09082012_130551.txt	vp080912	VP	1242754.485	2352967.287	8/9/2012	0	0.002947	0.320996	A	769.9	44.5	09-08-2012 13:05:51	-0.229000002	0.013	1.416000009	0.2266922
vp080912_31	vp080912_31_09082012_131030.txt	vp080912	VP	1242778.232	2352781.714	8/9/2012	0	0.004316	0.325979	A	771.5	44.5	09-08-2012 13:10:30	0	0.018999999	1.434999943	0.2271633
vp080912_32	vp080912_32_09082012_131441.txt	vp080912	VP	1242767.863	2352569.992	8/9/2012	0	0.002049	0.128376	A	772.8	44.4	09-08-2012 13:14:41	0	0.009	0.56400	

APPENDIX B - FLUX METER DATA

SitePt	Filename	Site	AreaAbbrev	Northing	Easting	Date	CH4flux	H2Sflux	CO2flux	ACCUMULATION CHAMBER:	PRESSURE (HPa):	TEMP DegC	TIME:	CH4slope	H2Sslope	CO2slope	AcK
vp081412_04	vp081412_04_14082012_104305.txt	vp081412	VP	1243952.308	2350782.832	8/14/2012	0	0.000691	0.102656	A	757.1	34.5	14-08-2012 10:43:05	0	0.003	0.44600001	0.230169326
vp081412_05	vp081412_05_14082012_105038.txt	vp081412	VP	1243947.866	2350595.956	8/14/2012	0	0.001376	0.068585	A	757.7	35.8	14-08-2012 10:50:38	0	0.006	0.298999995	0.229382455
vp081412_06	vp081412_06_14082012_110059.txt	vp081412	VP	1243941.705	2350375.624	8/14/2012	0	0.003871	0.148245	A	756.1	37.4	14-08-2012 11:00:59	0	0.017000001	0.651000023	0.227718756
vp081412_07	vp081412_07_14082012_110748.txt	vp081412	VP	1243948.678	2350166.884	8/14/2012	0	0.00068	0.112166	A	754.8	38.4	14-08-2012 11:07:48	0	0.003	0.495000005	0.226597562
vp081412_08	vp081412_08_14082012_111500.txt	vp081412	VP	1243963.718	2349971.472	8/14/2012	0	0.000451	0.085768	A	754.0	39.3	14-08-2012 11:15:00	0	0.002	0.379999995	0.225705385
vp081412_09	vp081412_09_14082012_111943.txt	vp081412	VP	1243965.566	2349772.126	8/14/2012	0	0.000902	0.071016	A	754.1	39.7	14-08-2012 11:19:43	0	0.004	0.314999998	0.225446701
vp081412_10	vp081412_10_14082012_113250.txt	vp081412	VP	1243978.763	2349585.528	8/14/2012	0	0.001125	0.20208	A	754.4	40.4	14-08-2012 11:32:50	0	0.005	0.898000002	0.225032881
vp081412_11	vp081412_11_14082012_113921.txt	vp081412	VP	1243954.293	2349393.643	8/14/2012	0	0.000676	0.143013	A	755.5	40.6	14-08-2012 11:39:21	0	0.003	0.634999999	0.225217357
vp081412_12	vp081412_12_14082012_114520.txt	vp081412	VP	1243950.988	2349164.711	8/14/2012	0	0.000899	0.165951	A	754.8	40.8	14-08-2012 11:45:20	0	0.004	0.737999976	0.224865332
vp081412_13	vp081412_13_14082012_115059.txt	vp081412	VP	1243910.469	2348938.472	8/14/2012	0	0.001124	0.104501	A	754.6	40.9	14-08-2012 11:50:59	0	0.005	0.465000004	0.224734172
vp081412_14	vp081412_14_14082012_115530.txt	vp081412	VP	1243944.431	2348794.512	8/14/2012	0	0.002696	0.087401	A	754.9	41.1	14-08-2012 11:55:30	0	0.012	0.388999999	0.224680439
vp081412_15	vp081412_15_14082012_120432.txt	vp081412	VP	1243745.773	2348780.188	8/14/2012	0	0.002018	0.115914	A	754.5	41.6	14-08-2012 12:04:32	0	0.009	0.517000002	0.224204645
vp081412_16	vp081412_16_14082012_120902.txt	vp081412	VP	1243756.678	2348958.445	8/14/2012	0	0.002692	0.113968	A	755.7	41.9	14-08-2012 12:09:02	0	0.012	0.508000016	0.224347398
vp081412_17	vp081412_17_14082012_121310.txt	vp081412	VP	1243776.655	2349164.835	8/14/2012	0	0.00269	0.087653	A	755.6	42.1	14-08-2012 12:13:10	0	0.012	0.391000003	0.224175408
