

Southwest GEOSCIENCE

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January 31, 2013

Lewisville Independent School District
340 Lake Haven
Lewisville, Texas 75057
Attention: Mr. Paul Siddall

Re: Air Quality Monitoring Report
Killough LHS-North
1301 Summit Avenue
Lewisville, Texas
SWG Project 0112100A

Southwest Geoscience ("SWG") is pleased to submit the following letter report summarizing the results of the air quality monitoring conducted from December 17 to December 19, 2012 at Killough LHS-North, located at 1301 Summit Avenue in Lewisville, Texas. SWG collected a continuous air sample utilizing a real-time infrared gas detection / gas chromatograph system. The pollutants of concern include volatile organic compounds (VOC), hydrogen sulfide (H₂S), oxygen (O₂) and carbon dioxide (CO₂). VOCs are emitted from well-drilling activities as hydrocarbons are released from the well bore. Some VOC may have short-term health effects. H₂S is a poisonous gas that is occasionally found in hydrocarbon formations.

The sampling indicated expected levels of O₂ (20.9%), CO₂ (0.01%), and H₂S (0.00 ppm). The VOC concentration was elevated when compared to the sampling that occurred on August 24, 2012. VOC concentration averaged 604 ppm over the 48-hour sampling period, including 319 ppm propane, and 289 ppm butane plus (all isomers). This compares to 12.9 ppm VOC during the August 24, 2012 sampling event.

The United States Environmental Protection Agency (USEPA) has not established ambient air quality standards for VOCs. The American Conference of Governmental and Industrial Hygienists (ACGIH) has not established exposure values for VOCs or propane, but they have established a Threshold Limit Value (i.e., the average exposure on an 8 hrs/day, 40 hrs/week work schedule) for butane (800 ppm). The average butane concentration recorded during the sampling event is approximately 1/3 of the TLV standard.

Thank you for this opportunity to provide you with this information. Please contact me at (214) 350-5469 for further assistance.

