

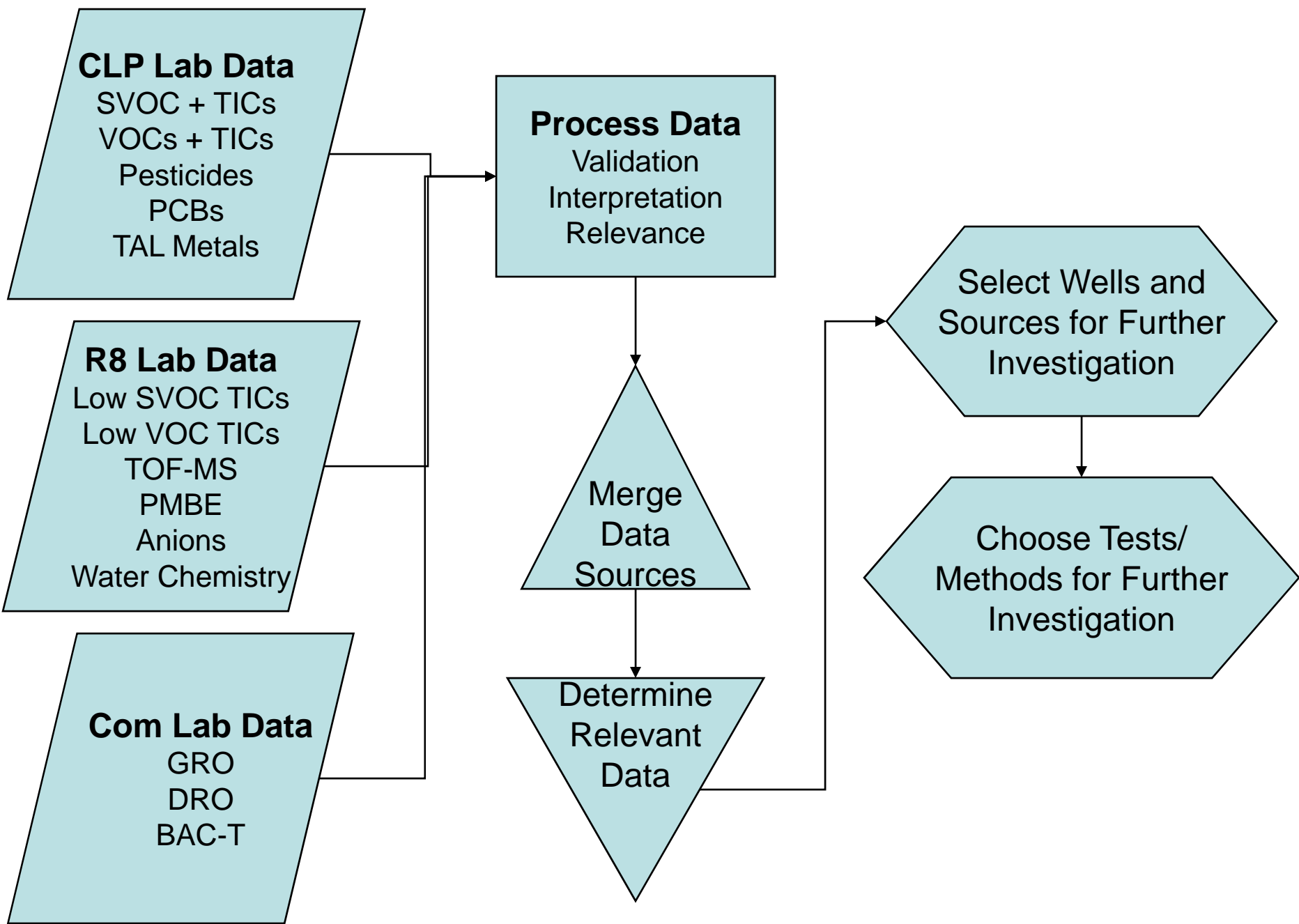
Pavillion Groundwater Investigation Pavillion Wyoming

