2013 FRUITLAND OUTCROP MONITORING REPORT

LA PLATA COUNTY, COLORADO

SEPTEMBER 2013

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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EXECUTIVE SUMMARY

This 2013 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, Colorado.

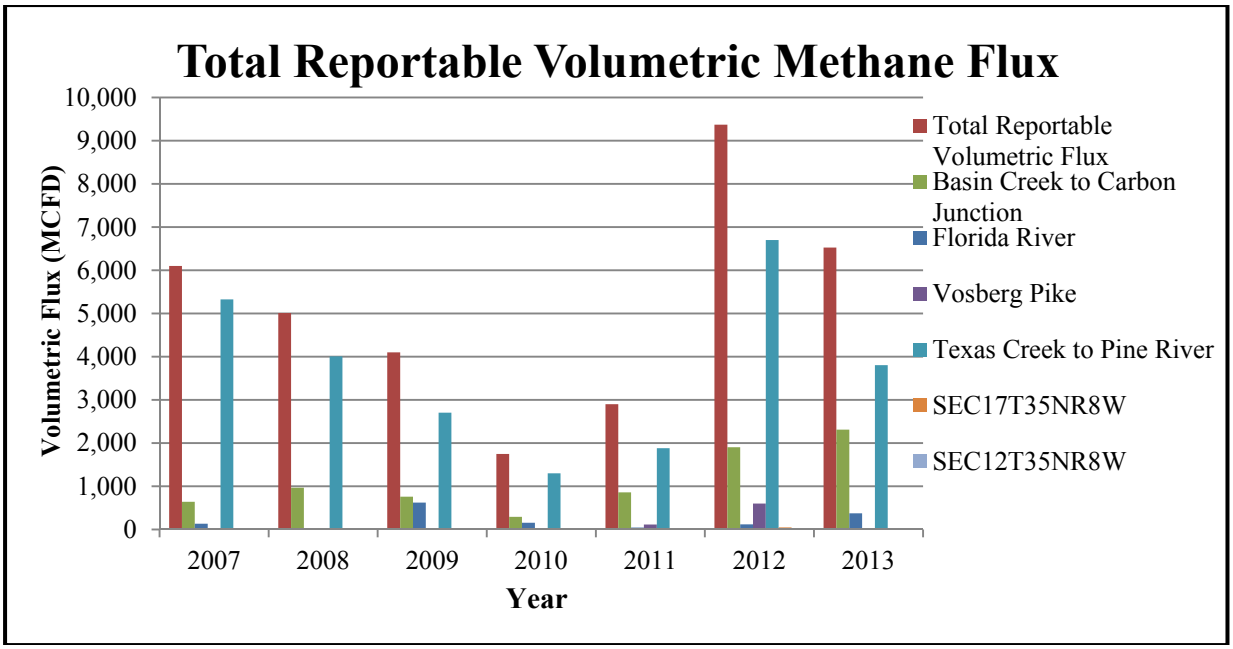
The 2013 methane seep survey was conducted over 1,108 acres of the Kf outcrop from May 28, 2013, through July 11, 2013. The surveys were conducted at six key areas of interest along the Kf outcrop in La Plata County north of the Southern Ute Indian Tribe (SUIT) Reservation boundary, plus three additional shut-in/abandoned well locations.

Historically, methane 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 methane flux from the 2012 survey was estimated to be 9,371 MCFD. Based on the distribution of reportable methane flux measurements over the Kf outcrop in La Plata County, the increased reportable methane flux is located in the Basin Creek to Carbon Junction and the South Fork Texas Creek (SFTC) areas.

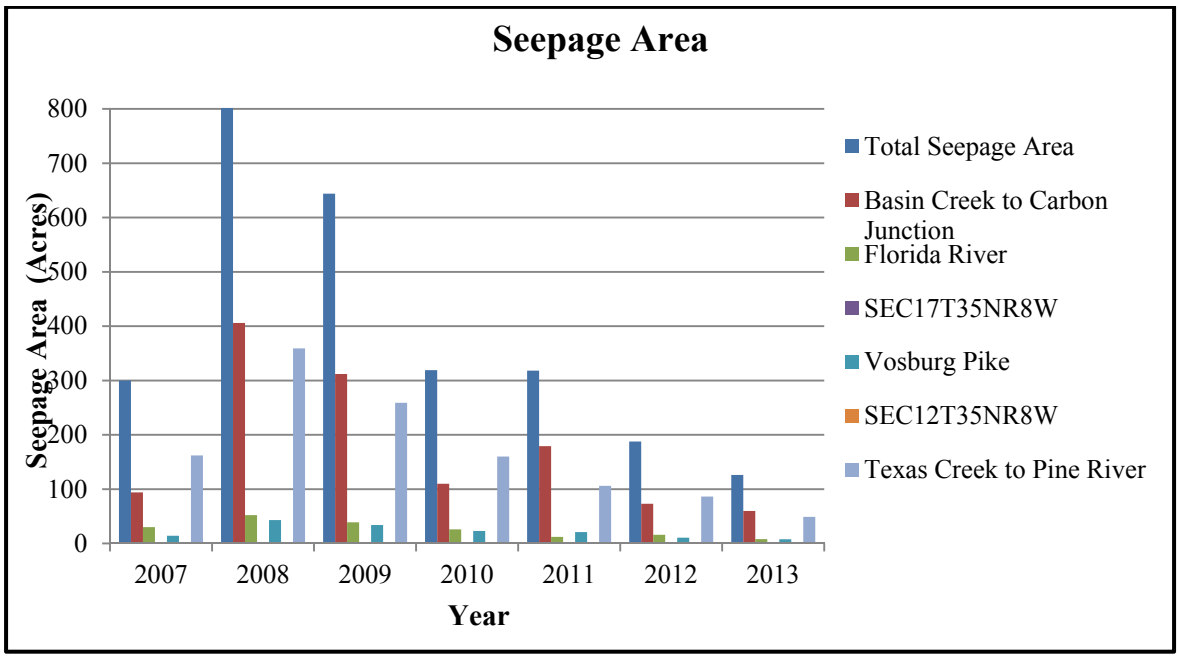
The elevated methane flux reported in 2012 was attributed primarily to a few key measurement locations. These few additional points with greater methane flux values accounted for the increase in the overall total methane flux in La Plata County during the 2012 monitoring event. Due to the observed elevated methane flux in 2012, LTE revised the flux grids in the vicinity of those points with elevated methane flux to better bracket the seepage and report a more accurate value. As an example, elevated methane flux was identified in the vicinity of the SFTC mitigation system in 2012. LTE increased the number of flux points in those areas to better define the seepage magnitude and extent.

With the additional measurements around elevated methane flux points, LTE was able to interpolate and calculate the estimated methane flux more accurately. The total reportable volumetric methane flux in 2013 was estimated to be 6,526 MCFD, approximately 30 percent (%) less than the 2012 results.

The mitigation systems at SFTC and Pine River appear to have an effect on the methane flux in those areas. While the mitigation systems do capture methane gas, they are not capable of capturing all of the methane gas within the footprint of the system. As a result, the collection systems have created preferential pathways and a portion of the trapped methane gas appears to seep out along the edges of the collection system. The methane seepage at the edges of the systems is 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 biased the results high. Below is a graphical representation of the change in methane flux by area for the past seven years along the Kf outcrop in La Plata County.



While the survey area increased by nearly 3.5 times in acreage between 2007 and 2008, the methane flux decreased. Methane flux had a decreasing trend from 2007 to 2010 with a slight increase from 2010 to 2011. There was an increase in methane flux in 2012 that exceeded the highest recorded value since initiation of the flux sampling in 2007; however the overall seepage area reported in 2013 is less than any of the previous six years measured. The seepage area from 2011 to 2012 decreased by 40% (see graph below). The seepage area from 2012 to 2013 decreased another 34%. When comparing the 2013 monitoring event to the 2009 monitoring event where the mappable area is similar, the seepage areas decreased by approximately 80%. It appears the methane flux rate along the Kf Outcrop in La Plata County has concentrated to areas of preferential pathways that have smaller footprints than what has been observed in the past.



The total estimated carbon dioxide flux rate for mapped areas was 1,364 MCFD. Hydrogen sulfide 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, hydrogen sulfide flux for the mapped areas was not estimated.

Three natural springs were sampled in May and June 2013. Methane detected at the Gun Club Spring appears to be thermogenic in origin. This is the first year for sampling the Gun Club Spring while the Hoier Spring has been sampled periodically since 2006 with dissolved methane concentrations below 1 milligrams per liter (mg/L) each event. The Hoier Spring is located in the vicinity of a historical methane seep within the BP Highlands mapping area. The Gun Club Spring was identified in 2013 on the La Plata County shooting range property within the Carbon Junction mapping area. Methane seepage has historically been documented in the vicinity of the Gun Club Spring.

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 Federal 34-1/2-34-1 (API #05-067-07514) and Baird 1-25 (API #05-067-06568). 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 2013 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 2014 to observe changes in subsurface methane over time and space. Grid spacing will be revised based on 2013 results;
- 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 in Spring 2014; and
- Conduct the next regional reconnaissance infrared (IR) imagery aerial survey in 2014 to identify any changes to the methane seepage along the Kf outcrop in La Plata County.

1.0 INTRODUCTION

This 2013 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 (IR) imagery 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, June 2011, and June 2012;

- 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 2013 methane seep monitoring included the following tasks:

1. Obtaining permission to access private properties;

2. Conducting detailed seep mapping at six key areas of interest;

3. Monitoring accessible natural springs;

4. Conducting detailed seep mapping at three shut-in/abandoned production well locations; and

5. Preparing this report.

1.5 REPORT ORGANIZATION

This report is organized into eight sections including this introduction (Section 1.0), which presents the objective 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 shut-in/abandoned 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 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. No investigation activities were conducted on denied access properties during the monitoring event.

The 2013 status of property access is presented in Table 1.

2.2 PROJECT AREA

LTE conducted detailed flux surveys at the following six 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;
- SEC17T35NR8W;
- Vosburg Pike;
- SEC12T35NR8W; and
- SFTC to Pine River (subdivided into SFTC West, SFTC Central, SFTC East; BP Highlands, and Pine River).

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 (ft^2) to 40,000 ft^2. 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 the latest version 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 ($mol/m^2 \cdot day$).

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 $mol/m^2 \cdot day$. Methane flux values below 0.2 $mol/m^2 \cdot day$ are detectable, although with decreased accuracy. Due to the low accuracy and confidence level of methane flux values below 0.2 $mol/m^2 \cdot day$, the reporting limit set for the flux meter is 0.2 $mol/m^2 \cdot day$. 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/m^2·day to 600 mol/m^2·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/m^2·day to 0.5 mol/m^2·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 calibrated 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 protocols.

The 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 SHUT-IN/ABANDONED PRODUCTION WELL FLUX MAPPING

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

LTE recorded methane flux points next to each shut-in/abandoned 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 28, 2013, through July 11, 2013, in six main mapping areas. A total of 1,307 flux measurements were collected over 1,108 acres of land in the project area during the 2013 monitoring event.

Methane and carbon dioxide flux measurements are summarized by Kf outcrop areas of interest in Table 2. Methane and carbon dioxide flux 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/m^2·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 2013 monitoring event recorded flux above the reportable limit (0.2 mol/m^2·day) at 124 of the 1,307 (9.5%) sample locations. The reportable methane flux values of each measured location area for the entire project area ranged from 0.2 mol/m^2·day to a maximum of 3,185.6 mol/m^2·day. Methane flux results for each location of interest are discussed in Section 3.5.

3.2 OVERALL CARBON DIOXIDE RESULTS

The 2013 monitoring event detected carbon dioxide flux at 1,188 of the 1,307 (90.1%) sample locations. The carbon dioxide flux values of each measured location area for the entire project area ranged from 0.000226 mol/m^2·day to a maximum 19.37 mol/m^2·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 1,263 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 96.6% of the sampling points during the 2013 detailed mapping event, which is similar to those reported in previous years. Only 471 points (36.0%) were slightly above the unit's reliable detection limit of 0.0025 mol/m^2·day. Given the flux meter's accuracy of ±25%, 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 2013 detailed mapping program, maps of hydrogen sulfide measurements were not deemed useful and, therefore, were not prepared. Estimates of total hydrogen sulfide flux 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:

$$\frac{\text{mol } CH_4}{\text{day}} \times \frac{16.04276 \text{ g } CH_4}{\text{mol } CH_4} \times \frac{0.0698 \text{ ft}^3 CH_4}{\text{g } CH_4} = \frac{\text{ft}^3 CH_4}{\text{day}}$$

For example,

$$1.0 \text{ mole/day } CH_4 = 1.12 \text{ CFD } CH_4$$

For carbon dioxide flux, the calculation is as follows:

$$\frac{\text{mol } CO_2}{\text{day}} \times \frac{44.01 \text{ g } CO_2}{\text{mol } CO_2} \times \frac{0.0253 \text{ ft}^3 CO_2}{\text{g } CO_2} = \frac{\text{ft}^3 CO_2}{\text{day}}$$

For example,

$$1.0 \text{ mole/day } CO_2 = 1.11 \text{ CFD } CO_2$$

Notes:

CH_4 – methane	g – grams	mol - mole
ft^3 – cubic feet	CO_2 – 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 in 2013 was 6,526 MCFD. The total estimated volumetric carbon dioxide flux for the mapped areas on the Kf outcrop in La Plata County in 2013 was 1,364 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 28 and June 13, 2013.

The Basin Creek mapping area is centered near the Animas-La Plata Ridges Basin Dam. Figures 2 and 3 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. Figures 4 and 5 illustrate methane and carbon dioxide flux results of the detailed mapping in the Carbon Junction area, respectively.

Photograph – Flux Point BC060413_30, located in Basin Creek with a methane flux value of 3,185.595 mol/m^2·day.

Flux point number 30 in the Basin Creek mapping area detected methane flux at 3,185.595 mol/m^2·day. This methane flux value is the largest detected in the Kf mapping area in La Plata County ever recorded in this study. LTE delineated the methane seepage area and it appears to be localized in a small area just northeast of the dam (Figure 2).

The Basin Creek to Carbon Junction survey area has an estimated methane seepage area of approximately 60 acres with a flux rate of 2,304 MCFD. Carbon dioxide was mapped over approximately 432 acres with a total flux rate of 656 MCFD. Figures 2 through 5 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 14 and 17, 2013. A total of 74 flux sample points were measured. The Florida River mapping area has an estimated methane seepage area of approximately 8 acres with a total flux rate of 373 MCFD. Carbon dioxide was mapped over approximately 68 acres with a total flux rate of 72 MCFD.

Figures 6 and 7 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 flux survey program. The methane seep, identified as SEC17T35NR8W, is located in Section 17, Township 35, Range 8 West, located between Florida River and Vosburg Pike. The SEC17T35NR8W mapping was conducted on June 20, 2013. A total of eight flux sample points were measured. SEC17T35NR8W seep has an estimated methane seepage area of approximately 2 acres with a total flux rate of 9 MCFD. Carbon dioxide was mapped over approximately 3 acres with a total flux rate of 4 MCFD.

Figures 8 and 9 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. Flux mapping occurred on June 18 and 19, 2013.

A total of 103 flux sample points were measured. The Vosburg Pike mapping area has an estimated methane seepage area of approximately 8 acres with a total flux rate of 29 MCFD. Carbon dioxide was mapped over approximately 105 acres with a total flux rate of 106 MCFD.

Figures 10 and 11 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 detailed flux survey program. The

methane seep, identified as SEC12T35NR8W, is located in Section 12, Township 35 North, Range 8 West, located between Vosburg Pike and SFTC. The landowners did not grant access to this seep area in 2012 or 2013 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 (Figures 12 and 13), SFTC Central (Figures 14 and 15), SFTC East (Figures 16 and 17), BP Highlands (Figures 18 and 19), and Pine River (Figures 20 and 21). 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 11, 2013. A summary of the 599 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. 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). Areas west of the creek are designated Texas Creek West. The main seep area within SFTC and the Ward and Kurtz properties has been designated SFTC Central. The seep area located approximately 0.25 miles east of the creek has been labeled SFTC East.

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 14), 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 with approximately 95% to 100% of the gas collected consisting of methane (less than 1% consists of oxygen). 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 14, 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 second and third highest methane flux levels reported in this 2013 survey are located in this area at fluxes of 2,179.024 mol/m^2·day (flux point SFTCW062113_262) and 2,413.309 mol/m^2·day (flux point SFTCW062113_41).

The BP Highlands is an upland area directly east of SFTC and west of Pine River. 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 was diluted by naturally occurring oxygen and other gases, which reduced the effectiveness of operating the active system. Due to the low concentration of methane, the system was converted to passive venting in June 2012.

The Texas Creek to Pine River survey area has an estimated methane seepage area of 49 acres with a total flux rate of 3,805 MCFD. Carbon dioxide was mapped over approximately 424 acres with a total flux rate of 526 MCFD.

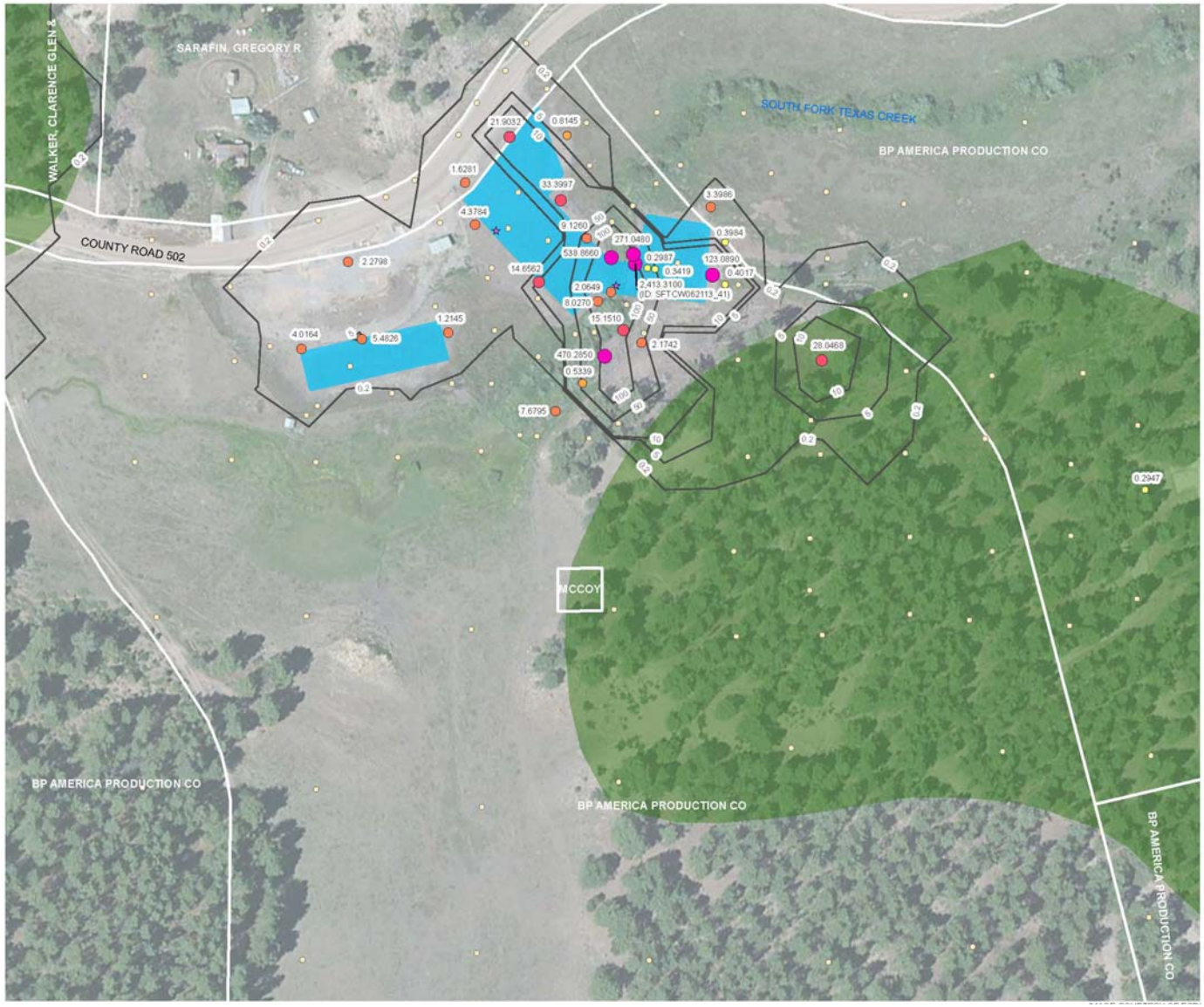
3.6 HISTORICAL FLUX DATA COMPARISON

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

Due to elevated methane flux in 2012, LTE revised the grid spacings in the vicinity of those flux points with elevated methane flux to better bracket the seepage and report a more accurate methane flux. As an example, elevated methane flux was identified in the vicinity of the SFTC mitigation system in 2012. LTE increased the number of flux points in those areas to better define the seepage magnitude and extent. Below is a view of the SFTC mitigation system location and associated flux points in 2012 compared to 2013.

2012 SFTC Central Methane Flux

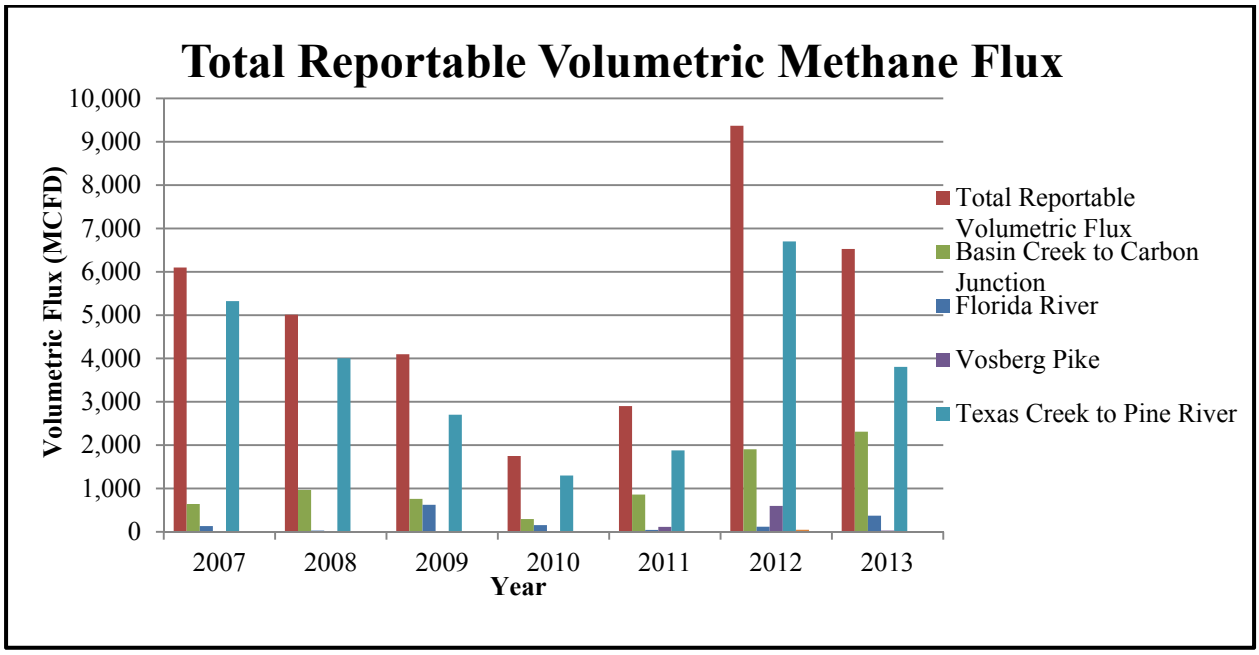
2013 SFTC Central Methane Flux



With the addition of flux points around elevated methane flux locations, LTE was able to interpolate and calculate the estimated methane flux in methane seepage areas more accurately by reducing the frequency of the Surfer software from interpreting data and offering actual data points to bracket methane flux seepage for a methane flux rate of 6,526 MCFD in 2013, approximately 30 % less than the 2012 results (Table 3).

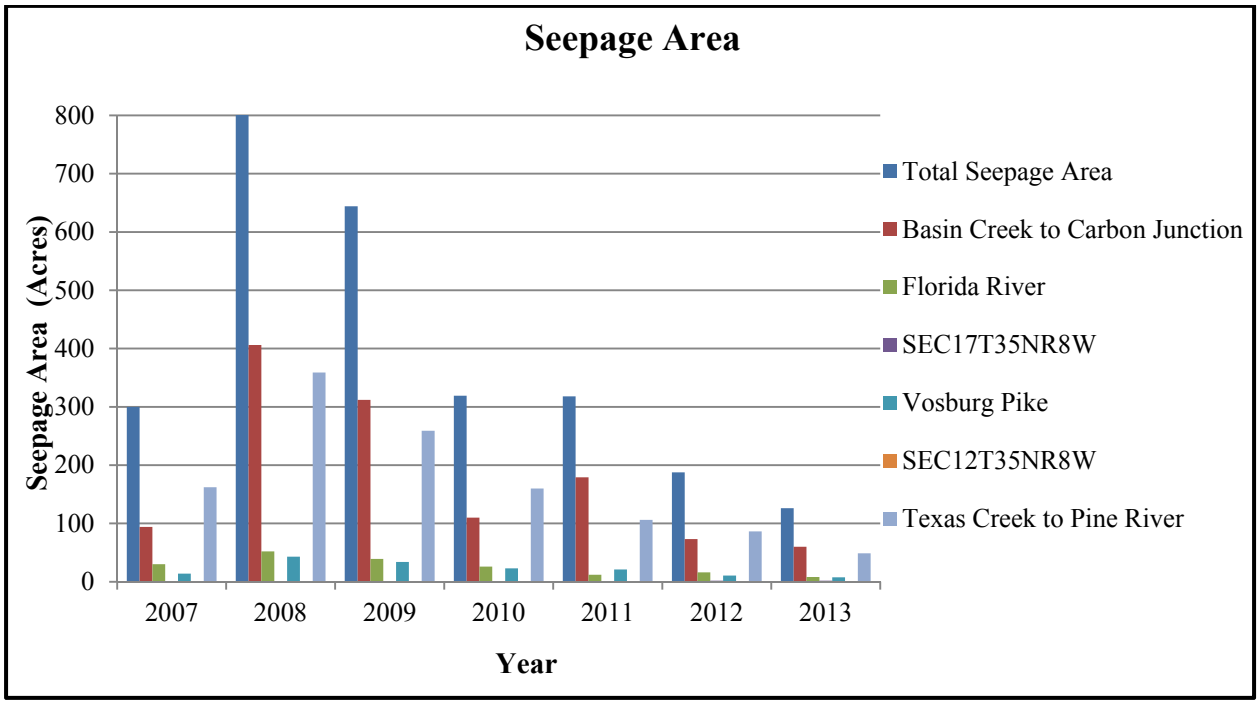
The mitigation systems at SFTC and Pine River appear to have an effect on the methane flux results. While the mitigation systems do capture methane gas, they are not capable of capturing all of the methane gas within the footprint of the collection system. As a result, the system footprint has created 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 is concentrated as compared to the natural seepage. 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 in 2012 as described above and biased the results high. The additional flux points in the vicinity of the mitigation system in 2013 reduced the bias high affect that was observed in 2012.

Below is a graphical representation of the change in methane flux over the last seven 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, the total methane flux decreased. Methane flux had a decreasing trend from 2007 to 2010 with a slight increase from 2010 to 2011. There was an increase in methane flux in 2012 that exceeded the highest methane flux since using the flux meter in 2007; however, the seepage area was less than any of the previous six years measured. This high methane flux appears to be in part due to interpolation of flux data with insufficient sample distribution. In 2013, the methane flux receded by a third. The reduced flux appears to be a result of additional flux points reducing interpolation exaggeration in 2012 that biased the results high.

The seepage area from 2011 to 2012 decreased by 40%. The seepage area from 2012 to 2013 decreased by 34%. When comparing the 2013 monitoring event to the 2009 monitoring event where the mappable area is similar, the seepage areas decreased by approximately 80%. Seepage area comparison based on acreage for the past seven years is illustrated below. It appears the methane flux rate along the Kf Outcrop in La Plata County has concentrated to areas of preferential pathways that have smaller footprints than what was observed in the past.



Figures 22 through 24 depict methane seepage extent compared to the survey area from 2007 through 2013, respectively. Table 3 summarizes the changes in seepage area extent and the methane flux from 2007 through 2013. In order to compare methane fluxes for each year, the figures depict 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. One additional natural spring, Gun Club Spring, was identified in 2013. Three of the 10 natural springs were sampled during the 2013 sampling event, while property access was denied for five natural springs and two natural springs were dry at the time of sampling.

The locations of natural springs are presented on Figures 25 through 29. A summary of natural springs sampled in 2013, along with past natural springs sampling status, is presented in Table 4.

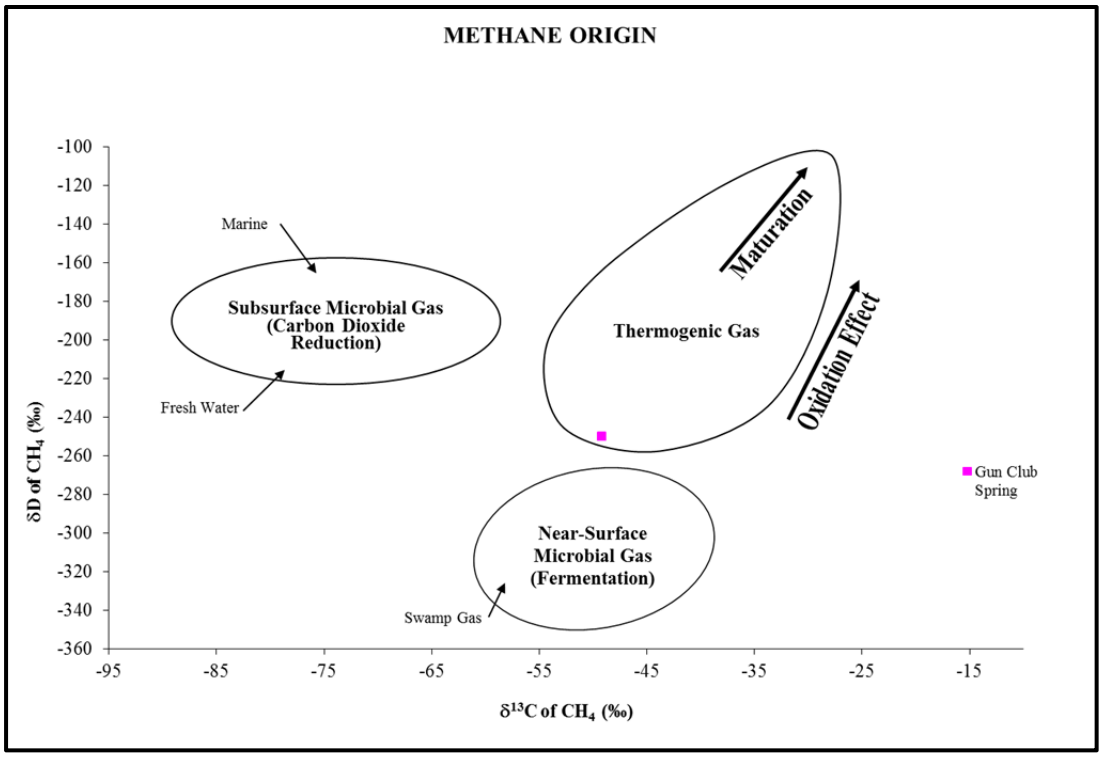
4.1 FIELD OBSERVATIONS

Discharge rates and field parameters were measured at three natural springs (Darwin Rather Spring #2, Hoier Spring, and Gun Club Spring), which were sampled in May and June 2013. Noticeable bubbling at the Gun Club Spring was observed while sampling the natural spring in 2013. The 2013 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 states 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 2013, dissolved methane was detected in the Hoier Spring (1.27 mg/L) and the Gun Club Spring (4.22 mg/L) natural spring water samples. As a result, LTE collected a water sample from the Gun Club Spring for compositional and isotopic analysis by Isotech Laboratories of Champaign, Illinois. Results of the isotopic analyses indicated the methane present in the Gun Club Spring appears to be thermogenic in origin. The graph below illustrates methane origin (thermogenic versus biogenic) of the methane gas detected using a cross plot of the carbon and hydrogen isotopes of methane. Appendix D includes the gas composition and isotopic analytical report.



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

Figure 30 depicts the Tri-linear diagram for the three springs sampled. Stiff diagrams, illustrated on Figure 31, indicate the water type for the Hoier Spring and Darwin Rather Spring 1 are calcium carbonate. Due to the acidity of the Gun Club Spring (510 mg/L), Green Analytical Laboratories was not able to analyze the sample for carbonate and bicarbonate. According to Green Analytical Laboratories, carbonate and bicarbonate are alkaline compounds that will neutralize acid in a very consistent manor. The laboratory uses this trait in their analysis of these compounds by adding very specific amounts of acid to the sample and monitoring pH change to determine the amount of neutralizing species present. When samples are highly acidic, pH less than 4.5, an alkalinity titration cannot be performed as the sample is starting beyond the endpoint of the acid titration process. Adding more acid will not provide useful information and an acidity analysis is typically performed in this situation. This test is useful because it provides information into the acidic strength of the sample, and ultimately how much effort it would take to get the water to a neutral state. Because alkalinity (carbonate, bicarbonate, hydroxide) are simply measurements of acid neutralization potential, it is possible, in essence, to have a negative alkalinity concentration. This can be a confusing concept because it is obviously not possible to have less than zero of a typical analyte present in water, but the acidity does represent how much carbonate or bicarbonate would need to be added to arrive at a neutral concentration. As a result of the acidity of the Gun Club Spring water sample, the major ions could not be graphed on the Tri-linear diagram (Figure 30) or the Stiff diagram (Figure 31).

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 2013 natural spring sampling event, one subsurface soil gas measurement was collected at each of the five accessible natural 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 with the exception of the Gun Club Spring, which detected 54.0 ppm of methane near the natural spring. Methane seepage has historically been documented in the vicinity of the Gun Club Spring.

5.0 ABANDONED/SHUT-IN WELLS FLUX RESULTS

LTE conducted detailed flux surveys utilizing the flux meter at three shut-in/abandoned production gas well sites: Pole Barn Monitor Well #1 (API #05-067-07969), Federal 34-1/2-34-1 (API #05-067-07514), and Baird 1-25 (API #05-067-06568). Pole Barn Monitor Well #1 was surveyed on June 3, 2013, Federal 34-1/2-34-1 was surveyed on June 3, 2013, and Baird 1-25 was surveyed on June 18, 2013. 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 32), 25 measurements at Federal 34-1/2-34-1 (Figure 33), and 25 measurements at Baird 1-25 (Figure 34). Methane was not detected at any sample location above the reportable limit.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 CONCLUSIONS

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

The elevated methane flux reported in 2012 was attributed primarily to a few key measurement locations. These few additional points with greater methane flux values accounted for the increase in the overall total methane flux in La Plata County during the 2012 monitoring event.

Due to elevated methane flux points in 2012, LTE revised grid spacings in the vicinity of those points with elevated methane flux to better bracket the seepage and report a more accurate estimated total reportable volumetric methane flux. With the additional flux points around elevated methane flux points, LTE was able to interpolate and estimate methane flux more accurately. Total methane flux in 2013 is 6,526 MCFD, approximately 30 % less than the 2012 results.

The mitigation systems at SFTC and Pine River appear to have an effect on the methane flux results for those areas. While the mitigation systems do capture methane gas, they are not capable of capturing all of the methane gas within the footprint of the collection system. As a result, the collection systems have created preferential pathways in which methane gas appears to seep out along the edges of the footprint, resulting in elevated flux values being reported. 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 the results high.

While the survey area increased by nearly 3.5 times in acreage between 2007 and 2008, the methane flux decreased. Total methane flux had a decreasing trend from 2007 to 2010 with a slight increase from 2010 to 2011. There was an increase in 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 previous six years measured. The seepage area from 2011 to 2012 decreased by 40%. The seepage area from 2012 to 2013 decreased by 34%. When comparing the 2013 monitoring event to the 2009 monitoring event where mappable area is similar, the seepage areas decreased by approximately 80%. It appears the methane flux rate along the Kf Outcrop in La Plata County has concentrated to areas of preferential pathways that have smaller footprints than what has been observed in the past.

Methane detected at the Gun Club Spring appears to be thermogenic in origin. This is the first year for sampling the Gun Club Spring while the Hoier Spring has been sampled periodically since 2006 with dissolved methane concentrations below 1 mg/L. The Gun Club Spring was identified in 2013 on the La Plata County shooting range property within the Carbon Junction

mapping area. Methane seepage has historically been documented in the vicinity of the Gun Club Spring.

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.

6.2 RECOMMENDATIONS

Based on the results of the 2013 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 2014. LTE will return to the sample locations visited during the 2013 field activities to observe changes in subsurface methane over time and space. Grid spacing will be revised based on 2013 results;
- 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 2014; 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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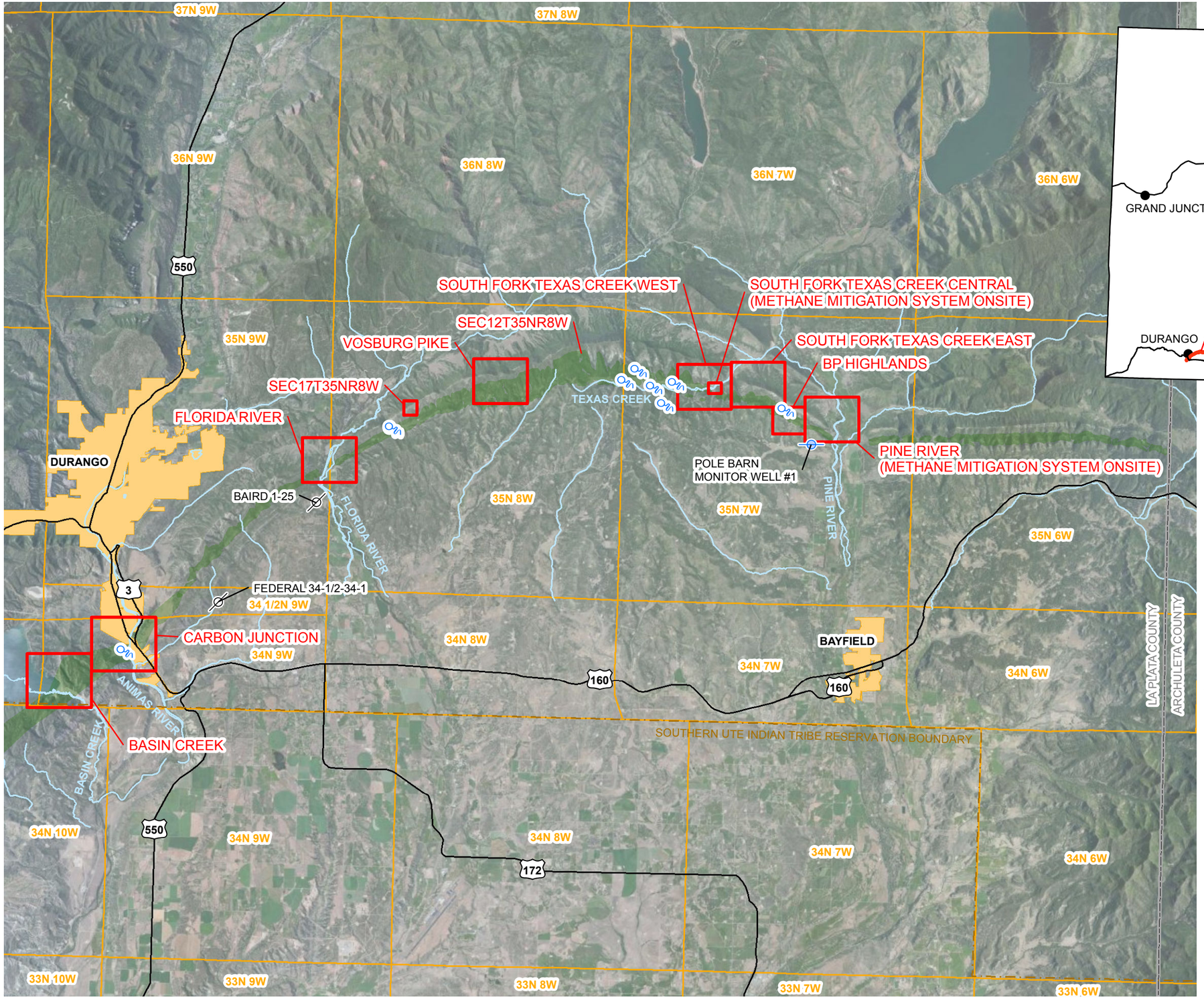
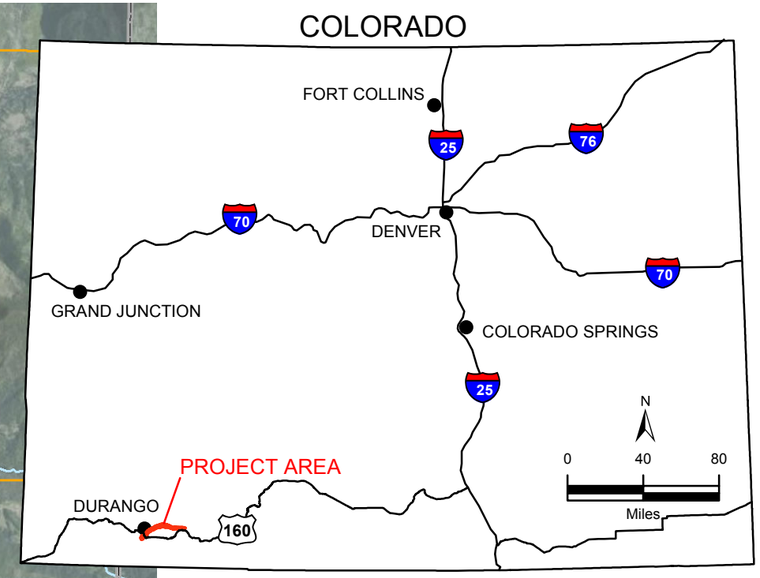
FIGURES





LEGEND

- NATURAL SPRING
- ABANDONED WELL
- SHUT-IN WELL
- GAS MONITORING PROBE
- HIGHWAY
- SURFACE WATER
- AREA OF INTEREST
- SOUTHERN UTE INDIAN TRIBE RESERVATION BOUNDARY
- COUNTY BOUNDARY
- CITY
- TOWNSHIP AND RANGE LINES

GEOLOGY

- FRUITLAND FORMATION (Kf) - COLORADO GEOLOGICAL SURVEY

COGCC: COLORADO OIL AND GAS CONSERVATION COMMISSION
IMAGE COURTESY OF ESRI/BING MAPS

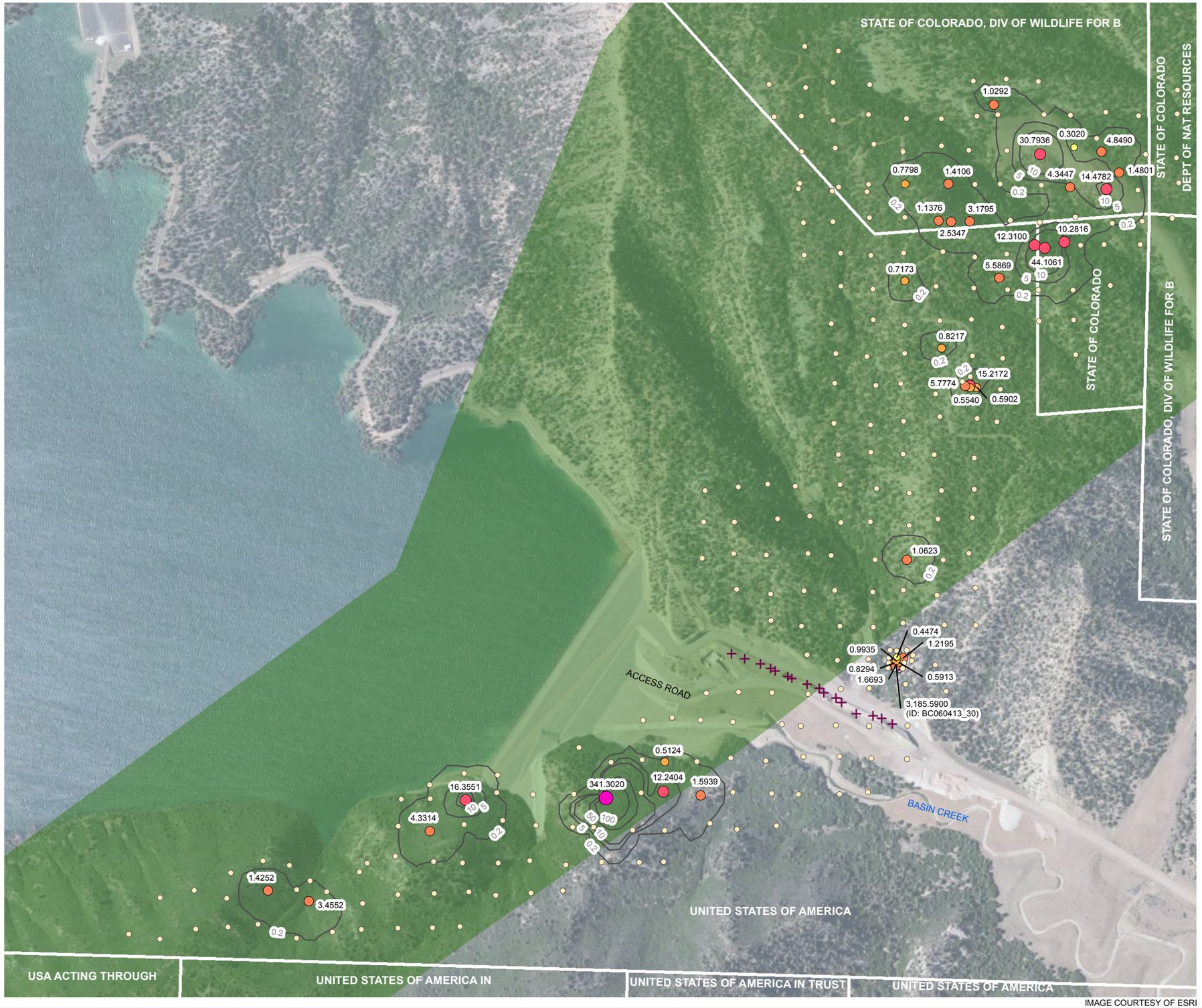
0 2 4
Miles

N

FIGURE 1
PROJECT AREA MAP
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO

THE GROUP

P:\San Juan Basin GIS\LaPlata\Fruitland_OMR\MXDs\Subgas_Flux\2013\2013_FIG 01 PROJ AREA.mxd



LEGEND

- BLM METHANE FLUX CHAMBER
- BLM GAS MONITORING PROBE
- NATURAL SPRING
- PARCEL BOUNDARY & OWNER (WHITE)
- 4M MITIGATION SYSTEM

METHANE FLUX MEASUREMENT (mol/m ^{2} • 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/m^2 • day (INTERVAL VARIES)
- FRUITLAND FORMATION (Kf) - COLORADO GEOLOGICAL SURVEY

mol/m^2 • day: MOLES PER SQUARE METER PER DAY

FLUX POINTS NOT LABELED ARE LESS THAN 0.2000 mol/m^2 • day METHANE

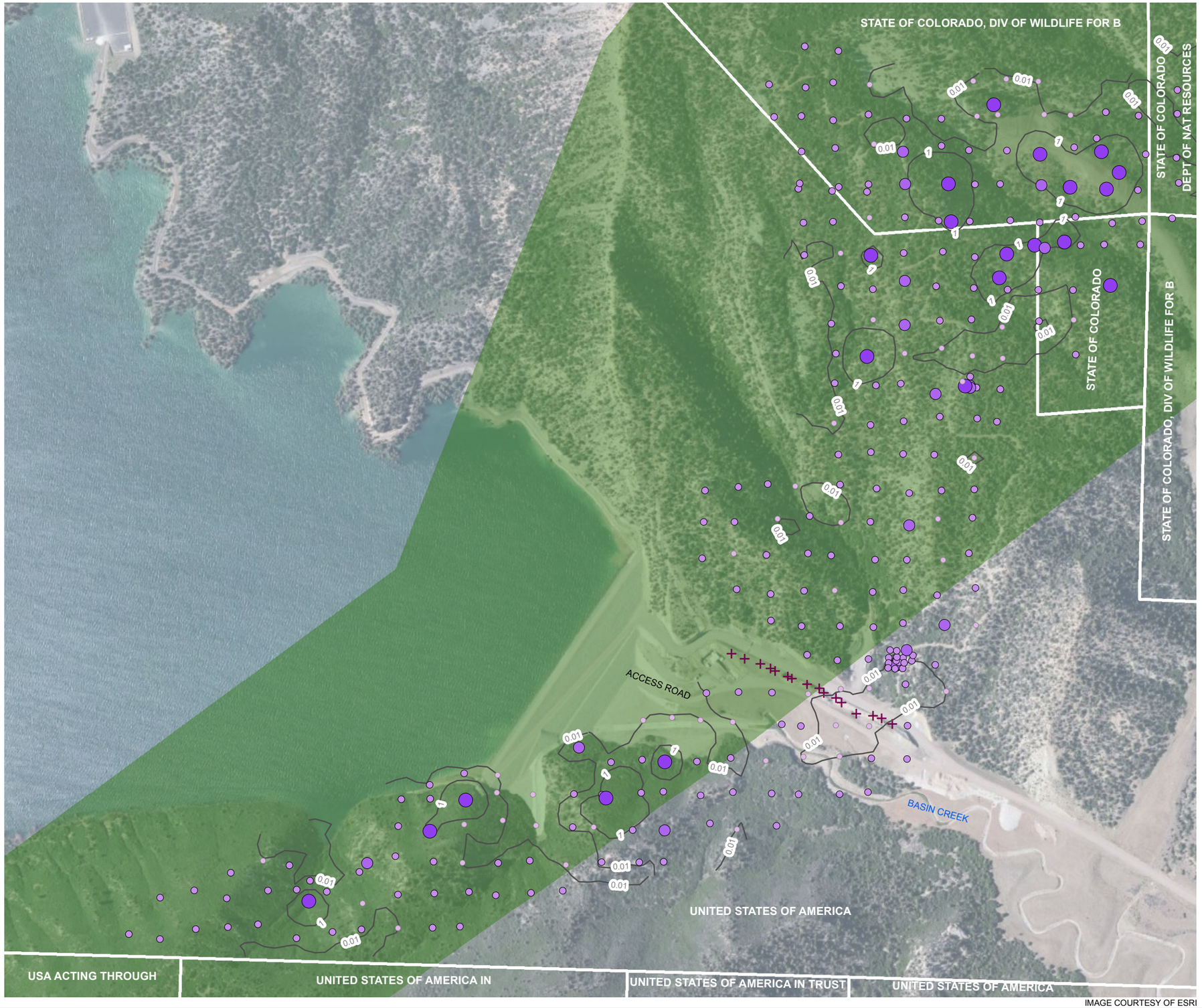
0 600 1,200
Feet

N

FIGURE 2
METHANE FLUX CONTOURS
BASIN CREEK
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO

THE GROUP

P:\San Juan Basin GIS\LaPlata\Fruitland_OMR\MXDs\Subgas_Flux\2013\2013_FIG 02 CH4 FLUX CONTOURS.mxd



LEGEND

- BLM METHANE FLUX CHAMBER
- BLM GAS MONITORING PROBE
- NATURAL SPRING
- PARCEL BOUNDARY & OWNER (WHITE)
- 4M MITIGATION SYSTEM

CARBON DIOXIDE FLUX MEASUREMENT (mol/m ^{2} • 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 (mol/m^2 • day) (INTERVAL VARIES)
- FRUITLAND FORMATION (Kf) - COLORADO GEOLOGICAL SURVEY

mol/m^2 • day: MOLES PER SQUARE METER PER DAY

0 600 1,200
Feet

N

FIGURE 3
CARBON DIOXIDE FLUX CONTOURS
BASIN CREEK
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP

P:\San Juan Basin GIS\LaPlata\Fruitland_OMR\MXDs\Subgas_Flux\2013\2013_FIG 03 CO2 FLUX CONTOURS.mxd

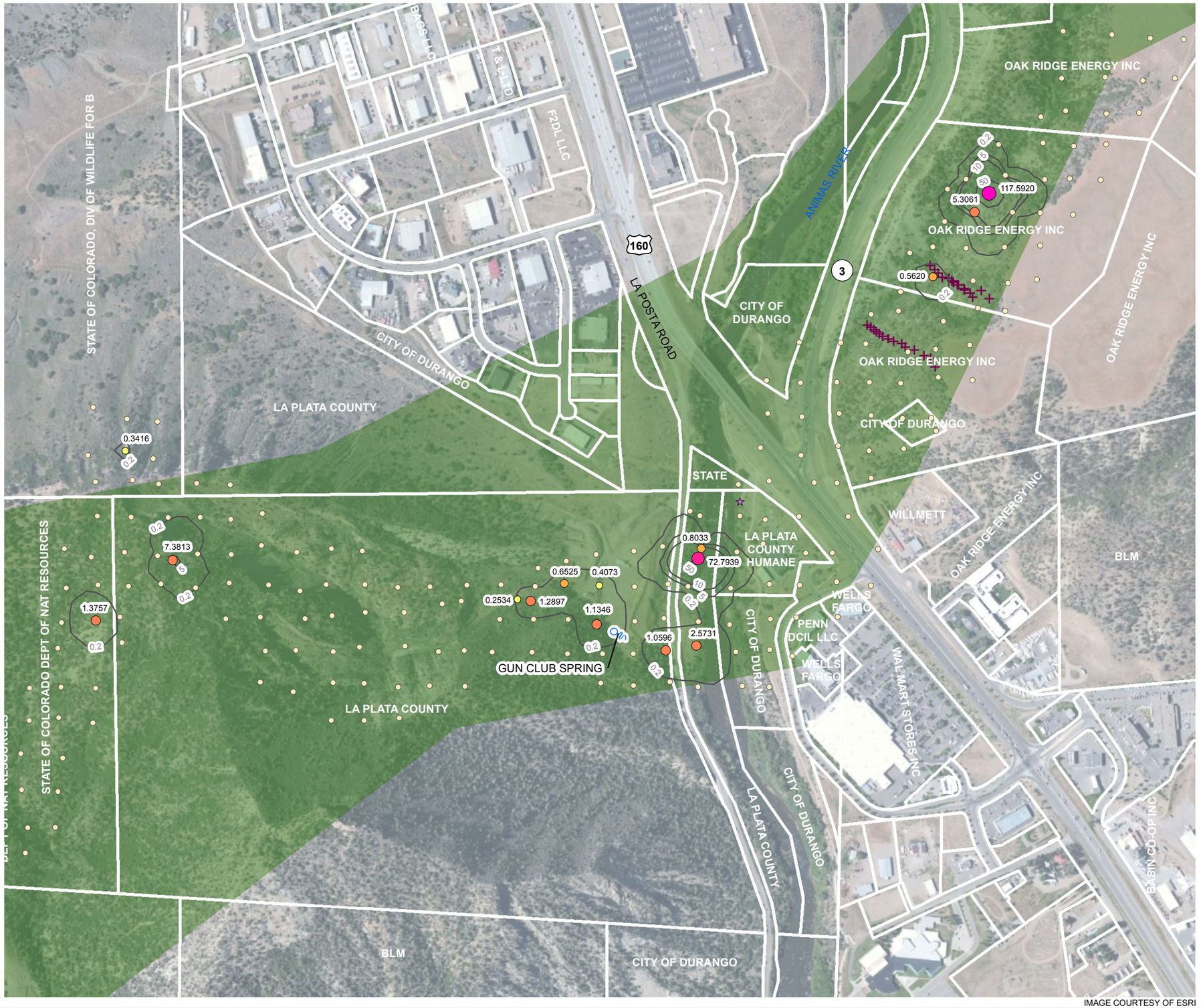


IMAGE COURTESY OF ESRI

LEGEND

- BLM METHANE FLUX CHAMBER
- BLM GAS MONITORING PROBE
- NATURAL SPRING
- PARCEL BOUNDARY & OWNER (WHITE)
- 4M MITIGATION SYSTEM

METHANE FLUX MEASUREMENT (mol/m ^{2} • 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/m^2 • day (INTERVAL VARIES)
- FRUITLAND FORMATION (Kf) - COLORADO GEOLOGICAL SURVEY

mol/m^2 • day: MOLES PER SQUARE METER PER DAY

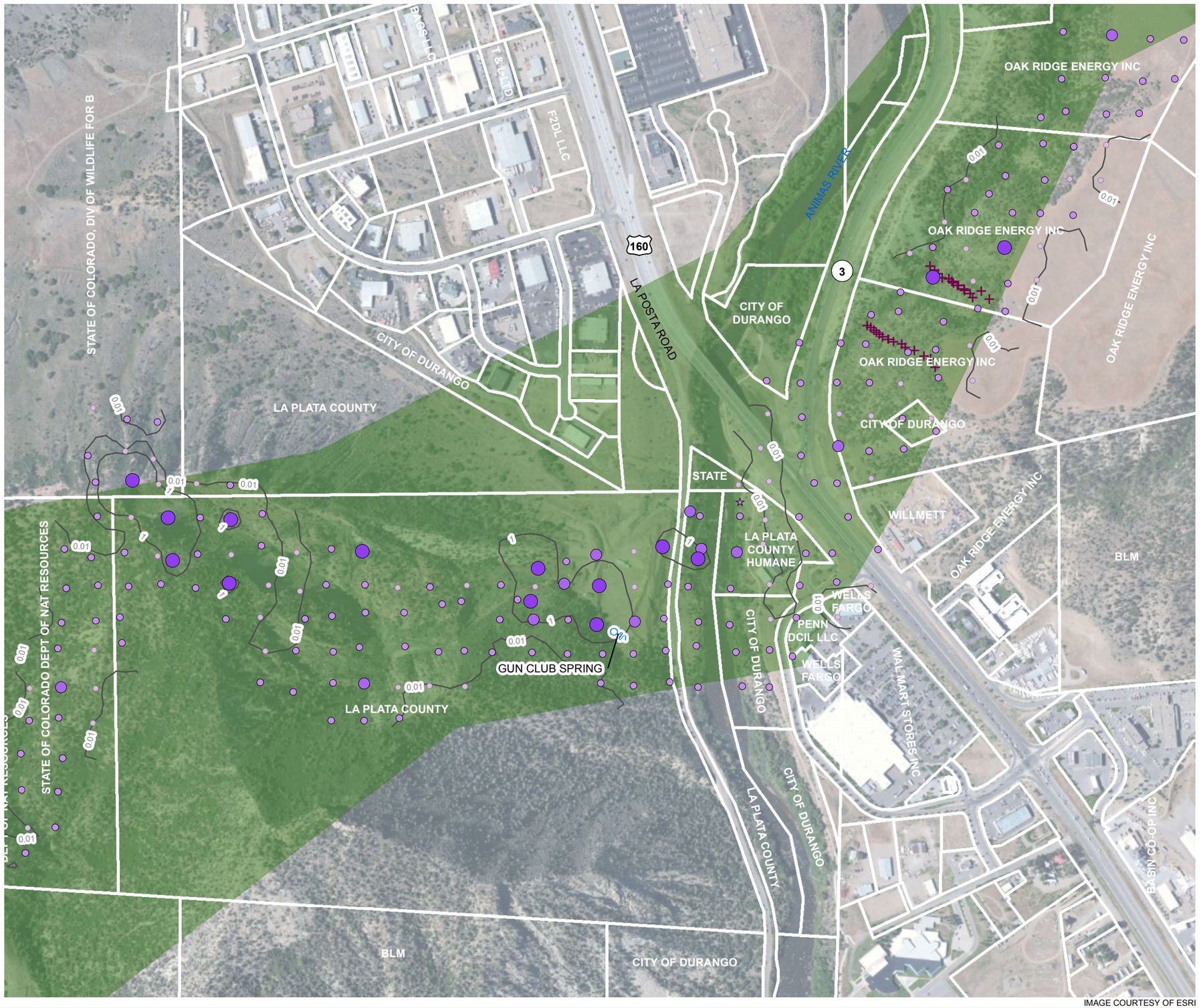
FLUX POINTS NOT LABELED ARE LESS THAN 0.2000 mol/m^2 • day METHANE

0 600 1,200
Feet

N

FIGURE 4
METHANE FLUX CONTOURS
CARBON JUNCTION
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP

P:\San Juan Basin GIS\LaPlata\Fruitland_OMR\MXDs\Subgas_Flux\2013\2013_FIG 02 CH4 FLUX CONTOURS.mxd



LEGEND

- BLM METHANE FLUX CHAMBER
- BLM GAS MONITORING PROBE
- NATURAL SPRING
- PARCEL BOUNDARY & OWNER (WHITE)
- 4M MITIGATION SYSTEM

CARBON DIOXIDE FLUX MEASUREMENT (mol/m ^{2} • 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 (mol/m^2 • day) (INTERVAL VARIES)
- FRUITLAND FORMATION (Kf) - COLORADO GEOLOGICAL SURVEY

mol/m^2 • day: MOLES PER SQUARE METER PER DAY

0 600 1,200
Feet

N

FIGURE 5
CARBON DIOXIDE FLUX CONTOURS
CARBON JUNCTION
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP

P:\San Juan Basin GIS\LaPlata\Fruitland_OMR\MXDs\Subgas_Flux\2013\2013_FIG 03 CO2 FLUX CONTOURS.mxd

LEGEND

- BLM METHANE FLUX CHAMBER
- BLM GAS MONITORING PROBE
- NATURAL SPRING
- PARCEL BOUNDARY & OWNER (WHITE)
- 4M MITIGATION SYSTEM

METHANE FLUX MEASUREMENT (mol/m ^{2} • 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/m^2 • day (INTERVAL VARIES)
- FRUITLAND FORMATION (Kf) - COLORADO GEOLOGICAL SURVEY

mol/m^2 • day: MOLES PER SQUARE METER PER DAY

FLUX POINTS NOT LABELED ARE LESS THAN 0.2000 mol/m^2 • day METHANE

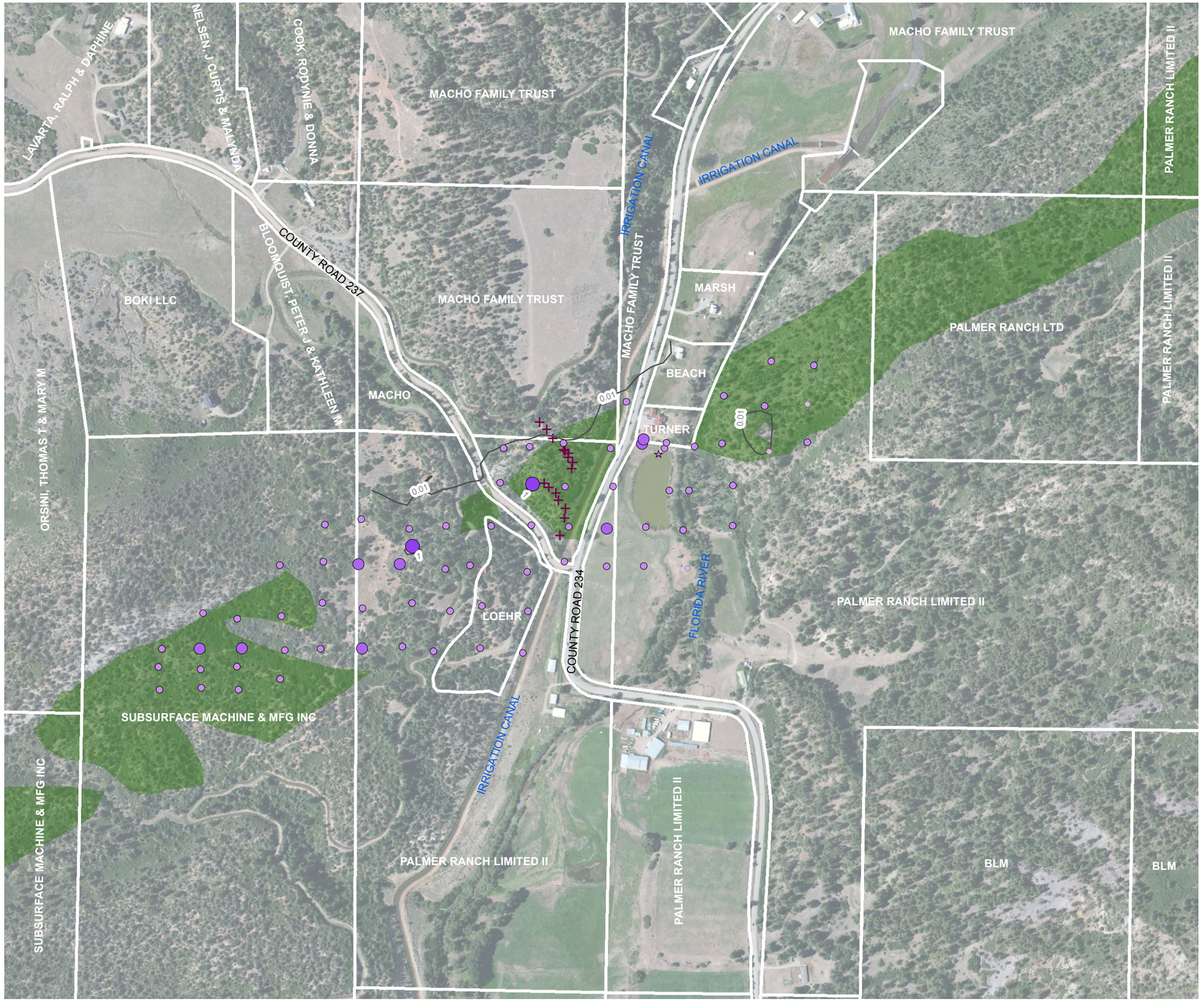
0 500 1,000
Feet

N

FIGURE 6
METHANE FLUX CONTOURS
FLORIDA RIVER
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO

THE GROUP

P:\San Juan Basin GIS\LaPlata\Fruitland_OMR\MXDs\Subgas_Flux\2013\2013_FIG 02 CH4 FLUX CONTOURS.mxd



LEGEND

- BLM METHANE FLUX CHAMBER
- BLM GAS MONITORING PROBE
- NATURAL SPRING
- PARCEL BOUNDARY & OWNER (WHITE)
- 4M MITIGATION SYSTEM

CARBON DIOXIDE FLUX MEASUREMENT (mol/m ^{2} • 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 (mol/m^2 • day) (INTERVAL VARIES)
- FRUITLAND FORMATION (Kf) - COLORADO GEOLOGICAL SURVEY

mol/m^2 • day: MOLES PER SQUARE METER PER DAY

0 500 1,000
Feet

N

FIGURE 7
CARBON DIOXIDE FLUX CONTOURS
FLORIDA RIVER
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP

P:\San Juan Basin GIS\LaPlata\Fruitland_OMR\MXDs\Subgas_Flux\2013\2013_FIG 03 CO2 FLUX CONTOURS.mxd

LEGEND

- BLM METHANE FLUX CHAMBER
- BLM GAS MONITORING PROBE
- NATURAL SPRING
- PARCEL BOUNDARY & OWNER (WHITE)
- 4M MITIGATION SYSTEM

METHANE FLUX MEASUREMENT (mol/m ^{2} • 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/m^2 • day (INTERVAL VARIES)
- FRUITLAND FORMATION (Kf) - COLORADO GEOLOGICAL SURVEY

mol/m^2 • day: MOLES PER SQUARE METER PER DAY

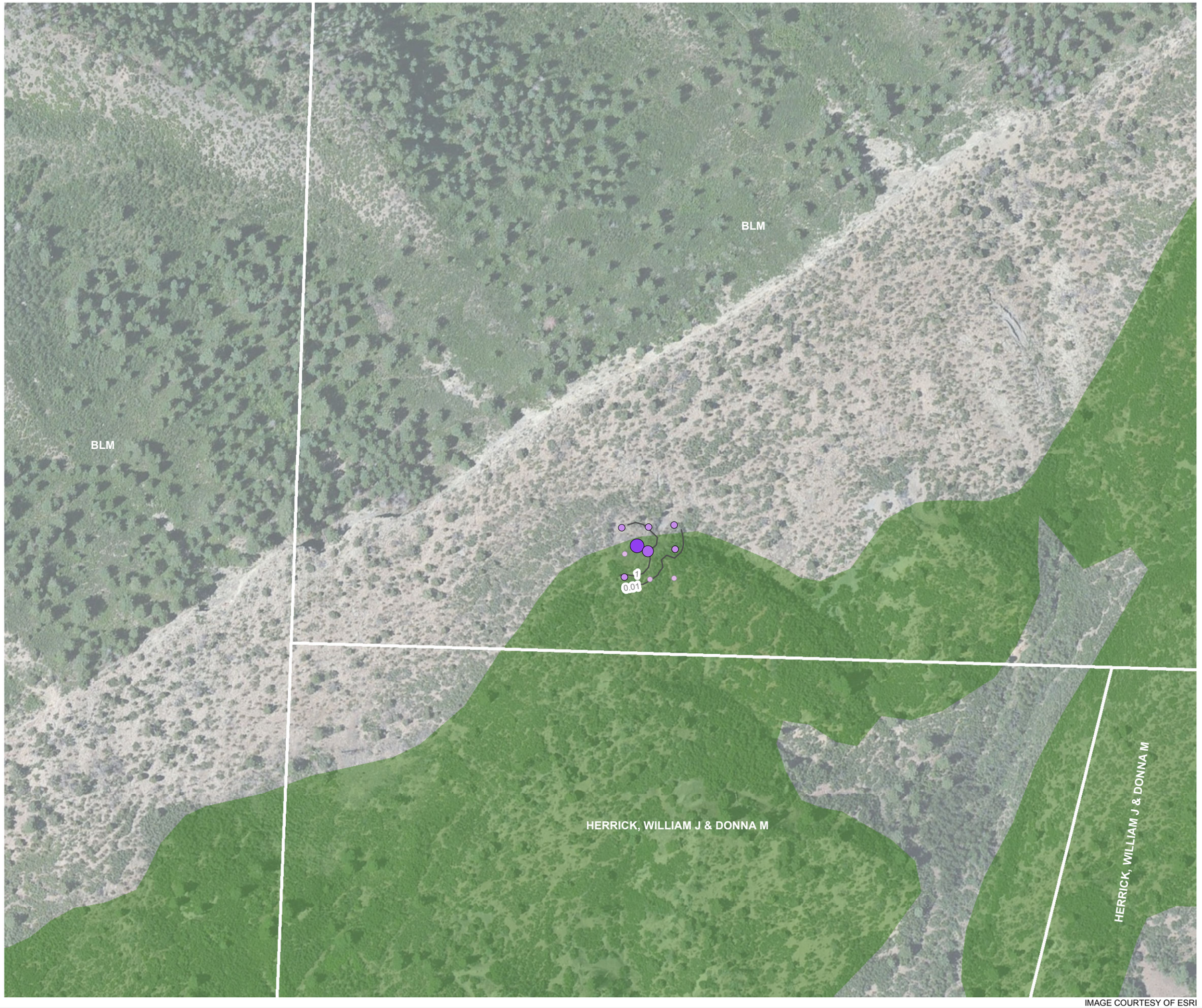
FLUX POINTS NOT LABELED ARE LESS THAN 0.2000 mol/m^2 • day METHANE

0 200 400
Feet

N

FIGURE 8
METHANE FLUX CONTOURS
SEC17T35NR8W
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP

P:\San Juan Basin GIS\LaPlata\Fruitland_OMR\MXDs\Subgas_Flux\2013\2013_FIG 02 CH4 FLUX CONTOURS.mxd



LEGEND

- BLM METHANE FLUX CHAMBER
- BLM GAS MONITORING PROBE
- NATURAL SPRING
- PARCEL BOUNDARY & OWNER (WHITE)
- 4M MITIGATION SYSTEM