Sincerely yours,

SOUTHWEST GEOSCIENCE




Darren G. Bowden
Corporate Director
Industrial Hygiene Services

Attachment: Analytical



iBall Bloodhound System

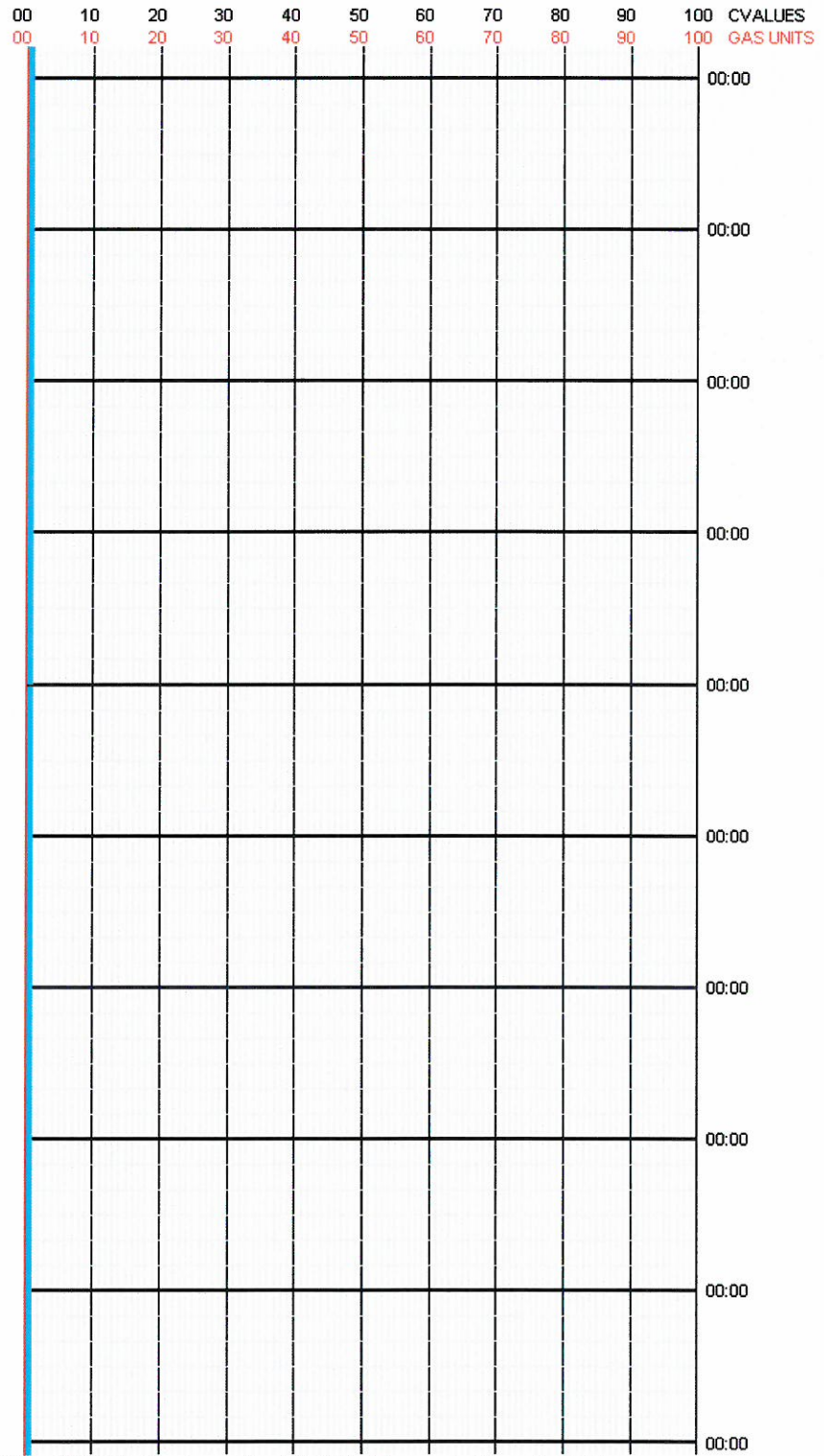
Web Log And Notes	Logging Company
	

[Log Out swgc Admin](#)
 [Edit Charting Options](#)
 [Edit Automatic Alerts](#)
 [Edit Passwords](#)

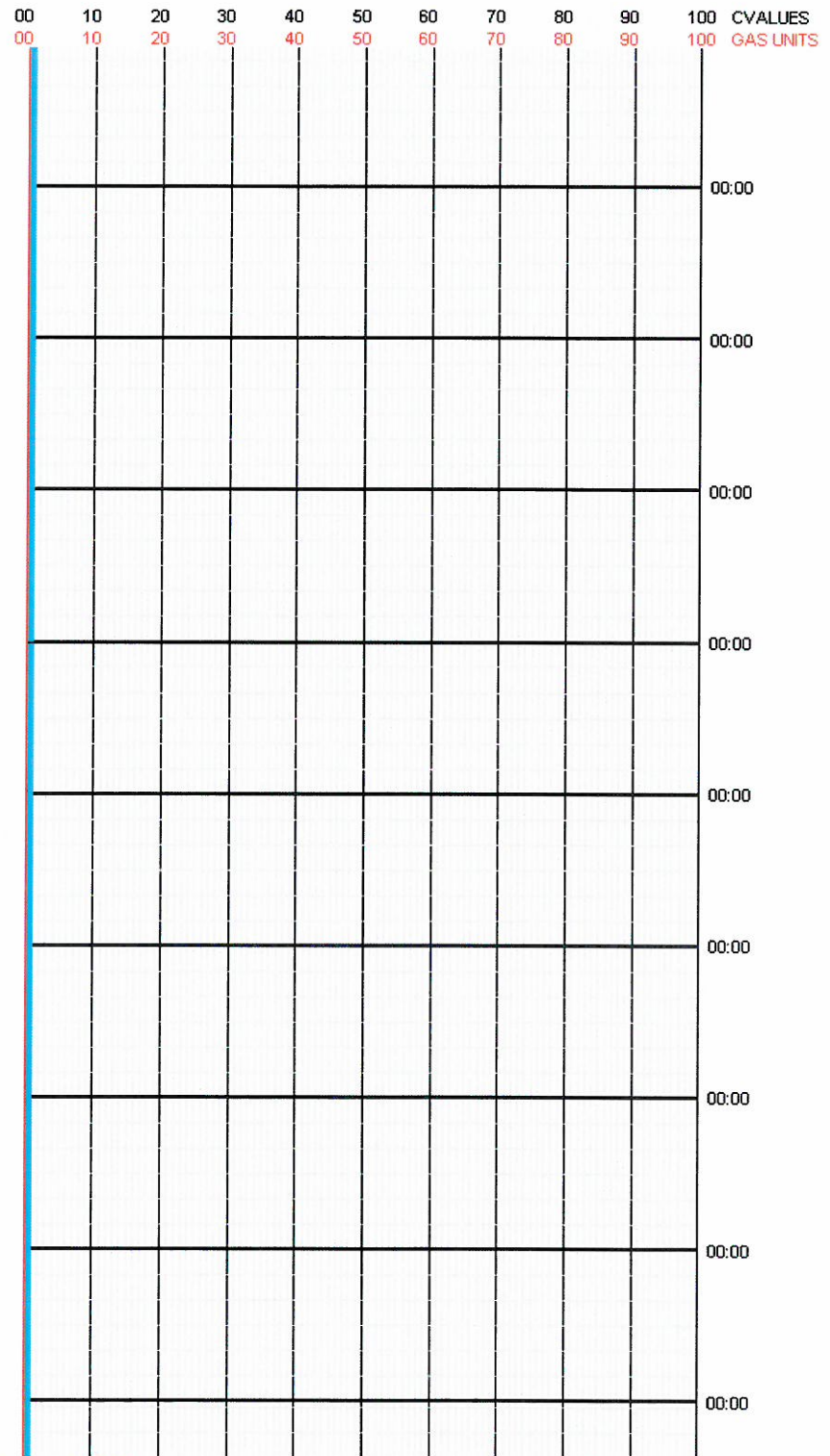
Bloodhound Real Time Data Viewer			
Gas Units	13	Serial #: 0610	The data is 23 seconds old
Hole Depth In Feet	2.0	Last Reported Uptime: 0.0%	Unit 0610 Connected to Server
Bit Depth		%CO2	Time
ROP min/ft	0	0.00	11:33:53
ROP ft/hr	0	%O2	Date
Lag Depth	0.0	21.35	2012/12/19
		H2S PPM	Sample Vac mmHg
		0.00	-18
		ROP ft/hr	Sample LPH
		0.000	55
		Pri Voltage	Attenuation
		0.467	100
		CG Voltage	Internal Volts
		0.6652934	12.3
		Rig Voltage	Sec Voltage
		0.3	0.380
		Sample Motor%	H2S Voltage
		75	0.377
		Methane	CG Test ID
		12.59	360
		IsoButane	RSSI
		0.01	70
		NButane	Rig Frequency
		0.04	0
			Extractor Amps
			-7.7
			Sample Motor%
			75
			HRM Temp.
			105.6
			Chromatograph Prs.
			1126
			Methane
			0.11
			Column Temp.
			117.9
			Exhaust Prs.
			-6
		Error Description	
		Low Rig Voltage	

