

Rule 609 (318A)

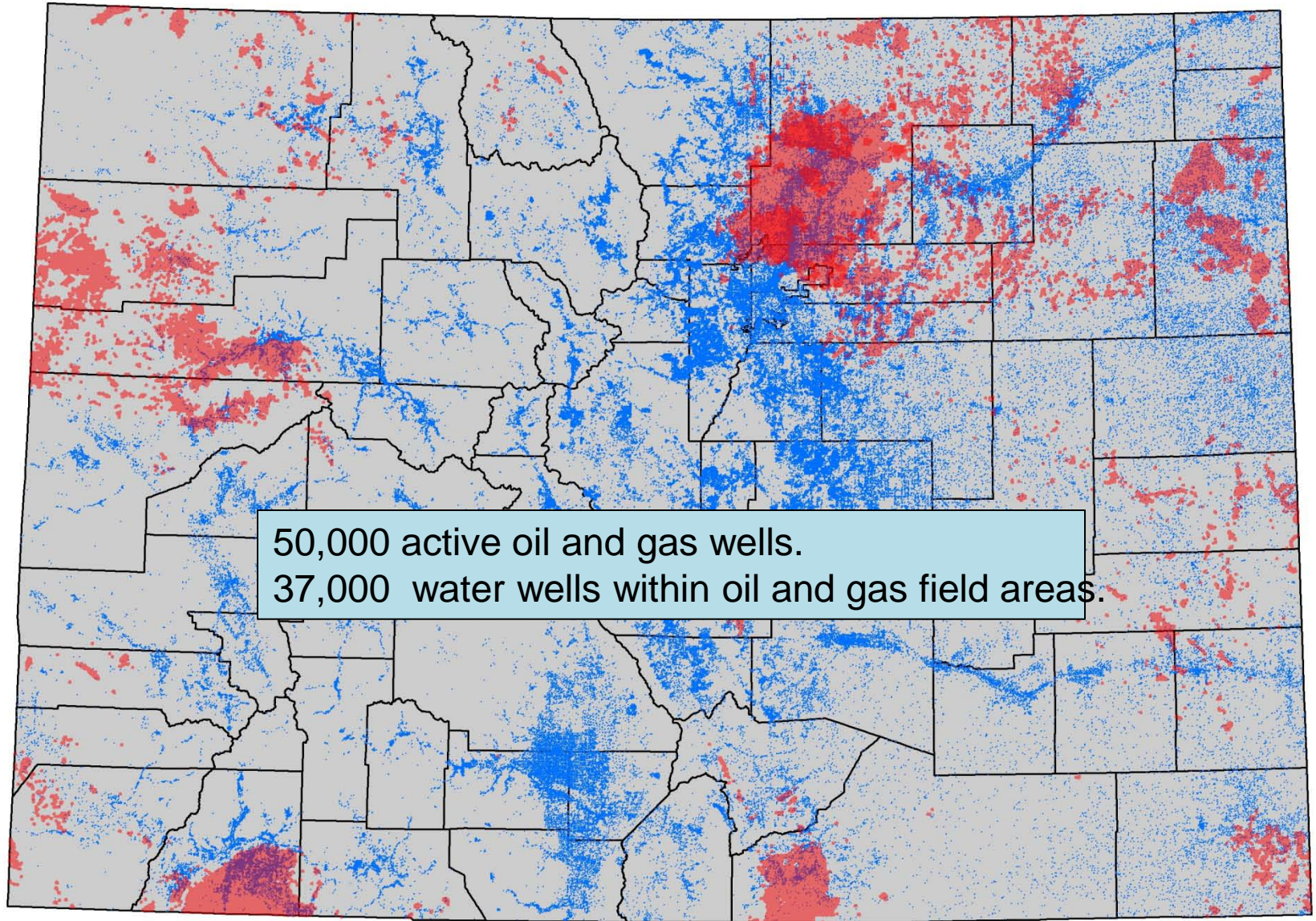
Statewide Groundwater Baseline Sampling and Monitoring

Bob Chesson
NE Colorado EPS



OIL & GAS CONSERVATION COMMISSION

Water Wells and Oil/Gas Fields of Colorado



50,000 active oil and gas wells.
37,000 water wells within oil and gas field areas.

Oil and Gas Field Water Well

COGCC Has Been Sampling For Years

Water Well Complaint-

Portion of a letter to a domestic water well owner

METAL/INORGANIC	January 14, 2013 (Concentrations in Milligrams per liter [mg/l])	CDPHE Water Quality Standard (P – Primary S-Secondary)
Arsenic (As)	ND	0.01 (P)
Barium (Ba)	0.038	2.0 (P)
Bromide (Br)	0.63	NS
Calcium (Ca)	29	NS
Chromium (Cr)	ND	0.1 (P)
Lead (Pb)	ND	0.05 (P)
Magnesium (Mg)	4.2	NS
Manganese (Mn)	0.018	0.05 (S)
Potassium (K)	ND	NS
pH	7.90 pH units	6.5 – 8.5 (S)

NS – no standard

ND – not detected in the sample

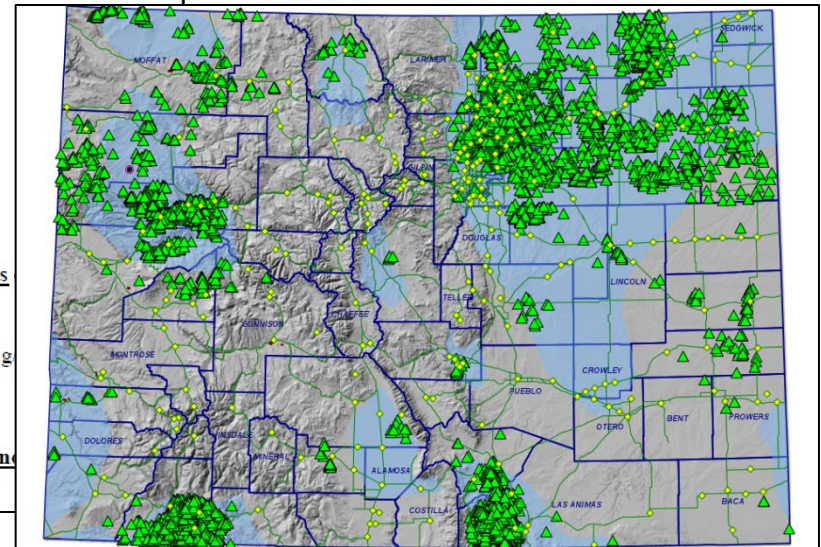
P – Primary standard (CDPHE Human Health Standard)

S- Secondary standard (CDPHE secondary maximum contaminant level [SMCL]).