CARBON DIOXIDE FLUX MEASUREMENT (mol/m ^{2} • 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 (mol/m^2 • day) (INTERVAL VARIES)
- FRUITLAND FORMATION (Kf) - COLORADO GEOLOGICAL SURVEY

mol/m^2 • day: MOLES PER SQUARE METER PER DAY

0 200 400
Feet

N

FIGURE 9
CARBON DIOXIDE FLUX CONTOURS
SEC17T35NR8W
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP

P:\San Juan Basin GIS\LaPlata\Fruitland_OMR\MXDs\Subgas_Flux\2013\2013_FIG 03 CO2 FLUX CONTOURS.mxd

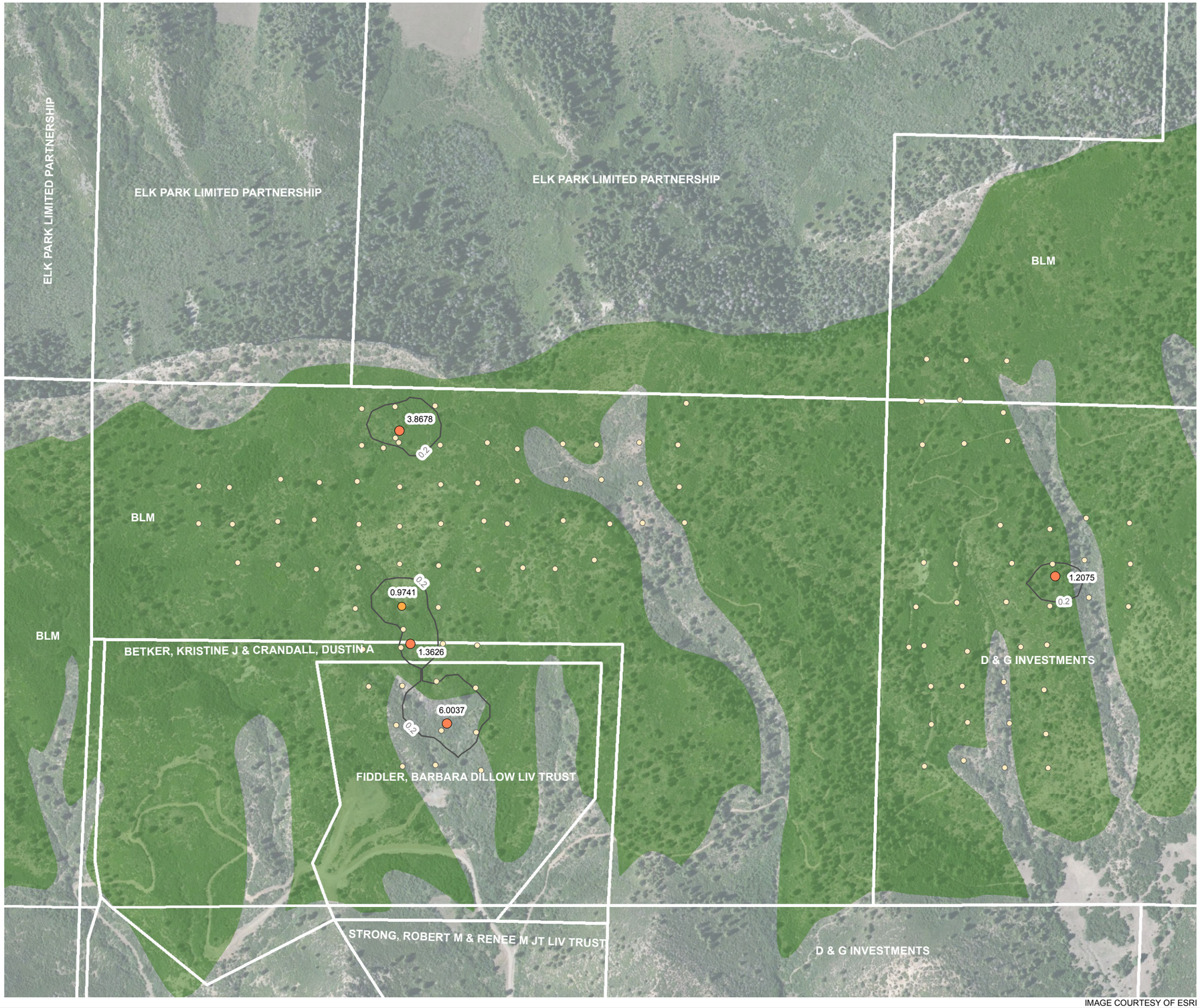


IMAGE COURTESY OF ESRI

LEGEND

- BLM METHANE FLUX CHAMBER
- BLM GAS MONITORING PROBE
- NATURAL SPRING
- PARCEL BOUNDARY & OWNER (WHITE)
- 4M MITIGATION SYSTEM

METHANE FLUX MEASUREMENT (mol/m ^{2} • 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/m^2 • day (INTERVAL VARIES)
- FRUITLAND FORMATION (Kf) - COLORADO GEOLOGICAL SURVEY

mol/m^2 • day: MOLES PER SQUARE METER PER DAY

FLUX POINTS NOT LABELED ARE LESS THAN 0.2000 mol/m^2 • day METHANE

0 500 1,000
Feet

N

FIGURE 10
METHANE FLUX CONTOURS
VOSBURG PIKE
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP

P:\San Juan Basin GIS\LaPlata\Fruitland_OMR\MXDs\Subgas_Flux\2013\2013_FIG 02 CH4 FLUX CONTOURS.mxd

ELK PARK LIMITED PARTNERSHIP

ELK PARK LIMITED PARTNERSHIP

ELK PARK LIMITED PARTNERSHIP

BLM

BLM

BLM

BETKER, KRISTINE J & CRANDALL, DUSTIN A

FIDDLER, BARBARA DILLOW LIV TRUST

STRONG, ROBERT M & RENEE M JT LIV TRUST

D & G INVESTMENTS

D & G INVESTMENTS

0.5

1

0.01

IMAGE COURTESY OF ESRI

LEGEND

- BLM METHANE FLUX CHAMBER
- BLM GAS MONITORING PROBE
- NATURAL SPRING
- PARCEL BOUNDARY & OWNER (WHITE)
- 4M MITIGATION SYSTEM

CARBON DIOXIDE FLUX MEASUREMENT (mol/m ^{2} • 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 (mol/m^2 • day) (INTERVAL VARIES)
- FRUITLAND FORMATION (Kf) - COLORADO GEOLOGICAL SURVEY

mol/m^2 • day: MOLES PER SQUARE METER PER DAY

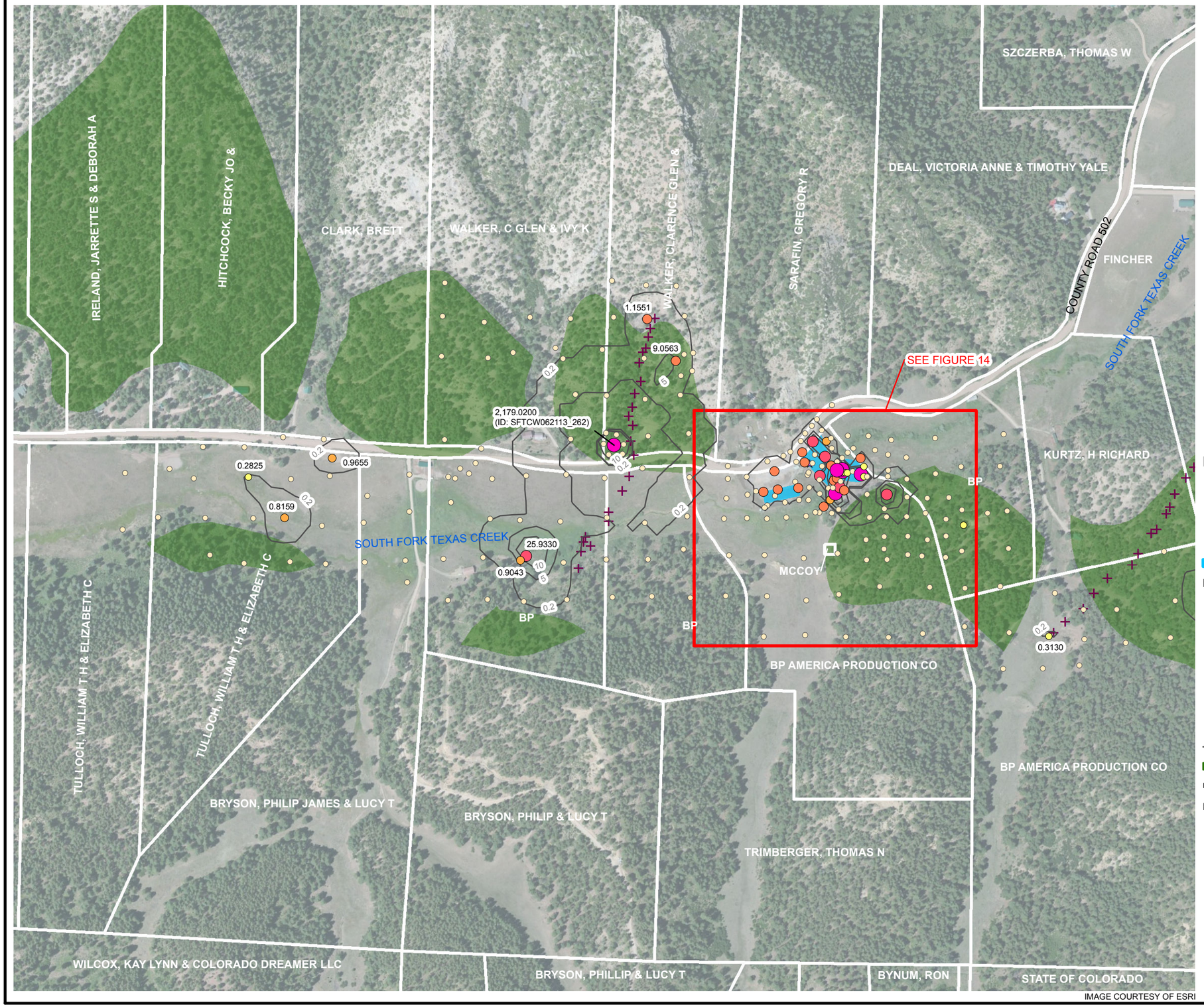
0 500 1,000

Feet

N

FIGURE 11
CARBON DIOXIDE FLUX CONTOURS
VOSBURG PIKE
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP

P:\San Juan Basin GIS\LaPlata\Fruitland_OMR\MXDs\Subgas_Flux\2013\2013_FIG 03 CO2 FLUX CONTOURS.mxd



LEGEND

- BLM METHANE FLUX CHAMBER
- BLM GAS MONITORING PROBE
- NATURAL SPRING
- PARCEL BOUNDARY & OWNER (WHITE)
- 4M MITIGATION SYSTEM

METHANE FLUX MEASUREMENT (mol/m ^{2} • 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/m^2 • day (INTERVAL VARIES)
- FRUITLAND FORMATION (Kf) - COLORADO GEOLOGICAL SURVEY

mol/m^2 • day: MOLES PER SQUARE METER PER DAY

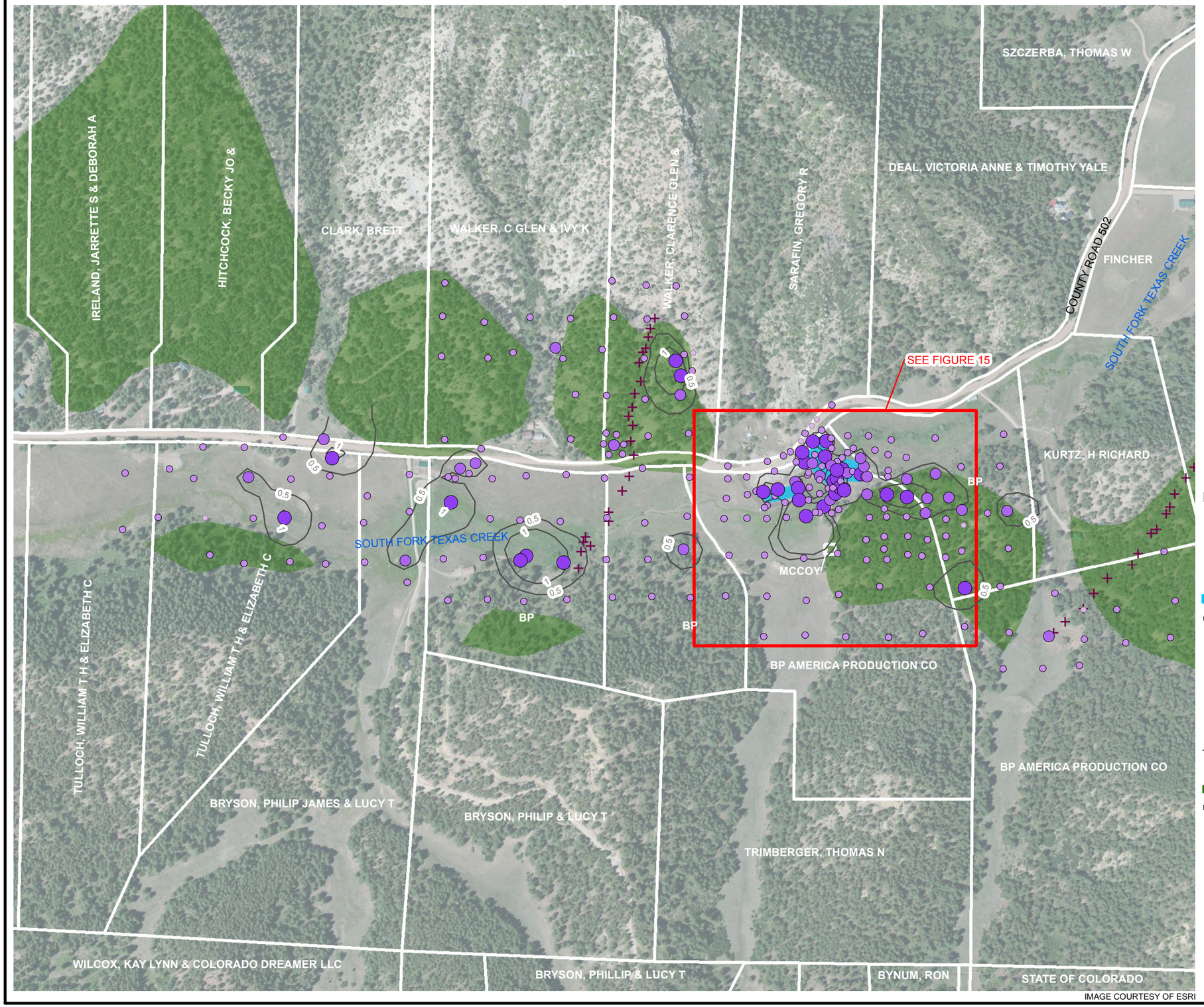
FLUX POINTS NOT LABELED ARE LESS THAN 0.2000 mol/m^2 • day METHANE

0 500 1,000
Feet

N

FIGURE 12
METHANE FLUX CONTOURS
SOUTH FORK TEXAS CREEK WEST
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP

P:\San Juan Basin GIS\LaPlata\Fruitland_OMR\MXDs\Subgas_Flux\2013\2013_FIG 02 CH4 FLUX CONTOURS.mxd



LEGEND

- BLM METHANE FLUX CHAMBER
- BLM GAS MONITORING PROBE
- NATURAL SPRING
- PARCEL BOUNDARY & OWNER (WHITE)
- 4M MITIGATION SYSTEM

CARBON DIOXIDE FLUX MEASUREMENT (mol/m ^{2} • 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 (mol/m^2 • day) (INTERVAL VARIES)
- FRUITLAND FORMATION (Kf) - COLORADO GEOLOGICAL SURVEY

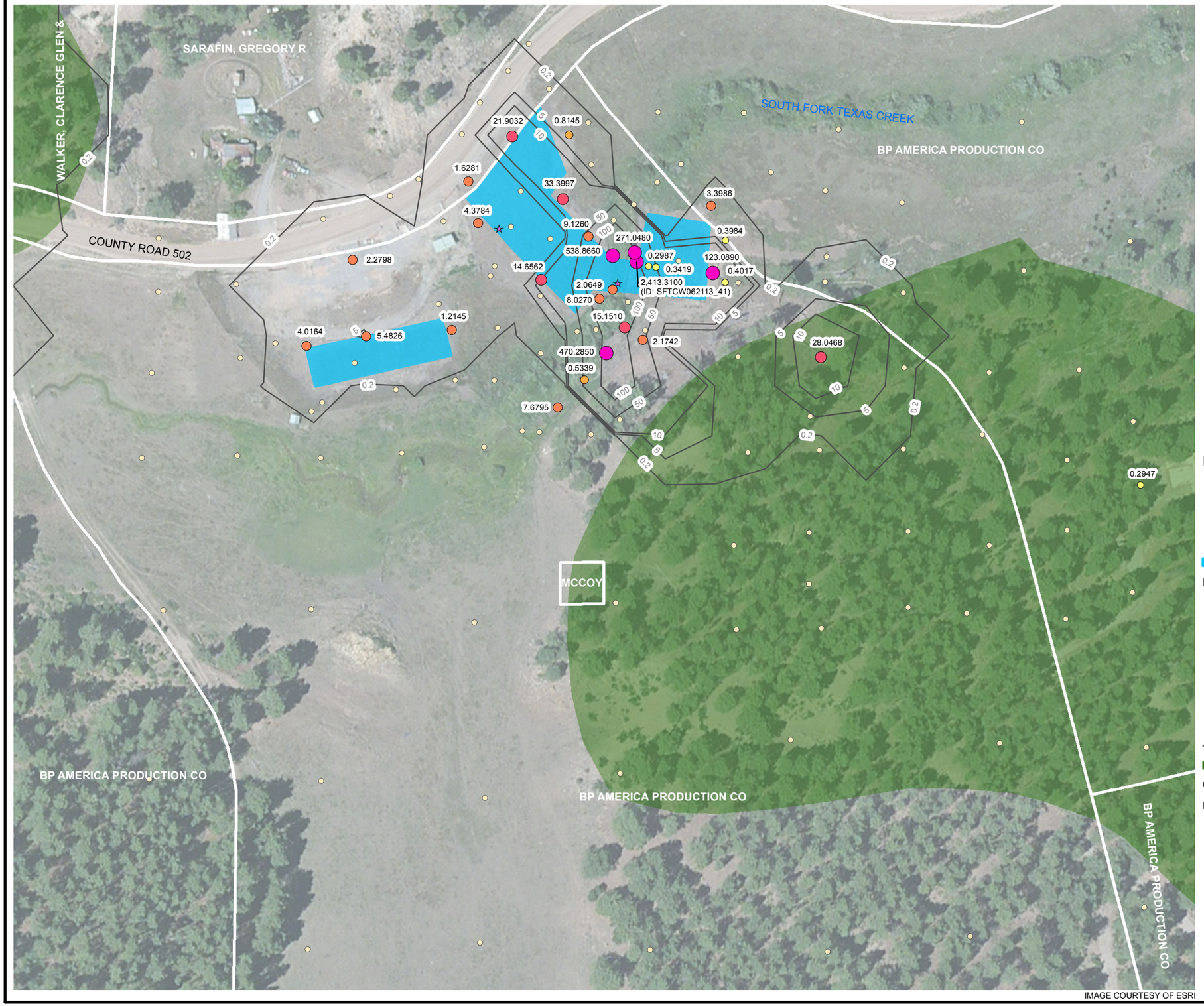
mol/m^2 • day: MOLES PER SQUARE METER PER DAY

0 500 1,000
Feet

N

FIGURE 13
CARBON DIOXIDE FLUX CONTOURS
SOUTH FORK TEXAS CREEK WEST
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP

P:\San Juan Basin GIS\LaPlata\Fruitland_OMR\MXDs\Subgas_Flux\2013\2013_FIG 03 CO2 FLUX CONTOURS.mxd



LEGEND

- BLM METHANE FLUX CHAMBER
- BLM GAS MONITORING PROBE
- NATURAL SPRING
- PARCEL BOUNDARY & OWNER (WHITE)
- 4M MITIGATION SYSTEM

METHANE FLUX MEASUREMENT (mol/m ^{2} • 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/m^2 • day (INTERVAL VARIES)
- FRUITLAND FORMATION (Kf) - COLORADO GEOLOGICAL SURVEY

mol/m^2 • day: MOLES PER SQUARE METER PER DAY

FLUX POINTS NOT LABELED ARE LESS THAN 0.2000 mol/m^2 • day METHANE

0 120 240
Feet

N

IMAGE COURTESY OF ESRI

FIGURE 14
METHANE FLUX CONTOURS
SOUTH FORK TEXAS CREEK CENTRAL
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP

P:\San Juan Basin GIS\LaPlata\Fruitland_OMR\MXDs\Subgas_Flux\2013\2013_FIG 02 CH4 FLUX CONTOURS.mxd

LEGEND

- BLM METHANE FLUX CHAMBER
- BLM GAS MONITORING PROBE
- NATURAL SPRING
- PARCEL BOUNDARY & OWNER (WHITE)
- 4M MITIGATION SYSTEM

CARBON DIOXIDE FLUX MEASUREMENT (mol/m ^{2} • 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 (mol/m^2 • day) (INTERVAL VARIES)
- FRUITLAND FORMATION (Kf) - COLORADO GEOLOGICAL SURVEY

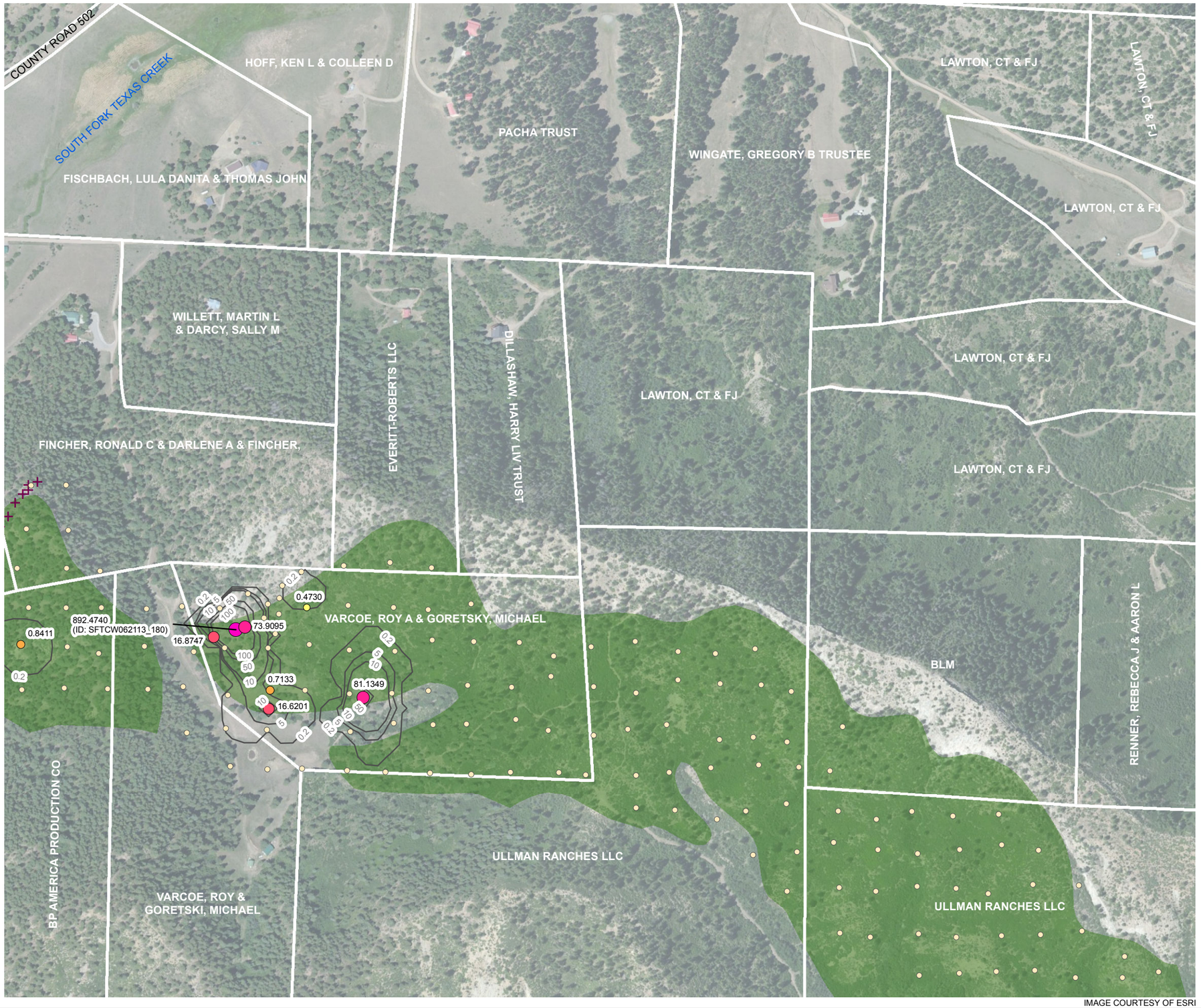
mol/m^2 • day: MOLES PER SQUARE METER PER DAY

0 120 240
Feet

N

FIGURE 15
CARBON DIOXIDE FLUX CONTOURS
SOUTH FORK TEXAS CREEK CENTRAL
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP

P:\San Juan Basin GIS\LaPlata\Fruitland_OMR\MXDs\Subgas_Flux\2013\2013_FIG 03 CO2 FLUX CONTOURS.mxd



LEGEND

- BLM METHANE FLUX CHAMBER
- BLM GAS MONITORING PROBE
- NATURAL SPRING
- PARCEL BOUNDARY & OWNER (WHITE)
- 4M MITIGATION SYSTEM

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

- 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 $mol/m^2 \cdot day$ (INTERVAL VARIES)
- FRUITLAND FORMATION (Kf) - COLORADO GEOLOGICAL SURVEY

$mol/m^2 \cdot day$: MOLES PER SQUARE METER PER DAY

FLUX POINTS NOT LABELED ARE LESS THAN 0.2000 $mol/m^2 \cdot day$ METHANE

0 500 1,000
Feet

N

FIGURE 16
METHANE FLUX CONTOURS
SOUTH FORK TEXAS CREEK EAST
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP

P:\San Juan Basin GIS\LaPlata\Fruitland_OMR\MXDs\Subgas_Flux\2013\2013_FIG 02 CH4 FLUX CONTOURS.mxd

LEGEND

- BLM METHANE FLUX CHAMBER
- BLM GAS MONITORING PROBE
- NATURAL SPRING
- PARCEL BOUNDARY & OWNER (WHITE)
- 4M MITIGATION SYSTEM

CARBON DIOXIDE FLUX MEASUREMENT ($mol/m^2 \cdot day$)

- 0.0000 - 0.0100
- 0.0101 - 0.5000
- 0.5001 - 1.0000
- 1.0001 - 25.0000
- 25.0001 - 200.0000
- CARBON DIOXIDE FLUX CONTOUR ($mol/m^2 \cdot day$) (INTERVAL VARIES)
- FRUITLAND FORMATION (Kf) - COLORADO GEOLOGICAL SURVEY

$mol/m^2 \cdot day$: MOLES PER SQUARE METER PER DAY

0 500 1,000
Feet

N

FIGURE 17
CARBON DIOXIDE FLUX CONTOURS
SOUTH FORK TEXAS CREEK EAST
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP

P:\San Juan Basin GIS\LaPlata\Fruitland_OMR\MXDs\Subgas_Flux\2013\2013_FIG 03 CO2 FLUX CONTOURS.mxd

LEGEND

- BLM METHANE FLUX CHAMBER
- BLM GAS MONITORING PROBE
- NATURAL SPRING
- PARCEL BOUNDARY & OWNER (WHITE)
- 4M MITIGATION SYSTEM

METHANE FLUX MEASUREMENT (mol/m ^{2} • 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/m^2 • day (INTERVAL VARIES)
- FRUITLAND FORMATION (Kf) - COLORADO GEOLOGICAL SURVEY

mol/m^2 • day: MOLES PER SQUARE METER PER DAY

FLUX POINTS NOT LABELED ARE LESS THAN 0.2000 mol/m^2 • day METHANE

0 300 600
Feet

N

FIGURE 18
METHANE FLUX CONTOURS
BP HIGHLANDS
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP

P:\San Juan Basin GIS\LaPlata\Fruitland_OMR\MXDs\Subgas_Flux\2013\2013_FIG 02 CH4 FLUX CONTOURS.mxd

LEGEND

- ☆ BLM METHANE FLUX CHAMBER
- \+ BLM GAS MONITORING PROBE
- NATURAL SPRING
- PARCEL BOUNDARY & OWNER (WHITE)
- 4M MITIGATION SYSTEM

CARBON DIOXIDE FLUX MEASUREMENT (mol/m ^{2} • 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 (mol/m^2 • day) (INTERVAL VARIES)
- FRUITLAND FORMATION (Kf) - COLORADO GEOLOGICAL SURVEY

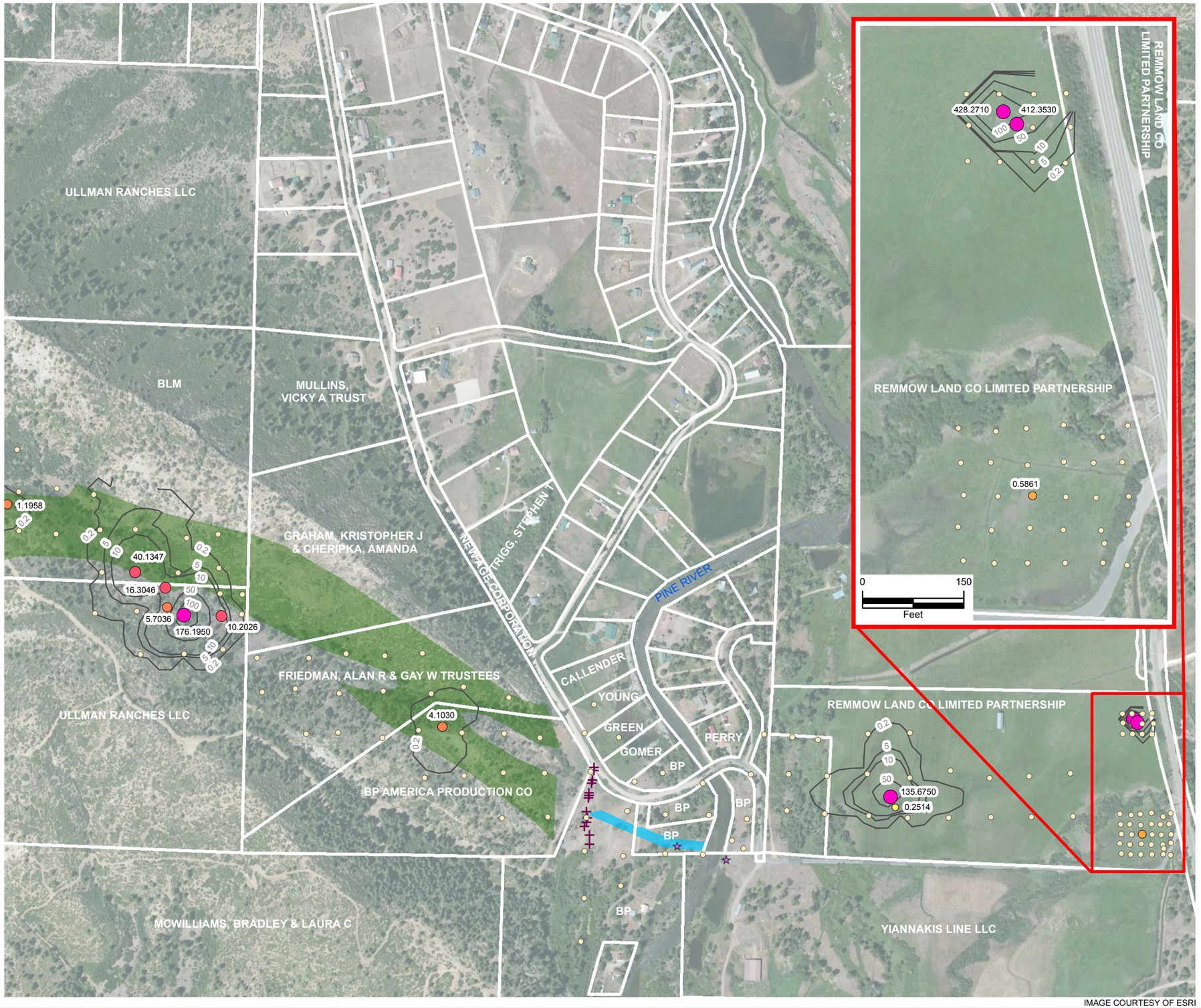
mol/m^2 • day: MOLES PER SQUARE METER PER DAY

0 300 600
Feet

N

FIGURE 19
CARBON DIOXIDE FLUX CONTOURS
BP HIGHLANDS
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP

P:\San Juan Basin GIS\LaPlata\Fruitland_OMR\MXDs\Subgas_Flux\2013\2013_FIG 03 CO2 FLUX CONTOURS.mxd



LEGEND

- BLM METHANE FLUX CHAMBER
- BLM GAS MONITORING PROBE
- NATURAL SPRING
- PARCEL BOUNDARY & OWNER (WHITE)
- 4M MITIGATION SYSTEM

METHANE FLUX MEASUREMENT (mol/m ^{2} • 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/m^2 • day (INTERVAL VARIES)
- FRUITLAND FORMATION (Kf) - COLORADO GEOLOGICAL SURVEY

mol/m^2 • day: MOLES PER SQUARE METER PER DAY

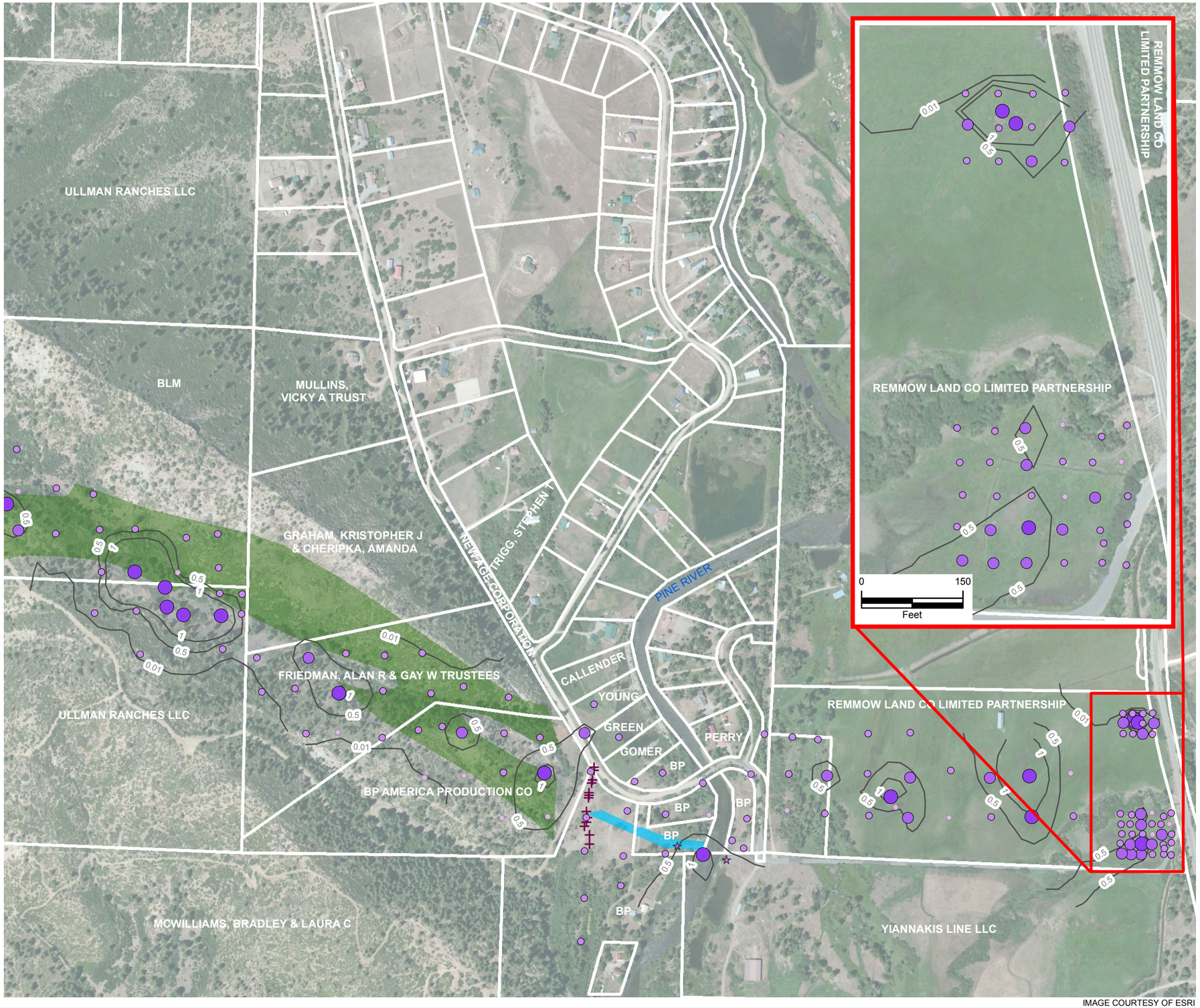
FLUX POINTS NOT LABELED ARE LESS THAN 0.2000 mol/m^2 • day METHANE

0 500 1,000
Feet

N

FIGURE 20
METHANE FLUX CONTOURS
PINE RIVER
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP

P:\San Juan Basin GIS\LaPlata\Fruitland_OMR\MXDs\Subgas_Flux\2013\2013_FIG 20 CH4 FLUX CONTOURS.mxd



LEGEND

- BLM METHANE FLUX CHAMBER
- BLM GAS MONITORING PROBE
- NATURAL SPRING
- PARCEL BOUNDARY & OWNER (WHITE)
- 4M MITIGATION SYSTEM

CARBON DIOXIDE FLUX MEASUREMENT (mol/m ^{2} • 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 (mol/m^2 • day) (INTERVAL VARIES)
- FRUITLAND FORMATION (Kf) - COLORADO GEOLOGICAL SURVEY

mol/m^2 • day: MOLES PER SQUARE METER PER DAY

0 500 1,000
Feet

N

FIGURE 21
CARBON DIOXIDE FLUX CONTOURS
PINE RIVER
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP

P:\San Juan Basin GIS\LaPlata\Fruitland_OMR\MXDs\Subgas_Flux\2013\2013_FIG 21 CO2 FLUX CONTOURS.mxd

2007 FLUX SURVEY AREA

VOSBURG PIKE

FLORIDA RIVER

SOUTH FORK TEXAS CREEK TO PINE RIVER

BASIN CREEK TO CARBON JUNCTION

550 3 160 160 550 172

2008 FLUX SURVEY AREA

VOSBURG PIKE

FLORIDA RIVER

SOUTH FORK TEXAS CREEK TO PINE RIVER

HORSE GULCH

BASIN CREEK TO CARBON JUNCTION

550 3 160 550 172

2009 FLUX SURVEY AREA

VOSBURG PIKE

FLORIDA RIVER

SOUTH FORK TEXAS CREEK TO PINE RIVER

BASIN CREEK TO CARBON JUNCTION

550 3 160 550 172

LEGEND

METHANE DETECTED GREATER THAN 0.2000 mol/m ^{2} • day

mol/m ^{2} • day: MOLES PER SQUARE METER PER DAY

AREA OF INTEREST

SURVEY BOUNDARY

HIGHWAY

SEE FIGURE 23 FOR 2010 & 2011 METHANE FLUX COMPARISON
SEE FIGURE 24 FOR 2012 & 2013 METHANE FLUX COMPARISON

IMAGE COURTESY OF ESRI/BING MAPS

0 3 6
Miles

N

FIGURE 22
METHANE FLUX COMPARISON 2007-2009
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO

THE GROUP

P:\San Juan Basin GIS\LaPlata\Fruitland_OMR\MXDs\Subgas_Flux\2013\2013_FIG 22 CH4 COMP 2007-2009.mxd

2010 FLUX SURVEY AREA

2011 FLUX SURVEY AREA

VOSBURG PIKE

FLORIDA RIVER

SOUTH FORK TEXAS CREEK TO PINE RIVER

BASIN CREEK TO CARBON JUNCTION

550

3

160

172

IMAGE COURTESY OF ESRI/BING MAPS

LEGEND

METHANE DETECTED GREATER THAN 0.2000 mol/m ^{2} • day

mol/m ^{2} • day: MOLES PER SQUARE METER PER DAY

SURVEY BOUNDARY

AREA OF INTEREST

HIGHWAY

0 1.75 3.5

Miles

N

FIGURE 23
METHANE FLUX COMPARISON 2010-2011
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO

THE GROUP

P:\San Juan Basin GIS\LaPlata\Fruitland_OMR\MXDs\Subgas_Flux\2013\2013_FIG 23 CH4 COMP 2010-2011.mxd

2012 FLUX SURVEY AREA

VOSBURG PIKE

SEC17T35NR8W

FLORIDA RIVER

SOUTH FORK TEXAS CREEK TO PINE RIVER

BASIN CREEK TO CARBON JUNCTION

550

3

160

172

2013 FLUX SURVEY AREA

VOSBURG PIKE

SEC17T35NR8W

FLORIDA RIVER

SOUTH FORK TEXAS CREEK TO PINE RIVER

BASIN CREEK TO CARBON JUNCTION

550

3

160

172

IMAGE COURTESY OF ESRI/BING MAPS

LEGEND

METHANE DETECTED GREATER THAN 0.2000 mol/m ^{2} • day

mol/m ^{2} • day: MOLES PER SQUARE METER PER DAY

SURVEY BOUNDARY

AREA OF INTEREST

HIGHWAY

0 1.75 3.5

Miles

N

FIGURE 24
METHANE FLUX COMPARISON 2012-2013
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO

THE GROUP

P:\San Juan Basin GIS\LaPlata\Fruitland_OMR\MXDs\Subgas_Flux\2013\2013_FIG 24 CH4 COMP 2012-2013.mxd

LEGEND

- \+ BLM GAS MONITORING PROBES
- PARCEL BOUNDARY & OWNER (WHITE)

NATURAL SPRING

- SAMPLED
- DRY
- NOT LOCATED
- NO ACCESS
- FRUITLAND FORMATION (Kf) - COLORADO GEOLOGICAL SURVEY

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.

0 250 500
Feet

N

FIGURE 25
DETAILED NATURAL SPRINGS MAP
GUN CLUB NATURAL SPRING
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP

P:\San Juan Basin GIS\LaPlata\Fruitland_OMR\MXDs\Subgas_Flux\2013\2013_FIG 25 SPRINGS.mxd

LEGEND

- BLM GAS MONITORING PROBES
- PARCEL BOUNDARY & OWNER (WHITE)

NATURAL SPRING

- SAMPLED
- DRY
- NOT LOCATED
- NO ACCESS
- FRUITLAND FORMATION (Kf) - COLORADO GEOLOGICAL SURVEY

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.

0 250 500
Feet

N

FIGURE 26
DETAILED NATURAL SPRINGS MAP
RANCH DURANGO NATURAL SPRINGS
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP

P:\San Juan Basin GIS\LaPlata\Fruitland_OMR\MXDs\Subgas_Flux\2013\2013_FIG 25 SPRINGS.mxd

IMAGE COURTESY OF ESRI/BING MAPS

LEGEND

- BLM GAS MONITORING PROBES
- PARCEL BOUNDARY & OWNER (WHITE)

NATURAL SPRING

- SAMPLED
- DRY
- NOT LOCATED
- NO ACCESS
- FRUITLAND FORMATION (Kf) - COLORADO GEOLOGICAL SURVEY

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.

0 250 500
Feet

N

FIGURE 27
DETAILED NATURAL SPRINGS MAP
WILBOURN NATURAL SPRINGS
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP

P:\San Juan Basin GIS\LaPlata\Fruitland_OMR\MXDs\Subgas_Flux\2013\2013_FIG 25 SPRINGS.mxd

LEGEND

- BLM GAS MONITORING PROBES
- PARCEL BOUNDARY & OWNER (WHITE)

NATURAL SPRING

- SAMPLED
- DRY
- NOT LOCATED
- NO ACCESS
- FRUITLAND FORMATION (Kf) - COLORADO GEOLOGICAL SURVEY

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.

0 250 500
Feet

N

FIGURE 28
DETAILED NATURAL SPRINGS MAP
RATHER AND WILBOURN NATURAL SPRINGS
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP

P:\San Juan Basin GIS\LaPlata\Fruitland_OMR\MXDs\Subgas_Flux\2013\2013_FIG 25 SPRINGS.mxd

IMAGE COURTESY OF ESRI/BING MAPS

LEGEND

- \+ BLM GAS MONITORING PROBES
- PARCEL BOUNDARY & OWNER (WHITE)

NATURAL SPRING

- SAMPLED
- DRY
- NOT LOCATED
- NO ACCESS
- FRUITLAND FORMATION (Kf) - COLORADO GEOLOGICAL SURVEY

BLM: BUREAU OF LAND MANAGEMENT

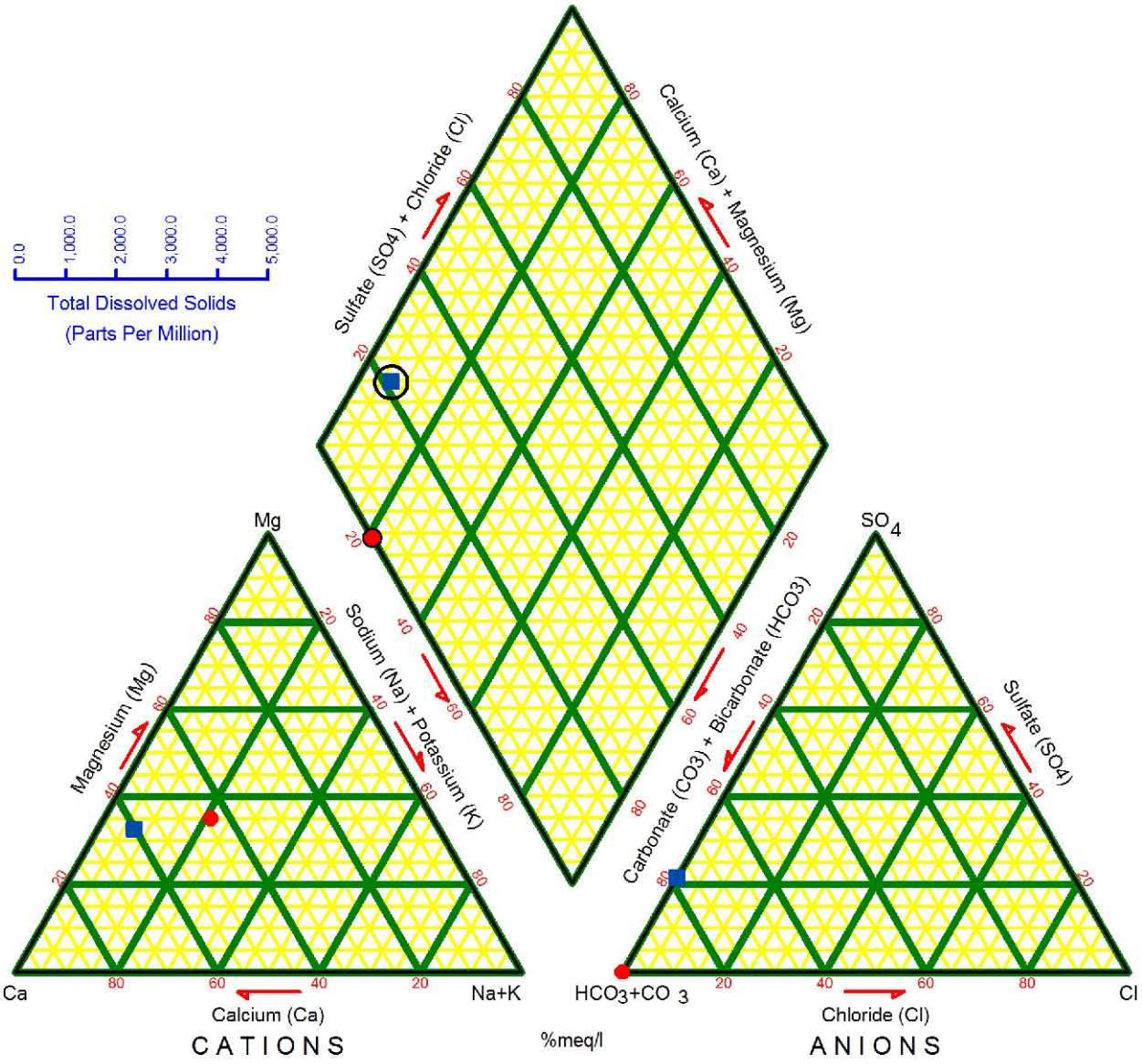
SUBSURFACE METHANE MEASUREMENTS WERE COLLECTED FROM TEMPORARY SOIL PROBES ADVANCED WITH A SLIDE HAMMER AT EACH SAMPLED NATURAL SPRING LOCATION. THE CONCENTRATION OF SUBSURFACE METHANE WAS 0.0 PARTS PER MILLION FOR ALL MEASUREMENTS TAKEN.

0 250 500
Feet

N

FIGURE 29
DETAILED NATURAL SPRINGS MAP
HOIER NATURAL SPRING
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP

P:\San Juan Basin GIS\LaPlata\Fruitland_OMR\MXDs\Subgas_Flux\2013\2013_FIG 25 SPRINGS.mxd



LEGEND

- DARWIN RATHER #1
- HOIER SPRING

FIGURE 30
TRI-LINEAR DIAGRAM OF NATURAL SPRING WATERS
MAY 23, 2013
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP

Path: P:\San Juan Basin GIS\LaPlata\Fruitland_OMR\MXDs\Subgas_Flux\2013\2013_FIG 30 TRI-LINEAR_072313.mxd

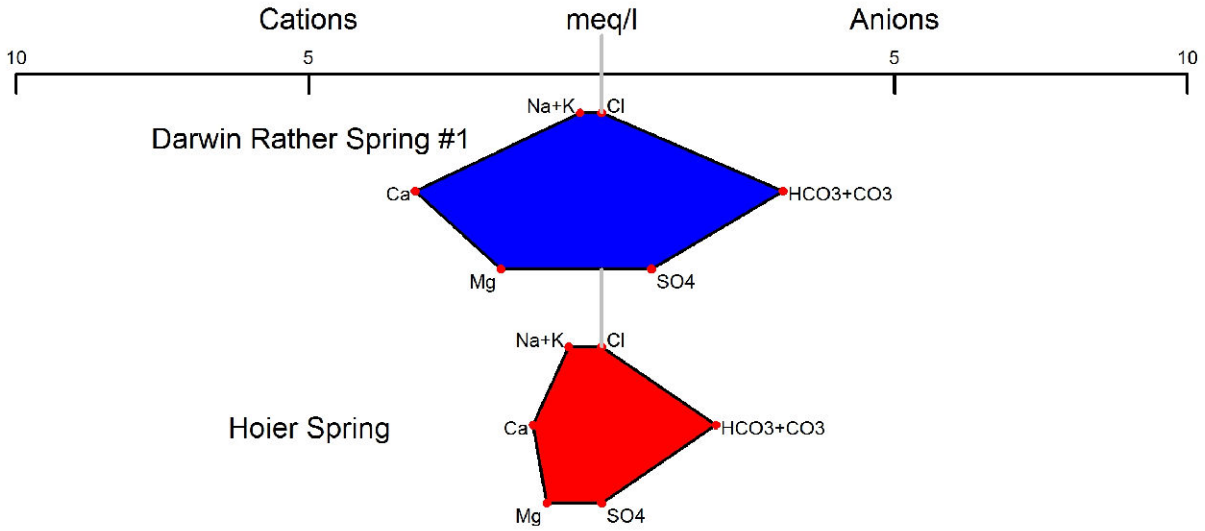


FIGURE 31
STIFF DIAGRAMS
MAY 23, 2013
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP

P:\San Juan Basin GIS\LaPlata\Fruitland_OMR\MXDs\Subgas_Flux\2013\2013_FIG 31 STIFF_072313.mxd

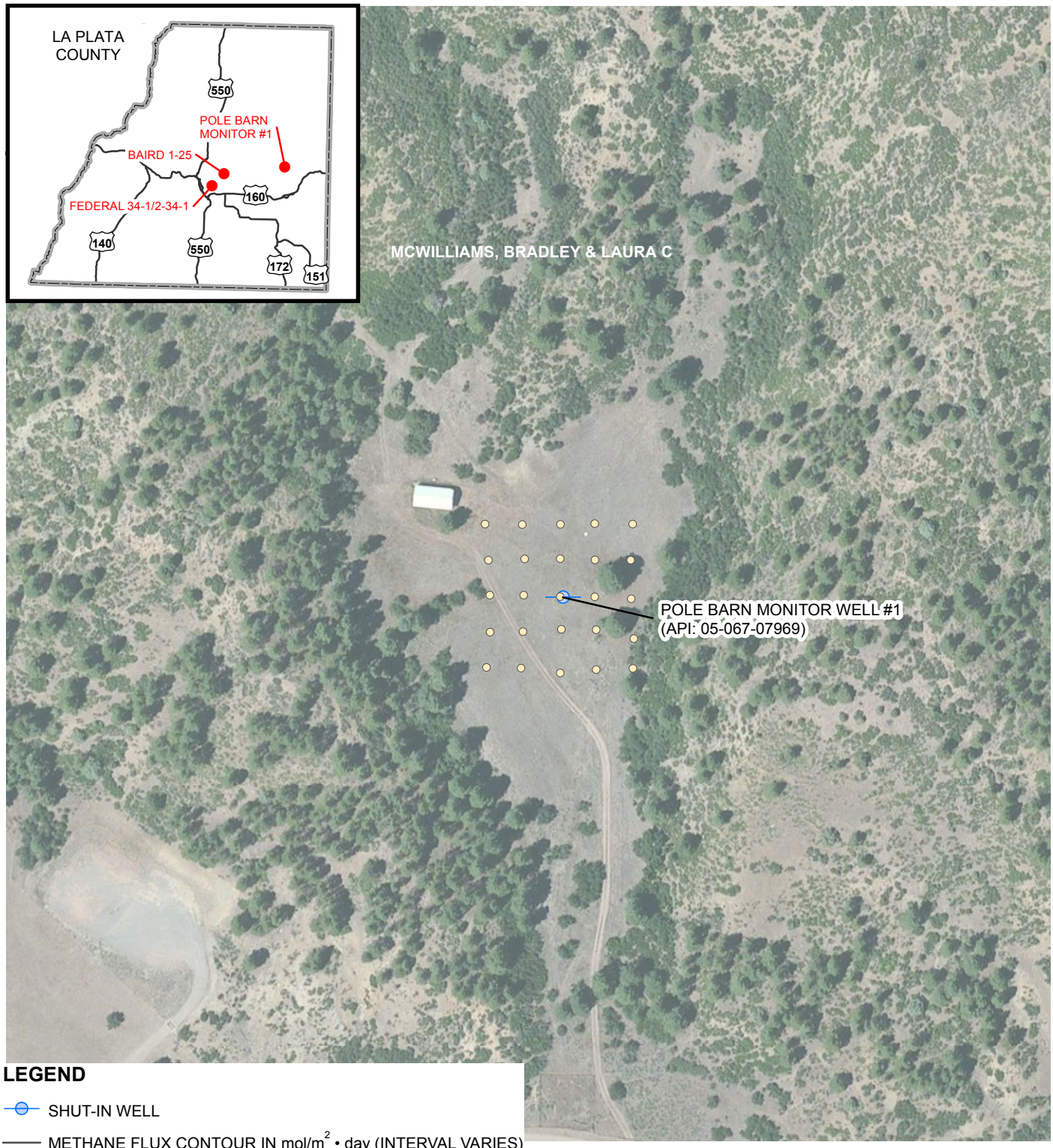


IMAGE COURTESY OF ESRI/BING MAPS

LEGEND

- SHUT-IN WELL
- METHANE FLUX CONTOUR IN mol/m^2 • day (INTERVAL VARIES)

METHANE FLUX MEASUREMENT (mol/m^2 • 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

mol/m^2 • day: MOLES PER SQUARE METER PER DAY
FLUX POINTS NOT LABELED ARE LESS THAN
0.2000 mol/m^2 • day METHANE

0 200 400
Feet

N

FIGURE 32
METHANE FLUX CONTOURS
POLE BARN MONITOR WELL #1
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP

P:\San Juan Basin GIS\LaPlata\Fruitland_OMR\MXDs\Subgas_Flux\2013\2013_FIG 32 ABANDONED_WELL.mxd

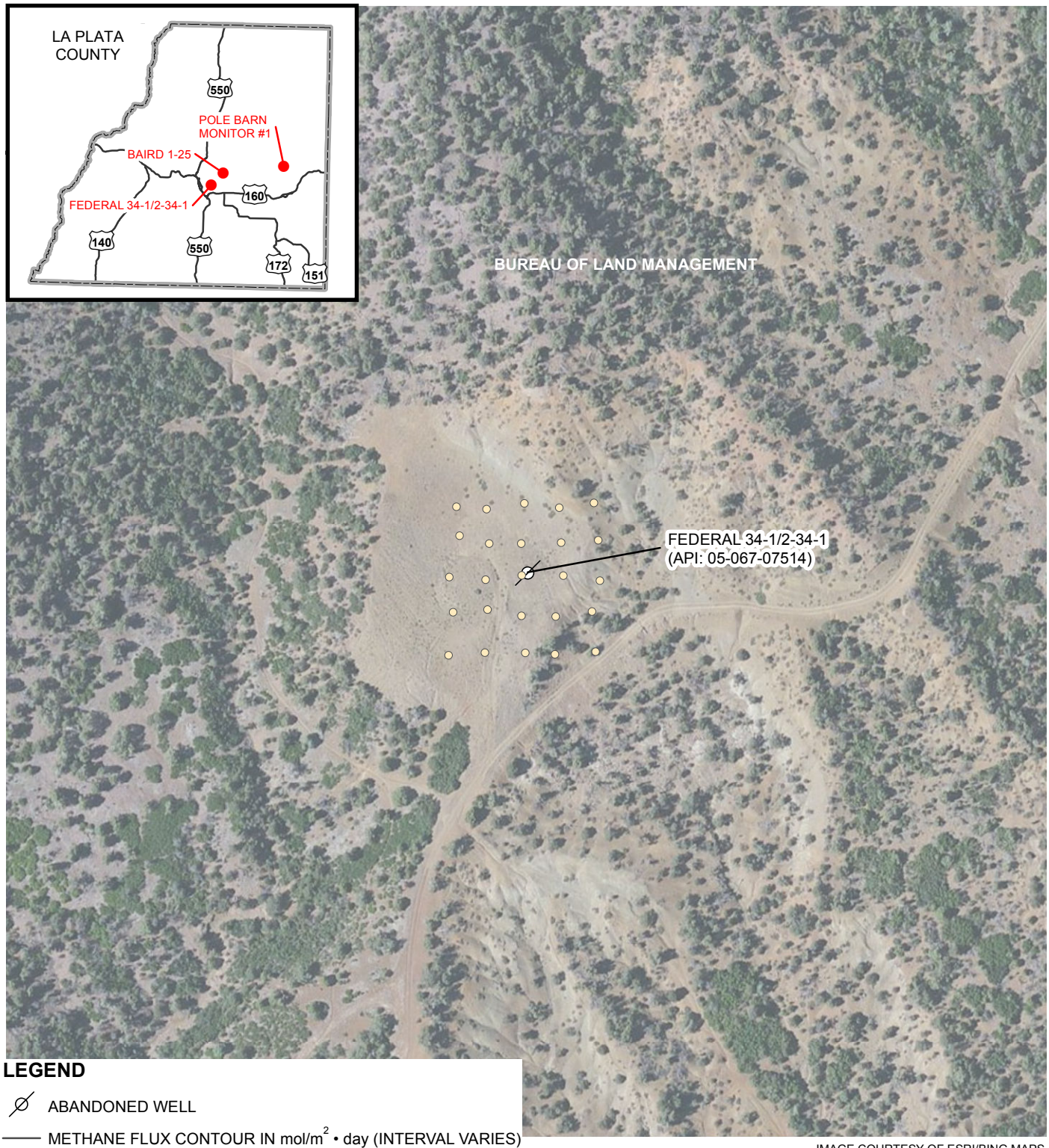


IMAGE COURTESY OF ESRI/BING MAPS

LEGEND

ABANDONED WELL

METHANE FLUX CONTOUR IN mol/m^2 • day (INTERVAL VARIES)

METHANE FLUX MEASUREMENT (mol/m^2 • 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

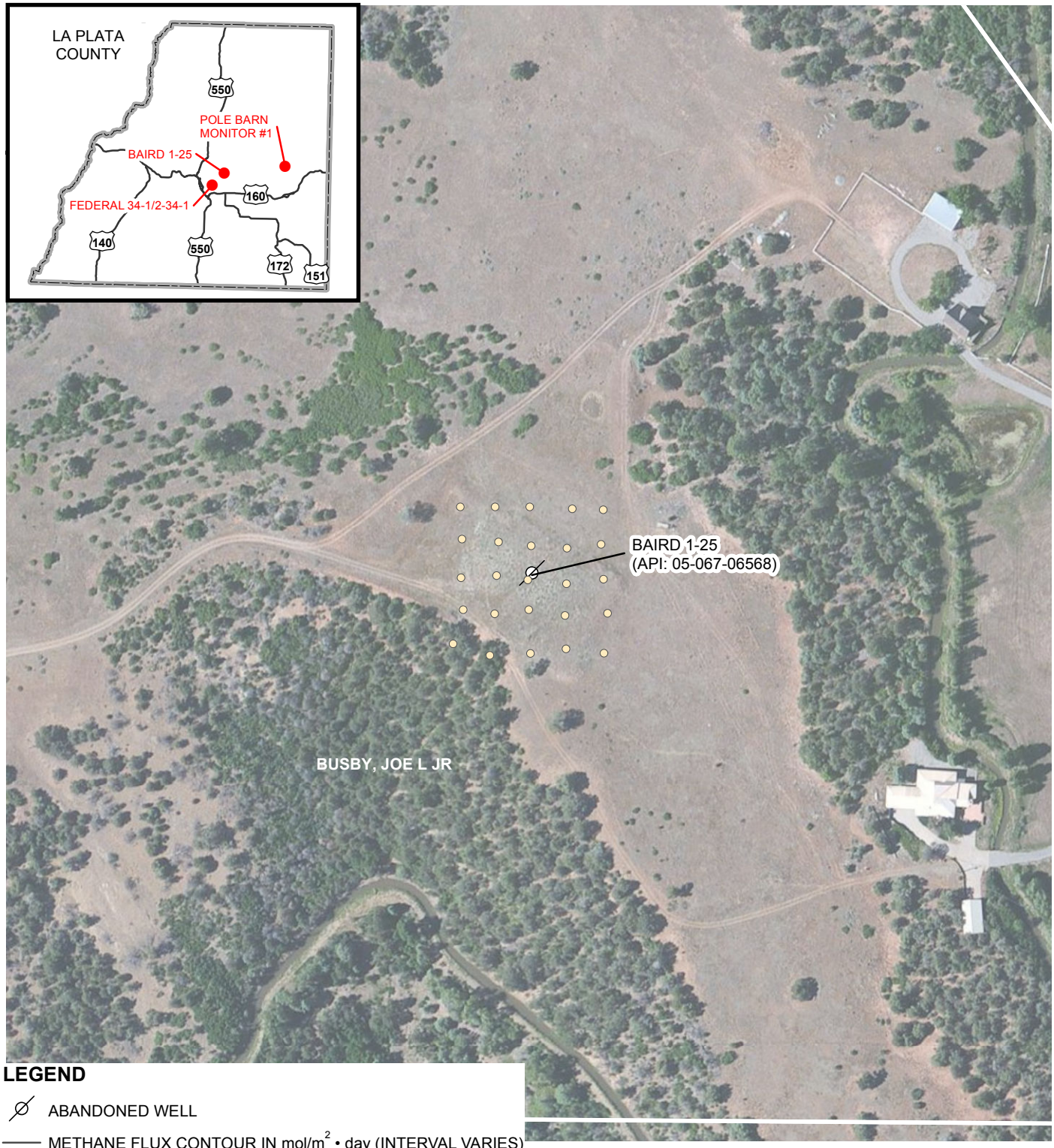
mol/m^2 • day: MOLES PER SQUARE METER PER DAY
FLUX POINTS NOT LABELED ARE LESS THAN
0.2000 mol/m^2 • day METHANE

0 200 400
Feet

N

FIGURE 33
METHANE FLUX CONTOURS
FEDERAL 34-1/2-34-1
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP

P:\San Juan Basin GIS\LaPlata\Fruitland_OMR\MXDs\Subgas_Flux\2013\2013_FIG 32 ABANDONED_WELL.mxd



LEGEND

- ABANDONED WELL
- METHANE FLUX CONTOUR IN mol/m^2 • day (INTERVAL VARIES)

METHANE FLUX MEASUREMENT (mol/m^2 • 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

mol/m^2 • day: MOLES PER SQUARE METER PER DAY
FLUX POINTS NOT LABELED ARE LESS THAN
0.2000 mol/m^2 • day METHANE

IMAGE COURTESY OF ESRI/BING MAPS

0 200 400
Feet

N

FIGURE 34
METHANE FLUX CONTOURS
BAIRD 1-25
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO
THE GROUP

P:\San Juan Basin GIS\LaPlata\Fruitland_OMR\MXDs\Subgas_Flux\2013\2013_FIG 32 ABANDONED_WELL.mxd

TABLES

TABLE 1
PROPERTY ACCESS STATUS
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO

THE GROUP

Parcel Number(s)	Property Owner	City, State Zip Code	Access Type	Access (Y/N)	Access Date
567515100018, 567510300070, 566734400007, 567111200305, & 567109300185	BLM	DURANGO, CO 81301	2013 FLUX	Y	4/20/2013
567508400169 & 567509300144	BP AMERICA PRODUCTION CO	HOUSTON, TX 77079	2013 FLUX	Y	4/16/2013
567515200183, 567514201007, 567514201004, 567514201006, 567514201016, 567514201008, 567508400263, 567514300017, & 567508400193	BP AMERICA PRODUCTION CO, PROPERTY TAX DEPT	HOUSTON, TX 77253-3092	2013 FLUX & SPRING	Y	4/17/2013
567508400192	BP AMERICA PRODUCTION COMPANY	HOUSTON, TX 77079	2013 FLUX	Y	4/18/2013
567508300307	BRYSON, PHILIP JAMES & LUCY T	BAYFIELD, CO 81122	2013 FLUX	Y	4/3/2013
566525100135	BUSBY, JOE L JR	DURANGO, CO 81301	2013 FLUX	Y	4/11/2013
567514201020	CALLENDER, JOSEPH I & HELEN B	METAIRIE, LA 70002	2013 FLUX	Y	5/28/2013
566904200021 & 566905400803	CITY OF DURANGO	DURANGO, CO 81301	2013 FLUX	Y	4/8/2013
567111300824	D & G INVESTMENTS, C/O SHERI MCCULLOUGH	TEMPE, AZ 85283	2013 FLUX	Y	4/20/2013
566905100808	DURANGO, CITY OF	DURANGO, CO 81301	2013 FLUX	Y	4/21/2013
567509100178	EVERITT-ROBERTS LLC	LAKE JACKSON, TX 77566	2013 FLUX	Y	4/17/2013
567110300889	FIDDLER, BARBARA DILLOW LIV TRUST	DURANGO, CO 81301	2013 FLUX	Y	4/12/2013
567509200375	FINCHER, RONALD C & DARLENE A & FINCHER,	BAYFIELD, CO 81122	2013 FLUX	Y	4/7/2013
567514201003	FRIEDMAN, ALAN R & GAY W TRUSTEES	TUCSON, AZ 85705	2013 FLUX	Y	4/8/2013
567514201018	GREEN, BRYAN F & JULIE A	RIO RANCHO, NM 87144	2013 FLUX	Y	4/23/2013
566905400034	LA PLATA COUNTY	DURANGO, CO 81301	2013 FLUX	Y	4/5/2013
566905400024	LA PLATA COUNTY HUMANE, SOCIETY	DURANGO, CO 81301	2013 FLUX	Y	4/23/2013
566905200031	LA PLATA COUNTY, BOARD OF COUNTY COMMISSIONERS	DURANGO, CO 81301	2013 FLUX	Y	4/23/2013
566524100054	LOEHR, WILLIAM & SHERRY	OJAI, CA 93023	2013 FLUX	Y	4/8/2013
566524100806	MACHO FAMILY TRUST	DURANGO, CO 81301	2013 FLUX	Y	4/9/2013
567514300014	MCWILLIAMS, BRADLEY & LAURA C	HOUSTON, TX 77024	2013 FLUX	Y	4/5/2013
566904200067, 566904200068, & 566904200809	OAK RIDGE ENERGY INC	WICHITA FALLS, TX 76302	2013 FLUX	Y	4/8/2013
567119200898 & 566524400831	PALMER RANCH LIMITED II	DURANGO, CO 81301	2013 FLUX	Y	4/4/2013
566905400032	PENN DCIL LLC	MIDLAND, TX 79706	2013 FLUX	Y	4/16/2013
567507400270	RATHER, DARWIN R & MAXINE J	BASALT, CO 81621	2013 SPRING	Y	4/26/2013
567514100002 & 567514100015	REMMOW LAND CO LIMITED PARTNERSHIP	BAYFIELD, CO 81122	2013 FLUX	Y	4/18/2013
566905300033	STATE OF COLORADO DEPT OF NAT RESOURCES, DIVISION OF WILDLIFE	DENVER, CO 80216	2013 FLUX	y	4/3/2013
566731100023	STATE OF COLORADO, DIV OF WILDLIFE FOR B	DENVER, CO 80216	2013 FLUX	y	4/3/2013
566907100035	STATE OF COLORADO, DIVISION OF WILDLIFE	DENVER, CO 80216	2013 FLUX	y	4/13/2013
567510400009 & 567509400065	ULLMAN RANCHES LLC	VALENCIA, CA 91355	2013 FLUX	Y	4/30/2013
566301200180	UNITED STATES OF AMERICA, BUREAU OF RECLAMATION	DURANGO, CO 81301	2013 FLUX	Y	4/26/2013
567509300188	VARCOE, ROY & GORETSKI, MICHAEL, MARION, MARK (EA UND 1/3 INT)	WATERFORD, MI 48327	2013 FLUX	Y	4/15/2013
567509400231	VARCOE, ROY A & GORETSKY, MICHAEL, MARION, MARK	WATERFORD, MI 48327	2013 FLUX	Y	4/5/2013

TABLE 1
PROPERTY ACCESS STATUS
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO

THE GROUP

Parcel Number(s)	Property Owner	City, State Zip Code	Access Type	Access (Y/N)	Access Date
567508100165	WALKER, CLARENCE GLEN &, WALKER, IVY KATHERINE	BAYFIELD, CO 81122	2013 FLUX	Y	4/18/2013
567514400008	YIANNAKIS LINE LLC	BAYFIELD, CO 81122	2013 FLUX	Y	4/12/2013
567514201019	YOUNG, JENNIFER SUE	BAYFIELD, CO 81122	2013 FLUX	Y	4/3/2013
567119200267	BEACH, MARSHALL A & MARY P TRUSTEES &, BEACH, ZACHARIAH A	SANTA FE, NM 87508	2013 FLUX	N	4/3/2013
567507300278	DEWITT, MICHAEL J, TRUSTEE	BAYFIELD, CO 81122	2013 SPRING	N	4/16/2013
567110300856	BETKER, KRISTINE J & CRANDALL, DUSTIN A	DURANGO, CO 81301	2013 FLUX	No Response	No Date
567508200326	CLARK, BRETT	PATASKALA, OH 43062	2013 FLUX	No Response	No Date
567507200277	FOSTER, CHARLES O	DURANGO, CO 81301	2013 SPRING	No Response	No Date
567514201017	GOMER, WILLIAM EARL	RIVERTON, UT 84065	2013 FLUX	No Response	No Date
567514201002	GRAHAM, KRISTOPHER J & CHERIPKA, AMANDA	BAYFIELD, CO 81122	2013 FLUX	No Response	No Date
567509200167	KURTZ, H RICHARD	BAYFIELD, CO 81122	2013 FLUX	No Response	No Date
567101300802	LIDDELL, CORINNE &, LIDDELL, ANTHONY J	DURANGO, CO 81301	2013 FLUX	No Response	No Date
567514201042	NEW AGE CORPORATION, C/O JOE D FORD	BAYFIELD, CO 81122	2013 FLUX	No Response	No Date
566905100003	STATE OF COLORADO, DEPARTMENT OF TRANSPORTATION	DENVER, CO 80222	2013 FLUX	No Response	No Date
566524400813	SUBSURFACE MACHINE & MFG INC	DURANGO, CO 81301	2013 FLUX	No Response	No Date
567508300308 & 567508300309	TULLOCH, WILLIAM T H & ELIZABETH C, CO TRUSTEES	RAMONA, CA 92065	2013 FLUX	No Response	No Date
567117301006	VILLELLI, THOMAS R	SAND POINT, ID 83864-0069	2013 SPRING	No Response	No Date
567508100113	WALKER, C GLEN & IVY K	BAYFIELD, CO 81122	2013 FLUX	No Response	No Date
566904300065 & 566905400806	WELLS FARGO BANK NA AS TRUSTEE, C/O C-III ASSET MANAGEMENT LLC	IRVING, TX 75039	2013 FLUX	No Response	No Date
566904300003	WILLMETT, EMERY ETALS	DURANGO, CO 81301	2013 FLUX	No Response	No Date

Notes:
Green indicates access granted by landowner
Red indicates access denied by landowner
White indicates no response from landowner, treated as no access

TABLE 2
METHANE AND CARBON DIOXID FLUX MEASUREMENTS SUMMARY
2013 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	509	53	3,185.6	442	19.37
Florida River	74	5	100.0	72	1.36
SEC17T35NR8W	10	2	61.5	7	12.97
Vosburg Pike	115	5	6.0	103	4.24
SEC12T35NR8W	NM	NM	NM	NM	NM
Texas Creek to Pine River	599	59	2413.3	564	12.90
Total	**1,307**	**124**	**----------**	**1,188**	**----------**

Notes:

Flux measurements are in units of moles per square meter per day ($mol/m^2 \cdot day$)

CH_4 - Methane

CO_2 - Carbon dioxide

[1] - Based on methane flux values that are greater than the flux meter reportable limit of 0.2 $mol/m^2 \cdot day$

[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
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO

THE GROUP

	Methane													
	2007		2008		2009		2010		2011		2012		2013	
Mapping Area	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)	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	60	2,310
Florida River	30	131	52	27	39	622	26	154	12	45	16	119	8	373
SEC17T35NR8W	---	---	---	---	---	---	---	---	---	---	2	49	2	9
Vosburg Pike	14	2	43	11	34	15	23	1	21	115	11	598	8	29
SEC12T35NR8W	---	---	---	---	---	---	---	---	---	---	NM	NM	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	49	3,805
TOTAL	**300**	**6,099**	**860**	**5,011**	**644**	**4,099**	**319**	**1,748**	**318**	**2,900**	**188**	**9,371**	**126**	**6,526**

	Carbon Dioxide													
	2007		2008		2009		2010		2011		2012		2013	
Mapping Area	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)	Seepage Area (acres)	Volumetric Flux (MCFD)
Basin Creek to Carbon Junction	137	231	582	740	506	747	415	458	515	976	419	2,698	432	656
Florida River	48	68	61	73	55	119	61	90	67	126	84	197	68	72
SEC17T35NR8W	---	---	---	---	---	---	---	---	---	---	5	15	3	4
Vosburg Pike	28	44	55	52	41	56	74	132	106	193	103	155	105	106
SEC12T35NR8W	---	---	---	---	---	---	---	---	---	---	---	---	NM	NM
Texas Creek to Pine River	173	715	537	1,161	452	580	441	546	404	649	487	1,473	424	526
TOTAL	**386**	**1,058**	**1,235**	**2,026**	**1,054**	**1,502**	**991**	**1,226**	**1,092**	**1,944**	**1,099**	**4,538**	**1,032**	**1,364**

Notes:

MCFD - thousand cubic feet per day

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

-- denotes sample location not part of sampling program for that year

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

TABLE 4
NATURAL SPRINGS SAMPLING STATUS
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO

THE GROUP

Natural Spring	2005	2006	2007	2008		2009		2010	2011	2012	2013
	September	May	October	June	November	May	October	June	May	May	May/June
Darwin Rather Spring #1	Sampled	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	Dry
Hoier Spring	Not Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Dry	Not Sampled	Not Sampled	Sampled	Sampled
Gun Club Spring	--	--	--	--	--	--	--	--	--	--	Sampled
Rancho Durango East Spring	Not Sampled	Not Sampled	Sampled	Not Sampled	Sampled	Dry	Dry	Not Sampled	Not Sampled	No Access	No Access
Rancho Durango LTD Spring	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Not Sampled	No Access	No Access
Rancho Durango North Spring	Not Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Not Sampled	No Access	No Access
Wilbourn Spring #1	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	No Access	No Access	No Access	No Access	Not Sampled	No Access
Wilbourn Spring #2	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	No Access	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	Dry

Note:
-- denotes sample location not part of sampling program for that year

TABLE 5
NATURAL SPRINGS FIELD MEASUREMENTS
2013 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)
Darwin Rather Spring #1	9/17/2005	10.6	7.20	479.9	329.2	59	0.50	--
	5/24/2006	12.3	7.76	425.9	288.4	52	1.0	--
	10/8/2007	15.2	8.05	399.5	210.6	55	1.0	--
	6/23/2008	12.6	7.34	432.0	308.9	81	--	0
	10/15/2008	Dry - Not Measured						0
	5/12/2009	7.9	7.16	437.0	--	--	0.23	0
	10/6/2009	8.4	7.18	475	--	--	--	0
	6/29/2010	11.6	6.72	476	--	--	--	0
	5/4/2012	11.1	6.59	429	216	77.4	--	0
	5/21/2012	10.1	6.32	492	244	74.5	--	0
	5/23/2013	9.5	7.2	521	259	50.2	0.11	0
Darwin Rather Spring #2	9/17/2005	14.4	7.50	271.4	178.3	45	<0.25	--
	5/24/2006	13.0	7.69	344	222.9	-62	<1.0	--
	10/8/2007	Dry - Not Measured						--
	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	--	--	1.80	0
	10/6/2009	Dry - Not Measured						0
	6/29/2010	21.1	7.58	252	--	--	--	0
	5/4/2011	14.8	7.5	282	142	49.8	--	0
	5/21/2012	15.66	7.36	270	134	14.3	2.573	0
	5/23/2013	Dry - Not Measured						0
Hoier Spring	5/24/2006	17.5	7.24	670.5	453.9	35	--	--
	10/8/2007	21.0	8.23	221.6	111.9	20	<0.25	--
	6/23/2008	20.8	8.2	257.0	173.0	52.0	0.042	--
	10/15/2008	12.33	7.78	254	165	90.4	0.031	0
	5/14/2009	18.1	6.9	380.0	--	--	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						--
	5/4/2011	Dry - Not Measured						0
	5/21/2012	21.0	6.75	272	135	82.9	0.025	0
	5/23/2013	17.8	6.6	965	475	85.3	0.11	0
Gun Club Spring	5/29/2013	15.5	7.6	--	--	--	0.13	54.0

TABLE 5
NATURAL SPRINGS FIELD MEASUREMENTS
2013 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 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	No Access - Not Measured						
	5/4/2011	No Access - Not Measured						
	5/21/2012	No Access - Not Measured						
	5/23/2013	No Access - Not Measured						
Rancho Durango LTD Spring	9/14/2005	14.6	8.05	494.1	338.0	66	>1	--
	5/24/2006	19.3	7.38	524.5	345.9	77	1.5	--
	10/8/2007	19.0	7.29	499.7	245.8	529	<0.25	--
	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	--	--	1.47	0
	10/6/2009	7.1	7.25	635	--	--	0.4	0
	6/29/2010	13.9	7.05	574	--	--	0.49	0
	5/4/2011	No Access - Not Measured						
	5/21/2012	No Access - Not Measured						
	5/23/2013	No Access - Not Measured						
Rancho Durango North Spring	5/24/2006	13.4	7.67	533.2	360.7	87	2.0	--
	10/8/2007	19.2	7.28	514.8	263.9	43	<0.5	--
	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	--	--	2.82	0
	10/6/2009	12.1	7.25	651	--	--	0.6	0
	6/29/2010	13.7	7.03	586	--	--	0.6	0
	5/4/2011	No Access - Not Measured						
	5/21/2012	No Access - Not Measured						
	5/23/2013	No Access - Not Measured						

Notes:

°C - degrees Celcius
GPM - gallons per minute
mg/L - milligrams per liter
mV - millivolts
-- denotes a measurement was not collected
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 DISSOLVED METHANE CONCENTRATIONS
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO

THE GROUP

	DISSOLVED METHANE (mg/L)										
	2005	2006	2007	2008		2009		2010	2011	2012	2013
Natural Spring	September	May	October	June	October	May	October	June	May	May	May/June
Darwin Rather Spring #1	<0.0005	<0.0010	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Darwin Rather Spring #2	0.002	0.0017	--	<0.02	<0.02	<0.02	--	<0.02	<0.02	<0.02	--
Hoier Spring	--	0.0017	<0.02	<0.02	<0.02	<0.02	--	--	--	<0.02	1.27
Gun Club Spring	--	--	--	--	--	--	--	--	--	--	4.22
Rancho Durango North Spring	--	<0.0010	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	--	--	--
Rancho Durango East Spring	--	--	--	--	<0.02	--	--	--	--	--	--
Rancho Durango LTD Spring	<0.0005	0.0016	<0.02	<0.02	<0.02	<0.02	<0.02	0.1	--	--	--

Notes:

mg/L - milligrams per liter

< - less than the stated laboratory method detection limit

-- denotes not sampled

TABLE 7
NATURAL SPRINGS MAJOR IONS CONCENTRATIONS
2013 FRUITLAND OUTCROP MONITORING
LA PLATA COUNTY, COLORADO

THE GROUP

		Cations				Anions				
Natural Spring	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Carbonate (mg/L)	Bicarbonate (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	TDS (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
	5/23/2013	63.8	20.9	7.85	1.14	<10.0	189	41.0	<10.0	295
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
	5/23/2013	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
	5/23/2013	23.5	11.4	12.2	1.26	<10.0	119	<10.0	<10.0	145
Gun Club Spring	5/29/2013	465	198	65.0	15.2	NA	NA	2,650	12.0	3,930
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
	5/21/2012	Not Sampled				Not Sampled				Not Sampled
	5/23/2013	Not Sampled				Not Sampled				Not Sampled
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
	5/21/2012	Not Sampled				Not Sampled				Not Sampled
	5/23/2013	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
	5/4/2011	Not Sampled				Not Sampled				Not Sampled
	5/21/2012	Not Sampled				Not Sampled				Not Sampled
	5/23/2013	Not Sampled				Not Sampled				Not Sampled

Notes:

mg/L - milligrams per liter
TDS - total dissolved solids
< - less than laboratory reporting limit
NA - not analyzed due to acidity (510 mg/L)

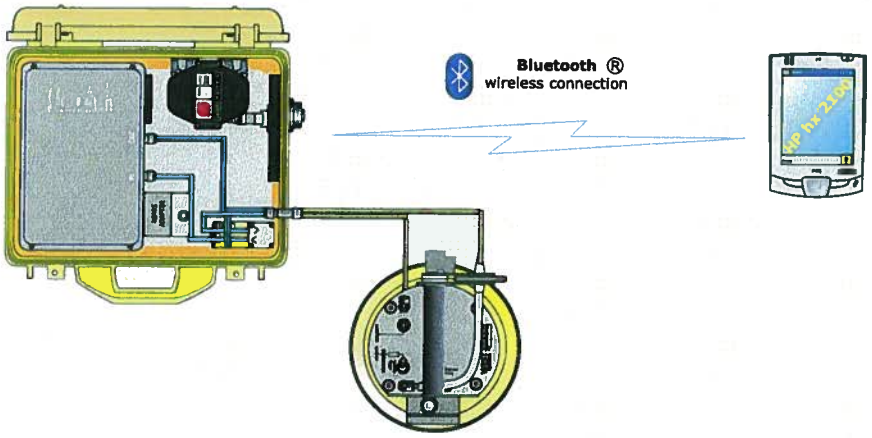
APPENDIX A

EQUIPMENT SPECIFICATIONS

WEST Systems portable soil flux meter

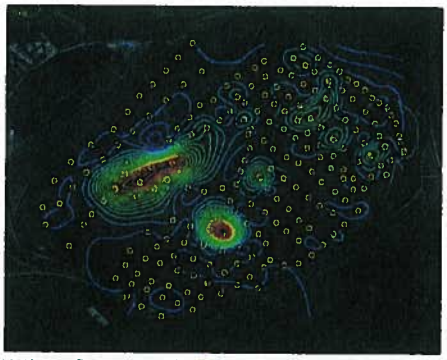
for Carbon dioxide, Methane and Hydrogen sulfide fluxes

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 linees

a group of researchers during a flux mapping fieldwork, using the WS-LI820 flux meter

Courtesy of United States Geological Survey

WEST Systems

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

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

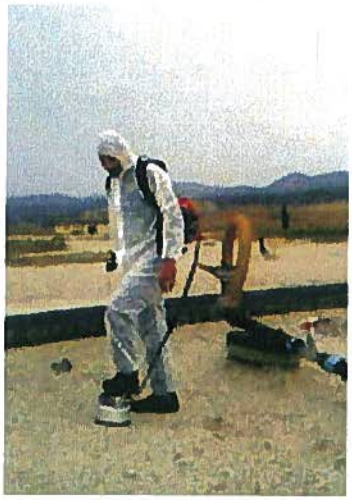
Palm top computer: PocketPC Color Display based on Windows Mobile operating system.
- PalmTop with cables, 0.3 Kg/0.7 lbs.
- Size 125mm (4.8") x 82mm (3.2") * 25 mm (1").

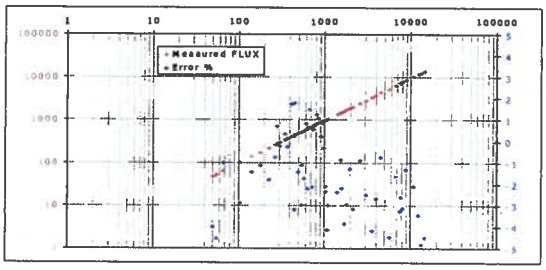
Software The instrument is supplied with a custom software, FluxManager, which allows recording and visualization of the increase in concentration of the target gas in the accumulation chamber, and then the flux calculations. The obtained measurements can be saved on the palmtop computer and then transferred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

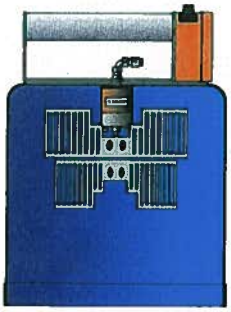
Finally we improved the connection between the instrument and the palmtop that now is based on BlueTooth wireless embedded device.





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 landifll.



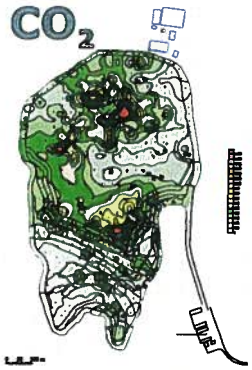
Accumulation Chamber Type B

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

WEST Systems
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



CO_2 - LI820

LI820 based Carbon dioxide fluxmeter

The CO_2 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}

CO_2 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 CO_2

WS-DRAGER: CO_2 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/m^2 per day.

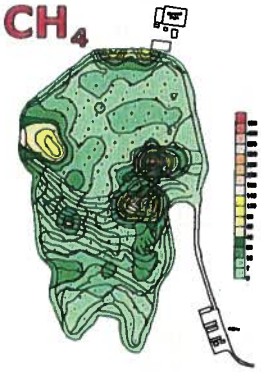
The precision depends on the measured flux:

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%)



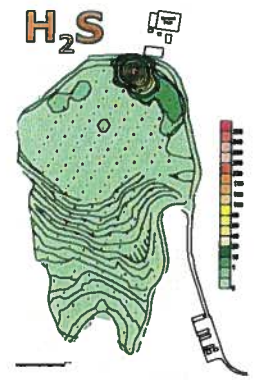
WS-HC CH^4

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/m^2/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)



H_2S - WEST

Hydrogen sulfide

The hydrogen sulphide detector is a 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%.

H_2S Flux measurement range: from 0.0025 to 0.5 moles/m^2 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.

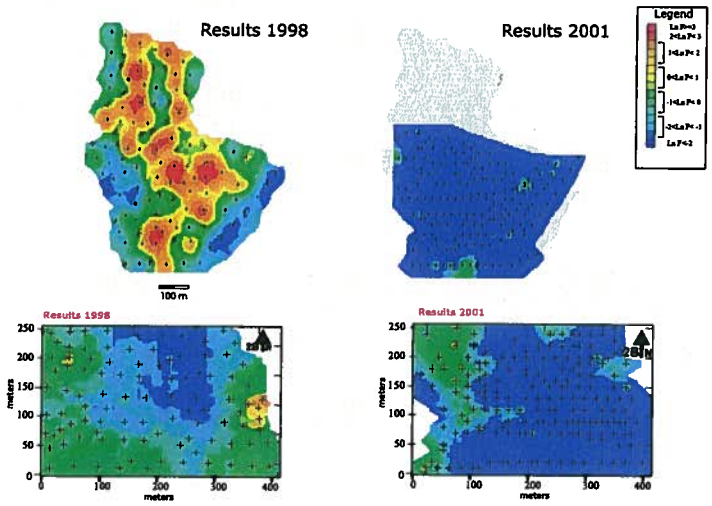
We thanks to N.Lima et al. for the maps.

WEST Systems

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

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

The figure shows the compare between the results of the measurement regime of a land/fill 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 intervensions 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.

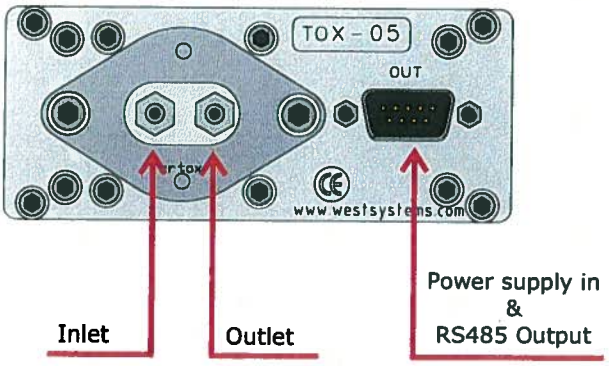
West Systems Srl
Via Molise 3 - Zona Ind. Gello - 56025 Pontedera (PI) Italy
Phone +39 0587 294216 www.westsystems.com (or .it)
Fax +39 0587 296068 g.virgili@westsystems.com (or .it)

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
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

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:

$$H_2S + 2O_2 = H_2SO_4$$

the gas sample specific consuption is very low:

2.5×10^{-10} moles/Sec per ppm

Due to this consuption the H2S flux is methodically understimated by a -10% with the AccumulationChamber 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%

Repeatibility 2%

Resolution 22 ppm (Methane equivalent)

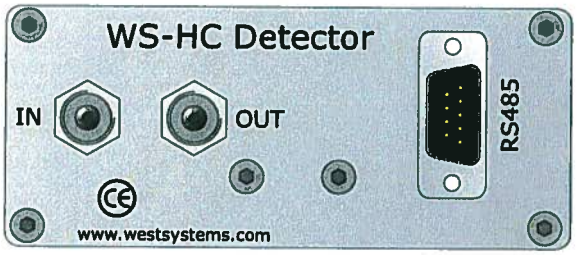
Full scale range is 50000 ppm of methane.

Detection limit 60 ppm.

Methane flux measurement range from 0.1 to 150 moles/m^2 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/m^2/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

CO_2 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

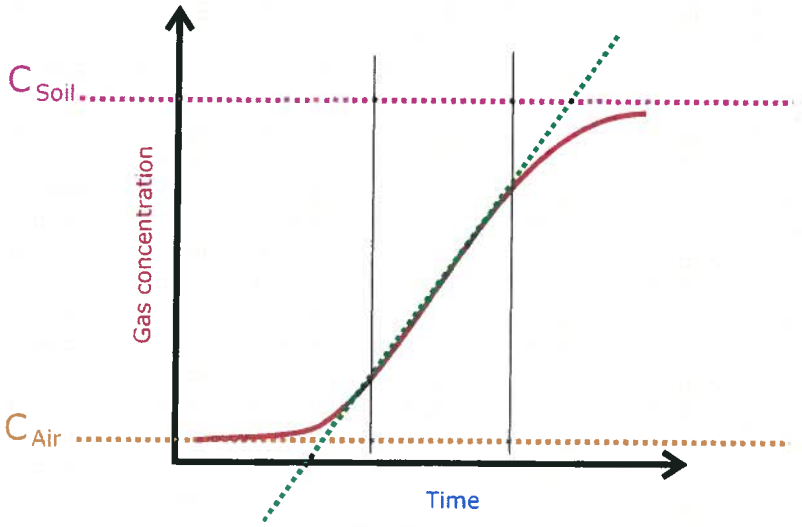
Relative Humidity Range: 0 to 95% RH, Non-Condensing

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

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

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

An example:

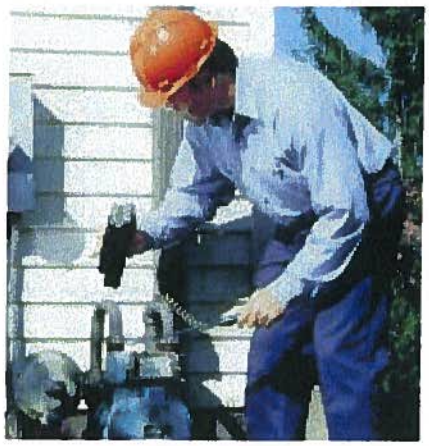
You're using the accumulation chamber B, the slope of the flux curve is 2.5 ppm/sec, the barometric pressure is 1008 mBar (HPa) and the air temperature is 22 °C.
From the table B get the value that correspond to the barometric pressure and temperature. In this case I get the value computed for 25°C and 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_2S

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_2S
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. Gaspor 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_2S	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).**

ID 08-04-27-MC / May 2000

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:

MSA

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 WAAS[1] or EGNOS[2]. 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 Mobile lets you choose a software solution to match your workflow.

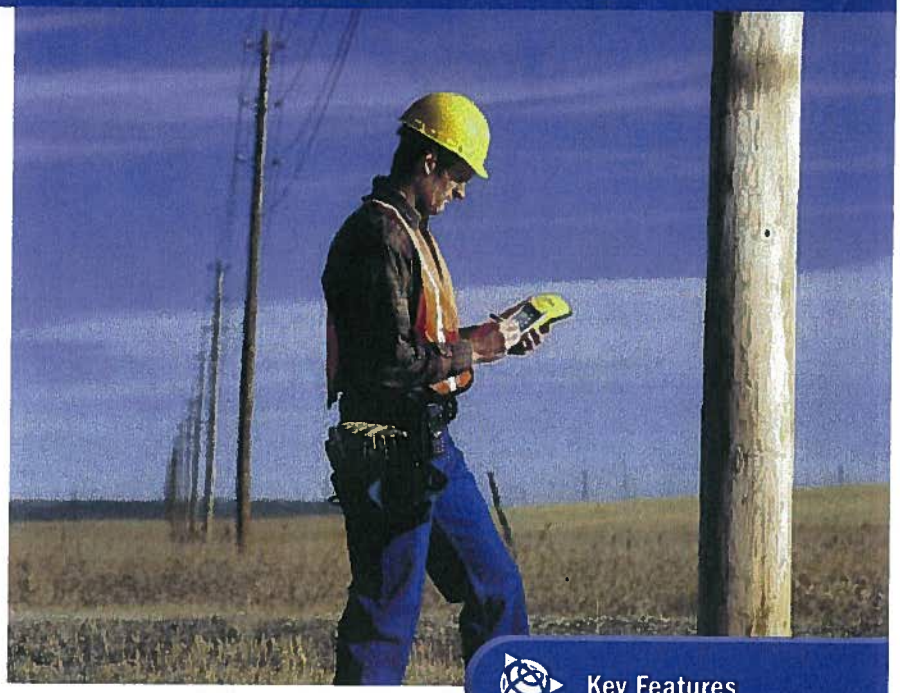
Windows Mobile includes familiar Microsoft productivity tools, including Pocket Word, Pocket Excel, and Pocket Outlook®. Pocket Outlook lets you synchronize e-mails, contacts, appointments, and data with your office computer, so whether you're in the office or in the field, you're always up to date.

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.



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

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 AutoRoute® 2004 in Europe.*

Trimble.

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 WAAS[1]/EGNOS[2]
- 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 adaptor[3]
- Portable power kit[3]
- Hurricane antenna
- External patch antenna
- Pole-mountable ground plane
- Baseball cap with antenna sleeve
- Beacon-on-a-Belt (BoB™) differential correction receiver[3]
- Hard carry case
- Null modem cable[3]
- 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 vie 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_ts.asp.
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).*

YOUR LOCAL TRIMBLE OFFICE OR REPRESENTATIVE

www.trimble.com

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

ULTRAMETER II™

OVER 50 YEARS

MYRON L COMPANY

Water Quality Instrumentation

Accuracy • Reliability • Simplicity

ULTRAMETER II™

Advanced Design • Superior Performance

MADE IN USA

OVER 50 YEARS

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 ±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 ☒ or ☒ 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 9.99%/°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

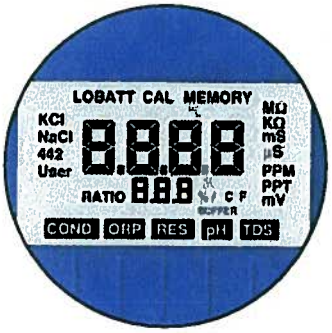
Built-in IR Port allows you to conveniently download your data to a computer. **(Requires Myron L uDock™ Accessory Package)**

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 Conductivity TDS, Resistivity Temperature	6PII 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 ml/0.04 oz. Cond/TDS/Res: 5 ml/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

	Conductivity	TDS	Resistivity	pH	ORP	Temperature
Ranges	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.

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.

MYRON L COMPANY
Water Quality Instrumentation
Accuracy • Reliability • Simplicity

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

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SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

UMIIB 03-08

APPENDIX B

FLUX METER DATA

APPENDIX B - FLUX METER DATA

AreaAbbrev	SitePt	Filename	Northing	Easting	Date	CH_4 flux	H_2S flux	CO_2 flux	ACCUMULATION CHAMBER	PRESSURE Hpa	TEMP DegC	TIME	CH_4 slope	H_2S slope	CO_2 slope	AcK
Baird	Baird061813_01	Baird061813_01_18062013_085223.txt	1230582.751	2330846.512	6/18/2013	0	0	0.070126988	A	788.2	23.3	18-06-2013 08:52:23	0	-0.006	0.282000005	0.248677269
Baird	Baird061813_02	Baird061813_02_18062013_085537.txt	1230638.036	2330851.514	6/18/2013	0	0.001729544	0.063004807	A	786.3	24.5	18-06-2013 08:55:37	0	0.007	0.254999995	0.247077674
Baird	Baird061813_03	Baird061813_03_18062013_085909.txt	1230685.487	2330845.886	6/18/2013	0	0.000738717	0.006155971	A	786.0	25.4	18-06-2013 08:59:09	0	0.003	0.025	0.246238858
Baird	Baird061813_04	Baird061813_04_18062013_090305.txt	1230733.605	2330842.513	6/18/2013	0	0.003434689	0.11751543	A	786.0	26.5	18-06-2013 09:03:05	0	0.014	0.479000002	0.245334923
Baird	Baird061813_05	Baird061813_05_18062013_090541.txt	1230781.849	2330845.619	6/18/2013	0	0.00171492	0.074231535	A	786.2	27.0	18-06-2013 09:05:41	0	0.007	0.303000003	0.244988561
Baird	Baird061813_06	Baird061813_06_18062013_090807.txt	1230782.874	2330802.486	6/18/2013	0	0.000488875	0.153506815	A	786.0	27.6	18-06-2013 09:08:07	0	0.002	0.628000021	0.244437605
Baird	Baird061813_07	Baird061813_07_18062013_091043.txt	1230785.676	2330743.493	6/18/2013	0	0.00170931	0	A	786.5	28.1	18-06-2013 09:10:43	0	0.007	-0.039000001	0.244187132
Baird	Baird061813_08	Baird061813_08_18062013_091318.txt	1230785.655	2330695.468	6/18/2013	0	0.004383843	0.138334602	A	786.0	28.7	18-06-2013 09:13:18	0	0.017999999	0.568000019	0.243546829
Baird	Baird061813_09	Baird061813_09_18062013_091546.txt	1230785.732	2330647.084	6/18/2013	0	0.001702009	0.054464273	A	786.0	29.2	18-06-2013 09:15:46	0	0.007	0.224000007	0.243144065
Baird	Baird061813_10	Baird061813_10_18062013_091809.txt	1230741.16	2330649.619	6/18/2013	0	0.0019413	0.050959129	A	786.0	29.8	18-06-2013 09:18:09	0	0.008	0.209999993	0.242662519
Baird	Baird061813_11	Baird061813_11_18062013_092126.txt	1230687.402	2330648.163	6/18/2013	0	0	0.029042808	A	786.0	30.6	18-06-2013 09:21:26	0	0	0.119999997	0.242023408
Baird	Baird061813_12	Baird061813_12_18062013_092410.txt	1230643.114	2330651.234	6/18/2013	0	0.00193149	0.075328097	A	785.9	31.3	18-06-2013 09:24:10	0	0.008	0.312000006	0.241436213
Baird	Baird061813_13	Baird061813_13_18062013_092803.txt	1230595.804	2330637.25	6/18/2013	0	0.000240834	0	A	786.0	32.1	18-06-2013 09:28:03	0	0.001	-0.99000001	0.240834102
Baird	Baird061813_14	Baird061813_14_18062013_093059.txt	1230579.811	2330688.092	6/18/2013	0	0.000480662	0.062966742	A	785.9	32.7	18-06-2013 09:30:59	0	0.002	0.261999995	0.240331069
Baird	Baird061813_15	Baird061813_15_18062013_093521.txt	1230582.26	2330744.706	6/18/2013	0	0	0.040541586	A	786.0	33.3	18-06-2013 09:35:21	0	-0.002	0.169	0.239891037
Baird	Baird061813_16	Baird061813_16_18062013_093751.txt	1230588.699	2330793.942	6/18/2013	0	0.003116326	0	A	786.2	33.6	18-06-2013 09:37:51	0	0.013	-0.034000002	0.239717409
Baird	Baird061813_17	Baird061813_17_18062013_094008.txt	1230635.06	2330792.535	6/18/2013	0	0.002872702	0.047878366	A	785.9	33.9	18-06-2013 09:40:08	0	0.012	0.200000003	0.239391819
Baird	Baird061813_18	Baird061813_18_18062013_094219.txt	1230679.011	2330794.509	6/18/2013	0	0.000717708	0.010047911	A	785.9	34.1	18-06-2013 09:42:19	0	0.003	0.041999999	0.239235982
Baird	Baird061813_19	Baird061813_19_18062013_094442.txt	1230728.402	2330795.105	6/18/2013	0	0.002151024	0.034177378	A	785.9	34.4	18-06-2013 09:44:42	0	0.009	0.143000007	0.23900263
Baird	Baird061813_20	Baird061813_20_18062013_094701.txt	1230731.811	2330745.654	6/18/2013	0	0.001194236	0.021496259	A	785.9	34.6	18-06-2013 09:47:01	0	0.005	0.090000004	0.2388473
Baird	Baird061813_21	Baird061813_21_18062013_095006.txt	1230737.091	2330700.116	6/18/2013	0	0.000238645	0	A	786.0	34.9	18-06-2013 09:50:06	0	0.001	-0.050000001	0.238645062
Baird	Baird061813_22	Baird061813_22_18062013_095250.txt	1230690.366	2330697.494	6/18/2013	0	0.000476765	0.027413994	A	785.9	35.2	18-06-2013 09:52:50	0	0.002	0.115000002	0.238382548
Baird	Baird061813_23	Baird061813_23_18062013_095521.txt	1230637.474	2330694.732	6/18/2013	0	0.000714593	0.044066578	A	785.8	35.4	18-06-2013 09:55:21	0	0.003	0.185000002	0.238197714
Baird	Baird061813_24	Baird061813_24_18062013_095804.txt	1230643.093	2330742.155	6/18/2013	0	0.000475993	0	A	785.9	35.7	18-06-2013 09:58:04	0	0.002	-0.028999999	0.237996623
Baird	Baird061813_25	Baird061813_25_18062013_100029.txt	1230684.473	2330741.009	6/18/2013	0	0.001902499	0.055410273	A	785.8	35.9	18-06-2013 10:00:29	0	0.008	0.232999995	0.23781234
BC	BC060413_01	BC060413_01_04062013_092704.txt	1209749.358	2304575.207	6/4/2013	0	0	0.076178946	A	797.9	22.7	04-06-2013 09:27:04	0	-0.001	0.301999986	0.252248168
BC	BC060413_02	BC060413_02_04062013_093245.txt	1209753.372	2304364.366	6/4/2013	0	0.000250554	0.014031044	A	797.9	24.7	04-06-2013 09:32:45	0	0.001	0.056000002	0.250554353
BC	BC060413_03	BC060413_03_04062013_094011.txt	1209764.557	2304176.315	6/4/2013	0	0.000248707	0.007958636	A	798.4	27.1	04-06-2013 09:40:11	0	0.001	0.032000002	0.248707354
BC	BC060413_04	BC060413_04_04062013_094457.txt	1209763.179	2303961.555	6/4/2013	0	0	0	A	798.4	28.7	04-06-2013 09:44:57	0	-0.001	-0.022	0.247389048
BC	BC060413_05	BC060413_05_04062013_095425.txt	1209945.294	2303946.689	6/4/2013	0	0	0.045670688	A	799.0	31.2	04-06-2013 09:54:25	0	0	0.186000004	0.245541319
BC	BC060413_06	BC060413_06_04062013_095826.txt	1209955.139	2303834.335	6/4/2013	0	0.000244577	0.147724494	A	799.0	32.4	04-06-2013 09:58:26	0	0.001	0.603999972	0.244576991
BC	BC060413_07	BC060413_07_04062013_100327.txt	1209968.986	2303543.751	6/4/2013	0	0.00024362	0.001705342	A	799.0	33.6	04-06-2013 10:03:27	0	0.001	0.007	0.243620217
BC	BC060413_08	BC060413_08_04062013_100727.txt	1209980.103	2303353.318	6/4/2013	0	0.000242829	0.000728486	A	799.0	34.6	04-06-2013 10:07:27	0	0.001	0.003	0.242828593
BC	BC060413_09	BC060413_09_04062013_101815.txt	1209732.948	2303141.87	6/4/2013	0.512443721	0.000482073	2.379271984	A	798.0	36.5	04-06-2013 10:18:15	2.125999928	0.002	9.87100029	0.241036564
BC	BC060413_10	BC060413_10_04062013_102553.txt	1209746.283	2303008.358	6/4/2013	0	0.00072055	0.199592352	A	798.0	37.6	04-06-2013 10:25:53	0	0.003	0.83099997	0.240183339
BC	BC060413_100	BC060413_100_06062013_171026.txt	1209539.209	2302770.488	6/6/2013	0	0.001391607	0.245850548	A	788.2	44.7	06-06-2013 17:10:26	0	0.006	1.059999943	0.231934488
BC	BC060413_101	BC060413_101_06062013_171352.txt	1209519.221	2302793.732	6/6/2013	341.3019409	0.003480554	16.04349709	A	788.3	44.6	06-06-2013 17:13:52	1470.89502	0.015	69.14199829	0.232036918
BC	BC060413_102	BC060413_102_06062013_172134.txt	1209549.449	2303002.017	6/6/2013	0	0.00162467	0.498309642	A	788.5	44.6	06-06-2013 17:21:34	0	0.007	2.147000074	0.232095778
BC	BC060413_103	BC060413_103_06062013_172728.txt	1209556.808	2303132.722	6/6/2013	12.2404089	0.00163044	0.435793251	A	791.3	44.6	06-06-2013 17:27:28	52.55199814	0.007	1.871000051	0.232919961
BC	BC060413_104	BC060413_104_07062013_090855.txt	1209818.277	2302634.125	6/7/2013	0	0	0.516814411	A	799.9	23.9	07-06-2013 09:08:55	0	-0.001	2.052000046	0.25185886
BC	BC060413_105	BC060413_105_07062013_091504.txt	1209730.703	2302824.171	6/7/2013	0	0	0.181384057	A	799.9	26.3	07-06-2013 09:15:04	0	-0.001	0.726000011	0.249840304
BC	BC060413_106	BC060413_106_07062013_093530.txt	1209506.886	2301963.761	6/7/2013	16.35506439	0.000489409	4.210873604	A	796.8	31.4	07-06-2013 09:35:30	66.83599854	0.002	17.20800018	0.244704425
BC	BC060413_107	BC060413_107_07062013_094613.txt	1209515.203	2301754.512	6/7/2013	0	0.000723216	0.151634216	A	790.9	33.7	07-06-2013 09:46:13	0	0.003	0.629000008	0.24107188
BC	BC060413_108	BC060413_108_07062013_095412.txt	1209596.61	2301751.193	6/7/2013	0	0.000961053	0.054539733	A	792.1	35.2	07-06-2013 09:54:12	0	0.004	0.226999998	0.240263149
BC	BC060413_109	BC060413_109_07062013_100044.txt	1209664.445	2301955.043	6/7/2013	0	0.00048019	0.034813806	A	793.6	36.0	07-06-2013 10:00:44	0	0.002	0.144999996	0.240095228
BC	BC060413_11	BC060413_11_04062013_103104.txt	1209978.401	2303013.921	6/4/2013	0	0.000239493	0	A	797.5	38.3	04-06-2013 10:31:04	0	0.001	-0.138999999	0.239493355
BC	BC060413_110	BC060413_110_07062013_100709.txt	1209654.444	2302152.529	6/7/2013	0	0.000239677	0.003355483	A	793.5	36.5	07-06-2013 10:07:09	0	0.001	0.014	0.239677325
BC	BC060413_111	BC060413_111_07062013_103948.txt	1209322.704	2301752.058	6/7/2013	4.331353188	0.000236777	1.288774729	A	788.2	38.2	07-06-2013 10:39:48	18.29299927	0.001	5.44299984	0.236776546
BC	BC060413_112	BC060413_112_07062013_104932.txt	1209143.003	2301774.376	6/7/2013	0	0.000235347	0.050128948	A	784.7	38.7	07-06-2013 10:49:32	0	0.001	0.213	0.235347182
BC	BC060413_113	BC060413_113_07062013_105331.txt	1208954.425	2301778.129	6/7/2013	0	0	0.128846303	A	784.7	39.0	07-06-2013 10:53:31	0	0	0.547999978	0.235120997
BC	BC060413_114	BC060413_114_07062013_110041.txt	1208948.207	2301562.801	6/7/2013	0	0	0.047026943	A	785.5	39.3	07-06-2013 11:00:41	-0.977999985	0	0.200000003	0.235134721
BC	BC060413_115	BC060413_115_07062013_110805.txt	1208896.012	2301354.2	6/7/2013	0	0.000468173	0.002809036	A	784.0	40.1	07-06-2013 11:08:05	0	0.002	0.012	0.23408635
BC	BC060413_116	BC060413_116_07062013_111910.txt	1208965.192	2301141.775	6/7/2013	0	0	0.17066516	A	785.5	41.1	07-06-2013 11:19:10	0	0	0.730000019	0.233787894
BC	BC060413_117	BC060413_117_07062013_112642.txt	1209029.869	2301043.443	6/7/2013	0	0	0.062083658	A	788.9	41.8	07-06-2013 11:26:42	0	0	0.264999986	0.234277964
BC	BC060413_118	BC060413_118_07062013_113327.txt	1208976.625	2300963.581	6/7/2013	0	0.00070172	0.061049633	A	788.9	42.3	07-06-2013 11:33:27	0	0.003	0.261000007	0.233906627
BC	BC060413_119	BC060413_119_07062013_113849.txt	1209121.119	2300921.302	6/7/2013	0	0.000233758	0.151709214	A	788.9	42.5	07-06-2013 11:38:49	0	0.001	0.648999989	0.23375842
BC	BC060413_12	BC060413_12_04062013_103448.txt	1209995.048	2303185.113	6/4/2013	0	0.000478879	0	A	798.6	38.8	04-06-2013 10:34:48	0	0.002	-0.044	0.239439294

APPENDIX B - FLUX METER DATA

AreaAbbrev	SitePt	Filename	Northing	Easting	Date	CH_4 flux	H_2S flux	CO_2 flux	ACCUMULATION CHAMBER	PRESSURE Hpa	TEMP DegC	TIME	CH_4 slope	H_2S slope	CO_2 slope	AcK
BC	BC060413_120	BC060413_120_07062013_114610.txt	1209148.135	2300765.468	6/7/2013	0	0.000466599	0	A	788.1	42.8	07-06-2013 11:46:10	0	0.002	-0.029999999	0.233299643
BC	BC060413_121	BC060413_121_07062013_115300.txt	1208971.647	2300794.489	6/7/2013	1.425204158	0.000464766	0.379248857	A	785.5	43.0	07-06-2013 11:53:00	6.132999897	0.002	1.631999969	0.232382879
BC	BC060413_122	BC060413_122_07062013_120520.txt	1208925.909	2300550.515	6/7/2013	0	0.000699677	0.331413895	A	788.1	42.9	07-06-2013 12:05:20	0	0.003	1.421000004	0.233225822
BC	BC060413_123	BC060413_123_07062013_121527.txt	1208756.127	2300556.881	6/7/2013	0		0.02149055	A	781.1	43.0	07-06-2013 12:15:27	0		0.093000002	0.231081173
BC	BC060413_124	BC060413_124_07062013_122349.txt	1208744.138	2300367.432	6/7/2013	0	0.000692805	0.072975487	A	781.1	43.2	07-06-2013 12:23:49	0	0.003	0.316000015	0.230935082
BC	BC060413_125	BC060413_125_07062013_123445.txt	1208684.322	2300155.126	6/7/2013	0	0.000918257	0.114552602	A	777.2	43.5	07-06-2013 12:34:45	0	0.004	0.499000013	0.229564324
BC	BC060413_126	BC060413_126_07062013_124523.txt	1208713.327	2299971.205	6/7/2013	0	0.00183802	0.134405181	A	777.1	43.2	07-06-2013 12:45:23	0	0.008	0.584999979	0.229752466
BC	BC060413_127	BC060413_127_07062013_125832.txt	1208930.181	2300156.169	6/7/2013	0	0.004158583	0.354634702	A	779.7	42.5	07-06-2013 12:58:32	0	0.017999999	1.534999967	0.231032386
BC	BC060413_128	BC060413_128_07062013_131024.txt	1208973.047	2300357.561	6/7/2013	0	0.000463369	0.254389346	A	781.9	42.5	07-06-2013 13:10:24	0	0.002	1.09800005	0.231684268
BC	BC060413_129	BC060413_129_07062013_131938.txt	1209077.127	2300573.617	6/7/2013	0	0.001160276	0.361077905	A	783.4	42.6	07-06-2013 13:19:38	0	0.005	1.555999994	0.232055202
BC	BC060413_13	BC060413_13_04062013_103926.txt	1209735.243	2303331.91	6/4/2013	0	0.00119573	0.02295801	A	798.9	39.3	04-06-2013 10:39:26	0	0.005	0.096000001	0.239145935
BC	BC060413_130	BC060413_130_07062013_134129.txt	1209082.143	2301335.364	6/7/2013	0	0.001388281	0.096948266	A	783.1	43.4	07-06-2013 13:41:29	0	0.006	0.419	0.231380105
BC	BC060413_131	BC060413_131_07062013_134514.txt	1209133.587	2301380.525	6/7/2013	0	0.00209147	0.729226053	A	787.0	43.6	07-06-2013 13:45:14	-0.515999973	0.009	3.138000011	0.232385606
BC	BC060413_132	BC060413_132_07062013_135705.txt	1209174.521	2301547.665	6/7/2013	0	0.002542637	0.422540009	A	783.8	44.0	07-06-2013 13:57:05	0	0.011	1.827999949	0.231148809
BC	BC060413_133	BC060413_133_07062013_140542.txt	1209352.598	2301565.292	6/7/2013	0	0.001618042	0.176828831	A	783.8	44.0	07-06-2013 14:05:42	0	0.007	0.764999986	0.231148809
BC	BC060413_134	BC060413_134_07062013_141245.txt	1209511.609	2301582.751	6/7/2013	0	0.00092984	0.440743893	A	787.5	43.7	07-06-2013 14:12:45	-0.030999999	0.004	1.896000028	0.232459858
BC	BC060413_135	BC060413_135_10062013_090921.txt	1211176.447	2304962.04	6/10/2013	0	0	0.017913701	A	799.5	27.4	10-06-2013 09:09:21	0	-0.003	0.071999997	0.24880141
BC	BC060413_136	BC060413_136_10062013_091504.txt	1211169.695	2304757.542	6/10/2013	0	0	0	A	799.5	28.1	10-06-2013 09:15:04	0	-0.001	-8.751999855	0.24822329
BC	BC060413_137	BC060413_137_10062013_092212.txt	1211132.268	2304587.644	6/10/2013	0	0	0.821171999	A	791.2	29.1	10-06-2013 09:22:12	0	-0.001	3.354000092	0.244833633
BC	BC060413_138	BC060413_138_10062013_092823.txt	1211152.555	2304357.957	6/10/2013	0	0	0.062488124	A	794.0	29.9	10-06-2013 09:28:23	0	-0.001	0.254999995	0.245051473
BC	BC060413_139	BC060413_139_10062013_093233.txt	1211149.172	2304183.843	6/10/2013	0	0.000245603	0	A	797.1	30.4	10-06-2013 09:32:33	0	0.001	-0.412999988	0.24560301
BC	BC060413_14	BC060413_14_04062013_104708.txt	1209756.196	2303531.711	6/4/2013	0	0	0.013600083	A	798.6	39.9	04-06-2013 10:47:08	0	-0.001	0.057	0.238597944
BC	BC060413_140	BC060413_140_10062013_095437.txt	1211186.664	2303998.796	6/10/2013	0	0	0.014327926	A	797.5	34.0	10-06-2013 09:54:37	0	0	0.059	0.242846191
BC	BC060413_141	BC060413_141_10062013_100519.txt	1211170.353	2303809.49	6/10/2013	0	0.000240951	0	A	797.2	36.3	10-06-2013 10:05:19	0	0.001	-0.158999994	0.24095054
BC	BC060413_142	BC060413_142_10062013_102544.txt	1211375.617	2303750.937	6/10/2013	0	0.002845992	0.479075283	A	793.3	39.7	10-06-2013 10:25:44	0	0.012	2.019999981	0.237165987
BC	BC060413_143	BC060413_143_10062013_103513.txt	1211364.104	2303914.043	6/10/2013	0	0.001416844	0.009209485	A	792.9	40.9	10-06-2013 10:35:13	0	0.006	0.039000001	0.236140639
BC	BC060413_144	BC060413_144_10062013_104555.txt	1211372.712	2304179.44	6/10/2013	0	0.000945853	0.023882784	A	795.5	41.5	10-06-2013 10:45:55	0	0.004	0.101000004	0.236463204
BC	BC060413_145	BC060413_145_10062013_105130.txt	1211349.614	2304394.88	6/10/2013	0	0.000944777	0.049364582	A	795.1	41.7	10-06-2013 10:51:30	0	0.004	0.209000006	0.236194164
BC	BC060413_146	BC060413_146_10062013_105903.txt	1211322.736	2304588.035	6/10/2013	0	0.001653042	0.14098087	A	795.2	41.8	10-06-2013 10:59:03	0	0.007	0.597000003	0.236148864
BC	BC060413_147	BC060413_147_10062013_110627.txt	1211337.684	2304779.186	6/10/2013	0	0.000941507	0.015299488	A	792.6	41.8	10-06-2013 11:06:27	0	0.004	0.064999998	0.235376745
BC	BC060413_148	BC060413_148_10062013_111343.txt	1211344.785	2304972.652	6/10/2013	0	0.001407984	0.063124619	A	790.2	41.8	10-06-2013 11:13:43	0	0.006	0.268999994	0.234664023
BC	BC060413_149	BC060413_149_10062013_111721.txt	1211530.391	2304972.649	6/10/2013	0	0.00046906	0	A	790.0	41.9	10-06-2013 11:17:21	0	0.002	-0.425999999	0.234530166
BC	BC060413_15	BC060413_15_04062013_105256.txt	1209740.123	2303739.77	6/4/2013	0	0	0	A	798.2	40.2	04-06-2013 10:52:56	0	0	-0.388000011	0.238250121
BC	BC060413_150	BC060413_150_10062013_112229.txt	1211550.192	2304735.692	6/10/2013	0	0.001171612	0.042646669	A	789.3	41.9	10-06-2013 11:22:29	0	0.005	0.181999996	0.234322354
BC	BC060413_151	BC060413_151_10062013_112841.txt	1211554.138	2304552.504	6/10/2013	0	0.00116983	0.086801395	A	788.6	42.1	10-06-2013 11:28:41	0	0.005	0.370999992	0.233966023
BC	BC060413_152	BC060413_152_10062013_113457.txt	1211564.84	2304361.268	6/10/2013	0	0.00586582	0.190991089	A	791.6	42.4	10-06-2013 11:34:57	0	0.025	0.81400001	0.23463279
BC	BC060413_153	BC060413_153_10062013_114042.txt	1211550.384	2304169.178	6/10/2013	0	0.001175383	0.034086108	A	793.6	42.6	10-06-2013 11:40:42	0	0.005	0.144999996	0.235076606
BC	BC060413_154	BC060413_154_10062013_114915.txt	1211735.837	2304143.33	6/10/2013	0	0.001875157	0	A	792.3	43.0	10-06-2013 11:49:15	0	0.008	-0.202999994	0.234394595
BC	BC060413_155	BC060413_155_10062013_120115.txt	1211969.909	2304538.158	6/10/2013	0	0.002098646	0.179550797	A	789.7	43.6	10-06-2013 12:01:15	0	0.009	0.769999981	0.233182862
BC	BC060413_156	BC060413_156_10062013_120719.txt	1211747.428	2304555.224	6/10/2013	0	0.001624028	0.038976677	A	786.7	44.0	10-06-2013 12:07:19	0	0.007	0.167999998	0.232004032
BC	BC060413_157	BC060413_157_10062013_121308.txt	1211725.405	2304359.272	6/10/2013	0	0.002093222	0.058610234	A	789.4	44.3	10-06-2013 12:13:08	0	0.009	0.252000004	0.232580289
BC	BC060413_158	BC060413_158_10062013_122353.txt	1211959.455	2304391.283	6/10/2013	0	0.00209245	0.124384515	A	790.6	44.9	10-06-2013 12:23:53	0	0.009	0.535000026	0.232494414
BC	BC060413_159	BC060413_159_10062013_123454.txt	1211973.251	2304147.252	6/10/2013	0	0.002312332	0.072838448	A	787.3	45.3	10-06-2013 12:34:54	0	0.01	0.314999998	0.231233165
BC	BC060413_16	BC060413_16_04062013_110138.txt	1209948.999	2304154.184	6/4/2013	0	0.00095185	0	A	798.0	40.5	04-06-2013 11:01:38	0	0.004	-0.203999996	0.237962604
BC	BC060413_160	BC060413_160_10062013_124000.txt	1212148.032	2304154.2	6/10/2013	0	0.001156614	0.042332079	A	788.1	45.5	10-06-2013 12:40:00	0	0.005	0.182999998	0.23132284
BC	BC060413_161	BC060413_161_10062013_124659.txt	1212130.722	2304338.258	6/10/2013	0	0.001154266	4.940489292	A	786.5	45.5	10-06-2013 12:46:59	0	0.005	21.40099907	0.230853215
BC	BC060413_162	BC060413_162_10062013_125736.txt	1212148.787	2304561.357	6/10/2013	0	0.001153385	0	A	785.9	45.5	10-06-2013 12:57:36	0	0.005	-0.210999995	0.230677098
BC	BC060413_163	BC060413_163_10062013_130427.txt	1212179.788	2304779.658	6/10/2013	0.821708202	0.000690318	0	A	784.2	45.6	10-06-2013 13:04:27	3.571000099	0.003	-0.578000009	0.230105907
BC	BC060413_164	BC060413_164_10062013_131114.txt	1211909.249	2304743.852	6/10/2013	0	0.002533747	0.517345071	A	785.0	45.6	10-06-2013 13:11:14	0	0.011	2.246000051	0.230340645
BC	BC060413_165	BC060413_165_10062013_131857.txt	1211775.164	2304769.432	6/10/2013	0	0.002768337	0.030682398	A	786.7	45.8	10-06-2013 13:18:57	0	0.012	0.133000001	0.230694726
BC	BC060413_166	BC060413_166_10062013_132523.txt	1211764.147	2304989.929	6/10/2013	0	0.001844979	0.09340208	A	786.7	45.9	10-06-2013 13:25:23	0	0.008	0.405000001	0.230622411
BC	BC060413_167	BC060413_167_10062013_133154.txt	1211946.88	2304986.134	6/10/2013	0.590173542	0.001613756	0.037577454	A	786.9	46.1	10-06-2013 13:31:54	2.559999943	0.007	0.163000003	0.230536535
BC	BC060413_168	BC060413_168_10062013_133830.txt	1211957.767	2304946.051	6/10/2013	15.21720219	0.001610286	0.993546367	A	785.7	46.3	10-06-2013 13:38:30	66.15000153	0.007	4.318999767	0.230040848
BC	BC060413_169	BC060413_169_10062013_134129.txt	1211945.525	2304949.315	6/10/2013	0.553999305	0.001608459	0.564109623	A	785.3	46.5	10-06-2013 13:41:29	2.411000013	0.007	2.454999924	0.229779884
BC	BC060413_17	BC060413_17_04062013_110507.txt	1209944.242	2304350.524	6/4/2013	0	0.000475562	0	A	797.9	40.7	04-06-2013 11:05:07	0	0.002	-0.016000001	0.237781167
BC	BC060413_170	BC060413_170_10062013_134635.txt	1211956.179	2304919.036	6/10/2013	5.777353287	0.003442589	1.075235367	A	785.1	46.8	10-06-2013 13:46:35	25.17300034	0.015	4.684999943	0.229505956
BC	BC060413_171	BC060413_171_10062013_135048.txt	1211983.288	2304903.305	6/10/2013	0.065523349	0.001374616	0	A	784.7	47.2	10-06-2013 13:50:48	0.286000013	0.006	-0.006	0.229102612

APPENDIX B - FLUX METER DATA

AreaAbbrev	SitePt	Filename	Northing	Easting	Date	CH_4 flux	H_2S flux	CO_2 flux	ACCUMULATION CHAMBER	PRESSURE Hpa	TEMP DegC	TIME	CH_4 slope	H_2S slope	CO_2 slope	AcK
BC	BC060413_172	BC060413_172_10062013_135455.txt	1212011.414	2304948.88	6/10/2013	0	0.001144652	0.078752093	A	784.6	47.4	10-06-2013 13:54:55	-0.463999987	0.005	0.344000012	0.228930488
BC	BC060413_173	BC060413_173_10062013_135903.txt	1212133.994	2304961.537	6/10/2013	0	0.002059877	0	A	784.9	47.6	10-06-2013 13:59:03	0	0.009	-8.973999977	0.22887522
BC	BC060413_174	BC060413_174_10062013_140405.txt	1212119.87	2305141.201	6/10/2013	0	0.001142999	0.003886197	A	784.2	47.7	10-06-2013 14:04:05	0	0.005	0.017000001	0.228599831
BC	BC060413_175	BC060413_175_10062013_140905.txt	1211936.676	2305127.425	6/10/2013	0	0.002060284	0.103014216	A	785.3	47.7	10-06-2013 14:09:05	0	0.009	0.449999988	0.22892049
BC	BC060413_176	BC060413_176_10062013_141533.txt	1211744.541	2305106.924	6/10/2013	0	0.001146206	0.052266981	A	786.4	47.7	10-06-2013 14:15:33	0	0.005	0.228	0.229241148
BC	BC060413_177	BC060413_177_10062013_142453.txt	1212141.749	2305572.968	6/10/2013	0	0.002295883	0.060840901	A	787.1	47.5	10-06-2013 14:24:53	0	0.01	0.264999986	0.229588315
BC	BC060413_178	BC060413_178_10062013_143104.txt	1212346.569	2305561.43	6/10/2013	0	0.001839973	0	A	788.5	47.5	10-06-2013 14:31:04	0	0.008	-0.425999999	0.229996681
BC	BC060413_179	BC060413_179_10062013_143750.txt	1212339.61	2305356.226	6/10/2013	0	0.004359406	0.087647021	A	786.6	47.5	10-06-2013 14:37:50	0	0.018999999	0.381999999	0.229442462
BC	BC060413_18	BC060413_18_04062013_111010.txt	1209946.713	2304578.107	6/4/2013	0	0.000951125	0.066340946	A	797.9	40.7	04-06-2013 11:10:10	0	0.004	0.279000014	0.237781167
BC	BC060413_180	BC060413_180_10062013_145145.txt	1212304.936	2305137.625	6/10/2013	0	0.001607118	0	A	787.1	47.5	10-06-2013 14:51:45	0	0.007	-0.006	0.229588315
BC	BC060413_181	BC060413_181_10062013_145838.txt	1212349.774	2304955.646	6/10/2013	0	0.002972598	0.060366597	A	784.9	47.9	10-06-2013 14:58:38	0	0.013	0.263999999	0.228661358
BC	BC060413_182	BC060413_182_10062013_150502.txt	1212342.372	2304768.707	6/10/2013	0	0.002052102	0.231659487	A	783.4	48.2	10-06-2013 15:05:02	0	0.009	1.016000032	0.228011295
BC	BC060413_183	BC060413_183_10062013_150943.txt	1212317.097	2304560.885	6/10/2013	0	0.002047571	0.699586689	A	782.4	48.5	10-06-2013 15:09:43	0	0.009	3.075000048	0.227507859
BC	BC060413_184	BC060413_184_10062013_151429.txt	1212348.214	2304374.92	6/10/2013	0	0.001818102	0	A	781.8	48.6	10-06-2013 15:14:29	0	0.008	-0.204999998	0.227262735
BC	BC060413_185	BC060413_185_10062013_152129.txt	1212325.127	2304126.955	6/10/2013	0	0.002734979	0.026438132	A	783.8	48.5	10-06-2013 15:21:29	0	0.012	0.115999997	0.227914944
BC	BC060413_186	BC060413_186_10062013_152843.txt	1212546.367	2304183.618	6/10/2013	0	0.002051725	0.192406222	A	783.5	48.3	10-06-2013 15:28:43	0	0.009	0.843999982	0.227969468
BC	BC060413_187	BC060413_187_10062013_153433.txt	1212528.459	2304372.929	6/10/2013	0	0.000683761	0.402963102	A	782.6	48.0	10-06-2013 15:34:33	0	0.003	1.768000007	0.227920309
BC	BC060413_188	BC060413_188_10062013_154121.txt	1212578.135	2304562.392	6/10/2013	0.717286348	0.001822837	0.898658633	A	781.4	47.6	10-06-2013 15:41:21	3.148000002	0.008	3.944000006	0.227854624
BC	BC060413_189	BC060413_189_11062013_083259.txt	1212546.026	2304747.32	6/11/2013	0	0.00073098	0.278747201	A	783.5	27.6	11-06-2013 08:32:59	0	0.003	1.144000053	0.243660137
BC	BC060413_19	BC060413_19_04062013_111856.txt	1210149.576	2304807.454	6/4/2013	0	0.0004752	0	A	797.8	40.9	04-06-2013 11:18:56	0	0.002	-0.409000009	0.237599954
BC	BC060413_190	BC060413_190_11062013_083909.txt	1212535.396	2304970.066	6/11/2013	0	0.000971485	0.047845613	A	783.3	28.5	11-06-2013 08:39:09	0	0.004	0.196999997	0.242871135
BC	BC060413_191	BC060413_191_11062013_085037.txt	1212526.102	2305170.475	6/11/2013	0	0.001212941	0.056280468	A	785.5	29.7	11-06-2013 08:50:37	0	0.005	0.231999993	0.242588222
BC	BC060413_192	BC060413_192_11062013_085408.txt	1212596.176	2305120.823	6/11/2013	5.586918354	0.007525614	9.488342285	A	787.1	30.1	11-06-2013 08:54:08	23.01399994	0.030999999	39.08499908	0.242761731
BC	BC060413_193	BC060413_193_11062013_085908.txt	1212525.311	2305352.013	6/11/2013	0	0.000968144	0.046470933	A	786.3	30.7	11-06-2013 08:59:08	0	0.004	0.192000002	0.242036104
BC	BC060413_194	BC060413_194_11062013_090335.txt	1212523.49	2305557.356	6/11/2013	0	0.000969331	0.028837593	A	788.3	31.1	11-06-2013 09:03:35	0	0.004	0.119000003	0.242332712
BC	BC060413_195	BC060413_195_11062013_091510.txt	1212792.759	2305741.125	6/11/2013	0	0.003862661	0.203031093	A	787.9	32.1	11-06-2013 09:15:10	0	0.016000001	0.841000021	0.241416276
BC	BC060413_196	BC060413_196_11062013_093101.txt	1212787.454	2305498.639	6/11/2013	0	0.000964583	0.460347146	A	791.4	33.8	11-06-2013 09:31:01	0	0.004	1.909000039	0.2411457
BC	BC060413_197	BC060413_197_11062013_093444.txt	1212807.578	2305505.534	6/11/2013	10.28163624	0.002882836	3.703243732	A	789.7	34.3	11-06-2013 09:34:44	42.79800034	0.012	15.41499996	0.240236372
BC	BC060413_198	BC060413_198_11062013_093955.txt	1212789.251	2305601.55	6/11/2013	0	0.002396129	0.207265139	A	789.7	35.1	11-06-2013 09:39:55	-0.356000006	0.01	0.86500001	0.239612877
BC	BC060413_199	BC060413_199_11062013_094937.txt	1212793.103	2305955.341	6/11/2013	0	0.00143448	0.019604562	A	790.5	36.1	11-06-2013 09:49:37	-0.033	0.006	0.082000002	0.239080012
BC	BC060413_20	BC060413_20_04062013_112521.txt	1210192.078	2304566.1	6/4/2013	0	0.001421573	0.011135656	A	795.8	41.0	04-06-2013 11:25:21	0	0.006	0.046999998	0.236928865
BC	BC060413_200	BC060413_200_11062013_095913.txt	1212551.263	2305777.952	6/11/2013	0	0.001672221	1.029610395	A	791.4	36.7	11-06-2013 09:59:13	-0.017999999	0.007	4.309999943	0.238888726
BC	BC060413_201	BC060413_201_11062013_100955.txt	1212788.391	2305330.328	6/11/2013	12.31000805	0.003800998	1.290676475	A	789.8	37.8	11-06-2013 10:09:55	51.81800079	0.016000001	5.433000088	0.237562388
BC	BC060413_202	BC060413_202_11062013_101352.txt	1212772.803	2305390.501	6/11/2013	44.10612106	0.003779749	0.999034762	A	786.9	38.4	11-06-2013 10:13:52	186.7050018	0.016000001	4.229000092	0.236234277
BC	BC060413_203	BC060413_203_11062013_102021.txt	1212736.522	2305165.476	6/11/2013	0	0.001650025	1.503408313	A	787.7	39.4	11-06-2013 10:20:21	0	0.007	6.377999783	0.235717833
BC	BC060413_204	BC060413_204_11062013_102739.txt	1212718.84	2304976.283	6/11/2013	0	0.002109328	0.095388524	A	785.2	40.2	11-06-2013 10:27:39	0	0.009	0.407000005	0.234369829
BC	BC060413_205	BC060413_205_11062013_103216.txt	1212750.318	2304786.596	6/11/2013	0	0.004903912	0.182845861	A	783.6	40.7	11-06-2013 10:32:16	0	0.021	0.782999992	0.233519629
BC	BC060413_206	BC060413_206_11062013_103726.txt	1212742.588	2304555.102	6/11/2013	0	0.001397013	0.112459533	A	782.3	41.1	11-06-2013 10:37:26	0	0.006	0.48300001	0.232835472
BC	BC060413_207	BC060413_207_11062013_104212.txt	1212728.47	2304360.725	6/11/2013	0	0.002787079	1.540093422	A	781.1	41.4	11-06-2013 10:42:12	0	0.012	6.631000042	0.232256591
BC	BC060413_208	BC060413_208_11062013_104706.txt	1212741.95	2304181.95	6/11/2013	0	0.00139408	0	A	781.9	41.6	11-06-2013 10:47:06	0	0.006	-0.252999991	0.232346743
BC	BC060413_209	BC060413_209_11062013_105202.txt	1212730.847	2303967.085	6/11/2013	0	0.002556636	0.019523403	A	782.4	41.7	11-06-2013 10:52:02	0	0.011	0.083999999	0.232421473
BC	BC060413_21	BC060413_21_04062013_113140.txt	1210167.4	2304351.878	6/4/2013	0	0	0.004740641	A	796.4	41.1	04-06-2013 11:31:40	0	0	0.02	0.237032056
BC	BC060413_210	BC060413_210_11062013_105727.txt	1212921.331	2303962.434	6/11/2013	0	0.002318441	0.038254276	A	781.2	42.0	11-06-2013 10:57:27	-0.034000002	0.01	0.165000007	0.231844097
BC	BC060413_211	BC060413_211_11062013_110429.txt	1213122.401	2303931.877	6/11/2013	0	0.002313255	0.019431343	A	779.7	42.1	11-06-2013 11:04:29	-0.025	0.01	0.083999999	0.231325522
BC	BC060413_212	BC060413_212_11062013_110716.txt	1213155.118	2303940.041	6/11/2013	0	0.000691977	0.027448419	A	777.7	42.2	11-06-2013 11:07:16	0	0.003	0.119000003	0.230658978
BC	BC060413_213	BC060413_213_11062013_111204.txt	1213343.14	2303950.543	6/11/2013	0	0.002305997	0.052115526	A	777.5	42.2	11-06-2013 11:12:04	0	0.01	0.225999996	0.230599672
BC	BC060413_214	BC060413_214_11062013_111657.txt	1213552.398	2303950.067	6/11/2013	0	0.001839231	0.037014533	A	775.4	42.3	11-06-2013 11:16:57	0	0.008	0.160999998	0.229903921
BC	BC060413_215	BC060413_215_11062013_112152.txt	1213547.54	2303789.129	6/11/2013	0	0.00643278	0.09304557	A	775.1	42.4	11-06-2013 11:21:52	0	0.028000001	0.405000001	0.22974214
BC	BC060413_216	BC060413_216_11062013_112643.txt	1213740.078	2303759.187	6/11/2013	0	0.001609025	0.058844343	A	775.5	42.4	11-06-2013 11:26:43	0	0.007	0.256000012	0.229860708
BC	BC060413_217	BC060413_217_11062013_113230.txt	1213722.29	2303974.557	6/11/2013	0	0.002293864	0.031884719	A	773.9	42.4	11-06-2013 11:32:30	0	0.01	0.138999999	0.229386464
BC	BC060413_218	BC060413_218_11062013_114038.txt	1213964.505	2303969.98	6/11/2013	0	0.001604989	0.074517347	A	773.8	42.5	11-06-2013 11:40:38	0	0.007	0.324999988	0.229284152
BC	BC060413_219	BC060413_219_11062013_114711.txt	1213938.03	2304168.876	6/11/2013	0	0.00229139	0.036891375	A	773.8	42.7	11-06-2013 11:47:11	0	0.01	0.160999998	0.22913897
BC	BC060413_22	BC060413_22_04062013_113533.txt	1210164.115	2304182.892	6/4/2013	0	0.000949255	0.001186568	A	797.6	41.2	04-06-2013 11:35:33	0	0.004	0.005	0.237313688
BC	BC060413_220	BC060413_220_11062013_115655.txt	1213752.149	2304138.386	6/11/2013	0	0.00847776	0.139768466	A	774.5	43.0	11-06-2013 11:56:55	0	0.037	0.610000014	0.229128629
BC	BC060413_221	BC060413_221_11062013_120211.txt	1213738.852	2304354.133	6/11/2013	0	0.005046037	0	A	775.3	43.0	11-06-2013 12:02:11	0	0.022	-0.021	0.229365289
BC	BC060413_222	BC060413_222_11062013_121350.txt	1213562.12	2304346.978	6/11/2013	0	0.002529052	0.026440093	A	777.4	43.1	11-06-2013 12:13:50	0	0.011	0.115000002	0.229913846
BC	BC060413_223	BC060413_223_11062013_121817.txt	1213527.936	2304137.835	6/11/2013	0	0.002295589	0.016298685	A	776.2	43.1	11-06-2013 12:18:17	0	0.01	0.071000002	0.229558945