Status/Usage Files	Log ASCII Standard Files	Download ZIP Files
Clear General Files Server Logfile.TXT Error Logfile.TXT Usage Logfile.TXT Jobname.TXT AutoTally.TXT Stats.TXT	Clear XLS/LAS Files 0610_0001.LAS 0610_0001.XLS 0610_0001_lagged.LAS 0610_0001_lagged.XLS 0610_0001_last48.LAS 0610_0001_last48.XLS 0610_0001_last48_lagged.LAS 0610_0001_last48_lagged.XLS	Create Data Base ZIP File Clear ZIP Files

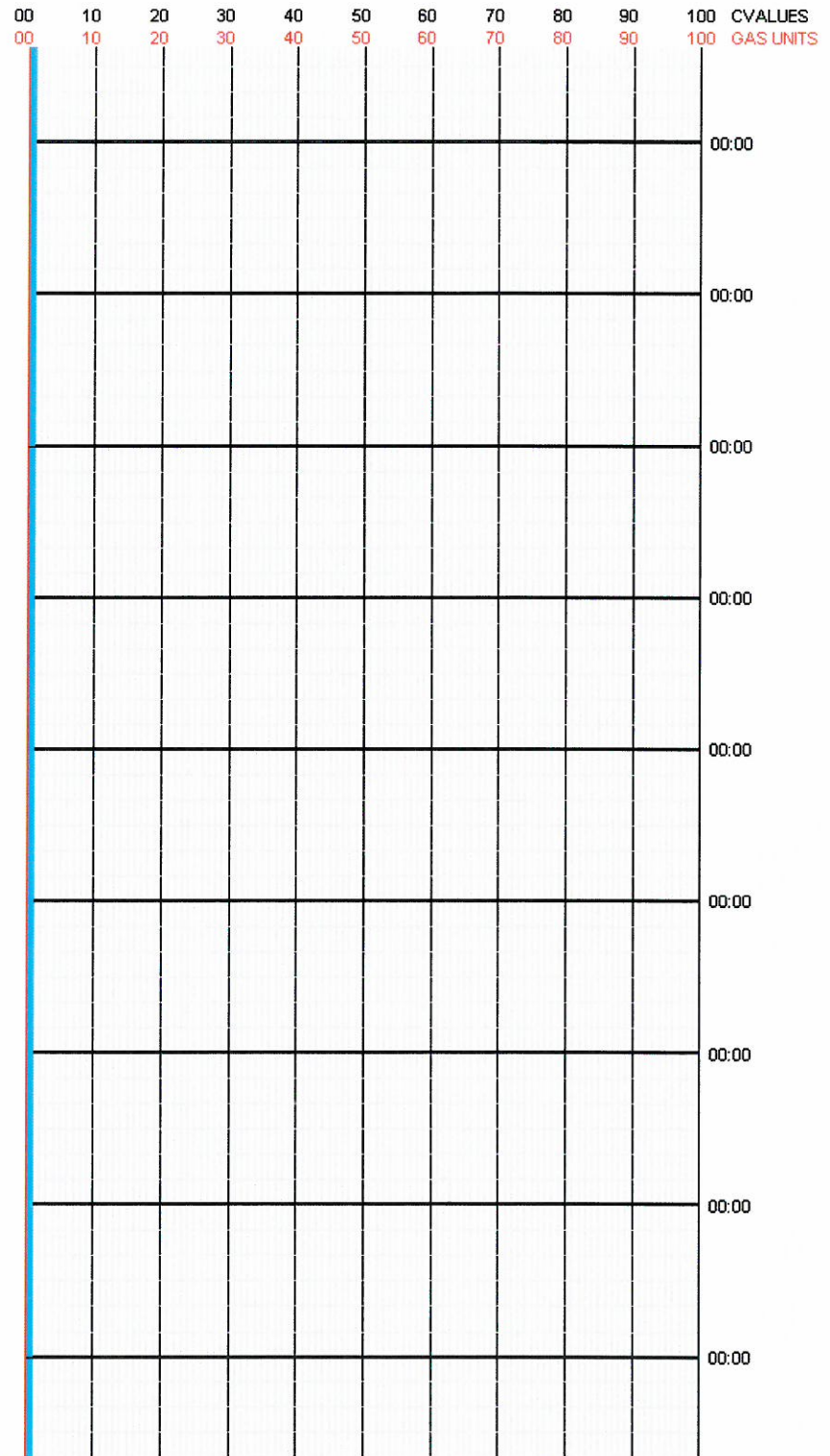
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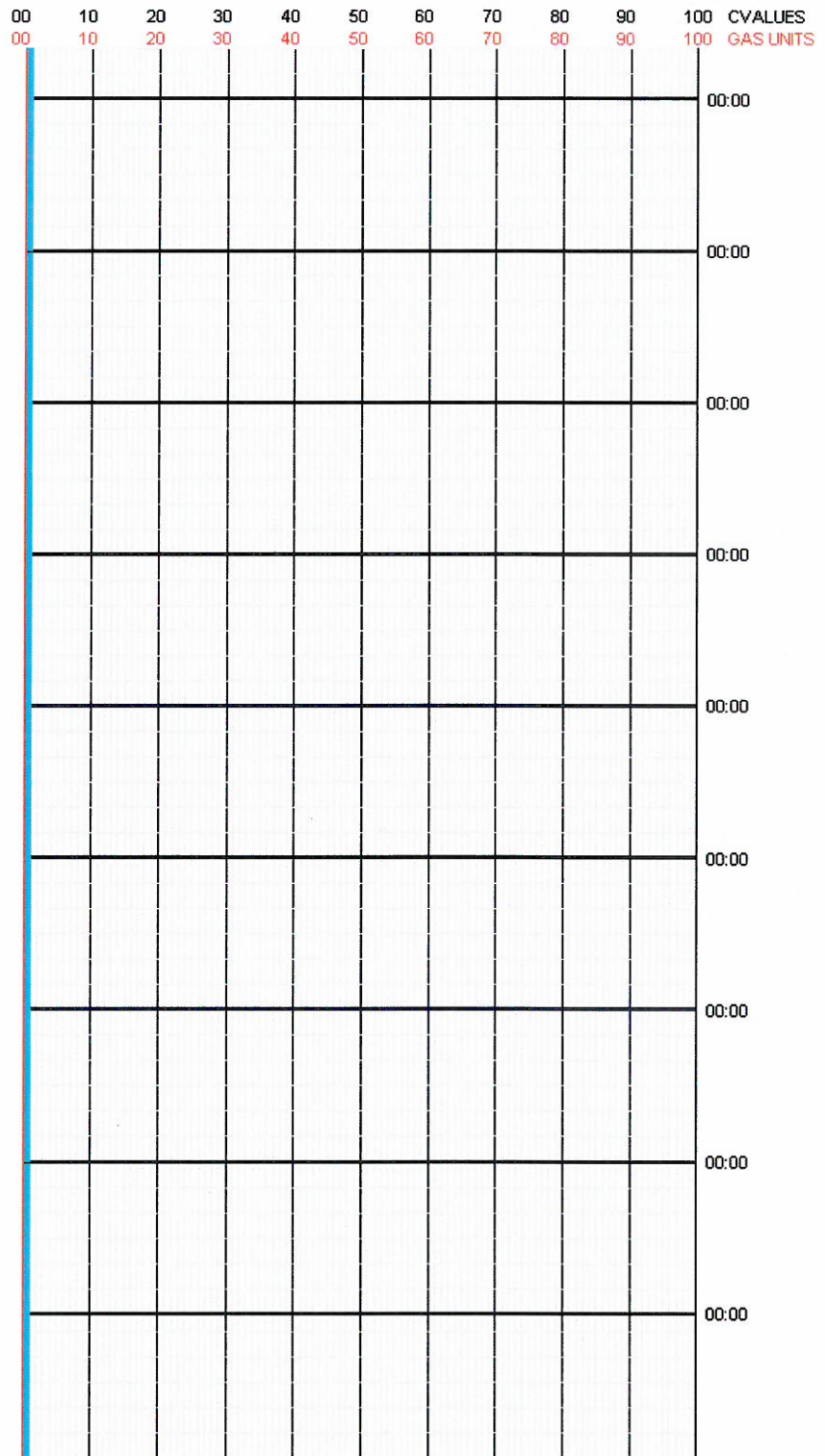
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