ORGANIC COMPOUNDS ASSOCIATED WITH PETROLEUM HYDROCARBONS

A target list of **one hundred-eighteen** volatile and semi-volatile organic compounds (VOC / SVOC) was used during analysis of the water from your water well. There were **no detections** any of these compounds.

- Benzene: CDPHE's basic ground water standard for benzene is 5 micrograms per liter (μg). **Benzene was not detected in the COGCC sample from your water well.**
- Toluene: CDPHE's basic ground water standard for toluene is 1,000 $\mu\text{g/l}$. **Toluene was not detected in the COGCC sample from your water well.**



Thousands of water wells have
already been sampled

New COGCC Oil and Gas Groundwater Sampling and Monitoring Rules

- Rule 609 (Statewide except within GWA)
- Rule 318Ae4 (GWA only)
- Effective May 1, 2013
- Focus on sampling water sources near new oil and gas wells
- Approximately 3000 new oil and gas wells drilled per year-100s of water sources (e. g. domestic water wells) will be sampled each year.

609. STATEWIDE GROUNDWATER BASELINE SAMPLING AND MONITORING:

Rule 609 applies to Oil and Gas Wells, Multi-Well Sites, and Dedicated Injection Wells as defined in the 100- Series Rules, for which a Form 2 Application for Permit to Drill is submitted **on or after May 1, 2013.**

Rule 609 does not apply to an existing Oil or Gas Well that is re-permitted for use as a Dedicated Injection Well.

This rule does not apply to Oil and Gas Wells, Multi-Well Sites, or Dedicated Injection Wells that are regulated under **Rule 608.b. (CBM) or Rule 318A.e.(4).**



100 Series Definitions

WATER SOURCE shall mean water wells that are registered with Colorado Division of Water Resources, including household, domestic, livestock, irrigation, municipal/public, and commercial wells, permitted or adjudicated springs, or monitoring wells installed for the purpose of complying with groundwater baseline sampling and monitoring requirements under Rules 318A.e.(4), 608, or 609.

AVAILABLE WATER SOURCE shall mean a water source for which the water well owner, owner of a spring, or a land owner, as applicable, has given consent for sampling and testing and has **consented to having the sample data obtained made available to the public, including without limitation, being posted on the COGCC website.**



609. STATEWIDE GROUNDWATER BASELINE SAMPLING AND MONITORING:

Sampling locations

Initial baseline samples and subsequent monitoring samples shall be collected from all Available Water Sources, up to a maximum of four (4), within a one-half (1/2) mile radius of a proposed Oil and Gas Well, Multi-Well Site, or Dedicated Injection Well. If more than four (4) Available Water Sources are present within a one-half (1/2) mile radius of a proposed Oil and Gas Well, Multi-Well Site, or Dedicated Injection Well, the operator shall select the four sampling locations based on the following criteria:



609. STATEWIDE GROUNDWATER BASELINE SAMPLING AND MONITORING:

- (1) Water Sources closest to the Well are preferred.
- (2) Well maintained domestic water wells are preferred over other Available Water Sources.
- (3) To extent groundwater flow direction is known or reasonably can be inferred, sample locations from both downgradient and up-gradient are preferred over cross-gradient locations.
- (4) Where multiple defined aquifers are present, sampling the deepest and shallowest identified aquifers is preferred.
- (5) An operator is not required to sample Water Sources that are determined to be improperly maintained, nonoperational, or have other physical impediments to sampling.



