



October 8, 2010

Mr. Mark Searfoss  
Principal Environmental Engineer  
Bureau of Landfill and Recycling Management  
**NJDEP – DIVISION OF SOLID AND HAZARDOUS WASTE**  
401 East State Street, P.O. Box 414  
Trenton, New Jersey 08625-0414

Re: Quarterly Landfill Gas Survey – 3<sup>rd</sup> Quarter 2010  
**Legler Landfill, Facility No. 1511A**  
Jackson Township, Ocean County, New Jersey  
*FPA No. 08E004A*

Dear Mr. Searfoss:

## INTRODUCTION

This report presents the testing procedures and analytical results of the Quarterly Landfill Gas (LFG) survey conducted by French & Parrello Associates, P.A. (FPA) on September 30, 2010, at Legler Landfill and surrounding properties, Jackson Township, Ocean County, New Jersey. The subject landfill is identified as New Jersey Department of Environmental Protection (NJDEP) Facility No. 1511A.

## BACKGROUND

As part of the Closure and Post-Closure Plan Approval dated February 21, 1996, and Corrective Action Plan dated March 2002, methane gas surveys are to be conducted around the landfill perimeter to monitor potential lateral, offsite gas migration. Since 2000, methane gas concentrations have increased in the western portion and southwestern corner of the landfill. As a result, the NJDEP directed Jackson Township to perform quarterly offsite gas surveys to monitor methane gas migration.

Pursuant to the NJDEP letter received April 1, 2009, monitoring is required to be conducted during days of falling barometric pressure in order to accurately monitor gas migration. Barometric pressure data was gathered from the Rutgers Weather and Climate Network station located in Cream Ridge, NJ, approximately 13.5 miles from the subject property. Additionally, pursuant to the NJDEP letter dated June 23, 2010, the delineation protocol has been modified. Gas sampling points between each well are no longer required; however, whenever methane gas is detected within one of the onsite gas monitoring wells, three additional sampling points are required.

1800 Route 34, Suite 101 • Wall, NJ • 07719 • T 732.312.9800 • F 732.312.9801 • www.fpaengineers.com

Laurence E. French, P.E. • Argo T. Parrello, P.E. • James B. Heller, P.E. • Joseph M. Edwards, P.E. • Scott D. Watkins, P.E.  
David I. Calnan, P.E. • William F. Nero, P.E., P.P., C.M.E. • Keith B. Smith, P.E., P.P., C.M.E. • Steven A. Tardy, P.E.

Offices: Wall Township, NJ • Hackettstown, NJ • Bethlehem, PA

One point is required 25 feet on either side of the well and the third point is required 25 feet behind (offsite) of the well. In the event methane gas is detected in one of the delineation samples, the same delineation protocol is to be used until methane gas is no longer detected. Delineation samples were collected on the boundary of Block 37, Lot 1, and Block 38, Lot 16.02, and expanded outward from the onsite sampling points.

## **LANDFILL GAS TESTING PROCEDURES**

Gas sampling was performed at 36 gas sampling locations: 23 gas monitoring wells, 11 temporary gas sampling points (GSPs) and two flares. The wells were sampled immediately after removing the locked, metal protective cap by inserting dedicated three-foot, 3/16-inch, white polyethylene tubing through a pre-drilled hole in the plastic well cap. The tubing was attached to the LANDTEC GEM-2000 Gas Extraction Monitor (GEM-2000) which instantaneously analyzed the LFG. GSP samples were collected utilizing an AMS Soil Sampling Kit. A slam bar and soil gas probe were utilized to penetrate the soil to an approximate depth of two and one-half feet. Dedicated 3/16-inch inside diameter, polyethylene tubing was pre-fed through the probe, and the GEM-2000 was utilized to instantaneously analyze LFG. GSPs are located primarily along the property boundary 25 feet on each side of the wells containing detectable concentrations of methane gas. On February 4, 2008, four-inch PVC ball valves equipped with fabricated conversion nipples, were installed on the Flares. These valves ensure a sealed connection to the LANDTECH GEM-2000 while sampling.

Offsite gas sampling was conducted on Block 38, Lots 15 and 16.02, as well as Block 37, Lot 1. Samples were collected in 25-foot intervals behind the onsite locations where methane LELs were detected above 0%. Offsite sampling included three GSP locations. Each gas sample was analyzed for percent methane, percent oxygen, percent carbon dioxide and methane LEL. Sampling locations are displayed on Drawing No. 1.

## **GAS TESTING RESULTS**

### **Onsite Gas Testing Results**

Methane gas was detected in six locations onsite, four of which were in excess of the 25 percent LEL: Well #8, Well #13, GSP# 19b, and Flare Two (F-2). (Survey results are presented in Table No. 1). A comparison of the most recent monitoring results with the historical results shows no indication of additional methane migration. Changes in onsite methane gas concentrations, since September 2006, are presented in Table No. 2 and graphically on Figure No. 1. Changes in onsite LEL, since September 2006, are presented in Table No. 3, and graphically on Figure No. 2.

## OFFSITE GAS MONITORING RESULTS

During the September 30, 2010 landfill gas monitoring event, methane gas was not detected at offsite location. Field analysis results of the offsite gas survey are presented in Table No. 4. A comparison of the most recent monitoring results with the historical results indicates an overall decreasing trend of LELs. Changes in offsite methane gas concentrations, since April 2009, are presented in Table No. 5, and graphically on Figure No. 3. Changes in offsite LEL, since April 2009, are presented in Table No. 6 and graphically on Figure No. 4.