APPENDIX B - FLUX METER DATA

AreaAbbrev	SitePt	Filename	Northing	Easting	Date	CH_4 flux	H_2S flux	CO_2 flux	ACCUMULATION CHAMBER	PRESSURE Hpa	TEMP DegC	TIME	CH_4 slope	H_2S slope	CO_2 slope	AcK
BC	BC060413_224	BC060413_224_11062013_122349.txt	1213364.314	2304150.272	6/11/2013	0	0.00206245	0.073560737	A	775.1	43.2	11-06-2013 12:23:49	0	0.009	0.32100001	0.229161158
BC	BC060413_225	BC060413_225_11062013_122916.txt	1213386.723	2304379.367	6/11/2013	0	0.002294864	0.003212809	A	776.2	43.2	11-06-2013 12:29:16	0	0.01	0.014	0.229486376
BC	BC060413_226	BC060413_226_11062013_123541.txt	1213148.395	2304346.89	6/11/2013	0	0.002298411	0.047117438	A	777.4	43.2	11-06-2013 12:35:41	0	0.01	0.204999998	0.229841158
BC	BC060413_227	BC060413_227_11062013_123905.txt	1213104.786	2304338.1	6/11/2013	0	0.002070699	0.039343286	A	778.2	43.2	11-06-2013 12:39:05	0	0.009	0.171000004	0.230077684
BC	BC060413_228	BC060413_228_11062013_124410.txt	1213109.497	2304131.8	6/11/2013	0	0.002072296	0.018190153	A	778.8	43.2	11-06-2013 12:44:10	0	0.009	0.079000004	0.230255082
BC	BC060413_229	BC060413_229_11062013_124711.txt	1213133.829	2304171.112	6/11/2013	0	0.001841695	0.058934242	A	778.9	43.3	11-06-2013 12:47:11	0	0.008	0.256000012	0.230211869
BC	BC060413_23	BC060413_23_04062013_113947.txt	1210134.796	2303989.893	6/4/2013	0	0.000711269	0.002845074	A	797.1	41.3	04-06-2013 11:39:47	0	0.003	0.012	0.2370895
BC	BC060413_230	BC060413_230_11062013_125644.txt	1212928.17	2304137.398	6/11/2013	0	0.004603374	0.079178028	A	779.0	43.4	11-06-2013 12:56:44	0	0.02	0.344000012	0.230168685
BC	BC060413_231	BC060413_231_11062013_130324.txt	1212952.299	2304352.947	6/11/2013	0	0.002303345	0.006449366	A	780.3	43.7	11-06-2013 13:03:24	-0.012	0.01	0.028000001	0.230334505
BC	BC060413_232	BC060413_232_11062013_130743.txt	1212954.076	2304561.786	6/11/2013	0	0.002300282	0.11225374	A	780.0	44.0	11-06-2013 13:07:43	-0.012	0.01	0.488000005	0.230028152
BC	BC060413_233	BC060413_233_11062013_131240.txt	1213150.996	2304564.477	6/11/2013	0.779753029	0.001378061	0.505059421	A	779.3	44.2	11-06-2013 13:12:40	3.394999981	0.006	2.198999882	0.229676887
BC	BC060413_234	BC060413_234_11062013_131718.txt	1213350.122	2304548.738	6/11/2013	0	0.001835658	0.021339521	A	778.8	44.3	11-06-2013 13:17:18	-0.048999999	0.008	0.093000002	0.229457214
BC	BC060413_235	BC060413_235_11062013_131954.txt	1213342.067	2304550.735	6/11/2013	0	0.005728733	0.547437727	A	778.0	44.4	11-06-2013 13:19:54	0	0.025	2.388999939	0.229149327
BC	BC060413_236	BC060413_236_11062013_132330.txt	1213537.562	2304572.238	6/11/2013	0	0.002520642	0.061182868	A	778.0	44.4	11-06-2013 13:23:30	0	0.011	0.26699999	0.229149327
BC	BC060413_237	BC060413_237_11062013_132852.txt	1213536.368	2304777.89	6/11/2013	0	0.004584488	0.027506929	A	778.5	44.5	11-06-2013 13:28:52	0	0.02	0.119999997	0.229224414
BC	BC060413_238	BC060413_238_11062013_133431.txt	1213376.46	2304779.493	6/11/2013	0	0.002989311	0.036101684	A	781.2	44.6	11-06-2013 13:34:31	0	0.013	0.157000005	0.229947016
BC	BC060413_239	BC060413_239_11062013_133849.txt	1213151.683	2304819.827	6/11/2013	1.4106251	0.003215362	7.142925739	A	780.5	44.7	11-06-2013 13:38:49	6.142000198	0.014	31.10099983	0.229668692
BC	BC060413_24	BC060413_24_04062013_114419.txt	1210142.967	2303775.738	6/4/2013	0	0.00094835	0.07112623	A	797.6	41.5	04-06-2013 11:44:19	0	0.004	0.300000012	0.237087429
BC	BC060413_240	BC060413_240_11062013_134448.txt	1212927.795	2304836.041	6/11/2013	2.534720182	0.009421897	2.351567507	A	781.2	44.8	11-06-2013 13:44:48	11.02999973	0.041000001	10.2329998	0.22980237
BC	BC060413_241	BC060413_241_11062013_134824.txt	1212933.464	2304761.765	6/11/2013	1.137562037	0.002526385	0.400776446	A	781.0	44.9	11-06-2013 13:48:24	4.953000069	0.011	1.745000005	0.229671314
BC	BC060413_242	BC060413_242_11062013_135820.txt	1212929.777	2304946.313	6/11/2013	3.179468393	0.002062952	0.422217607	A	779.7	45.0	11-06-2013 13:58:20	13.87100029	0.009	1.842000008	0.229216948
BC	BC060413_243	BC060413_243_11062013_140622.txt	1213148.858	2304977.054	6/11/2013	0	0.002987671	0.040218651	A	782.0	45.1	11-06-2013 14:06:22	0	0.013	0.174999997	0.229820862
BC	BC060413_244	BC060413_244_11062013_141300.txt	1213350.441	2304940.956	6/11/2013	0	0.002070139	0.103966996	A	783.4	45.4	11-06-2013 14:13:00	0	0.009	0.451999992	0.230015486
BC	BC060413_245	BC060413_245_11062013_141906.txt	1213551.371	2304988.97	6/11/2013	0	0	0.007579938	A	782.8	45.6	11-06-2013 14:19:06	0	-0.002	0.033	0.229695097
BC	BC060413_246	BC060413_246_11062013_142253.txt	1213760.271	2304966.999	6/11/2013	0	0.001602639	0.005952658	A	780.5	45.7	11-06-2013 14:22:53	0	0.007	0.026000001	0.228948385
BC	BC060413_25	BC060413_25_04062013_114808.txt	1210145.599	2303577.611	6/4/2013	0	0.001421894	0.17821075	A	797.5	41.6	04-06-2013 11:48:08	0	0.006	0.751999974	0.23698239
BC	BC060413_26	BC060413_26_04062013_115121.txt	1210139.825	2303388.012	6/4/2013	0	0.001183941	0.025099559	A	797.1	41.7	04-06-2013 11:51:21	0	0.005	0.105999999	0.236788288
BC	BC060413_27	BC060413_27_04062013_121531.txt	1210365.395	2303983.875	6/4/2013	0	0.003308927	0.053415537	A	797.4	42.4	04-06-2013 12:15:31	0	0.014	0.225999996	0.236351937
BC	BC060413_28	BC060413_28_04062013_121936.txt	1210333.741	2304162.826	6/4/2013	0	0.002119155	0.413235247	A	794.9	42.6	04-06-2013 12:19:36	0	0.009	1.754999995	0.235461682
BC	BC060413_29	BC060413_29_04062013_122431.txt	1210341.308	2304346.8	6/4/2013	0	0.001648954	0.15405938	A	795.5	42.7	04-06-2013 12:24:31	0	0.007	0.653999984	0.235564813
BC	BC060413_30	BC060413_30_04062013_123001.txt	1210309.941	2304509.123	6/4/2013	3185.594971	0.302851468	19.36505508	A	796.4	42.9	04-06-2013 12:30:01	13516.49219	1.284999967	82.16600037	0.235682085
BC	BC060413_31	BC060413_31_04062013_123452.txt	1210347.656	2304551.9	6/4/2013	1.219530582	0	0.269986778	A	795.9	43.1	04-06-2013 12:34:52	5.181000233	-0.012	1.146999955	0.235385165
BC	BC060413_32	BC060413_32_04062013_124107.txt	1210307.249	2304741.619	6/4/2013	0	0.003759284	0.091162637	A	795.2	43.4	04-06-2013 12:41:07	0	0.016000001	0.388000011	0.234955251
BC	BC060413_33	BC060413_33_04062013_124708.txt	1210541.216	2304982	6/4/2013	0	0.001173296	0	A	794.7	43.6	04-06-2013 12:47:08	0	0.005	-0.301999986	0.234659255
BC	BC060413_34	BC060413_34_04062013_125300.txt	1210542.399	2304796.559	6/4/2013	0	0.004210844	0.513021231	A	792.5	43.7	04-06-2013 12:53:00	-0.012	0.017999999	2.193000078	0.233935788
BC	BC060413_35	BC060413_35_04062013_125735.txt	1210554.23	2304551.087	6/4/2013	0	0.001407157	0.07387574	A	794.5	43.7	04-06-2013 12:57:35	0	0.006	0.314999998	0.234526157
BC	BC060413_36	BC060413_36_04062013_130229.txt	1210530.111	2304376.044	6/4/2013	0	0.00305249	0.159433886	A	795.2	43.6	04-06-2013 13:02:29	0	0.013	0.67900002	0.234806895
BC	BC060413_37	BC060413_37_04062013_130714.txt	1210535.8	2304178.169	6/4/2013	0	0.001645408	0.100840002	A	795.8	43.5	04-06-2013 13:07:14	0	0.007	0.42899999	0.235058278
BC	BC060413_38	BC060413_38_04062013_131244.txt	1210535.447	2303950.648	6/4/2013	0	0.001644379	0.070708297	A	794.8	43.3	04-06-2013 13:12:44	0	0.007	0.300999999	0.234911278
BC	BC060413_39	BC060413_39_04062013_131801.txt	1210569.173	2303770.343	6/4/2013	0	0.001875507	0.020630578	A	793.2	43.3	04-06-2013 13:18:01	0	0.008	0.088	0.23443839
BC	BC060413_40	BC060413_40_04062013_132546.txt	1210753.357	2303567.349	6/4/2013	0	0.001641693	0.088416867	A	793.0	43.1	04-06-2013 13:25:46	0	0.007	0.377000004	0.234527498
BC	BC060413_41	BC060413_41_04062013_133114.txt	1210726.289	2303768.506	6/4/2013	0	0.001170345	0.01427821	A	791.7	43.2	04-06-2013 13:31:14	0	0.005	0.061000001	0.234069005
BC	BC060413_42	BC060413_42_04062013_133828.txt	1210745.015	2303965.711	6/4/2013	0	0.001170715	0.089442633	A	791.7	43.1	04-06-2013 13:38:28	0	0.005	0.381999999	0.234143019
BC	BC060413_43	BC060413_43_04062013_134501.txt	1210746.582	2304147.104	6/4/2013	0	0.002105158	0.006783286	A	790.9	43.1	04-06-2013 13:45:01	0	0.009	0.028999999	0.233906418
BC	BC060413_44	BC060413_44_04062013_135238.txt	1210737.687	2304371.859	6/4/2013	0	0.001406545	0.048994653	A	792.4	43.0	04-06-2013 13:52:38	0	0.006	0.209000006	0.234424174
BC	BC060413_45	BC060413_45_04062013_135955.txt	1210748.844	2304552.655	6/4/2013	0	0.000706116	0.361531168	A	795.1	42.8	04-06-2013 13:59:55	0	0.003	1.536000013	0.235371843
BC	BC060413_46	BC060413_46_04062013_140522.txt	1210718.814	2304753.516	6/4/2013	0	0.00070474	0.125443727	A	793.3	42.7	04-06-2013 14:05:22	0	0.003	0.533999979	0.234913349
BC	BC060413_47	BC060413_47_04062013_141154.txt	1210761.686	2304980.131	6/4/2013	0	0.00093829	0.273511618	A	792.4	42.8	04-06-2013 14:11:54	0	0.004	1.166000009	0.23457256
BC	BC060413_48	BC060413_48_04062013_142043.txt	1210966.551	2304941.495	6/4/2013	0	0.002576713	0.026469873	A	791.8	43.0	04-06-2013 14:20:43	0	0.011	0.112999998	0.234246671
BC	BC060413_49	BC060413_49_04062013_142541.txt	1210926.751	2304788.589	6/4/2013	0	0.000934739	0.007477909	A	790.4	43.2	04-06-2013 14:25:41	0	0.004	0.032000002	0.233684659
BC	BC060413_50	BC060413_50_04062013_143305.txt	1210927.45	2304573.677	6/4/2013	1.062318206	0.001866172	0.069748163	A	790.0	43.6	04-06-2013 14:33:05	4.553999901	0.008	0.298999995	0.23327145
BC	BC060413_51	BC060413_51_04062013_143911.txt	1210928.485	2304386.034	6/4/2013	0	0.005143665	0.133735299	A	792.3	43.8	04-06-2013 14:39:11	0	0.022	0.572000027	0.233802959
BC	BC060413_52	BC060413_52_04062013_144829.txt	1210953.838	2304126.099	6/4/2013	0	0.001639098	0.094365217	A	794.0	44.0	04-06-2013 14:48:29	-0.055	0.007	0.402999997	0.234156862
BC	BC060413_53	BC060413_53_04062013_145709.txt	1210965.406	2303988.999	6/4/2013	0	0.001405384	0.02576538	A	794.0	43.9	04-06-2013 14:57:09	0	0.006	0.109999999	0.234230727
BC	BC060413_54	BC060413_54_04062013_150537.txt	1210957.234	2303742.857	6/4/2013	0	0.002563393	0.055928569	A	789.7	43.8	04-06-2013 15:05:37	0	0.011	0.239999995	0.233035713
BC	BC060413_55	BC060413_55_04062013_151312.txt	1210964.693	2303549.685	6/4/2013	0	0.00092984	0	A	787.5	43.7	04-06-2013 15:13:12	0	0.004	-0.007	0.232459858
BC	BC060413_56	BC060413_56_04062013_152507.txt	1211151.508	2303554.026	6/4/2013	0	0.001396349	0.063766599	A	787.9	43.5	04-06-2013 15:25:07	0	0.006	0.273999989	0.232724831

APPENDIX B - FLUX METER DATA

AreaAbbrev	SitePt	Filename	Northing	Easting	Date	CH_4 flux	H_2S flux	CO_2 flux	ACCUMULATION CHAMBER	PRESSURE Hpa	TEMP DegC	TIME	CH_4 slope	H_2S slope	CO_2 slope	AcK
BC	BC060413_57	BC060413_57_04062013_153333.txt	1211338.264	2303379.701	6/4/2013	0	0.001624418	0.035969254	A	785.4	43.4	04-06-2013 15:33:33	0	0.007	0.155000001	0.232059687
BC	BC060413_58	BC060413_58_04062013_154044.txt	1211359.142	2303577.391	6/4/2013	0	0.000926404	0.041919779	A	783.6	43.3	04-06-2013 15:40:44	0	0.004	0.180999994	0.231601
BC	BC060413_59	BC060413_59_04062013_154930.txt	1211152.161	2303371.859	6/4/2013	0	0.002092511	0.130665675	A	785.9	43.0	04-06-2013 15:49:30	0	0.009	0.561999977	0.232501209
BC	BC060413_60	BC060413_60_04062013_155547.txt	1210936.819	2303363.423	6/4/2013	0	0.002091446	0.069714867	A	785.5	43.0	04-06-2013 15:55:47	0	0.009	0.300000012	0.232382879
BC	BC060413_61	BC060413_61_06062013_092852.txt	1209550.636	2302148.407	6/6/2013	0	0	0	A	794.1	24.4	06-06-2013 09:28:52	0	-0.002	-0.100000001	0.24961251
BC	BC060413_62	BC060413_62_06062013_095133.txt	1209387.121	2302183.33	6/6/2013	0	0	0	A	794.1	31.8	06-06-2013 09:51:33	0	-0.005	-0.050999999	0.243555352
BC	BC060413_63	BC060413_63_06062013_100600.txt	1209362.394	2301954.581	6/6/2013	0	0.000240562	0	A	791.8	34.7	06-06-2013 10:06:00	0	0.001	-0.027000001	0.24056223
BC	BC060413_64	BC060413_64_06062013_101902.txt	1209135.353	2301945.21	6/6/2013	0	0	0	A	788.2	36.2	06-06-2013 10:19:02	0	-0.001	-0.075000003	0.238307342
BC	BC060413_65	BC060413_65_06062013_103956.txt	1209134.476	2302155.941	6/6/2013	0	0.000709253	0.051539063	A	786.5	38.0	06-06-2013 10:39:56	0	0.003	0.217999995	0.236417726
BC	BC060413_66	BC060413_66_06062013_104850.txt	1208944.229	2302142.16	6/6/2013	0	0.00142252	0.17188789	A	790.5	38.7	06-06-2013 10:48:50	0	0.006	0.725000024	0.237086728
BC	BC060413_67	BC060413_67_06062013_105757.txt	1208964.002	2301982.583	6/6/2013	0	0.000471946	0.14229165	A	788.3	39.3	06-06-2013 10:57:57	0	0.002	0.602999985	0.235972881
BC	BC060413_68	BC060413_68_06062013_110445.txt	1208759.125	2301929.913	6/6/2013	0	0.00070607	0.071077742	A	787.5	39.8	06-06-2013 11:04:45	0	0.003	0.301999986	0.235356778
BC	BC060413_69	BC060413_69_06062013_111039.txt	1208751.395	2301768.086	6/6/2013	0	0.001171326	0.141964734	A	785.1	40.3	06-06-2013 11:10:39	0	0.005	0.606000006	0.234265223
BC	BC060413_70	BC060413_70_06062013_111539.txt	1208749.972	2301563.44	6/6/2013	0	0.001169684	0	A	785.0	40.7	06-06-2013 11:15:39	0	0.005	-0.184	0.233936846
BC	BC060413_71	BC060413_71_06062013_112053.txt	1208741.442	2301347.5	6/6/2013	0	0.000931818	0.053579543	A	782.7	41.1	06-06-2013 11:20:53	0	0.004	0.230000004	0.232954532
BC	BC060413_72	BC060413_72_06062013_112842.txt	1208727.206	2301175.88	6/6/2013	0	0.001858184	0.135182858	A	781.9	41.7	06-06-2013 11:28:42	0	0.008	0.582000017	0.232272938
BC	BC060413_73	BC060413_73_06062013_120218.txt	1208689.786	2300963.018	6/6/2013	0	0.000463348	0.076915838	A	783.6	43.2	06-06-2013 12:02:18	0	0.002	0.331999987	0.231674209
BC	BC060413_74	BC060413_74_06062013_121645.txt	1208771.92	2300735.114	6/6/2013	0	0.000463467	0.210877359	A	783.8	43.2	06-06-2013 12:16:45	0	0.002	0.910000026	0.231733352
BC	BC060413_75	BC060413_75_06062013_123000.txt	1208908.339	2301036.329	6/6/2013	3.455224037	0.001386341	3.281238317	A	782.5	43.6	06-06-2013 12:30:00	14.95400047	0.006	14.20100021	0.231056839
BC	BC060413_77	BC060413_77_06062013_140903.txt	1209539.39	2302362.105	6/6/2013	0	0.000234454	0.00562689	A	792.5	43.0	06-06-2013 14:09:03	0	0.001	0.024	0.234453753
BC	BC060413_78	BC060413_78_06062013_141514.txt	1209357.264	2302379.608	6/6/2013	0	0.001171528	0	A	792.5	43.2	06-06-2013 14:15:14	0	0.005	-0.071000002	0.234305531
BC	BC060413_79	BC060413_79_06062013_142303.txt	1209149.166	2302343.275	6/6/2013	0	0.001405478	0.136565655	A	792.3	43.2	06-06-2013 14:23:03	0	0.006	0.583000004	0.234246403
BC	BC060413_80	BC060413_80_06062013_143648.txt	1208957.395	2302349.734	6/6/2013	0	0.004438326	0.237800837	A	790.6	43.4	06-06-2013 14:36:48	0	0.018999999	1.018000007	0.233596101
BC	BC060413_81	BC060413_81_06062013_144608.txt	1208970.777	2302538.516	6/6/2013	0	0.001392903	0.054555353	A	786.7	43.8	06-06-2013 14:46:08	0	0.006	0.234999999	0.232150435
BC	BC060413_82	BC060413_82_06062013_145452.txt	1209124.298	2302556.916	6/6/2013	0	0.00162331	0	A	786.6	44.1	06-06-2013 14:54:52	0	0.007	-0.004	0.231901422
BC	BC060413_83	BC060413_83_06062013_150154.txt	1209139.826	2302767.652	6/6/2013	0	0.00115959	0.066328548	A	787.4	44.4	06-06-2013 15:01:54	0	0.005	0.286000013	0.231917977
BC	BC060413_84	BC060413_84_06062013_150858.txt	1209138.421	2302991.428	6/6/2013	0	0.001387816	0.040709261	A	786.3	44.8	06-06-2013 15:08:58	0	0.006	0.175999999	0.231302619
BC	BC060413_85	BC060413_85_06062013_151503.txt	1209141.753	2303134.567	6/6/2013	0	0.001853491	0.060470149	A	788.1	45.0	06-06-2013 15:15:03	0	0.008	0.261000007	0.231686383
BC	BC060413_86	BC060413_86_06062013_152734.txt	1209369.231	2303408.999	6/6/2013	0	0.001398585	0.091374218	A	792.9	45.0	06-06-2013 15:27:34	0	0.006	0.39199999	0.233097494
BC	BC060413_87	BC060413_87_06062013_153432.txt	1209334.135	2303569.145	6/6/2013	0	0.001630657	0	A	792.9	45.2	06-06-2013 15:34:32	0	0.007	-0.129999995	0.232951045
BC	BC060413_88	BC060413_88_06062013_154306.txt	1209354.474	2303802.656	6/6/2013	0	0.001863369	0.06661544	A	792.3	45.0	06-06-2013 15:43:06	0	0.008	0.286000013	0.232921109
BC	BC060413_89	BC060413_89_06062013_155348.txt	1209553.905	2304343.735	6/6/2013	0	0.001168574	0.111715667	A	794.5	44.8	06-06-2013 15:53:48	0	0.005	0.477999985	0.233714789
BC	BC060413_90	BC060413_90_06062013_155858.txt	1209541.99	2304175.623	6/6/2013	0	0.0021078	0.075646617	A	796.4	44.9	06-06-2013 15:58:58	0	0.009	0.323000014	0.234200045
BC	BC060413_91	BC060413_91_06062013_160608.txt	1209541.067	2303933.515	6/6/2013	0	0.001638885	0.046825286	A	796.4	45.0	06-06-2013 16:06:08	0	0.007	0.200000003	0.234126419
BC	BC060413_92	BC060413_92_06062013_161048.txt	1209545.344	2303774.035	6/6/2013	0	0.001869954	0.147025138	A	795.1	45.0	06-06-2013 16:10:48	0	0.008	0.629000008	0.233744249
BC	BC060413_93	BC060413_93_06062013_161643.txt	1209554.131	2303545.447	6/6/2013	0	0.001167106	0.010270529	A	794.5	45.2	06-06-2013 16:16:43	0	0.005	0.044	0.233421132
BC	BC060413_94	BC060413_94_06062013_162232.txt	1209534.94	2303354.115	6/6/2013	1.593852282	0.001629944	0.357190579	A	793.3	45.5	06-06-2013 16:22:32	6.84499979	0.007	1.534000039	0.232849136
BC	BC060413_95	BC060413_95_06062013_164006.txt	1209327.736	2303140.633	6/6/2013	0	0.003010831	0.690869927	A	789.3	45.6	06-06-2013 16:40:06	0	0.013	2.98300004	0.231602386
BC	BC060413_96	BC060413_96_06062013_164732.txt	1209330.052	2302951.527	6/6/2013	0	0.001622235	0.084124446	A	789.3	45.4	06-06-2013 16:47:32	0	0.007	0.363000005	0.231747791
BC	BC060413_97	BC060413_97_06062013_165520.txt	1209346.829	2302720.971	6/6/2013	0	0.000693959	0.003238476	A	787.1	45.1	06-06-2013 16:55:20	0	0.003	0.014	0.231319696
BC	BC060413_98	BC060413_98_06062013_165949.txt	1209346.666	2302597.219	6/6/2013	0	0.001387203	0.127160266	A	786.2	44.9	06-06-2013 16:59:49	0	0.006	0.550000012	0.231200486
BC	BC060413_99	BC060413_99_06062013_170446.txt	1209543.265	2302604.414	6/6/2013	0	0.002087018	0.011130766	A	788.3	44.8	06-06-2013 17:04:46	0	0.009	0.048	0.231890962
BC	BC061213_01	BC061213_01_12062013_084915.txt	1212947.528	2306144.354	6/12/2013	0	0	0.086035855	A	792.9	29.4	12-06-2013 08:49:15	0	0	0.351000011	0.245116398
BC	BC061213_02	BC061213_02_12062013_085437.txt	1212930.969	2305966.353	6/12/2013	0	0.00097788	0.201198786	A	792.9	30.2	12-06-2013 08:54:37	0	0.004	0.823000014	0.24446997
BC	BC061213_03	BC061213_03_12062013_085824.txt	1212918.666	2305789.195	6/12/2013	0	0.000487138	0.056020815	A	791.8	30.9	12-06-2013 08:58:24	0	0.002	0.230000004	0.243568763
BC	BC061213_04	BC061213_04_12062013_090525.txt	1212955.698	2305571.458	6/12/2013	0	0.002909061	0.313936204	A	791.7	32.3	12-06-2013 09:05:25	0	0.012	1.294999957	0.242421776
BC	BC061213_05	BC061213_05_12062013_091540.txt	1212923.538	2305359.935	6/12/2013	0	0	0.022452515	A	791.8	33.6	12-06-2013 09:15:40	0	0	0.093000002	0.241424888
BC	BC061213_06	BC061213_06_12062013_092430.txt	1212936.116	2305186.418	6/12/2013	0	0.000721661	0.069760546	A	791.0	34.4	12-06-2013 09:24:30	0	0.003	0.289999992	0.240553603
BC	BC061213_07	BC061213_07_12062013_093233.txt	1213150.993	2305126.104	6/12/2013	0	0.001674742	0.138764292	A	788.5	35.1	12-06-2013 09:32:33	0	0.007	0.579999983	0.239248782
BC	BC061213_08	BC061213_08_12062013_093928.txt	1213348.536	2305165.875	6/12/2013	0	0.000951173	0.319594264	A	786.5	36.2	12-06-2013 09:45:26	0	0.004	1.343999982	0.237793356
BC	BC061213_09	BC061213_09_12062013_094554.txt	1213561.091	2305111.7	6/12/2013	0	0.00071338	0	A	786.5	36.2	12-06-2013 09:45:54	0	0.003	-0.001	0.237793356
BC	BC061213_10	BC061213_10_12062013_095207.txt	1213619.388	2305088.498	6/12/2013	1.029170752	0.002611506	1.313112736	A	786.5	36.7	12-06-2013 09:52:07	4.335000038	0.011	5.531000137	0.237409636
BC	BC061213_11	BC061213_11_12062013_100445.txt	1213772.099	2305161.777	6/12/2013	0	0.001179691	0	A	784.4	37.8	12-06-2013 10:04:45	0	0.005	-0.140000001	0.235938132
BC	BC061213_12	BC061213_12_12062013_100907.txt	1213757.649	2305351.656	6/12/2013	0	0.000943324	0.00754659	A	784.8	38.1	12-06-2013 10:09:07	0	0.004	0.032000002	0.235830918
BC	BC061213_13	BC061213_13_12062013_101407.txt	1213562.202	2305386.141	6/12/2013	0	0.000708343	0.007791768	A	786.5	38.4	12-06-2013 10:14:07	0	0.003	0.033	0.236114189
BC	BC061213_14	BC061213_14_12062013_101817.txt	1213327.293	2305362.03	6/12/2013	30.79364586	0.001652159	3.12258029	A	786.7	38.6	12-06-2013 10:18:17	130.4689941	0.007	13.22999954	0.236022711
BC	BC061213_15	BC061213_15_12062013_102402.txt	1213143.453	2305370.168	6/12/2013	0	0.001414861	0.954323709	A	787.0	39.0	12-06-2013 10:24:02	0	0.006	4.046999931	0.235810161

APPENDIX B - FLUX METER DATA

AreaAbbrev	SitePt	Filename	Northing	Easting	Date	CH_4 flux	H_2S flux	CO_2 flux	ACCUMULATION CHAMBER	PRESSURE Hpa	TEMP DegC	TIME	CH_4 slope	H_2S slope	CO_2 slope	AcK
BC	BC061213_16	BC061213_16_12062013_102932.txt	1213131.56	2305539.688	6/12/2013	4.344707489	0.002124551	1.84080565	A	789.1	39.5	12-06-2013 10:29:32	18.40500069	0.009	7.797999859	0.23606126
BC	BC061213_17	BC061213_17_12062013_103606.txt	1213120.977	2305755.281	6/12/2013	14.47816849	0.001886898	3.832997322	A	790.2	40.2	12-06-2013 10:36:06	61.38399887	0.008	16.25099945	0.235862255
BC	BC061213_18	BC061213_18_12062013_104023.txt	1213218.48	2305830.159	6/12/2013	1.480139017	0.002823346	4.506060123	A	789.0	40.5	12-06-2013 10:40:23	6.290999889	0.012	19.15200043	0.235278815
BC	BC061213_19	BC061213_19_12062013_104500.txt	1213114.886	2305940.894	6/12/2013	0	0.003291793	0.158711448	A	789.5	40.9	12-06-2013 10:45:00	0	0.014	0.675000012	0.23512806
BC	BC061213_20	BC061213_20_12062013_105212.txt	1213157.391	2306183.335	6/12/2013	0	0.001411294	0.043279678	A	790.8	41.3	12-06-2013 10:52:12	0	0.006	0.184	0.235215634
BC	BC061213_21	BC061213_21_12062013_105710.txt	1213163.412	2306359.357	6/12/2013	0	0.001411732	0.035528574	A	791.8	41.6	12-06-2013 10:57:10	0	0.006	0.150999993	0.23528859
BC	BC061213_22	BC061213_22_12062013_110314.txt	1213312.364	2306372.945	6/12/2013	0	0.001412795	0	A	792.9	41.8	12-06-2013 11:03:14	0	0.006	-4.869999886	0.23546584
BC	BC061213_23	BC061213_23_12062013_110904.txt	1213315.354	2306535.888	6/12/2013	0	0.001886454	0.014620017	A	794.3	41.9	12-06-2013 11:09:04	0	0.008	0.061999999	0.235806733
BC	BC061213_24	BC061213_24_12062013_113055.txt	1213305.553	2306168.787	6/12/2013	0	0.001643992	0.026538735	A	791.6	42.1	12-06-2013 11:30:55	0	0.007	0.112999998	0.234856069
BC	BC061213_25	BC061213_25_12062013_113655.txt	1213327.295	2305986.809	6/12/2013	0	0.00140869	0.189703539	A	791.6	42.2	12-06-2013 11:36:55	0	0.006	0.808000028	0.234781608
BC	BC061213_26	BC061213_26_12062013_114239.txt	1213341.587	2305725.457	6/12/2013	4.849011421	0.001639525	2.648535013	A	790.2	42.4	12-06-2013 11:42:39	20.70299911	0.007	11.30799961	0.234217823
BC	BC061213_27	BC061213_27_12062013_114843.txt	1213420.668	2305697.124	6/12/2013	0	0.001869712	0.427696645	A	789.0	42.6	12-06-2013 11:48:43	0	0.008	1.830000043	0.233714014
BC	BC061213_28	BC061213_28_12062013_115333.txt	1213367.521	2305564.035	6/12/2013	0.301985681	0.001400243	0.20350194	A	788.6	42.9	12-06-2013 11:53:33	1.29400003	0.006	0.871999979	0.233373791
BC	BC061213_29	BC061213_29_12062013_115804.txt	1213557.761	2305542.364	6/12/2013	0	0.000466038	0.009553787	A	787.9	43.1	12-06-2013 11:58:04	0	0.002	0.041000001	0.233019188
BC	BC061213_30	BC061213_30_12062013_120346.txt	1213575.726	2305750.57	6/12/2013	0	0.002561114	0.374621093	A	788.5	43.6	12-06-2013 12:03:46	0	0.011	1.608999968	0.232828528
BC	BC061213_31	BC061213_31_12062013_120812.txt	1213554.655	2305944.731	6/12/2013	0	0.003728812	0.034491505	A	790.0	43.9	12-06-2013 12:08:12	0	0.016000001	0.148000002	0.233050719
BC	BC061213_32	BC061213_32_12062013_121256.txt	1213565.441	2306174.445	6/12/2013	0	0.001399989	0.02589979	A	791.7	44.2	12-06-2013 12:12:56	0	0.006	0.111000001	0.233331442
BC	BC061213_33	BC061213_33_12062013_122018.txt	1213537.737	2306337.137	6/12/2013	0	0.003502408	0.110909574	A	793.0	44.5	12-06-2013 12:20:18	0	0.015	0.474999994	0.23349385
BC	BC061213_34	BC061213_34_12062013_122625.txt	1213526.983	2306552.17	6/12/2013	0	0.004193359	0.1171811	A	791.7	44.7	12-06-2013 12:26:25	0	0.017999999	0.503000021	0.232964396
BC	BC061213_35	BC061213_35_12062013_123849.txt	1213725.097	2306580.415	6/12/2013	0	0.002792403	0.046074651	A	791.3	44.9	12-06-2013 12:38:49	0	0.012	0.197999999	0.232700258
BC	BC061213_36	BC061213_36_12062013_124508.txt	1213751.216	2306331.56	6/12/2013	0	0.002319956	0.122261703	A	789.4	45.1	12-06-2013 12:45:08	-0.057	0.01	0.52700001	0.231995642
BC	BC061213_37	BC061213_37_12062013_125130.txt	1213706.652	2306174.593	6/12/2013	0	0.001860909	0.020469993	A	792.0	45.3	12-06-2013 12:51:30	0	0.008	0.088	0.232613564
BC	BC061213_38	BC061213_38_12062013_125635.txt	1213947.4	2306382.465	6/12/2013	0	0.003254746	0.041149281	A	791.8	45.4	12-06-2013 12:56:35	0	0.014	0.177000001	0.232481822
BC	BC061213_39	BC061213_39_12062013_130107.txt	1214139.68	2306384.298	6/12/2013	0	0.001625629	0.002786793	A	791.2	45.5	12-06-2013 13:01:07	0	0.007	0.012	0.232232749
BC	BC061213_40	BC061213_40_12062013_130612.txt	1214145.89	2306570.335	6/12/2013	0	0.001853881	0.682228088	A	790.0	45.7	12-06-2013 13:06:12	0	0.008	2.944000006	0.23173508
BC	BC061213_41	BC061213_41_12062013_131113.txt	1213964.264	2306556.179	6/12/2013	0	0.002080754	0.077681482	A	788.9	46.0	12-06-2013 13:11:13	0	0.009	0.335999995	0.231194884
BC	BC061213_42	BC061213_42_12062013_131638.txt	1213934.034	2306758.525	6/12/2013	0	0.002077869	0.006464482	A	788.3	46.2	12-06-2013 13:16:38	0	0.009	0.028000001	0.23087436
BC	BC061213_43	BC061213_43_12062013_132315.txt	1214138.906	2306775.141	6/12/2013	0	0.00231007	0.009471289	A	789.0	46.3	12-06-2013 13:23:15	0	0.01	0.041000001	0.23100704
BC	BC061213_44	BC061213_44_12062013_132953.txt	1214366.006	2306765.68	6/12/2013	0	0.002301603	0.00023016	A	786.6	46.5	12-06-2013 13:29:53	0	0.01	0.001	0.230160266
BC	BC061213_45	BC061213_45_12062013_133545.txt	1214375.602	2306550.565	6/12/2013	0	0.006433018	0.053072393	A	785.2	46.5	12-06-2013 13:35:45	0	0.028000001	0.231000006	0.229750618
BC	BC061213_46	BC061213_46_12062013_134024.txt	1214527.152	2306572.804	6/12/2013	0	0.002536913	0.02629164	A	788.2	46.5	12-06-2013 13:40:24	0	0.011	0.114	0.230628431
BC	BC061213_47	BC061213_47_12062013_134617.txt	1214540.011	2306775.686	6/12/2013	1.375723124	0.00230131	0.158790395	A	786.5	46.5	12-06-2013 13:46:17	5.978000164	0.01	0.689999998	0.230131
BC	BC061213_48	BC061213_48_12062013_135121.txt	1214408.401	2306930.683	6/12/2013	0	0.002066175	0.104456656	A	784.6	46.5	12-06-2013 13:51:21	0	0.009	0.455000013	0.229575053
BC	BC061213_49	BC061213_49_12062013_135509.txt	1214560.525	2306919.332	6/12/2013	0	0.001835324	0.165179178	A	784.3	46.6	12-06-2013 13:55:09	-0.037	0.008	0.720000029	0.229415506
BC	BC061213_50	BC061213_50_12062013_140006.txt	1214743.03	2306969.992	6/12/2013	0	0.003207312	0.174569443	A	783.2	46.6	12-06-2013 14:00:06	-0.057999998	0.014	0.762000024	0.229093745
BC	BC061213_51	BC061213_51_12062013_140506.txt	1214749.684	2306789.008	6/12/2013	0	0.004116843	0.484415174	A	781.9	46.6	12-06-2013 14:05:06	0	0.017999999	2.118000031	0.228713483
BC	BC061213_52	BC061213_52_12062013_140939.txt	1214731.661	2306601.388	6/12/2013	0	0.002981469	0.059629381	A	784.3	46.7	12-06-2013 14:09:39	0	0.013	0.25999999	0.229343787
BC	BC061213_53	BC061213_53_12062013_141524.txt	1214964.701	2306590.48	6/12/2013	0	0.002294475	0.06791646	A	784.9	46.8	12-06-2013 14:15:24	0	0.01	0.296000004	0.229447499
BC	BC061213_54	BC061213_54_12062013_141938.txt	1214914.146	2306749.092	6/12/2013	0	0.001601426	0.127656534	A	782.6	46.8	12-06-2013 14:19:38	0	0.007	0.558000028	0.228775144
BC	BC061213_55	BC061213_55_12062013_142505.txt	1214943.626	2306946.257	6/12/2013	0	0.002288336	0.069565415	A	782.8	46.8	12-06-2013 14:25:05	0	0.01	0.30399999	0.228833616
BC	BC061213_56	BC061213_56_12062013_142920.txt	1215157.36	2306785.413	6/12/2013	0	0.005022763	0.097943887	A	781.0	46.8	12-06-2013 14:29:20	0	0.022	0.42899999	0.228307426
BC	BC061213_57	BC061213_57_12062013_143429.txt	1215359.235	2306774.147	6/12/2013	0	0.005251743	0.154127255	A	781.1	46.8	12-06-2013 14:34:29	0	0.023	0.675000012	0.228336662
BC	BC061213_58	BC061213_58_12062013_144129.txt	1215517.427	2306728.925	6/12/2013	0	0.004799981	0.167085052	A	781.9	46.8	12-06-2013 14:41:29	0	0.021	0.731000006	0.228570521
BC	BC071013_01	BC071013_01_10072013_093144.txt	1210317.887	2304498.164	7/10/2013	0.829444945	0	0.267682284	A	803.6	31.5	10-07-2013 09:31:44	3.361999989	-0.004	1.085000038	0.246711761
BC	BC071013_02	BC071013_02_10072013_093653.txt	1210302.75	2304506.909	7/10/2013	1.66933763	0	0.581184089	A	803.6	32.7	10-07-2013 09:36:53	6.793000221	0	2.36500001	0.245743796
BC	BC071013_03	BC071013_03_10072013_094116.txt	1210321.582	2304526.593	7/10/2013	0.591266572	0.001957837	0.125056803	A	802.9	33.7	10-07-2013 09:41:16	2.415999889	0.008	0.510999978	0.244729564
BC	BC071013_04	BC071013_04_10072013_094538.txt	1210330.334	2304510.585	7/10/2013	0.993497133	0.001219613	0.262216896	A	802.6	34.6	10-07-2013 09:45:38	4.072999954	0.005	1.075000048	0.243922696
BC	BC071013_05	BC071013_05_10072013_095100.txt	1210352.783	2304515.149	7/10/2013	0.447364122	0	0.482132077	A	802.6	35.6	10-07-2013 09:51:00	1.840000033	0	1.98300004	0.243132666
BC	BC071013_06	BC071013_06_10072013_095822.txt	1210348.505	2304467.456	7/10/2013	0	0.003150128	0.109285206	A	802.5	36.6	10-07-2013 09:58:22	0	0.013	0.451000005	0.242317528
BC	BC071013_07	BC071013_07_10072013_100529.txt	1210318.304	2304465.649	7/10/2013	0	0.000484	0.134309858	A	803.0	37.2	10-07-2013 10:05:29	0	0.002	0.555000007	0.241999745
BC	BC071013_08	BC071013_08_10072013_101611.txt	1210289.047	2304463.428	7/10/2013	0	0.000966442	0.076348916	A	803.0	37.7	10-07-2013 10:16:11	0	0.004	0.316000015	0.241610482
BC	BC071013_09	BC071013_09_10072013_101947.txt	1210283.417	2304503.836	7/10/2013	0	0.000724365	0.131351605	A	803.0	37.9	10-07-2013 10:19:47	0	0.003	0.54400003	0.241455138
BC	BC071013_10	BC071013_10_10072013_102636.txt	1210286.109	2304549.011	7/10/2013	0	0.000723307	0.062445503	A	802.6	38.2	10-07-2013 10:26:36	0	0.003	0.259000003	0.241102323
BC	BC071013_11	BC071013_11_10072013_103029.txt	1210319.036	2304558.11	7/10/2013	0	0.00288993	0.121136226	A	802.2	38.4	10-07-2013 10:30:29	0	0.012	0.503000021	0.240827471
BC	BC071013_12	BC071013_12_10072013_103349.txt	1210330.459	2304603.398	7/10/2013	0	0.002406129	0.034648266	A	802.0	38.6	10-07-2013 10:33:49	0	0.01	0.143999994	0.240612954
BC	BC071013_13	BC071013_13_10072013_103722.txt	1210363.283	2304610.086	7/10/2013	0	0.001200559	0.076355577	A	801.1	38.9	10-07-2013 10:37:22	0	0.005	0.317999989	0.240111887
BC	BC071013_14	BC071013_14_10072013_104048.txt	1210393.619	2304572.834	7/10/2013	0	0.002638365	0.744978189	A	801.0	39.2	10-07-2013 10:40:48	0	0.011	3.105999947	0.239851326

APPENDIX B - FLUX METER DATA

AreaAbbrev	SitePt	Filename	Northing	Easting	Date	CH_4 flux	H_2S flux	CO_2 flux	ACCUMULATION CHAMBER	PRESSURE Hpa	TEMP DegC	TIME	CH_4 slope	H_2S slope	CO_2 slope	AcK
BC	BC071013_15	BC071013_15_10072013_104430.txt	1210389.494	2304513.745	7/10/2013	0	0.00311719	0.086082384	A	801.8	39.6	10-07-2013 10:44:30	0	0.013	0.358999997	0.239783809
BC	BC071013_16	BC071013_16_10072013_104934.txt	1210394.144	2304474.981	7/10/2013	0	0.001436944	0.381987572	A	802.1	40.1	10-07-2013 10:49:34	0	0.006	1.595000029	0.239490643
CJ	CJ052813_01	CJ052813_01_28052013_083908.txt	1214949.542	2309961.599	5/28/2013	0	0	0	A	800.0	19.1	28-05-2013 08:39:08	0	0	-0.134000003	0.25602749
CJ	CJ052813_02	CJ052813_02_28052013_085208.txt	1214977.645	2310131.71	5/28/2013	0	0	1.352292776	A	799.5	22.3	28-05-2013 08:52:08	0	0	5.342999935	0.253096163
CJ	CJ052813_03	CJ052813_03_28052013_085754.txt	1214755.29	2310163.824	5/28/2013	0	0	0.157187179	A	799.5	23.7	28-05-2013 08:57:54	0	0	0.624000013	0.251902521
CJ	CJ052813_04	CJ052813_04_28052013_090336.txt	1214552.529	2310139.775	5/28/2013	0	0	0.269454062	A	799.5	24.9	28-05-2013 09:03:36	0	-0.001	1.074000001	0.250888318
CJ	CJ052813_05	CJ052813_05_28052013_091004.txt	1214362.633	2310151.266	5/28/2013	1.059559226	0	0.432672083	A	800.0	26.2	28-05-2013 09:10:04	4.238999844	0	1.730999947	0.249954998
CJ	CJ052813_06	CJ052813_06_28052013_091524.txt	1214176.19	2310175.036	5/28/2013	0	0.000248874	0.150320008	A	800.0	27.5	28-05-2013 09:15:24	0	0.001	0.603999972	0.248874202
CJ	CJ052813_07	CJ052813_07_28052013_092333.txt	1214154.866	2309959.953	5/28/2013	0	0.000247473	0.137100026	A	799.2	28.9	28-05-2013 09:23:33	0	0.001	0.55400002	0.247472957
CJ	CJ052813_08	CJ052813_08_28052013_093132.txt	1214169.575	2309765.754	5/28/2013	0	0.000490713	0.024044938	A	796.3	30.4	28-05-2013 09:31:32	0	0.002	0.097999997	0.245356515
CJ	CJ052813_09	CJ052813_09_28052013_093732.txt	1214342.692	2309776.592	5/28/2013	0	0.00073203	0.102240227	A	794.8	31.5	28-05-2013 09:37:32	0	0.003	0.419	0.244010091
CJ	CJ052813_10	CJ052813_10_28052013_094952.txt	1214342.29	2309958.935	5/28/2013	0	0.000242498	0.080509238	A	794.8	33.4	28-05-2013 09:49:52	0	0.001	0.331999987	0.242497712
CJ	CJ052813_100	CJ052813_100_30052013_115901.txt	1215136.499	2310740.036	5/30/2013	0	0.000240772	0	A	801.5	38.2	30-05-2013 11:59:01	0	0.001	-0.240999997	0.240771875
CJ	CJ052813_101	CJ052813_101_30052013_120349.txt	1215365.254	2310763.487	5/30/2013	0	0.000963397	0.004816985	A	801.5	38.1	30-05-2013 12:03:49	0	0.004	0.02	0.240849242
CJ	CJ052813_102	CJ052813_102_30052013_120945.txt	1215561.199	2310711.523	5/30/2013	0	0	0	A	802.0	38.1	30-05-2013 12:09:45	0	0	-0.453000009	0.24099949
CJ	CJ052813_103	CJ052813_103_30052013_122522.txt	1215764.112	2310755.211	5/30/2013	0	0.000722523	0	A	800.7	37.8	30-05-2013 12:25:22	0	0.003	-0.007	0.240840971
CJ	CJ052813_104	CJ052813_104_30052013_123002.txt	1215960.704	2310747.699	5/30/2013	0	0.000482679	0.049233299	A	802.1	37.7	30-05-2013 12:30:02	0	0.002	0.203999996	0.241339698
CJ	CJ052813_105	CJ052813_105_30052013_124135.txt	1215154.152	2310939.936	5/30/2013	0	0.000967085	0.044969436	A	802.5	37.3	30-05-2013 12:41:35	0	0.004	0.186000004	0.241771162
CJ	CJ052813_106	CJ052813_106_30052013_124518.txt	1214939.674	2311136.822	5/30/2013	0	0	0.014006269	A	801.3	37.2	30-05-2013 12:45:18	0	0	0.057999998	0.241487414
CJ	CJ052813_107	CJ052813_107_30052013_124854.txt	1214938.094	2310979.676	5/30/2013	0	0	0.015799331	A	806.8	37.3	30-05-2013 12:48:54	0	-0.001	0.064999998	0.243066624
CJ	CJ052813_108	CJ052813_108_30052013_130328.txt	1214560.211	2311168.977	5/30/2013	0	0.000724462	0	A	801.3	37.2	30-05-2013 13:03:28	0	0.003	-0.194999993	0.241487414
CJ	CJ052813_109	CJ052813_109_30052013_130717.txt	1214768.75	2311163.494	5/30/2013	0	0.001446469	0.015670083	A	800.2	37.3	30-05-2013 13:07:17	0	0.006	0.064999998	0.241078228
CJ	CJ052813_11	CJ052813_11_28052013_095643.txt	1214534.095	2309968.291	5/28/2013	0	0.002180583	0.830075443	A	796.7	34.4	28-05-2013 09:56:43	0	0.009	3.426000118	0.24228704
CJ	CJ052813_110	CJ052813_110_30052013_131213.txt	1214749.051	2310943.594	5/30/2013	0	0.000482001	0.023618059	A	800.2	37.4	30-05-2013 13:12:13	0	0.002	0.097999997	0.241000608
CJ	CJ052813_111	CJ052813_111_30052013_131847.txt	1214328.381	2310900.964	5/30/2013	0	0.000481846	0.077577211	A	800.2	37.5	30-05-2013 13:18:47	0	0.002	0.321999997	0.240923017
CJ	CJ052813_112	CJ052813_112_30052013_132223.txt	1214557.678	2310924.241	5/30/2013	0	0	0.013250766	A	800.2	37.5	30-05-2013 13:22:23	0	0	0.055	0.240923017
CJ	CJ052813_113	CJ052813_113_30052013_132848.txt	1214745.132	2311365.599	5/30/2013	0	0.000481941	0	A	800.1	37.4	30-05-2013 13:28:48	0	0.002	-0.035	0.240970477
CJ	CJ052813_114	CJ052813_114_30052013_134312.txt	1215745.936	2310957.159	5/30/2013	0	0.001204164	0.095369749	A	799.9	37.5	30-05-2013 13:43:12	0	0.005	0.395999998	0.240832701
CJ	CJ052813_115	CJ052813_115_30052013_134714.txt	1215517.406	2310952.147	5/30/2013	0	0.000963021	0.035872526	A	799.9	37.6	30-05-2013 13:47:14	0	0.004	0.149000004	0.2407552
CJ	CJ052813_116	CJ052813_116_30052013_135042.txt	1215355.117	2311030.43	5/30/2013	0	0	0.077979587	A	799.9	37.7	30-05-2013 13:50:42	0	-0.001	0.324000001	0.240677744
CJ	CJ052813_117	CJ052813_117_30052013_135407.txt	1215154.412	2311230.747	5/30/2013	0	0.00096247	0.200434446	A	799.7	37.7	30-05-2013 13:54:07	0	0.004	0.833000004	0.240617573
CJ	CJ052813_118	CJ052813_118_30052013_135826.txt	1214961.822	2311407.57	5/30/2013	0	0.000721853	0.194659621	A	799.7	37.7	30-05-2013 13:58:26	0	0.003	0.809000015	0.240617573
CJ	CJ052813_119	CJ052813_119_30052013_140303.txt	1215353.508	2311165.482	5/30/2013	0	0.000721853	0.025746081	A	799.7	37.7	30-05-2013 14:03:03	0	0.003	0.107000001	0.240617573
CJ	CJ052813_12	CJ052813_12_28052013_100258.txt	1214740.026	2309965.582	5/28/2013	0	0.00072474	0.004106862	A	796.7	35.3	28-05-2013 10:02:58	0	0.003	0.017000001	0.241580099
CJ	CJ052813_120	CJ052813_120_30052013_140747.txt	1215382.274	2311367.049	5/30/2013	0	0.000240407	0.008654649	A	799.0	37.7	30-05-2013 14:07:47	0	0.001	0.035999998	0.240406945
CJ	CJ052813_121	CJ052813_121_30052013_141109.txt	1215573.068	2311171.583	5/30/2013	0	0.000480453	0.533302665	A	798.4	37.7	30-05-2013 14:11:09	0	0.002	2.220000029	0.240226418
CJ	CJ052813_122	CJ052813_122_30052013_141449.txt	1215764.691	2311177.611	5/30/2013	0	0.000720357	0	A	798.3	37.8	30-05-2013 14:14:49	0	0.003	-0.181999996	0.240119085
CJ	CJ052813_123	CJ052813_123_30052013_141825.txt	1215950.165	2311164.306	5/30/2013	0	0.003603591	0.259218305	A	798.7	37.8	30-05-2013 14:18:25	0	0.015	1.078999996	0.240239397
CJ	CJ052813_124	CJ052813_124_30052013_142209.txt	1215946.988	2310948.92	5/30/2013	0	0.0009618	0.028613545	A	799.4	37.8	30-05-2013 14:22:09	0	0.004	0.119000003	0.24044995
CJ	CJ052813_125	CJ052813_125_30052013_142926.txt	1216186.717	2310942.196	5/30/2013	0	0.000962453	0.101298161	A	800.2	37.9	30-05-2013 14:29:26	0	0.004	0.421000004	0.240613207
CJ	CJ052813_126	CJ052813_126_30052013_143929.txt	1216183.235	2311187.439	5/30/2013	0	0.000962058	0.076002553	A	800.9	38.3	30-05-2013 14:39:29	0	0.004	0.316000015	0.240514398
CJ	CJ052813_127	CJ052813_127_30052013_144807.txt	1215545.007	2311354.709	5/30/2013	0	0.000960684	0.012248725	A	799.5	38.2	30-05-2013 14:48:07	0	0.004	0.050999999	0.240171075
CJ	CJ052813_128	CJ052813_128_30052013_145226.txt	1215556.202	2311560.423	5/30/2013	0	0.000479321	0.021569436	A	797.8	38.2	30-05-2013 14:52:26	0	0.002	0.090000004	0.239660397
CJ	CJ052813_129	CJ052813_129_30052013_145758.txt	1215661.788	2311752.117	5/30/2013	0	0.00095732	0.110570438	A	796.7	38.2	30-05-2013 14:57:58	0	0.004	0.462000012	0.239329949
CJ	CJ052813_13	CJ052813_13_28052013_101822.txt	1214746.996	2309757.087	5/28/2013	0.407307714	0.000724317	3.885720253	A	798.3	36.1	28-05-2013 10:18:22	1.687000036	0.003	16.09399986	0.241439059
CJ	CJ052813_130	CJ052813_130_30052013_150125.txt	1215737.374	2311723.072	5/30/2013	0	0.000477218	0	A	794.3	38.2	30-05-2013 15:01:25	0	0.002	-0.240999997	0.238608986
CJ	CJ052813_131	CJ052813_131_30052013_150636.txt	1215736.699	2311553.475	5/30/2013	0	0.000715687	0.03960136	A	794.4	38.3	30-05-2013 15:06:36	0	0.003	0.165999994	0.238562405
CJ	CJ052813_132	CJ052813_132_30052013_151151.txt	1215752.987	2311366.841	5/30/2013	0	0.000716178	0	A	795.2	38.4	30-05-2013 15:11:51	0	0.003	-0.32100001	0.238726005
CJ	CJ052813_133	CJ052813_133_30052013_151545.txt	1215949.163	2311357.468	5/30/2013	0	0	0.300107628	A	796.8	38.5	30-05-2013 15:15:45	0	0	1.254999995	0.239129588
CJ	CJ052813_134	CJ052813_134_30052013_152131.txt	1216129.263	2311585.232	5/30/2013	0	0.000478046	0.132179648	A	796.7	38.6	30-05-2013 15:21:31	0	0.002	0.552999973	0.239022881
CJ	CJ052813_135	CJ052813_135_30052013_152606.txt	1215943.5	2311541.65	5/30/2013	0	0.00119135	0	A	794.7	38.8	30-05-2013 15:26:06	0	0.005	-0.152999997	0.238269985
CJ	CJ052813_136	CJ052813_136_30052013_153039.txt	1215978.63	2311765.26	5/30/2013	0	0.001427266	0.046861887	A	793.9	39.0	30-05-2013 15:30:39	0	0.006	0.196999997	0.237877607
CJ	CJ052813_137	CJ052813_137_30052013_153523.txt	1215961.42	2311967.471	5/30/2013	0	0.000948745	0	A	792.1	39.2	30-05-2013 15:35:23	0	0.004	-0.147	0.237186313
CJ	CJ052813_138	CJ052813_138_30052013_153837.txt	1216169.45	2311951.51	5/30/2013	0	0.000236915	0	A	791.7	39.4	30-05-2013 15:38:37	0	0.001	-0.335999995	0.236914828
CJ	CJ052813_139	CJ052813_139_30052013_154236.txt	1216371.957	2312160.854	5/30/2013	0	0.001421669	0.089328177	A	791.8	39.4	30-05-2013 15:42:36	0	0.006	0.377000004	0.236944765
CJ	CJ052813_14	CJ052813_14_28052013_102636.txt	1214516.842	2309742.47	5/28/2013	1.134641171	0.000482108	2.932904005	A	797.8	36.4	28-05-2013 10:26:36	4.706999779	0.002	12.16699982	0.241053998
CJ	CJ052813_140	CJ052813_140_30052013_154740.txt	1216557.976	2312348.129	5/30/2013	0	0.000710021	0	A	791.4	39.6	30-05-2013 15:47:40	0	0.003	-0.177000001	0.236673608

APPENDIX B - FLUX METER DATA

AreaAbbrev	SitePt	Filename	Northing	Easting	Date	CH_4 flux	H_2S flux	CO_2 flux	ACCUMULATION CHAMBER	PRESSURE Hpa	TEMP DegC	TIME	CH_4 slope	H_2S slope	CO_2 slope	AcK
CJ	CJ052813_141	CJ052813_141_30052013_155310.txt	1216536.558	2312177.112	5/30/2013	0	0.001418691	0.105456024	A	790.9	39.7	30-05-2013 15:53:10	0	0.006	0.44600001	0.236448482
CJ	CJ052813_142	CJ052813_142_30052013_155931.txt	1216388.891	2311999.063	5/30/2013	0	0.001182392	0.039255407	A	791.0	39.7	30-05-2013 15:59:31	0	0.005	0.165999994	0.236478373
CJ	CJ052813_143	CJ052813_143_30052013_160631.txt	1216310.271	2311794.674	5/30/2013	0	0.002366578	0.1512243	A	791.6	39.7	30-05-2013 16:06:31	0	0.01	0.638999999	0.236657754
CJ	CJ052813_144	CJ052813_144_30052013_161125.txt	1216144.445	2311748.815	5/30/2013	0	0.001185381	0.243240282	A	793.0	39.7	30-05-2013 16:11:25	0	0.005	1.026000023	0.237076297
CJ	CJ052813_145	CJ052813_145_30052013_162212.txt	1216177.625	2311334.765	5/30/2013	0	0.001422566	0.467313021	A	792.3	39.4	30-05-2013 16:22:12	0	0.006	1.970999956	0.237094387
CJ	CJ052813_146	CJ052813_146_31052013_144507.txt	1216758.153	2312367.679	5/31/2013	0	0.000249058	0	A	794.2	25.1	31-05-2013 14:45:07	0	0.001	-0.174999997	0.249058023
CJ	CJ052813_147	CJ052813_147_31052013_144919.txt	1216749.595	2312156.756	5/31/2013	0	0	1.002794862	A	794.2	27.0	31-05-2013 14:49:19	0	-0.001	4.052000046	0.24748145
CJ	CJ052813_148	CJ052813_148_31052013_145414.txt	1216955.108	2312204.302	5/31/2013	0	0.0017221	0.060765512	A	793.7	28.6	31-05-2013 14:54:14	0	0.007	0.246999994	0.246014223
CJ	CJ052813_149	CJ052813_149_31052013_145835.txt	1216952.352	2312369.178	5/31/2013	0	0.000735525	0.036040716	A	794.4	29.9	31-05-2013 14:58:35	0	0.003	0.147	0.245174929
CJ	CJ052813_15	CJ052813_15_28052013_103441.txt	1214545.779	2309572.964	5/28/2013	0	0.000240213	0.309394032	A	796.3	36.9	28-05-2013 10:34:41	0	0.001	1.287999988	0.240212768
CJ	CJ052813_150	CJ052813_150_31052013_150153.txt	1216941.66	2312562.54	5/31/2013	0	0.00122157	0.077691831	A	793.7	30.7	31-05-2013 15:01:53	0	0.005	0.317999989	0.24431394
CJ	CJ052813_151	CJ052813_151_31052013_150555.txt	1217147.366	2312725.982	5/31/2013	0	0.000974444	0	A	793.5	31.5	31-05-2013 15:05:55	0	0.004	-0.066	0.243610978
CJ	CJ052813_152	CJ052813_152_31052013_151128.txt	1217155.356	2312543.393	5/31/2013	0	0.001698627	0.004610558	A	793.0	32.5	31-05-2013 15:11:28	0	0.007	0.018999999	0.242660955
CJ	CJ052813_153	CJ052813_153_31052013_151657.txt	1217346.293	2312566.89	5/31/2013	0	0.000484202	0.155428886	A	793.5	33.4	31-05-2013 15:16:57	0	0.002	0.64200002	0.242101073
CJ	CJ052813_154	CJ052813_154_31052013_151711.txt	1217347.281	2312567.239	5/31/2013	0	0.000484202	0.155428886	A	793.5	33.4	31-05-2013 15:17:11	0	0.002	0.64200002	0.242101073
CJ	CJ052813_155	CJ052813_155_31052013_152243.txt	1217357.264	2312758.655	5/31/2013	0	0.000724595	0	A	793.7	34.2	31-05-2013 15:22:43	0	0.003	-0.050999999	0.241531774
CJ	CJ052813_156	CJ052813_156_31052013_152655.txt	1217544.671	2312953.889	5/31/2013	0	0.000722455	0.056351461	A	792.9	34.8	31-05-2013 15:26:55	0	0.003	0.233999997	0.240818202
CJ	CJ052813_157	CJ052813_157_31052013_153214.txt	1217748.434	2313164.689	5/31/2013	0	0.00072118	0.041828424	A	793.3	35.5	31-05-2013 15:32:14	0	0.003	0.173999995	0.240393251
CJ	CJ052813_158	CJ052813_158_31052013_153618.txt	1217978.214	2313218.159	5/31/2013	0	0.000719378	0.025178231	A	792.6	36.0	31-05-2013 15:36:18	0	0.003	0.104999997	0.23979269
CJ	CJ052813_159	CJ052813_159_31052013_154236.txt	1217985.381	2313019.915	5/31/2013	0	0.001436897	0.3623375	A	792.6	36.4	31-05-2013 15:42:36	0	0.006	1.513000011	0.23948282
CJ	CJ052813_16	CJ052813_16_28052013_104100.txt	1214342.217	2309569.177	5/28/2013	0	0.000477845	0.110143267	A	793.3	37.4	28-05-2013 10:41:00	0	0.002	0.460999995	0.238922492
CJ	CJ052813_160	CJ052813_160_31052013_154635.txt	1218007.28	2312793.35	5/31/2013	0	0.000717753	0.733782649	A	792.6	36.7	31-05-2013 15:46:35	0	0.003	3.066999912	0.239250958
CJ	CJ052813_161	CJ052813_161_31052013_155124.txt	1217735.723	2312974.562	5/31/2013	0	0.001195399	0.010519513	A	792.8	37.0	31-05-2013 15:51:24	0	0.005	0.044	0.239079848
CJ	CJ052813_162	CJ052813_162_31052013_155543.txt	1217755.313	2312752.886	5/31/2013	0	0.001194244	0.259867519	A	792.8	37.3	31-05-2013 15:55:43	0	0.005	1.088000059	0.23884882
CJ	CJ052813_163	CJ052813_163_31052013_160203.txt	1218027.865	2312504.075	5/31/2013	0	0.002385851	0.221884117	A	793.2	37.8	31-05-2013 16:02:03	0	0.01	0.930000007	0.23858507
CJ	CJ052813_164	CJ052813_164_31052013_160919.txt	1217748.557	2312495.185	5/31/2013	0	0.001434438	0.192453712	A	796.1	38.3	31-05-2013 16:09:19	0	0.006	0.805000007	0.239072934
CJ	CJ052813_165	CJ052813_165_31052013_162115.txt	1217556.386	2312518.993	5/31/2013	0	0.001432678	0.096705772	A	796.4	38.8	31-05-2013 16:21:15	0	0.006	0.405000001	0.238779679
CJ	CJ052813_166	CJ052813_166_31052013_162951.txt	1217539.78	2312760.197	5/31/2013	0	0.001665526	0.043779541	A	795.1	39.4	31-05-2013 16:29:51	0	0.007	0.184	0.23793228
CJ	CJ052813_167	CJ052813_167_31052013_164338.txt	1217149.905	2312395.458	5/31/2013	0	0.002133292	0.050487917	A	792.6	39.6	31-05-2013 16:43:38	0	0.009	0.213	0.237032473
CJ	CJ052813_168	CJ052813_168_31052013_164939.txt	1217365.639	2312384.695	5/31/2013	0	0.001190029	0.165176004	A	795.6	39.5	31-05-2013 16:49:39	0	0.005	0.694000006	0.238005757
CJ	CJ052813_169	CJ052813_169_31052013_170109.txt	1217520.864	2312371.801	5/31/2013	0	0.000714115	0.048083752	A	795.2	39.3	31-05-2013 17:01:09	0	0.003	0.202000007	0.238038361
CJ	CJ052813_17	CJ052813_17_28052013_104822.txt	1214351.447	2309358.587	5/28/2013	0	0.000476175	0.030237101	A	791.8	37.9	28-05-2013 10:48:22	0	0.002	0.127000004	0.238087401
CJ	CJ052813_170	CJ052813_170_31052013_171159.txt	1217356.074	2312122.028	5/31/2013	0	0.001671529	0.022446251	A	797.2	39.1	31-05-2013 17:11:59	0	0.007	0.093999997	0.238789901
CJ	CJ052813_171	CJ052813_171_31052013_171821.txt	1217151.421	2311928.675	5/31/2013	0	0.000956318	0	A	797.4	38.8	31-05-2013 17:18:21	0	0.004	-0.017000001	0.239079505
CJ	CJ052813_172	CJ052813_172_31052013_172655.txt	1217067.913	2312065.443	5/31/2013	117.5924377	0.063456818	0.491131902	A	797.9	38.5	31-05-2013 17:26:55	491.0740051	0.264999986	2.051000118	0.239459708
CJ	CJ052813_173	CJ052813_173_31052013_173531.txt	1217174.963	2312161.989	5/31/2013	0	0	0.156458303	A	797.4	38.6	31-05-2013 17:35:31	0	-0.004	0.653999984	0.239232883
CJ	CJ052813_174	CJ052813_174_31052013_174233.txt	1216956.489	2311980.347	5/31/2013	5.306138039	0.003109158	0.29321754	A	798.2	39.0	31-05-2013 17:42:33	22.18600082	0.013	1.225999951	0.239166036
CJ	CJ052813_175	CJ052813_175_31052013_174930.txt	1217092.56	2311819.278	5/31/2013	0	0.000956291	0.018886751	A	798.4	39.2	31-05-2013 17:49:30	0	0.004	0.079000004	0.239072785
CJ	CJ052813_176	CJ052813_176_31052013_175732.txt	1216900.221	2311801.876	5/31/2013	0	0.001672997	0.006930987	A	797.9	39.1	31-05-2013 17:57:32	0	0.007	0.028999999	0.238999575
CJ	CJ052813_177	CJ052813_177_31052013_180245.txt	1216751.887	2311731.8	5/31/2013	0	0.003587291	0.017458152	A	797.9	38.9	31-05-2013 18:02:45	0	0.015	0.072999999	0.239152759
CJ	CJ052813_178	CJ052813_178_31052013_180941.txt	1216742.094	2311929.088	5/31/2013	0	0.001202336	0	A	801.0	38.4	31-05-2013 18:09:41	0	0.005	-0.226999998	0.240467221
CJ	CJ052813_179	CJ052813_179_31052013_181526.txt	1216551.031	2311970.787	5/31/2013	0	0.001198002	0.007188009	A	797.6	38.2	31-05-2013 18:15:26	0	0.005	0.029999999	0.239600316
CJ	CJ052813_18	CJ052813_18_28052013_105841.txt	1214546.479	2309367.625	5/28/2013	0	0.000710864	0.509689748	A	789.3	38.4	28-05-2013 10:58:41	0	0.003	2.151000023	0.236954778
CJ	CJ052813_180	CJ052813_180_31052013_182410.txt	1216573.92	2311732.578	5/31/2013	0.561958373	0.000239437	1.076268792	A	796.8	38.1	31-05-2013 18:24:10	2.346999884	0.001	4.494999886	0.239436895
CJ	CJ052813_181	CJ052813_181_31052013_183005.txt	1216715.635	2311595.855	5/31/2013	0	0.001444271	0.004092101	A	801.3	38.2	31-05-2013 18:30:05	0	0.006	0.017000001	0.240711808
CJ	CJ052813_182	CJ052813_182_31052013_183601.txt	1216485.561	2311541.351	5/31/2013	0	0.00168312	0.109883673	A	799.9	38.0	31-05-2013 18:36:01	0	0.007	0.456999987	0.240445688
CJ	CJ052813_183	CJ052813_183_31052013_184023.txt	1216371.634	2311529.496	5/31/2013	0	0.001205859	0.016158514	A	801.8	37.8	31-05-2013 18:40:23	0	0.005	0.067000002	0.241171837
CJ	CJ052813_184	CJ052813_184_31052013_184536.txt	1216351.224	2311367	5/31/2013	0	0.001205669	0.102964118	A	800.9	37.5	31-05-2013 18:45:36	0	0.005	0.426999986	0.241133779
CJ	CJ052813_19	CJ052813_19_28052013_110556.txt	1214654.682	2309350.564	5/28/2013	1.289700747	0.001188445	11.72686481	A	792.0	38.5	28-05-2013 11:05:56	5.426000118	0.005	49.3370018	0.237689048
CJ	CJ052813_20	CJ052813_20_28052013_111744.txt	1214758.568	2309550.299	5/28/2013	0.652546346	0.000952622	0.566810369	A	793.3	38.4	28-05-2013 11:17:44	2.74000001	0.004	2.380000114	0.238155603
CJ	CJ052813_21	CJ052813_21_28052013_112233.txt	1214741.076	2309378.314	5/28/2013	0	0.000716758	0	A	796.1	38.5	28-05-2013 11:22:33	0	0.003	-0.147	0.238919497
CJ	CJ052813_22	CJ052813_22_28052013_113000.txt	1214664.503	2309273.487	5/28/2013	0.253426492	0.000713877	0.497810543	A	792.9	38.5	28-05-2013 11:30:00	1.065000057	0.003	2.092000008	0.237959146
CJ	CJ052813_23	CJ052813_23_28052013_113401.txt	1214751.76	2309175.398	5/28/2013	0	0.000475978	0.141603559	A	793.0	38.5	28-05-2013 11:34:01	0	0.002	0.595000029	0.237989157
CJ	CJ052813_24	CJ052813_24_28052013_114210.txt	1214546.613	2309167.572	5/28/2013	0	0.000714197	0.051184092	A	793.0	38.4	28-05-2013 11:42:10	0	0.003	0.215000004	0.238065541
CJ	CJ052813_25	CJ052813_25_28052013_115619.txt	1214352.169	2309123.075	5/28/2013	0	0.000712763	0.028272929	A	790.9	38.2	28-05-2013 11:56:19	0	0.003	0.119000003	0.237587631
CJ	CJ052813_26	CJ052813_26_28052013_121347.txt	1214149.233	2308961.928	5/28/2013	0	0.000708926	0	A	787.4	38.5	28-05-2013 12:13:47	0	0.003	-0.003	0.23630853
CJ	CJ052813_27	CJ052813_27_28052013_122230.txt	1214153.915	2308751.555	5/28/2013	0	0.000939288	0	A	783.2	38.8	28-05-2013 12:22:30	0	0.004	-0.07	0.234822005