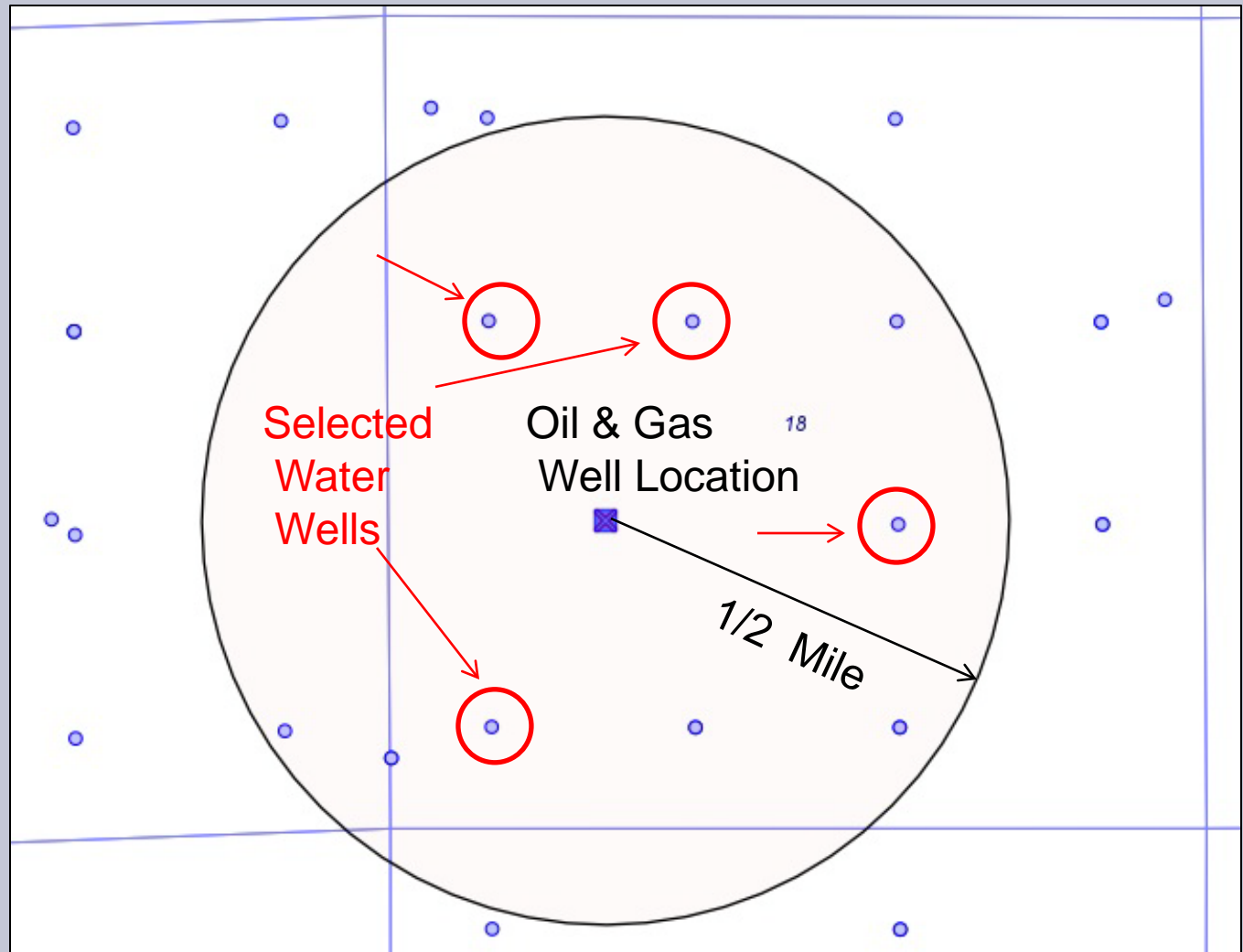
609. Sample Site Selection

Select 4
Groundwater
Sources within
1/2 Mile

Closest to O&G
Location Preferred

Opposite Sides of
O&G Location

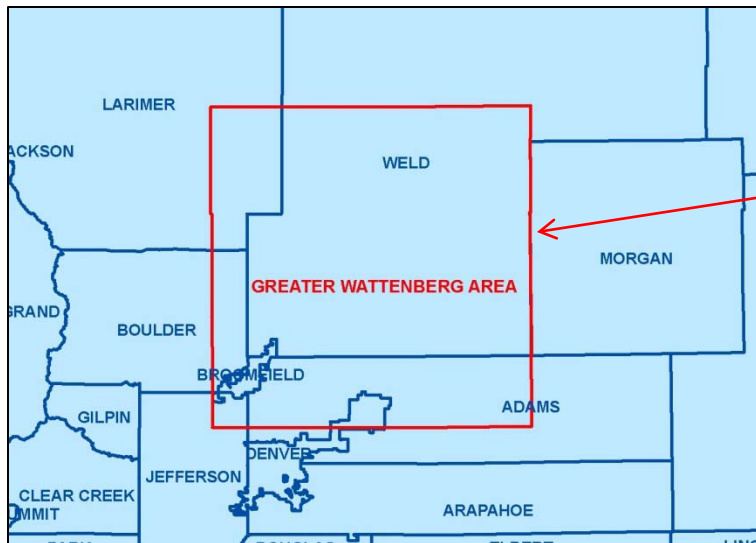
Deepest and
shallowest
aquifer
for Wells



Rule 318Ae4 – GWA

Summary of Differences With Rule 609

- One sample site per quarter section instead of 4 per ½ mile.
- One subsequent sample instead of two. This sample should be collected between 6 and 12 months after completion.
- Initial sample not required if a sample was collected sometime in the previous 60 months.



GWA – 81 Townships

609. STATEWIDE GROUNDWATER BASELINE SAMPLING AND MONITORING:

Inability to locate an Available Water Source. Prior to spudding, an operator may request an exception from the requirements of this Rule 609 by filing a **Form 4 Sundry Notice** for the Director's review and approval if:

No Available Water Sources are located within one-half (1/2) mile.

The only Available Water Sources are determined to be unsuitable. An operator seeking an exception on this ground shall document the condition of the Available Water Sources it has deemed unsuitable.

The owners of all Water Sources suitable for testing under this Rule refuse to grant access despite an operator's reasonable good faith efforts to obtain consent to conduct sampling. The operator will need to document the efforts made to gain permission.



609. STATEWIDE GROUNDWATER BASELINE SAMPLING AND MONITORING:

If the Director takes no action on the Sundry Notice within ten (10) business days of receipt, the requested exception from the requirements of this Rule 609 shall be deemed approved.

The Sundry Notice Will need to be filed Electronically through Eforms. The new Eform Sundry Notice will be online prior to May 1.



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609. Timing of Sampling:

Initial sampling shall be conducted within 12 months prior to setting conductor pipe in a Well or the first Well on a Multi-Well Site, or commencement of drilling a Dedicated Injection Well.