## CONCLUSIONS AND RECOMMENDATIONS

Pursuant to the NJDEP letter received April 1, 2009, FPA conducted the third quarter gas monitoring event on a day with falling barometric pressure. Barometric pressure data is presented in Table No. 7. The most current quarterly gas survey indicates a decreasing trend in LELs when compared to historic surveys. LELs were not detected above the acceptable regulatory percentage in offsite sampling locations during the September 30, 2010 monitoring event.

Should you have any questions or comments, please do not hesitate to contact us.

Very truly yours,

**FRENCH & PARRELLO ASSOCIATES, P.A.**



Bryan Heller  
Environmental Scientist



C. Dudley Warner, III  
Senior Project Manager, Environmental Services

BH/jh

cc: Dan Burke – *Jackson Township Engineer*

**TABLE 1**  
**SEPTEMBER 30, 2010 - ONSITE GAS SURVEY RESULTS**  
 LEGLER LANDFILL (FACILITY No. 1511A)  
 JACKSON TOWNSHIP, OCEAN COUNTY, NEW JERSEY

Well No / Gas Sampling Point	Percent Methane	Percent Lower Explosive Limit	Percent Carbon Dioxide	Percent Oxygen	Comments
Well # 1	0.0%	0.0%	0.5%	18.9%	
Well # 2	0.0%	0.0%	3.7%	15.9%	
Well # 3	0.0%	0.0%	3.0%	17.1%	
Well # 4	0.0%	0.0%	3.0%	16.8%	
Well # 5	0.0%	0.0%	0.1%	20.6%	
Well # 6	0.0%	0.0%	1.1%	18.8%	
Well # 7	0.0%	0.0%	1.8%	18.2%	
Well # 8	2.6%	<b>52.0%</b>	12.9%	1.1%	
GSP # 8a	0.0%	0.0%	0.5%	19.4%	
Well # 9	0.0%	0.0%	8.9%	7.9%	
Well # 10	0.0%	0.0%	7.2%	12.9%	
Well # 11	0.0%	0.0%	17.5%	12.7%	
Well # 12	0.3%	6.0%	11.0%	8.9%	
GSP # 12a	0.0%	0.0%	1.6%	18.6%	
GSP # 12b	0.0%	0.0%	0.6%	19.6%	
Well # 13	19.5%	<b>390.0%</b>	18.0%	0.3%	
GSP # 13a	0.0%	0.0%	1.3%	18.8%	
GSP # 13b	0.0%	0.0%	6.4%	12.6%	
Well # 14	0.0%	0.0%	11.4%	9.6%	
Well # 15	0.0%	0.0%	12.3%	7.6%	
Well # 16	0.0%	0.0%	6.2%	13.6%	
Well # 17	0.0%	0.0%	3.7%	16.2%	
Well # 18	0.0%	0.0%	2.1%	18.0%	
Well # 19	0.4%	8.0%	0.6%	19.6%	
GSP # 19a	0.0%	0.0%	3.4%	17.0%	
GSP # 19b	30.5%	<b>610.0%</b>	23.5%	0.1%	
GSP # 19bb	0.0%	0.0%	8.9%	9.2%	
Well # 20	0.0%	0.0%	4.1%	16.6%	
Well # 21	0.0%	0.0%	0.7%	19.9%	
Well # 22	0.0%	0.0%	0.6%	19.7%	
Well # 23	0.0%	0.0%	6.1%	13.3%	
Flare (F-1)	1.2%	24.0%	9.0%	9.0%	
Flare (F-2)	30.5%	<b>610.0%</b>	20.3%	4.5%	

Notes:

Background methane levels approximately 0.1% methane

**Bold values exceed regulatory acceptable levels (25% LEL)**

**TABLE 2**  
**ONSITE METHANE GAS CONCENTRATIONS FROM SEPTEMBER 2006 TO SEPTEMBER 2010**  
**LEGLER LANDFILL (FACILITY No. 1511A)**  
**JACKSON TOWNSHIP, OCEAN COUNTY, NEW JERSEY**