vp081412_18	vp081412_18_14082012_121730.txt	vp081412	VP	1243776.195	2349357.38	8/14/2012	0	0.000896	0.102553	A	755.2	42.3	14-08-2012 12:17:30	0	0.004	0.458000004	0.223914683
vp081412_19	vp081412_19_14082012_122235.txt	vp081412	VP	1243760.927	2349558.43	8/14/2012	0	0.002239	0.040071	A	755.5	42.5	14-08-2012 12:22:35	0	0.01	0.179000005	0.223861694
vp081412_20	vp081412_20_14082012_122748.txt	vp081412	VP	1243744.853	2349765.3	8/14/2012	0	0.000896	0	A	756.4	42.7	14-08-2012 12:27:48	0	0.004	-0.082999997	0.223986447
vp081412_21	vp081412_21_14082012_123136.txt	vp081412	VP	1243728.835	2349972.468	8/14/2012	0	0.002015	0.028427	A	755.9	42.7	14-08-2012 12:31:36	0	0.009	0.127000004	0.223838389
vp081412_22	vp081412_22_14082012_123609.txt	vp081412	VP	1243727.419	2350193.208	8/14/2012	0	0.00112	0.081077	A	756.1	42.6	14-08-2012 12:36:09	0	0.005	0.361999989	0.223968521
vp081412_23	vp081412_23_14082012_124236.txt	vp081412	VP	1243552.444	2350162.174	8/14/2012	0	0.000895	0.30274	A	754.9	42.4	14-08-2012 12:42:36	0	0.004	1.353000045	0.223754793
vp081412_24	vp081412_24_14082012_124654.txt	vp081412	VP	1243558.237	2350055.923	8/14/2012	2.366464	0.000899	0.839742	A	757.2	42.1	14-08-2012 12:46:54	10.5340004	0.004	3.737999916	0.2246501
vp081412_25	vp081412_25_14082012_125042.txt	vp081412	VP	1243535.43	2349963.537	8/14/2012	0	0.002923	0.198346	A	757.5	41.9	14-08-2012 12:50:42	0	0.013	0.882000029	0.224881783
vp081412_26	vp081412_26_14082012_125627.txt	vp081412	VP	1243548.353	2349775.093	8/14/2012	0	0.001802	0.103852	A	758.1	41.6	14-08-2012 12:56:27	0	0.008	0.460999995	0.225274414
vp081412_27	vp081412_27_14082012_130149.txt	vp081412	VP	1243523.512	2349550.639	8/14/2012	0	0.000677	0.046691	A	758.1	41.2	14-08-2012 13:01:49	0	0.003	0.207000002	0.225561067
vp081412_28	vp081412_28_14082012_130552.txt	vp081412	VP	1243526.727	2349390.811	8/14/2012	0	0.003154	0.104759	A	756.7	41.0	14-08-2012 13:05:52	0	0.014	0.465000004	0.225287855
vp081412_29	vp081412_29_14082012_131008.txt	vp081412	VP	1243526.431	2349181.571	8/14/2012	0	0.00248	0.115902	A	756.9	40.8	14-08-2012 13:10:08	0	0.011	0.513999999	0.225490957
vp081412_30	vp081412_30_14082012_131612.txt	vp081412	VP	1243568.981	2348973.797	8/14/2012	0	0.001804	0.128762	A	756.7	40.7	14-08-2012 13:16:12	0	0.008	0.570999998	0.225503206
vp081412_31	vp081412_31_14082012_132800.txt	vp081412	VP	1243344.622	2349575.43	8/14/2012	0	0.001128	0.041948	A	756.3	40.5	14-08-2012 13:28:00	0	0.005	0.186000004	0.225527719
vp081412_32	vp081412_32_14082012_133659.txt	vp081412	VP	1243369.422	2349779.866	8/14/2012	151.882	0.000904	2.176081	A	758.1	40.6	14-08-2012 13:36:59	672.0670166	0.004	9.62899971	0.225992426
vp081412_33	vp081412_33_14082012_134158.txt	vp081412	VP	1243346.136	2349925.059	8/14/2012	0	0.003171	0.458862	A	760.0	40.7	14-08-2012 13:41:58	-0.611999989	0.014	2.026000023	0.226486623
vp081412_34	vp081412_34_14082012_134706.txt	vp081412	VP	1243175.452	2350136.203	8/14/2012	0	0.001131	0.125724	A	759.5	41.0	14-08-2012 13:47:06	0	0.005	0.555999994	0.226121485
vp081412_35	vp081412_35_14082012_135200.txt	vp081412	VP	1243159.965	2349981.326	8/14/2012	0	0.001131	0.281375	A	760.2	41.2	14-08-2012 13:52:00	0	0.005	1.243999958	0.226185888