One subsequent sampling event shall be conducted at the initial sample locations between six (6) and twelve (12) months, and

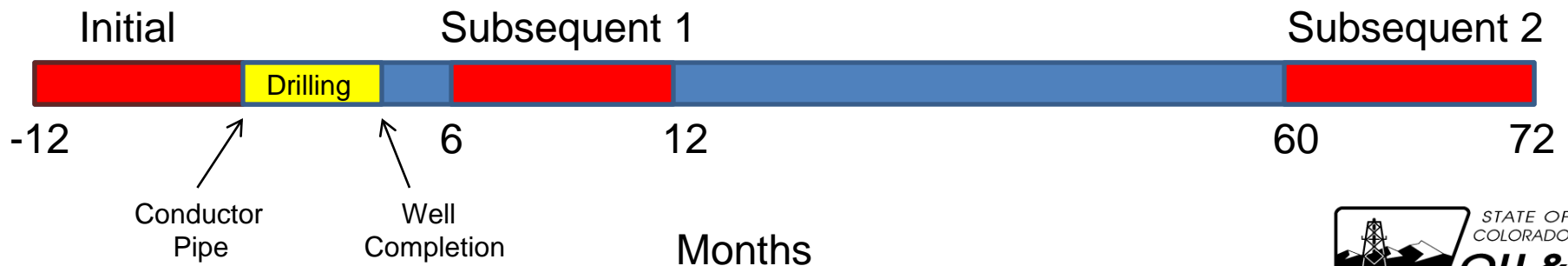
A second subsequent sampling event shall be conducted between sixty (60) and seventy-two (72) months following completion of the Well or Dedicated Injection Well, or the last Well on a Multi-Well Site.

Wells that are drilled and abandoned without ever producing hydrocarbons are exempt from subsequent sampling.



Timing of Sampling

- Initial Sampling Event- Within 12 months prior to setting conductor pipe.
- First Subsequent Sampling Event- 6 to 12 months after completion.
- Second Subsequent Sampling Event- 60 to 72 Months after completion.



609. Previously sampled Water Sources.

In lieu of conducting the initial sampling required pursuant to subsection d.(1) or the second subsequent sampling event required pursuant to subsection d.(2), an Operator may rely on water sampling analytical results obtained from an Available Water Source within the sampling area provided:

The previous water sample was obtained within the **18 months** preceding the initial sampling event or the second subsequent sampling event required.

The sampling procedures, including the constituents sampled for, and the analytical procedures used for the previous water sample were **substantially** similar to those required.

The request to use a previous sample will be done with the Eform Sundry Notice.



609. Previously sampled Water Sources.

Sampling and analysis shall be conducted in conformance with an accepted industry standard as described in Rule 910.b.(2). A model Sampling and Analysis Plan (“COGCC Model SAP”) will be posted on the COGCC website prior to May 1, and shall be updated periodically to remain current with evolving industry standards.

Upon request, an operator shall provide its sampling protocol to the Director.



609. Analyte List

Analyte	Initial Baseline	Susequent Sampling	Analyte	Initial Baseline	Susequent Sampling
pH	X		magnesium	X	X
specific conductance	X		manganese	X	
total dissolved solids (TDS)	X	X	potassium	X	X
dissolved methane	X	X	sodium	X	X
dissolved ethane	X	X	barium	X	
dissolved propane	X	X	boron	X	
total bicarbonate as CaCO ₃	X	X	selenium	X	
carbonate as CaCO ₃	X	X	strontium	X	
bromide	X	X	iron related bacteria	X	
chloride	X	X	sulfate reducing bacteria	X	
fluoride	X	X	slime forming bacteria	X	
sulfate	X	X	TPH	X	X
nitrate and nitrite as N	X		benzene	X	X
phosphorus	X		toluene	X	X
calcium	X	X	ethylbenzene	X	X
iron	X		xylenes	X	X



If free gas or a dissolved methane concentration greater than 1.0 mg/l is detected in a water sample, gas compositional analysis and stable isotope analysis of the methane shall be performed to determine gas type. The operator shall notify the Director and the owner of the water well immediately if:

- A. the test results indicated thermogenic or a mixture of thermogenic and biogenic gas;
- B. the methane concentration increases by more than 5.0 mg/l between sampling periods; or
- C. the methane concentration is detected at or above 10 mg/l.

The operator shall notify the Director immediately if BTEX compounds or TPH are detected in a water sample.



609. Sampling Results.

Copies of all final laboratory analytical results shall be provided to the Director and the water well owner or landowner within three (3) months of collecting the samples. The analytical results, the surveyed sample Water Source locations, and the field observations shall be submitted to the Director in an **Electronic Data Deliverable Format**.

- (1) The Director shall make such analytical results available publicly by posting on the Commission's web site or through another means announced to the public.
- (2) Upon request, the Director shall also make the analytical results and surveyed Water Source locations available to the Local Governmental Designee from the jurisdiction in which the groundwater samples were collected, in the same electronic data deliverable format in which the data was provided to the Director.



609. Exception Request

Form: 04 DocNum: 403300165 Status: IN PROCESS Operator: HILCORP ENERGY COMPANY W/L Name: State of Colorado 24-33BH Created: 03/22/2013 8:12:37 AM Received: 03/22/2013 8:24:56 AM

Well/ Location	Ground Water Sampling	Submit	Attachments	Review	Comments & COAs	Status
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GROUND WATER SAMPLING

Uses of Ground Water Sampling Section

Request an Exception to Ground Water Sampling Requirements in Greater Wattenberg Area Rule 318A.e(4) or in Statewide Rule 609.c.

Request a Previously Sampled Water Source in the COGIS database be used to meet sampling requirements as described in Rule 609.d.(3).

NOTE: If this Sundry Notice is being submitted to request a Ground Water Sampling Exception it cannot be used for any other purpose except requesting the use of a Previously Sampled Water Source in the COGIS database.

Request an Exception to Ground Water Sampling Requirements per Greater Wattenberg Area Rule 318A.e(4): There are no Available Water Sources located within the governmental quarter section or within a previously unsampled governmental quarter section within a 1/2-mile radius of this proposed Oil and Gas Well, Multi-Well Site, or Dedicated Injection Well.

Request an Exception to Ground Water Sampling Requirements per Statewide Rule 609.c.