Gas Monitoring Well/ Gas Sampling Point	% CH4 (12-06)	% CH4 (3-07)	% CH4 (6-07)	% CH4 (10-07)	% CH4 (12-07)	% CH4 (3-08)	% CH4 (6-08)	% CH4 (9-08)	% CH4 (12-08)	% CH4 (2-09)	% CH4 (4-09)	% CH4 (9-09)	% CH4 (12-10)	% CH4 (4-10)	% CH4 (7-10)
Well # 1	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Well # 2	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Well # 3	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Well # 4	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Well # 5	0.0%	0.0%	0.0%	0.20%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Well # 6	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Well # 7	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Well # 8	0.0%	8.3%	0.2%	5.1%	0.0%	5.7%	6.1%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
GSP # 8a	0.0%	0.0%	0.0%	0.0%	0.0%	6.3%	0.0%	0.0%	0.8%	8.3%	7.5%	1.1%	0.7%	4.0%	2.6%
GSP # 8b	0.0%	3.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	0.1%	0.0%	0.0%	5.0%	3.9%	0.0%
Well # 9	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	NS
GSP # 9a	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	NS
Well # 10	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	NS
GSP # 10a	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	1.4%	0.0%	0.0%	0.2%	2.6%	0.0%
Well # 11	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	NS
GSP # 11a	28.4%	28.7%	12.0%	5.3%	7.3%	1.1%	5.4%	0.0%	10.4%	16.4%	0.0%	0.0%	0.0%	0.0%	NS
Well # 12	5.3%	36.1%	0.0%	11.4%	2.4%	25.4%	27.0%	2.1%	10.2%	27.0%	22.7%	2.2%	8.1%	26.5%	0.3%
GSP # 12a	11.8%	29.1%	28.0%	9.8%	15.0%	0.0%	0.0%	0.0%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
GSP # 12b	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.0%	0.0%	0.0%	0.0%	0.0%
Well # 13	34.4%	41.8%	22.1%	9.0%	17.8%	34.3%	29.5%	9.7%	18.9%	38.4%	32.3%	31.6%	7.4%	36.7%	19.5%
GSP # 13a	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
GSP # 13b	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.0%	0.0%	0.0%	0.0%	0.0%
Well # 14	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
GSP # 14a	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Well # 15	0.7%	10.7%	0.0%	0.0%	0.0%	4.3%	1.7%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	NS
GSP # 15a	0.1%	11.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.9%	3.8%	0.0%	0.0%	5.6%	0.0%
Well # 16	0.0%	6.9%	0.0%	0.0%	0.0%	0.2%	0.2%	0.0%	0.6%	0.1%	0.0%	0.0%	14.6%	0.0%	NS
GSP # 16a	14.9%	6.9%	0.2%	0.0%	0.3%	0.0%	0.7%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	4.2%	0.0%
Well # 17	0.3%	15.2%	7.5%	0.0%	0.4%	NS	9.6%	1.0%	5.7%	10.3%	9.3%	13.4%	1.1%	14.9%	0.0%
GSP # 17a	0.0%	14.4%	25.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	NS
Well # 18	0.1%	4.8%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	6.8%	0.0%
GSP # 18a	3.9%	0.3%	0.0%	0.0%	0.0%	0.0%	1.0%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.9%	0.0%
Well # 19	10.0%	51.2%	39.7%	15.9%	3.3%	9.2%	10.2%	16.8%	10.7%	16.4%	0.2%	24.5%	0.9%	18.3%	0.4%
GSP # 19a	0.0%	17.8%	0.0%	1.0%	0.0%	0.0%	10.5%	0.0%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
GSP # 19b	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GSP # 19bb	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	30.5%
Well # 20	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
GSP # 20a	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Well # 21	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	NS
Well # 22	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
GSP # 22 @ 5'	NS	NS	NS	NS	NS	0.0%	NS	NS	NS	NS	NS	NS	NS	NS	NS
Well # 23	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Flare (F-1)	5.3%	5.9%	1.6%	14.4%	9.6%	3.2%	0.5%	11.4%	0.3%	1.4%	0.3%	0.9%	0.0%	0.0%	0.0%
Flare (F-2)	28.5%	38.5%	33.0%	50.7%	34.6%	31.0%	41.5%	34.0%	16.0%	37.5%	29.9%	28.5%	NS	45.7%	1.2%

Note:

NS - Not Sampled

**Bold values indicate a detection of methane gas**

TABLE 3  
 ONSITE LOWER EXPLOSIVE LIMITS FROM SEPTEMBER 2006 TO SEPTEMBER 2010  
 LEGLER LANDFILL (FACILITY No. 1511A)  
 JACKSON TOWNSHIP, OCEAN COUNTY, NEW JERSEY