APPENDIX B - FLUX METER DATA

AreaAbbrev	SitePt	Filename	Northing	Easting	Date	CH_4 flux	H_2S flux	CO_2 flux	ACCUMULATION CHAMBER	PRESSURE Hpa	TEMP DegC	TIME	CH_4 slope	H_2S slope	CO_2 slope	AcK
CJ	CJ052813_28	CJ052813_28_28052013_123117.txt	1213962.488	2308573.032	5/28/2013	0	0.000704193	0.017370086	A	783.9	39.2	28-05-2013 12:31:17	0	0.003	0.074000001	0.234730899
CJ	CJ052813_29	CJ052813_29_28052013_124035.txt	1213947.23	2308364.582	5/28/2013	0	0.001168191	0.023130186	A	781.5	39.7	28-05-2013 12:40:35	0	0.005	0.098999999	0.233638242
CJ	CJ052813_30	CJ052813_30_28052013_125000.txt	1213948.516	2308170.306	5/28/2013	0	0.00093336	0.135337144	A	781.5	40.1	28-05-2013 12:50:00	-0.013	0.004	0.579999983	0.233339906
CJ	CJ052813_31	CJ052813_31_28052013_130220.txt	1214117.317	2307945.1	5/28/2013	0	0.001164984	0.073160999	A	780.6	40.2	28-05-2013 13:02:20	0	0.005	0.31400001	0.232996807
CJ	CJ052813_32	CJ052813_32_28052013_131401.txt	1214174.264	2307750.253	5/28/2013	0	0.000699615	0.224343166	A	780.3	39.8	28-05-2013 13:14:01	0	0.003	0.962000012	0.233204946
CJ	CJ052813_33	CJ052813_33_28052013_131941.txt	1214359.292	2307780.014	5/28/2013	0	0.000698178	0	A	778.2	39.6	28-05-2013 13:19:41	0	0.003	-0.002	0.232726067
CJ	CJ052813_34	CJ052813_34_28052013_132715.txt	1214560.064	2307750.478	5/28/2013	0	0.001162806	0.005348907	A	777.4	39.5	28-05-2013 13:27:15	0	0.005	0.023	0.232561171
CJ	CJ052813_35	CJ052813_35_28052013_134003.txt	1214551.02	2308014.566	5/28/2013	0	0.001162648	0.035344496	A	776.3	39.1	28-05-2013 13:40:03	0	0.005	0.151999995	0.232529595
CJ	CJ052813_36	CJ052813_36_28052013_134536.txt	1214362.434	2307961.076	5/28/2013	0	0.000934791	0.017527329	A	779.7	38.9	28-05-2013 13:45:36	0	0.004	0.075000003	0.233697712
CJ	CJ052813_37	CJ052813_37_28052013_135218.txt	1214355.437	2308181.947	5/28/2013	0	0.000936889	0.029277796	A	781.2	38.8	28-05-2013 13:52:18	0	0.004	0.125	0.234222367
CJ	CJ052813_38	CJ052813_38_28052013_135828.txt	1214171.228	2308180.689	5/28/2013	0	0.000234627	0.116609812	A	782.3	38.7	28-05-2013 13:58:28	0	0.001	0.497000009	0.234627381
CJ	CJ052813_39	CJ052813_39_28052013_140434.txt	1214167.579	2308364.769	5/28/2013	0	0.000939411	0.784173012	A	782.8	38.6	28-05-2013 14:04:34	0	0.004	3.338999987	0.234852657
CJ	CJ052813_40	CJ052813_40_28052013_141204.txt	1214382.384	2308337.087	5/28/2013	0	0.001177269	0.081231534	A	784.3	38.4	28-05-2013 14:12:04	0	0.005	0.344999999	0.235453725
CJ	CJ052813_41	CJ052813_41_28052013_142332.txt	1214387.497	2308607.114	5/28/2013	0	0.000707132	0.157454759	A	784.4	38.1	28-05-2013 14:23:32	0	0.003	0.667999983	0.235710725
CJ	CJ052813_42	CJ052813_42_28052013_143432.txt	1214145.753	2308566.486	5/28/2013	0	0	0.002364478	A	786.6	38.0	28-05-2013 14:34:32	0	-0.001	0.01	0.236447781
CJ	CJ052813_43	CJ052813_43_28052013_144206.txt	1214355.445	2308804.872	5/28/2013	0	0.000706277	0.193755403	A	783.2	38.0	28-05-2013 14:42:06	0	0.003	0.823000014	0.235425755
CJ	CJ052813_44	CJ052813_44_28052013_144808.txt	1214361.477	2308958.244	5/28/2013	0	0.000473048	0.096265189	A	786.6	37.9	28-05-2013 14:48:08	0	0.002	0.407000005	0.236523807
CJ	CJ052813_45	CJ052813_45_28052013_145822.txt	1214654.333	2308940.509	5/28/2013	0	0.00141617	0.285122275	A	784.7	37.8	28-05-2013 14:58:22	0	0.006	1.207999945	0.236028373
CJ	CJ052813_46	CJ052813_46_28052013_150210.txt	1214748.303	2308972.877	5/28/2013	0	0.000948204	0	A	788.1	37.8	28-05-2013 15:02:10	0	0.004	-0.015	0.23705104
CJ	CJ052813_47	CJ052813_47_29052013_102523.txt	1214637.58	2308826.841	5/29/2013	0	0	0.107039906	A	787.1	27.4	29-05-2013 10:25:23	0	0	0.437000006	0.244942576
CJ	CJ052813_48	CJ052813_48_29052013_103843.txt	1214739.823	2308754.801	5/29/2013	0	0.000242392	0.068112038	A	785.9	30.1	29-05-2013 10:38:43	-0.140000001	0.001	0.280999988	0.242391616
CJ	CJ052813_49	CJ052813_49_29052013_104711.txt	1214735.383	2308563.885	5/29/2013	0	0.005297303	0	A	784.3	31.5	29-05-2013 10:47:11	0	0.022	-0.578000009	0.240786508
CJ	CJ052813_50	CJ052813_50_29052013_105808.txt	1214587.17	2308601.586	5/29/2013	0	0.00071929	0.139542297	A	784.3	32.8	29-05-2013 10:58:08	-2.15199995	0.003	0.582000017	0.239763394
CJ	CJ052813_51	CJ052813_51_29052013_110526.txt	1214588.055	2308372.028	5/29/2013	0	0.002152945	0.066262856	A	784.3	33.5	29-05-2013 11:05:26	0	0.009	0.27700001	0.239216074
CJ	CJ052813_52	CJ052813_52_29052013_111319.txt	1214752.967	2308370.121	5/29/2013	0	0.000715475	0.050798733	A	783.2	34.0	29-05-2013 11:13:19	0	0.003	0.213	0.238491699
CJ	CJ052813_53	CJ052813_53_29052013_111855.txt	1214951.002	2308354.008	5/29/2013	0	0.001666729	1.054324985	A	783.2	34.5	29-05-2013 11:18:55	0	0.007	4.427999973	0.238104105
CJ	CJ052813_54	CJ052813_54_29052013_112449.txt	1214964.209	2308171.317	5/29/2013	0	0.001188519	0.061327584	A	782.9	34.9	29-05-2013 11:24:49	-0.050999999	0.005	0.257999986	0.23770383
CJ	CJ052813_55	CJ052813_55_29052013_113219.txt	1214752.157	2308140.116	5/29/2013		0.001656987	0.094448239	A	780.9	35.4	29-05-2013 11:32:19		0.007	0.398999989	0.236712381
CJ	CJ052813_56	CJ052813_56_29052013_115004.txt	1214567.639	2308174.635	5/29/2013	0	0.000709538	0.047066033	A	781.0	35.7	29-05-2013 11:50:04	0	0.003	0.199000001	0.236512735
CJ	CJ052813_57	CJ052813_57_29052013_120928.txt	1214761.215	2307566.275	5/29/2013	0	0.001888445	1.506742835	A	780.5	36.1	29-05-2013 12:09:28	0	0.008	6.382999897	0.236055598
CJ	CJ052813_58	CJ052813_58_29052013_122942.txt	1214549.311	2307545.621	5/29/2013	0	0.000708167	0.09229774	A	780.5	36.1	29-05-2013 12:29:42	0	0.003	0.391000003	0.236055598
CJ	CJ052813_59	CJ052813_59_29052013_123926.txt	1214733.607	2307366.566	5/29/2013	0	0.000708167	0.01770417	A	780.5	36.1	29-05-2013 12:39:26	0	0.003	0.075000003	0.236055598
CJ	CJ052813_60	CJ052813_60_29052013_124534.txt	1214756.499	2307161.794	5/29/2013	0	0.000466183	0.291131496	A	770.7	36.1	29-05-2013 12:45:34	0	0.002	1.248999953	0.233091667
CJ	CJ052813_61	CJ052813_61_29052013_125333.txt	1214922.536	2307141.943	5/29/2013	0	0.000465186	0	A	769.3	36.2	29-05-2013 12:53:33	0	0.002	-0.067000002	0.232593045
CJ	CJ052813_62	CJ052813_62_29052013_125859.txt	1214896.56	2307231.018	5/29/2013	7.381280422	0.000232518	2.5923419	A	769.3	36.3	29-05-2013 12:58:59	31.74500084	0.001	11.14900017	0.232517883
CJ	CJ052813_63	CJ052813_63_29052013_130620.txt	1215151.46	2306985.366	5/29/2013	0	0.000464917	0	A	769.6	36.5	29-05-2013 13:06:20	0	0.002	-0.259000003	0.232458308
CJ	CJ052813_64	CJ052813_64_29052013_131706.txt	1215370.636	2306992.608	5/29/2013	0	0.00023163	11.89882278	A	767.6	36.8	29-05-2013 13:17:06	0	0.001	51.36999893	0.231629804
CJ	CJ052813_65	CJ052813_65_29052013_133452.txt	1215543.597	2306951.09	5/29/2013	0.341584295	0.000232055	0	A	770.0	37.2	29-05-2013 13:34:52	1.472000003	0.001	-0.774999976	0.232054546
CJ	CJ052813_66	CJ052813_66_29052013_134845.txt	1215497.607	2307116.117	5/29/2013	0	0.00046667	0.008166732	A	774.0	37.1	29-05-2013 13:48:45	0	0.002	0.035	0.233335212
CJ	CJ052813_67	CJ052813_67_29052013_140745.txt	1215347.624	2307147.706	5/29/2013	0	0.000700503	0	A	774.3	37.0	29-05-2013 14:07:45	0	0.003	-0.054000001	0.233500913
CJ	CJ052813_68	CJ052813_68_29052013_141620.txt	1215149.646	2307203.828	5/29/2013	0	0.000232522	5.946287155	A	771.8	37.3	29-05-2013 14:16:20	0	0.001	25.57299995	0.232522085
CJ	CJ052813_69	CJ052813_69_29052013_142446.txt	1215150.702	2307394.448	5/29/2013	0	0.000232372	0.470786452	A	771.8	37.5	29-05-2013 14:24:46	-6.256999969	0.001	2.026000023	0.232372388
CJ	CJ052813_70	CJ052813_70_29052013_143143.txt	1215351.55	2307373.021	5/29/2013	0	0.000232825	0.00698474	A	773.8	37.7	29-05-2013 14:31:43	0	0.001	0.029999999	0.232824653
CJ	CJ052813_71	CJ052813_71_29052013_143803.txt	1215342.258	2307571.89	5/29/2013	0	0.004415976	0.077860638	A	773.2	38.0	29-05-2013 14:38:03	0	0.018999999	0.335000008	0.232419819
CJ	CJ052813_72	CJ052813_72_29052013_144333.txt	1215138.733	2307574.776	5/29/2013	0	0.002557789	1.621870756	A	774.3	38.3	29-05-2013 14:43:33	0	0.011	6.974999905	0.232526273
CJ	CJ052813_73	CJ052813_73_29052013_145436.txt	1214930.217	2307578.411	5/29/2013	0	0.000928668	0	A	773.6	38.5	29-05-2013 14:54:36	0	0.004	-1.616999984	0.232166976
CJ	CJ052813_74	CJ052813_74_29052013_151411.txt	1214933.601	2307379.211	5/29/2013	0	0.00116009	0.119953357	A	773.6	38.7	29-05-2013 15:14:11	0	0.005	0.51700002	0.232018083
CJ	CJ052813_75	CJ052813_75_29052013_153718.txt	1214749.499	2307799.395	5/29/2013	0	0.000698293	0.009543344	A	773.6	37.7	29-05-2013 15:37:18	0	0.003	0.041000001	0.232764482
CJ	CJ052813_76	CJ052813_76_29052013_154743.txt	1214983.438	2307756.906	5/29/2013	0	0.000700369	0.135404631	A	775.4	37.5	29-05-2013 15:47:43	0	0.003	0.579999983	0.233456269
CJ	CJ052813_77	CJ052813_77_29052013_155621.txt	1215172.381	2307761.983	5/29/2013	0	0.00070204	0.015444872	A	777.5	37.6	29-05-2013 15:56:21	0	0.003	0.066	0.234013215
CJ	CJ052813_78	CJ052813_78_29052013_160440.txt	1214943.51	2307966.266	5/29/2013	0	0.000700956	0	A	776.8	37.8	29-05-2013 16:04:40	0	0.003	-0.160999998	0.233652145
CJ	CJ052813_79	CJ052813_79_29052013_161310.txt	1214714.273	2307985.133	5/29/2013	0	0.000702625	0.00304471	A	778.9	37.9	29-05-2013 16:13:10	0	0.003	0.013	0.23420848
CJ	CJ052813_80	CJ052813_80_30052013_095319.txt	1215186.851	2310295.504	5/30/2013	0	0.001744299	0.613993168	A	801.8	27.8	30-05-2013 09:53:19	0	0.007	2.463999987	0.249185532
CJ	CJ052813_81	CJ052813_81_30052013_095907.txt	1215159.296	2310353.086	5/30/2013	0	0.003475893	0.180001587	A	801.8	28.9	30-05-2013 09:59:07	0	0.014	0.725000024	0.248278052
CJ	CJ052813_82	CJ052813_82_30052013_101007.txt	1214965.082	2310361.408	5/30/2013	0.803264499	0	0.955620527	A	802.2	30.7	30-05-2013 10:10:07	3.253000021	-0.004	3.869999886	0.246930376
CJ	CJ052813_83	CJ052813_83_30052013_101421.txt	1214906.744	2310342.48	5/30/2013	72.79386902	0.231450036	1.543739676	A	802.6	31.4	30-05-2013 10:14:21	295.3269958	0.93900001	6.263000011	0.246485665
CJ	CJ052813_84	CJ052813_84_30052013_102231.txt	1214741.448	2310283.028	5/30/2013	0	0	0.201029345	A	802.4	32.6	30-05-2013 10:22:31	0	-0.003	0.819000006	0.245457083

APPENDIX B - FLUX METER DATA

AreaAbbrev	SitePt	Filename	Northing	Easting	Date	CH_4 flux	H_2S flux	CO_2 flux	ACCUMULATION CHAMBER	PRESSURE Hpa	TEMP DegC	TIME	CH_4 slope	H_2S slope	CO_2 slope	AcK
CJ	CJ052813_85	CJ052813_85_30052013_102715.txt	1214532.616	2310343.574	5/30/2013	0	0	0.172342613	A	802.1	33.3	30-05-2013 10:27:15	0	-0.004	0.703999996	0.244804844
CJ	CJ052813_86	CJ052813_86_30052013_103240.txt	1214391.019	2310331.93	5/30/2013	2.573126316	0	0.090405166	A	802.4	34.0	30-05-2013 10:32:40	10.53100014	-0.004	0.370000005	0.244338274
CJ	CJ052813_87	CJ052813_87_30052013_103719.txt	1214146.692	2310342.224	5/30/2013	0	0	0.270355016	A	802.4	34.7	30-05-2013 10:37:19	0	-0.007	1.108999968	0.243782699
CJ	CJ052813_88	CJ052813_88_30052013_105753.txt	1215344.091	2310580.87	5/30/2013	0	0	0.007030872	A	802.4	36.4	30-05-2013 10:57:53	0	-0.001	0.028999999	0.242443874
CJ	CJ052813_89	CJ052813_89_30052013_110150.txt	1215158.29	2310590.48	5/30/2013	0	0.001455859	0.157960668	A	802.8	36.3	30-05-2013 11:01:50	0	0.006	0.651000023	0.242643118
CJ	CJ052813_90	CJ052813_90_30052013_110700.txt	1214945.795	2310571.709	5/30/2013	0	0.000485443	0.553162456	A	802.8	36.2	30-05-2013 11:07:00	0	0.002	2.279000044	0.242721558
CJ	CJ052813_91	CJ052813_91_30052013_111115.txt	1214730.119	2310535	5/30/2013	0	0.00024274	0.036410935	A	802.6	36.1	30-05-2013 11:11:15	0	0.001	0.150000006	0.242739558
CJ	CJ052813_92	CJ052813_92_30052013_111606.txt	1214515.328	2310528.885	5/30/2013	0	0	0.19272092	A	802.8	36.2	30-05-2013 11:16:06	0	0	0.79400003	0.242721558
CJ	CJ052813_93	CJ052813_93_30052013_112028.txt	1214353.145	2310565.57	5/30/2013	0	0.000242517	0.057961468	A	802.9	36.5	30-05-2013 11:20:28	0	0.001	0.238999993	0.242516607
CJ	CJ052813_94	CJ052813_94_30052013_112447.txt	1214151.338	2310604.022	5/30/2013	0	0.000484443	0.014048847	A	802.7	36.8	30-05-2013 11:24:47	0	0.002	0.057999998	0.242221519
CJ	CJ052813_95	CJ052813_95_30052013_113050.txt	1214146.76	2310764.391	5/30/2013	0	0.000483251	0.02657881	A	801.5	37.1	30-05-2013 11:30:50	0	0.002	0.109999999	0.241625547
CJ	CJ052813_96	CJ052813_96_30052013_113908.txt	1214366.468	2310765.993	5/30/2013	0	0.000241452	0.058190018	A	801.7	37.4	30-05-2013 11:39:08	0	0.001	0.240999997	0.241452366
CJ	CJ052813_97	CJ052813_97_30052013_114400.txt	1214548.422	2310770.595	5/30/2013	0	0.000482474	0.006272156	A	801.5	37.6	30-05-2013 11:44:00	0	0.002	0.026000001	0.241236761
CJ	CJ052813_98	CJ052813_98_30052013_114843.txt	1214754.229	2310764.571	5/30/2013	0	0.000964326	0.007955693	A	801.5	37.8	30-05-2013 11:48:43	0	0.004	0.033	0.24108161
CJ	CJ052813_99	CJ052813_99_30052013_115441.txt	1214994.01	2310726.864	5/30/2013	0	0.000481853	0	A	801.5	38.0	30-05-2013 11:54:41	0	0.002	-0.063000001	0.240926638
CJ	CJ061313_01	CJ061313_01_13062013_093118.txt	1214930.333	2309739.368	6/13/2013	0	0.001026115	0.552049637	A	807.6	21.3	13-06-2013 09:31:18	0	0.004	2.15199995	0.256528646
CJ	CJ061313_02	CJ061313_02_13062013_093516.txt	1214890.283	2309561.676	6/13/2013	0	0.002804827	0.181548789	A	807.1	22.9	13-06-2013 09:35:16	0	0.011	0.712000012	0.25498426
CJ	CJ061313_03	CJ061313_03_13062013_093831.txt	1214849.641	2309395.284	6/13/2013	0	0.000759399	3.457038164	A	805.3	24.4	13-06-2013 09:38:31	0	0.003	13.65699959	0.253133059
CJ	CJ061313_04	CJ061313_04_13062013_101522.txt	1215800.387	2306760.478	6/13/2013	0	0	0	A	791.0	29.6	13-06-2013 10:15:22	0	0	-0.138999999	0.244367495
CJ	CJ061313_05	CJ061313_05_13062013_102039.txt	1215732.719	2306960.762	6/13/2013	0	0.001214861	0.077994101	A	790.9	31.3	13-06-2013 10:20:39	0	0.005	0.32100001	0.24297227
CJ	CJ061313_06	CJ061313_06_13062013_102535.txt	1215716.986	2307141.389	6/13/2013	0	0.005566422	0.370288044	A	790.9	32.5	13-06-2013 10:25:35	0	0.023	1.529999971	0.242018342
FED	FED060313_01	FED060313_1_03062013_110129.txt	1219715.296	2319933.137	6/3/2013	0	0.000242725	0.810944319	A	787.5	30.3	03-06-2013 11:01:29	0	0.001	3.34100008	0.242725015
FED	FED060313_02	FED060313_2_03062013_110447.txt	1219718.749	2319983.65	6/3/2013	0	0.000241769	0	A	787.5	31.5	03-06-2013 11:04:47	0	0.001	-0.046	0.241768926
FED	FED060313_03	FED060313_3_03062013_110753.txt	1219718.636	2320039.922	6/3/2013	0.010360735	0.000722842	0.108426295	A	787.4	32.5	03-06-2013 11:07:53	0.043000001	0.003	0.449999988	0.240947336
FED	FED060313_04	FED060313_4_03062013_111104.txt	1219716.528	2320081.455	6/3/2013	0	0.000240131	0.016809177	A	787.3	33.5	03-06-2013 11:11:04	0	0.001	0.07	0.240131095
FED	FED060313_05	FED060313_5_03062013_111409.txt	1219720.104	2320138.121	6/3/2013	0	0	0.039308961	A	787.9	34.3	03-06-2013 11:14:09	0	0	0.164000005	0.239688784
FED	FED060313_06	FED060313_6_03062013_111720.txt	1219776.155	2320133.154	6/3/2013	0	0	0.46094805	A	788.1	35.0	03-06-2013 11:17:20	0	0	1.927000046	0.239205003
FED	FED060313_07	FED060313_7_03062013_112024.txt	1219769.325	2320082.485	6/3/2013	0	0.000238481	0.047934711	A	787.5	35.7	03-06-2013 11:20:24	0	0.001	0.201000005	0.238481149
FED	FED060313_08	FED060313_8_03062013_112315.txt	1219770.053	2320034.78	6/3/2013	0	0	0.002856423	A	787.3	36.2	03-06-2013 11:23:15	0	-0.001	0.012	0.238035232
FED	FED060313_09	FED060313_9_03062013_112634.txt	1219778.939	2319987.225	6/3/2013	0	0.001425447	0.086477093	A	787.3	36.8	03-06-2013 11:26:34	0	0.006	0.363999993	0.237574443
FED	FED060313_10	FED060313_10_03062013_112916.txt	1219775.049	2319939.325	6/3/2013	0	0.000711666	0.062152147	A	787.4	37.3	03-06-2013 11:29:16	0	0.003	0.261999995	0.237221941
FED	FED060313_11	FED060313_11_03062013_113156.txt	1219824.236	2319934.132	6/3/2013	0	0.000947306	0.031971566	A	787.1	37.7	03-06-2013 11:31:56	0	0.004	0.135000005	0.23682642
FED	FED060313_12	FED060313_12_03062013_113445.txt	1219820.59	2319984.595	6/3/2013	0	0.000945848	0.015133566	A	786.9	38.1	03-06-2013 11:34:45	0	0.004	0.064000003	0.236461967
FED	FED060313_13	FED060313_13_03062013_113740.txt	1219826.503	2320035.186	6/3/2013	0	0.000236219	0.003543277	A	787.1	38.5	03-06-2013 11:37:40	0	0.001	0.015	0.236218497
FED	FED060313_14	FED060313_14_03062013_114043.txt	1219826.126	2320093.102	6/3/2013	0	0.000471831	0	A	787.1	38.9	03-06-2013 11:40:43	0	0.002	-0.097000003	0.235915691
FED	FED060313_15	FED060313_15_03062013_114359.txt	1219819.219	2320144.162	6/3/2013	0	0.000235703	0	A	787.4	39.3	03-06-2013 11:43:59	0	0.001	-0.224000007	0.235703483
FED	FED060313_16	FED060313_16_03062013_114737.txt	1219875.467	2320141.79	6/3/2013	0	0.001176413	0	A	787.0	39.7	03-06-2013 11:47:37	0	0.005	-0.141000003	0.235282525
FED	FED060313_17	FED060313_17_03062013_115022.txt	1219872.147	2320089.972	6/3/2013	0	0.000470114	0.006816657	A	787.0	40.0	03-06-2013 11:50:22	0	0.002	0.028999999	0.23505713
FED	FED060313_18	FED060313_18_03062013_115320.txt	1219870.931	2320034.499	6/3/2013	0	0.000469515	0	A	787.0	40.4	03-06-2013 11:53:20	0	0.002	-0.074000001	0.234757259
FED	FED060313_19	FED060313_19_03062013_115640.txt	1219870.674	2319989.837	6/3/2013	0	0.001172291	0.014770865	A	787.0	40.8	03-06-2013 11:56:40	0	0.005	0.063000001	0.234458163
FED	FED060313_20	FED060313_20_03062013_115956.txt	1219881.809	2319948.36	6/3/2013	0	0.00046826	0	A	786.9	41.2	03-06-2013 11:59:56	0	0.002	-0.116999999	0.23413007
FED	FED060313_21	FED060313_21_03062013_120259.txt	1219922.104	2319943.931	6/3/2013	0	0	0	A	786.9	41.6	03-06-2013 12:02:59	0	0	-0.097999997	0.233832523
FED	FED060313_22	FED060313_22_03062013_120543.txt	1219918.816	2319986.139	6/3/2013	0	0.000467368	0.03248208	A	786.9	41.8	03-06-2013 12:05:43	0	0.002	0.138999999	0.233684033
FED	FED060313_23	FED060313_23_03062013_120840.txt	1219926.907	2320038.565	6/3/2013	0	0.000933847	0	A	786.9	42.1	03-06-2013 12:08:40	0	0.004	-0.052000001	0.233461648
FED	FED060313_24	FED060313_24_03062013_121116.txt	1219920.698	2320087.339	6/3/2013	0	0.003033077	0.123189598	A	786.9	42.3	03-06-2013 12:11:16	0	0.013	0.527999997	0.233313635
FED	FED060313_25	FED060313_25_03062013_121407.txt	1219927.571	2320135.691	6/3/2013	0	0.003030385	0.074360989	A	786.7	42.5	03-06-2013 12:14:07	0	0.013	0.319000006	0.233106539
FR	FR061314_49	FR061314_49_17062013_102649.txt	1235344.367	2332197.593	6/17/2013	0	0	0.153848007	A	790.1	30.9	17-06-2013 10:26:49	-3.569000006	-0.005	0.633000016	0.243045822
FR	FR061314_50	FR061314_50_17062013_103244.txt	1235532.354	2332185.552	6/17/2013	0	0	0.128191784	A	790.1	31.8	17-06-2013 10:32:44	0	0	0.528999984	0.242328525
FR	FR061314_51	FR061314_51_17062013_103918.txt	1235761.248	2332262.803	6/17/2013	0	0.000241379	0.036448181	A	790.1	33.0	17-06-2013 10:39:18	0	0.001	0.150999993	0.24137868
FR	FR061314_52	FR061314_52_17062013_104436.txt	1235554.739	2332340.072	6/17/2013	3.68535614	0.000240684	0.85322541	A	790.4	34.0	17-06-2013 10:44:36	15.31200027	0.001	3.545000076	0.240684167
FR	FR061314_53	FR061314_53_17062013_104732.txt	1235575.837	2332347.802	6/17/2013	0	0.006007325	0.997215986	A	790.4	34.5	17-06-2013 10:47:32	0	0.025	4.150000095	0.240292996
FR	FR061314_54	FR061314_54_17062013_105105.txt	1235531.63	2332451.097	6/17/2013	0	0.001918117	0.418389231	A	790.2	35.1	17-06-2013 10:51:05	0	0.008	1.745000005	0.239764601
FR	FR061314_55	FR061314_55_17062013_105359.txt	1235559.367	2332460.04	6/17/2013	0	0.002395145	0.326458246	A	790.4	35.5	17-06-2013 10:53:59	0	0.01	1.363000035	0.23951447
FR	FR061314_56	FR061314_56_17062013_110241.txt	1235324.061	2332474.675	6/17/2013	0	0.000477791	0.129959032	A	790.4	36.3	17-06-2013 11:02:41	0	0.002	0.54400003	0.238895267
FR	FR061314_57	FR061314_57_17062013_110625.txt	1235129.295	2332543.01	6/17/2013	0	0.002864329	0.1697115	A	790.5	36.6	17-06-2013 11:06:25	0	0.012	0.711000025	0.238694087
FR	FR061314_58	FR061314_58_17062013_110957.txt	1235144.525	2332358.913	6/17/2013	0	0.002384631	0.062477339	A	790.5	36.9	17-06-2013 11:09:57	0	0.01	0.261999995	0.238463134
FR	FR061314_59	FR061314_59_17062013_111453.txt	1235136.931	2332166.86	6/17/2013	0	0.006433095	0.609476149	A	790.6	37.2	17-06-2013 11:14:53	0	0.027000001	2.558000088	0.238262758

APPENDIX B - FLUX METER DATA

AreaAbbrev	SitePt	Filename	Northing	Easting	Date	CH_4 flux	H_2S flux	CO_2 flux	ACCUMULATION CHAMBER	PRESSURE Hpa	TEMP DegC	TIME	CH_4 slope	H_2S slope	CO_2 slope	AcK
FR	FR061314_60	FR061314_60_17062013_111859.txt	1234950.793	2332165.672	6/17/2013	0	0.003806816	0.162503451	A	790.5	37.6	17-06-2013 11:18:59	0	0.016000001	0.683000028	0.237925977
FR	FR061314_61	FR061314_61_17062013_112301.txt	1234952.488	2332348.352	6/17/2013	0	0.002139268	0.272637874	A	790.5	37.9	17-06-2013 11:23:01	0	0.009	1.146999955	0.237696499
FR	FR061314_62	FR061314_62_17062013_112829.txt	1234940.847	2332563.826	6/17/2013	0	0	0	A	790.5	38.2	17-06-2013 11:28:29	0	-0.002	-0.261000007	0.237467468
FR	FR061314_63	FR061314_63_17062013_113434.txt	1235324.725	2332571.431	6/17/2013	0	0.000948467	0.019680686	A	790.6	38.7	17-06-2013 11:34:34	0	0.004	0.082999997	0.237116709
FR	FR061314_64	FR061314_64_17062013_113839.txt	1235541.516	2332598.198	6/17/2013	0	0.001658012	0.234253421	A	790.5	39.0	17-06-2013 11:38:39	0	0.007	0.989000022	0.23685886
FR	FR061314_65	FR061314_65_17062013_114816.txt	1235790.347	2332742.93	6/17/2013	0	0.000709351	0.01560571	A	790.4	39.5	17-06-2013 11:48:16	0	0.003	0.066	0.236450166
FR	FR061314_66	FR061314_66_17062013_115401.txt	1235740.322	2332943.597	6/17/2013	0	0.000471192	0.010366219	A	788.3	39.8	17-06-2013 11:54:01	0	0.002	0.044	0.235595882
FR	FR061314_67	FR061314_67_17062013_120041.txt	1235960.541	2332975.772	6/17/2013	0	0.001174091	0.244915366	A	786.2	40.0	17-06-2013 12:00:41	0	0.005	1.042999983	0.23481819
FR	FR061314_68	FR061314_68_17062013_120614.txt	1235940.421	2333186.082	6/17/2013	0	0.000469217	0.087509014	A	786.0	40.2	17-06-2013 12:06:14	0	0.002	0.372999996	0.23460862
FR	FR061314_69	FR061314_69_17062013_121313.txt	1235749.871	2333154.62	6/17/2013	0	0.00140389	0.00140389	A	784.4	40.4	17-06-2013 12:13:13	0	0.006	0.006	0.233981699
FR	FR061314_70	FR061314_70_17062013_121714.txt	1235562	2333153.977	6/17/2013	0	0.001875192	0.124231435	A	786.3	40.6	17-06-2013 12:17:14	0	0.008	0.529999971	0.234398946
FR	FR061314_71	FR061314_71_17062013_122221.txt	1235516.194	2332965.788	6/17/2013	0	0.000704	0	A	787.7	40.8	17-06-2013 12:22:21	0	0.003	-0.026000001	0.234666705
FR	FR061314_72	FR061314_72_17062013_122640.txt	1235556.142	2332733.376	6/17/2013	0	0.000937236	0.056234136	A	787.0	41.0	17-06-2013 12:26:40	0	0.004	0.239999995	0.234308898
FR	FR061314_73	FR061314_73_17062013_123118.txt	1235349.452	2332788.097	6/17/2013	0	0.000469331	0.071807683	A	788.7	41.2	17-06-2013 12:31:18	0	0.002	0.305999994	0.234665632
FR	FR061314_74	FR061314_74_17062013_123528.txt	1235151.099	2332786.421	6/17/2013	0	0.002346354	0.11849086	A	789.1	41.4	17-06-2013 12:35:28	0	0.01	0.504999995	0.234635368
FR	FR061413_01	FR061413_01_14062013_105018.txt	1234974.385	2331957.917	6/14/2013	0	0	0.478228778	A	788.4	30.3	14-06-2013 10:50:18	0	-0.006	1.968000054	0.243002415
FR	FR061413_02	FR061413_02_14062013_105653.txt	1234924.224	2331774.114	6/14/2013	0	0.001693849	0.245124206	A	788.7	31.7	14-06-2013 10:56:53	0	0.007	1.013000011	0.241978481
FR	FR061413_03	FR061413_03_14062013_110243.txt	1234730.264	2331778.617	6/14/2013	0	0	0.09052375	A	787.8	32.9	14-06-2013 11:02:43	0	-0.003	0.375999987	0.240754664
FR	FR061413_04	FR061413_04_14062013_110641.txt	1234525.664	2331753.867	6/14/2013	0	0.000720472	0.082374007	A	787.9	33.7	14-06-2013 11:06:41	-0.017000001	0.003	0.342999995	0.240157455
FR	FR061413_05	FR061413_05_14062013_111155.txt	1234548.92	2331543.594	6/14/2013	0	0.00047918	0.030907111	A	788.6	34.7	14-06-2013 11:11:55	0	0.002	0.128999993	0.239590019
FR	FR061413_06	FR061413_06_14062013_111727.txt	1234534.039	2331313.48	6/14/2013	0	0.000238316	0.096517995	A	786.7	35.6	14-06-2013 11:17:27	0	0.001	0.405000001	0.238316044
FR	FR061413_07	FR061413_07_14062013_112934.txt	1234556.102	2331160.55	6/14/2013	0	0.004498058	0.156248346	A	785.8	37.3	14-06-2013 11:29:34	0	0.018999999	0.660000026	0.236739904
FR	FR061413_08	FR061413_08_14062013_113400.txt	1234546.574	2330961.505	6/14/2013	0	0.000236117	0.517096519	A	785.5	38.0	14-06-2013 11:34:00	0	0.001	2.190000057	0.236117125
FR	FR061413_09	FR061413_09_14062013_113758.txt	1234545.713	2330757.909	6/14/2013	0	0.000471177	0.082691476	A	785.0	38.5	14-06-2013 11:37:58	0	0.002	0.351000011	0.235588253
FR	FR061413_10	FR061413_10_14062013_114240.txt	1234538.764	2330581.75	6/14/2013	0	0.000940364	0.380142212	A	784.6	39.0	14-06-2013 11:42:40	0	0.004	1.616999984	0.235091045
FR	FR061413_11	FR061413_11_14062013_114729.txt	1234547.482	2330370.135	6/14/2013	1.133799672	0	0.83703649	A	784.2	39.5	14-06-2013 11:47:29	4.833000183	-0.004	3.568000078	0.234595418
FR	FR061413_12	FR061413_12_14062013_115150.txt	1234396.87	2330559.02	6/14/2013	0	0.001169909	0.046328414	A	783.4	40.0	14-06-2013 11:51:50	0	0.005	0.197999999	0.233981892
FR	FR061413_13	FR061413_13_14062013_115646.txt	1234458.168	2330346.42	6/14/2013	0	0.00093533	0.101249494	A	783.9	40.4	14-06-2013 11:56:46	0	0.004	0.432999998	0.233832553
FR	FR061413_14	FR061413_14_14062013_120033.txt	1234344.266	2330353.984	6/14/2013	0	0.001400224	0.10898409	A	783.1	40.7	14-06-2013 12:00:33	0	0.006	0.467000008	0.233370632
FR	FR061413_15	FR061413_15_14062013_120541.txt	1234353.775	2330171.049	6/14/2013	0	0.000699489	0.055959087	A	783.4	41.1	14-06-2013 12:05:41	0	0.003	0.239999995	0.233162865
FR	FR061413_16	FR061413_16_14062013_121313.txt	1234344.507	2329965.591	6/14/2013	0	0.001626742	0.164998159	A	782.3	41.7	14-06-2013 12:13:13	0	0.007	0.709999979	0.232391775
FR	FR061413_17	FR061413_17_14062013_122054.txt	1234455.964	2329960.034	6/14/2013	0	0.003942884	0.274610251	A	782.0	42.2	14-06-2013 12:20:54	0	0.017000001	1.184000015	0.231934324
FR	FR061413_18	FR061413_18_14062013_122619.txt	1234444.442	2330167.715	6/14/2013	0	0.00046316	0.364738256	A	781.3	42.4	14-06-2013 12:26:19	0	0.002	1.575000048	0.23157984
FR	FR061413_19	FR061413_19_14062013_123046.txt	1234545.523	2329976.927	6/14/2013	0	0.002548527	0.061164647	A	781.9	42.5	14-06-2013 12:30:46	0	0.011	0.263999999	0.231684268
FR	FR061413_20	FR061413_20_14062013_123729.txt	1234546.548	2330162.766	6/14/2013	0	0	0.616574109	A	781.3	42.7	14-06-2013 12:37:29	0	0	2.664999962	0.231359884
FR	FR061413_21	FR061413_21_14062013_124245.txt	1234721.133	2330179.455	6/14/2013	0	0.002311403	0.085521929	A	781.3	43.0	14-06-2013 12:42:45	0	0.01	0.370000005	0.231140345
FR	FR061413_22	FR061413_22_14062013_124829.txt	1234693.9	2330347.408	6/14/2013	0	0.0036931	0.152571172	A	781.2	43.4	14-06-2013 12:48:29	-0.025	0.016000001	0.661000013	0.230818719
FR	FR061413_23	FR061413_23_14062013_125804.txt	1234706.534	2330565.48	6/14/2013	0	0.001385041	0.020313928	A	783.0	44.1	14-06-2013 12:58:04	0	0.006	0.088	0.230840087
FR	FR061413_24	FR061413_24_14062013_130255.txt	1234956.69	2330556.876	6/14/2013	0	0.002307673	0.219690531	A	783.0	44.2	14-06-2013 13:02:55	0	0.01	0.952000022	0.230767354
FR	FR061413_25	FR061413_25_14062013_130850.txt	1235156.675	2330779.019	6/14/2013	0	0.002766025	0.300113738	A	782.1	44.2	14-06-2013 13:08:50	0	0.012	1.302000046	0.230502099
FR	FR061413_26	FR061413_26_14062013_131354.txt	1234974.76	2330771.94	6/14/2013	0	0.002999976	0.083307013	A	783.0	44.2	14-06-2013 13:13:54	0	0.013	0.361000001	0.230767354
FR	FR061413_27	FR061413_27_14062013_131841.txt	1234772.353	2330766.952	6/14/2013	0	0.001614863	0.209240064	A	783.0	44.3	14-06-2013 13:18:41	0	0.007	0.907000005	0.230694667
FR	FR061413_28	FR061413_28_14062013_132254.txt	1234745.144	2330964.674	6/14/2013	0	0.002307536	0.095070474	A	783.2	44.3	14-06-2013 13:22:54	0	0.01	0.412	0.230753586
FR	FR061413_29	FR061413_29_14062013_132755.txt	1234961.871	2330944.212	6/14/2013	0.406948864	0.000461393	0.517452538	A	783.5	44.5	14-06-2013 13:27:55	1.764000058	0.002	2.243000031	0.230696633
FR	FR061413_30	FR061413_30_14062013_133218.txt	1235183.399	2330958.432	6/14/2013	0	0.003920341	0.122453012	A	783.2	44.5	14-06-2013 13:32:18	0	0.017000001	0.531000018	0.230608299
FR	FR061413_31	FR061413_31_14062013_133701.txt	1235136.301	2331194.336	6/14/2013	0	0.002996964	0.053023215	A	783.2	44.6	14-06-2013 13:37:01	0	0.013	0.230000004	0.230535716
FR	FR061413_32	FR061413_32_14062013_134021.txt	1235050.654	2331210.459	6/14/2013	1.109890938	0.001845589	1.289143682	A	784.0	44.7	14-06-2013 13:40:21	4.81099987	0.008	5.587999821	0.2306986
FR	FR061413_33	FR061413_33_14062013_134531.txt	1235150.416	2331375.169	6/14/2013	0	0.002075105	0.38942802	A	783.8	44.8	14-06-2013 13:45:31	0	0.009	1.68900001	0.230567202
FR	FR061413_34	FR061413_34_14062013_134935.txt	1234937.919	2331372.223	6/14/2013	0	0.006458792	0.270807952	A	784.4	44.9	14-06-2013 13:49:35	0	0.028000001	1.174000025	0.230671152
FR	FR061413_35	FR061413_35_14062013_135339.txt	1234962.4	2331147.467	6/14/2013	0	0.004614325	0.770823002	A	784.8	45.0	14-06-2013 13:53:39	0	0.02	3.34100008	0.230716243
FR	FR061413_36	FR061413_36_14062013_135715.txt	1234769.929	2331208.502	6/14/2013	0	0.009674694	0.129686981	A	783.8	45.1	14-06-2013 13:57:15	0	0.041999999	0.563000023	0.230349869
FR	FR061413_37	FR061413_37_14062013_141905.txt	1234730.843	2331395.076	6/14/2013	0	0.002765093	0.082722358	A	784.3	45.2	14-06-2013 14:19:05	0	0.012	0.358999997	0.230424404
FR	FR061413_38	FR061413_38_14062013_142401.txt	1234755.757	2331552.042	6/14/2013	0	0.00276493	0.111979641	A	784.5	45.3	14-06-2013 14:24:01	0	0.012	0.486000001	0.230410784
FR	FR061413_39	FR061413_39_14062013_142822.txt	1234956.396	2331493.751	6/14/2013	0	0.006448655	0.347306132	A	784.4	45.4	14-06-2013 14:28:22	0	0.028000001	1.508000016	0.230309099
FR	FR061413_40	FR061413_40_14062013_143501.txt	1235150.62	2331597.564	6/14/2013	0	0.004832508	0.125184968	A	784.0	45.5	14-06-2013 14:35:01	0	0.021	0.54400003	0.230119407
FR	FR061413_41	FR061413_41_14062013_143945.txt	1235153.399	2331795.57	6/14/2013	0	0.00230458	0.012444733	A	785.4	45.6	14-06-2013 14:39:45	0	0.01	0.054000001	0.230458006
FR	FR061413_42	FR061413_42_14062013_144634.txt	1235356.207	2331801.165	6/14/2013	100.2226791	0.013607528	1.357985258	A	786.5	45.8	14-06-2013 14:46:34	434.5490112	0.059	5.888000011	0.230636075

APPENDIX B - FLUX METER DATA

AreaAbbrev	SitePt	Filename	Northing	Easting	Date	CH_4 flux	H_2S flux	CO_2 flux	ACCUMULATION CHAMBER	PRESSURE Hpa	TEMP DegC	TIME	CH_4 slope	H_2S slope	CO_2 slope	AcK
FR	FR061413_43	FR061413_43_14062013_145037.txt	1235539.908	2331787.316	6/14/2013	0	0.005290831	0.071311198	A	784.7	45.9	14-06-2013 14:50:37	0	0.023	0.310000002	0.23003611
FR	FR061413_44	FR061413_44_14062013_145512.txt	1235557.522	2331953.351	6/14/2013	0	0.002068357	0.024360655	A	784.2	46.0	14-06-2013 14:55:12	0	0.009	0.105999999	0.229817495
FR	FR061413_45	FR061413_45_14062013_145927.txt	1235343.74	2331960.925	6/14/2013	0	0.001381015	0.218660712	A	785.4	46.0	14-06-2013 14:59:27	0	0.006	0.949999988	0.230169177
FR	FR061413_46	FR061413_46_14062013_150612.txt	1235145.991	2331979.134	6/14/2013	0	0.003221359	0.04809029	A	785.4	46.1	14-06-2013 15:06:12	0	0.014	0.209000006	0.23009707
FR	FR061413_47	FR061413_47_14062013_151321.txt	1235362.626	2331641.88	6/14/2013	0	0.00276625	0.071461461	A	786.6	46.0	14-06-2013 15:13:21	-0.017000001	0.012	0.310000002	0.230520844
FR	FR061413_48	FR061413_48_14062013_151925.txt	1235532.791	2331658.349	6/14/2013	0	0.014275939	0.023255967	A	785.7	46.0	14-06-2013 15:19:25	0	0.061999999	0.101000004	0.230257094
PR	PineRiver070313_01	PineRiver070313_01_03072013_090028.txt	1240382.427	2381368.577	7/3/2013	0	0.004382236	0.057699446	A	775.3	24.7	03-07-2013 09:00:28	0	0.017999999	0.237000003	0.243457571
PR	PineRiver070313_02	PineRiver070313_02_03072013_090617.txt	1240551.562	2381358.597	7/3/2013	0	0.012821463	0.080315575	A	775.3	26.6	03-07-2013 09:06:17	0	0.052999999	0.331999987	0.241914392
PR	PineRiver070313_03	PineRiver070313_03_03072013_091125.txt	1240760.615	2381359.143	7/3/2013	0	0.00264815	0.067648187	A	775.4	28.1	03-07-2013 09:11:25	0	0.011	0.280999988	0.24074088
PR	PineRiver070313_04	PineRiver070313_04_03072013_091724.txt	1240941.033	2381377.193	7/3/2013	0	0.011740222	0.258764088	A	775.3	29.5	03-07-2013 09:17:24	0	0.048999999	1.080000043	0.239596367
PR	PineRiver070313_05	PineRiver070313_05_03072013_092413.txt	1241124.743	2381383.961	7/3/2013	0	0.008569141	0.031420186	A	773.8	30.9	03-07-2013 09:24:13	0	0.035999998	0.131999999	0.238031715
PR	PineRiver070313_06	PineRiver070313_06_03072013_092816.txt	1241228.929	2381395.101	7/3/2013	0	0.008044166	0.029574139	A	771.4	31.8	03-07-2013 09:28:16	0	0.034000002	0.125	0.236593112
PR	PineRiver070313_07	PineRiver070313_07_03072013_093251.txt	1241152.995	2381562.235	7/3/2013	0	0.006126577	0.036288187	A	770.3	32.6	03-07-2013 09:32:51	0	0.026000001	0.153999999	0.235637575
PR	PineRiver070313_08	PineRiver070313_08_03072013_093842.txt	1240945.144	2381568.652	7/3/2013	0	0.006586174	0	A	771.2	33.5	03-07-2013 09:38:42	0	0.028000001	-0.005	0.235220492
PR	PineRiver070313_09	PineRiver070313_09_03072013_094347.txt	1240762.254	2381562.838	7/3/2013	0	0.003530314	0.441053867	A	773.4	34.2	03-07-2013 09:43:47	0	0.015	1.873999953	0.23535426
PR	PineRiver070313_10	PineRiver070313_10_03072013_094923.txt	1240632.32	2381571.836	7/3/2013	0.618666768	0.001648522	0.305918574	A	775.4	34.8	03-07-2013 09:49:23	2.627000093	0.007	1.299000025	0.235503137
PR	PineRiver070313_11	PineRiver070313_11_03072013_095219.txt	1240550.645	2381593.208	7/3/2013	0	0.003293822	0.024703665	A	775.9	35.3	03-07-2013 09:52:19	0	0.014	0.104999997	0.235273004
PR	PineRiver070313_12	PineRiver070313_12_03072013_095612.txt	1240327.099	2381558.456	7/3/2013	0	0.004466699	0	A	776.3	35.7	03-07-2013 09:56:12	0	0.018999999	-0.009	0.235089421
PR	PineRiver070313_13	PineRiver070313_13_03072013_102035.txt	1240342.18	2381765.545	7/3/2013	0	0.000700686	0.044843886	A	776.5	37.8	03-07-2013 10:20:35	0	0.003	0.192000002	0.233561903
PR	PineRiver070313_14	PineRiver070313_14_03072013_102433.txt	1240563.914	2381757.652	7/3/2013	0	0.005368471	0.054618355	A	776.5	38.0	03-07-2013 10:24:33	0	0.023	0.233999997	0.233411774
PR	PineRiver070313_15	PineRiver070313_15_03072013_103116.txt	1240753.828	2381777.602	7/3/2013	0	0.003491278	1.057158828	A	775.3	38.4	03-07-2013 10:31:16	0	0.015	4.541999817	0.232751846
PR	PineRiver070313_16	PineRiver070313_16_03072013_103518.txt	1240957.484	2381765.756	7/3/2013	0	0.00557742	0.226815104	A	774.6	38.6	03-07-2013 10:35:18	0	0.024	0.976000011	0.23239252
PR	PineRiver070313_17	PineRiver070313_17_03072013_104035.txt	1240741.466	2381944.86	7/3/2013	0	0.002782073	0.450000286	A	773.5	38.9	03-07-2013 10:40:35	0	0.012	1.940999985	0.231839404
PR	PineRiver070313_18	PineRiver070313_18_03072013_104625.txt	1240555.678	2381959.342	7/3/2013	0	0.005325119	0.308162302	A	773.2	39.2	03-07-2013 10:46:25	0	0.023	1.33099997	0.231526896
PR	PineRiver070313_19	PineRiver070313_19_03072013_105154.txt	1240336.427	2381969.974	7/3/2013	0	0.004169922	0.119769432	A	773.9	39.3	03-07-2013 10:51:54	0	0.017999999	0.51700002	0.231662333
PR	PineRiver070313_20	PineRiver070313_20_03072013_105630.txt	1240150.222	2381951.856	7/3/2013	0	0.002318432	0.069552965	A	775.0	39.5	03-07-2013 10:56:30	0	0.01	0.300000012	0.231843203
PR	PineRiver070313_21	PineRiver070313_21_03072013_110023.txt	1240138.637	2382152.666	7/3/2013	0	0.001161238	0.047378503	A	776.6	39.6	03-07-2013 11:00:23	0	0.005	0.203999996	0.232247576
PR	PineRiver070313_22	PineRiver070313_22_03072013_110522.txt	1240334.286	2382170.581	7/3/2013	0	0.002087816	0.040364448	A	776.2	39.8	03-07-2013 11:05:22	0	0.009	0.173999995	0.231979594
PR	PineRiver070313_23	PineRiver070313_23_03072013_112149.txt	1240548.337	2382164.774	7/3/2013	0	0.001843857	0.007375427	A	773.9	40.9	03-07-2013 11:21:49	0	0.008	0.032000002	0.230482072
PR	PineRiver070313_24	PineRiver070313_24_03072013_112737.txt	1240741.671	2382167.229	7/3/2013	0	0.001834849	0.085549809	A	771.1	41.3	03-07-2013 11:27:37	0	0.008	0.372999996	0.22935605
PR	PineRiver070313_25	PineRiver070313_25_03072013_113136.txt	1240761.552	2382333.136	7/3/2013	0	0.001603848	0.149616078	A	770.8	41.5	03-07-2013 11:31:36	0	0.007	0.652999997	0.229121104
PR	PineRiver070313_26	PineRiver070313_26_03072013_113722.txt	1240545.004	2382380.382	7/3/2013	0	0.000457892	0.071888998	A	770.7	41.7	03-07-2013 11:37:22	0	0.002	0.31400001	0.228945851
PR	PineRiver070313_27	PineRiver070313_27_03072013_114250.txt	1240325.357	2382353.976	7/3/2013	0	0.001835974	0.036719486	A	772.8	41.8	03-07-2013 11:42:50	0	0.008	0.159999996	0.229496792
PR	PineRiver070313_28	PineRiver070313_28_03072013_115155.txt	1240154.047	2382373.867	7/3/2013	0	0.001150008	0	A	774.5	41.8	03-07-2013 11:51:55	0	0.005	-0.057999998	0.230001628
PR	PineRiver070313_29	PineRiver070313_29_03072013_115949.txt	1239918.493	2382584.485	7/3/2013	0	0.000920482	0.09549997	A	774.9	41.8	03-07-2013 11:59:49	0	0.004	0.414999992	0.23012042
PR	PineRiver070313_30	PineRiver070313_30_03072013_120438.txt	1240146.565	2382570.231	7/3/2013	0	0.002068022	0.058134388	A	774.0	41.9	03-07-2013 12:04:38	0	0.009	0.252999991	0.229780197
PR	PineRiver070313_31	PineRiver070313_31_03072013_121012.txt	1240332.777	2382566.501	7/3/2013	0	0.00045894	0.101425678	A	773.2	42.0	03-07-2013 12:10:12	0	0.002	0.442000002	0.229469851
PR	PineRiver070313_32	PineRiver070313_32_03072013_121555.txt	1240544.885	2382567.657	7/3/2013	0	0.000687528	0.226425916	A	772.7	42.2	03-07-2013 12:15:55	0	0.003	0.987999976	0.22917603
PR	PineRiver070313_33	PineRiver070313_33_03072013_122121.txt	1240531.705	2382764.475	7/3/2013	0	0.001141976	0.119450703	A	770.8	42.5	03-07-2013 12:21:21	0	0.005	0.523000002	0.228395224
PR	PineRiver070313_34	PineRiver070313_34_03072013_122715.txt	1240540.182	2382991.213	7/3/2013	0	0.001594762	0.136238232	A	769.6	42.8	03-07-2013 12:27:15	0	0.007	0.59799999	0.227823123
PR	PineRiver070313_35	PineRiver070313_35_03072013_123210.txt	1240341.766	2382951.191	7/3/2013	0	0.000455088	0.002958071	A	768.9	42.9	03-07-2013 12:32:10	0	0.002	0.013	0.22754389
PR	PineRiver070313_36	PineRiver070313_36_03072013_123729.txt	1240352.781	2382770.154	7/3/2013	0	0.00068423	0.002052689	A	770.7	42.9	03-07-2013 12:37:29	0	0.003	0.009	0.228076577
PR	PineRiver070313_37	PineRiver070313_37_03072013_124156.txt	1240162.084	2382749.73	7/3/2013	0	0.000456475	0	A	771.0	42.8	03-07-2013 12:41:56	0	0.002	-0.082999997	0.228237569
PR	PineRiver070313_38	PineRiver070313_38_03072013_124618.txt	1239950.644	2382763.67	7/3/2013	0	0.000914424	0.024689443	A	772.0	42.7	03-07-2013 12:46:18	0	0.004	0.108000003	0.228605956
PR	PineRiver070313_39	PineRiver070313_39_03072013_125147.txt	1239935.48	2382978.31	7/3/2013	0	0.002517743	0.190661788	A	772.7	42.6	03-07-2013 12:51:47	0	0.011	0.833000004	0.228885695
PR	PineRiver070313_40	PineRiver070313_40_03072013_125640.txt	1240167.19	2382974.936	7/3/2013	0	0.000915069	0	A	772.3	42.6	03-07-2013 12:56:40	0	0.004	-0.014	0.228767216
PR	PineRiver070313_41	PineRiver070313_41_03072013_130218.txt	1240130.951	2383186.366	7/3/2013	0	0.000456916	0.060084425	A	771.5	42.7	03-07-2013 13:02:18	0	0.002	0.263000011	0.228457883
PR	PineRiver070313_42	PineRiver070313_42_03072013_130917.txt	1240130.677	2383186.078	7/3/2013	0	0	0.122862548	A	771.2	42.7	03-07-2013 13:09:17	0	0	0.537999988	0.228369057
PR	PineRiver070313_43	PineRiver070313_43_03072013_131351.txt	1240305.784	2383344.062	7/3/2013	0	0	0.146061882	A	769.5	42.7	03-07-2013 13:13:51	0	0	0.640999973	0.227865651
PR	PineRiver070313_44	PineRiver070313_44_03072013_131739.txt	1240150.661	2383368.529	7/3/2013	0	0.000227747	0.009337636	A	769.1	42.7	03-07-2013 13:17:39	0	0.001	0.041000001	0.227747202
PR	PineRiver070313_45	PineRiver070313_45_03072013_133405.txt	1240153.609	2383536.22	7/3/2013	0	0.00045639	0.065035559	A	771.1	42.9	03-07-2013 13:34:05	0	0.002	0.284999996	0.228194952
PR	PineRiver070313_46	PineRiver070313_46_03072013_132746.txt	1239967.307	2383583.919	7/3/2013	0	0.000684585	0.031034514	A	771.1	42.9	03-07-2013 13:27:46	0	0.003	0.136000007	0.228194952
PR	PineRiver070313_47	PineRiver070313_47_03072013_134113.txt	1239943.846	2383370.867	7/3/2013	0	0	0	A	771.1	43.1	03-07-2013 13:41:13	0	0	-0.050999999	0.228050634
PR	PineRiver070313_48	PineRiver070313_48_03072013_134523.txt	1239946.794	2383188.388	7/3/2013	0	0.000228025	0.056322105	A	771.5	43.3	03-07-2013 13:45:23	0	0.001	0.246999994	0.228024721
PR	PineRiver070313_49	PineRiver070313_49_03072013_134954.txt	1239771.695	2383165.656	7/3/2013	0	0.001823415	0.154534414	A	771.9	43.6	03-07-2013 13:49:54	0	0.008	0.677999973	0.227926865
PR	PineRiver070313_50	PineRiver070313_50_03072013_135524.txt	1239747.101	2383388.564	7/3/2013	0	0.001595101	0.005241046	A	772.2	43.8	03-07-2013 13:55:24	0	0.007	0.023	0.227871567
PR	PineRiver070313_51	PineRiver070313_51_03072013_135921.txt	1239742.321	2383530.193	7/3/2013	0	0.001595747	0.224316388	A	773.0	44.0	03-07-2013 13:59:21	0	0.007	0.984000027	0.227963805

APPENDIX B - FLUX METER DATA

AreaAbbrev	SitePt	Filename	Northing	Easting	Date	CH_4 flux	H_2S flux	CO_2 flux	ACCUMULATION CHAMBER	PRESSURE Hpa	TEMP DegC	TIME	CH_4 slope	H_2S slope	CO_2 slope	AcK
PR	PineRiver070913_01	PineRiver070913_01_09072013_104213.txt	1238135.845	2386768.763	7/9/2013	0	0.000730966	0.123776928	A	791.3	30.6	09-07-2013 10:42:13	0	0.003	0.508000016	0.243655369
PR	PineRiver070913_02	PineRiver070913_02_09072013_104642.txt	1237971.051	2386760.856	7/9/2013	0	0.001457135	0.465797514	A	791.3	31.6	09-07-2013 10:46:42	0	0.006	1.917999983	0.242855847
PR	PineRiver070913_03	PineRiver070913_03_09072013_105826.txt	1237738.309	2386759.477	7/9/2013	0	0.001446691	0.053527582	A	791.3	33.8	09-07-2013 10:58:26	0	0.006	0.222000003	0.241115227
PR	PineRiver070913_04	PineRiver070913_04_09072013_110454.txt	1237525.171	2386742.465	7/9/2013	0	0.002164513	0.309044391	A	791.6	34.7	09-07-2013 11:04:54	0	0.009	1.284999967	0.240501478
PR	PineRiver070913_05	PineRiver070913_05_09072013_111218.txt	1237799.5	2386939.025	7/9/2013	0	0.004563938	0.40066576	A	793.2	35.7	09-07-2013 11:12:18	0	0.018999999	1.667999983	0.2402073
PR	PineRiver070913_06	PineRiver070913_06_09072013_111552.txt	1237945.933	2386951.284	7/9/2013	0	0.001197063	0.319855362	A	791.6	36.1	09-07-2013 11:15:52	-0.007	0.005	1.335999966	0.239412695
PR	PineRiver070913_07	PineRiver070913_07_09072013_111949.txt	1238168.427	2386971.568	7/9/2013	0	0.00286759	0.109685324	A	791.4	36.6	09-07-2013 11:19:49	-0.002	0.012	0.458999991	0.238965854
PR	PineRiver070913_08	PineRiver070913_08_09072013_112404.txt	1238362.018	2386791.096	7/9/2013	0	0.004771012	0.195372939	A	791.3	37.1	09-07-2013 11:24:04	0	0.02	0.819000006	0.238550588
PR	PineRiver070913_09	PineRiver070913_09_09072013_112826.txt	1238552.036	2386760.567	7/9/2013	0	0.009047425	0.581654251	A	791.3	37.7	09-07-2013 11:28:26	0	0.037999999	2.443000078	0.238090143
PR	PineRiver070913_10	PineRiver070913_10_09072013_113215.txt	1238693.729	2386807.272	7/9/2013	0	0.010692796	0.362842172	A	791.0	38.2	09-07-2013 11:32:15	-0.021	0.045000002	1.52699995	0.237617671
PR	PineRiver070913_11	PineRiver070913_11_09072013_113750.txt	1238531.348	2386929.658	7/9/2013	0	0.010431019	0.399697661	A	791.2	39.0	09-07-2013 11:37:50	0	0.044	1.68599999	0.237068608
PR	PineRiver070913_12	PineRiver070913_12_09072013_114346.txt	1238313.107	2387007.11	7/9/2013	0	0.001655349	0.056045376	A	791.0	39.7	09-07-2013 11:43:46	-0.004	0.007	0.237000003	0.236478373
PR	PineRiver070913_13	PineRiver070913_13_09072013_114757.txt	1238356.043	2387146.017	7/9/2013	0	0.000236176	0.178549349	A	791.0	40.1	09-07-2013 11:47:57	-0.001	0.001	0.755999982	0.236176401
PR	PineRiver070913_14	PineRiver070913_14_09072013_115215.txt	1238151.287	2387160.211	7/9/2013	0	0.0040086	0.086538613	A	791.0	40.6	09-07-2013 11:52:15	0	0.017000001	0.367000014	0.235800028
PR	PineRiver070913_15	PineRiver070913_15_09072013_115624.txt	1237957.188	2387158.865	7/9/2013	0	0.004237647	0.283216089	A	791.0	41.1	09-07-2013 11:56:24	-0.007	0.017999999	1.202999949	0.235424846
PR	PineRiver070913_16	PineRiver070913_16_09072013_120345.txt	1237953.454	2387344.696	7/9/2013	0	0.009865867	1.287730575	A	791.0	41.8	09-07-2013 12:03:45	-0.001	0.041999999	5.481999874	0.234901607
PR	PineRiver070913_17	PineRiver070913_17_09072013_120743.txt	1238147.982	2387373.8	7/9/2013	0	0.000234737	0	A	791.2	42.1	09-07-2013 12:07:43	0	0.001	-0.028999999	0.234737396
PR	PineRiver070913_18	PineRiver070913_18_09072013_121155.txt	1238304.787	2387344.21	7/9/2013	0	0	0.188243508	A	790.9	42.4	09-07-2013 12:11:55	-0.005	-0.004	0.802999973	0.234425306
PR	PineRiver070913_19	PineRiver070913_19_09072013_121703.txt	1238349.244	2387581.655	7/9/2013	0	0.001873384	0.297868103	A	790.8	42.7	09-07-2013 12:17:03	0	0.008	1.271999955	0.234173045
PR	PineRiver070913_20	PineRiver070913_20_09072013_122212.txt	1238129.569	2387561.646	7/9/2013	0	0.000701675	0.111800216	A	790.6	43.0	09-07-2013 12:22:12	0	0.003	0.477999985	0.233891666
PR	PineRiver070913_21	PineRiver070913_21_09072013_122605.txt	1238021.952	2387488.121	7/9/2013	0	0.001402197	0.088338405	A	790.7	43.3	09-07-2013 12:26:05	-0.008	0.006	0.377999991	0.233699486
PR	PineRiver070913_22	PineRiver070913_22_09072013_122923.txt	1237984.024	2387544.748	7/9/2013	0	0.001401046	0.381551504	A	790.8	43.6	09-07-2013 12:29:23	-0.004	0.006	1.633999944	0.233507663
PR	PineRiver070913_23	PineRiver070913_23_09072013_123422.txt	1238170.397	2387758.734	7/9/2013	0	0.000466367	0	A	790.7	44.0	09-07-2013 12:34:22	0	0.002	-0.074000001	0.233183667
PR	PineRiver070913_24	PineRiver070913_24_09072013_124141.txt	1238349.528	2387767.477	7/9/2013	0	0.008844794	0.342852145	A	790.5	44.5	09-07-2013 12:41:41	0	0.037999999	1.47300005	0.232757732
PR	PineRiver070913_25	PineRiver070913_25_09072013_124520.txt	1238532.548	2387785.89	7/9/2013	0	0.0053477	0.194842294	A	790.4	44.8	09-07-2013 12:45:20	0	0.023	0.838	0.232508704
PR	PineRiver070913_26	PineRiver070913_26_09072013_124934.txt	1238546.813	2387647.289	7/9/2013	0	0.001393999	0.141490892	A	790.3	45.0	09-07-2013 12:49:34	0	0.006	0.609000027	0.232333139
PR	PineRiver070913_27	PineRiver070913_27_09072013_130630.txt	1238154.946	2387945.699	7/9/2013	0	0.007422995	0.26745978	A	790.3	45.5	09-07-2013 13:06:30	0	0.032000002	1.152999997	0.231968582
PR	PineRiver070913_28	PineRiver070913_28_09072013_131615.txt	1238520.088	2387911.31	7/9/2013	0	0.003479318	0.29968524	A	790.5	45.6	09-07-2013 13:16:15	-0.002	0.015	1.292000055	0.2319545
PR	PineRiver070913_29	PineRiver070913_29_09072013_132036.txt	1238341.278	2387956.403	7/9/2013	0	0.00858501	0.692369461	A	790.5	45.5	09-07-2013 13:20:36	-0.001	0.037	2.983999968	0.232027292
PR	PineRiver070913_30	PineRiver070913_30_09072013_132545.txt	1238548.853	2388159.063	7/9/2013	0	0.005341657	0.15560478	A	790.5	45.2	09-07-2013 13:25:45	0	0.023	0.670000017	0.232245937
PR	PineRiver070913_31	PineRiver070913_31_09072013_133112.txt	1238553.926	2388366.358	7/9/2013	0.000232582	0.003488728	0.052330915	A	790.4	44.7	09-07-2013 13:31:12	0.001	0.015	0.224999994	0.232581854
PR	PineRiver070913_32	PineRiver070913_32_09072013_133911.txt	1238351.382	2388155.619	7/9/2013	0	0.003263746	0.173444778	A	790.5	44.0	09-07-2013 13:39:11	0	0.014	0.744000018	0.233124688
PR	PineRiver070913_33	PineRiver070913_33_09072013_134323.txt	1238331.952	2388365.596	7/9/2013	0	0.006534915	0.609147429	A	790.9	43.8	09-07-2013 13:43:23	0	0.028000001	2.609999895	0.233389825
PR	PineRiver070913_34	PineRiver070913_34_09072013_134745.txt	1238367.08	2388566.819	7/9/2013	0	0.003270553	0.07755883	A	790.9	43.5	09-07-2013 13:47:45	0	0.014	0.331999987	0.233610943
PR	PineRiver070913_35	PineRiver070913_35_09072013_135101.txt	1238331.042	2388759.188	7/9/2013	0	0.006309088	0.796113431	A	790.6	43.3	09-07-2013 13:51:01	0	0.027000001	3.407000065	0.233669922
PR	PineRiver070913_36	PineRiver070913_36_09072013_135421.txt	1238340.062	2388954.455	7/9/2013	0	0.006078876	1.945941687	A	790.8	43.2	09-07-2013 13:54:21	0	0.026000001	8.322999954	0.233802915
PR	PineRiver070913_37	PineRiver070913_37_09072013_135839.txt	1238353.798	2389157.592	7/9/2013	0	0	0	A	790.6	43.0	09-07-2013 13:58:39	0	-0.008	-0.043000001	0.233891666
PR	PineRiver070913_38	PineRiver070913_38_09072013_140345.txt	1238142.556	2389170.933	7/9/2013	0	0	0.014042382	A	790.6	42.8	09-07-2013 14:03:45	0	0	0.059999999	0.234039709
PR	PineRiver070913_39	PineRiver070913_39_09072013_140758.txt	1238139.131	2388965.55	7/9/2013	0	0.009602309	1.007305622	A	790.9	42.7	09-07-2013 14:07:58	0	0.041000001	4.301000118	0.234202653
PR	PineRiver070913_40	PineRiver070913_40_09072013_141155.txt	1238138.464	2388765.849	7/9/2013	0	0.006556434	0.03254801	A	790.5	42.6	09-07-2013 14:11:55	0	0.028000001	0.138999999	0.234158337
PR	PineRiver070913_41	PineRiver070913_41_09072013_142003.txt	1238134.774	2388557.069	7/9/2013	0	0	0.0028099	A	790.5	42.6	09-07-2013 14:20:03	0	-0.001	0.012	0.234158337
PR	PineRiver070913_42	PineRiver070913_42_09072013_142341.txt	1238133.868	2388355.082	7/9/2013	0	0.005849884	0.822493732	A	790.2	42.7	09-07-2013 14:23:41	0	0.025	3.515000105	0.233995363
PR	PineRiver070913_43	PineRiver070913_43_09072013_142943.txt	1238186.545	2388293.935	7/9/2013	0.251385838	0.007249266	0.001870778	A	790.2	42.9	09-07-2013 14:29:43	1.075000048	0.030999999	0.008	0.23384729
PR	PineRiver070913_44	PineRiver070913_44_09072013_143301.txt	1238238.213	2388270.769	7/9/2013	135.6750183	0.010286026	2.06912756	A	790.2	43.0	09-07-2013 14:33:01	580.3699951	0.044	8.850999832	0.233773321
PR	PineRiver070913_45	PineRiver070913_45_09072013_143645.txt	1238144.982	2388163.123	7/9/2013	0	0.001168719	0.075966716	A	790.1	43.0	09-07-2013 14:36:45	-0.73299998	0.005	0.324999988	0.233743742
PR	PineRiver071013_01	PineRiver071013_01_10072013_123232.txt	1237954.592	2389616.751	7/10/2013	0	0	0.030256109	A	789.6	34.4	10-07-2013 12:32:32	0	-0.001	0.126000002	0.240127847
PR	PineRiver071013_02	PineRiver071013_02_10072013_123636.txt	1237954.3	2389560.513	7/10/2013	0	0.014839675	0.236716762	A	789.6	35.4	10-07-2013 12:36:36	0	0.061999999	0.989000022	0.239349604
PR	PineRiver071013_03	PineRiver071013_03_10072013_123937.txt	1237954.094	2389504.82	7/10/2013	0	0.015295529	0.644085109	A	789.7	35.9	10-07-2013 12:39:37	-0.003	0.064000003	2.694999933	0.238992631
PR	PineRiver071013_04	PineRiver071013_04_10072013_124246.txt	1237953.871	2389455.914	7/10/2013	0	0.009540638	0.571722746	A	789.4	36.4	10-07-2013 12:42:46	0	0.039999999	2.397000074	0.238515943
PR	PineRiver071013_05	PineRiver071013_05_10072013_124547.txt	1237957.814	2389409.915	7/10/2013	0	0.01405428	0.633871853	A	789.4	36.8	10-07-2013 12:45:47	0	0.059	2.661000013	0.23820813
PR	PineRiver071013_06	PineRiver071013_06_10072013_124900.txt	1238007.773	2389401.745	7/10/2013	0	0.009516045	0.365178227	A	789.4	37.2	10-07-2013 12:49:00	0	0.039999999	1.534999967	0.237901121
PR	PineRiver071013_07	PineRiver071013_07_10072013_125210.txt	1238002.83	2389451.48	7/10/2013	0	0.009977721	0.573006272	A	789.3	37.6	10-07-2013 12:52:10	0	0.041999999	2.411999941	0.237564787
PR	PineRiver071013_08	PineRiver071013_08_10072013_125520.txt	1238006.299	2389508.063	7/10/2013	0	0.011622764	1.00548768	A	789.1	38.0	10-07-2013 12:55:20	-0.005	0.048999999	4.238999844	0.237199277
PR	PineRiver071013_09	PineRiver071013_09_10072013_125826.txt	1238003.412	2389557.864	7/10/2013	0	0.006398212	0.536264896	A	789.1	38.3	10-07-2013 12:58:26	0	0.027000001	2.263000011	0.236970797
PR	PineRiver071013_10	PineRiver071013_10_10072013_130229.txt	1238002.473	2389613.781	7/10/2013	0	0.003313336	0.059640046	A	789.1	38.7	10-07-2013 13:02:29	-0.092	0.014	0.252000004	0.236666843
PR	PineRiver071013_11	PineRiver071013_11_10072013_130544.txt	1237983.288	2389618.752	7/10/2013	0	0.000472667	0.055774756	A	789.0	39.1	10-07-2013 13:05:44	0	0.002	0.236000001	0.236333713
PR	PineRiver071013_12	PineRiver071013_12_10072013_131002.txt	1238052.92	2389654.621	7/10/2013	0	0.004010742	0.255743742	A	788.9	39.6	10-07-2013 13:10:02	0	0.017000001	1.083999991	0.235925972