Number of Water Sources located within one-half (1/2) mile of a proposed Oil and Gas Well, Multi-Well Site, or Dedicated injection Well.

Number of Water Source Exceptions requested per Rule 609.c.

Number of Water Sources determined to be unsuitable. **The condition of these Water Sources MUST be documented in the comments below or in an attachment.**

Number of Water Sources suitable for testing whose owners refused to grant access despite an operator's reasonable good faith efforts to obtain consent to conduct sampling.

The reasonable good faith efforts used to obtain access from the owners of these Water Sources MUST be documented in the comments below or in an attachment.

Request a Previously Sampled Water Source in the COGIS database be used to meet sampling requirements as described in Rule 609.d(3).

Type of Sample Substitution Request

Enter Sample ID Number from COGIS Maps for each Previous Water Sample:

Sample ID	Facility ID	Sample Date	Sample Purpose
532246	Find 752430	01/22/2013	COA Baseline
532252	Find 752431	01/22/2013	COA Baseline
532243	Find 752428	11/14/2012	COA Baseline



609. Previously sampled Water Sources

Form: 04 DocNum: 403300165 Status: IN PROCESS Operator: HILCORP ENERGY COMPANY W/L Name: State of Colorado 24-33BH Created: 03/22/2013 8:12:37 AM Received: 03/22/2013 8:24:56 AM

Well/ Location Ground Water Sampling Submit Attachments Review Comments & COAs Status

GROUND WATER SAMPLING

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Request a Previously Sampled Water Source in the COGIS database be used to meet sampling requirements as described in Rule 609.d.(3).

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Request an Exception to Ground Water Sampling Requirements per Statewide Rule 609.c.

20 Number of Water Sources located within one-half (1/2) mile of a proposed Oil and Gas Well, Multi-Well Site, or Dedicated injection Well.

1 Number of Water Source Exceptions requested per Rule 609.c.

4 Number of Water Sources determined to be unsuitable. **The condition of these Water Sources MUST be documented in the comments below or in an attachment.**

12 Number of Water Sources suitable for testing whose owners refused to grant access despite an operator's reasonable good faith efforts to obtain consent to conduct sampling.

The reasonable good faith efforts used to obtain access from the owners of these Water Sources MUST be documented in the comments below or in an attachment.

Request a Previously Sampled Water Source in the COGIS database be used to meet sampling requirements as described in Rule 609.d(3).

Type of Sample Substitution Request

Enter Sample ID Number from COGIS Maps for each Previous Water Sample:

Sample ID	Facility ID	Sample Date	Sample Purpose
532246	Find 752430	01/22/2013	COA Baseline
532252	Find 752431	01/22/2013	COA Baseline
532243	Find 752428	11/14/2012	COA Baseline

Add

Remove

Save Validate Print Preview Submit Review Exit



Web Access:

<https://cogcc.state.co.us/RbdmsEnv/>

Contact information:

Arthur W. Koepsell

Arthur.Koepsell@state.co.us

303-894-2100 ext 5148



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STEP 1:

To get onto the system each individual who is going to submit data on behalf of an Operator is required to have a Designation of Agent (Form 1A) on File with the COGCC prior to submitting Data.

A blank Form 1A can be downloaded from:

<http://cogcc.state.co.us>

Once the Form is submitted a user name and temporary password will be submitted by COGCC staff.

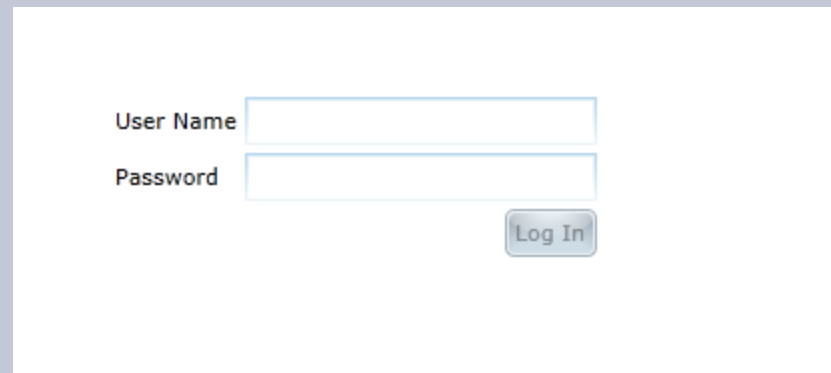


OIL & GAS CONSERVATION COMMISSION

STEP 2:

Log on to the System at:

<https://cogcc.state.co.us/RbdmsEnv/>



User Name

Password



OIL & GAS CONSERVATION COMMISSION

HOMEPAGE

After login the user is brought to the home page.