Gas Monitoring Well/ Gas Sampling Point	LEL (12-06)	LEL (3-07)	LEL (6-07)	LEL (10-07)	LEL (12-07)	LEL (3-08)	LEL (6-08)	LEL (9-08)	LEL (12-08)	LEL (2-09)	LEL (4-09)	LEL (9-09)	LEL (12-09)	LEL (2-10)	LEL (4-10)	LEL (9-10)
Well # 1	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Well # 2	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Well # 3	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Well # 4	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Well # 5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Well # 6	0.0%	0.0%	0.0%	0.20%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Well # 7	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Well # 8	0.0%	166.0%	4.0%	102.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
GSP # 8a	0.0%	0.0%	0.0%	0.0%	0.0%	114.0%	122.0%	0.0%	16.0%	166.0%	150.0%	0.0%	0.0%	0.0%	0.0%	0.0%
GSP # 8b	0.0%	70.0%	0.0%	0.0%	0.0%	126.0%	0.0%	0.0%	24.0%	2.0%	0.0%	0.0%	176.0%	15.0%	80.0%	52.0%
Well # 9	0.0%	200.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.0%	0.0%	0.0%	0.0%	100.0%	78.0%	0.0%
GSP # 9a	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	NS
Well # 10	0.0%	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
GSP # 10a	0.0%	8.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.0%	28.0%	0.0%	0.0%	0.0%	0.0%	0.0%	NS
Well # 11	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%	196.0%	5.0%	52.0%	0.0%
GSP # 11a	568.0%	574.0%	240.0%	106.0%	146.0%	22.0%	108.0%	0.0%	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	NS
Well # 12	106.0%	722.0%	0.0%	228.0%	48.0%	508.0%	540.0%	42.0%	208.0%	328.0%	0.0%	0.0%	20.0%	0.0%	0.0%	0.0%
GSP # 12a	236.0%	582.0%	560.0%	196.0%	300.0%	0.0%	0.0%	0.0%	12.0%	2.0%	0.0%	0.0%	6.0%	0.0%	0.0%	NS
GSP # 12b	NS	NS	NS	NS	NS	0.0%	0.0%	0.0%	12.0%	2.0%	0.0%	0.0%	6.0%	0.0%	0.0%	NS
Well # 13	688.0%	836.0%	442.0%	180.0%	356.0%	686.0%	590.0%	194.0%	378.0%	768.0%	646.0%	632.0%	1050.0%	148.0%	734.0%	390.0%
GSP # 13a	12.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
GSP # 13b	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Well # 14	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
GSP # 14a	0.0%	18.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%	NS	NS	NS	0.0%
Well # 15	14.0%	214.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%	6.0%	0.0%	0.0%	0.0%
GSP # 15a	2.0%	228.0%	0.0%	0.0%	0.0%	86.0%	34.0%	0.0%	40.0%	158.0%	76.0%	0.0%	0.0%	0.0%	0.0%	NS
Well # 16	0.0%	138.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
GSP # 16a	298.0%	138.0%	0.2%	0.0%	6.0%	0.0%	4.0%	0.0%	12.0%	2.0%	0.0%	0.0%	234.0%	0.0%	0.0%	NS
Well # 17	6.0%	304.0%	150.0%	0.0%	8.0%	NS	192.0%	20.0%	114.0%	206.0%	186.0%	0.0%	0.0%	0.0%	84.0%	0.0%
GSP # 17a	0.0%	288.0%	504.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	NS
Well # 18	2.0%	96.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	268.0%	396.0%	23.0%	298.0%	0.0%
GSP # 18a	78.0%	6.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	NS
Well # 19	200.0%	1024.0%	794.0%	318.0%	66.0%	184.0%	204.0%	336.0%	214.0%	328.0%	4.0%	490.0%	428.0%	19.0%	0.0%	NS
GSP # 19a	0.0%	356.0%	0.0%	20.0%	0.0%	0.0%	210.0%	0.0%	10.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	NS
GSP # 19b	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GSP # 19bb	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Well # 20	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	NS	NS	NS	NS	NS	NS	NS	610.0%
GSP # 20a	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Well # 21	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Well # 22	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	NS
GSP # 22 @ 5'	NS	NS	NS	NS	NS	2.0%	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Well # 23	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.0%
Flare (F-1)	106.0%	118.0%	32.0%	288.0%	192.0%	64.0%	10.0%	228.0%	6.0%	28.0%	6.0%	18.0%	40.0%	0.0%	0.0%	0.0%
Flare (F-2)	576.0%	770.0%	660.0%	1014.0%	682.0%	620.0%	830.0%	680.0%	320.0%	750.0%	598.0%	570.0%	830.0%	756.0%	914.0%	610.0%

Note:  
 Bold values exceed regulatory acceptable levels (25% LEL)  
 NS - Not Sampled

**TABLE 4**  
**SEPTEMBER 30, 2010 - OFFSITE GAS SURVEY RESULTS**  
 LEGLER LANDFILL (FACILITY No. 1511A)  
 JACKSON TOWNSHIP, OCEAN COUNTY, NEW JERSEY

Well No. / Gas Sampling Point	Percent Methane	Percent Lower Explosive Limit	Percent Carbon Dioxide	Percent Oxygen	Comments
GSP # 12c	0.0%	0.0%	1.0%	18.2%	
GSP # 13c	--	0.0%	--	--	*
GSP # 19c	0.0%	0.0%	0.5%	20.1%	
GSP # 19bc	0.0%	0.0%	0.7%	19.7%	
		0.0%			

Notes:

\* - Due to a large berm located offsite behind Well-13, sampling at the GSP # 13c location could not be conducted.  
**Bold values exceed regulatory acceptable levels (25% LEL)**

**TABLE 5**  
**OFFSITE METHANE GAS CONCENTRATIONS FROM APRIL 2009 TO SEPTEMBER 2010**  
 LEGLER LANDFILL (FACILITY No. 1511A)  
 JACKSON TOWNSHIP, OCEAN COUNTY, NEW JERSEY

Gas Monitoring Well/ Gas Sampling Point	% CH4 (4-09)	% CH4 (9-09)	% CH4 (12-09)	% CH4 (2-10)	% CH4 (4-10)	% CH4 (7-10)
GSP-8a (25')	NS	NS	NS	0.0%	0.0%	NS
Well-10 (25')	NS	NS	0.0%	0.0%	0.0%	NS
Well-12 (25') (GSP # 12c)	0.0%	0.0%	0.2%	0.0%	0.0%	NS
Well-12 (50')	NS	NS	NS	NS	2.0%	0.0%
Well-13 (25')	--*	--*	--*	--*	0.0%	NS
GSP-15a (25')	NS	NS	NS	0.0%	--*	--*
Well-15 (25')	0.0%	NS	0.0%	NS	NS	NS
GSP-16a (25')	NS	NS	0.0%	NS	0.0%	NS
Well-16 (25')	NS	NS	NS	NS	NS	NS
Well-17 (25')	0.0%	0.0%	0.0%	NS	0.0%	NS
Well-18 (25')	NS	NS	0.1%	NS	0.0%	NS
GSP-18a (25')	NS	NS	NS	0.0%	0.0%	NS
Well-19 (25') (GSP # 19c)	0.0%	0.0%	0.1%	0.0%	NS	NS
GSP # 19bc	NS	NS	NS	0.0%	0.0%	0.0%
				NS	NS	0.0%

Note:

-- - Not Sampled

\* - Due to a large berm located offsite behind Well-13, sampling at the GSP-13 (25') location could not be conducted.

NS - On-site readings were 0.0% during this event; therefore, no offsite readings were required.