APPENDIX B - FLUX METER DATA

AreaAbbrev	SitePt	Filename	Northing	Easting	Date	CH_4 flux	H_2S flux	CO_2 flux	ACCUMULATION CHAMBER	PRESSURE Hpa	TEMP DegC	TIME	CH_4 slope	H_2S slope	CO_2 slope	AcK
PR	PineRiver071013_13	PineRiver071013_13_10072013_131340.txt	1238050.716	2389606.364	7/10/2013	0	0.009424984	0.696741998	A	788.9	40.0	10-07-2013 13:13:40	0	0.039999999	2.957000017	0.235624611
PR	PineRiver071013_14	PineRiver071013_14_10072013_131646.txt	1238052.023	2389561.578	7/10/2013	0	0.012472989	0	A	788.7	40.3	10-07-2013 13:16:46	0	0.052999999	-1.603999972	0.235339418
PR	PineRiver071013_15	PineRiver071013_15_10072013_131959.txt	1238053.719	2389512.319	7/10/2013	0.586140215	0.016693123	0.153999925	A	788.7	40.6	10-07-2013 13:19:59	2.493000031	0.071000002	0.654999971	0.235114396
PR	PineRiver071013_16	PineRiver071013_16_10072013_132330.txt	1238052.751	2389460.94	7/10/2013	0	0.010804931	0.34669733	A	788.7	40.9	10-07-2013 13:23:30	0	0.046	1.475999951	0.23488979
PR	PineRiver071013_17	PineRiver071013_17_10072013_132701.txt	1238054.771	2389410.317	7/10/2013	0	0.006807029	0.458887637	A	788.9	41.2	10-07-2013 13:27:01	0	0.028999999	1.955000043	0.234725133
PR	PineRiver071013_18	PineRiver071013_18_10072013_133347.txt	1238102.722	2389406.02	7/10/2013	0	0.003283435	0.431771666	A	789.0	41.5	10-07-2013 13:33:47	0	0.014	1.840999961	0.23453106
PR	PineRiver071013_19	PineRiver071013_19_10072013_133653.txt	1238103.054	2389450.668	7/10/2013	0	0.008432408	0.387188077	A	788.5	41.7	10-07-2013 13:36:53	0	0.035999998	1.652999997	0.234233558
PR	PineRiver071013_20	PineRiver071013_20_10072013_134026.txt	1238099.122	2389504.764	7/10/2013	0	0.006788461	0.786291063	A	788.5	41.9	10-07-2013 13:40:26	0	0.028999999	3.358999968	0.234084859
PR	PineRiver071013_21	PineRiver071013_21_10072013_134327.txt	1238104.05	2389558.505	7/10/2013	0	0.005379172	0.010056712	A	788.3	42.1	10-07-2013 13:43:27	0	0.023	0.043000001	0.233877018
PR	PineRiver071013_22	PineRiver071013_22_10072013_134709.txt	1238102.704	2389602.658	7/10/2013	0	0.016832737	0.473888308	A	788.5	42.3	10-07-2013 13:47:09	0	0.071999997	2.02699995	0.233788028
PR	PineRiver071013_23	PineRiver071013_23_10072013_134952.txt	1238103.691	2389645.193	7/10/2013	0	0.006775985	0	A	788.3	42.4	10-07-2013 13:49:52	0	0.028999999	-0.462000012	0.233654663
PR	PineRiver071013_24	PineRiver071013_24_10072013_135251.txt	1238157.624	2389653.274	7/10/2013	0	0.021253141	0.490457088	A	788.2	42.5	10-07-2013 13:52:51	0	0.090999998	2.099999905	0.23355101
PR	PineRiver071013_25	PineRiver071013_25_10072013_135633.txt	1238140.938	2389616.13	7/10/2013	0	0.00396911	0.109500736	A	788.2	42.6	10-07-2013 13:56:33	0	0.017000001	0.469000012	0.233477041
PR	PineRiver071013_26	PineRiver071013_26_10072013_135936.txt	1238158.706	2389558.384	7/10/2013	0	0.003966597	0	A	788.2	42.8	10-07-2013 13:59:36	0	0.017000001	-0.078000002	0.233329251
PR	PineRiver071013_27	PineRiver071013_27_10072013_140241.txt	1238153.562	2389502.982	7/10/2013	0	0.012357059	0.934706569	A	788.1	43.0	10-07-2013 14:02:41	0	0.052999999	4.008999825	0.233152062
PR	PineRiver071013_28	PineRiver071013_28_10072013_140522.txt	1238149.07	2389458.134	7/10/2013	0	0.009794259	0.183525756	A	788.5	43.1	10-07-2013 14:05:22	0	0.041999999	0.787	0.233196631
PR	PineRiver071013_29	PineRiver071013_29_10072013_140803.txt	1238153.804	2389402.215	7/10/2013	0	0.006058121	0.209238186	A	788.1	43.2	10-07-2013 14:08:03	0	0.026000001	0.898000002	0.233004659
PR	PineRiver071013_30	PineRiver071013_30_10072013_141331.txt	1237950.949	2389652.289	7/10/2013	0	0	0.019102769	A	788.2	43.3	10-07-2013 14:13:31	0	-0.004	0.082000002	0.232960582
PR	PineRiver071013_31	PineRiver071013_31_10072013_141627.txt	1238011.587	2389653.819	7/10/2013	0	0.003261034	0.247372746	A	788.1	43.3	10-07-2013 14:16:27	0	0.014	1.062000036	0.232931018
PR	PineRiver071013_32	PineRiver071013_32_10072013_142813.txt	1238622.262	2389469.104	7/10/2013	428.270813	0.008153094	7.325204849	A	787.9	43.2	10-07-2013 14:28:13	1838.501953	0.035	31.44599915	0.232945532
PR	PineRiver071013_33	PineRiver071013_33_10072013_143156.txt	1238647.85	2389514.232	7/10/2013	0	0.008386039	0.408819407	A	787.9	43.2	10-07-2013 14:31:56	0	0.035999998	1.754999995	0.232945532
PR	PineRiver071013_34	PineRiver071013_34_10072013_143434.txt	1238649.521	2389562.009	7/10/2013	0	0.008391884	0.369242936	A	788.2	43.1	10-07-2013 14:34:34	0	0.035999998	1.583999991	0.23310791
PR	PineRiver071013_35	PineRiver071013_35_10072013_143713.txt	1238599.58	2389568.331	7/10/2013	0	0.008629356	0.851274252	A	788.1	42.9	10-07-2013 14:37:13	0	0.037	3.650000095	0.233225822
PR	PineRiver071013_36	PineRiver071013_36_10072013_144004.txt	1238546.248	2389560.994	7/10/2013	0	0.006767406	0.116212703	A	788.3	42.8	10-07-2013 14:40:04	0	0.028999999	0.497999996	0.233358845
PR	PineRiver071013_37	PineRiver071013_37_10072013_144306.txt	1238547.983	2389512.368	7/10/2013	0	0.00630468	0.815638781	A	788.3	42.6	10-07-2013 14:43:06	0	0.027000001	3.493000031	0.233506665
PR	PineRiver071013_38	PineRiver071013_38_10072013_144545.txt	1238547.909	2389463.779	7/10/2013	0	0.007944259	0.266366303	A	788.3	42.4	10-07-2013 14:45:45	0	0.034000002	1.139999986	0.233654663
PR	PineRiver071013_39	PineRiver071013_39_10072013_144825.txt	1238549.114	2389416.253	7/10/2013	0	0.006544819	0.454163671	A	788.1	42.2	10-07-2013 14:48:25	0	0.028000001	1.942999959	0.233743533
PR	PineRiver071013_40	PineRiver071013_40_10072013_145136.txt	1238602.254	2389417.773	7/10/2013	0	0.011932272	0.520808578	A	788.1	41.9	10-07-2013 14:51:36	0	0.050999999	2.226000071	0.233966112
PR	PineRiver071013_41	PineRiver071013_41_10072013_145509.txt	1238648.334	2389414.634	7/10/2013	0	0.003744885	0.206436798	A	787.9	41.7	10-07-2013 14:55:09	0	0.016000001	0.882000029	0.234055325
PR	PineRiver071013_42	PineRiver071013_42_10072013_145749.txt	1238648.293	2389462.749	7/10/2013	0	0.006324718	0.17428112	A	787.8	41.4	10-07-2013 14:57:49	0	0.027000001	0.744000018	0.234248817
PR	PineRiver071013_43	PineRiver071013_43_10072013_150014.txt	1238596.957	2389463.86	7/10/2013	0	0.020151805	0.163323358	A	787.8	41.3	10-07-2013 15:00:14	0	0.086000003	0.697000027	0.234323308
PR	PineRiver071013_44	PineRiver071013_44_10072013_150331.txt	1238604.055	2389489.057	7/10/2013	412.3527832	0.010549921	7.120258808	A	787.7	41.1	10-07-2013 15:03:31	1758.864014	0.045000002	30.37100029	0.234442681
PR	PineRiver071013_45	PineRiver071013_45_10072013_150652.txt	1238598.863	2389512.627	7/10/2013	0	0.003284288	0.427191973	A	787.7	40.9	10-07-2013 15:06:52	0	0.014	1.82099998	0.234591976
PR	PineRiver071113_01	PineRiver071113_01_11072013_093457.txt	1238139.913	2386579.199	7/11/2013	0	0.003933578		A	790.8	27.7	11-07-2013 09:34:57	0	0.016000001		0.245848611
PR	PineRiver071113_02	PineRiver071113_02_11072013_095355.txt	1238132.888	2386353.601	7/11/2013				A	n.a.	31.4	11-07-2013 09:53:55	0	-0.014	0.079000004	
PR	PineRiver071113_03	PineRiver071113_03_11072013_095927.txt	1238357.446	2386360.797	7/11/2013	0	0.018519284	0.220066816	A	787.0	32.9	11-07-2013 09:59:27	0	0.077	0.915000021	0.240510181
PR	PineRiver071113_04	PineRiver071113_04_11072013_100425.txt	1238342.661	2386166.989	7/11/2013	0	0.001915349	0	A	786.5	34.1	11-07-2013 10:04:25	0	0.008	-0.050000001	0.239418626
PR	PineRiver071113_05	PineRiver071113_05_11072013_100905.txt	1238332.484	2385971.483	7/11/2013	0	0.004289248	0	A	785.6	35.2	11-07-2013 10:09:05	0	0.017999999	-0.071999997	0.238291547
PR	PineRiver071113_06	PineRiver071113_06_11072013_101313.txt	1238566.812	2385941.675	7/11/2013	0	0.00023713	0.019918948	A	783.8	36.0	11-07-2013 10:13:13	0	0.001	0.083999999	0.237130344
PR	PineRiver071113_07	PineRiver071113_07_11072013_101715.txt	1238529.175	2385763.025	7/11/2013	0	0	0.07151112	A	784.2	36.6	11-07-2013 10:17:15	0	-0.002	0.301999986	0.23679179
PR	PineRiver071113_08	PineRiver071113_08_11072013_102141.txt	1238555.885	2385545.375	7/11/2013	0	0	0.004485765	A	783.4	37.2	11-07-2013 10:21:41	0	-0.004	0.018999999	0.236092895
PR	PineRiver071113_09	PineRiver071113_09_11072013_102530.txt	1238549.315	2385387.517	7/11/2013	0	0	0.097225256	A	782.4	37.7	11-07-2013 10:25:30	0	0	0.412999988	0.235412255
PR	PineRiver071113_10	PineRiver071113_10_11072013_103023.txt	1238771.892	2385333.548	7/11/2013	0	0	0.027718127	A	781.7	38.1	11-07-2013 10:30:23	0	-0.006	0.118000001	0.234899372
PR	PineRiver071113_11	PineRiver071113_11_11072013_103522.txt	1238754.99	2385170.314	7/11/2013	0	0	0.020202549	A	782.5	38.4	11-07-2013 10:35:22	0	-0.003	0.086000003	0.234913349
PR	PineRiver071113_12	PineRiver071113_12_11072013_104037.txt	1238922.798	2385145.064	7/11/2013	0	0.000468655	0.084357888	A	781.3	38.7	11-07-2013 10:40:37	0	0.002	0.360000014	0.234327465
PR	PineRiver071113_13	PineRiver071113_13_11072013_104736.txt	1238965.298	2384976.396	7/11/2013	0	0.006097182	0.101776026	A	782.4	38.9	11-07-2013 10:47:36	0	0.026000001	0.433999985	0.23450698
PR	PineRiver071113_14	PineRiver071113_14_11072013_105232.txt	1238942.769	2384784.599	7/11/2013	0	0.002340872	0.30618602	A	781.5	39.1	11-07-2013 10:52:32	0	0.01	1.307999969	0.234087184
PR	PineRiver071113_15	PineRiver071113_15_11072013_105926.txt	1238940.467	2384569.885	7/11/2013	0	0.012818026	0.102544211	A	779.3	39.6	11-07-2013 10:59:26	0	0.055	0.439999998	0.233055025
PR	PineRiver071113_16	PineRiver071113_16_11072013_110454.txt	1239154.344	2384551.666	7/11/2013	0	0.00766128	0.183406398	A	777.3	40.0	11-07-2013 11:04:54	0	0.033	0.790000021	0.232159987
PR	PineRiver071113_17	PineRiver071113_17_11072013_111153.txt	1239143.502	2384345.378	7/11/2013	0	0.004181083	0.184664518	A	779.2	40.6	11-07-2013 11:11:53	0	0.017999999	0.795000017	0.232282415
PR	PineRiver071113_18	PineRiver071113_18_11072013_111714.txt	1239345.508	2384379.418	7/11/2013	0	0.004394468	0.258811057	A	777.1	41.1	11-07-2013 11:17:14	0	0.018999999	1.118999958	0.231287807
PR	PineRiver071113_19	PineRiver071113_19_11072013_112232.txt	1239555.205	2384370.101	7/11/2013	0	0.005094288	0.174826711	A	779.0	41.5	11-07-2013 11:22:32	0	0.022	0.754999995	0.231558561
PR	PineRiver071113_20	PineRiver071113_20_11072013_113221.txt	1239534.941	2384153.461	7/11/2013	0	0.018258175	0.281268328	A	778.5	41.9	11-07-2013 11:32:21	0	0.079000004	1.217000008	0.231116116
PR	PineRiver071113_21	PineRiver071113_21_11072013_113640.txt	1239550.378	2383969.317	7/11/2013	0	0.015224273	0.558223367	A	777.0	41.9	11-07-2013 11:36:40	0	0.066	2.420000076	0.23067081
PR	PineRiver071113_22	PineRiver071113_22_11072013_114110.txt	1239680.519	2383912.688	7/11/2013	1.195799828	0.005989365	1.118629098	A	776.2	42.0	11-07-2013 11:41:10	5.190999985	0.026000001	4.855999947	0.230360195
PR	PineRiver071113_23	PineRiver071113_23_11072013_114546.txt	1239572.208	2383751.42	7/11/2013	0	0.003227536	0.014062834	A	776.8	42.0	11-07-2013 11:45:46	0	0.014	0.061000001	0.230538264
PR	PineRiver071113_24	PineRiver071113_24_11072013_115059.txt	1239755.741	2383753.396	7/11/2013	0	0.007374885	0.258581877	A	776.8	42.1	11-07-2013 11:50:59	0	0.032000002	1.121999979	0.230465129

APPENDIX B - FLUX METER DATA

AreaAbbrev	SitePt	Filename	Northing	Easting	Date	CH_4 flux	H_2S flux	CO_2 flux	ACCUMULATION CHAMBER	PRESSURE Hpa	TEMP DegC	TIME	CH_4 slope	H_2S slope	CO_2 slope	AcK
PR	PineRiver071113_25	PineRiver071113_25_11072013_115536.txt	1239941.07	2383809.242	7/11/2013	0	0.01706218	0.431627035	A	777.4	42.2	11-07-2013 11:55:36	0	0.074000001	1.871999979	0.230570003
PR	PineRiver071113_26	PineRiver071113_26_11072013_115933.txt	1239950.374	2383961.123	7/11/2013	0	0.008294687	0.26220426	A	777.1	42.3	11-07-2013 11:59:33	0	0.035999998	1.138000011	0.230407968
PR	PineRiver071113_27	PineRiver071113_27_11072013_120500.txt	1239743.377	2383969.547	7/11/2013	0	0.001382982	0.005301429	A	777.4	42.3	11-07-2013 12:05:00	0	0.006	0.023	0.230496913
PR	PineRiver071113_28	PineRiver071113_28_11072013_121451.txt	1239759.206	2384156.484	7/11/2013	0	0.002308388	0.1361949	A	778.8	42.4	11-07-2013 12:14:51	0	0.01	0.589999974	0.230838835
PR	PineRiver071113_29	PineRiver071113_29_11072013_121901.txt	1239729.334	2384339.042	7/11/2013	0	0.004846371	0.086311556	A	778.6	42.4	11-07-2013 12:19:01	0	0.021	0.374000013	0.230779558
PR	PineRiver071113_30	PineRiver071113_30_11072013_122341.txt	1239557.718	2384544.749	7/11/2013		0.003695318	0.070672959	A	779.2	42.4	11-07-2013 12:23:41		0.016000001	0.305999994	0.230957389
PR	PineRiver071113_31	PineRiver071113_31_11072013_123335.txt	1239514.772	2384797.583	7/11/2013	0	0.001386895	0.017798489	A	779.6	42.3	11-07-2013 12:33:35	0	0.006	0.077	0.231149212
PR	PineRiver071113_32	PineRiver071113_32_11072013_124019.txt	1239533.599	2384952.43	7/11/2013	0	0.003694593	0.130003467	A	778.8	42.3	11-07-2013 12:40:19	0	0.016000001	0.563000023	0.230912015
PR	PineRiver071113_33	PineRiver071113_33_11072013_124427.txt	1239366.234	2384956.22	7/11/2013	0	0.011303065	0.104034342	A	778.0	42.3	11-07-2013 12:44:27	0	0.048999999	0.451000005	0.230674818
PR	PineRiver071113_34	PineRiver071113_34_11072013_125016.txt	1239343.349	2384754.875	7/11/2013	0	0.006929611	0	A	779.3	42.4	11-07-2013 12:50:16	0	0.029999999	-0.093000002	0.230987027
PR	PineRiver071113_35	PineRiver071113_35_11072013_125411.txt	1239270.261	2384692.52	7/11/2013	16.30458832	0.008562971	3.806818724	A	780.8	42.4	11-07-2013 12:54:11	70.4509964	0.037	16.4489994	0.231431633
PR	PineRiver071113_36	PineRiver071113_36_11072013_125830.txt	1239346.587	2384543.058	7/11/2013	40.13467026	0.002773455	5.403614998	A	780.0	42.5	11-07-2013 12:58:30	173.6519928	0.012	23.37999916	0.231121272
PR	PineRiver071113_37	PineRiver071113_37_11072013_130426.txt	1239173.373	2384701.886	7/11/2013	5.703573227	0.007385956	1.245687485	A	779.2	42.6	11-07-2013 13:04:26	24.71100044	0.032000002	5.396999836	0.230811104
PR	PineRiver071113_38	PineRiver071113_38_11072013_130923.txt	1239134.037	2384783.582	7/11/2013	176.1948395	0.012457509	2.363466024	A	779.3	42.8	11-07-2013 13:09:23	763.7579956	0.054000001	10.24499989	0.230694592
PR	PineRiver071113_39	PineRiver071113_39_11072013_131438.txt	1239130.105	2384968.86	7/11/2013	10.20263386	0.008762574	2.519009352	A	779.7	43.1	11-07-2013 13:14:38	44.24499893	0.037999999	10.92399979	0.230594054
PR	PineRiver071113_40	PineRiver071113_40_11072013_131856.txt	1239138.678	2385068.805	7/11/2013	0	0.009925205	0.279059827	A	781.2	43.4	11-07-2013 13:18:56	0	0.043000001	1.208999991	0.230818719
PR	PineRiver071113_41	PineRiver071113_41_11072013_132349.txt	1239236.46	2385072.528	7/11/2013	0	0.01314421	0.428685725	A	781.2	43.7	11-07-2013 13:23:49	0	0.057	1.858999968	0.230600178
PR	PineRiver071113_42	PineRiver071113_42_11072013_132658.txt	1239240.939	2384962.581	7/11/2013	0	0.012434139	0.244307801	A	780.3	43.8	11-07-2013 13:26:58	0	0.054000001	1.06099999	0.230261832
PR	PineRiver071113_43	PineRiver071113_43_11072013_133559.txt	1238922.245	2385399.646	7/11/2013	0	0.012664525	0.855661333	A	780.8	44.0	11-07-2013 13:35:59	0	0.055	3.71600008	0.230264083
PR	PineRiver071113_44	PineRiver071113_44_11072013_134121.txt	1238749.124	2385549.621	7/11/2013	0	0.002074111	1.253224254	A	781.7	44.1	11-07-2013 13:41:21	0	0.009	5.438000202	0.230456829
PR	PineRiver071113_45	PineRiver071113_45_11072013_134858.txt	1238943.681	2385584.395	7/11/2013	0	0.000230443	0.029266283	A	781.9	44.2	11-07-2013 13:48:58	0	0.001	0.127000004	0.230443165
PR	PineRiver071113_46	PineRiver071113_46_11072013_135422.txt	1238933.605	2385774.963	7/11/2013	0	0.001382577	0.101158552	A	782.1	44.3	11-07-2013 13:54:22	0	0.006	0.43900001	0.2304295
PR	PineRiver071113_47	PineRiver071113_47_11072013_135858.txt	1238946.317	2385960.999	7/11/2013	0	0.000690581	0.025551511	A	781.3	44.3	11-07-2013 13:58:58	0	0.003	0.111000001	0.230193794
PR	PineRiver071113_48	PineRiver071113_48_11072013_140511.txt	1238759.752	2385767.253	7/11/2013	0	0.002299875	0.383619219	A	780.6	44.3	11-07-2013 14:05:11	0	0.01	1.667999983	0.229987547
PR	PineRiver071113_49	PineRiver071113_49_11072013_141011.txt	1238747.504	2386004.422	7/11/2013	0	0.008760799	0.069625296	A	782.5	44.3	11-07-2013 14:10:11	0	0.037999999	0.301999986	0.230547339
PR	PineRiver071113_50	PineRiver071113_50_11072013_141405.txt	1238780.938	2386163.759	7/11/2013	0	0.00276869	0.063679859	A	783.1	44.3	11-07-2013 14:14:05	0	0.012	0.275999993	0.230724126
PR	PineRiver071113_51	PineRiver071113_51_11072013_142342.txt	1238584.21	2386059.216	7/11/2013	4.102996349	0.000691866	0.412813395	A	783.0	44.4	11-07-2013 14:23:42	17.79100037	0.003	1.789999962	0.230622008
PR	PineRiver071113_52	PineRiver071113_52_11072013_143025.txt	1238554.023	2386155.693	7/11/2013	0	0.014506062	0.947729468	A	782.0	44.5	11-07-2013 14:30:25	0	0.063000001	4.116000175	0.230254963
PR	PineRiver071113_53	PineRiver071113_53_11072013_143523.txt	1238551.074	2386364.373	7/11/2013	0	0.004602472	0.082384259	A	781.8	44.6	11-07-2013 14:35:23	0	0.02	0.35800001	0.230123624
PR	PineRiver071113_54	PineRiver071113_54_11072013_143918.txt	1238529.638	2386541.066	7/11/2013	0	0.001614986	0.148809448	A	783.8	44.6	11-07-2013 14:39:18	0	0.007	0.644999981	0.230712339
PR	PineRiver071113_55	PineRiver071113_55_11072013_144401.txt	1238354.46	2386563.567	7/11/2013	0	0.00138604	1.330136418	A	784.8	44.6	11-07-2013 14:44:01	0	0.006	5.757999897	0.231006682
PR	PineRiver071113_56	PineRiver071113_56_11072013_145356.txt	1238728.177	2386386.556	7/11/2013	0	0.001616962	0.083620057	A	785.5	44.9	11-07-2013 14:53:56	0	0.007	0.361999989	0.230994642
PB	PoleBarn061313_01	PoleBarn061313_01_13062013_123746.txt	1236864.648	2384593.143	6/13/2013	0	0	0	A	784.2	31.6	13-06-2013 12:37:46	0	0	-0.200000003	0.240676805
PB	PoleBarn061313_02	PoleBarn061313_02_13062013_124205.txt	1236869.453	2384642.954	6/13/2013	0	0.001437457	0.185671553	A	784.2	33.0	13-06-2013 12:42:05	0	0.006	0.774999976	0.239576206
PB	PoleBarn061313_03	PoleBarn061313_03_13062013_124626.txt	1236870.996	2384693.951	6/13/2013	0	0.004293042	0.070835195	A	784.0	34.3	13-06-2013 12:46:26	0	0.017999999	0.296999991	0.238502353
PB	PoleBarn061313_04	PoleBarn061313_04_13062013_125008.txt	1236912.298	2384695.238	6/13/2013	0	0.000950982	0.077267304	A	783.8	35.2	13-06-2013 12:50:08	0	0.004	0.324999988	0.237745568
PB	PoleBarn061313_05	PoleBarn061313_05_13062013_125428.txt	1236967.589	2384691.729	6/13/2013	0	0.001184966	0.088398449	A	783.6	36.1	13-06-2013 12:54:28	0	0.005	0.372999996	0.236993164
PB	PoleBarn061313_06	PoleBarn061313_06_13062013_125713.txt	1237021.221	2384691.122	6/13/2013	0	0.001419024	0.063146584	A	783.5	36.7	13-06-2013 12:57:13	0	0.006	0.26699999	0.236504063
PB	PoleBarn061313_07	PoleBarn061313_07_13062013_130005.txt	1237071.477	2384693.783	6/13/2013	0	0.002124152	0.104083434	A	783.4	37.3	13-06-2013 13:00:05	0	0.009	0.441000015	0.236016855
PB	PoleBarn061313_08	PoleBarn061313_08_13062013_130402.txt	1237072.001	2384641.035	6/13/2013	0	0.005414101	0.229981601	A	783.1	38.0	13-06-2013 13:04:02	0	0.023	0.976999998	0.2353957
PB	PoleBarn061313_09	PoleBarn061313_09_13062013_130645.txt	1237071.095	2384593.405	6/13/2013	0	0.002351235	0.133785278	A	783.2	38.4	13-06-2013 13:06:45	0	0.01	0.569000006	0.2351235
PB	PoleBarn061313_10	PoleBarn061313_10_13062013_130956.txt	1237070.763	2384540.201	6/13/2013	0	0.002117446	0.132222712	A	784.7	38.8	13-06-2013 13:09:56	0	0.009	0.561999977	0.235271752
PB	PoleBarn061313_11	PoleBarn061313_11_13062013_131259.txt	1237071.246	2384488.579	6/13/2013	0	0.011724568	0.419739515	A	783.1	39.2	13-06-2013 13:12:59	0	0.050000001	1.789999962	0.234491348
PB	PoleBarn061313_12	PoleBarn061313_12_13062013_131532.txt	1237021.549	2384493.166	6/13/2013	0	0.00351332	0.023656355	A	783.2	39.6	13-06-2013 13:15:32	0	0.015	0.101000004	0.234221339
PB	PoleBarn061313_13	PoleBarn061313_13_13062013_131852.txt	1236972.88	2384495.456	6/13/2013	0	0.006549821	0.148540571	A	783.2	40.0	13-06-2013 13:18:52	0	0.028000001	0.63499999	0.233922169
PB	PoleBarn061313_14	PoleBarn061313_14_13062013_132138.txt	1236921.375	2384495.481	6/13/2013	0	0.002803485	0.081534691	A	783.2	40.4	13-06-2013 13:21:38	0	0.012	0.349000007	0.233623743
PB	PoleBarn061313_15	PoleBarn061313_15_13062013_132418.txt	1236872.525	2384490.499	6/13/2013	0	0.00256806	0.131671458	A	783.4	40.7	13-06-2013 13:24:18	0	0.011	0.56400001	0.233460039
PB	PoleBarn061313_16	PoleBarn061313_16_13062013_132738.txt	1236871.525	2384538.749	6/13/2013	0	0.00069989	0.059957236	A	783.6	41.0	13-06-2013 13:27:38	0	0.003	0.256999999	0.233296633
PB	PoleBarn061313_17	PoleBarn061313_17_13062013_133017.txt	1236922.186	2384541.318	6/13/2013	0	0.000699088	0.004194525	A	783.2	41.2	13-06-2013 13:30:17	0	0.003	0.017999999	0.233029187
PB	PoleBarn061313_18	PoleBarn061313_18_13062013_133312.txt	1236925.317	2384594.72	6/13/2013	0	0.001164627	0.096198164	A	783.1	41.3	13-06-2013 13:33:12	0	0.005	0.412999988	0.232925341
PB	PoleBarn061313_19	PoleBarn061313_19_13062013_133611.txt	1236924.576	2384643.006	6/13/2013	0	0.002560877	0.129906312	A	783.2	41.5	13-06-2013 13:36:11	0	0.011	0.558000028	0.23280701
PB	PoleBarn061313_20	PoleBarn061313_20_13062013_133844.txt	1236970.538	2384641.105	6/13/2013	0	0.001163517	0.093779437	A	783.1	41.6	13-06-2013 13:38:44	0	0.005	0.402999997	0.232703328
PB	PoleBarn061313_21	PoleBarn061313_21_13062013_134100.txt	1237021.799	2384641.344	6/13/2013	0	0.007212882	0.143326953	A	783.0	41.6	13-06-2013 13:41:00	0	0.030999999	0.615999997	0.232673615
PB	PoleBarn061313_22	PoleBarn061313_22_13062013_134335.txt	1237023.398	2384593.054	6/13/2013	0	0.001860798	0.062336728	A	783.0	41.7	13-06-2013 13:43:35	0	0.008	0.268000007	0.23259972
PB	PoleBarn061313_23	PoleBarn061313_23_13062013_134605.txt	1237023.063	2384543.658	6/13/2013	0	0.000930161	0.068366848	A	782.8	41.7	13-06-2013 13:46:05	0	0.004	0.294	0.232540295
PB	PoleBarn061313_24	PoleBarn061313_24_13062013_134831.txt	1236972.717	2384542.438	6/13/2013	0	0.002791553	0.184707761	A	783.1	41.7	13-06-2013 13:48:31	0	0.012	0.79400003	0.232629418
PB	PoleBarn061313_25	PoleBarn061313_25_13062013_135126.txt	1236970.643	2384593.13	6/13/2013	0	0.002092863	0.244399846	A	782.8	41.7	13-06-2013 13:51:26	0	0.009	1.050999999	0.232540295

APPENDIX B - FLUX METER DATA

AreaAbbrev	SitePt	Filename	Northing	Easting	Date	CH_4 flux	H_2S flux	CO_2 flux	ACCUMULATION CHAMBER	PRESSURE Hpa	TEMP DegC	TIME	CH_4 slope	H_2S slope	CO_2 slope	AcK
SFTCE	SFTCE070113_01	SFTCE070113_01_01072013_112945.txt	1243126.442	2377332.891	7/1/2013	0	0.004351895	0.006527842	A	772.0	25.5	01-07-2013 11:29:45	0	0.017999999	0.027000001	0.241771936
SFTCE	SFTCE070113_02	SFTCE070113_02_01072013_113602.txt	1243156.528	2377541.956	7/1/2013	0	0.003362291	0.233919352	A	772.0	27.5	01-07-2013 11:36:02	0	0.014	0.973999977	0.240163609
SFTCE	SFTCE070113_03	SFTCE070113_03_01072013_114105.txt	1242960.885	2377563.354	7/1/2013	0	0.003096202	0.181246892	A	768.9	28.8	01-07-2013 11:41:05	0	0.013	0.760999978	0.238169387
SFTCE	SFTCE070113_04	SFTCE070113_04_01072013_114923.txt	1242950.736	2377359.723	7/1/2013	0.472967863	0	0.344492853	A	768.9	30.8	01-07-2013 11:49:23	1.998999953	0	1.45599997	0.236602232
SFTCE	SFTCE070113_05	SFTCE070113_05_01072013_120132.txt	1243058.534	2377238.743	7/1/2013	0	0.002120981	0.091437854	A	771.9	33.2	01-07-2013 12:01:32	0	0.009	0.388000011	0.235664561
SFTCE	SFTCE070113_06	SFTCE070113_06_01072013_120839.txt	1242768.62	2377372.203	7/1/2013	0	0.008933023	0.115659148	A	773.0	34.4	01-07-2013 12:08:39	0	0.037999999	0.492000014	0.235079557
SFTCE	SFTCE070113_07	SFTCE070113_07_01072013_121524.txt	1242740.54	2377569.098	7/1/2013	0	0.005386869	0.10703475	A	772.4	35.3	01-07-2013 12:15:24	-0.108000003	0.023	0.456999987	0.234211713
SFTCE	SFTCE070113_08	SFTCE070113_08_01072013_122142.txt	1242525.183	2377570.137	7/1/2013	0	0.008637829	1.121517062	A	772.4	36.3	01-07-2013 12:21:42	0	0.037	4.803999901	0.233454838
SFTCE	SFTCE070113_09	SFTCE070113_09_01072013_122653.txt	1242506.688	2377637.502	7/1/2013	81.1348877	0.000933943	0.820935845	A	774.0	36.9	01-07-2013 12:26:53	347.493988	0.004	3.516000032	0.233485729
SFTCE	SFTCE070113_10	SFTCE070113_10_01072013_123603.txt	1242337.923	2377574.466	7/1/2013	0	0.000697396	0.098332845	A	773.6	38.1	01-07-2013 12:36:03	0	0.003	0.423000008	0.232465342
SFTCE	SFTCE070113_100	SFTCE070113_100_02072013_160236.txt	1241336.537	2380979.74	7/2/2013	0	0.001576356	0	A	767.7	45.7	02-07-2013 16:02:36	0	0.007	-1.376000047	0.225193694
SFTCE	SFTCE070113_101	SFTCE070113_101_02072013_160845.txt	1241331.986	2380787.474	7/2/2013	0	0.002704229	0.037859198	A	768.0	45.6	02-07-2013 16:08:45	0	0.012	0.167999998	0.225352377
SFTCE	SFTCE070113_102	SFTCE070113_102_02072013_161237.txt	1241323.918	2380564.696	7/2/2013	0	0.001802584	0.002703876	A	767.9	45.6	02-07-2013 16:12:37	0	0.008	0.012	0.225323036
SFTCE	SFTCE070113_103	SFTCE070113_103_02072013_161914.txt	1241160.888	2380951.71	7/2/2013	0	0.001804324	0.089314036	A	768.4	45.5	02-07-2013 16:19:14	0	0.008	0.395999998	0.225540504
SFTCE	SFTCE070113_104	SFTCE070113_104_02072013_162336.txt	1241125.219	2381152.428	7/2/2013	0	0.001581129	0.085155085	A	769.3	45.4	02-07-2013 16:23:36	0	0.007	0.377000004	0.225875556
SFTCE	SFTCE070113_105	SFTCE070113_105_02072013_162845.txt	1240976.841	2381171.968	7/2/2013	0	0.003394413	0.104774214	A	770.0	45.1	02-07-2013 16:28:45	0	0.015	0.463	0.226294205
SFTCE	SFTCE070113_11	SFTCE070113_11_01072013_124023.txt	1242146.67	2377558.818	7/1/2013	0	0.004184947	0.107878648	A	774.7	38.5	01-07-2013 12:40:23	0	0.017999999	0.463999987	0.232497096
SFTCE	SFTCE070113_12	SFTCE070113_12_01072013_124502.txt	1242139.384	2377747.902	7/1/2013	0	0.011142679	0.064302541	A	774.5	38.9	01-07-2013 12:45:02	0	0.048	0.27700001	0.232139125
SFTCE	SFTCE070113_13	SFTCE070113_13_01072013_125118.txt	1242379.753	2377788.373	7/1/2013	0	0.005092933	0.257424593	A	773.1	39.2	01-07-2013 12:51:18	0	0.022	1.111999989	0.231496945
SFTCE	SFTCE070113_14	SFTCE070113_14_01072013_125545.txt	1242527.24	2377779.136	7/1/2013	0	0.003935474	0.215756536	A	773.6	39.4	01-07-2013 12:55:45	-0.064000003	0.017000001	0.931999981	0.231498435
SFTCE	SFTCE070113_15	SFTCE070113_15_01072013_130123.txt	1242734.666	2377793.93	7/1/2013	0	0.001386931	0.051316444	A	772.7	39.5	01-07-2013 13:01:23	0	0.006	0.222000003	0.231155157
SFTCE	SFTCE070113_16	SFTCE070113_16_01072013_130950.txt	1242950.517	2377787.306	7/1/2013	0	0	0.208668426	A	771.0	39.6	01-07-2013 13:09:50	0	-0.003	0.904999971	0.23057285
SFTCE	SFTCE070113_17	SFTCE070113_17_01072013_131749.txt	1243172.203	2377770.035	7/1/2013	0	0.009180071	0.118422903	A	768.4	40.0	01-07-2013 13:17:49	0	0.039999999	0.515999973	0.229501769
SFTCE	SFTCE070113_18	SFTCE070113_18_01072013_132542.txt	1243146.925	2377975.54	7/1/2013	0	0.001142382	0.064658836	A	765.7	40.3	01-07-2013 13:25:42	0	0.005	0.282999992	0.228476465
SFTCE	SFTCE070113_19	SFTCE070113_19_01072013_133226.txt	1242940.301	2377958.879	7/1/2013	0	0.001596019	0.162793979	A	764.6	40.5	01-07-2013 13:32:26	0	0.007	0.713999987	0.228002772
SFTCE	SFTCE070113_20	SFTCE070113_20_01072013_133735.txt	1242968.584	2378170.142	7/1/2013	0	0.00091547	0.030668251	A	767.5	40.5	01-07-2013 13:37:35	0	0.004	0.134000003	0.228867546
SFTCE	SFTCE070113_21	SFTCE070113_21_01072013_134231.txt	1242782.446	2378183.075	7/1/2013	0	0	0.135639831	A	767.3	40.6	01-07-2013 13:42:31	0	-0.001	0.592999995	0.22873497
SFTCE	SFTCE070113_22	SFTCE070113_22_01072013_134857.txt	1242790.01	2377978.09	7/1/2013	0	0.010998668	0.206454158	A	768.9	40.7	01-07-2013 13:48:57	0	0.048	0.901000023	0.229138911
SFTCE	SFTCE070113_23	SFTCE070113_23_01072013_135510.txt	1242539.848	2377958.978	7/1/2013	0	0.010543131	0.218884572	A	769.1	40.7	01-07-2013 13:55:10	0	0.046	0.954999983	0.229198515
SFTCE	SFTCE070113_24	SFTCE070113_24_01072013_140038.txt	1242566.296	2378153.198	7/1/2013	0	0.010114892	0.456779361	A	771.4	40.7	01-07-2013 14:00:38	0	0.044	1.986999989	0.229883924
SFTCE	SFTCE070113_25	SFTCE070113_25_01072013_140716.txt	1242375.69	2378147.882	7/1/2013	0	0.002525773	0.198617592	A	770.5	40.7	01-07-2013 14:07:16	0	0.011	0.86500001	0.229615718
SFTCE	SFTCE070113_26	SFTCE070113_26_01072013_141240.txt	1242372.137	2377982.618	7/1/2013	0	0.002064127	0.386450559	A	769.6	40.7	01-07-2013 14:12:40	0	0.009	1.684999943	0.229347512
SFTCE	SFTCE070113_27	SFTCE070113_27_01072013_141909.txt	1242133.78	2377967.654	7/1/2013	0	0.001609074	0.123438992	A	771.1	40.6	01-07-2013 14:19:09	0	0.007	0.537	0.229867771
SFTCE	SFTCE070113_28	SFTCE070113_28_01072013_142428.txt	1242127.874	2378171.004	7/1/2013	0	0.002989831	0.154321283	A	771.5	40.6	01-07-2013 14:24:28	0	0.013	0.671000004	0.22998701
SFTCE	SFTCE070113_29	SFTCE070113_29_01072013_143026.txt	1242138.364	2378364.647	7/1/2013	0	0.002296753	0.118512459	A	770.7	40.7	01-07-2013 14:30:26	0	0.01	0.515999973	0.229675323
SFTCE	SFTCE070113_30	SFTCE070113_30_01072013_145246.txt	1242398.548	2378391.344	7/1/2013	0	0.002977723	0	A	769.6	41.1	01-07-2013 14:52:46	0	0.013	-1.067999959	0.229055583
SFTCE	SFTCE070113_31	SFTCE070113_31_01072013_145947.txt	1242610.865	2378563.934	7/1/2013	0	0.002054418	0.129884854	A	767.2	41.2	01-07-2013 14:59:47	0	0.009	0.569000006	0.228268638
SFTCE	SFTCE070113_32	SFTCE070113_32_01072013_150550.txt	1242710.454	2378577.974	7/1/2013	0	0.000455678	0	A	766.0	41.3	01-07-2013 15:05:50	0	0.002	-0.067000002	0.227839112
SFTCE	SFTCE070113_33	SFTCE070113_33_01072013_150936.txt	1242778.665	2378408.265	7/1/2013	0	0.002275883	0.067593716	A	765.4	41.4	01-07-2013 15:09:36	0	0.01	0.296999991	0.227588266
SFTCE	SFTCE070113_34	SFTCE070113_34_01072013_151352.txt	1242557.462	2378370.208	7/1/2013	0	0.008428467	0.171075106	A	766.1	41.4	01-07-2013 15:13:52	0	0.037	0.750999987	0.22779642
SFTCE	SFTCE070113_35	SFTCE070113_35_01072013_151905.txt	1242344.118	2378550.78	7/1/2013	0	0.006156926	0.154607236	A	766.9	41.4	01-07-2013 15:19:05	0	0.027000001	0.677999973	0.228034288
SFTCE	SFTCE070113_36	SFTCE070113_36_01072013_152325.txt	1242136.427	2378603.401	7/1/2013	0	0.005474964	0.062962085	A	767.2	41.4	01-07-2013 15:23:25	0	0.024	0.275999993	0.228123501
SFTCE	SFTCE070113_37	SFTCE070113_37_01072013_152720.txt	1242124.901	2378735.889	7/1/2013	0	0.004563992	0.048378319	A	767.7	41.5	01-07-2013 15:27:20	0	0.02	0.211999997	0.228199616
SFTCE	SFTCE070113_38	SFTCE070113_38_01072013_153159.txt	1242319.892	2378775.531	7/1/2013	0	0.001824988	0.092161901	A	767.2	41.4	01-07-2013 15:31:59	0	0.008	0.404000014	0.228123501
SFTCE	SFTCE070113_39	SFTCE070113_39_01072013_153557.txt	1242559.97	2378775.136	7/1/2013	0	0.000227648	0	A	765.6	41.4	01-07-2013 15:35:57	0	0.001	-0.193000004	0.227647737
SFTCE	SFTCE070113_40	SFTCE070113_40_01072013_154021.txt	1242756.867	2378762.844	7/1/2013	0	0.001364994	0.08303716	A	765.1	41.4	01-07-2013 15:40:21	0	0.006	0.36500001	0.227499068
SFTCE	SFTCE070113_41	SFTCE070113_41_02072013_101138.txt	1240514.527	2381185.283	7/2/2013	0	0	0.098861359	A	776.3	26.5	02-07-2013 10:11:38	0	-0.007	0.407999992	0.242307261
SFTCE	SFTCE070113_42	SFTCE070113_42_02072013_101624.txt	1240757.316	2381157.235	7/2/2013	0	0	0.071797527	A	776.3	27.2	02-07-2013 10:16:24	0	-0.001	0.296999991	0.241742522
SFTCE	SFTCE070113_43	SFTCE070113_43_02072013_102029.txt	1240774.458	2380982.931	7/2/2013	0	0.005541433	0.124320842	A	775.5	27.9	02-07-2013 10:20:29	0	0.023	0.515999973	0.240931883
SFTCE	SFTCE070113_44	SFTCE070113_44_02072013_102406.txt	1240944.48	2380948.78	7/2/2013	0	0.00528382	0.020654932	A	774.6	28.5	02-07-2013 10:24:06	0	0.022	0.086000003	0.240173608
SFTCE	SFTCE070113_45	SFTCE070113_45_02072013_103008.txt	1240971.402	2380744.734	7/2/2013	0	0.006461495	0.076819986	A	774.9	29.7	02-07-2013 10:30:08	0	0.027000001	0.32100001	0.239314601
SFTCE	SFTCE070113_46	SFTCE070113_46_02072013_103349.txt	1241155.21	2380762.069	7/2/2013	0	0.007146662	0.050503075	A	773.4	30.5	02-07-2013 10:33:49	0	0.029999999	0.211999997	0.238222063
SFTCE	SFTCE070113_47	SFTCE070113_47_02072013_103704.txt	1241146.467	2380579.121	7/2/2013	0	0.009503279	0.146350488	A	773.1	31.2	02-07-2013 10:37:04	0	0.039999999	0.615999997	0.237581968
SFTCE	SFTCE070113_48	SFTCE070113_48_02072013_104234.txt	1241135.73	2380381.511	7/2/2013	0	0.007585567	0.088419259	A	773.9	32.2	02-07-2013 10:42:34	0	0.032000002	0.372999996	0.237048954
SFTCE	SFTCE070113_49	SFTCE070113_49_02072013_104758.txt	1241340.958	2380378.353	7/2/2013	0	0	0.062938526	A	775.0	33.2	02-07-2013 10:47:58	0	0	0.266000003	0.236610994
SFTCE	SFTCE070113_50	SFTCE070113_50_02072013_105406.txt	1241324.676	2380140.382	7/2/2013	0	0.00400545	0.512933135	A	773.5	33.9	02-07-2013 10:54:06	0	0.017000001	2.177000046	0.235614672
SFTCE	SFTCE070113_51	SFTCE070113_51_02072013_105739.txt	1241344.778	2379989.881	7/2/2013	0	0.006118802	0.152970061	A	773.6	34.3	02-07-2013 10:57:39	0	0.026000001	0.649999976	0.235338554

APPENDIX B - FLUX METER DATA

AreaAbbrev	SitePt	Filename	Northing	Easting	Date	CH_4 flux	H_2S flux	CO_2 flux	ACCUMULATION CHAMBER	PRESSURE Hpa	TEMP DegC	TIME	CH_4 slope	H_2S slope	CO_2 slope	AcK
SFTCE	SFTCE070113_52	SFTCE070113_52_02072013_110200.txt	1241568.969	2379986.431	7/2/2013	0	0.003763927	0.033875342	A	774.3	34.7	02-07-2013 11:02:00	0	0.016000001	0.143999994	0.235245436
SFTCE	SFTCE070113_53	SFTCE070113_53_02072013_110731.txt	1241550.634	2379729.342	7/2/2013	0	0.004219085	0.014532406	A	773.0	35.3	02-07-2013 11:07:31	0	0.017999999	0.061999999	0.234393641
SFTCE	SFTCE070113_54	SFTCE070113_54_02072013_111407.txt	1241744.714	2379778.389	7/2/2013	0	0.008663002	0.016857734	A	773.9	36.0	02-07-2013 11:14:07	0	0.037	0.071999997	0.234135196
SFTCE	SFTCE070113_55	SFTCE070113_55_02072013_112011.txt	1241730.289	2379562.117	7/2/2013	0	0.006993238	0.138932347	A	772.0	36.6	02-07-2013 11:20:11	0	0.029999999	0.596000016	0.233107954
SFTCE	SFTCE070113_56	SFTCE070113_56_02072013_112459.txt	1241946.499	2379526.02	7/2/2013	0	0.002796405	0.018176632	A	773.0	37.1	02-07-2013 11:24:59	0	0.012	0.078000002	0.233033746
SFTCE	SFTCE070113_57	SFTCE070113_57_02072013_112902.txt	1241905.784	2379383.788	7/2/2013	0	0.00371771	0.196806267	A	771.5	37.4	02-07-2013 11:29:02	0	0.016000001	0.847000003	0.232356861
SFTCE	SFTCE070113_58	SFTCE070113_58_02072013_113415.txt	1241951.843	2379175.838	7/2/2013	0	0.002089605	0.03668417	A	771.9	37.8	02-07-2013 11:34:15	0	0.009	0.158000007	0.232178286
SFTCE	SFTCE070113_59	SFTCE070113_59_02072013_113859.txt	1241962.578	2378984.481	7/2/2013	0	0.003011111	0.051652141	A	770.8	38.1	02-07-2013 11:38:59	0	0.013	0.223000005	0.231623948
SFTCE	SFTCE070113_60	SFTCE070113_60_02072013_114410.txt	1242122.227	2378984.357	7/2/2013	0	0.00046271	0.022441445	A	770.4	38.3	02-07-2013 11:44:10	0	0.002	0.097000003	0.231355086
SFTCE	SFTCE070113_61	SFTCE070113_61_02072013_114933.txt	1242349.691	2378943.46	7/2/2013	0	0.000691909	0	A	768.5	38.5	02-07-2013 11:49:33	0	0.003	-0.083999999	0.230636403
SFTCE	SFTCE070113_62	SFTCE070113_62_02072013_115348.txt	1242529.478	2378984.553	7/2/2013	0	0.000920035	0.022540843	A	766.9	38.7	02-07-2013 11:53:48	0	0.004	0.097999997	0.230008617
SFTCE	SFTCE070113_63	SFTCE070113_63_02072013_115939.txt	1242782.966	2378980.038	7/2/2013	0	0.002527334	0.055141822	A	766.8	39.0	02-07-2013 11:59:39	0	0.011	0.239999995	0.229757592
SFTCE	SFTCE070113_64	SFTCE070113_64_02072013_120536.txt	1242733.124	2379191.498	7/2/2013	0	0.003206162	0.062520169	A	764.8	39.2	02-07-2013 12:05:36	0	0.014	0.273000002	0.229011595
SFTCE	SFTCE070113_65	SFTCE070113_65_02072013_121226.txt	1242723.293	2379375.774	7/2/2013	0	0.003886354	0.151567787	A	763.7	39.3	02-07-2013 12:12:26	0	0.017000001	0.662999988	0.228609025
SFTCE	SFTCE070113_66	SFTCE070113_66_02072013_121741.txt	1242746.492	2379572.013	7/2/2013	0	0.002738839	0.16980806	A	762.7	39.4	02-07-2013 12:17:41	0	0.012	0.744000018	0.228236631
SFTCE	SFTCE070113_67	SFTCE070113_67_02072013_122356.txt	1242536.758	2379750.102	7/2/2013	0	0.003875158	0.155918121	A	761.5	39.3	02-07-2013 12:23:56	0	0.017000001	0.684000015	0.227950469
SFTCE	SFTCE070113_68	SFTCE070113_68_02072013_122916.txt	1242568.824	2379602.023	7/2/2013	0	0.003427339	0.17753619	A	763.3	39.3	02-07-2013 12:29:16	0	0.015	0.77700001	0.228489295
SFTCE	SFTCE070113_69	SFTCE070113_69_02072013_123318.txt	1242574.636	2379398.929	7/2/2013	0	0.003199688	0.044338536	A	763.5	39.3	02-07-2013 12:33:18	0	0.014	0.194000006	0.228549153
SFTCE	SFTCE070113_70	SFTCE070113_70_02072013_123754.txt	1242593.643	2379191.238	7/2/2013	0	0.005489811	0.109796211	A	763.9	39.2	02-07-2013 12:37:54	0	0.024	0.479999989	0.228742108
SFTCE	SFTCE070113_71	SFTCE070113_71_02072013_124249.txt	1242372.089	2379134.962	7/2/2013	0	0.001833506	0.000229188	A	764.9	39.0	02-07-2013 12:42:49	0	0.008	0.001	0.229188293
SFTCE	SFTCE070113_72	SFTCE070113_72_02072013_125027.txt	1242137.105	2379147.866	7/2/2013	0	0.00943414	0.153017148	A	767.7	38.9	02-07-2013 12:50:27	0	0.041000001	0.665000021	0.230100974
SFTCE	SFTCE070113_73	SFTCE070113_73_02072013_125730.txt	1242159.888	2379353.812	7/2/2013	0	0.001612708	0	A	768.9	39.0	02-07-2013 12:57:30	0	0.007	-0.224999994	0.230386823
SFTCE	SFTCE070113_74	SFTCE070113_74_02072013_130310.txt	1242299.1	2379395.764	7/2/2013	0	0	0.03661757	A	769.1	39.2	02-07-2013 13:03:10	0	-0.002	0.158999994	0.23029919
SFTCE	SFTCE070113_75	SFTCE070113_75_02072013_131107.txt	1242310.699	2379562.781	7/2/2013	0	0.000229483	0.005048619	A	767.6	39.7	02-07-2013 13:11:07	0	0.001	0.022	0.229482681
SFTCE	SFTCE070113_76	SFTCE070113_76_02072013_131855.txt	1242287.409	2379729.443	7/2/2013	0	0.002513935	0	A	766.4	40.5	02-07-2013 13:18:55	0	0.011	-0.372000009	0.228539526
SFTCE	SFTCE070113_77	SFTCE070113_77_02072013_132834.txt	1242362.297	2380003.208	7/2/2013	0	0.003189513	0.152868792	A	765.7	41.2	02-07-2013 13:28:34	0	0.014	0.671000004	0.227822334
SFTCE	SFTCE070113_78	SFTCE070113_78_02072013_133819.txt	1242145.315	2379940.928	7/2/2013	0	0.000908994	0	A	764.5	41.5	02-07-2013 13:38:19	0	0.004	-0.054000001	0.227248415
SFTCE	SFTCE070113_79	SFTCE070113_79_02072013_134451.txt	1242163.613	2379787.416	7/2/2013	0	0.000455099	0.002275496	A	766.0	41.7	02-07-2013 13:44:51	0	0.002	0.01	0.227549657
SFTCE	SFTCE070113_80	SFTCE070113_80_02072013_134949.txt	1242174.068	2379589.401	7/2/2013	0	0	0.073201373	A	767.9	41.8	02-07-2013 13:49:49	0	-0.002	0.32100001	0.228041649
SFTCE	SFTCE070113_81	SFTCE070113_81_02072013_135751.txt	1241982.413	2379725.761	7/2/2013	0	0.0006828	0	A	766.9	42.0	02-07-2013 13:57:51	0	0.003	-0.089000002	0.227600142
SFTCE	SFTCE070113_82	SFTCE070113_82_02072013_140808.txt	1241946.577	2379981.736	7/2/2013	0	0.00227773	0.122997418	A	768.7	42.5	02-07-2013 14:08:08	0	0.01	0.540000021	0.227772981
SFTCE	SFTCE070113_83	SFTCE070113_83_02072013_141355.txt	1241905.961	2380170.113	7/2/2013	0	0.003631977	0.152770028	A	767.3	43.0	02-07-2013 14:13:55	0	0.016000001	0.672999978	0.226998568
SFTCE	SFTCE070113_84	SFTCE070113_84_02072013_141929.txt	1241945.282	2380345.381	7/2/2013	0	0.008373663	0.172678515	A	766.2	43.5	02-07-2013 14:19:29	0	0.037	0.763000011	0.226315215
SFTCE	SFTCE070113_85	SFTCE070113_85_02072013_143255.txt	1241921.726	2380547.887	7/2/2013	0	0.00293331	0.183219016	A	765.6	44.2	02-07-2013 14:32:55	0	0.013	0.811999977	0.225639194
SFTCE	SFTCE070113_86	SFTCE070113_86_02072013_143950.txt	1241931.229	2380773.735	7/2/2013	0	0.005178028	0.336571813	A	764.6	44.5	02-07-2013 14:39:50	0	0.023	1.495000005	0.225131646
SFTCE	SFTCE070113_87	SFTCE070113_87_02072013_144615.txt	1241753.585	2380970.425	7/2/2013	0	0.001570934	0	A	762.9	44.8	02-07-2013 14:46:15	0	0.007	-0.013	0.224419147
SFTCE	SFTCE070113_88	SFTCE070113_88_02072013_145119.txt	1241780.354	2380788.75	7/2/2013	0	0.00044932	0	A	764.2	45.0	02-07-2013 14:51:19	0	0.002	-0.004	0.224660233
SFTCE	SFTCE070113_89	SFTCE070113_89_02072013_145739.txt	1241756.408	2380581.183	7/2/2013	0	0.005844532	0.070583969	A	764.4	44.9	02-07-2013 14:57:39	0	0.026000001	0.31400001	0.224789694
SFTCE	SFTCE070113_90	SFTCE070113_90_02072013_150235.txt	1241736.777	2380373.815	7/2/2013	0	0.002251426	0.056285646	A	765.6	44.9	02-07-2013 15:02:35	0	0.01	0.25	0.225142583
SFTCE	SFTCE070113_91	SFTCE070113_91_02072013_150747.txt	1241755.685	2380177.862	7/2/2013	0	0.001577027	0.044156764	A	766.1	44.9	02-07-2013 15:07:47	0	0.007	0.195999995	0.225289613
SFTCE	SFTCE070113_92	SFTCE070113_92_02072013_151249.txt	1241791.341	2379959.571	7/2/2013	0	0.000901913	0.010146516	A	766.5	44.8	02-07-2013 15:12:49	0	0.004	0.045000002	0.225478142
SFTCE	SFTCE070113_93	SFTCE070113_93_02072013_151905.txt	1241550.949	2380167.775	7/2/2013	0	0.001129242	0.078369379	A	768.0	44.9	02-07-2013 15:19:05	0	0.005	0.347000003	0.225848362
SFTCE	SFTCE070113_94	SFTCE070113_94_02072013_152528.txt	1241574.6	2380370.961	7/2/2013	0	0.001354767	0.024611609	A	768.3	45.1	02-07-2013 15:25:28	0	0.006	0.108999997	0.225794584
SFTCE	SFTCE070113_95	SFTCE070113_95_02072013_153332.txt	1241564.746	2380563.787	7/2/2013	0	0.001579279	0.050085708	A	768.4	45.4	02-07-2013 15:33:32	0	0.007	0.222000003	0.225611299
SFTCE	SFTCE070113_96	SFTCE070113_96_02072013_153834.txt	1241539.395	2380721.555	7/2/2013	0	0.004722541	0.196097866	A	766.4	45.6	02-07-2013 15:38:34	0	0.021	0.871999979	0.224882886
SFTCE	SFTCE070113_97	SFTCE070113_97_02072013_154407.txt	1241583.942	2380942.699	7/2/2013	0	0.002021357	0	A	765.9	45.8	02-07-2013 15:44:07	0	0.009	-0.126000002	0.224595249
SFTCE	SFTCE070113_98	SFTCE070113_98_02072013_155014.txt	1241580.115	2381169.514	7/2/2013	0	0.001346446	0.092904747	A	765.5	45.9	02-07-2013 15:50:14	0	0.006	0.414000005	0.224407598
SFTCE	SFTCE070113_99	SFTCE070113_99_02072013_155709.txt	1241354.906	2381184.122	7/2/2013	0	0.002694088	0.084414735	A	765.6	45.8	02-07-2013 15:57:09	0	0.012	0.375999987	0.224507287
SFTCW	SFTCW062113_01	SFTCW062113_01_21062013_102744.txt	1243382.214	2373800.664	6/21/2013	2.279812098	0.000239677	0.290249407	A	777.1	30.1	21-06-2013 10:27:44	9.512000084	0.001	1.210999966	0.239677474
SFTCW	SFTCW062113_02	SFTCW062113_02_21062013_103137.txt	1243430.995	2373765.669	6/21/2013	0	0.000239125	0.019369164	A	777.1	30.8	21-06-2013 10:31:37	0	0.001	0.081	0.23912549
SFTCW	SFTCW062113_03	SFTCW062113_03_21062013_103433.txt	1243458.554	2373845.49	6/21/2013	0	0	0.053928949	A	777.0	31.4	21-06-2013 10:34:33	0	0	0.225999996	0.238623679
SFTCW	SFTCW062113_04	SFTCW062113_04_21062013_104012.txt	1243353.132	2373661.63	6/21/2013	0	0	0.185218856	A	777.0	32.5	21-06-2013 10:40:12	0	-0.001	0.778999984	0.237764895
SFTCW	SFTCW062113_05	SFTCW062113_05_21062013_104559.txt	1243282.479	2373708.569	6/21/2013	0	0.000947771	0.168466315	A	777.1	33.6	21-06-2013 10:45:59	0	0.004	0.711000025	0.236942768
SFTCW	SFTCW062113_06	SFTCW062113_06_21062013_104858.txt	1243279.286	2373745.644	6/21/2013	4.01639843	0.000946594	1.775810361	A	777.4	34.1	21-06-2013 10:48:58	16.97200012	0.004	7.504000187	0.2366485
SFTCW	SFTCW062113_07	SFTCW062113_07_21062013_105335.txt	1243212.079	2373764.525	6/21/2013	0	0.000471975	0.189026132	A	777.5	35.0	21-06-2013 10:53:35	0	0.002	0.800999999	0.235987678
SFTCW	SFTCW062113_08	SFTCW062113_08_21062013_105657.txt	1243227.248	2373852.455	6/21/2013	0	0.001649238	0.189662337	A	777.5	35.5	21-06-2013 10:56:57	0	0.007	0.805000007	0.235605389
SFTCW	SFTCW062113_09	SFTCW062113_09_21062013_110051.txt	1243258.973	2373802.959	6/21/2013	0	0.000940835	0.398678869	A	777.7	36.1	21-06-2013 11:00:51	0	0.004	1.695000052	0.235208765

APPENDIX B - FLUX METER DATA

AreaAbbrev	SitePt	Filename	Northing	Easting	Date	CH_4 flux	H_2S flux	CO_2 flux	ACCUMULATION CHAMBER	PRESSURE Hpa	TEMP DegC	TIME	CH_4 slope	H_2S slope	CO_2 slope	AcK
SFTCW	SFTCW062113_10	SFTCW062113_10_21062013_110418.txt	1243291.024	2373816.807	6/21/2013	5.482552528	0.000938954	1.211720228	A	777.4	36.6	21-06-2013 11:04:18	23.3560009	0.004	5.162000179	0.234738499
SFTCW	SFTCW062113_100	SFTCW062113_100_25062013_115519.txt	1242940.686	2374258.919	6/25/2013	0	0.001860723	0.126529127	A	777.0	39.3	25-06-2013 11:55:19	0	0.008	0.54400003	0.232590303
SFTCW	SFTCW062113_101	SFTCW062113_101_25062013_115941.txt	1242808.889	2374323.661	6/25/2013	0	0.002324552	0.176433474	A	776.3	39.2	25-06-2013 11:59:41	0	0.01	0.759000003	0.232455164
SFTCW	SFTCW062113_102	SFTCW062113_102_25062013_120519.txt	1242556.079	2374367.588	6/25/2013	0	0.003020548	0.141733438	A	775.7	39.1	25-06-2013 12:05:19	0	0.013	0.610000014	0.232349887
SFTCW	SFTCW062113_103	SFTCW062113_103_25062013_121046.txt	1242574.437	2374537.738	6/25/2013	0	0.005807612	0.089669526	A	775.3	39.0	25-06-2013 12:10:46	0	0.025	0.386000007	0.232304469
SFTCW	SFTCW062113_104	SFTCW062113_104_25062013_121542.txt	1242804.973	2374573.014	6/25/2013	0	0.004879957	0.481489122	A	775.3	38.9	25-06-2013 12:15:42	0	0.021	2.072000027	0.232378915
SFTCW	SFTCW062113_105	SFTCW062113_105_25062013_122012.txt	1242942.438	2374360.189	6/25/2013	0	0.00185999	0.09416201	A	775.7	38.9	25-06-2013 12:20:12	-0.061000001	0.008	0.405000001	0.232498795
SFTCW	SFTCW062113_106	SFTCW062113_106_25062013_122302.txt	1242995.098	2374345.473	6/25/2013	0	0.002557487	0.071377136	A	775.7	38.9	25-06-2013 12:23:02	0	0.011	0.307000011	0.232498795
SFTCW	SFTCW062113_107	SFTCW062113_107_25062013_122556.txt	1243056.533	2374345.857	6/25/2013	0	0.002093029	0.045814071	A	775.9	38.9	25-06-2013 12:25:56	0	0.009	0.196999997	0.232558742
SFTCW	SFTCW062113_108	SFTCW062113_108_25062013_123002.txt	1243154.989	2374357.988	6/25/2013	0	0.001861429	0.074689843	A	776.3	38.9	25-06-2013 12:30:02	0	0.008	0.32100001	0.232678637
SFTCW	SFTCW062113_109	SFTCW062113_109_25062013_123324.txt	1243195.124	2374346.924	6/25/2013	0	0.001628858	0.35206601	A	776.6	39.0	25-06-2013 12:33:24	0	0.007	1.513000011	0.232693985
SFTCW	SFTCW062113_11	SFTCW062113_11_21062013_110809.txt	1243329.282	2373903.408	6/21/2013	0	0.001406161	0.726985335	A	777.4	37.1	21-06-2013 11:08:09	0	0.006	3.101999998	0.234360203
SFTCW	SFTCW062113_110	SFTCW062113_110_25062013_123847.txt	1243450.56	2374456.582	6/25/2013	0	0.003258769	0.168059394	A	777.1	39.1	25-06-2013 12:38:47	0	0.014	0.722000003	0.232769236
SFTCW	SFTCW062113_111	SFTCW062113_111_25062013_124510.txt	1243342.676	2374458.309	6/25/2013	0	0.001862883	0.72978425	A	778.4	39.5	25-06-2013 12:45:10	0	0.008	3.134000063	0.232860327
SFTCW	SFTCW062113_112	SFTCW062113_112_25062013_124900.txt	1243253.31	2374459.239	6/25/2013	0	0.008838492	1.871434212	A	778.0	39.7	25-06-2013 12:49:00	-0.050000001	0.037999999	8.045999527	0.232591882
SFTCW	SFTCW062113_113	SFTCW062113_113_25062013_125316.txt	1243156.25	2374458.224	6/25/2013	0	0.001625848	0.327260017	A	777.4	39.9	25-06-2013 12:53:16	0	0.007	1.409000039	0.232264027
SFTCW	SFTCW062113_114	SFTCW062113_114_25062013_125730.txt	1243058.178	2374463.806	6/25/2013	0	0.006265125	0.12692678	A	777.4	40.2	25-06-2013 12:57:30	0	0.027000001	0.546999991	0.232041657
SFTCW	SFTCW062113_115	SFTCW062113_115_25062013_130107.txt	1242966.956	2374463.731	6/25/2013	0	0.003703139	0.112251416	A	775.9	40.4	25-06-2013 13:01:07	0	0.016000001	0.485000014	0.231446207
SFTCW	SFTCW062113_116	SFTCW062113_116_25062013_130615.txt	1242959.903	2374533.914	6/25/2013	0	0.00208101	0.086477526	A	775.4	40.5	25-06-2013 13:06:15	0	0.009	0.374000013	0.231223315
SFTCW	SFTCW062113_117	SFTCW062113_117_25062013_130947.txt	1243041.111	2374560.788	6/25/2013	0	0.004622396	0.126884773	A	775.3	40.6	25-06-2013 13:09:47	0	0.02	0.549000025	0.231119797
SFTCW	SFTCW062113_118	SFTCW062113_118_25062013_131316.txt	1243173.418	2374552.429	6/25/2013	0	0.003700553	0.695472717	A	776.1	40.7	25-06-2013 13:13:16	0	0.016000001	3.006999969	0.231284574
SFTCW	SFTCW062113_119	SFTCW062113_119_25062013_131628.txt	1243247.763	2374560.723	6/25/2013	0	0.004399503	0.877353489	A	777.0	40.7	25-06-2013 13:16:28	0	0.018999999	3.789000034	0.23155278
SFTCW	SFTCW062113_12	SFTCW062113_12_21062013_111107.txt	1243298.489	2373919.004	6/21/2013	1.214451432	0.000702266	1.005176187	A	777.5	37.5	21-06-2013 11:11:07	5.188000202	0.003	4.294000149	0.23408854
SFTCW	SFTCW062113_120	SFTCW062113_120_25062013_132108.txt	1243369.547	2374601.797	6/25/2013	0	0.009263927	0.753620505	A	777.4	40.8	25-06-2013 13:21:08	-0.017999999	0.039999999	3.253999949	0.231598184
SFTCW	SFTCW062113_121	SFTCW062113_121_25062013_132421.txt	1243404.109	2374728.972	6/25/2013	0	0.005793323	0.153870657	A	778.1	40.9	25-06-2013 13:24:21	0	0.025	0.663999975	0.23173292
SFTCW	SFTCW062113_122	SFTCW062113_122_25062013_132922.txt	1243250.809	2374668.068	6/25/2013	0	0.003474887	0.862467051	A	778.1	41.0	25-06-2013 13:29:22	0	0.015	3.72300005	0.231659159
SFTCW	SFTCW062113_123	SFTCW062113_123_25062013_133318.txt	1243143.313	2374653.733	6/25/2013	0	0.003238863	0.173510507	A	777.3	41.1	25-06-2013 13:33:18	0	0.014	0.75	0.231347337
SFTCW	SFTCW062113_124	SFTCW062113_124_25062013_133710.txt	1243059.643	2374653.627	6/25/2013	0	0.00300037	0.194562435	A	775.7	41.2	25-06-2013 13:37:10	0	0.013	0.842999995	0.230797678
SFTCW	SFTCW062113_125	SFTCW062113_125_25062013_134212.txt	1242953.353	2374652.062	6/25/2013	0	0.003691589	0.189193904	A	775.7	41.3	25-06-2013 13:42:12	0	0.016000001	0.819999993	0.230724275
SFTCW	SFTCW062113_126	SFTCW062113_126_25062013_134549.txt	1242985.157	2374731.64	6/25/2013	0	0.005070395	0.442276776	A	775.1	41.4	25-06-2013 13:45:49	-0.014	0.022	1.91900003	0.23047252
SFTCW	SFTCW062113_127	SFTCW062113_127_25062013_135003.txt	1242799.971	2374748.158	6/25/2013	0	0.002536354	1.036907673	A	775.7	41.5	25-06-2013 13:50:03	-0.025	0.011	4.497000217	0.230577633
SFTCW	SFTCW062113_128	SFTCW062113_128_25062013_135344.txt	1242609.118	2374745.87	6/25/2013	0	0.003686168	0.145834029	A	775.3	41.6	25-06-2013 13:53:44	0	0.016000001	0.633000016	0.230385512
SFTCW	SFTCW062113_129	SFTCW062113_129_25062013_135852.txt	1242399.208	2374937.447	6/25/2013	0	0.005304334	0.157285035	A	776.1	41.6	25-06-2013 13:58:52	0	0.023	0.681999981	0.23062323
SFTCW	SFTCW062113_13	SFTCW062113_13_21062013_111619.txt	1243238.625	2373923.174	6/21/2013	0	0.000233773	1.263540387	A	777.7	38.0	21-06-2013 11:16:19	0	0.001	5.40500021	0.233772486
SFTCW	SFTCW062113_130	SFTCW062113_130_25062013_140233.txt	1242579.623	2374967.907	6/25/2013	0	0.001844875	0.075178668	A	776.3	41.7	25-06-2013 14:02:33	0	0.008	0.326000005	0.230609402
SFTCW	SFTCW062113_131	SFTCW062113_131_25062013_140642.txt	1242809.549	2374923.42	6/25/2013	0	0.00392137	0.147858709	A	776.5	41.7	25-06-2013 14:06:42	-0.014	0.017000001	0.640999973	0.230668813
SFTCW	SFTCW062113_132	SFTCW062113_132_25062013_141111.txt	1242997.279	2374964.427	6/25/2013	0	0.005067876	0.141670167	A	775.7	41.8	25-06-2013 14:11:11	0	0.022	0.61500001	0.23035799
SFTCW	SFTCW062113_133	SFTCW062113_133_25062013_141538.txt	1243184.622	2374957.892	6/25/2013	0	0.003916086	0.829288721	A	775.7	41.8	25-06-2013 14:15:38	0	0.017000001	3.599999905	0.23035799
SFTCW	SFTCW062113_134	SFTCW062113_134_25062013_141922.txt	1243173.668	2374860.489	6/25/2013	0	0.000920308	0.243421525	A	775.0	41.9	25-06-2013 14:19:22	0	0.004	1.057999969	0.230077058
SFTCW	SFTCW062113_135	SFTCW062113_135_25062013_142502.txt	1243189.153	2374732.61	6/25/2013	0	0.005061042	0.537390649	A	774.9	41.9	25-06-2013 14:25:02	0	0.022	2.335999966	0.230047375
SFTCW	SFTCW062113_136	SFTCW062113_136_25062013_143121.txt	1243546.813	2374599.517	6/25/2013	0	0.005065313	0.1703787	A	775.8	42.0	25-06-2013 14:31:21	0	0.022	0.74000001	0.230241477
SFTCW	SFTCW062113_137	SFTCW062113_137_25062013_150141.txt	1243566.304	2374940.14	6/25/2013	0	0.007608423	0.136951625	A	778.1	42.5	25-06-2013 15:01:41	0	0.033	0.593999982	0.230558291
SFTCW	SFTCW062113_138	SFTCW062113_138_25062013_150604.txt	1243406.862	2374921.846	6/25/2013	0	0	0.01680829	A	777.8	42.8	25-06-2013 15:06:04	0	0	0.072999999	0.230250552
SFTCW	SFTCW062113_139	SFTCW062113_139_25062013_152054.txt	1242775.057	2375194.975	6/25/2013	0	0.015159761	0.238191977	A	776.9	43.2	25-06-2013 15:20:54	0	0.066	1.036999941	0.229693338
SFTCW	SFTCW062113_14	SFTCW062113_14_21062013_111936.txt	1243238.403	2373969.738	6/21/2013	0	0.000933889	0.16996786	A	777.7	38.4	21-06-2013 11:19:36	0	0.004	0.727999985	0.233472347
SFTCW	SFTCW062113_140	SFTCW062113_140_25062013_153035.txt	1242560.808	2375165.497	6/25/2013	0.313024044	0.000916615	0.570592821	A	776.3	43.7	25-06-2013 15:30:35	1.366000056	0.004	2.49000001	0.229153752
SFTCW	SFTCW062113_141	SFTCW062113_141_25062013_153652.txt	1242416.035	2375316.902	6/25/2013	0	0.001373976	0.07327871	A	776.5	44.0	25-06-2013 15:36:52	-0.048	0.006	0.319999993	0.228995979
SFTCW	SFTCW062113_142	SFTCW062113_142_25062013_154431.txt	1242401.361	2375135.519	6/25/2013	0	0.006173159	0.164846212	A	776.5	44.5	25-06-2013 15:44:31	-0.003	0.027000001	0.721000016	0.22863552
SFTCW	SFTCW062113_143	SFTCW062113_143_26062013_100800.txt	1243113.113	2374741.299	6/26/2013	0.294731736	0	0	A	777.8	30.2	26-06-2013 10:08:00	1.228999972	-0.002	-0.052000001	0.239814281
SFTCW	SFTCW062113_144	SFTCW062113_144_26062013_101741.txt	1242546.701	2375342.335	6/26/2013	0	0.000950174	0.218302384	A	777.8	33.1	26-06-2013 10:17:41	0	0.004	0.91900003	0.237543389
SFTCW	SFTCW062113_145	SFTCW062113_145_26062013_102212.txt	1242693.174	2375338.018	6/26/2013	0	0.000947081	0.002367703	A	777.8	34.1	26-06-2013 10:22:12	0	0.004	0.01	0.236770257
SFTCW	SFTCW062113_146	SFTCW062113_146_26062013_103018.txt	1242694.124	2375502.589	6/26/2013	0	0.002357727	0.237423092	A	777.8	35.4	26-06-2013 10:30:18	0	0.01	1.006999969	0.235772684
SFTCW	SFTCW062113_147	SFTCW062113_147_26062013_103527.txt	1242528.737	2375548.062	6/26/2013	0	0.002828138	0.28988412	A	779.0	36.0	26-06-2013 10:35:27	0	0.012	1.230000019	0.235678151
SFTCW	SFTCW062113_148	SFTCW062113_148_26062013_104229.txt	1242554.655	2375770.738	6/26/2013	0	0.000470202	0.065593138	A	778.6	36.6	26-06-2013 10:42:29	0	0.002	0.279000014	0.23510085
SFTCW	SFTCW062113_149	SFTCW062113_149_26062013_104723.txt	1242545.009	2375953.459	6/26/2013	0	0.002814136	0.135078549	A	777.4	36.9	26-06-2013 10:47:23	0	0.012	0.575999975	0.234511375
SFTCW	SFTCW062113_15	SFTCW062113_15_21062013_112259.txt	1243270.444	2374025.119	6/21/2013	0	0.00629607	0.219662875	A	777.5	38.7	21-06-2013 11:22:59	0	0.027000001	0.941999972	0.233187765
SFTCW	SFTCW062113_150	SFTCW062113_150_26062013_105541.txt	1242768.565	2375948.684	6/26/2013	0.841115654	0	0.193959638	A	776.6	37.3	26-06-2013 10:55:41	3.595000029	-0.003	0.828999996	0.233968198