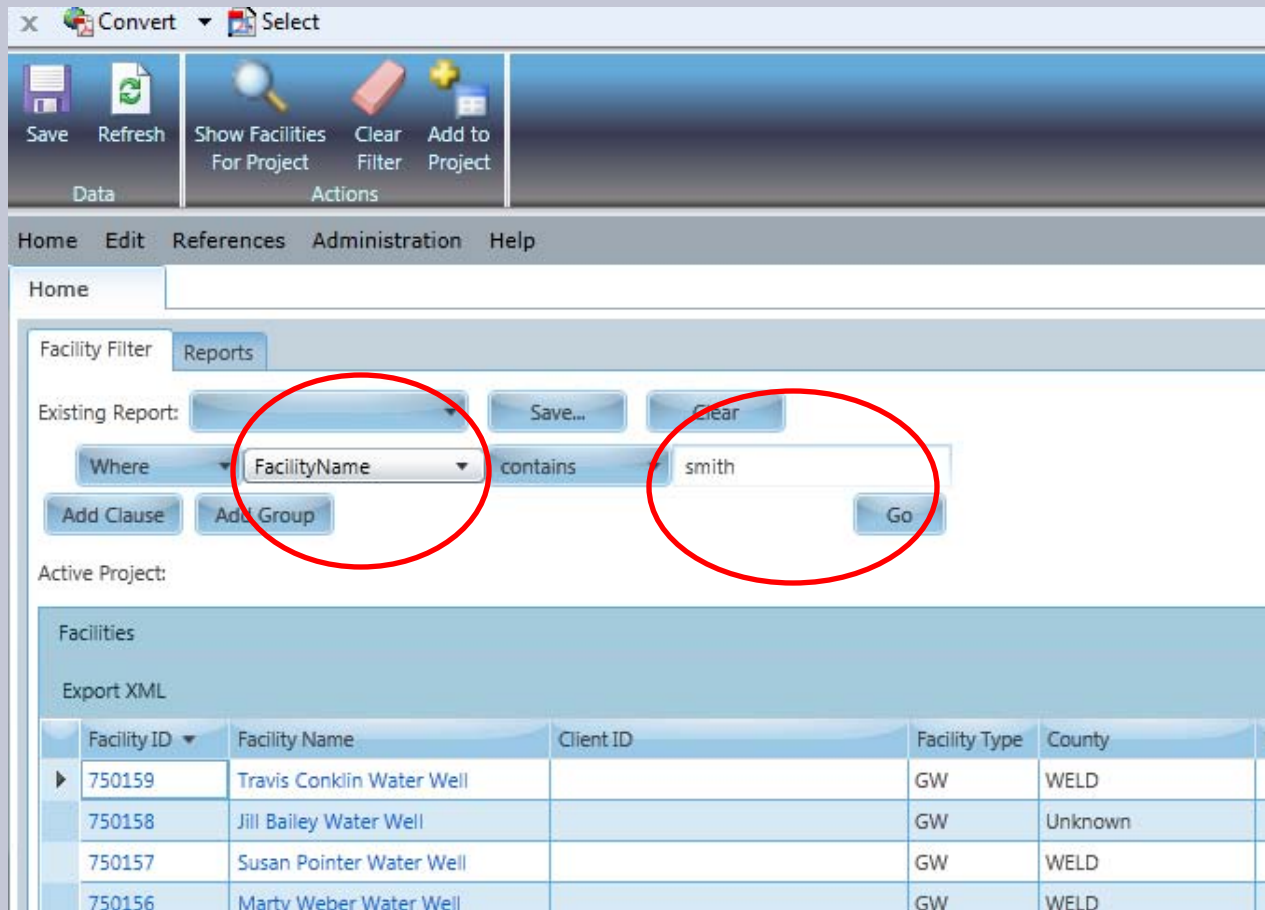
The screenshot shows a web application interface with the following components:

- Navigation Menu:** Home, Edit, References, Administration, Help
- Facility Filter:** Reports, Existing Report: [Dropdown], Save..., Clear, Where: [Dropdown], equals, [Dropdown], Add Clause, Add Group, Go
- Active Project:** Facilities, Export XML
- Table:** A table with columns: Facility ID, Facility Name, Client ID, Facility Type, County, Media T Criteria, Active, Meridian, Datum, Sec, Twn, Dir, Rng, Dir, QQ, and a final column with a right-pointing arrow.

Facility ID	Facility Name	Client ID	Facility Type	County	Media T Criteria	Active	Meridian	Datum	Sec	Twn	Dir	Rng	Dir	QQ	
750159	Travis Conklin Water Well		GW	WELD			6		23	3	n	66	w		
750158	Jill Bailey Water Well		GW	Unknown											
750157	Susan Pointer Water Well		GW	WELD			6		22	2	n	66	w		
750156	Marty Weber Water Well		GW	WELD			6		3	3	n	66	w	N...	
750155	Hank Thuener Water Well		GW	WELD			6		14	2	n	67	w		
750154	Larry Johnson Water Well		GW	WELD			6		27	1	n	67	w	SESE	
750153	Varra SESW S12 9N 66W		GW	WELD					12	9	N	66	W	SESW	



The query builder can be used to search for locations



The screenshot shows a web-based query builder interface. At the top, there is a menu bar with 'Home', 'Edit', 'References', 'Administration', and 'Help'. Below the menu, there are two tabs: 'Facility Filter' and 'Reports'. The 'Facility Filter' tab is active. In the 'Existing Report:' section, there is a dropdown menu, a 'Save...' button, and a 'Clear' button. Below this, there is a 'Where' section with a dropdown menu set to 'FacilityName', a 'contains' operator, and a text input field containing 'smith'. There are also 'Add Clause' and 'Add Group' buttons. A 'Go' button is located at the bottom right of the 'Where' section. Below the 'Where' section, there is an 'Active Project:' section. At the bottom, there is a table titled 'Facilities' with columns for 'Facility ID', 'Facility Name', 'Client ID', 'Facility Type', and 'County'. The table contains four rows of data.

Facility ID	Facility Name	Client ID	Facility Type	County
750159	Travis Conklin Water Well		GW	WELD
750158	Jill Bailey Water Well		GW	Unknown
750157	Susan Pointer Water Well		GW	WELD
750156	Martv Weber Water Well		GW	WELD



Clauses can be added to the query builder to narrow results

The screenshot shows a web-based query builder interface. At the top, there is a toolbar with icons for Save, Refresh, Show Facilities For Project, Clear Filter, and Add to Project. Below the toolbar is a menu bar with Home, Edit, References, Administration, and Help. The main area is titled 'Home' and contains a 'Facility Filter' section. Under 'Facility Filter', there are tabs for 'Facility Filter' and 'Reports'. Below the tabs, there is an 'Existing Report:' dropdown menu with 'Save...' and 'Clear' buttons. The main filter area has a 'Where' dropdown set to 'FacilityName' with a value of 'smith'. Below this, there is an 'And' dropdown set to 'LookupCounty.description' with a value of 'Weld'. Both the 'LookupCounty.description' dropdown and the 'Weld' value are circled in red. There are 'Add Clause' and 'Add Group' buttons to the left of the filter area, and a 'Go' button to the right. Below the filter area, there is an 'Active Project:' section with a 'Facilities' table and an 'Export XML' button. The table has columns for Facility ID, Facility Name, Client ID, Facility Type, and County. The data rows are:

Facility ID	Facility Name	Client ID	Facility Type	County
708122	Smith 255010		DOM	WELD
708114	Smith Well		DOM	WELD
703214	Smith Water Well	703214	DOM	WELD



Select a Facility by clicking the facility ID number or Facility Name

Home Edit References Administration Help

Home X

Facility Filter Reports

Existing Report: Save... Clear

Where FacilityName contains smith

And LookupCounty.description equals weld

Add Clause Add Group Go

Active Project:

Facilities

Export XML

Facility ID	Client ID	Facility Type	County	Facility Name	Media	Criteria	Active	Meridian
708112		DOM	WELD	Smith 255010	GW		Y	6
708114		GW	WELD	Smith 257643	GW		Y	6
703214	703214	DOM	WELD	Smith Water Well	GW		Y	6



Location information can be found on the location Tab of the Facility Edit page.

Home Edit References Administration Help

Home Facility Edit X

Header Location

Facility ID: 708114 Facility Type: Ground Water

Facility Name: Smith 257643 Receipt Number: 0524934

Oil & Gas Facility: Client ID:

Water Well: 0524934 BLM ID:

Media Type: Choose an Address:

Criteria ID: Address Display:

Permit Number: 257643

Well Depth: 500

Formation:

Active: Yes Enter Address

Samples

Sample ID	Sample Date	Verified	Confidential	Sample Group	Sample Name	Sample End Date	Collection Point	Upper	Lower	Matrix	Type	Pre Post	Comme
529855	08/01/2011									A...		Voluntary baseline sample	



Sample information can be found on the bottom of the Facility Edit page.

Home Edit References Administration Help

Home Facility Edit

Header Location

Longitude 83:	-104.88507	Coord Source:	Chesapeake	Quarter Quarter:	NWSW
Latitude 83:	40.75988	Coord Date:		Distance N/S:	
X:	0	Lookup County:	WELD	Dir N S:	
Y:	0	Section:	10	Distance E/W:	
Z:		Township:	9	Dir E W:	
Elevation:	0	Township Dir:	N	Legal:	
Utm X83:	509701	Range:	67	Comments:	
Utm Y83:	4512108	Range Dir:	W	PDOP:	0
Datum:				Source Map Scale:	
Meridian:	6				

Samples

Sample ID	Sample Date	Verified	Confidential	Sample Group	Sample Name	Sample End Date	Collection Point	Upper	Lower	Matrix	Type
529855	08/01/2011 7:30 PM									AQUEOUS SAMPLES	



Clicking on the Sample ID number takes the user to the Sample Page

Common Fields **Special Fields**

Facility: Smith 257643 Latitude:

Sample Date: 08/01/2011 7:3 Longitude:

Verified:

Sample Name:

Sample End Date:

Matrix: JEOUS SAMPLES Comments:

Analysis **Operator** **Sample Reasons**

Analysis List

Results

Analysis Name	Result Value	Units	Qualifier	Analysis Method
137CESIUM	0.3	pCi/L	None	GAMMA EMITTING RADIONUCLIDES IN DRINKING WATER
226RADIUM	22.	pCi/L	None	GAMMA EMITTING RADIONUCLIDES IN DRINKING WATER
228RADIUM	5.	pCi/L	None	GAMMA EMITTING RADIONUCLIDES IN DRINKING WATER
ACENAPHTHENE	1.89	ug/L	Less Than	SW-846 8270 Semi-Volatile Organic Compounds by GC/M
ACENAPHTHYLENE	1.89	ug/L	Less Than	SW-846 8270 Semi-Volatile Organic Compounds by GC/M
ANTHRACENE	1.89	ug/L	Less Than	SW-846 8270 Semi-Volatile Organic Compounds by GC/M
ARSENIC	0.01	mg/L	Less Than	INDUCTIVELY COUPLED PLASMA ATOMIC EMISSION...
BARIUM	0.0627	mg/L	None	INDUCTIVELY COUPLED PLASMA ATOMIC EMISSION...
BENZ(a)ANTHRACENE	1.89	ug/L	Less Than	SW-846 8270 Semi-Volatile Organic Compounds by GC/M

Data Flag:

Dilution:

Units Convert:

Detection Limit:

Lab Sample ID:

Lab Comments:

Lab Sheet:

Analytical Batch ID:

Result Batch:

Target Value:

Export ID:

Fraction Type:

Modify Date: 06/19/2012 11:08 AM

Modify User: KosteckyN

Analysis Sub Method: version D of a method

Preparation Method:



Creating Locations

Locations are kept unique by using the Latitude and Longitude of the Sample point.

Prior to creating a new location the user should check to see if the location has been sampled before.

The COGCC maps can be used to find previously sampled locations.