vp081412_36	vp081412_36_14082012_135550.txt	vp081412	VP	1243318.593	2350126.273	8/14/2012	0	0.000904	0.082081	A	760.7	41.5	14-08-2012 13:55:50	0	0.004	0.363000005	0.226118863
vp081412_37	vp081412_37_14082012_140153.txt	vp081412	VP	1243132.579	2349837.918	8/14/2012	18.04466	0.000676	2.413213	A	759.2	41.9	14-08-2012 14:01:53	80.06099701	0.003	10.70699978	0.225386456
vp081412_38	vp081412_38_14082012_140618.txt	vp081412	VP	1243248.372	2349772.315	8/14/2012	1.81637	0.001128	0.972612	A	761.1	42.3	14-08-2012 14:06:18	8.048999786	0.005	4.309999943	0.225664005
vp081412_39	vp081412_39_14082012_140949.txt	vp081412	VP	1243161.077	2349777.786	8/14/2012	0.86842	0.002027	0.904904	A	760.3	42.6	14-08-2012 14:09:49	3.855999947	0.009	4.018000126	0.225212634
vp081412_40	vp081412_40_14082012_141440.txt	vp081412	VP	1243082.758	2349562.076	8/14/2012	0	0.001575	0.073792	A	760.7	43.1	14-08-2012 14:14:40	0	0.007	0.328000009	0.224974856
vp081412_41	vp081412_41_14082012_141841.txt	vp081412	VP	1242918.972	2349581.24	8/14/2012	0	0.001572	0.023583	A	760.4	43.5	14-08-2012 14:18:41	0	0.007	0.104999997	0.224602059
vp081412_42	vp081412_42_14082012_142215.txt	vp081412	VP	1242969.2	2349747.182	8/14/2012	0	0.001794	0.076931	A	760.3	43.9	14-08-2012 14:22:15	0	0.008	0.342999995	0.224289194
vp081412_43	vp081412_43_14082012_142624.txt	vp081412	VP	1242963.156	2349961.037	8/14/2012	0	0.004043	0.85872	A	761.9	44.1	14-08-2012 14:26:24	0	0.017999999	3.822999954	0.224619493
vp081412_44	vp081412_44_14082012_142945.txt	vp081412	VP	1242968.979	2350121.253	8/14/2012	0	0.007412	0.378024	A	762.6	44.4	14-08-2012 14:29:45	0	0.033	1.682999969	0.224613473
vp081412_45	vp081412_45_16082012_113134.txt	vp081412	Sec17	1240859.115	2341164.984	8/16/2012	0	0.000468	0.004447	A	768.1	33.8	16-08-2012 11:31:34	0	0.002	0.018999999	0.234046012
vp081412_46	vp081412_46_16082012_113519.txt	vp081412	Sec17	1240753.308	2341154.836	8/16/2012	0	0.000466	0.054059	A	767.7	35.0	16-08-2012 11:35:19	0	0.002	0.231999993	0.233013183
vp081412_47	vp081412_47_16082012_114039.txt	vp081412	Sec17	1240756.697	2341056.118	8/16/2012	0	0.000929	0.020666	A	768.5	36.4	16-08-2012 11:40:39	0	0.004	0.089000002	0.232201055
vp081412_48	vp081412_48_16082012_114538.txt	vp081412	Sec17	1240746.691	2340946.121	8/16/2012	0	0.000693	0.01225	A	767.2	37.3	16-08-2012 11:45:38	0	0.003	0.052999999	0.231136233
vp081412_49	vp081412_49_16082012_114950.txt	vp081412	Sec17	1240854.217	2340955.728	8/16/2012	0	0.000691	0.075103	A	766.4	38.0	16-08-2012 11:49:50	-0.052999999	0.003	0.326000005	0.230375767
vp081412_50	vp081412_50_16082012_115300.txt	vp081412	Sec17	1240862.959	2341027.092	8/16/2012	86.6717	0.000459	23.38309	A	765.3	38.5	16-08-2012 11:53:00	377.3649902	0.002	101.8089981	0.229676038
vp081412_51	vp081412_51_16082012_115629.txt	vp081412	Sec17	1240853.546	2341050.436	8/16/2012	2.363414	0.000459	3.196142	A	766.0	38.9	16-08-2012 11:56:29	10.29399967	0.002	13.92099953	0.229591444
vp081412_52	vp081412_52_16082012_120126.txt	vp081412	Sec17	1240958.329	2340953.289	8/16/2012	0	0.000917	0.036922	A	766.1	39.3	16-08-2012 12:01:26	0	0.004	0.160999998	0.229327455
vp081412_53	vp081412_53_1608201																