APPENDIX B - FLUX METER DATA

AreaAbbrev	SitePt	Filename	Northing	Easting	Date	CH_4 flux	H_2S flux	CO_2 flux	ACCUMULATION CHAMBER	PRESSURE Hpa	TEMP DegC	TIME	CH_4 slope	H_2S slope	CO_2 slope	AcK
SFTCW	SFTCW062113_151	SFTCW062113_151_26062013_110143.txt	1242737.851	2375793.522	6/26/2013	0.074631013	0.003041389	0.172423363	A	777.3	37.6	26-06-2013 11:01:43	0.319000006	0.013	0.736999989	0.233953014
SFTCW	SFTCW062113_152	SFTCW062113_152_26062013_111015.txt	1242982.919	2375738.679	6/26/2013	0	0.002335772	0.49284783	A	777.3	38.1	26-06-2013 11:10:15	0	0.01	2.109999895	0.233577177
SFTCW	SFTCW062113_153	SFTCW062113_153_26062013_111637.txt	1242950.032	2375986.929	6/26/2013	0	0.001632939	0.076748148	A	776.8	38.3	26-06-2013 11:16:37	0	0.007	0.328999996	0.233277038
SFTCW	SFTCW062113_154	SFTCW062113_154_26062013_112600.txt	1243143.765	2375929.747	6/26/2013	0.002560109	0.002792846	0.129634604	A	775.5	38.5	26-06-2013 11:26:00	0.011	0.012	0.556999981	0.232737184
SFTCW	SFTCW062113_155	SFTCW062113_155_26062013_113325.txt	1243338.158	2375975.815	6/26/2013	0	0.001393275	0.093813859	A	774.0	38.6	26-06-2013 11:33:25	0	0.006	0.404000014	0.232212514
SFTCW	SFTCW062113_156	SFTCW062113_156_26062013_114114.txt	1243552.344	2375999.562	6/26/2013	0	0.000694615	0.01921767	A	772.0	38.7	26-06-2013 11:41:14	-0.012	0.003	0.082999997	0.231538206
SFTCW	SFTCW062113_157	SFTCW062113_157_26062013_120750.txt	1243554.111	2376172.058	6/26/2013	0	0.000231347	0.076113239	A	772.6	39.2	26-06-2013 12:07:50	0	0.001	0.328999996	0.231347233
SFTCW	SFTCW062113_158	SFTCW062113_158_26062013_121916.txt	1243331.244	2376182.633	6/26/2013	0	0.000694688	0.163483202	A	775.3	40.0	26-06-2013 12:19:16	-0.064999998	0.003	0.70599997	0.231562629
SFTCW	SFTCW062113_159	SFTCW062113_159_26062013_122544.txt	1243143.888	2376173.943	6/26/2013	0	0.0011524	0.159492105	A	773.4	40.7	26-06-2013 12:25:44	-0.017000001	0.005	0.691999972	0.230479941
SFTCW	SFTCW062113_16	SFTCW062113_16_21062013_112638.txt	1243301.189	2373973.64	6/21/2013	0	0.001165118	0.180360258	A	777.7	39.0	21-06-2013 11:26:38	0	0.005	0.773999989	0.233023584
SFTCW	SFTCW062113_160	SFTCW062113_160_26062013_123209.txt	1242949.286	2376171.446	6/26/2013	0	0.002297589	0.307187647	A	772.7	41.4	26-06-2013 12:32:09	-0.023	0.01	1.337000012	0.229758888
SFTCW	SFTCW062113_161	SFTCW062113_161_26062013_123712.txt	1242756.861	2376177.682	6/26/2013	0	0.001379475	0.015863966	A	774.2	41.8	26-06-2013 12:37:12	0	0.006	0.068999998	0.229912549
SFTCW	SFTCW062113_162	SFTCW062113_162_26062013_124300.txt	1242553.22	2376162.901	6/26/2013	0	0.003447873	0.236983791	A	775.0	42.2	26-06-2013 12:43:00	0	0.015	1.031000018	0.22985819
SFTCW	SFTCW062113_163	SFTCW062113_163_26062013_124918.txt	1242549.553	2376376.972	6/26/2013	0	0.005517043	0.52503854	A	775.8	42.5	26-06-2013 12:49:18	-0.103	0.024	2.28399992	0.229876772
SFTCW	SFTCW062113_164	SFTCW062113_164_26062013_125531.txt	1242724.346	2376332.314	6/26/2013	0	0.004589294	0.211795926	A	774.9	42.7	26-06-2013 12:55:31	0	0.02	0.922999978	0.22946471
SFTCW	SFTCW062113_165	SFTCW062113_165_26062013_130130.txt	1242950.141	2376346.388	6/26/2013	0	0.007095143	0.071409188	A	773.4	42.9	26-06-2013 13:01:30	-0.001	0.030999999	0.312000006	0.228875592
SFTCW	SFTCW062113_166	SFTCW062113_166_26062013_130944.txt	1243130.471	2376339.581	6/26/2013	0	0	0.769713819	A	774.6	43.2	26-06-2013 13:09:44	0	-0.002	3.361000061	0.229013339
SFTCW	SFTCW062113_167	SFTCW062113_167_26062013_132220.txt	1242944.461	2376568.175	6/26/2013	0	0.006851403	0.248705924	A	774.9	44.2	26-06-2013 13:22:20	0	0.029999999	1.088999987	0.228380099
SFTCW	SFTCW062113_168	SFTCW062113_168_26062013_133151.txt	1242759.53	2376558.082	6/26/2013	0	0.004580041	0.109462984	A	777.5	44.4	26-06-2013 13:31:51	0	0.02	0.477999985	0.229002059
SFTCW	SFTCW062113_169	SFTCW062113_169_26062013_134506.txt	1242547.683	2376575.135	6/26/2013	0	0.003655134	0.242152572	A	776.1	44.6	26-06-2013 13:45:06	0	0.016000001	1.059999943	0.228445828
SFTCW	SFTCW062113_17	SFTCW062113_17_21062013_112955.txt	1243363.234	2373965.323	6/21/2013	0	0.00139644	0.236929297	A	777.5	39.3	21-06-2013 11:29:55	-0.011	0.006	1.018000007	0.23273997
SFTCW	SFTCW062113_170	SFTCW062113_170_26062013_134955.txt	1242559.596	2376749.445	6/26/2013	0	0.005022285	0.10775084	A	775.8	44.7	26-06-2013 13:49:55	0	0.022	0.472000003	0.228285685
SFTCW	SFTCW062113_171	SFTCW062113_171_26062013_135515.txt	1242332.579	2376768.052	6/26/2013	0	0.005027825	0.261446863	A	776.9	44.8	26-06-2013 13:55:15	0	0.022	1.144000053	0.22853747
SFTCW	SFTCW062113_172	SFTCW062113_172_26062013_140051.txt	1242167.18	2376981.474	6/26/2013	0	0.002738567	0.168650061	A	775.8	44.8	26-06-2013 14:00:51	0	0.012	0.739000022	0.228213876
SFTCW	SFTCW062113_173	SFTCW062113_173_26062013_140552.txt	1242354.237	2376960.513	6/26/2013	0	0.00182524	0.437829554	A	775.6	44.8	26-06-2013 14:05:52	0	0.008	1.91900003	0.228155047
SFTCW	SFTCW062113_174	SFTCW062113_174_26062013_140940.txt	1242517.915	2376970.312	6/26/2013	0	0.003197236	0.436194241	A	776.1	44.7	26-06-2013 14:09:40	0	0.014	1.909999967	0.22837396
SFTCW	SFTCW062113_175	SFTCW062113_175_26062013_141335.txt	1242751.919	2376954.44	6/26/2013	0	0.004111261	0.351741225	A	776.2	44.7	26-06-2013 14:13:35	0	0.017999999	1.539999962	0.228403389
SFTCW	SFTCW062113_176	SFTCW062113_176_26062013_141725.txt	1242804.952	2376900.354	6/26/2013	16.87471008	0.001825946	0.841533005	A	775.9	44.8	26-06-2013 14:17:25	73.93299866	0.008	3.687000036	0.228243291
SFTCW	SFTCW062113_177	SFTCW062113_177_26062013_142133.txt	1242732.082	2376801.984	6/26/2013	0	0.005704288	0.363705397	A	775.9	44.9	26-06-2013 14:21:33	0	0.025	1.593999982	0.228171527
SFTCW	SFTCW062113_178	SFTCW062113_178_26062013_142624.txt	1242956.212	2376743.194	6/26/2013	0	0.003425466	0.079014078	A	776.8	45.0	26-06-2013 14:26:24	0	0.015	0.345999986	0.228364393
SFTCW	SFTCW062113_179	SFTCW062113_179_26062013_143126.txt	1242946.285	2376930.287	6/26/2013	0	0.002511362	0.18218787	A	776.6	45.0	26-06-2013 14:31:26	0	0.011	0.797999978	0.228305608
SFTCW	SFTCW062113_18	SFTCW062113_18_21062013_113246.txt	1243374.799	2373970.161	6/21/2013	0	0.000465182	0.420059502	A	777.5	39.5	21-06-2013 11:32:46	0	0.002	1.805999994	0.232591093
SFTCW	SFTCW062113_180	SFTCW062113_180_26062013_143823.txt	1242841.587	2377009.672	6/26/2013	892.4741211	0.000911341	0.63201493	A	775.0	45.0	26-06-2013 14:38:23	3917.190918	0.004	2.773999929	0.227835238
SFTCW	SFTCW062113_181	SFTCW062113_181_26062013_144351.txt	1242854.219	2377054.238	6/26/2013	73.90953064	0.003416454	0.611773133	A	775.0	45.1	26-06-2013 14:43:51	324.5010071	0.015	2.686000109	0.227763638
SFTCW	SFTCW062113_182	SFTCW062113_182_26062013_145020.txt	1242899.394	2377148.348	6/26/2013	0	0.000910248	0.889766872	A	774.8	45.3	26-06-2013 14:50:20	-0.254000008	0.004	3.910000086	0.227561861
SFTCW	SFTCW062113_183	SFTCW062113_183_26062013_145609.txt	1242967.665	2377167.992	6/26/2013	0	0.00272445	0.096263878	A	773.5	45.5	26-06-2013 14:56:09	0	0.012	0.423999995	0.22703746
SFTCW	SFTCW062113_184	SFTCW062113_184_26062013_145944.txt	1243018.704	2377069.716	6/26/2013	0	0.001814926	0.017468659	A	773.4	45.7	26-06-2013 14:59:44	0	0.008	0.077	0.226865709
SFTCW	SFTCW062113_185	SFTCW062113_185_26062013_150434.txt	1242996.315	2377224.38	6/26/2013	0	0.002721535	0.161250949	A	773.4	45.8	26-06-2013 15:04:34	0	0.012	0.711000025	0.226794586
SFTCW	SFTCW062113_186	SFTCW062113_186_26062013_150844.txt	1242918.276	2377221.405	6/26/2013	0	0.002037873	0.127027422	A	772.4	45.9	26-06-2013 15:08:44	0	0.009	0.56099999	0.226430342
SFTCW	SFTCW062113_187	SFTCW062113_187_26062013_151207.txt	1242820.723	2377204.166	6/26/2013	0	0.001358582	0.48773098	A	772.4	45.9	26-06-2013 15:12:07	0	0.006	2.154000044	0.226430342
SFTCW	SFTCW062113_188	SFTCW062113_188_26062013_151606.txt	1242751.03	2377168.282	6/26/2013	0	0.001132823	0.481223106	A	773.1	46.0	26-06-2013 15:16:06	0	0.005	2.124000072	0.226564541
SFTCW	SFTCW062113_189	SFTCW062113_189_26062013_152109.txt	1242542.829	2377178.785	6/26/2013	0.713254035	0.002041758	0.517925858	A	774.6	46.2	26-06-2013 15:21:09	3.144000053	0.009	2.282999992	0.226861969
SFTCW	SFTCW062113_19	SFTCW062113_19_21062013_113545.txt	1243426.022	2373950.48	6/21/2013	4.378419399	0.00092965	1.568552017	A	777.4	39.7	21-06-2013 11:35:45	18.8390007	0.004	6.749000072	0.232412502
SFTCW	SFTCW062113_190	SFTCW062113_190_26062013_152513.txt	1242450.412	2377171.843	6/26/2013	16.62014771	0.001814328	1.371404886	A	774.6	46.3	26-06-2013 15:25:13	73.28399658	0.008	6.046999931	0.22679095
SFTCW	SFTCW062113_191	SFTCW062113_191_26062013_152901.txt	1242347.194	2377162.619	6/26/2013	0	0.0029491	0.188742414	A	775.3	46.5	26-06-2013 15:29:01	0	0.013	0.832000017	0.226853862
SFTCW	SFTCW062113_192	SFTCW062113_192_26062013_153248.txt	1242152.606	2377164.806	6/26/2013	0	0.007711614	0.228626668	A	775.4	46.6	26-06-2013 15:32:48	0	0.034000002	1.008000016	0.226812169
SFTCW	SFTCW062113_193	SFTCW062113_193_26062013_153724.txt	1242155.79	2377335.824	6/26/2013	0	0.002266412	0.052127469	A	775.3	46.8	26-06-2013 15:37:24	-0.021	0.01	0.230000004	0.226641163
SFTCW	SFTCW062113_194	SFTCW062113_194_26062013_154056.txt	1242328.676	2377347.347	6/26/2013	0	0.002263366	0.118600354	A	774.5	46.9	26-06-2013 15:40:56	0	0.01	0.523999989	0.226336554
SFTCW	SFTCW062113_195	SFTCW062113_195_26062013_154501.txt	1242542.379	2377350.728	6/26/2013	0	0.005657071	0.213158414	A	774.8	47.1	26-06-2013 15:45:01	-0.263999999	0.025	0.941999972	0.22628282
SFTCW	SFTCW062113_196	SFTCW062113_196_27062013_101611.txt	1243711.056	2374086.571	6/27/2013	0	0.002162419	0.204468772	A	782.1	31.3	27-06-2013 10:16:11	0	0.009	0.851000011	0.240268826
SFTCW	SFTCW062113_197	SFTCW062113_197_27062013_102923.txt	1243407.818	2373568.972	6/27/2013	0	0.002382148	0.387813687	A	782.8	34.2	27-06-2013 10:29:23	0	0.01	1.628000021	0.238214791
SFTCW	SFTCW062113_198	SFTCW062113_198_27062013_103303.txt	1243351.471	2373377.521	6/27/2013	0	0.00379691	0.136214137	A	782.1	35.1	27-06-2013 10:33:03	0	0.016000001	0.574000001	0.237306863
SFTCW	SFTCW062113_199	SFTCW062113_199_27062013_103731.txt	1243157.318	2373366.457	6/27/2013	0	0.000710483	0.118177071	A	782.8	36.0	27-06-2013 10:37:31	0	0.003	0.499000013	0.236827791
SFTCW	SFTCW062113_20	SFTCW062113_20_21062013_114539.txt	1243421.518	2373989.753	6/21/2013	0	0.001623565	0.876492858	A	777.3	40.3	21-06-2013 11:45:39	0	0.007	3.779000044	0.231937781
SFTCW	SFTCW062113_200	SFTCW062113_200_27062013_104317.txt	1242993.805	2373347.639	6/27/2013	0	0.006128605	0.895247817	A	782.4	37.3	27-06-2013 10:43:17	0	0.026000001	3.798000097	0.235715583
SFTCW	SFTCW062113_201	SFTCW062113_201_27062013_104802.txt	1242752.282	2373381.952	6/27/2013	0	0.002583063	0.125161156	A	781.7	38.2	27-06-2013 10:48:02	0	0.011	0.532999992	0.234823927
SFTCW	SFTCW062113_202	SFTCW062113_202_27062013_105217.txt	1242759.016	2373190.01	6/27/2013	0	0.005846939	0.166754693	A	780.3	38.9	27-06-2013 10:52:17	0	0.025	0.713	0.233877555

APPENDIX B - FLUX METER DATA

AreaAbbrev	SitePt	Filename	Northing	Easting	Date	CH_4 flux	H_2S flux	CO_2 flux	ACCUMULATION CHAMBER	PRESSURE Hpa	TEMP DegC	TIME	CH_4 slope	H_2S slope	CO_2 slope	AcK
SFTCW	SFTCW062113_203	SFTCW062113_203_27062013_105804.txt	1242755.554	2372994.392	6/27/2013	0	0.002564101	0.103962652	A	779.7	39.7	27-06-2013 10:58:04	0	0.011	0.44600001	0.233100116
SFTCW	SFTCW062113_204	SFTCW062113_204_27062013_110157.txt	1242743.374	2372767.65	6/27/2013	0	0.000698407	0.068676725	A	779.7	40.1	27-06-2013 11:01:57	0	0.003	0.294999987	0.232802466
SFTCW	SFTCW062113_205	SFTCW062113_205_27062013_110705.txt	1242734.52	2372553.913	6/27/2013	0	0.003022384	0.085324228	A	779.9	40.6	27-06-2013 11:07:05	0	0.013	0.367000014	0.232491076
SFTCW	SFTCW062113_206	SFTCW062113_206_27062013_111109.txt	1242744.135	2372373.132	6/27/2013	0	0.005575171	0.087576643	A	780.0	40.9	27-06-2013 11:11:09	0	0.024	0.377000004	0.232298777
SFTCW	SFTCW062113_207	SFTCW062113_207_27062013_111536.txt	1242740.031	2372175.849	6/27/2013	0	0.003945048	0.105355985	A	779.7	41.1	27-06-2013 11:15:36	0	0.017000001	0.453999996	0.232061639
SFTCW	SFTCW062113_208	SFTCW062113_208_27062013_112159.txt	1242829.58	2371974.11	6/27/2013	0	0.002553999	0.122591957	A	780.6	41.3	27-06-2013 11:21:59	0	0.011	0.527999997	0.232181743
SFTCW	SFTCW062113_209	SFTCW062113_209_27062013_112519.txt	1242937.555	2371964.741	6/27/2013	0	0.013939884	0.773198962	A	781.6	41.5	27-06-2013 11:25:19	0	0.059999999	3.328000069	0.23233141
SFTCW	SFTCW062113_21	SFTCW062113_21_21062013_114933.txt	1243475.669	2373938.82	6/21/2013	1.62809217	0.001158949	1.019180059	A	777.3	40.5	21-06-2013 11:49:33	7.024000168	0.005	4.396999836	0.231789887
SFTCW	SFTCW062113_210	SFTCW062113_210_27062013_112859.txt	1242929.27	2371762.362	6/27/2013	0	0.009285592	0.207068697	A	781.7	41.8	27-06-2013 11:28:59	0	0.039999999	0.89200002	0.232139796
SFTCW	SFTCW062113_211	SFTCW062113_211_27062013_113221.txt	1243126.319	2371757.321	6/27/2013	0	0.006494958	0.276963592	A	781.6	42.0	27-06-2013 11:32:21	0	0.028000001	1.194000006	0.2319628
SFTCW	SFTCW062113_212	SFTCW062113_212_27062013_113527.txt	1243259.219	2371775.431	6/27/2013	0	0.002549973	0.105244324	A	781.6	42.2	27-06-2013 11:35:27	0	0.011	0.453999996	0.231815696
SFTCW	SFTCW062113_213	SFTCW062113_213_27062013_113933.txt	1243181.161	2371984.401	6/27/2013	0	0.021304049	0.448542863	A	781.5	42.5	27-06-2013 11:39:33	0	0.092	1.937000036	0.231565744
SFTCW	SFTCW062113_214	SFTCW062113_214_27062013_114632.txt	1242945.801	2372153.768	6/27/2013	0	0.003700139	0.091115914	A	781.7	43.0	27-06-2013 11:46:32	0	0.016000001	0.393999994	0.231258675
SFTCW	SFTCW062113_215	SFTCW062113_215_27062013_120205.txt	1243365.517	2371984.21	6/27/2013	0	0.002075154	0.219966367	A	781.6	43.9	27-06-2013 12:02:05	-0.012	0.009	0.953999996	0.230572715
SFTCW	SFTCW062113_218	SFTCW062113_218_27062013_121934.txt	1243541.365	2371558.881	6/27/2013	0	0.004363755	0.543861687	A	781.0	44.9	27-06-2013 12:19:34	0	0.018999999	2.368000031	0.229671314
SFTCW	SFTCW062113_219	SFTCW062113_219_27062013_122423.txt	1243550.884	2371356.113	6/27/2013	0	0.001835511	0.015142961	A	780.7	45.1	27-06-2013 12:24:23	0	0.008	0.066	0.229438812
SFTCW	SFTCW062113_22	SFTCW062113_22_21062013_115307.txt	1243428.129	2373909.026	6/21/2013	0	0	0.02917565	A	777.0	40.7	21-06-2013 11:53:07	0	-0.006	0.126000002	0.23155278
SFTCW	SFTCW062113_220	SFTCW062113_220_27062013_123256.txt	1243372.842	2370570.374	6/27/2013	0	0.011909736	0.071916483	A	780.3	45.5	27-06-2013 12:32:56	0	0.052000001	0.31400001	0.229033381
SFTCW	SFTCW062113_221	SFTCW062113_221_27062013_123716.txt	1243091.531	2370558.145	6/27/2013	0	0.002060535	0.024726426	A	780.5	45.7	27-06-2013 12:37:16	0	0.009	0.108000003	0.228948385
SFTCW	SFTCW062113_222	SFTCW062113_222_27062013_124116.txt	1243152.503	2370734.267	6/27/2013	0	0.007324052	0.137783721	A	780.5	45.8	27-06-2013 12:41:16	0	0.032000002	0.601999998	0.228876606
SFTCW	SFTCW062113_223	SFTCW062113_223_27062013_124522.txt	1243393.407	2370791.504	6/27/2013	0	0.002287462	0.19695051	A	780.3	45.9	27-06-2013 12:45:22	0	0.01	0.861000001	0.228746235
SFTCW	SFTCW062113_224	SFTCW062113_224_27062013_124959.txt	1243346.13	2370912.315	6/27/2013	0	0.016026601	0.309542358	A	781.0	45.9	27-06-2013 12:49:59	0	0.07	1.351999998	0.228951454
SFTCW	SFTCW062113_225	SFTCW062113_225_27062013_125452.txt	1243149.059	2370969.072	6/27/2013	0	0.002517821	0	A	780.8	45.9	27-06-2013 12:54:52	0	0.011	-0.007	0.228892818
SFTCW	SFTCW062113_226	SFTCW062113_226_27062013_130054.txt	1242965.206	2370991.936	6/27/2013	0	0.002288049	0.10730949	A	780.5	45.9	27-06-2013 13:00:54	0	0.01	0.469000012	0.228804871
SFTCW	SFTCW062113_227	SFTCW062113_227_27062013_130519.txt	1242923.45	2371162.314	6/27/2013	0	0.00182679	0.143631384	A	778.7	45.8	27-06-2013 13:05:19	0	0.008	0.629000008	0.228348777
SFTCW	SFTCW062113_228	SFTCW062113_228_27062013_131014.txt	1242931.879	2371390.031	6/27/2013	0	0.003198525	0.198080078	A	779.1	45.8	27-06-2013 13:10:14	0	0.014	0.866999984	0.228466064
SFTCW	SFTCW062113_229	SFTCW062113_229_27062013_131357.txt	1242920.935	2371567.821	6/27/2013	0	0.006178085	0.127222776	A	780.3	45.8	27-06-2013 13:13:57	-0.061999999	0.027000001	0.555999994	0.228817955
SFTCW	SFTCW062113_23	SFTCW062113_23_21062013_115615.txt	1243478.379	2373879.286	6/21/2013	0	0	0.078713	A	777.1	40.8	21-06-2013 11:56:15	0	0	0.340000004	0.231508821
SFTCW	SFTCW062113_230	SFTCW062113_230_27062013_131847.txt	1243110.356	2371549.557	6/27/2013	0	0.007555831	0.26330927	A	780.8	45.8	27-06-2013 13:18:47	0	0.033	1.149999976	0.228964582
SFTCW	SFTCW062113_231	SFTCW062113_231_27062013_132232.txt	1243150.146	2371363.95	6/27/2013	0.815885246	0.002748631	1.279716611	A	781.1	45.8	27-06-2013 13:22:32	3.562000036	0.012	5.586999893	0.229052559
SFTCW	SFTCW062113_232	SFTCW062113_232_27062013_132633.txt	1243147.57	2371207.577	6/27/2013	0	0.007332497	0.093718484	A	781.4	45.8	27-06-2013 13:26:33	0	0.032000002	0.409000009	0.229140535
SFTCW	SFTCW062113_233	SFTCW062113_233_27062013_133205.txt	1243352.86	2371183.49	6/27/2013	0.282542288	0.000228965	0.69559443	A	780.8	45.8	27-06-2013 13:32:05	1.233999968	0.001	3.038000107	0.228964582
SFTCW	SFTCW062113_234	SFTCW062113_234_27062013_133508.txt	1243500.985	2371163.306	6/27/2013	0	0.004120835	0.094550259	A	780.7	45.8	27-06-2013 13:35:08	0	0.017999999	0.412999988	0.228935257
SFTCW	SFTCW062113_235	SFTCW062113_235_27062013_133830.txt	1243502.964	2370957.641	6/27/2013	0	0.003432953	0.021970896	A	780.7	45.9	27-06-2013 13:38:30	0	0.015	0.096000001	0.228863508
SFTCW	SFTCW062113_236	SFTCW062113_236_27062013_134258.txt	1243342.627	2371395.5	6/27/2013	0	0.004575836	0.099524431	A	780.7	46.0	27-06-2013 13:42:58	0	0.02	0.435000002	0.228791788
SFTCW	SFTCW062113_237	SFTCW062113_237_27062013_134634.txt	1243358.143	2371588.661	6/27/2013	0	0.006401703	0.176961347	A	780.4	46.1	27-06-2013 13:46:34	0	0.028000001	0.773999989	0.228632241
SFTCW	SFTCW062113_238	SFTCW062113_238_27062013_135052.txt	1243446.615	2371600.598	6/27/2013	0.965490162	0.002056665	1.414071798	A	780.5	46.3	27-06-2013 13:50:52	4.224999905	0.009	6.188000202	0.228518382
SFTCW	SFTCW062113_239	SFTCW062113_239_27062013_140145.txt	1243538.934	2372159.136	6/27/2013	0	0.002510057	0.078496322	A	780.1	46.6	27-06-2013 14:01:45	0	0.011	0.344000012	0.228186965
SFTCW	SFTCW062113_24	SFTCW062113_24_21062013_115905.txt	1243532.17	2373931.033	6/21/2013	0	0.000231376	0.007172641	A	776.9	40.9	21-06-2013 11:59:05	0	0.001	0.030999999	0.23137553
SFTCW	SFTCW062113_240	SFTCW062113_240_27062013_140846.txt	1243395.448	2372237.067	6/27/2013	0	0.003422611	0.941902637	A	780.3	46.7	27-06-2013 14:08:46	0	0.015	4.127999783	0.228174105
SFTCW	SFTCW062113_241	SFTCW062113_241_27062013_141124.txt	1243353.785	2372177.517	6/27/2013	0	0.000912879	0.489303082	A	780.7	46.8	27-06-2013 14:11:24	0	0.004	2.144000053	0.228219718
SFTCW	SFTCW062113_242	SFTCW062113_242_27062013_141345.txt	1243345.633	2372211.684	6/27/2013	0	0.000912594	0.259176612	A	780.7	46.9	27-06-2013 14:13:45	0	0.004	1.136000037	0.228148416
SFTCW	SFTCW062113_243	SFTCW062113_243_27062013_141611.txt	1243370.259	2372281.601	6/27/2013	0	0.000456297	0.447855353	A	780.7	46.9	27-06-2013 14:16:11	0	0.002	1.963000059	0.228148416
SFTCW	SFTCW062113_244	SFTCW062113_244_27062013_141857.txt	1243422.054	2372313.575	6/27/2013	0	0.001140386	0.968871772	A	780.7	47.0	27-06-2013 14:18:57	0	0.005	4.248000145	0.228077158
SFTCW	SFTCW062113_245	SFTCW062113_245_27062013_142202.txt	1243344.748	2372396.122	6/27/2013	0	0.005014203	0.246607617	A	780.4	47.1	27-06-2013 14:22:02	0	0.022	1.082000017	0.227918312
SFTCW	SFTCW062113_246	SFTCW062113_246_27062013_142537.txt	1243226.536	2372191.606	6/27/2013	0	0.02665812	1.167716742	A	780.4	47.2	27-06-2013 14:25:37	0	0.116999999	5.125	0.227847174
SFTCW	SFTCW062113_247	SFTCW062113_247_27062013_142936.txt	1243145.106	2372386.504	6/27/2013	0	0.010481726	0.265233278	A	780.7	47.3	27-06-2013 14:29:36	0	0.046	1.164000034	0.227863625
SFTCW	SFTCW062113_248	SFTCW062113_248_27062013_143545.txt	1242952.935	2372351.45	6/27/2013	0	0.008656116	0.095445074	A	780.7	47.4	27-06-2013 14:35:45	0	0.037999999	0.419	0.227792546
SFTCW	SFTCW062113_249	SFTCW062113_249_27062013_144117.txt	1242938.092	2372537.152	6/27/2013	0.904336393	0.001366755	1.522793174	A	780.7	47.4	27-06-2013 14:41:17	3.970000029	0.006	6.684999943	0.227792546
SFTCW	SFTCW062113_25	SFTCW062113_25_21062013_120156.txt	1243529.527	2373991.252	6/21/2013	21.90317535	0.000925327	1.170306921	A	777.0	41.0	21-06-2013 12:01:56	94.68299866	0.004	5.059000015	0.231331661
SFTCW	SFTCW062113_250	SFTCW062113_250_27062013_144504.txt	1242959.78	2372565.201	6/27/2013	25.93299484	0.004559607	3.298420191	A	781.1	47.3	27-06-2013 14:45:04	113.7509995	0.02	14.46800041	0.227980375
SFTCW	SFTCW062113_251	SFTCW062113_251_27062013_144921.txt	1242927.883	2372751.011	6/27/2013	0	0.002734364	1.204942822	A	780.7	47.3	27-06-2013 14:49:21	0	0.012	5.288000107	0.227863625
SFTCW	SFTCW062113_252	SFTCW062113_252_27062013_145339.txt	1242942.415	2372963.876	6/27/2013	0	0.003191317	0.177118078	A	781.0	47.3	27-06-2013 14:53:39	0	0.014	0.77700001	0.227951199
SFTCW	SFTCW062113_253	SFTCW062113_253_27062013_145823.txt	1242943.102	2373170.839	6/27/2013	0	0.009329924	0.118330739	A	779.9	47.4	27-06-2013 14:58:23	0	0.041000001	0.519999981	0.227559119
SFTCW	SFTCW062113_254	SFTCW062113_254_27062013_150212.txt	1243125.065	2373155.378	6/27/2013	0	0.022078896	0.355538487	A	780.1	47.4	27-06-2013 15:02:12	-0.012	0.097000003	1.562000036	0.227617472
SFTCW	SFTCW062113_255	SFTCW062113_255_27062013_150604.txt	1243151.047	2372966.822	6/27/2013	0	0.018454893	0.218952492	A	781.1	47.5	27-06-2013 15:06:04	-0.018999999	0.081	0.961000025	0.227838174
SFTCW	SFTCW062113_256	SFTCW062113_256_27062013_151025.txt	1243132.202	2372735.068	6/27/2013	0	0.00455301	0.112459347	A	780.7	47.6	27-06-2013 15:10:25	-0.138999999	0.02	0.493999988	0.227650508

APPENDIX B - FLUX METER DATA

AreaAbbrev	SitePt	Filename	Northing	Easting	Date	CH_4 flux	H_2S flux	CO_2 flux	ACCUMULATION CHAMBER	PRESSURE Hpa	TEMP DegC	TIME	CH_4 slope	H_2S slope	CO_2 slope	AcK
SFTCW	SFTCW062113_257	SFTCW062113_257_27062013_151441.txt	1243138.118	2372534.857	6/27/2013	0	0.009557647	0.240761667	A	780.4	47.6	27-06-2013 15:14:41	-0.159999996	0.041999999	1.057999969	0.227563024
SFTCW	SFTCW062113_258	SFTCW062113_258_27062013_151826.txt	1243359.554	2372565.686	6/27/2013	0	0.012965388	0.358026683	A	780.3	47.7	27-06-2013 15:18:26	0	0.057	1.574000001	0.227462947
SFTCW	SFTCW062113_259	SFTCW062113_259_27062013_152116.txt	1243364.977	2372764.493	6/27/2013	0	0.016132424	0.207676545	A	779.7	47.8	27-06-2013 15:21:16	0	0.071000002	0.913999975	0.227217227
SFTCW	SFTCW062113_26	SFTCW062113_26_21062013_120450.txt	1243570.02	2373952.54	6/21/2013	0	0.000693863	0.102460496	A	777.1	41.1	21-06-2013 12:04:50	0	0.003	0.442999989	0.231287807
SFTCW	SFTCW062113_260	SFTCW062113_260_27062013_152533.txt	1243347.785	2372955.218	6/27/2013	0	0.005451515	0.13742362	A	779.7	47.9	27-06-2013 15:25:33	-0.018999999	0.024	0.605000019	0.227146462
SFTCW	SFTCW062113_261	SFTCW062113_261_27062013_152858.txt	1243396.723	2373143.419	6/27/2013	0	0.003180924	0.052258037	A	780.4	48.1	27-06-2013 15:28:58	0	0.014	0.230000004	0.227208853
SFTCW	SFTCW062113_262	SFTCW062113_262_27062013_153523.txt	1243512.208	2373001.986	6/27/2013	2179.02417	0.149637476	0.768169284	A	780.4	48.3	27-06-2013 15:35:23	9596.37207	0.658999979	3.382999897	0.227067485
SFTCW	SFTCW062113_263	SFTCW062113_263_27062013_153911.txt	1243515.067	2373050.282	6/27/2013	0	0	0.110193253	A	779.5	48.4	27-06-2013 15:39:11	-0.059	-0.004	0.486000001	0.226735085
SFTCW	SFTCW062113_264	SFTCW062113_264_27062013_154208.txt	1243563.539	2373014.487	6/27/2013	0	0.003852101	0.308168024	A	779.5	48.6	27-06-2013 15:42:08	-0.214000002	0.017000001	1.360000014	0.226594135
SFTCW	SFTCW062113_265	SFTCW062113_265_27062013_154526.txt	1243571.81	2372962.941	6/27/2013	0	0.002490617	0.089435793	A	778.9	48.6	27-06-2013 15:45:26	0	0.011	0.395000011	0.226419732
SFTCW	SFTCW062113_266	SFTCW062113_266_27062013_154833.txt	1243517.352	2372950.371	6/27/2013	0	0.002943079	0.200129345	A	778.8	48.6	27-06-2013 15:48:33	0	0.013	0.884000003	0.22639066
SFTCW	SFTCW062113_267	SFTCW062113_267_27062013_155137.txt	1243464.44	2372975.837	6/27/2013	0	0.004756646	0.135677651	A	779.2	48.6	27-06-2013 15:51:37	0	0.021	0.598999977	0.226506934
SFTCW	SFTCW062113_268	SFTCW062113_268_27062013_155436.txt	1243467.83	2373044.116	6/27/2013	0	0.002720874	0.074370548	A	780.0	48.6	27-06-2013 15:54:36	0	0.012	0.328000009	0.226739481
SFTCW	SFTCW062113_27	SFTCW062113_27_21062013_120710.txt	1243607.736	2373986.337	6/21/2013	0	0	0	A	777.1	41.1	21-06-2013 12:07:10	0	-0.001	-0.017999999	0.231287807
SFTCW	SFTCW062113_28	SFTCW062113_28_21062013_120937.txt	1243639.961	2374010.8	6/21/2013	0	0	0	A	777.3	41.2	21-06-2013 12:09:37	0	0	-0.014	0.231273741
SFTCW	SFTCW062113_29	SFTCW062113_29_21062013_121245.txt	1243586.265	2374035.131	6/21/2013	0	0.002543529	0.257590145	A	777.4	41.3	21-06-2013 12:12:45	0	0.011	1.113999963	0.231229931
SFTCW	SFTCW062113_30	SFTCW062113_30_21062013_121557.txt	1243531.364	2374059.021	6/21/2013	0.814490378	0.001155633	1.669427991	A	777.3	41.4	21-06-2013 12:15:57	3.523999929	0.005	7.22300005	0.231126681
SFTCW	SFTCW062113_31	SFTCW062113_31_21062013_121838.txt	1243546.124	2374082.026	6/21/2013	0	0.000462313	0.19162868	A	777.4	41.4	21-06-2013 12:18:38	0	0.002	0.828999996	0.231156424
SFTCW	SFTCW062113_32	SFTCW062113_32_21062013_122220.txt	1243495.671	2374085.721	6/21/2013	0	0	0.118776642	A	777.4	41.5	21-06-2013 12:22:20	0	-0.002	0.513999999	0.231082961
SFTCW	SFTCW062113_33	SFTCW062113_33_21062013_122558.txt	1243454.712	2374051.706	6/21/2013	33.39968109	0.000692939	1.238975644	A	777.3	41.6	21-06-2013 12:25:58	144.6000061	0.003	5.363999844	0.230979815
SFTCW	SFTCW062113_34	SFTCW062113_34_21062013_122927.txt	1243464.215	2374001.484	6/21/2013	0	0.001615832	0.047551628	A	777.3	41.8	21-06-2013 12:29:27	0	0.007	0.206	0.230833143
SFTCW	SFTCW062113_35	SFTCW062113_35_21062013_123238.txt	1243407.237	2374036.677	6/21/2013	0	0.001845367	0.117642112	A	777.0	41.9	21-06-2013 12:32:38	0	0.008	0.50999999	0.23067081
SFTCW	SFTCW062113_36	SFTCW062113_36_21062013_123549.txt	1243358.319	2374025.84	6/21/2013	14.6561718	0.001153502	0.906191528	A	777.1	41.9	21-06-2013 12:35:49	63.52899933	0.005	3.927999973	0.230700493
SFTCW	SFTCW062113_37	SFTCW062113_37_21062013_123826.txt	1243338.934	2374024.649	6/21/2013	0	0.000691882	0.47347784	A	777.1	42.0	21-06-2013 12:38:26	0	0.003	2.052999973	0.230627298
SFTCW	SFTCW062113_38	SFTCW062113_38_21062013_124157.txt	1243296.773	2374068.748	6/21/2013	0	0	0.168830782	A	777.4	42.1	21-06-2013 12:41:57	0	0	0.731999993	0.230643138
SFTCW	SFTCW062113_39	SFTCW062113_39_21062013_124442.txt	1243335.558	2374095.273	6/21/2013	8.026963234	0.001153067	1.456554651	A	777.3	42.1	21-06-2013 12:44:42	34.80699921	0.005	6.315999985	0.23061347
SFTCW	SFTCW062113_40	SFTCW062113_40_21062013_124819.txt	1243346.577	2374111.03	6/21/2013	2.064879417	0.001843848	3.507229805	A	777.1	42.2	21-06-2013 12:48:19	8.958999634	0.008	15.21700001	0.230481029
SFTCW	SFTCW062113_41	SFTCW062113_41_21062013_125340.txt	1243379.82	2374139.577	6/21/2013	2413.309326	0.006914907	0	A	777.4	42.3	21-06-2013 12:53:40	10470.0293	0.029999999	-0.006	0.230496913
SFTCW	SFTCW062113_42	SFTCW062113_42_21062013_125726.txt	1243390.866	2374137.514	6/21/2013	271.0480347	0.00230335	2.262349844	A	777.1	42.4	21-06-2013 12:57:26	1176.755981	0.01	9.82199955	0.230334952
SFTCW	SFTCW062113_43	SFTCW062113_43_21062013_130208.txt	1243374.718	2374154.049	6/21/2013	0.298747301	0	0.205691084	A	777.6	42.6	21-06-2013 13:02:08	1.297000051	0	0.893000007	0.230337158
SFTCW	SFTCW062113_44	SFTCW062113_44_21062013_130704.txt	1243373.47	2374162.908	6/21/2013	0.341888398	0	0.577483118	A	777.2	42.8	21-06-2013 13:07:04	1.485999942	0	2.50999999	0.230072945
SFTCW	SFTCW062113_45	SFTCW062113_45_21062013_131128.txt	1243380.944	2374189.635	6/21/2013	0	0	0.281535774	A	777.1	43.1	21-06-2013 13:11:28	-0.017999999	-0.002	1.225000024	0.229825109
SFTCW	SFTCW062113_46	SFTCW062113_46_21062013_131516.txt	1243366.578	2374230.561	6/21/2013	123.089386	0.000919246	1.288783431	A	777.3	43.2	21-06-2013 13:15:16	535.6099854	0.004	5.607999802	0.229811594
SFTCW	SFTCW062113_47	SFTCW062113_47_21062013_131857.txt	1243355.357	2374245.46	6/21/2013	0.401658356	0.001837202	0.432201862	A	777.0	43.3	21-06-2013 13:18:57	1.748999953	0.008	1.881999969	0.229650304
SFTCW	SFTCW062113_48	SFTCW062113_48_21062013_132123.txt	1243354.866	2374261.287	6/21/2013	0	0.004590373	0.882499278	A	776.8	43.4	21-06-2013 13:21:23	0	0.02	3.845000029	0.229518667
SFTCW	SFTCW062113_49	SFTCW062113_49_21062013_132401.txt	1243405.444	2374245.738	6/21/2013	0.398369849	0.002065281	0.849289656	A	776.9	43.5	21-06-2013 13:24:01	1.735999942	0.009	3.700999975	0.229475722
SFTCW	SFTCW062113_50	SFTCW062113_50_21062013_132736.txt	1243446.8	2374228.704	6/21/2013	3.398588181	0.000917731	0.762405217	A	777.0	43.6	21-06-2013 13:27:36	14.81299973	0.004	3.322999954	0.229432806
SFTCW	SFTCW062113_51	SFTCW062113_51_21062013_133038.txt	1243496.325	2374192.881	6/21/2013	0	0.000917324	0.307991356	A	776.9	43.7	21-06-2013 13:30:38	0	0.004	1.343000054	0.229330868
SFTCW	SFTCW062113_52	SFTCW062113_52_21062013_133357.txt	1243474.479	2374164.424	6/21/2013	0	0.006420065	0.475314081	A	777.0	43.8	21-06-2013 13:33:57	0	0.028000001	2.072999954	0.229288027
SFTCW	SFTCW062113_53	SFTCW062113_53_21062013_133657.txt	1243448.279	2374136.621	6/21/2013	0	0.007565531	0.316147476	A	776.9	43.8	21-06-2013 13:36:57	0	0.033	1.378999949	0.229258522
SFTCW	SFTCW062113_54	SFTCW062113_54_21062013_133947.txt	1243429.434	2374112.257	6/21/2013	0	0.004126122	0.377081692	A	776.8	43.8	21-06-2013 13:39:47	0	0.017999999	1.644999981	0.229229003
SFTCW	SFTCW062113_55	SFTCW062113_55_21062013_134334.txt	1243409.861	2374082.163	6/21/2013	9.125977516	0.001145702	0.941309035	A	776.5	43.8	21-06-2013 13:43:34	39.82699966	0.005	4.107999802	0.229140475
SFTCW	SFTCW062113_56	SFTCW062113_56_21062013_134618.txt	1243387.243	2374111.237	6/21/2013	538.8655396	0.00389416	4.924050331	A	776.5	43.9	21-06-2013 13:46:18	2352.424072	0.017000001	21.49600029	0.229068205
SFTCW	SFTCW062113_57	SFTCW062113_57_21062013_135103.txt	1243206.016	2374045.458	6/21/2013	7.679512024	0.002290682	2.136290073	A	776.5	43.9	21-06-2013 13:51:03	33.52500153	0.01	9.326000214	0.229068205
SFTCW	SFTCW062113_58	SFTCW062113_58_21062013_135403.txt	1243239.043	2374077.35	6/21/2013	0.53393513	0.000916627	0.963833034	A	776.8	43.9	21-06-2013 13:54:03	2.329999924	0.004	4.205999851	0.229156703
SFTCW	SFTCW062113_59	SFTCW062113_59_21062013_135710.txt	1243270.65	2374103.346	6/21/2013	470.2851868	0.001831968	1.290850401	A	776.5	44.0	21-06-2013 13:57:10	2053.683105	0.008	5.637000084	0.228995979
SFTCW	SFTCW062113_60	SFTCW062113_60_21062013_140044.txt	1243301.548	2374125.503	6/21/2013	15.15098381	0.002747439	3.18863225	A	776.6	44.1	21-06-2013 14:00:44	66.17500305	0.012	13.92700005	0.228953272
SFTCW	SFTCW062113_61	SFTCW062113_61_21062013_140325.txt	1243331.553	2374129.224	6/21/2013	0	0.00137311	0.373943597	A	776.5	44.2	21-06-2013 14:03:25	0	0.006	1.633999944	0.228851661
SFTCW	SFTCW062113_62	SFTCW062113_62_21062013_140657.txt	1243297.919	2374150.08	6/21/2013	0	0.00388953	0.989313364	A	776.8	44.4	21-06-2013 14:06:57	0	0.017000001	4.323999882	0.228795886
SFTCW	SFTCW062113_63	SFTCW062113_63_21062013_141031.txt	1243286.747	2374146.946	6/21/2013	2.174221039	0.001828613	1.519120216	A	776.3	44.5	21-06-2013 14:10:31	9.512000084	0.008	6.645999908	0.22857663
SFTCW	SFTCW062113_64	SFTCW062113_64_21062013_141612.txt	1243299.229	2374091.134	6/21/2013	0	0.002973664	0.358898342	A	777.6	44.8	21-06-2013 14:16:12	0	0.013	1.569000006	0.228743374
SFTCW	SFTCW062113_65	SFTCW062113_65_21062013_142132.txt	1243176.34	2374023.684	6/21/2013	0	0.008220526	0.274474263	A	776.5	44.9	21-06-2013 14:21:32	0	0.035999998	1.202000022	0.228347972
SFTCW	SFTCW062113_66	SFTCW062113_66_21062013_142631.txt	1243173.732	2374085.204	6/21/2013	0	0.00228348	0.070331179	A	776.5	44.9	21-06-2013 14:26:31	0	0.01	0.307999998	0.228347972
SFTCW	SFTCW062113_67	SFTCW062113_67_21062013_142930.txt	1243191.575	2374119.688	6/21/2013	0	0.003877916	0.10333506	A	775.7	44.9	21-06-2013 14:29:30	0	0.017000001	0.453000009	0.228112713
SFTCW	SFTCW062113_68	SFTCW062113_68_21062013_143429.txt	1243177.781	2374003.29	6/21/2013	0	0.008215699	0.476738781	A	775.8	44.8	21-06-2013 14:34:29	0	0.035999998	2.088999987	0.228213876
SFTCW	SFTCW062113_69	SFTCW062113_69_21062013_143732.txt	1243158.797	2373957.549	6/21/2013	0	0.015767954	12.89955902	A	776.6	44.7	21-06-2013 14:37:32	0	0.068999998	56.44800186	0.228521094
SFTCW	SFTCW062113_70	SFTCW062113_70_21062013_144115.txt	1243151.465	2373859.501	6/21/2013	0	0.010744485	0.307703763	A	776.4	44.5	21-06-2013 14:41:15	0	0.046999998	1.345999956	0.228606075

APPENDIX B - FLUX METER DATA

AreaAbbrev	SitePt	Filename	Northing	Easting	Date	CH_4 flux	H_2S flux	CO_2 flux	ACCUMULATION CHAMBER	PRESSURE Hpa	TEMP DegC	TIME	CH_4 slope	H_2S slope	CO_2 slope	AcK
SFTCW	SFTCW062113_71	SFTCW062113_71_21062013_144403.txt	1243145.742	2373762.609	6/21/2013	0	0.00754346	0.1378396	A	776.1	44.4	21-06-2013 14:44:03	0	0.033	0.602999985	0.228589714
SFTCW	SFTCW062113_72	SFTCW062113_72_21062013_144701.txt	1243201.125	2373751.607	6/21/2013	0	0.005714743	0.164127409	A	776.1	44.4	21-06-2013 14:47:01	0	0.025	0.717999995	0.228589714
SFTCW	SFTCW062113_73	SFTCW062113_73_21062013_145612.txt	1243264.862	2373666.533	6/21/2013	0	0.004579004	0.122259401	A	776.1	43.9	21-06-2013 14:56:12	0	0.02	0.533999979	0.228950202
SFTCW	SFTCW062113_74	SFTCW062113_74_21062013_150338.txt	1243148.461	2373663.282	6/21/2013	0	0.013742141	0.327979118	A	775.9	43.7	21-06-2013 15:03:38	0	0.059999999	1.432000041	0.22903569
SFTCW	SFTCW062113_75	SFTCW062113_75_21062013_151111.txt	1243266.647	2374260.83	6/21/2013	0	0.001833336	0.57245928	A	776.1	43.6	21-06-2013 15:11:11	-0.228	0.008	2.497999907	0.229167044
SFTCW	SFTCW062113_76	SFTCW062113_76_21062013_151405.txt	1243265.741	2374359.676	6/21/2013	28.04677391	0.001373585	1.723620176	A	775.3	43.6	21-06-2013 15:14:05	122.512001	0.006	7.528999805	0.228930831
SFTCW	SFTCW062113_77	SFTCW062113_77_21062013_151734.txt	1243356.048	2374364.643	6/21/2013	0	0.004348563	0.036848355	A	775.1	43.6	21-06-2013 15:17:34	0	0.018999999	0.160999998	0.228871763
SFTCW	SFTCW062113_78	SFTCW062113_78_21062013_152016.txt	1243386.063	2374366.525	6/21/2013	0	0.001374471	0.245113954	A	775.8	43.6	21-06-2013 15:20:16	0	0.006	1.070000052	0.229078457
SFTCW	SFTCW062113_79	SFTCW062113_79_21062013_152300.txt	1243464.703	2374365.044	6/21/2013	0	0.003894836	0.210550249	A	775.9	43.6	21-06-2013 15:23:00	0	0.017000001	0.91900003	0.229107991
SFTCW	SFTCW062113_80	SFTCW062113_80_21062013_152601.txt	1243537.842	2374380.792	6/21/2013	0	0.001833573	0.102680072	A	776.2	43.6	21-06-2013 15:26:01	0	0.008	0.448000014	0.229196578
SFTCW	SFTCW062113_81	SFTCW062113_81_21062013_152841.txt	1243557.454	2374267.72	6/21/2013	0	0.01008465	0.496668994	A	776.2	43.6	21-06-2013 15:28:41	0	0.044	2.167000055	0.229196578
SFTCW	SFTCW062113_82	SFTCW062113_82_21062013_153121.txt	1243486.55	2374300.116	6/21/2013	0	0.004812508	0.172104448	A	776.1	43.6	21-06-2013 15:31:21	0	0.021	0.750999987	0.229167044
SFTCW	SFTCW062113_83	SFTCW062113_83_21062013_153614.txt	1243558.575	2374165.169	6/21/2013	0	0.008706103	0.318689227	A	775.9	43.6	21-06-2013 15:36:14	0	0.037999999	1.391000032	0.229107991
SFTCW	SFTCW062113_84	SFTCW062113_84_25062013_101618.txt	1243344.029	2373568.672	6/25/2013	0	0.005021921	0.194898382	A	777.4	30.9	25-06-2013 10:16:18	-0.021	0.021	0.814999998	0.239139125
SFTCW	SFTCW062113_85	SFTCW062113_85_25062013_102247.txt	1243247.243	2373560.845	6/25/2013	0	0.005953791	0.174327001	A	777.5	32.2	25-06-2013 10:22:47	0	0.025	0.731999993	0.23815164
SFTCW	SFTCW062113_86	SFTCW062113_86_25062013_102647.txt	1243145.845	2373549.115	6/25/2013	0	0.009982754	0.259313911	A	777.5	32.8	25-06-2013 10:26:47	0	0.041999999	1.090999961	0.237684608
SFTCW	SFTCW062113_87	SFTCW062113_87_25062013_103249.txt	1242963.578	2373574.615	6/25/2013	0	0.004743167	0.080633849	A	777.3	33.4	25-06-2013 10:32:49	0	0.02	0.340000004	0.237158373
SFTCW	SFTCW062113_88	SFTCW062113_88_25062013_103801.txt	1242762.217	2373557.948	6/25/2013	0	0.005678833	0.159480572	A	777.3	34.1	25-06-2013 10:38:01	-0.012	0.024	0.674000025	0.236618057
SFTCW	SFTCW062113_89	SFTCW062113_89_25062013_111104.txt	1242558.94	2373747.104	6/25/2013	0	0.008191531	0.126149565	A	776.1	37.0	25-06-2013 11:11:04	0	0.035	0.538999975	0.234043732
SFTCW	SFTCW062113_90	SFTCW062113_90_25062013_111533.txt	1242760.131	2373763.104	6/25/2013	0	0.00374325	0.208452195	A	776.8	37.4	25-06-2013 11:15:33	0	0.016000001	0.890999973	0.233953089
SFTCW	SFTCW062113_91	SFTCW062113_91_25062013_111851.txt	1242964.709	2373751.176	6/25/2013	0	0.00958652	0.134211287	A	777.1	37.7	25-06-2013 11:18:51	0	0.041000001	0.574000001	0.233817577
SFTCW	SFTCW062113_92	SFTCW062113_92_25062013_112212.txt	1242949.153	2373946.122	6/25/2013	0	0.006313886	0.130486995	A	777.7	37.9	25-06-2013 11:22:12	0	0.027000001	0.558000028	0.233847648
SFTCW	SFTCW062113_93	SFTCW062113_93_25062013_112623.txt	1242739.465	2373958.68	6/25/2013	0	0.002570837	0.1369555	A	778.0	38.2	25-06-2013 11:26:23	0	0.011	0.586000025	0.23371245
SFTCW	SFTCW062113_94	SFTCW062113_94_25062013_112941.txt	1242566.863	2373952.537	6/25/2013	0	0.006304162	0.132854372	A	778.0	38.5	25-06-2013 11:29:41	0	0.027000001	0.569000006	0.233487472
SFTCW	SFTCW062113_95	SFTCW062113_95_25062013_113348.txt	1242558.409	2374155.777	6/25/2013	0	0.004894424	0.183191285	A	777.1	38.7	25-06-2013 11:33:48	0	0.021	0.786000013	0.233067796
SFTCW	SFTCW062113_96	SFTCW062113_96_25062013_113754.txt	1242769.002	2374120.094	6/25/2013	0	0.00651752	0.111263365	A	776.6	38.9	25-06-2013 11:37:54	0	0.028000001	0.477999985	0.232768551
SFTCW	SFTCW062113_97	SFTCW062113_97_25062013_114214.txt	1242972.567	2374114.598	6/25/2013	0	0.003260652	0.050773013	A	777.3	39.0	25-06-2013 11:42:14	0	0.014	0.217999995	0.232903734
SFTCW	SFTCW062113_98	SFTCW062113_98_25062013_114717.txt	1243152.128	2374272.459	6/25/2013	0	0.003491319	0.067498833	A	777.3	39.2	25-06-2013 11:47:17	0	0.015	0.289999992	0.232754603
SFTCW	SFTCW062113_99	SFTCW062113_99_25062013_115142.txt	1243041.193	2374255.787	6/25/2013	0	0.004186625	0.093501307	A	777.0	39.3	25-06-2013 11:51:42	0	0.017999999	0.40200001	0.232590303
SFTCW	SFTCW062813_01	SFTCW062813_01_28062013_121513.txt	1243569.165	2373374.087	6/28/2013	0	0	0.098611988	A	781.9	27.2	28-06-2013 12:15:13	0	-0.002	0.405000001	0.24348639
SFTCW	SFTCW062813_02	SFTCW062813_02_28062013_122124.txt	1243760.741	2373332.202	6/28/2013	0	0.005310728	0.973311603	A	781.9	29.8	28-06-2013 12:21:24	0	0.022	4.032000065	0.241396725
SFTCW	SFTCW062813_03	SFTCW062813_03_28062013_122707.txt	1243856.745	2373335.496	6/28/2013	0	0	1.592327833	A	778.6	31.8	28-06-2013 12:27:07	0	-0.001	6.668000221	0.238801405
SFTCW	SFTCW062813_04	SFTCW062813_04_28062013_123214.txt	1243881.242	2373390.919	6/28/2013	0	0.000949291	0.019697789	A	778.6	33.7	28-06-2013 12:32:14	0	0.004	0.082999997	0.237322763
SFTCW	SFTCW062813_05	SFTCW062813_05_28062013_123656.txt	1243969.763	2373396.156	6/28/2013	0	0.002835111	0	A	778.9	35.2	28-06-2013 12:36:56	0	0.012	-0.179000005	0.236259267
SFTCW	SFTCW062813_06	SFTCW062813_06_28062013_124133.txt	1243962.645	2373350.977	6/28/2013	0	0.000470022	0.309274495	A	777.8	36.4	28-06-2013 12:41:33	0	0.002	1.315999985	0.235011026
SFTCW	SFTCW062813_07	SFTCW062813_07_28062013_124453.txt	1243931.139	2373309.342	6/28/2013	9.056277275	0.003513362	2.420940876	A	777.7	37.4	28-06-2013 12:44:53	38.66500092	0.015	10.33600044	0.234224156
SFTCW	SFTCW062813_08	SFTCW062813_08_28062013_125235.txt	1244153.658	2373353.28	6/28/2013	0	0.002327845	0.010708089	A	777.4	39.2	28-06-2013 12:52:35	-0.009	0.01	0.046	0.232784539
SFTCW	SFTCW062813_09	SFTCW062813_09_28062013_125819.txt	1244138.849	2373166.817	6/28/2013	1.155062199	0.00255083	0.365000606	A	777.4	40.4	28-06-2013 12:58:19	4.980999947	0.011	1.574000001	0.231893644
SFTCW	SFTCW062813_10	SFTCW062813_10_28062013_130444.txt	1244303.417	2373312.282	6/28/2013	0	0.003457565	0.054629534	A	775.7	41.6	28-06-2013 13:04:44	-0.041999999	0.015	0.237000003	0.230504364
SFTCW	SFTCW062813_11	SFTCW062813_11_28062013_130912.txt	1244306.851	2373162.174	6/28/2013	0	0.001377289	0.06083025	A	774.2	42.3	28-06-2013 13:09:12	-0.045000002	0.006	0.264999986	0.229548126
SFTCW	SFTCW062813_12	SFTCW062813_12_28062013_131454.txt	1244329.307	2372992.186	6/28/2013	0	0.002977346	0.030689565	A	774.4	43.1	28-06-2013 13:14:54	-0.082000002	0.013	0.134000003	0.229026601
SFTCW	SFTCW062813_13	SFTCW062813_13_28062013_132003.txt	1244147.763	2373000.156	6/28/2013	0	0.004115735	0.198012576	A	774.6	43.7	28-06-2013 13:20:03	-0.291999996	0.017999999	0.865999997	0.228651941
SFTCW	SFTCW062813_14	SFTCW062813_14_28062013_132754.txt	1244141.258	2372785.967	6/28/2013	0	0.003879516	0.383387446	A	774.8	44.4	28-06-2013 13:27:54	0	0.017000001	1.679999948	0.228206813
SFTCW	SFTCW062813_15	SFTCW062813_15_28062013_133525.txt	1244147.479	2372584.485	6/28/2013	0	0.004570161	0.228736565	A	776.8	44.8	28-06-2013 13:35:25	0	0.02	1.001000047	0.22850804
SFTCW	SFTCW062813_16	SFTCW062813_16_28062013_134228.txt	1244123.556	2372357.405	6/28/2013	0	0.001371872	0.045271773	A	778.0	45.1	28-06-2013 13:42:28	0	0.006	0.197999999	0.22864531
SFTCW	SFTCW062813_17	SFTCW062813_17_28062013_134740.txt	1244152.536	2372149.389	6/28/2013	0	0.005239327	0.087473981	A	775.6	45.3	28-06-2013 13:47:40	0	0.023	0.384000003	0.227796823
SFTCW	SFTCW062813_18	SFTCW062813_18_28062013_135219.txt	1244318.475	2372161.57	6/28/2013	0.004096942	0.003641726	0.258562535	A	775.2	45.4	28-06-2013 13:52:19	0.017999999	0.016000001	1.136000037	0.227607861
SFTCW	SFTCW062813_19	SFTCW062813_19_28062013_135841.txt	1243953.183	2372144.726	6/28/2013	0	0.006366557	0.304230481	A	774.9	45.6	28-06-2013 13:58:41	-0.005	0.028000001	1.338000059	0.227377027
SFTCW	SFTCW062813_20	SFTCW062813_20_28062013_140334.txt	1243945.339	2372375.566	6/28/2013	0	0.005239501	0.07494764	A	776.6	45.7	28-06-2013 14:03:34	-0.007	0.023	0.328999996	0.227804378
SFTCW	SFTCW062813_21	SFTCW062813_21_28062013_140832.txt	1243972.051	2372500.29	6/28/2013	0	0.005691858	0.331266135	A	776.4	45.8	28-06-2013 14:08:32	-0.003	0.025	1.455000043	0.227674305
SFTCW	SFTCW062813_22	SFTCW062813_22_28062013_141450.txt	1243995.288	2372711.122	6/28/2013	0	0.004556749	0.582352579	A	777.2	45.9	28-06-2013 14:14:50	-0.044	0.02	2.555999994	0.227837473
SFTCW	SFTCW062813_23	SFTCW062813_23_28062013_142129.txt	1243942.019	2372748.755	6/28/2013	0	0.00295927	0.023901794	A	777.0	46.1	28-06-2013 14:21:29	-0.059	0.013	0.104999997	0.227636144
SFTCW	SFTCW062813_24	SFTCW062813_24_28062013_142726.txt	1243986.437	2372943.386	6/28/2013	0	0.004777632	0.417701542	A	776.8	46.2	28-06-2013 14:27:26	0	0.021	1.835999966	0.227506295
SFTCW	SFTCW062813_25	SFTCW062813_25_28062013_143243.txt	1243943.116	2373151.85	6/28/2013	0	0.003179523	0.057004306	A	775.2	46.1	28-06-2013 14:32:43	0	0.014	0.250999987	0.227108806
SFTCW	SFTCW062813_26	SFTCW062813_26_28062013_143800.txt	1243740.087	2373156.856	6/28/2013	0	0.002957479	0.345797509	A	775.8	45.8	28-06-2013 14:38:00	0	0.013	1.519999981	0.227498367
SFTCW	SFTCW062813_27	SFTCW062813_27_28062013_144841.txt	1243758.113	2372964.993	6/28/2013	0	0.00342728	0.056435879	A	777.7	45.2	28-06-2013 14:48:41	0	0.015	0.246999994	0.228485346
SFTCW	SFTCW062813_28	SFTCW062813_28_28062013_145250.txt	1243763.693	2372810.287	6/28/2013	0	0.003653623	0.152767107	A	777.0	45.1	28-06-2013 14:52:50	0	0.016000001	0.66900003	0.228351414