**TABLE 6**  
**OFFSITE LOWER EXPLOSIVE LIMITS FROM APRIL 2009 TO SEPTEMBER 2010**  
 LEGLER LANDFILL (FACILITY No. 1511A)  
 JACKSON TOWNSHIP, OCEAN COUNTY, NEW JERSEY

Gas Monitoring Well/ Gas Sampling Point	LEL (4-09)	LEL (9-09)	LEL (12-09)	LEL (2-10)	LEL (4-10)	LEL (7-10)
GSP-8a (25')	NS	NS	NS	0.0%	0.0%	NS
Well-10 (25')	NS	NS	0.0%	0.0%	0.0%	NS
Well-12 (25') (GSP #12c)	0.0%	0.0%	1.0%	0.0%	<b>40.0%</b>	0.0%
Well-12 (50')	NS	NS	NS	NS	0.0%	NS
Well-13 (25')	--*	--*	--*	--*	--*	--*
GSP-15a (25')	NS	NS	NS	0.0%	NS	NS
Well-15 (25')	0.0%	NS	0.0%	NS	0.0%	NS
Well-16 (25')	NS	NS	0.0%	NS	0.0%	NS
Well-17 (25')	0.0%	0.0%	0.0%	0.0%	0.0%	NS
Well-18 (25')	NS	NS	1.0%	NS	0.0%	NS
Well-19 (25') (GSP #19c)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
GSP #19bc	NS	NS	NS	NS	NS	0.0%

Note:

NS - Not Sampled

**Bold values exceed regulatory acceptable levels (25% LEL)**

\* - Due to a large berm located offsite behind Well-13, sampling at the GSP-13 (25') location could

\*\* - On-site readings were 0.0% at GSP-15; therefore, no offsite

TABLE 7  
 SEPTEMBER 2010 - BAROMETRIC PRESSURE DATA  
 LEGLER LANDFILL (FACILITY No. 1511A)  
 JACKSON TOWNSHIP, OCEAN COUNTY, NEW JERSEY

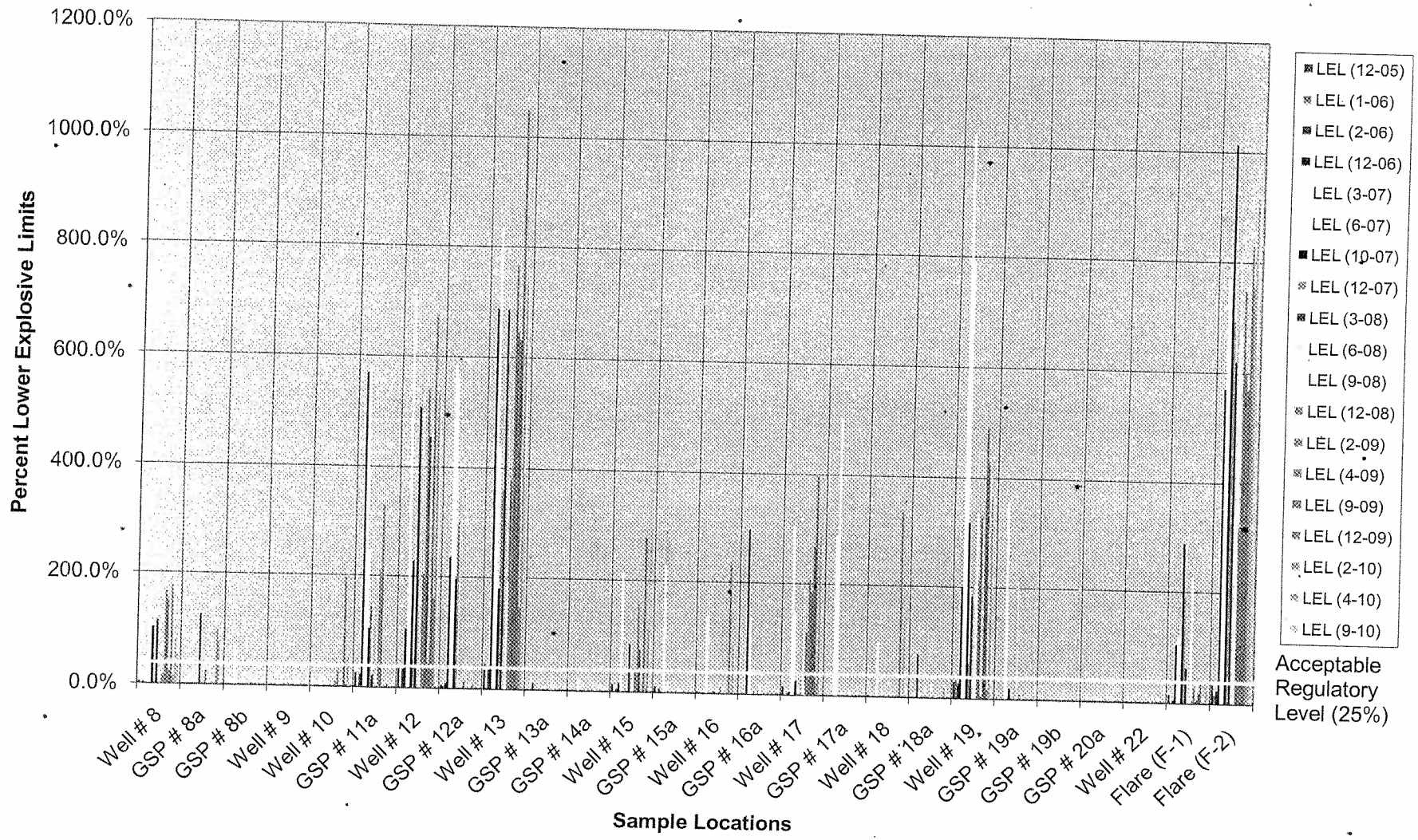
Weather Station Location	State	Date & Time	Time Interval	Temperature	Precipitation	Wind Speed	Wind Direction	Barometric Pressure
Cream Ridge	NJ	9/29/2010 8:00	24 hours prior	59	0	0	NW	29.93
Cream Ridge	NJ	9/29/2010 20:00	12 hours prior	67	0	0	SE	29.93
Cream Ridge	NJ	9/29/2010 22:00	10 hours prior	66	0	0	SSE	29.92
Cream Ridge	NJ	9/29/2010 0:00	8 hours prior	66	0	0	SE	29.92
Cream Ridge	NJ	9/30/2010 2:00	6 hours prior	67	0	0	E	29.89
Cream Ridge	NJ	9/30/2010 4:00	4 hours prior	68	0	0	ENE	29.83
Cream Ridge	NJ	9/30/2010 6:00	2 hours prior	70	1.19	0	NW	29.8
<b>Cream Ridge</b>	<b>NJ</b>	<b>9/30/2010 8:00</b>	<b>During Monitoring</b>	<b>74</b>	<b>0.02</b>	<b>8</b>	<b>S</b>	<b>29.77</b>
<b>Cream Ridge</b>	<b>NJ</b>	<b>9/30/2010 9:00</b>	<b>During Monitoring</b>	<b>74</b>	<b>0.01</b>	<b>8</b>	<b>SSE</b>	<b>29.77</b>
<b>Cream Ridge</b>	<b>NJ</b>	<b>9/30/2010 10:00</b>	<b>During Monitoring</b>	<b>76</b>	<b>0</b>	<b>8</b>	<b>S</b>	<b>29.76</b>
<b>Cream Ridge</b>	<b>NJ</b>	<b>9/30/2010 11:00</b>	<b>During Monitoring</b>	<b>76</b>	<b>0</b>	<b>17</b>	<b>S</b>	<b>29.75</b>
<b>Cream Ridge</b>	<b>NJ</b>	<b>9/30/2010 12:00</b>	<b>During Monitoring</b>	<b>78</b>	<b>0</b>	<b>7</b>	<b>S</b>	<b>29.73</b>
<b>Cream Ridge</b>	<b>NJ</b>	<b>9/30/2010 13:00</b>	<b>During Monitoring</b>	<b>78</b>	<b>0</b>	<b>13</b>	<b>SSE</b>	<b>29.71</b>
<b>Cream Ridge</b>	<b>NJ</b>	<b>9/30/2010 14:00</b>	<b>During Monitoring</b>	<b>77</b>	<b>0</b>	<b>15</b>	<b>SE</b>	<b>29.69</b>