APPENDIX B - FLUX METER DATA

SitePt	Filename	Site	AreaAbbrev	Northing	Easting	Date	CH4flux	H2Sflux	CO2flux	ACCUMULATION CHAMBER:	PRESSURE (HPa):	TEMP DegC	TIME:	CH4slope	H2Sslope	CO2slope	AcK
vp081412_61	vp081412_61_16082012_143312.txt	vp081412	VP	1244150.226	2349757.798	8/16/2012	0	0.000897	0.453657	A	753.8	41.4	16-08-2012 14:33:12	-1.361999989	0.004	2.023999929	0.224139065
vp081412_62	vp081412_62_16082012_143622.txt	vp081412	VP	1244160.974	2349740.972	8/16/2012	26.56442	0.000448	4.123744	A	752.9	41.5	16-08-2012 14:36:22	118.6969986	0.002	18.4260006	0.223800302
vp081412_63	vp081412_63_16082012_144040.txt	vp081412	VP	1244131.776	2349955.833	8/16/2012	0	0.001566	0.087713	A	753.0	41.6	16-08-2012 14:40:40	0	0.007	0.39199999	0.223758921
vp081412_64	vp081412_64_16082012_144609.txt	vp081412	VP	1244301.857	2349970.315	8/16/2012	0	0.002012	0.115362	A	752.6	41.7	16-08-2012 14:46:09	-0.224000007	0.009	0.515999973	0.223569021
vp081412_65	vp081412_65_16082012_145029.txt	vp081412	VP	1244167.365	2350183.59	8/16/2012	0	0.002901	0.086809	A	751.7	41.9	16-08-2012 14:50:29	0	0.013	0.388999999	0.223159909
vp081412_66	vp081412_66_16082012_145407.txt	vp081412	VP	1244150.533	2350345.105	8/16/2012	0	0.001117	0.092059	A	752.9	42.0	16-08-2012 14:54:07	0	0.005	0.412	0.223445237
vp081412_67	vp081412_67_16082012_145848.txt	vp081412	VP	1244158.901	2350534.851	8/16/2012	0	0.001341	0.098113	A	753.3	42.1	16-08-2012 14:58:48	0	0.006	0.43900001	0.223493025
vp081412_68	vp081412_68_16082012_150246.txt	vp081412	VP	1244139.905	2350749.496	8/16/2012	0	0.003806	0.444824	A	754.8	42.2	16-08-2012 15:02:46	0	0.017000001	1.986999989	0.223867044
vp081412_69	vp081412_69_16082012_150651.txt	vp081412	VP	1244122.725	2350960.346	8/16/2012	0	0.00224	0.197795	A	755.5	42.3	16-08-2012 15:06:51	0	0.01	0.883000016	0.224003628
vp081412_70	vp081412_70_16082012_151123.txt	vp081412	VP	1244147.718	2351162.366	8/16/2012	0	0.002239	0.093385	A	755.3	42.3	16-08-2012 15:11:23	0	0.01	0.416999996	0.223944321
vp081412_71	vp081412_71_16082012_151450.txt	vp081412	VP	1244350.674	2351165.617	8/16/2012	0	0.000894	0.108125	A	753.7	42.4	16-08-2012 15:14:50	0	0.004	0.483999997	0.223399118
vp081412_72	vp081412_72_16082012_152230.txt	vp081412	VP	1243765.034	2350955.506	8/16/2012	0	0.001339	0.038161	A	752.9	42.4	16-08-2012 15:22:30	0	0.006	0.171000004	0.223161995
vp081412_73	vp081412_73_16082012_153248.txt	vp081412	VP	1243724.99	2350775.902	8/16/2012	0	0.001348	0.108929	A	757.5	42.3	16-08-2012 15:32:48	0	0.006	0.485000014	0.22459662
vp081412_74	vp081412_74_16082012_153656.txt	vp081412	VP	1243732.379	2350576.004	8/16/2012	0	0.000897	0.058078	A	756.3	42.3	16-08-2012 15:36:56	0	0.004	0.259000003	0.224240825
vp081412_75	vp081412_75_16082012_154117.txt	vp081412	VP	1243727.332	2350349.433	8/16/2012	0	0.001792	0.044577	A	755.5	42.3	16-08-2012 15:41:17	0	0.008	0.199000001	0.224003628
vp081412_76	vp081412_76_16082012_154608.txt	vp081412	VP	1243515.83	2350373.381	8/16/2012	0	0.001566	0.082528	A	754.8	42.5	16-08-2012 15:46:08	0	0.007	0.368999988	0.22365427
vp081412_77	vp081412_77_16082012_154920.txt	vp081412	VP	1243542.593	2350563.291	8/16/2012	0	0.002914	0.172615	A	756.8	42.6	16-08-2012 15:49:20	0	0.013	0.769999981	0.22417587
vp081412_78	vp081412_78_16082012_155247.txt	vp081412	VP	1243542.933	2350773.026	8/16/2012	0	0.002466	0.060745	A	757.2	42.8	16-08-2012 15:52:47	0	0.011	0.270999998	0.224152386
vp081412_79	vp081412_79_16082012_160351.txt	vp081412	VP	1242753.272	2350146.23	8/16/2012	0	0.00672	0.182116	A	757.9	43.3	16-08-2012 16:03:51	-0.26699999	0.029999999	0.813000023	0.224005103
vp081412_80	vp081412_80_16082012_160818.txt	vp081412	VP	1242776.009	2349993.343	8/16/2012	0.332726	0.001805	1.615581	A	763.7	43.5	16-08-2012 16:08:18	1.475000024	0.008	7.162000179	0.225576788
vp081412_81	vp081412_81_16082012_161437.txt	vp081412	VP	1242730.047	2349739.763	8/16/2012	0	0.001353	0.051627	A	763.5	43.6	16-08-2012 16:14:37	0	0.006	0.229000002	0.225446522
vp081412_82	vp081412_82_16082012_161829.txt	vp081412	VP	1242563.673	2349779.85	8/16/2012	0	0.001126	0.063931	A	762.6	43.7	16-08-2012 16:18:29	0	0.005	0.284000009	0.225109696
vp081412_83	vp081412_83_16082012_162505.txt	vp081412	VP	1242529.478	2349967.77	8/16/2012	0	0.001352	0.1124	A	763.8	44.0	16-08-2012 16:25:05	0	0.006	0.499000013	0.225250646

APPENDIX C
VOLUMETRIC FLUX CALCULATIONS



Grid Volume Computations

Wed Aug 22 16:16:50 2012

Upper Surface

Grid File Name:	P:\LaPlata\2012 Detailed Seep Mapping\Surfer\BC2CJ_CH4notail.grd
Grid Size:	163 rows x 225 columns
X Minimum:	2299886.021
X Maximum:	2313300.548
X Spacing:	59.886281249999
Y Minimum:	1208449.109
Y Maximum:	1218139.762
Y Spacing:	59.818845679013
Z Minimum:	-5.4537813269238
Z Maximum:	99.845771939986