APPENDIX B - FLUX METER DATA

AreaAbbrev	SitePt	Filename	Northing	Easting	Date	CH_4 flux	H_2S flux	CO_2 flux	ACCUMULATION CHAMBER	PRESSURE Hpa	TEMP DegC	TIME	CH_4 slope	H_2S slope	CO_2 slope	AcK
SFTCW	SFTCW062813_29	SFTCW062813_29_28062013_145829.txt	1243542.19	2372786.874	6/28/2013	0	0.002741784	0.102588415	A	777.2	45.0	28-06-2013 14:58:29	-0.003	0.012	0.449000001	0.228481993
SFTCW	SFTCW062813_30	SFTCW062813_30_28062013_150645.txt	1243494.633	2372341.708	6/28/2013	0	0.005726749	0.170198962	A	779.2	45.0	28-06-2013 15:06:45	0	0.025	0.742999971	0.229069948
SFTCW	SFTCW062813_31	SFTCW062813_31_28062013_151424.txt	1243557.251	2373171.988	6/28/2013	0	0.002752014	0.145168766	A	780.1	45.0	28-06-2013 15:14:24	0	0.012	0.633000016	0.229334533
VP	VP061813_01	VP061813_01_18062013_114326.txt	1244292.427	2352747.607	6/18/2013	0	0	0.03481932	A	755.8	39.5	18-06-2013 11:43:26	0	-0.025	0.153999999	0.226099476
VP	VP061813_02	VP061813_02_18062013_115102.txt	1244355.328	2352533.687	6/18/2013	0	0	0.032751199	A	756.0	39.9	18-06-2013 11:51:02	0	-0.005	0.144999996	0.225870341
VP	VP061813_03	VP061813_03_18062013_115526.txt	1244550.554	2352564.514	6/18/2013	0	0.000900825	0.085803628	A	754.5	40.2	18-06-2013 11:55:26	0	0.004	0.381000012	0.22520636
VP	VP061813_04	VP061813_04_18062013_115924.txt	1244547.407	2352763.919	6/18/2013	0	0.000224872	0.071284324	A	754.1	40.5	18-06-2013 11:59:24	0	0.001	0.317000002	0.22487168
VP	VP061813_05	VP061813_05_18062013_120638.txt	1244555.42	2352369.514	6/18/2013	0	0	0.086100601	A	754.6	40.8	18-06-2013 12:06:38	0	-0.002	0.382999986	0.224805757
VP	VP061813_06	VP061813_06_18062013_121043.txt	1244346.38	2352345.003	6/18/2013	0	0	0.125220269	A	752.4	41.0	18-06-2013 12:10:43	0	-0.006	0.559000015	0.224007636
VP	VP061813_07	VP061813_07_18062013_121445.txt	1244133.785	2352347.982	6/18/2013	0	0	0.102107719	A	754.0	41.1	18-06-2013 12:14:45	0	-0.003	0.455000013	0.22441256
VP	VP061813_08	VP061813_08_18062013_122023.txt	1244139.367	2352554.269	6/18/2013	0	0	0.019542528	A	755.2	41.3	18-06-2013 12:20:23	0	0	0.086999997	0.224626765
VP	VP061813_09	VP061813_09_18062013_122527.txt	1244152.317	2352768.083	6/18/2013	0	0.000674165	0	A	756.0	41.5	18-06-2013 12:25:27	0	0.003	-0.071000002	0.224721789
VP	VP061813_10	VP061813_10_18062013_123247.txt	1243737.562	2352732.109	6/18/2013	0	0.000224656	0	A	756.5	41.8	18-06-2013 12:32:47	0	0.001	-0.055	0.224656209
VP	VP061813_100	VP061813_100_19062013_144502.txt	1243153.354	2349984.058	6/19/2013	0	0.001776087	0.182936937	A	755.9	45.3	19-06-2013 14:45:02	0	0.008	0.824000001	0.222010851
VP	VP061813_101	VP061813_101_19062013_145045.txt	1243224.019	2349788.933	6/19/2013	0	0.00222088	0.086836398	A	756.4	45.4	19-06-2013 14:50:45	0	0.01	0.391000003	0.222087964
VP	VP061813_102	VP061813_102_19062013_145354.txt	1243152.344	2349823.964	6/19/2013	1.362568021	0.000887956	1.403413892	A	756.3	45.5	19-06-2013 14:53:54	6.138000011	0.004	6.322000027	0.221988916
VP	VP061813_103	VP061813_103_19062013_145705.txt	1243133.855	2349777.406	6/19/2013	0	0.002886238	0.609218121	A	756.4	45.5	19-06-2013 14:57:05	0	0.013	2.743999958	0.222018272
VP	VP061813_104	VP061813_104_19062013_150220.txt	1242942.322	2349618.566	6/19/2013	0	0.002220183	0.025754118	A	756.4	45.5	19-06-2013 15:02:20	0	0.01	0.115999997	0.222018272
VP	VP061813_105	VP061813_105_19062013_150657.txt	1243125.576	2349590.264	6/19/2013	0	0.001331119	0.005102621	A	755.6	45.4	19-06-2013 15:06:57	0	0.006	0.023	0.221853077
VP	VP061813_106	VP061813_106_19062013_151120.txt	1242945.93	2349783.792	6/19/2013	0	0.001553459	0.364397138	A	755.6	45.3	19-06-2013 15:11:20	0	0.007	1.64199996	0.22192274
VP	VP061813_107	VP061813_107_19062013_151521.txt	1242966.792	2349952.369	6/19/2013	0	0.001780551	0.259292752	A	757.8	45.3	19-06-2013 15:15:21	0	0.008	1.164999962	0.222568884
VP	VP061813_108	VP061813_108_19062013_151935.txt	1242935.287	2350145.737	6/19/2013	0	0.00400624	0.185177311	A	757.8	45.3	19-06-2013 15:19:35	0	0.017999999	0.832000017	0.222568884
VP	VP061813_109	VP061813_109_19062013_152440.txt	1242716.691	2350148.357	6/19/2013	0	0.002895687	0.310952187	A	758.4	45.3	19-06-2013 15:24:40	0	0.013	1.396000028	0.222745106
VP	VP061813_11	VP061813_11_18062013_123944.txt	1243718.117	2352976.339	6/18/2013	0	0.001350749	0.444621503	A	758.8	42.1	18-06-2013 12:39:44	0	0.006	1.975000024	0.225124806
VP	VP061813_110	VP061813_110_19062013_152855.txt	1242725.053	2349976.82	6/19/2013	0	0.003123366	0.144344121	A	759.6	45.3	19-06-2013 15:28:55	0	0.014	0.647000015	0.223097563
VP	VP061813_111	VP061813_111_19062013_153228.txt	1242760.111	2350003.853	6/19/2013	6.003657341	0	3.167122126	A	759.5	45.3	19-06-2013 15:32:28	26.91399956	-0.004	14.19799995	0.223068193
VP	VP061813_112	VP061813_112_19062013_153947.txt	1242751.318	2349754.099	6/19/2013	0	0.001338057	0	A	759.3	45.3	19-06-2013 15:39:47	0	0.006	-2.244999886	0.223009452
VP	VP061813_113	VP061813_113_19062013_154421.txt	1242548.262	2349785.145	6/19/2013	0	0.002225577	0.117733039	A	758.0	45.4	19-06-2013 15:44:21	0	0.01	0.528999984	0.222557738
VP	VP061813_114	VP061813_114_19062013_154845.txt	1242554.559	2349947.455	6/19/2013	0	0.003122227	0.121097811	A	759.8	45.5	19-06-2013 15:48:45	0	0.014	0.542999983	0.223016232
VP	VP061813_115	VP061813_115_19062013_155357.txt	1242528.587	2350172.711	6/19/2013	0	0.002231336	0.05399834	A	760.2	45.5	19-06-2013 15:53:57	0	0.01	0.241999999	0.223133639
S17	VP061813_116	VP061813_116_20062013_122926.txt	1240798.27	2341097.528	6/20/2013	0	0	0	A	763.5	29.8	20-06-2013 12:29:26	0	-0.003	-0.145999998	0.235716075
S17	VP061813_117	VP061813_117_20062013_123522.txt	1240796.386	2341049.775	6/20/2013	0	0.002103393	0	A	763.5	32.4	20-06-2013 12:35:22	0	0.009	-0.034000002	0.233710304
S17	VP061813_118	VP061813_118_20062013_123844.txt	1240800.729	2340999.407	6/20/2013	0	0.001395678	0.287975013	A	762.9	33.6	20-06-2013 12:38:44	0	0.006	1.238000035	0.232613087
S17	VP061813_119	VP061813_119_20062013_124456.txt	1240846.255	2341000.323	6/20/2013	0			A	762.6	35.3	20-06-2013 12:44:56	0			0.231240094
VP	VP061813_12	VP061813_12_18062013_124700.txt	1243772.259	2353155.965	6/18/2013	0	0.000225279	0	A	759.8	42.3	18-06-2013 12:47:00	0	0.001	-0.023	0.225278556
S17	VP061813_120	VP061813_120_20062013_124807.txt	1240862.297	2341024.381	6/20/2013	61.47274017	0.000921116	12.97253513	A	761.4	36.1	20-06-2013 12:48:07	266.9490051	0.004	56.33399963	0.230278969
S17	VP061813_121	VP061813_121_20062013_125106.txt	1240851.772	2341045.766	6/20/2013	0.311858267	0.000459968	0.559091091	A	761.9	36.7	20-06-2013 12:51:06	1.355999947	0.002	2.430999994	0.229983985
S17	VP061813_122	VP061813_122_20062013_125550.txt	1240855.826	2341099.409	6/20/2013	0	0.000458783	0.185807288	A	761.9	37.5	20-06-2013 12:55:50	0	0.002	0.810000002	0.229391709
S17	VP061813_123	VP061813_123_20062013_125843.txt	1240903.33	2341097.488	6/20/2013	0	0	0.155847117	A	762.2	37.9	20-06-2013 12:58:43	0	0	0.680000007	0.229186937
S17	VP061813_124	VP061813_124_20062013_130246.txt	1240899.39	2341047.162	6/20/2013	0	0.001372474	0.166755602	A	762.2	38.5	20-06-2013 13:02:46	0	0.006	0.728999972	0.228745699
S17	VP061813_125	VP061813_125_20062013_130801.txt	1240898.103	2340994.263	6/20/2013	0	0.000912386	0.034670662	A	761.5	39.1	20-06-2013 13:08:01	0	0.004	0.151999995	0.22809647
VP	VP061813_13	VP061813_13_18062013_125558.txt	1243747.695	2353368.773	6/18/2013	0	0.000225587	0.000225587	A	760.6	42.2	18-06-2013 12:55:58	0	0.001	0.001	0.225587279
VP	VP061813_14	VP061813_14_18062013_130053.txt	1243546.407	2353373.212	6/18/2013	0	0.000225006	0.201155469	A	758.4	42.1	18-06-2013 13:00:53	0	0.001	0.893999994	0.225006118
VP	VP061813_15	VP061813_15_18062013_130905.txt	1243564.57	2353147.712	6/18/2013	0	0.000451223	0.070390865	A	760.2	42.0	18-06-2013 13:09:05	0	0.002	0.312000006	0.225611731
VP	VP061813_16	VP061813_16_18062013_131539.txt	1243485.538	2353003.299	6/18/2013	1.207528353	0	0.780450821	A	761.8	42.0	18-06-2013 13:15:39	5.34100008	0	3.451999903	0.226086572
VP	VP061813_17	VP061813_17_18062013_131919.txt	1243545.454	2352990.323	6/18/2013	0	0.001127849	0.330008686	A	760.3	42.1	18-06-2013 13:19:19	0	0.005	1.463000059	0.225569829
VP	VP061813_18	VP061813_18_18062013_132326.txt	1243549.404	2352789.249	6/18/2013	0	0.000450724	0.249926612	A	759.6	42.1	18-06-2013 13:23:26	0	0.002	1.108999968	0.225362152
VP	VP061813_19	VP061813_19_18062013_132949.txt	1243547.469	2352511.248	6/18/2013	0	0.000225332	0	A	759.5	42.1	18-06-2013 13:29:49	0	0.001	-0.568000019	0.225332484
VP	VP061813_20	VP061813_20_18062013_133639.txt	1243553.154	2352355.362	6/18/2013	0	0.002027567	0.020726245	A	759.1	42.0	18-06-2013 13:36:39	0	0.009	0.092	0.225285262
VP	VP061813_21	VP061813_21_18062013_134221.txt	1243335.078	2352316.943	6/18/2013	0	0.000676159	0.172195256	A	759.2	41.9	18-06-2013 13:42:21	0	0.003	0.763999999	0.225386456
VP	VP061813_22	VP061813_22_18062013_134847.txt	1243355.262	2352518.668	6/18/2013	0	0.000678067	0.037519693	A	761.1	41.8	18-06-2013 13:48:47	0	0.003	0.165999994	0.226022258
VP	VP061813_23	VP061813_23_18062013_135500.txt	1243358.668	2352761.536	6/18/2013	0	0.000225594	0.143477947	A	759.9	41.9	18-06-2013 13:55:00	0	0.001	0.635999978	0.225594267
VP	VP061813_24	VP061813_24_18062013_140008.txt	1243338.94	2352976.689	6/18/2013	0	0.000903802	0.772298872	A	761.1	41.9	18-06-2013 14:00:08	0	0.004	3.417999983	0.225950524
VP	VP061813_25	VP061813_25_18062013_140631.txt	1243380.269	2353168.832	6/18/2013	0	0.000225802	0	A	760.6	41.9	18-06-2013 14:06:31	0	0.001	-1.763000011	0.225802079
VP	VP061813_26	VP061813_26_18062013_141312.txt	1243336.493	2353364.459	6/18/2013	0	0.000678705	0	A	762.3	42.0	18-06-2013 14:13:12	0	0.003	-0.829999983	0.226234958
VP	VP061813_27	VP061813_27_18062013_142752.txt	1243147.064	2352962.095	6/18/2013	0	0.001129481	0.108204268	A	761.4	42.1	18-06-2013 14:27:52	0	0.005	0.479000002	0.22589618
VP	VP061813_28	VP061813_28_18062013_143119.txt	1243136.956	2352833.098	6/18/2013	0	0.001807546	0.185951233	A	761.8	42.2	18-06-2013 14:31:19	0	0.008	0.823000014	0.225943178

APPENDIX B - FLUX METER DATA

AreaAbbrev	SitePt	Filename	Northing	Easting	Date	CH_4 flux	H_2S flux	CO_2 flux	ACCUMULATION CHAMBER	PRESSURE Hpa	TEMP DegC	TIME	CH_4 slope	H_2S slope	CO_2 slope	AcK
VP	VP061813_29	VP061813_29_18062013_143651.txt	1243115.458	2352570.379	6/18/2013	0	0.006561813	0.021948136	A	762.9	42.2	18-06-2013 14:36:51	0	0.028999999	0.097000003	0.226269439
VP	VP061813_30	VP061813_30_18062013_144218.txt	1243142.66	2352356.952	6/18/2013	0	0.000903012	0.217174351	A	761.4	42.3	18-06-2013 14:42:18	0	0.004	0.962000012	0.225752965
VP	VP061813_31	VP061813_31_18062013_144855.txt	1243135.951	2352281.752	6/18/2013	0	0.001580185	0.398432344	A	761.6	42.4	18-06-2013 14:48:55	0	0.007	1.764999986	0.225740701
VP	VP061813_32	VP061813_32_18062013_145321.txt	1242943.003	2352389.772	6/18/2013	0	0.001579269	0.067908585	A	761.4	42.5	18-06-2013 14:53:21	0	0.007	0.300999999	0.225609913
VP	VP061813_33	VP061813_33_18062013_145718.txt	1242944.024	2352545.023	6/18/2013	0	0.000451847	0.294604331	A	762.7	42.6	18-06-2013 14:57:18	0	0.002	1.30400002	0.225923553
VP	VP061813_34	VP061813_34_18062013_150254.txt	1242964.815	2352749.616	6/18/2013	0	0.001354934	0.393156826	A	762.6	42.7	18-06-2013 15:02:54	0	0.006	1.741000056	0.225822404
VP	VP061813_35	VP061813_35_18062013_150940.txt	1242925.646	2352948.043	6/18/2013	0	0.000452568	0	A	764.4	42.8	18-06-2013 15:09:40	0	0.002	-0.07	0.226283789
VP	VP061813_36	VP061813_36_18062013_151345.txt	1242707.927	2352957.065	6/18/2013	0	0.001355038	0.098466121	A	762.9	42.8	18-06-2013 15:13:45	-0.01	0.006	0.43599999	0.225839734
VP	VP061813_37	VP061813_37_18062013_151805.txt	1242760.852	2352777.63	6/18/2013	0	0	0.058833782	A	764.4	42.8	18-06-2013 15:18:05	0	0	0.25999999	0.226283789
VP	VP061813_38	VP061813_38_18062013_152210.txt	1242765.355	2352571.043	6/18/2013	0	0.001359301	0	A	765.3	42.8	18-06-2013 15:22:10	0	0.006	-0.067000002	0.226550207
VP	VP061813_39	VP061813_39_18062013_152748.txt	1242755.627	2352392.293	6/18/2013	0	0.000452424	0.033931829	A	764.4	42.9	18-06-2013 15:27:48	0	0.002	0.150000006	0.226212189
VP	VP061813_40	VP061813_40_18062013_153148.txt	1242549.254	2352358.573	6/18/2013	0	0.000903734	0.008133607	A	763.7	43.0	18-06-2013 15:31:48	0	0.004	0.035999998	0.225933537
VP	VP061813_41	VP061813_41_18062013_153554.txt	1242577.01	2352551.813	6/18/2013	0	0.002034888	0.18675752	A	764.5	43.1	18-06-2013 15:35:54	0	0.009	0.825999975	0.226098701
VP	VP061813_42	VP061813_42_18062013_154053.txt	1242541.958	2352754.313	6/18/2013	0	0.004076165	0.149459377	A	765.7	43.1	18-06-2013 15:40:53	0	0.017999999	0.660000026	0.226453602
VP	VP061813_43	VP061813_43_18062013_154507.txt	1242540.566	2352968.432	6/18/2013	0	0.001132144	0.03826645	A	766.1	43.3	18-06-2013 15:45:07	0	0.005	0.169	0.226428702
VP	VP061813_44	VP061813_44_19062013_095938.txt	1243926.512	2351150.369	6/19/2013	0	0	0.173232064	A	753.1	25.3	19-06-2013 09:59:38	0	-0.004	0.734000027	0.236010969
VP	VP061813_45	VP061813_45_19062013_100457.txt	1244133.028	2351143.146	6/19/2013	0	0.002110524	0.124520898	A	752.8	27.1	19-06-2013 10:04:57	0	0.009	0.531000018	0.234502628
VP	VP061813_46	VP061813_46_19062013_101037.txt	1244337.791	2351183.903	6/19/2013	0	0.000464692	0.123375744	A	750.1	28.8	19-06-2013 10:10:37	0	0.002	0.531000018	0.232346028
VP	VP061813_47	VP061813_47_19062013_101601.txt	1244144.791	2350952.402	6/19/2013	0	0.000230994	0.105333425	A	748.7	30.0	19-06-2013 10:16:01	0	0.001	0.456	0.230994359
VP	VP061813_48	VP061813_48_19062013_102033.txt	1244134.424	2350741.885	6/19/2013	0	0.002081232	0.151698679	A	751.5	30.8	19-06-2013 10:20:33	0	0.009	0.656000018	0.231247976
VP	VP061813_49	VP061813_49_19062013_102357.txt	1244137.904	2350575.417	6/19/2013	0	0.000922924	0.011536549	A	751.3	31.4	19-06-2013 10:23:57	0	0.004	0.050000001	0.230730966
VP	VP061813_50	VP061813_50_19062013_103024.txt	1244113.312	2350351.098	6/19/2013	0	0	0.122931346	A	750.9	32.5	19-06-2013 10:30:24	0	0	0.535000026	0.2297782
VP	VP061813_51	VP061813_51_19062013_103405.txt	1244143.535	2350203.23	6/19/2013	0	0.000228765	0.235856384	A	749.3	33.2	19-06-2013 10:34:05	0	0.001	1.031000018	0.228764668
VP	VP061813_52	VP061813_52_19062013_103922.txt	1244132.085	2349970.851	6/19/2013	0	0.00022796	0.005698988	A	749.1	34.2	19-06-2013 10:39:22	0	0.001	0.025	0.227959499
VP	VP061813_53	VP061813_53_19062013_104619.txt	1244144.826	2349766.31	6/19/2013	0	0.000226904	0.044019371	A	748.3	35.3	19-06-2013 10:46:19	0	0.001	0.194000006	0.22690396
VP	VP061813_54	VP061813_54_19062013_105133.txt	1244167.392	2349749.804	6/19/2013	0	0.000679534	1.02677536	A	748.7	36.0	19-06-2013 10:51:33	-0.022	0.003	4.532999992	0.22651121
VP	VP061813_55	VP061813_55_19062013_105446.txt	1244202.979	2349769.697	6/19/2013	3.867765665	0.000452291	4.242940903	A	748.7	36.5	19-06-2013 10:54:46	17.10300064	0.002	18.76199913	0.226145446
VP	VP061813_56	VP061813_56_19062013_110202.txt	1244325.529	2349946.2	6/19/2013	0	0.000675439	0.171336487	A	747.8	37.5	19-06-2013 11:02:02	0	0.003	0.760999978	0.225146502
VP	VP061813_57	VP061813_57_19062013_110734.txt	1244321.402	2349748.635	6/19/2013	0	0.004040497	0.22739023	A	747.0	38.1	19-06-2013 11:07:34	0	0.017999999	1.013000011	0.224472091
VP	VP061813_58	VP061813_58_19062013_111205.txt	1244311.613	2349584.254	6/19/2013	0	0.000449004	0.019980686	A	748.3	38.6	19-06-2013 11:12:05	0	0.002	0.089000002	0.224502087
VP	VP061813_59	VP061813_59_19062013_111615.txt	1244130.629	2349584.205	6/19/2013	0	0.001345826	0.020187387	A	748.6	39.0	19-06-2013 11:16:15	0	0.006	0.090000004	0.224304304
VP	VP061813_60	VP061813_60_19062013_112019.txt	1244117.869	2349691.164	6/19/2013	0	0.000448896	0.13624002	A	749.8	39.3	19-06-2013 11:20:19	0	0.002	0.606999993	0.224448144
VP	VP061813_61	VP061813_61_19062013_112419.txt	1243953.265	2349562.001	6/19/2013	0	0.003588873	0.222958744	A	749.8	39.5	19-06-2013 11:24:19	0	0.016000001	0.994000018	0.224304572
VP	VP061813_62	VP061813_62_19062013_112838.txt	1243947.629	2349374.604	6/19/2013	0	0.000898487	0.16869083	A	751.1	39.6	19-06-2013 11:28:38	0	0.004	0.750999987	0.224621624
VP	VP061813_63	VP061813_63_19062013_113313.txt	1243963.88	2349184.278	6/19/2013	0	0.001121045	0.548863828	A	750.2	39.8	19-06-2013 11:33:13	0	0.005	2.447999954	0.224209085
VP	VP061813_64	VP061813_64_19062013_114240.txt	1243923.723	2348931.584	6/19/2013	0	0.001120329	0.116514266	A	750.2	40.0	19-06-2013 11:42:40	0	0.005	0.519999981	0.2240659
VP	VP061813_65	VP061813_65_19062013_114643.txt	1243929.776	2348781.115	6/19/2013	0	0.000672073	0.093866147	A	750.3	40.1	19-06-2013 11:46:43	0	0.003	0.419	0.224024221
VP	VP061813_66	VP061813_66_19062013_115217.txt	1243745.486	2348779.89	6/19/2013	0	0.00313392	0.284962893	A	750.2	40.3	19-06-2013 11:52:17	0	0.014	1.273000002	0.223851442
VP	VP061813_67	VP061813_67_19062013_115551.txt	1243742.053	2348946.839	6/19/2013	0	0.000896266	0	A	751.4	40.5	19-06-2013 11:55:51	0	0.004	-0.075999998	0.224066541
VP	VP061813_68	VP061813_68_19062013_115959.txt	1243755.127	2349170.227	6/19/2013	0	0.00111947	0	A	751.3	40.7	19-06-2013 11:59:59	0	0.005	-0.160999998	0.223893955
VP	VP061813_69	VP061813_69_19062013_120501.txt	1243763.515	2349350.345	6/19/2013	0	0.001118666	0.189949527	A	751.0	40.8	19-06-2013 12:05:01	0	0.005	0.848999977	0.223733261
VP	VP061813_70	VP061813_70_19062013_120946.txt	1243742.556	2349570.206	6/19/2013	0	0.000671254	0.005146281	A	751.3	40.9	19-06-2013 12:09:46	0	0.003	0.023	0.223751366
VP	VP061813_71	VP061813_71_19062013_121311.txt	1243731.531	2349770.902	6/19/2013	0	0.001343689	0.011197405	A	752.2	41.0	19-06-2013 12:13:11	0	0.006	0.050000001	0.223948091
VP	VP061813_72	VP061813_72_19062013_121756.txt	1243926.171	2349771.47	6/19/2013	0	0.001565679	0.004920707	A	751.5	41.1	19-06-2013 12:17:56	0	0.007	0.022	0.223668486
VP	VP061813_73	VP061813_73_19062013_122125.txt	1243938.039	2349973.315	6/19/2013	0	0	0.004687421	A	750.2	41.2	19-06-2013 12:21:25	0	-0.001	0.021	0.223210543
VP	VP061813_74	VP061813_74_19062013_122515.txt	1243945.481	2350155.403	6/19/2013	0	0.001114954	0.033002645	A	749.7	41.3	19-06-2013 12:25:15	0	0.005	0.148000002	0.222990841
VP	VP061813_75	VP061813_75_19062013_123005.txt	1243955.081	2350350.922	6/19/2013	0	0.001337231	0.04880894	A	749.3	41.3	19-06-2013 12:30:05	0	0.006	0.218999997	0.22287187
VP	VP061813_76	VP061813_76_19062013_123607.txt	1243962.711	2350591.963	6/19/2013	0	0.00022314	0.197255373	A	750.2	41.3	19-06-2013 12:36:07	0	0.001	0.884000003	0.223139554
VP	VP061813_77	VP061813_77_19062013_123950.txt	1243961.123	2350766.196	6/19/2013	0	0.002010829	0.215605542	A	751.4	41.4	19-06-2013 12:39:50	0	0.009	0.964999974	0.223425433
VP	VP061813_78	VP061813_78_19062013_124450.txt	1243944.214	2350957.097	6/19/2013	0	0.00089532	0.061329424	A	753.0	41.5	19-06-2013 12:44:50	0	0.004	0.273999989	0.223830029
VP	VP061813_79	VP061813_79_19062013_124918.txt	1243747.672	2350968.122	6/19/2013	0	0.001117697	0.047166795	A	752.5	41.7	19-06-2013 12:49:18	0	0.005	0.210999995	0.223539323
VP	VP061813_80	VP061813_80_19062013_125333.txt	1243749.766	2351175.689	6/19/2013	0	0.001342344	0.178979173	A	753.6	41.9	19-06-2013 12:53:33	0	0.006	0.800000012	0.223723963
VP	VP061813_81	VP061813_81_19062013_130110.txt	1243743.654	2350807.583	6/19/2013	0	0.001117498	0.036206931	A	753.8	42.3	19-06-2013 13:01:10	0	0.005	0.162	0.223499581
VP	VP061813_82	VP061813_82_19062013_130755.txt	1243759.826	2350577.746	6/19/2013	0	0.000891326	0.05214259	A	752.5	42.7	19-06-2013 13:07:55	0	0.004	0.233999997	0.222831577
VP	VP061813_83	VP061813_83_19062013_131155.txt	1243565.291	2350730.467	6/19/2013	0	0.000889889	0.053838272	A	752.0	43.0	19-06-2013 13:11:55	0	0.004	0.241999999	0.222472206
VP	VP061813_84	VP061813_84_19062013_131553.txt	1243522.183	2350537.484	6/19/2013	0	0.001337182	0.00178291	A	753.8	43.2	19-06-2013 13:15:53	0	0.006	0.008	0.222863734
VP	VP061813_85	VP061813_85_19062013_131913.txt	1243527.542	2350377.892	6/19/2013	0	0.001336338	0.223391101	A	753.8	43.4	19-06-2013 13:19:13	0	0.006	1.003000021	0.222722933

APPENDIX B - FLUX METER DATA

AreaAbbrev	SitePt	Filename	Northing	Easting	Date	CH_4 flux	H_2S flux	CO_2 flux	ACCUMULATION CHAMBER	PRESSURE Hpa	TEMP DegC	TIME	CH_4 slope	H_2S slope	CO_2 slope	AcK
VP	VP061813_86	VP061813_86_19062013_132445.txt	1243744.946	2350301.294	6/19/2013	0	0.001333722	0.068464398	A	752.8	43.6	19-06-2013 13:24:45	0	0.006	0.307999998	0.222287014
VP	VP061813_87	VP061813_87_19062013_133050.txt	1243758.107	2350186.784	6/19/2013	0	0.000442678	0.028110078	A	750.3	43.9	19-06-2013 13:30:50	0	0.002	0.127000004	0.221339181
VP	VP061813_88	VP061813_88_19062013_133556.txt	1243517.016	2350158.343	6/19/2013	0	0.001768804	0.16471985	A	750.2	44.2	19-06-2013 13:35:56	0	0.008	0.745000005	0.221100464
VP	VP061813_89	VP061813_89_19062013_134013.txt	1243537.857	2349963.632	6/19/2013	0	0.001774375	0.17255795	A	752.8	44.3	19-06-2013 13:40:13	0	0.008	0.777999997	0.221796855
VP	VP061813_90	VP061813_90_19062013_134656.txt	1243744.377	2349973.774	6/19/2013	0	0.002440496	0	A	753.5	44.5	19-06-2013 13:46:56	0	0.011	-0.035999998	0.221863315
VP	VP061813_91	VP061813_91_19062013_135055.txt	1243546.075	2349770.785	6/19/2013	0	0.001990048	0.009065776	A	751.2	44.6	19-06-2013 13:50:55	0	0.009	0.041000001	0.221116483
VP	VP061813_92	VP061813_92_19062013_135739.txt	1243528.633	2349567.077	6/19/2013	0	0.001774025	0.079387628	A	753.6	44.7	19-06-2013 13:57:39	0	0.008	0.35800001	0.22175315
VP	VP061813_93	VP061813_93_19062013_140225.txt	1243520.129	2349360.5	6/19/2013	0	0.001548695	0.099116482	A	752.1	44.8	19-06-2013 14:02:25	0	0.007	0.448000014	0.221242145
VP	VP061813_94	VP061813_94_19062013_140636.txt	1243543.233	2349171.304	6/19/2013	0	0.001327629	0.088066079	A	752.2	44.8	19-06-2013 14:06:36	0	0.006	0.398000002	0.22127156
VP	VP061813_95	VP061813_95_19062013_141144.txt	1243552.37	2348972.238	6/19/2013	0	0.001105716	0.085582413	A	752.0	44.9	19-06-2013 14:11:44	0	0.005	0.386999995	0.221143186
VP	VP061813_96	VP061813_96_19062013_142254.txt	1243326.775	2349552.066	6/19/2013	0	0.002210149	0.117579915	A	751.8	45.0	19-06-2013 14:22:54	0	0.01	0.532000005	0.221014872
VP	VP061813_97	VP061813_97_19062013_142917.txt	1243337.393	2349781.456	6/19/2013	0.97413677	0.001993005	0.794544816	A	753.5	45.1	19-06-2013 14:29:17	4.399000168	0.009	3.588000059	0.221445039
VP	VP061813_98	VP061813_98_19062013_143451.txt	1243332.229	2349961.492	6/19/2013	0	0.001776645	0.166782513	A	755.9	45.2	19-06-2013 14:34:51	0	0.008	0.750999987	0.222080588
VP	VP061813_99	VP061813_99_19062013_144033.txt	1243145.106	2350153.328	6/19/2013	0	0.001774765	0.33143726	A	755.1	45.2	19-06-2013 14:40:33	0	0.008	1.493999958	0.221845552

APPENDIX C

VOLUMETRIC FLUX CALCULATIONS

Grid Volume Computations

Mon Jul 15 10:21:51 2013

Upper Surface

Grid File Name:	P:\LaPlata\2013 Detailed Seep Mapping\Surfer\BC2CJ_CH4notail.grd
Grid Size:	160 rows x 225 columns
X Minimum:	2299871.204
X Maximum:	2313318.159
X Spacing:	60.031049107143
Y Minimum:	1208584.322
Y Maximum:	1218127.866
Y Spacing:	60.022289308176
Z Minimum:	0
Z Maximum:	261.42219374994

Lower Surface

Level Surface defined by Z = 0

Volumes

Z Scale Factor:	0.0929

Total Volumes by:

Trapezoidal Rule:	2062889.2051922
Simpson's Rule:	2103028.6485447
Simpson's 3/8 Rule:	2058310.4861417

Cut & Fill Volumes

Positive Volume [Cut]:	2062889.2051922
Negative Volume [Fill]:	0
Net Volume [Cut-Fill]:	2062889.2051922

Areas

Planar Areas

Positive Planar Area [Cut]:	20830104.963555
Negative Planar Area [Fill]:	0

Blanked Planar Area:	107501501.74497
Total Planar Area:	128331606.70852

Surface Areas

Positive Surface Area [Cut]:	20831265.004733
Negative Surface Area [Fill]:	0

Grid Volume Computations

Mon Jul 15 10:48:21 2013

Upper Surface

Grid File Name:	P:\LaPlata\2013 Detailed Seep Mapping\Surfer\BC2CJ_CO2.grd
Grid Size:	160 rows x 225 columns
X Minimum:	2299871.204
X Maximum:	2313318.159
X Spacing:	60.031049107143
Y Minimum:	1208584.322
Y Maximum:	1218127.866
Y Spacing:	60.022289308176
Z Minimum:	-0.93035365492286
Z Maximum:	12.311739871124

Lower Surface

Level Surface defined by Z = 0

Volumes

Z Scale Factor:	0.0929

Total Volumes by:

Trapezoidal Rule:	561611.68769799
Simpson's Rule:	563926.30188973
Simpson's 3/8 Rule:	562232.72044955

Cut & Fill Volumes

Positive Volume [Cut]:	590963.706025
Negative Volume [Fill]:	29352.018327004
Net Volume [Cut-Fill]:	561611.68769799

Areas

Planar Areas

Positive Planar Area [Cut]:	18079222.046826
Negative Planar Area [Fill]:	2770700.5222124

Blanked Planar Area:	107481684.13948
Total Planar Area:	128331606.70852

Surface Areas

Positive Surface Area [Cut]:	18079229.250821
Negative Surface Area [Fill]:	2770700.6102131

Gridding Report

Wed Jun 19 12:33:47 2013
Elasped time for gridding: 0.19 seconds

Data Source

Source Data File Name:	P:\LaPlata\2013 Detailed Seep Mapping\Surfer\BC2CJ.xls
X Column:	C
Y Column:	D
Z Column:	E

Data Counts

Active Data:	492
Original Data:	492
Excluded Data:	0
Deleted Duplicates:	0
Retained Duplicates:	0
Artificial Data:	0
Superseded Data:	0

Univariate Statistics

	X	Y	Z
Minimum:	2299971.204872	1208684.322308	0
25%-tile:	2304147.252327	1210936.819292	0
Median:	2305390.501	1213348.535886	0
75%-tile:	2309561.675824	1214758.567847	0
Maximum:	2313218.158805	1218027.865402	3185.5949707031
Midrange:	2306594.6818385	1213356.093855	1592.7974853516
Range:	13246.953933	9343.5430940001	3185.5949707031
Interquartile Range:	5414.4234970002	3821.7485549999	0
Median Abs. Deviation:	2018.641508	1794.398089	0
Mean:	2306486.1395532	1213030.7558124	8.0182230934592
Trim Mean (10%):	2306457.4366224	1213015.4802504	0.04726832210682
Standard Deviation:	3350.1217869923	2459.5009224957	144.38173976032
Variance:	11223315.987681	6049144.7877571	20846.086776216
Coef. of Variation:			18.006700247353
Coef. of Skewness:			21.692325272443

Inter-Variable Correlation

	X	Y	Z
X:	1.000	0.912	-0.029
Y:		1.000	-0.054
Z:			1.000

Inter-Variable Covariance

	X	Y	Z
X:	11223315.987681	7514075.1832493	-14057.772836656
Y:		6049144.7877571	-19070.365866878
Z:			20846.086776216

Planar Regression: Z = AX+BY+C

Fitted Parameters

	A	B	C
Parameter Value:	0.0050962388242741	-0.0094825453335363	-243.76685829853
Standard Error:	0.0047370618159105	0.0064524204245612	4966.3319542908

Inter-Parameter Correlations

	A	B	C
A:	1.000	0.912	-0.763
B:		1.000	-0.430
C:			1.000

ANOVA Table

Source	df	Sum of Squares	Mean Square	F
Regression:	2	53723.360708578	26861.680354289	1.2875
Residual:	489	10202551.33319	20864.113155808	
Total:	491	10256274.693898		

Coefficient of Multiple Determination (R^2): 0.0052380969028197

Nearest Neighbor Statistics

	Separation	|Delta Z|
Minimum:	1.0475451033112	0
25%-tile:	148.03494647544	0
Median:	169.16531095961	0
75%-tile:	185.46776552911	0
Maximum:	279.44990772334	3185.5949707031
Midrange:	140.24872641333	1592.7974853516
Range:	278.40236262003	3185.5949707031
Interquartile Range:	37.432819053672	0
Median Abs. Deviation:	17.029244214478	0
Mean:	158.9152737469	29.183994948864
Trim Mean (10%):	162.72036657445	0.44080399231868
Standard Deviation:	42.345488063095	286.72129264219
Variance:	1793.1403593017	82209.09965441
Coef. of Variation:	0.26646581580659	9.8246073967798
Coef. of Skewness:	-1.5487622956244	10.844812644556
Root Mean Square:	164.46034351585	288.20271548961
Mean Square:	27047.204589353	83060.805215585

Complete Spatial Randomness

Lambda:	3.9750032104982E-006
Clark and Evans:	0.63367179641382
Skellam:	332.35700827511

Exclusion Filtering

Exclusion Filter String: Not In Use

Duplicate Filtering

Duplicate Points to Keep:	First
X Duplicate Tolerance:	0.0015
Y Duplicate Tolerance:	0.0011

No duplicate data were found.

Breakline Filtering

Breakline Filtering: Not In Use

Gridding Rules

Gridding Method:	Kriging
Kriging Type:	Point
Polynomial Drift Order:	0
Kriging std. deviation grid:	no

Semi-Variogram Model

Component Type:	Linear
Anisotropy Angle:	0
Anisotropy Ratio:	1
Variogram Slope:	1

Search Parameters

Search Ellipse Radius #1:	500
Search Ellipse Radius #2:	500
Search Ellipse Angle:	0
Number of Search Sectors:	4
Maximum Data Per Sector:	16
Maximum Empty Sectors:	2
Minimum Data:	2
Maximum Data:	64

Output Grid

Grid File Name:	P:\LaPlata\2013 Detailed Seep Mapping\Surfer\BC2CJ_CH4.grd
Grid Size:	157 rows x 222 columns
Total Nodes:	34854
Filled Nodes:	8076
Blanked Nodes:	26778

Grid Geometry

X Minimum:	2299871.204
X Maximum:	2313318.159
X Spacing:	60.845950226245
Y Minimum:	1208584.322
Y Maximum:	1218127.866
Y Spacing:	61.176564102564

Grid Statistics

Z Minimum:	-185.94521882019
Z 25%-tile:	-0.011889631513791
Z Median:	-5.3128855519581E-018
Z 75%-tile:	7.5662086342382E-011
Z Maximum:	2741.3725904038

Z Midrange:	1277.7136857918
Z Range:	2927.317809224
Z Interquartile Range:	0.011889631589453
Z Median Abs. Deviation:	1.7673088681564E-009
Z Mean:	2.1151077792783
Z Trim Mean (10%):	0.0032161011421304
Z Standard Deviation:	52.139442930524
Z Variance:	2718.5215091054
Z Coef. of Variation:	24.650962679696
Z Coef. of Skewness:	32.184244137618
Z Root Mean Square:	52.182326414442
Z Mean Square:	2722.9951900234

Grid Volume Computations

Wed Jul 10 15:33:38 2013

Upper Surface

Grid File Name:	P:\LaPlata\2013 Detailed Seep Mapping\Surfer\FR_CH4notail.grd
Grid Size:	31 rows x 58 columns
X Minimum:	2329860.033
X Maximum:	2333286.083
X Spacing:	60.106140350882
Y Minimum:	1234244.266
Y Maximum:	1236060.542
Y Spacing:	60.542533333328
Z Minimum:	0
Z Maximum:	80.534276448313

Lower Surface

Level Surface defined by Z = 0

Volumes

Z Scale Factor:	0.0929

Total Volumes by:

Trapezoidal Rule:	333244.12864797
Simpson's Rule:	332149.19956831
Simpson's 3/8 Rule:	334153.09375863

Cut & Fill Volumes

Positive Volume [Cut]:	333244.12864797
Negative Volume [Fill]:	0
Net Volume [Cut-Fill]:	333244.12864797

Areas

Planar Areas

Positive Planar Area [Cut]:	4082933.3224301
Negative Planar Area [Fill]:	0

Blanked Planar Area:	2139719.0673698
Total Planar Area:	6222652.3898

Surface Areas

Positive Surface Area [Cut]:	4083020.7518995
Negative Surface Area [Fill]:	0

Grid Volume Computations

Mon Jul 15 10:50:33 2013

Upper Surface

Grid File Name:	P:\LaPlata\2013 Detailed Seep Mapping\Surfer\FR_CO2.grd
Grid Size:	31 rows x 58 columns
X Minimum:	2329860.033
X Maximum:	2333286.083
X Spacing:	60.106140350882
Y Minimum:	1234244.266
Y Maximum:	1236060.542
Y Spacing:	60.542533333328
Z Minimum:	-0.26082291562152
Z Maximum:	1.0962855229398

Lower Surface

Level Surface defined by Z = 0

Volumes

Z Scale Factor:	0.0929

Total Volumes by:

Trapezoidal Rule:	62111.967577025
Simpson's Rule:	61921.733899663
Simpson's 3/8 Rule:	62194.571670371

Cut & Fill Volumes

Positive Volume [Cut]:	64627.341086376
Negative Volume [Fill]:	2515.3735093505
Net Volume [Cut-Fill]:	62111.967577025

Areas

Planar Areas

Positive Planar Area [Cut]:	3730059.0207815
Negative Planar Area [Fill]:	352874.30164869

Blanked Planar Area:	2139719.0673698
Total Planar Area:	6222652.3898

Surface Areas

Positive Surface Area [Cut]:	3730059.0727448
Negative Surface Area [Fill]:	352874.30607449

Grid Volume Computations

Wed Jul 10 15:29:55 2013

Upper Surface

Grid File Name:	P:\LaPlata\2013 Detailed Seep Mapping\Surfer\S17_CH4notail.grd
Grid Size:	15 rows x 15 columns
X Minimum:	2340944.262
X Maximum:	2341159.409
X Spacing:	15.367642857134
Y Minimum:	1240746.386
Y Maximum:	1240953.331
Y Spacing:	14.78178571429
Z Minimum:	0
Z Maximum:	53.320083176062

Lower Surface

Level Surface defined by Z = 0

Volumes

Z Scale Factor:	0.0929

Total Volumes by:

Trapezoidal Rule:	8074.9761609625
Simpson's Rule:	8026.7574739197
Simpson's 3/8 Rule:	8163.4650648808

Cut & Fill Volumes

Positive Volume [Cut]:	8074.9761609625
Negative Volume [Fill]:	0
Net Volume [Cut-Fill]:	8074.9761609625

Areas

Planar Areas

Positive Planar Area [Cut]:	30212.440085171
Negative Planar Area [Fill]:	0

Blanked Planar Area:	14311.155829818
Total Planar Area:	44523.595914989

Surface Areas

Positive Surface Area [Cut]:	30243.616546757
Negative Surface Area [Fill]:	0

Grid Volume Computations

Mon Jul 15 10:51:13 2013

Upper Surface

Grid File Name:	P:\LaPlata\2013 Detailed Seep Mapping\Surfer\S17_CO2.grd
Grid Size:	15 rows x 15 columns
X Minimum:	2340944.262
X Maximum:	2341159.409
X Spacing:	15.367642857134
Y Minimum:	1240746.386
Y Maximum:	1240953.331
Y Spacing:	14.78178571429
Z Minimum:	-1.2534856913887
Z Maximum:	11.739088258076

Lower Surface

Level Surface defined by Z = 0

Volumes

Z Scale Factor:	0.0929

Total Volumes by:

Trapezoidal Rule:	2914.8605000434
Simpson's Rule:	2921.8219236165
Simpson's 3/8 Rule:	2929.0200062306

Cut & Fill Volumes

Positive Volume [Cut]:	3501.9638351626
Negative Volume [Fill]:	587.10333511915
Net Volume [Cut-Fill]:	2914.8605000434

Areas

Planar Areas

Positive Planar Area [Cut]:	16374.963637333
Negative Planar Area [Fill]:	13837.476447839

Blanked Planar Area:	14311.155829818
Total Planar Area:	44523.595914989

Surface Areas

Positive Surface Area [Cut]:	16376.408828792
Negative Surface Area [Fill]:	13837.513824817

Grid Volume Computations

Wed Jul 17 12:37:40 2013

Upper Surface

Grid File Name:	P:\LaPlata\2013 Detailed Seep Mapping\Surfer\TC2PR_CH4notail.grd
Grid Size:	118 rows x 323 columns
X Minimum:	2370458.145
X Maximum:	2389754.621
X Spacing:	59.926944099378
Y Minimum:	1237425.17
Y Maximum:	1244429.308
Y Spacing:	59.864427350428
Z Minimum:	0
Z Maximum:	732.20803173878

Lower Surface

Level Surface defined by Z = 0

Volumes

Z Scale Factor:	0.0929

Total Volumes by:

Trapezoidal Rule:	3397607.7430532
Simpson's Rule:	3390315.511554
Simpson's 3/8 Rule:	3314503.5734924

Cut & Fill Volumes

Positive Volume [Cut]:	3397607.7430532
Negative Volume [Fill]:	0
Net Volume [Cut-Fill]:	3397607.7430532

Areas

Planar Areas

Positive Planar Area [Cut]:	20769786.041939
Negative Planar Area [Fill]:	0

Blanked Planar Area:	114385394.77575
Total Planar Area:	135155180.81769

Surface Areas

Positive Surface Area [Cut]:	20783854.082655
Negative Surface Area [Fill]:	0

Grid Volume Computations

Wed Jul 17 12:39:41 2013

Upper Surface

Grid File Name:	P:\LaPlata\2013 Detailed Seep Mapping\Surfer\TC2PR_CO2.grd
Grid Size:	118 rows x 323 columns
X Minimum:	2370458.145
X Maximum:	2389754.621
X Spacing:	59.926944099378
Y Minimum:	1237425.17
Y Maximum:	1244429.308
Y Spacing:	59.864427350428
Z Minimum:	-1.0890059858458
Z Maximum:	8.3741940256187

Lower Surface

Level Surface defined by Z = 0

Volumes

Z Scale Factor:	0.0929

Total Volumes by:

Trapezoidal Rule:	451593.07281619
Simpson's Rule:	449948.88774272
Simpson's 3/8 Rule:	452847.19431718

Cut & Fill Volumes

Positive Volume [Cut]:	473897.17058633
Negative Volume [Fill]:	22304.097770135
Net Volume [Cut-Fill]:	451593.07281619

Areas

Planar Areas

Positive Planar Area [Cut]:	19608714.691548
Negative Planar Area [Fill]:	1157483.8581995

Blanked Planar Area:	114388982.26794
Total Planar Area:	135155180.81769

Surface Areas

Positive Surface Area [Cut]:	19608716.990231
Negative Surface Area [Fill]:	1157483.9048412

Grid Volume Computations

Wed Jul 10 15:27:22 2013

Upper Surface

Grid File Name:	P:\LaPlata\2013 Detailed Seep Mapping\Surfer\VP_CH4notail.grd
Grid Size:	38 rows x 81 columns
X Minimum:	2348679.889
X Maximum:	2353473.212
X Spacing:	59.916537499998
Y Minimum:	1242428.586
Y Maximum:	1244655.42
Y Spacing:	60.184702702704
Z Minimum:	0
Z Maximum:	4.6793655815666

Lower Surface

Level Surface defined by Z = 0

Volumes

Z Scale Factor:	0.0929

Total Volumes by:

Trapezoidal Rule:	25688.469050418
Simpson's Rule:	25255.640956602
Simpson's 3/8 Rule:	25566.561352924

Cut & Fill Volumes

Positive Volume [Cut]:	25688.469050418
Negative Volume [Fill]:	0
Net Volume [Cut-Fill]:	25688.469050418

Areas

Planar Areas

Positive Planar Area [Cut]:	7105739.2524314
Negative Planar Area [Fill]:	0

Blanked Planar Area:	3568195.3769504
Total Planar Area:	10673934.629382

Surface Areas

Positive Surface Area [Cut]:	7105739.6593232
Negative Surface Area [Fill]:	0

Grid Volume Computations

Mon Jul 15 10:53:38 2013

Upper Surface

Grid File Name:	P:\LaPlata\2013 Detailed Seep Mapping\Surfer\VP_CO2.grd
Grid Size:	38 rows x 81 columns
X Minimum:	2348679.889
X Maximum:	2353473.212
X Spacing:	59.916537499998
Y Minimum:	1242428.586
Y Maximum:	1244655.42
Y Spacing:	60.184702702704
Z Minimum:	-1.131576365751
Z Maximum:	3.011575183453

Lower Surface

Level Surface defined by Z = 0

Volumes

Z Scale Factor:	0.0929

Total Volumes by:

Trapezoidal Rule:	88446.64948071
Simpson's Rule:	88625.669451818
Simpson's 3/8 Rule:	88462.209005592

Cut & Fill Volumes

Positive Volume [Cut]:	95343.542493693
Negative Volume [Fill]:	6896.8930129829
Net Volume [Cut-Fill]:	88446.64948071

Areas

Planar Areas

Positive Planar Area [Cut]:	6378451.5594188
Negative Planar Area [Fill]:	727287.69301254

Blanked Planar Area:	3568195.3769504
Total Planar Area:	10673934.629382

Surface Areas

Positive Surface Area [Cut]:	6378451.7925933
Negative Surface Area [Fill]:	727287.74250263

APPENDIX D

LABORATORY ANALYTICAL REPORTS

ISOTECH
ISOTECH LABORATORIES INC

ANALYSIS REPORT

Lab #:	366612	Job #:	22195	IS-65828
Sample Name/Number:	Gun Club Spring			
Company:	LT Environmental			
Date Sampled:	7/03/2013			
Container:	Dissolved Gas Bottle			
Field/Site Name:	La Plata Springs			
Location:	Gun Club Spring			
Formation/Depth:				
Sampling Point:				
Date Received:	7/09/2013	Date Reported:	7/26/2013	

Component	Chemical mol. %	$\delta^{13}C$ ‰	δD ‰	$\delta^{18}O$ ‰
Carbon Monoxide	nd			
Helium	na			
Hydrogen	nd			
Argon	0.309			
Oxygen	nd			
Nitrogen	15.45			
Carbon Dioxide	46.63			
Methane	37.59	-45.19	-249.9	
Ethane	0.0170			
Ethylene	nd			
Propane	nd			
Propylene	nd			
Iso-butane	nd			
N-butane	nd			
Iso-pentane	nd			
N-pentane	nd			
Hexanes +	nd			

Remarks:
Analysis is of gas extracted from water by headspace equilibration. Analysis has been corrected for helium added to create headspace. Helium dilution factor = 0.67
*Addition of helium negates the ability to detect native helium and may negate the ability to detect hydrogen.

nd = not detected. na = not analyzed. Isotopic composition of hydrogen is relative to VSMOW. Isotopic composition of carbon is relative to VPDB. Isotopic composition of oxygen is relative to VSMOW, except for carbon dioxide which is relative to VPDB. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.

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

05 June 2013

Devin Hencmann
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 05/23/13 17:00.
If you need any further assistance, please feel free to contact me.

Sincerely,

Debbie Zufelt
Reports Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. Our NELAP accreditation can be viewed at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water.

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water

dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

LT Environmental	Project: La Plata Springs	
2243 MAin Ave Suite 3	Project Name / Number: [none]	**Reported:**
Durango CO, 81301	Project Manager: Devin Hencmann	06/05/13 16:07

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Hoier	1305165-01	Water	05/23/13 08:10	05/23/13 17:00
Darwin Rather	1305165-02	Water	05/23/13 09:57	05/23/13 17:00

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LT Environmental	Project: La Plata Springs	
2243 MAin Ave Suite 3	Project Name / Number: [none]	**Reported:**
Durango CO, 81301	Project Manager: Devin Hencmann	06/05/13 16:07

Hoier

1305165-01 (Water)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
Alkalinity, Bicarbonate*	**119**	10.0		mg/L	1	06/03/13	2320 B		ABP
Alkalinity, Carbonate*	<10.0	10.0		mg/L	1	06/03/13	2320 B		ABP
Alkalinity, Hydroxide*	<10.0	10.0		mg/L	1	06/03/13	2320 B		ABP
Alkalinity, Total*	**119**	10.0		mg/L	1	06/03/13	2320 B		ABP
Bromide	**0.149**	0.100		mg/L	1	05/29/13	4500-Br- B		ABP
Chloride	<10.0	10.0	5.00	mg/L	1	05/30/13	4500-Cl- C		ABP
Fluoride*	<0.200	0.200	0.0330	mg/L	1	05/31/13	4500-F- C		ABP
Sulfate	<10.0	10.0	1.63	mg/L	1	05/25/13	4500-SO42- E		ABP
TDS*	**145**	10.0		mg/L	1	05/29/13	EPA160.1		ABP
Dissolved Metals by ICP									
Calcium*	**23.5**	1.00	0.007	mg/L	1	05/29/13	EPA200.7		JGS
Iron*	**2.72**	0.050	0.004	mg/L	1	05/29/13	EPA200.7		JGS
Magnesium*	**11.4**	1.00	0.021	mg/L	1	05/29/13	EPA200.7		JGS
Potassium*	**1.26**	1.00	0.617	mg/L	1	05/29/13	EPA200.7		JGS
Sodium*	**12.2**	1.00	0.023	mg/L	1	05/29/13	EPA200.7		JGS

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LT Environmental	Project: La Plata Springs	
2243 MAin Ave Suite 3	Project Name / Number: [none]	**Reported:**
Durango CO, 81301	Project Manager: Devin Hencmann	06/05/13 16:07

Darwin Rather

1305165-02 (Water)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
Alkalinity, Bicarbonate*	**189**	10.0		mg/L	1	06/03/13	2320 B		ABP
Alkalinity, Carbonate*	<10.0	10.0		mg/L	1	06/03/13	2320 B		ABP
Alkalinity, Hydroxide*	<10.0	10.0		mg/L	1	06/03/13	2320 B		ABP
Alkalinity, Total*	**189**	10.0		mg/L	1	06/03/13	2320 B		ABP
Bromide	**0.698**	0.100		mg/L	1	05/29/13	4500-Br- B		ABP
Chloride	<10.0	10.0	5.00	mg/L	1	05/30/13	4500-Cl- C		ABP
Fluoride*	<0.200	0.200	0.0330	mg/L	1	05/31/13	4500-F- C		ABP
Sulfate	**41.0**	10.0	1.63	mg/L	1	05/25/13	4500-SO42- E		ABP
TDS*	**295**	10.0		mg/L	1	05/29/13	EPA160.1		ABP
Dissolved Metals by ICP									
Calcium*	**63.8**	1.00	0.007	mg/L	1	05/29/13	EPA200.7		JGS
Iron*	<0.050	0.050	0.004	mg/L	1	05/29/13	EPA200.7		JGS
Magnesium*	**20.9**	1.00	0.021	mg/L	1	05/29/13	EPA200.7		JGS
Potassium*	**1.14**	1.00	0.617	mg/L	1	05/29/13	EPA200.7		JGS
Sodium*	**7.85**	1.00	0.023	mg/L	1	05/29/13	EPA200.7		JGS

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LT Environmental	Project: La Plata Springs	
2243 MAin Ave Suite 3	Project Name / Number: [none]	**Reported:**
Durango CO, 81301	Project Manager: Devin Hencmann	06/05/13 16:07

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B305189 - General Prep - Wet Chem										
Blank (B305189-BLK1)				Prepared & Analyzed: 05/25/13						
Sulfate	ND	10.0	mg/L							
LCS (B305189-BS1)				Prepared & Analyzed: 05/25/13						
Sulfate	50.0	10.0	mg/L	50.0		100	85-115			
LCS Dup (B305189-BSD1)				Prepared & Analyzed: 05/25/13						
Sulfate	53.0	10.0	mg/L	50.0		106	85-115	5.83	20	
Batch B305208 - General Prep - Wet Chem										
Blank (B305208-BLK1)				Prepared & Analyzed: 05/29/13						
Bromide	ND	0.100	mg/L							
LCS (B305208-BS1)				Prepared & Analyzed: 05/29/13						
Bromide	0.549	0.100	mg/L	0.600		91.5	85-115			
LCS Dup (B305208-BSD1)				Prepared & Analyzed: 05/29/13						
Bromide	0.642	0.100	mg/L	0.600		107	85-115	15.6	20	
Batch B305234 - General Prep - Wet Chem										
Blank (B305234-BLK1)				Prepared & Analyzed: 05/30/13						
Chloride	ND	10.0	mg/L							
LCS (B305234-BS1)				Prepared & Analyzed: 05/30/13						
Chloride	101	10.0	mg/L	100		101	85-115			

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dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

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LT Environmental	Project: La Plata Springs	
2243 MAin Ave Suite 3	Project Name / Number: [none]	**Reported:**
Durango CO, 81301	Project Manager: Devin Hencmann	06/05/13 16:07

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B305234 - General Prep - Wet Chem										
LCS Dup (B305234-BSD1)				Prepared & Analyzed: 05/30/13						
Chloride	98.0	10.0	mg/L	100		98.0	85-115	3.02	20	
Batch B305236 - General Prep - Wet Chem										
Blank (B305236-BLK1)				Prepared & Analyzed: 05/31/13						
Fluoride	ND	0.200	mg/L							
LCS (B305236-BS1)				Prepared & Analyzed: 05/31/13						
Fluoride	0.911	0.200	mg/L	1.00		91.1	85-115			
LCS Dup (B305236-BSD1)				Prepared & Analyzed: 05/31/13						
Fluoride	0.925	0.200	mg/L	1.00		92.5	85-115	1.53	20	
Batch B305240 - General Prep - Wet Chem										
Blank (B305240-BLK1)				Prepared & Analyzed: 05/29/13						
TDS	ND	10.0	mg/L							
Duplicate (B305240-DUP2)		**Source: 1305164-05**		Prepared & Analyzed: 05/29/13						
TDS	555	10.0	mg/L		615			10.3	20	
Reference (B305240-SRM1)				Prepared & Analyzed: 05/29/13						
TDS	2930	10.0	mg/L	2860		102	85-115			
Batch B306012 - General Prep - Wet Chem										
Blank (B306012-BLK1)				Prepared & Analyzed: 06/03/13						
Alkalinity, Total	ND	10.0	mg/L							

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LT Environmental	Project: La Plata Springs	
2243 MAin Ave Suite 3	Project Name / Number: [none]	**Reported:**
Durango CO, 81301	Project Manager: Devin Hencmann	06/05/13 16:07

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B306012 - General Prep - Wet Chem										
LCS (B306012-BS1)				Prepared & Analyzed: 06/03/13						
Alkalinity, Total	98.0	10.0	mg/L	100		98.0	85-115			
LCS Dup (B306012-BSD1)				Prepared & Analyzed: 06/03/13						
Alkalinity, Total	96.0	10.0	mg/L	100		96.0	85-115	2.06	20	

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dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

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LT Environmental	Project: La Plata Springs	
2243 MAin Ave Suite 3	Project Name / Number: [none]	**Reported:**
Durango CO, 81301	Project Manager: Devin Hencmann	06/05/13 16:07

Dissolved Metals by ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B305202 - Dissolved Metals, E200.7/E200.8										
Blank (B305202-BLK1)				Prepared & Analyzed: 05/29/13						
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 (B305202-BS1)				Prepared & Analyzed: 05/29/13						
Calcium	5.08	1.00	mg/L	5.00		102	85-115			
Iron	5.19	0.050	mg/L	5.00		104	85-115			
Magnesium	26.2	1.00	mg/L	25.0		105	85-115			
Potassium	9.59	1.00	mg/L	10.0		95.9	85-115			
Sodium	8.02	1.00	mg/L	8.10		99.1	85-115			
LCS Dup (B305202-BSD1)				Prepared & Analyzed: 05/29/13						
Calcium	5.13	1.00	mg/L	5.00		103	85-115	1.01	20	
Iron	5.24	0.050	mg/L	5.00		105	85-115	0.971	20	
Magnesium	26.5	1.00	mg/L	25.0		106	85-115	1.06	20	
Potassium	9.71	1.00	mg/L	10.0		97.1	85-115	1.16	20	
Sodium	8.10	1.00	mg/L	8.10		100	85-115	0.928	20	

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Debbie Zufelt

Debbie Zufelt, Reports Manager

dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

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LT Environmental	Project: La Plata Springs	
2243 MAin Ave Suite 3	Project Name / Number: [none]	**Reported:**
Durango CO, 81301	Project Manager: Devin Hencmann	06/05/13 16:07

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)
RL	Report Limit
MDL	Method Detection Limit

Green Analytical Laboratories

Debbie Zufelt

Debbie Zufelt, Reports Manager

Green Analytical Laboratories

CHAIN OF CUSTODY RECORD

Page 1 of 1

Client: LT ENVIRONMENTAL
Contact: DEVIN HENCMANN
Address: 2243 MAIN AVE Suite 3
Phone Number: 970-385-1056
Email: dhencmann@ltenv.com

NOTES:
1) Ensure proper container packaging.
2) Ship samples promptly following collection.
3) Designate Sample Reject Disposition.
PO#
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 # 1305-165

Samplers Signature:

Lab Name: Green Analytical Laboratories (970) 247-4220 FAX (970) 247-4227
Address: 75 Suttle Street, Durango, CO 81303 www.greenanalytical.com

Sample ID	Collection: Date	Collection: Time	Misc: Collected by: (Init.)	Misc: Matrix Type From Table 1	Misc: No. of Containers	Misc: Sample Filtered ? Y/N	Preservative(s): Unpreserved (Ice Only)	Preservative(s): HNO3	Preservative(s): HCL	Preservative(s): H2SO4	Preservative(s): NAOH	Preservative(s): Other (Specify)	Analyses Required: see attached	Comments
1. Hoier	5/23/13	0810	DH	2	3	N	✓	✓		✓			✓	#18 17,20 on ice
2. DARWIN RATHER	5/23/13	0957	DH	2	3	N	✓	✓		✓			✓	
3.														
4.														
5.														
6.														
7.														
8.														
9.														
10.														

Relinquished by	Date	Time	Received by	Date	Time
DEVIN HENCMANN	5/23/13	1900	Dulcinea Zufelt	05-23-13	1700
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

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

Project Information

LT Environmental
2243 MAin Ave Suite 3
Durango, CO 81301
Laboratory PM: **Debbie Zufelt**
Phone:(970) 385-1096
Fax:-

LTE
5/23/2013

Project Name:	La Plata Springs	**Invoice To:**	LT Environmental
Project Number:	[none]	**Invoice Bid:**	(list pricing)
Client PM:	Ashley Ager	**Invoice Manager:**	Julie Linn
Comments:			

Analysis	Comment
Alkalinity, Bicarbonate	
Alkalinity, Carbonate	
Alkalinity, Hydroxide	
Alkalinity, Total	
Bromide	
Calcium Dissolved by ICP	
Chloride	
Fluoride	
Iron Dissolved by ICP	
Magnesium Dissolved by ICP	
Potassium Dissolved by ICP	
Sodium Dissolved by ICP	
Solids, Total Dissolved (TDS)	
Sulfate	

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

20 June 2013

Devin Hencmann
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 05/29/13 17:06.
If you need any further assistance, please feel free to contact me.

Sincerely,

Debbie Zufelt
Reports Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. Our NELAP accreditation can be viewed at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

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LT Environmental	Project: La Plata Springs	
2243 MAin Ave Suite 3	Project Name / Number: [none]	**Reported:**
Durango CO, 81301	Project Manager: Devin Hencmann	06/20/13 10:30

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Gun Club Spring	1305188-01	Water	05/29/13 08:50	05/29/13 17:06

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

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LT Environmental	Project: La Plata Springs	
2243 MAin Ave Suite 3	Project Name / Number: [none]	**Reported:**
Durango CO, 81301	Project Manager: Devin Hencmann	06/20/13 10:30

Gun Club Spring

1305188-01 (Water)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
Acidity	**510**	100		mg/L	10	06/04/13	2310 B		ABP
Bromide	<10.0	10.0		mg/L	100	06/18/13	4500-Br- B		ABP
Chloride	**12.0**	10.0	5.00	mg/L	1	06/03/13	4500-Cl- C		ABP
Fluoride*	**0.723**	0.200	0.0330	mg/L	1	05/31/13	4500-F- C		ABP
Sulfate	**2650**	500	81.5	mg/L	50	06/05/13	4500-SO42- E		ABP
TDS*	**3930**	10.0		mg/L	1	06/04/13	EPA160.1		ABP
Dissolved Metals by ICP									
Calcium*	**465**	10.0	0.066	mg/L	10	06/06/13	EPA200.7		JLM
Iron*	**311**	0.050	0.004	mg/L	1	06/06/13	EPA200.7		JLM
Magnesium*	**198**	1.00	0.021	mg/L	1	06/06/13	EPA200.7		JLM
Potassium*	**15.2**	1.00	0.617	mg/L	1	06/06/13	EPA200.7		JLM
Sodium*	**65.0**	1.00	0.023	mg/L	1	06/06/13	EPA200.7		JLM

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LT Environmental	Project: La Plata Springs	
2243 MAin Ave Suite 3	Project Name / Number: [none]	**Reported:**
Durango CO, 81301	Project Manager: Devin Hencmann	06/20/13 10:30

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B305236 - General Prep - Wet Chem										
Blank (B305236-BLK1)				Prepared & Analyzed: 05/31/13						
Fluoride	ND	0.200	mg/L							
LCS (B305236-BS1)				Prepared & Analyzed: 05/31/13						
Fluoride	0.911	0.200	mg/L	1.00		91.1	85-115			
LCS Dup (B305236-BSD1)				Prepared & Analyzed: 05/31/13						
Fluoride	0.925	0.200	mg/L	1.00		92.5	85-115	1.53	20	
Batch B306004 - General Prep - Wet Chem										
Blank (B306004-BLK1)				Prepared & Analyzed: 06/03/13						
Chloride	ND	10.0	mg/L							
LCS (B306004-BS1)				Prepared & Analyzed: 06/03/13						
Chloride	101	10.0	mg/L	100		101	85-115			
LCS Dup (B306004-BSD1)				Prepared & Analyzed: 06/03/13						
Chloride	98.0	10.0	mg/L	100		98.0	85-115	3.02	20	
Batch B306006 - General Prep - Wet Chem										
Blank (B306006-BLK1)				Prepared: 06/03/13 Analyzed: 06/05/13						
Sulfate	ND	10.0	mg/L							
LCS (B306006-BS1)				Prepared: 06/03/13 Analyzed: 06/05/13						
Sulfate	55.0	10.0	mg/L	50.0		110	85-115			

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LT Environmental	Project: La Plata Springs	
2243 MAin Ave Suite 3	Project Name / Number: [none]	**Reported:**
Durango CO, 81301	Project Manager: Devin Hencmann	06/20/13 10:30

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B306006 - General Prep - Wet Chem										
LCS Dup (B306006-BSD1)				Prepared: 06/03/13 Analyzed: 06/05/13						
Sulfate	54.0	10.0	mg/L	50.0		108	85-115	1.83	20	
Batch B306017 - General Prep - Wet Chem										
Blank (B306017-BLK1)				Prepared & Analyzed: 06/04/13						
Acidity	ND	10.0	mg/L							
LCS (B306017-BS1)				Prepared & Analyzed: 06/04/13						
Acidity	98.0	10.0	mg/L				85-115			
LCS Dup (B306017-BSD1)				Prepared & Analyzed: 06/04/13						
Acidity	96.0	10.0	mg/L				85-115	2.06	20	
Batch B306018 - General Prep - Wet Chem										
Blank (B306018-BLK1)				Prepared & Analyzed: 06/04/13						
TDS	ND	10.0	mg/L							
Duplicate (B306018-DUP2)		**Source: 1306004-01**		Prepared & Analyzed: 06/04/13						
TDS	4540	10.0	mg/L		4510			0.774	20	
Reference (B306018-SRM1)				Prepared & Analyzed: 06/04/13						
TDS	2790	10.0	mg/L	2860		97.6	85-115			
Batch B306108 - General Prep - Wet Chem										
Blank (B306108-BLK1)				Prepared & Analyzed: 06/18/13						
Bromide	ND	0.100	mg/L							

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LT Environmental	Project: La Plata Springs	
2243 MAin Ave Suite 3	Project Name / Number: [none]	**Reported:**
Durango CO, 81301	Project Manager: Devin Hencmann	06/20/13 10:30

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B306108 - General Prep - Wet Chem										
LCS (B306108-BS1)				Prepared & Analyzed: 06/18/13						
Bromide	0.574	0.100	mg/L	0.600		95.7	85-115			
LCS Dup (B306108-BSD1)				Prepared & Analyzed: 06/18/13						
Bromide	0.619	0.100	mg/L	0.600		103	85-115	7.48	20	

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dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

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LT Environmental	Project: La Plata Springs	
2243 MAin Ave Suite 3	Project Name / Number: [none]	**Reported:**
Durango CO, 81301	Project Manager: Devin Hencmann	06/20/13 10:30

Dissolved Metals by ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B306019 - Dissolved Metals, E200.7/E200.8										
Blank (B306019-BLK1)				Prepared & Analyzed: 06/06/13						
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 (B306019-BS1)				Prepared & Analyzed: 06/06/13						
Calcium	5.02	1.00	mg/L	5.00		100	85-115			
Iron	5.13	0.050	mg/L	5.00		103	85-115			
Magnesium	25.9	1.00	mg/L	25.0		104	85-115			
Potassium	9.75	1.00	mg/L	10.0		97.5	85-115			
Sodium	7.93	1.00	mg/L	8.10		98.0	85-115			
LCS Dup (B306019-BSD1)				Prepared & Analyzed: 06/06/13						
Calcium	4.93	1.00	mg/L	5.00		98.7	85-115	1.77	20	
Iron	5.05	0.050	mg/L	5.00		101	85-115	1.60	20	
Magnesium	25.5	1.00	mg/L	25.0		102	85-115	1.54	20	
Potassium	9.53	1.00	mg/L	10.0		95.3	85-115	2.25	20	
Sodium	7.81	1.00	mg/L	8.10		96.4	85-115	1.55	20	

Green Analytical Laboratories

Debbie Zufelt

Debbie Zufelt, Reports Manager

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LT Environmental	Project: La Plata Springs	
2243 MAin Ave Suite 3	Project Name / Number: [none]	**Reported:**
Durango CO, 81301	Project Manager: Devin Hencmann	06/20/13 10:30

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)
RL	Report Limit
MDL	Method Detection Limit

Green Analytical Laboratories

Debbie Zufelt

Debbie Zufelt, Reports Manager

Green Analytical Laboratories

CHAIN OF CUSTODY RECORD

Page 1 of 1

Client: LT Environmental
Contact: Devin Henemann
Address: 2243 Main Ave Suite #3
Phone Number: 970 385 1096
Email: dhenemann@ltenv.com

NOTES:
1) Ensure proper container packaging.
2) Ship samples promptly following collection.
3) Designate Sample Reject Disposition.
PO#
Project Name:
Samplers Signature:

Table 1. – Matrix Type
1 = Surface Water, 2 = Ground Water
3 = Soil/Sediment, 4 = Prod.W., 5 = Oil
6 = Waste, 7 = Other (Specify) _____

FOR GAL USE ONLY
GAL JOB # 1305-188

Lab Name: Green Analytical Laboratories (970) 247-4220 FAX (970) 247-4227
Address: 75 Suttle Street, Durango, CO 81303 www.greenanalytical.com

Sample ID	Collection: Date	Collection: Time	Misc: Collected by: (Init.)	Misc: Matrix Type From Table 1	Misc: No. of Containers	Misc: Sample Filtered ? Y/N	Preservative(s): Unpreserved (Ice Only)	Preservative(s): HNO3	Preservative(s): HCL	Preservative(s): H2SO4	Preservative(s): NAOH	Preservative(s): Other (Specify)	Analyses Required: See Attached	Comments
1. Gun club spring	5/29/13	0850	DH	2	3	N	1	1		1			X	#18 8.4°C on ice
2.														
3.														
4.														
5.														
6.														
7.														
8.														
9.														
10.														

Relinquished by:	Date: 5/29/13	Time: 1706	Received by: Debbie Zufelt	Date: 05-29-13	Time: 1706
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

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

Project Information

LT Environmental

2243 MAin Ave Suite 3
Durango, CO 81301
Laboratory PM: **Debbie Zufelt**

Phone:(970) 385-1096
Fax:-

LTE
5/23/2013

Project Name:	La Plata Springs	**Invoice To:**	LT Environmental
Project Number:	[none]	**Invoice Bid:**	(list pricing)
Client PM:	Ashley Ager	**Invoice Manager:**	Julie Linn
Comments:			

Analysis	Comment
Alkalinity, Bicarbonate	
Alkalinity, Carbonate	
Alkalinity, Hydroxide	
Alkalinity, Total	
Bromide	
Calcium Dissolved by ICP	
Chloride	
Fluoride	
Iron Dissolved by ICP	
Magnesium Dissolved by ICP	
Potassium Dissolved by ICP	
Sodium Dissolved by ICP	
Solids, Total Dissolved (TDS)	
Sulfate	

Four Corners Geoscience,Inc.
P.O. Box 4224
Durango, CO 81302

Methane Analysis Report

Client

L T Environmental,Inc.
2243 Main Avenue Suite 3
Durango,CO 81301
Sam LaRue
970-619-0936

Project Name:	LaPlata County Spring Sampling
Project Number:	005213001
Report Date:	6/5/2013
Sampled By:	Devin Henemann

Analysis:	Lynn Fechter			**Results:**	
FCGeo #	**Sample Date**	**Sample Time**	**Site ID-Location**	***CH4***	***Limit***
		(Hrs)		***(mg/L)***	***(mg/L)***
052313-LB1	5/23/2013	810	Hoier Spring	1.27	0.02
052313-LB2	5/23/2013	957	Darwin Rather Spring#1	<0.02	0.02
					0.02
52313-BLK1	5/23/2013	NA	LAB BLANK	<0.02	0.02
52313-BLK2	5/23/2013	NA	LAB BLANK	<0.02	0.02

Date Samples delivered to FCGEO analysis by Lynn Fechter
Analyses were conducted on SRI gas chromatograph w/ FID within 24 hours of delivery.
Conducted Methane analysis per protocol and method established
by BLM San Juan Resource Area 1993 and USGS method.
Laboratory calibration quality control conducted the same day as sample runs.
Blanks and duplicated runs conducted for each sample set.
No field blanks received at FCGeo Lab
ND- None Detected

Lynn M. Fechter, B.S. Geology

Four Corners Geoscience,Inc.
P.O. Box 4224
Durango, CO 81302

Methane Analysis Report

Client

L T Environmental,Inc.
2243 Main Avenue Suite 3
Durango,CO 81301
Sam LaRue
970-619-0936

Project Name:	LaPlata County Spring Sampling
Project Number:	5213001
Report Date:	6/5/2013
Sampled By:	Devin Henemann

Analysis:	Lynn Fechter			**Results:**	
FCGeo #	**Sample Date**	**Sample Time (Hrs)**	**Site ID-Location**	***CH4 (mg/L)***	***Limit (mg/L)***
061313-LB1	6/13/2013	930	Gun Club Spring	4.22	0.02
					0.02
061313-B1	6/13/2013	NA	LAB BLANK	<0.02	0.02

Date Samples delivered to FCGEO analysis by Lynn Fechter
Analyses were conducted on SRI gas chromatograph w/ FID within 24 hours of delivery.
Conducted Methane analysis per protocol and method established
by BLM San Juan Resource Area 1993 and USGS method.
Laboratory calibration quality control conducted the same day as sample runs.
Blanks and duplicated runs conducted for each sample set.
No field blanks received at FCGeo Lab
ND- None Detected

Lynn M. Fechter, B.S. Geology