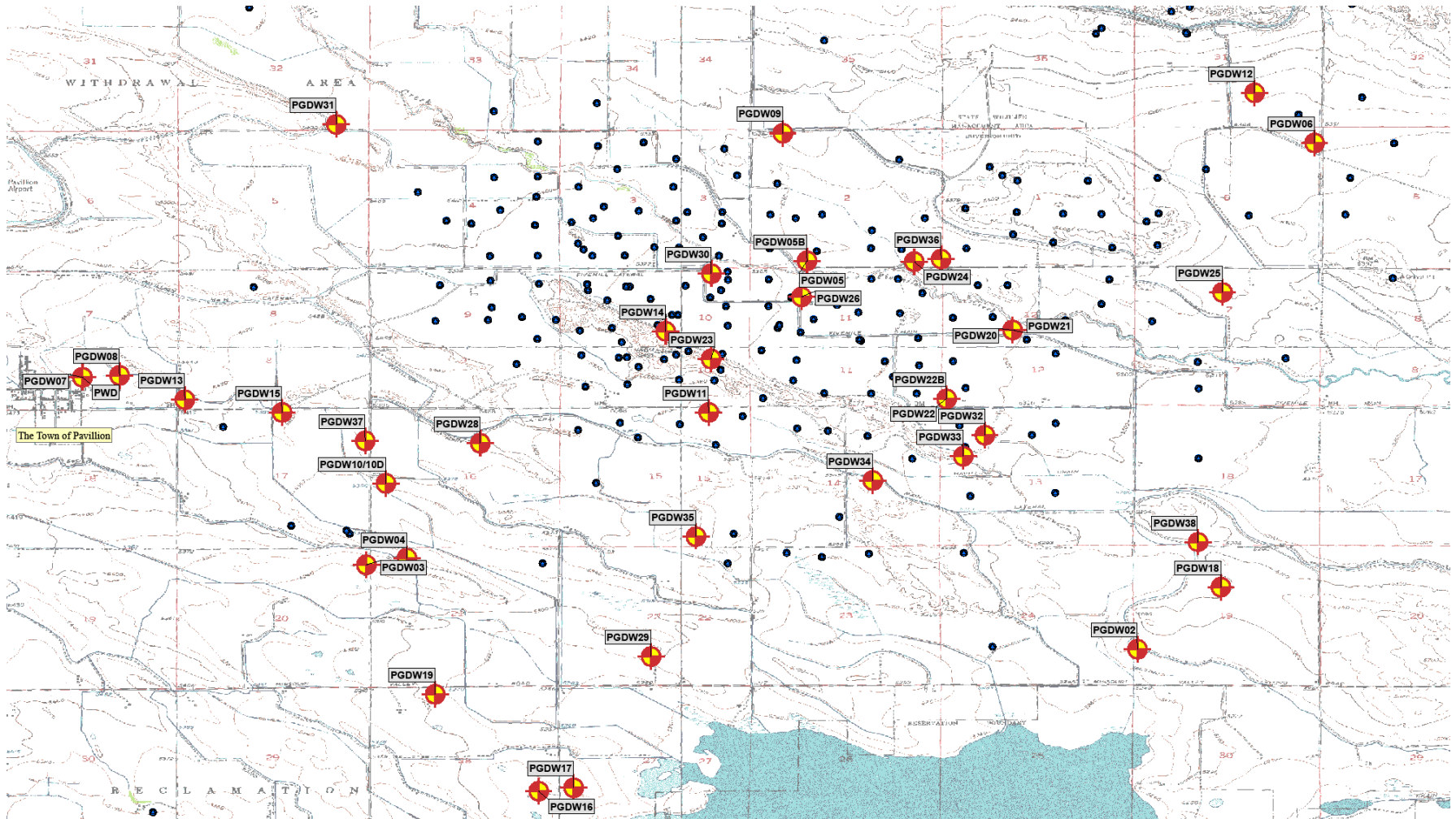


**Phase I Sampling Results
August 11, 2009**

Sampling Objectives

- Determine if contamination is present in domestic wells
- Determine contaminant characteristics
- Determine potential impacts to public health and the environment





Legend



Sampled Well Location

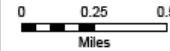


Oil and Gas Wells

Disclaimer:
 EPA and URS makes no claim regarding the accuracy or precision of this data. Questions concerning the data should be referred to the source agency. This map does not necessarily represent EPA's position on any Indian country boundaries or the jurisdictional status of any specific location.

The well locations on this map are approximate due to the fact that they are based on public land survey data recorded from well permits from the Wyoming State Engineer's Office.