Lower Surface

Level Surface defined by $Z = 0$

Volumes

Z Scale Factor: 0.0929

Total Volumes by:

Trapezoidal Rule:	1469423.8038392
Simpson's Rule:	1474868.97829
Simpson's 3/8 Rule:	1470962.8296353

Cut & Fill Volumes

Positive Volume [Cut]:	1699984.9633911
Negative Volume [Fill]:	230561.15955196
Net Volume [Cut-Fill]:	1469423.8038392

Areas

Planar Areas

Positive Planar Area [Cut]:	6477860.8400899
Negative Planar Area [Fill]:	14134855.716982

Blanked Planar Area: 109382809.75906
Total Planar Area: 129995526.31613

Surface Areas

Positive Surface Area [Cut]: 6478193.5410571
Negative Surface Area [Fill]: 14134859.080638

Grid Volume Computations

Wed Aug 22 16:18:27 2012

Upper Surface

Grid File Name:	P:\LaPlata\2012 Detailed Seep Mapping\Surfer\FR_CH4_notail.grd
Grid Size:	31 rows x 52 columns
X Minimum:	2329679.199
X Maximum:	2333470.652
X Spacing:	74.34221568627
Y Minimum:	1234036.145
Y Maximum:	1236255.837
Y Spacing:	73.989733333335
Z Minimum:	-1.200948966863
Z Maximum:	10.98589302687

Lower Surface

Level Surface defined by $Z = 0$

Volumes

Z Scale Factor: 0.0929

Total Volumes by:

Trapezoidal Rule:	88345.124390665
Simpson's Rule:	88006.891687718
Simpson's 3/8 Rule:	89297.27294131

Cut & Fill Volumes

Positive Volume [Cut]:	106137.39809481
Negative Volume [Fill]:	17792.273704149
Net Volume [Cut-Fill]:	88345.124390665

Areas

Planar Areas

Positive Planar Area [Cut]:	1633114.1318644
Negative Planar Area [Fill]:	3377896.6786227

Blanked Planar Area: 3404847.0819885
Total Planar Area: 8415857.8924756

Surface Areas

Positive Surface Area [Cut]: 1633117.2797851
Negative Surface Area [Fill]: 3377896.766634

Grid Volume Computations

Wed Aug 29 11:28:01 2012

Upper Surface

Grid File Name:	P:\LaPlata\2012 Detailed Seep Mapping\Surfer\Sec17_CH4notail.grd
Grid Size:	15 rows x 15 columns
X Minimum:	2340846.121
X Maximum:	2341264.984
X Spacing:	29.918785714312
Y Minimum:	1240646.69
Y Maximum:	1241073.552
Y Spacing:	30.49014285714
Z Minimum:	-17.43583602558
Z Maximum:	79.754212403691

Lower Surface

Level Surface defined by $Z = 0$

Volumes

Z Scale Factor: 0.0929

Total Volumes by:

Trapezoidal Rule:	32538.558961335
Simpson's Rule:	31135.754555145
Simpson's 3/8 Rule:	30698.855716201

Cut & Fill Volumes

Positive Volume [Cut]:	44118.391274525
Negative Volume [Fill]:	11579.832313189
Net Volume [Cut-Fill]:	32538.558961335

Areas

Planar Areas

Positive Planar Area [Cut]:	94392.857562579
Negative Planar Area [Fill]:	84403.84034356

Blanked Planar Area: 0
Total Planar Area: 178796.69790614

Surface Areas

Positive Surface Area [Cut]: 94471.746286708
Negative Surface Area [Fill]: 84413.721466982

Grid Volume Computations

Wed Aug 22 16:19:28 2012

Upper Surface

Grid File Name:	P:\LaPlata\2012 Detailed Seep Mapping\Surfer\TC2PR_CH4_notail.grd
Grid Size:	118 rows x 323 columns
X Minimum:	2370444.309
X Maximum:	2389761.013
X Spacing:	59.989763975155
Y Minimum:	1237637.211
Y Maximum:	1244645.313
Y Spacing:	59.898307692309
Z Minimum:	-222.80182566748
Z Maximum:	2134.8742154489

Lower Surface

Level Surface defined by $Z = 0$

Volumes

Z Scale Factor: 0.0929

Total Volumes by:

Trapezoidal Rule:	9959666.7970693
Simpson's Rule:	9973521.8420141
Simpson's 3/8 Rule:	10017473.599265

Cut & Fill Volumes

Positive Volume [Cut]:	12873037.519239
Negative Volume [Fill]:	2913508.8738687
Net Volume [Cut-Fill]:	9959528.6453707

Areas

Planar Areas

Positive Planar Area [Cut]:	7098288.2322194
Negative Planar Area [Fill]:	16022706.29427

Blanked Planar Area: 112252437.40932
Total Planar Area: 135373431.93581

Surface Areas

Positive Surface Area [Cut]: 7160061.068713
Negative Surface Area [Fill]: 16025399.129548

Grid Volume Computations

Wed Aug 29 11:27:17 2012

Upper Surface

Grid File Name:	P:\LaPlata\2012 Detailed Seep Mapping\Surfer\VP_CH4notail.grd
Grid Size:	38 rows x 76 columns
X Minimum:	2348680.187
X Maximum:	2353191.924
X Spacing:	60.156493333336
Y Minimum:	1242429.478
Y Maximum:	1244642.612
Y Spacing:	59.814432432435
Z Minimum:	-11.955560857553
Z Maximum:	127.40442204128