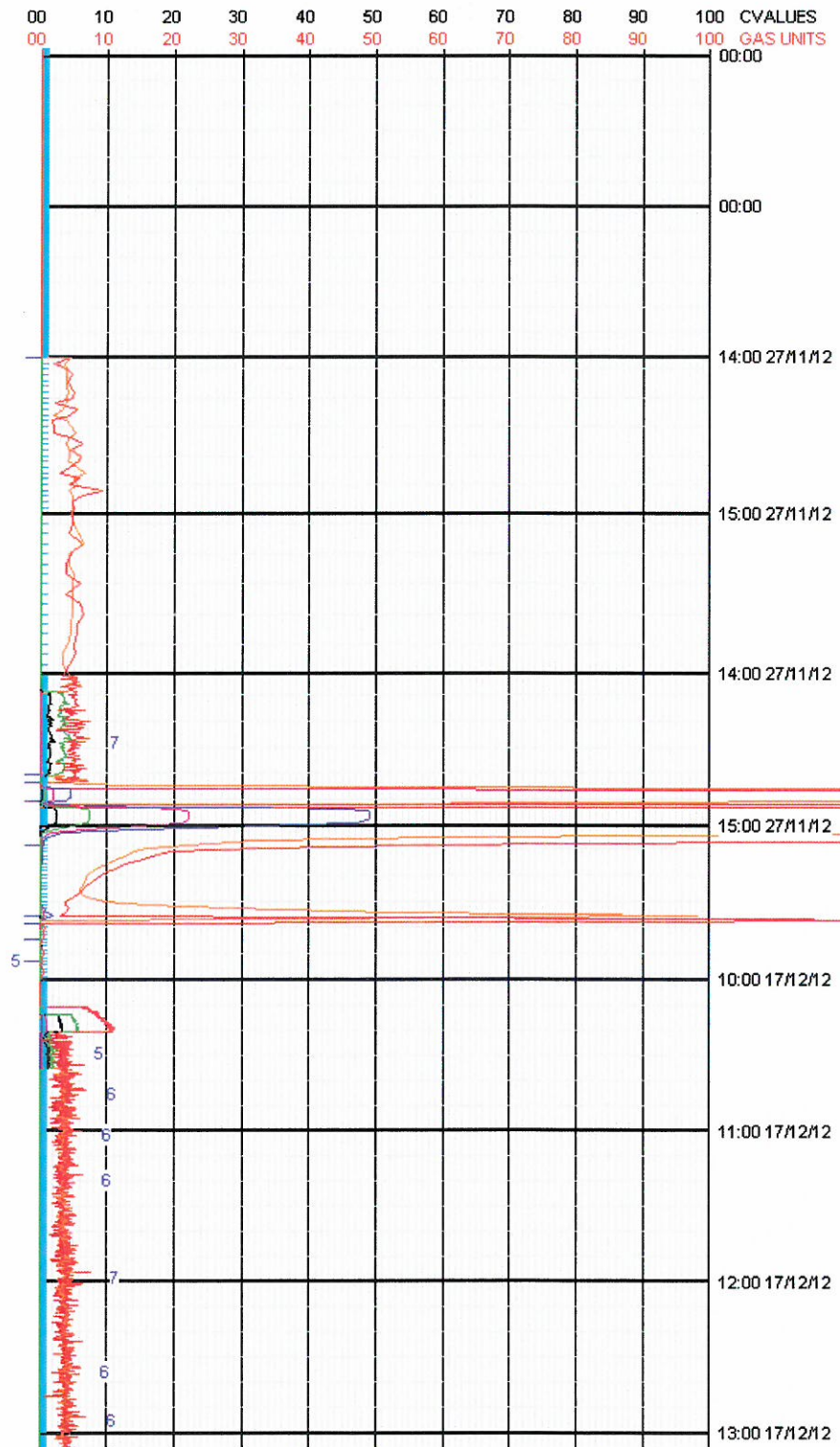
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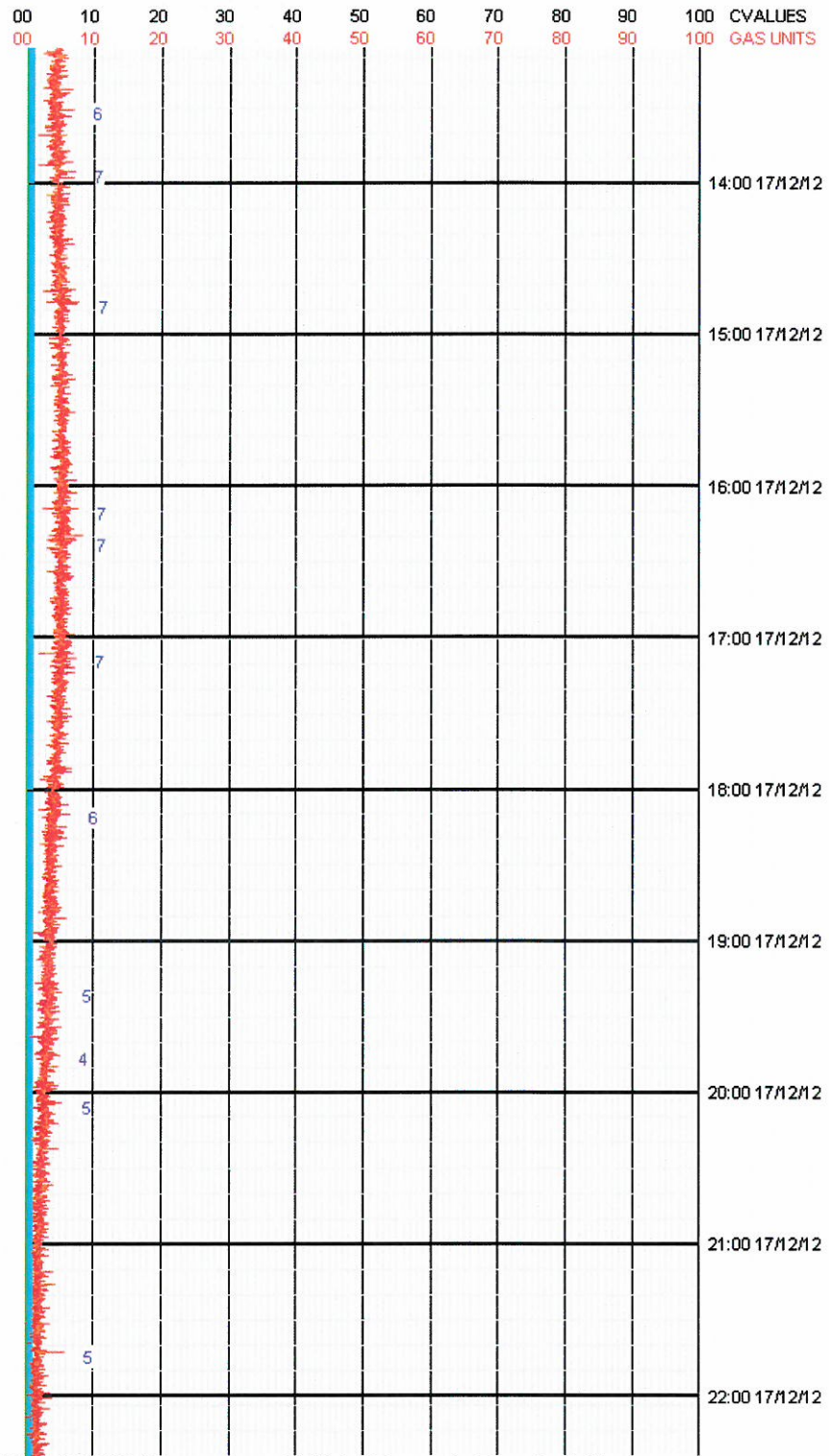
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