Projection System:
 Geographic Coordinate System
 North American Datum 1983



1 inch = 1 mile
 Page Size: ANSI E
 Rev 1 01/21/2009

URS
 OPERATING SERVICES



Sources: i-cubed
<http://www.wygs.sweyo.edu/landgas/>
 Fremont County Assessors Office

TDD Title: **Pavilion Area
 GW Plume SI**

TDD County: **FREMONT** TDD: **0901-01**
 TDD State: **WY** Date: **02 2009**

Figure No: **2** Figure Title: **ASSESSMENT
 SAMPLE LOCATIONS**

EPA
R8
Lab:
TICs

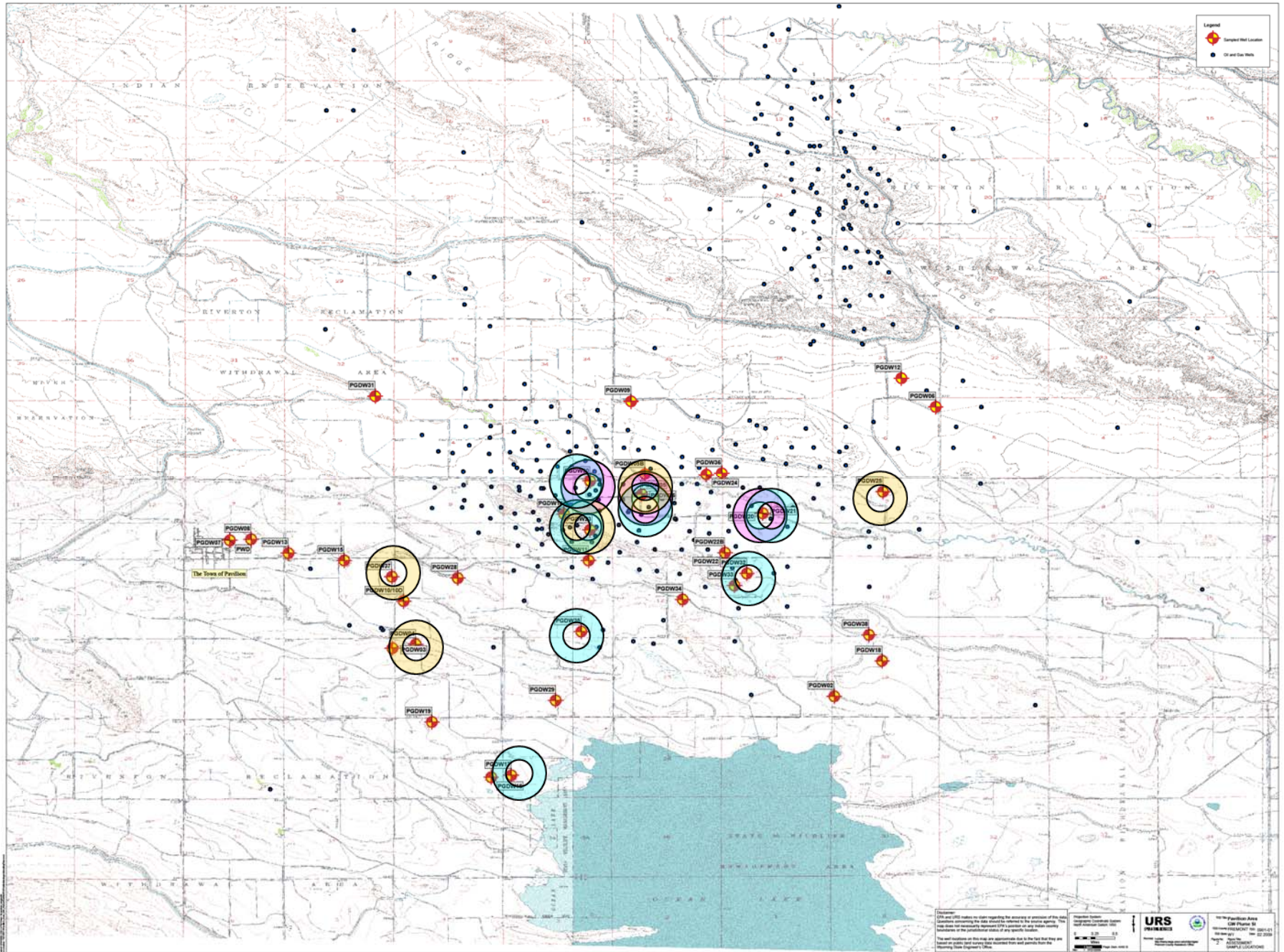
Sample ID	TIC Compound	µg/L	Match Quality	
PGDW04	Cyclopentasiloxane-decamethyl	0.33 ug/L	91%	Adamantanes
	2-butoxy ethanol phosphate	0.20 ug/L	93%	Polymerizers
	13-Docosamide	0.23 ug/L	93%	Volatile Compound DNR
PGDW07	Cyclopentasiloxane-decamethyl	0.28 ug/L	91%	Column Bleed (siloxane) DNR
	13-Docosemide	0.15 ug/L	94%	Mustard?
PGDW05	Cyclopentasiloxane-decamethyl	0.13 ug/L	91%	
	1,3-dimethyl adamantane	0.10 ug/L	91%	
	Bisphenol-A	6.10 ug/L	87%	
PGDW10	Cyclopentasiloxane-decamethyl	0.39 ug/L	91%	
	1,1,2,2-Tetrachloroethane	1.12 ug/L	97%	
	2-butoxy ethanol phosphate	0.58 ug/L	93%	
	13-Docosemide	0.12 ug/L	93%	
PGDW17	Cyclopentasiloxane-decamethyl	0.53 ug/L	91%	
	1,1,2,2-Tetrachloroethane	0.86 ug/L	97%	
	1,2,3-Trichloropropene	0.36 ug/L	90%	
	13-Docosemide	0.13 ug/L	83%	
PGDW20	Cyclopentasiloxane-decamethyl	0.32 ug/L	91%	
	1,1,2,2-Tetrachloroethane	0.15 ug/L	94%	
	2-methyl adamantane	0.20 ug/L	91%	
PGDW21	Cyclopentasiloxane-decamethyl	0.24 ug/L	91%	
	13-Docosemide	0.35 ug/L	93%	
PGDW22	Cyclopentasiloxane-decamethyl	0.41 ug/L	91%	
	1,1,2,2-Tetrachloroethane	0.62 ug/L	97%	
	1,2,3-Trichloropropene	0.33 ug/L	91%	
	13-Docosemide	0.20 ug/L	94%	
PGDW23	Cyclopentasiloxane-decamethyl	0.47 ug/L	91%	
	1,1,2,2-Tetrachloroethane	0.12 ug/L	94%	
	2,4-bis(1-phenyl)-phenol	0.15 ug/L	86%	
	13-Docosemide	0.29 ug/L	93%	
PGDW30	1,1,2,2-Tetrachloroethane	>100 ug/L	97%	
	Pentachloroethane	0.17 ug/L	98%	
	Tetrachlorobutadiene	0.27 ug/L	99%	
PGDW32	Cyclopentasiloxane-decamethyl	0.45 ug/L	91%	
	1,1,2,2-tetrachloroethane	0.21 ug/L	97%	
	1,3,5-Trimethylbenzene	0.16 ug/L	97%	
PGDW35	Cyclopentasiloxane-decamethyl	0.56 ug/L	91%	
PGDW38	Cyclopentasiloxane-decamethyl	0.52 ug/L	91%	
	1,1,2,2-Tetrachloroethane	0.35 ug/L	97%	
	1,2,3-Trichloropropene	0.25 ug/L	87%	
PGDW29	Cyclopentasiloxane-decamethyl	0.63 ug/L	91%	
	13-Docosemide	0.92 ug/L	93%	