Lower Surface

Level Surface defined by $Z = 0$

Volumes

Z Scale Factor: 0.0929

Total Volumes by:

Trapezoidal Rule:	393432.86118192
Simpson's Rule:	392680.73399516
Simpson's 3/8 Rule:	395159.79992905

Cut & Fill Volumes

Positive Volume [Cut]:	534051.98942153
Negative Volume [Fill]:	140619.12823961
Net Volume [Cut-Fill]:	393432.86118192

Areas

Planar Areas

Positive Planar Area [Cut]:	4131960.2342291
Negative Planar Area [Fill]:	3940660.9316656

Blanked Planar Area: 1912457.3878641
Total Planar Area: 9985078.5537588

Surface Areas

Positive Surface Area [Cut]: 4132163.7477417
Negative Surface Area [Fill]: 3940669.6240996

APPENDIX D
LABORATORY ANALYTICAL REPORTS





75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
970.247.4227 Fax
www.greenanalytical.com

24 May 2012

Sam LaRue
LT Environmental
2243 MAin Ave Suite 3
Durango, CO 81301
RE: La Plata Springs

Enclosed are the results of analyses for samples received by the laboratory on 05/21/12 16:30.
If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Debbie Zufelt". The signature is written in a cursive, flowing style.

Debbie Zufelt
Reports Manager



LT Environmental 2243 MAIn Ave Suite 3 Durango CO, 81301	Project: La Plata Springs Project Name / Number: [none] Project Manager: Sam LaRue	Reported: 05/24/12 12:32
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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Hoier Spring	1205103-01	Water	05/21/12 11:35	05/21/12 16:30
Darwin Rather Spring #1	1205103-02	Water	05/21/12 13:51	05/21/12 16:30
Darwin Rather Spring #2	1205103-03	Water	05/21/12 14:35	05/21/12 16:30

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

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LT Environmental 2243 MAin Ave Suite 3 Durango CO, 81301	Project: La Plata Springs Project Name / Number: [none] Project Manager: Sam LaRue	Reported: 05/24/12 12:32
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Hoier Spring

1205103-01 (Water)

Analyte	Result	Reporting		Units	Dilution	Analyzed	Method	Notes	Analyst
		Limit							
General Chemistry									
Alkalinity, Bicarbonate	120	10.0		mg/L	1	05/22/12	2320 B		ABP
Alkalinity, Carbonate	ND	10.0		mg/L	1	05/22/12	2320 B		ABP
Alkalinity, Hydroxide	ND	10.0		mg/L	1	05/22/12	2320 B		ABP
Alkalinity, Total	120	10.0		mg/L	1	05/22/12	2320 B		ABP
Bromide	ND	0.100		mg/L	1	05/23/12	4500Br B		ABP
Chloride	ND	10.0		mg/L	1	05/22/12	4500Cl- B		ABP
Fluoride	ND	0.200		mg/L	1	05/22/12	4500F C		ABP
Sulfate	ND	10.0		mg/L	1	05/23/12	4500SO4 E		ABP
TDS	185	10.0		mg/L	1	05/22/12	160.1		ABP
Dissolved Metals by ICP									
Calcium	22.8	1.00		mg/L	1	05/23/12	200.7		JGS
Iron	0.092	0.050		mg/L	1	05/23/12	200.7		JGS
Magnesium	11.0	1.00		mg/L	1	05/23/12	200.7		JGS
Potassium	1.21	1.00		mg/L	1	05/23/12	200.7		JGS
Sodium	11.5	1.00		mg/L	1	05/23/12	200.7		JGS
Cation/Anion Balance	11.14								

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Debbie Zufelt, Reports Manager

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LT Environmental 2243 MAin Ave Suite 3 Durango CO, 81301	Project: La Plata Springs Project Name / Number: [none] Project Manager: Sam LaRue	Reported: 05/24/12 12:32
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Darwin Rather Spring #1

1205103-02 (Water)

Analyte	Result	Reporting			Analyzed	Method	Notes	Analyst
		Limit	Units	Dilution				

General Chemistry

Alkalinity, Bicarbonate	178	10.0	mg/L	1	05/22/12	2320 B		ABP
Alkalinity, Carbonate	ND	10.0	mg/L	1	05/22/12	2320 B		ABP
Alkalinity, Hydroxide	ND	10.0	mg/L	1	05/22/12	2320 B		ABP
Alkalinity, Total	178	10.0	mg/L	1	05/22/12	2320 B		ABP
Bromide	0.385	0.100	mg/L	1	05/23/12	4500Br B		ABP
Chloride	14.0	10.0	mg/L	1	05/22/12	4500Cl- B		ABP
Fluoride	ND	0.200	mg/L	1	05/22/12	4500F C		ABP
Sulfate	36.0	10.0	mg/L	1	05/23/12	4500SO4 E		ABP
TDS	255	10.0	mg/L	1	05/22/12	160.1		ABP