Notes:

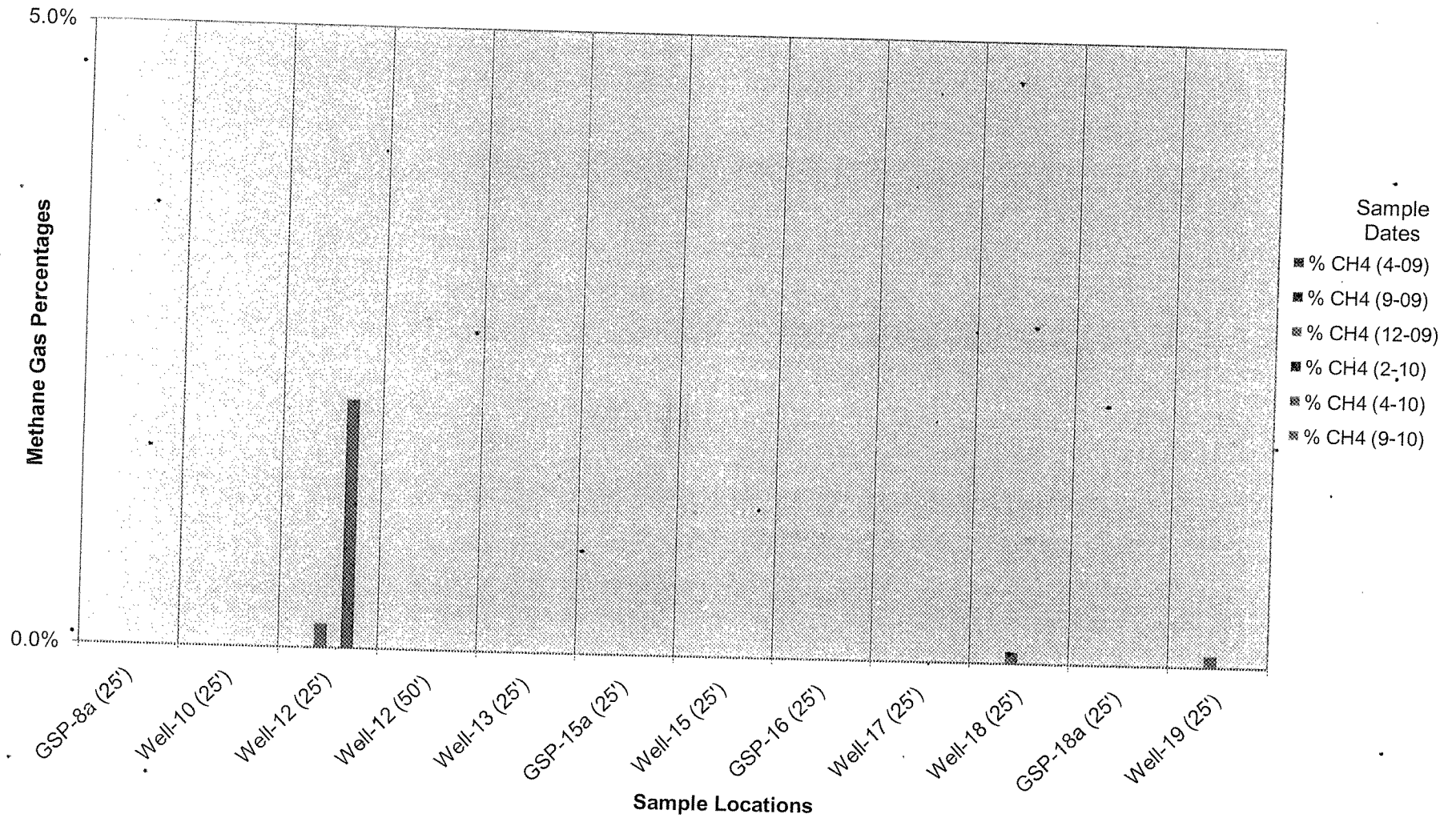
Bold Cells indicate the times which FPA conducted the gas monitoring event