VOC & SVOC TICs: Summary

TIC Compound	Samples
Adamantanes	PGDW05
	PGDW20
	PGDW30
2-Butoxyethanol Phosphate	PGDW04
	PGDW10
	PGDW25
2,4-bis(1-phenyl)-phenol	PGDW23
Bisphenol A	PGDW05
Terpineol	PGDW20
5-Hydroxymethyldihydrofuran	PGDW20
Limonene	PGDW03

Methane Detections

Methane	µg/L
PGDW05	16.6
PGDW17	10.6
PGDW20	137
PGDW21	54.3
PGDW23	146
PGDW30	558
PGDW32	21.4
PGDW35	21.6



Legend
 Sampled Well Location
 Oil and Gas Wells

The Area of Focus

Summary and Interpretation of Results

- Our results show most wells sampled have no apparent health concerns
- 11 wells have insufficient data for us to assure well owners of no health concerns from drinking their well water (EPA is working with those well owners)
- *Potentially* a connection between our results and oil and gas production activities. We cannot pinpoint any specific source at this time.

Next Steps

- Further Sampling for specific drinking water wells and potential sources
- Meeting with stakeholders to determine the best way to approach the next sampling effort
- Parallel issue: EPA will be talking with EnCana to evaluate and reduce any potential overall adverse impacts of oil and gas production.