Dissolved Metals by ICP

Calcium	56.0	1.00	mg/L	1	05/23/12	200.7		JGS
Iron	ND	0.050	mg/L	1	05/23/12	200.7		JGS
Magnesium	18.4	1.00	mg/L	1	05/23/12	200.7		JGS
Potassium	1.48	1.00	mg/L	1	05/23/12	200.7		JGS
Sodium	7.50	1.00	mg/L	1	05/23/12	200.7		JGS
Cation/Anion Balance	6.91							

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

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LT Environmental 2243 MAin Ave Suite 3 Durango CO, 81301	Project: La Plata Springs Project Name / Number: [none] Project Manager: Sam LaRue	Reported: 05/24/12 12:32
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Darwin Rather Spring #2

1205103-03 (Water)

Analyte	Result	Reporting			Analyzed	Method	Notes	Analyst
		Limit	Units	Dilution				

General Chemistry

Alkalinity, Bicarbonate	103	10.0	mg/L	1	05/22/12	2320 B		ABP
Alkalinity, Carbonate	ND	10.0	mg/L	1	05/22/12	2320 B		ABP
Alkalinity, Hydroxide	ND	10.0	mg/L	1	05/22/12	2320 B		ABP
Alkalinity, Total	103	10.0	mg/L	1	05/22/12	2320 B		ABP
Bromide	ND	0.100	mg/L	1	05/23/12	4500Br B		ABP
Chloride	ND	10.0	mg/L	1	05/22/12	4500Cl- B		ABP
Fluoride	0.287	0.200	mg/L	1	05/22/12	4500F C		ABP
Sulfate	23.0	10.0	mg/L	1	05/23/12	4500SO4 E		ABP
TDS	170	10.0	mg/L	1	05/22/12	160.1		ABP

Dissolved Metals by ICP

Calcium	30.7	1.00	mg/L	1	05/23/12	200.7		JGS
Iron	ND	0.050	mg/L	1	05/23/12	200.7		JGS
Magnesium	4.89	1.00	mg/L	1	05/23/12	200.7		JGS
Potassium	ND	1.00	mg/L	1	05/23/12	200.7		JGS
Sodium	13.4	1.00	mg/L	1	05/23/12	200.7		JGS

Cation/Anion Balance **6.86**

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

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LT Environmental 2243 MAin Ave Suite 3 Durango CO, 81301	Project: La Plata Springs Project Name / Number: [none] Project Manager: Sam LaRue	Reported: 05/24/12 12:32
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General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B205130 - General Prep - Wet Chem

Blank (B205130-BLK1) Prepared & Analyzed: 05/22/12										
Chloride	ND	10.0	mg/L							
LCS (B205130-BS1) Prepared & Analyzed: 05/22/12										
Chloride	103	10.0	mg/L	100		103	85-115			
LCS Dup (B205130-BSD1) Prepared & Analyzed: 05/22/12										
Chloride	98.0	10.0	mg/L	100		98.0	85-115	4.98	20	

Batch B205131 - General Prep - Wet Chem

Blank (B205131-BLK1) Prepared & Analyzed: 05/22/12										
Alkalinity, Total	ND	10.0	mg/L							
LCS (B205131-BS1) Prepared & Analyzed: 05/22/12										
Alkalinity, Total	93.0	10.0	mg/L	100		93.0	85-115			
LCS Dup (B205131-BSD1) Prepared & Analyzed: 05/22/12										
Alkalinity, Total	96.0	10.0	mg/L	100		96.0	85-115	3.17	20	

Batch B205132 - General Prep - Wet Chem

Blank (B205132-BLK1) Prepared & Analyzed: 05/22/12										
Fluoride	ND	0.200	mg/L							
LCS (B205132-BS1) Prepared & Analyzed: 05/22/12										
Fluoride	0.922	0.200	mg/L	1.00		92.2	85-115			

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

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LT Environmental 2243 MAIn Ave Suite 3 Durango CO, 81301	Project: La Plata Springs Project Name / Number: [none] Project Manager: Sam LaRue	Reported: 05/24/12 12:32
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General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B205132 - General Prep - Wet Chem

LCS Dup (B205132-BSD1)				Prepared & Analyzed: 05/22/12						
Fluoride	0.968	0.200	mg/L	1.00		96.8	85-115	4.87	20	

Batch B205139 - General Prep - Wet Chem

Blank (B205139-BLK1)				Prepared & Analyzed: 05/23/12						
Sulfate	ND	10.0	mg/L							

LCS (B205139-BS1)				Prepared & Analyzed: 05/23/12						
Sulfate	52.0	10.0	mg/L	50.0		104	85-115			

LCS Dup (B205139-BSD1)				Prepared & Analyzed: 05/23/12						
Sulfate	53.0	10.0	mg/L	50.0		106	85-115	1.90	20	

Batch B205142 - General Prep - Wet Chem

Blank (B205142-BLK1)				Prepared & Analyzed: 05/22/12						
TDS	ND	10.0	mg/L							

Duplicate (B205142-DUP1)				Source: 1205102-01		Prepared & Analyzed: 05/22/12				
TDS	860	10.0	mg/L		820			4.76	20	

Reference (B205142-SRM1)				Prepared & Analyzed: 05/22/12						
TDS	3160	10.0	mg/L	3170		99.7	86.1-114			

Batch B205147 - General Prep - Wet Chem

Blank (B205147-BLK1)				Prepared & Analyzed: 05/23/12						
Bromide	ND	0.100	mg/L							