**Figure 2**  
**Changes in Onsite Lower Explosive Limits**

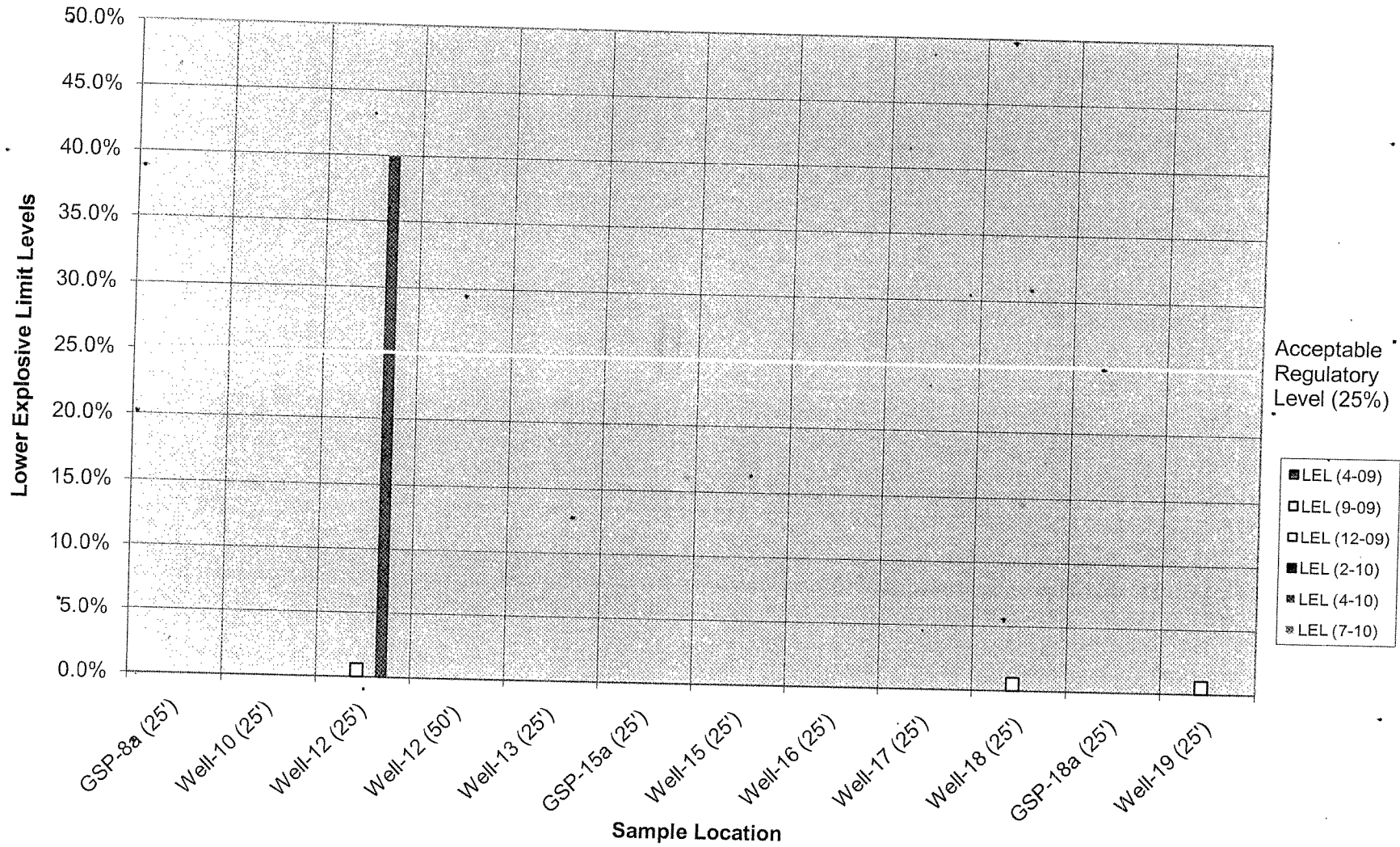


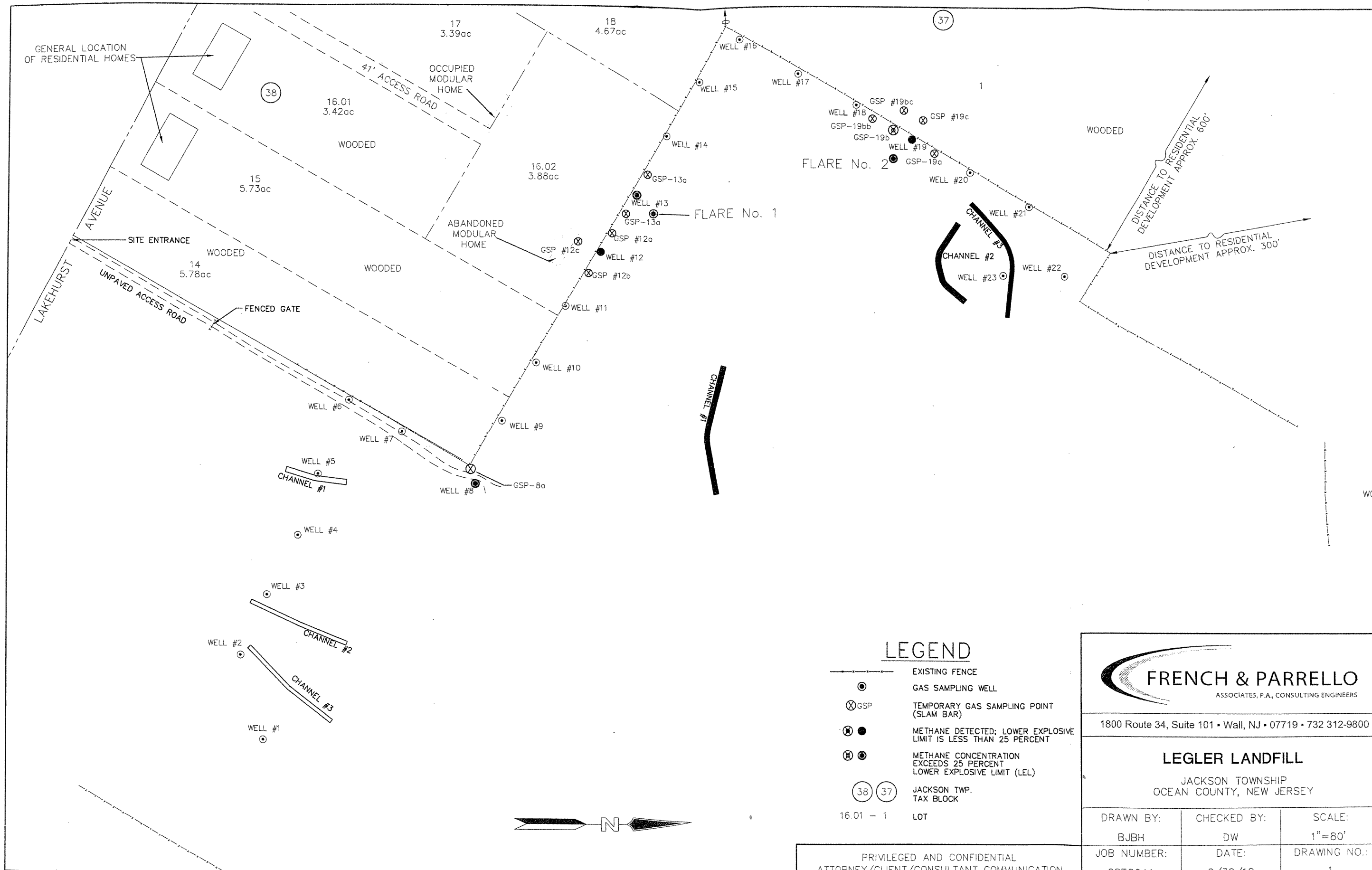
**Figure 3**  
**Changes in Offsite Methane Concentrations**





**Figure 4**  
**Changes in Offsite Lower Explosive Limits**





**LEGEND**

- EXISTING FENCE
- GAS SAMPLING WELL
- ⊗ GSP TEMPORARY GAS SAMPLING POINT (SLAM BAR)
- ⊗ ● METHANE DETECTED; LOWER EXPLOSIVE LIMIT IS LESS THAN 25 PERCENT
- ⊗ ○ METHANE CONCENTRATION EXCEEDS 25 PERCENT LOWER EXPLOSIVE LIMIT (LEL)
- ③ ④ JACKSON TWP. TAX BLOCK
- 16.01 - 1 LOT

**FRENCH & PARRELLO**  
 ASSOCIATES, P.A., CONSULTING ENGINEERS

1800 Route 34, Suite 101 • Wall, NJ • 07719 • 732 312-9800

**LEGLER LANDFILL**  
 JACKSON TOWNSHIP  
 OCEAN COUNTY, NEW JERSEY

DRAWN BY: BJBH	CHECKED BY: DW	SCALE: 1"=80'
JOB NUMBER: 08E004A	DATE: 9/30/10	DRAWING NO.: 1

PRIVILEGED AND CONFIDENTIAL  
 ATTORNEY/CLIENT/CONSULTANT COMMUNICATION

COPYRIGHT 2008, FRENCH & PARRELLO ASSOCIATES, P.A. - THE COPYING OR REUSE OF THIS DOCUMENT, OR PORTIONS THEREOF, WITHOUT THE WRITTEN PERMISSION OF FRENCH & PARRELLO ASSOCIATES, P.A. IS PROHIBITED.