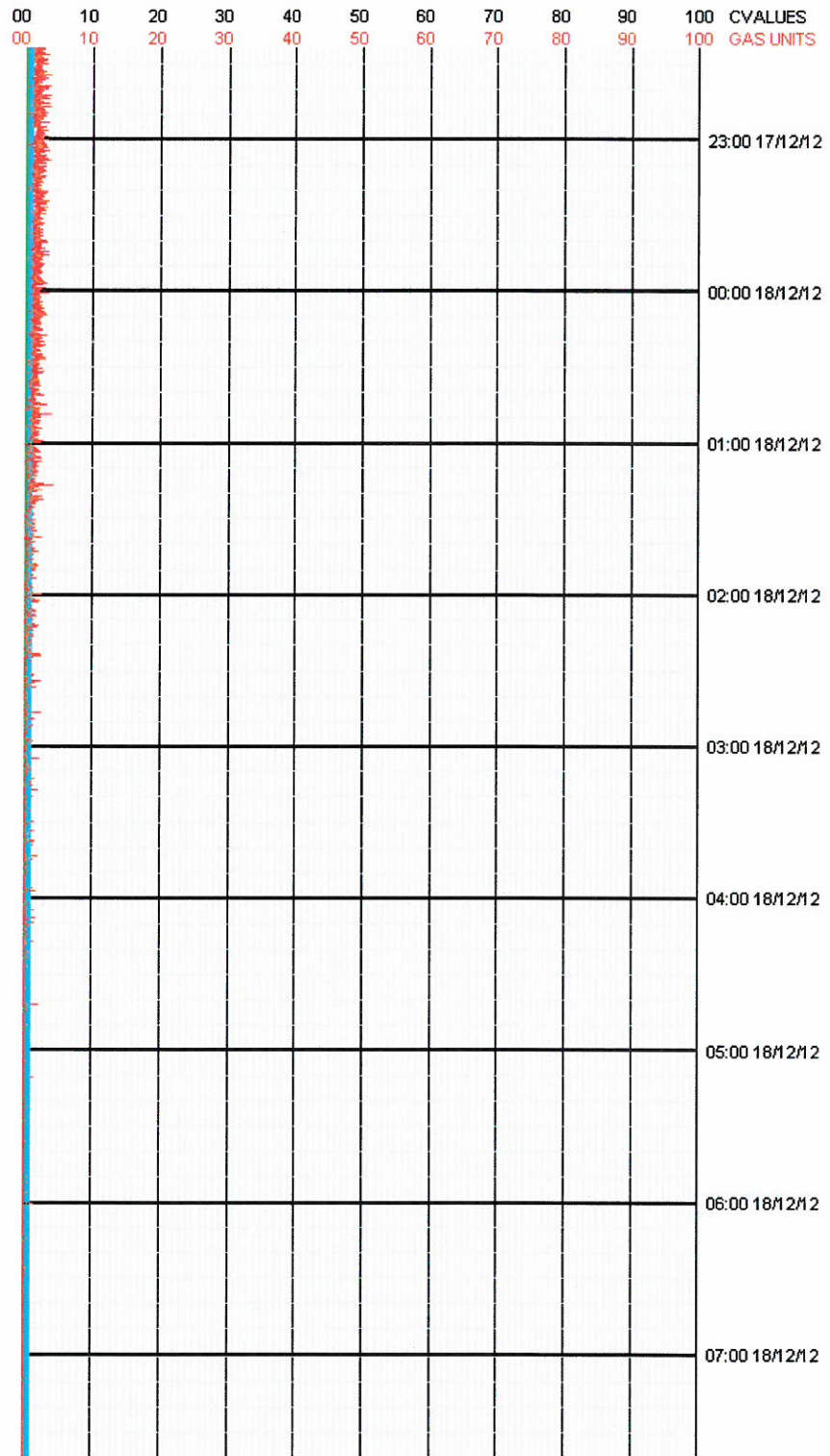
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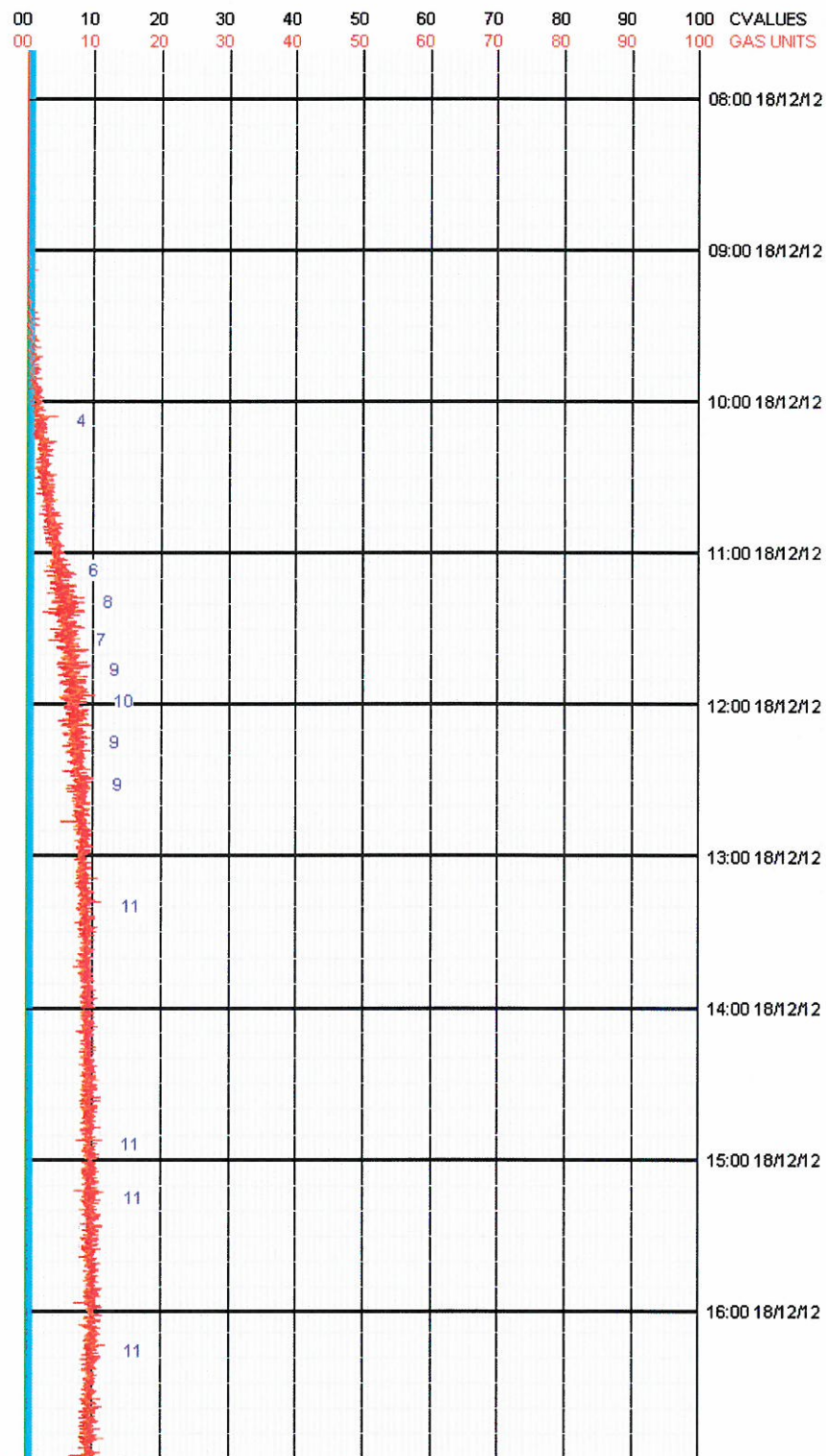
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