Green Analytical Laboratories

Debbie Zufelt

Debbie Zufelt, Reports Manager

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LT Environmental 2243 MAIn Ave Suite 3 Durango CO, 81301	Project: La Plata Springs Project Name / Number: [none] Project Manager: Sam LaRue	Reported: 05/24/12 12:32
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General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B205147 - General Prep - Wet Chem

LCS (B205147-BS1)

Prepared & Analyzed: 05/23/12

Bromide	0.626	0.100	mg/L	0.600		104	85-115			
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LCS Dup (B205147-BSD1)

Prepared & Analyzed: 05/23/12

Bromide	0.601	0.100	mg/L	0.600		100	85-115	4.06	20	
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Debbie Zufelt, Reports Manager

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LT Environmental 2243 MAin Ave Suite 3 Durango CO, 81301	Project: La Plata Springs Project Name / Number: [none] Project Manager: Sam LaRue	Reported: 05/24/12 12:32
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Dissolved Metals by ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B205136 - Dissolved/Potentially Dissolved Metals

Blank (B205136-BLK1)

Prepared & Analyzed: 05/23/12

Calcium	ND	1.00	mg/L							
Iron	ND	0.050	mg/L							
Magnesium	ND	1.00	mg/L							
Potassium	ND	1.00	mg/L							
Sodium	ND	1.00	mg/L							

LCS (B205136-BS1)

Prepared & Analyzed: 05/23/12

Calcium	5.15	1.00	mg/L	5.00		103	85-115			
Iron	5.24	0.050	mg/L	5.00		105	85-115			
Magnesium	26.7	1.00	mg/L	25.0		107	85-115			
Potassium	10.3	1.00	mg/L	10.0		103	85-115			
Sodium	8.18	1.00	mg/L	8.10		101	85-115			

LCS Dup (B205136-BSD1)

Prepared & Analyzed: 05/23/12

Calcium	5.17	1.00	mg/L	5.00		103	85-115	0.497	20	
Iron	5.27	0.050	mg/L	5.00		105	85-115	0.497	20	
Magnesium	26.7	1.00	mg/L	25.0		107	85-115	0.148	20	
Potassium	10.3	1.00	mg/L	10.0		103	85-115	0.753	20	
Sodium	8.18	1.00	mg/L	8.10		101	85-115	0.0189	20	

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LT Environmental 2243 MAin Ave Suite 3 Durango CO, 81301	Project: La Plata Springs Project Name / Number: [none] Project Manager: Sam LaRue	Reported: 05/24/12 12:32
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Notes and Definitions

- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
*Results reported on as received basis unless designated as dry.
- RPD Relative Percent Difference
- LCS Laboratory Control Sample (Blank Spike)

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

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GREEN Analytical Laboratories

CHAIN OF CUSTODY RECORD

Client: LT Environmental

NOTES:

- 1) Ensure proper container packaging.
- 2) Ship samples promptly following collection.
- 3) Designate Sample Reject Disposition.

Contact: Sam LaRue

Project Name: La Plata Springs

Address: 2243 Main Ave Suite #3

Project Name: La Plata Springs

Phone Number: 970-619-0936

Project Name: La Plata Springs

Email: slarue@ltenv.com

Project Name: La Plata Springs

Lab Name: Green Analytical Laboratories

Project Name: La Plata Springs

Address: 75 Suttle Street, Durango, CO 81303

Project Name: La Plata Springs

Phone Number: 970-619-0936

Project Name: La Plata Springs

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Project Name: La Plata Springs

Table 1 - Matrix Type
 1 = Surface Water, 2 = Ground Water
 3 = Soil/Sediment, 4 = Rinsate, 5 = Oil
 6 = Waste, 7 = Other (Specify)

FOR GAL USE ONLY
 GAL JOB #
1705-103

Samplers Signature: Devia Herkmann

Devia Herkmann

Sample ID	Date	Time	Collected by: (Init.)	Matrix Type From Table 1	No. of Containers	Sample Filtered ? Y/N	Unpreserved (Ice Only)	Preservative(s)					Analyses Required	Comments	
								HNO3	HCL	H2SO4	NAOH	Other (Specify)			
01	5/21/12	1135	DH	7	2	N	X								#18 11.1°C on ice
02	5/21/12	1351	DH	7	2	N	X								See Attached
03	5/21/12	1435	DH	7	2	N	X								See Attached
1.															
2.															
3.															
4.															
5.															
6.															
7.															
8.															
9.															
10.															
Reinquished by: <u>B. [Signature]</u>			Date: <u>5/21/12</u>	Time: <u>1630</u>	Received by: <u>[Signature]</u>			Date: <u>5-21-12</u>	Time: <u>1630</u>						
Reinquished by:			Date:	Time:	Received by:			Date:	Time:						

* Sample Reject: [] Return [] Dispose [] Store (30 Days)

La Plata County Analytes:

- Major cations [dissolved sodium (Na), calcium (Ca), magnesium (Mg), potassium (K), and iron (Fe)] by EPA method 200.7/4500;
- Alkalinity (carbonate/bicarbonate) by EPA method 2320B;
- Major Anions [chloride (Cl), sulfate (SO₄), bromide (Br), and fluoride (F)] by EPA method 200.7/4500;
- Total Dissolved Solids (TDS) by EPA method 2540C