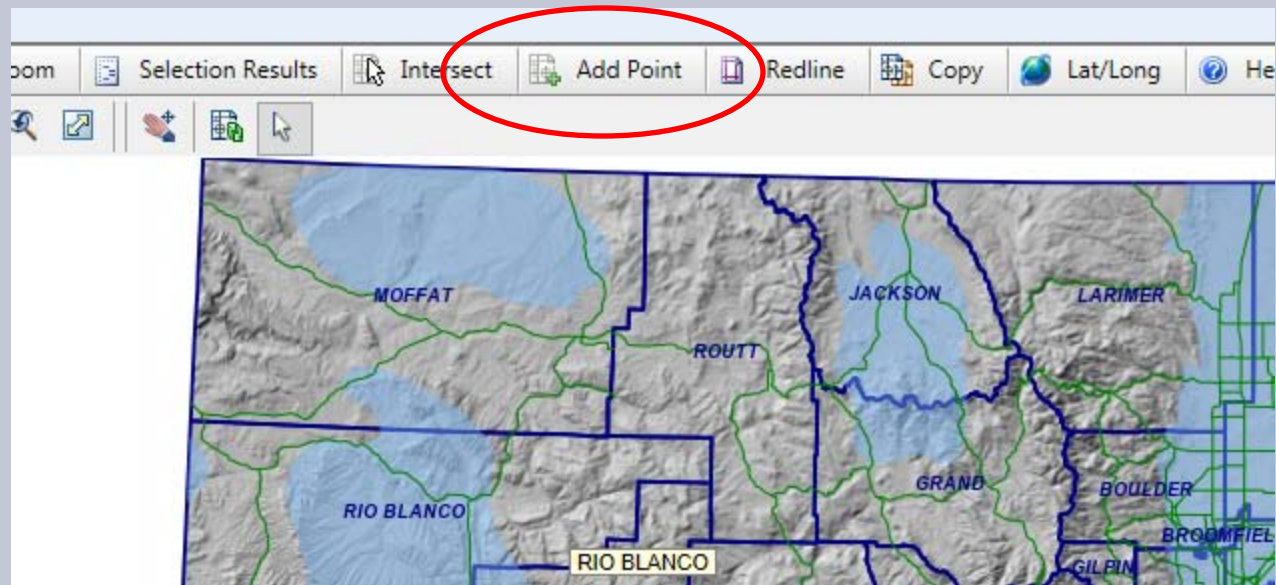


Creating Locations

The map can be found on the COGCC website at:

<http://dnrwebcomapg.state.co.us/mg2010app/>

Select the Add Point Tool



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Creating Locations

Place the latitude and longitude in the Point Capture Tool and click the add point button.

Point Capture

The current map uses the UTM, Zone 13 Map Coordinate System. The x and y values should be UTM, Zone 13 meter values.

Please note that these points expire at the end of your session. A session ends when you close your browser window or after 20 minutes of inactivity; whichever occurs first.

Category: Latitude / Longitude

Latitude or Y: 40.75988

Longitude or X: -104.88507

Add Point by Click

Add Point



Creating Locations

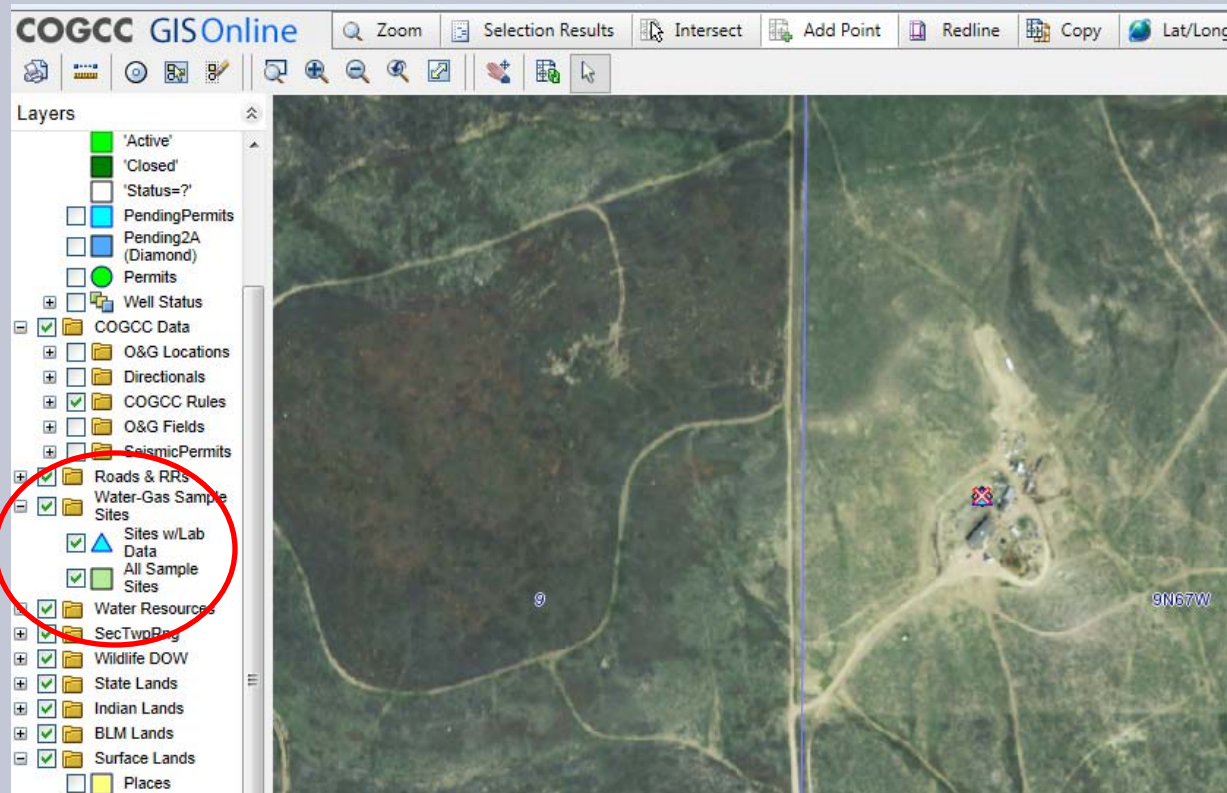
A red X should appear on the map at the sample location



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Creating Locations

Turn on sample layer on the left side of the map screen. In this case no new Facility ID is needed.



Creating Locations

If no diamond or triangle appear near the sample point latitude and longitude than a new Facility ID can be created

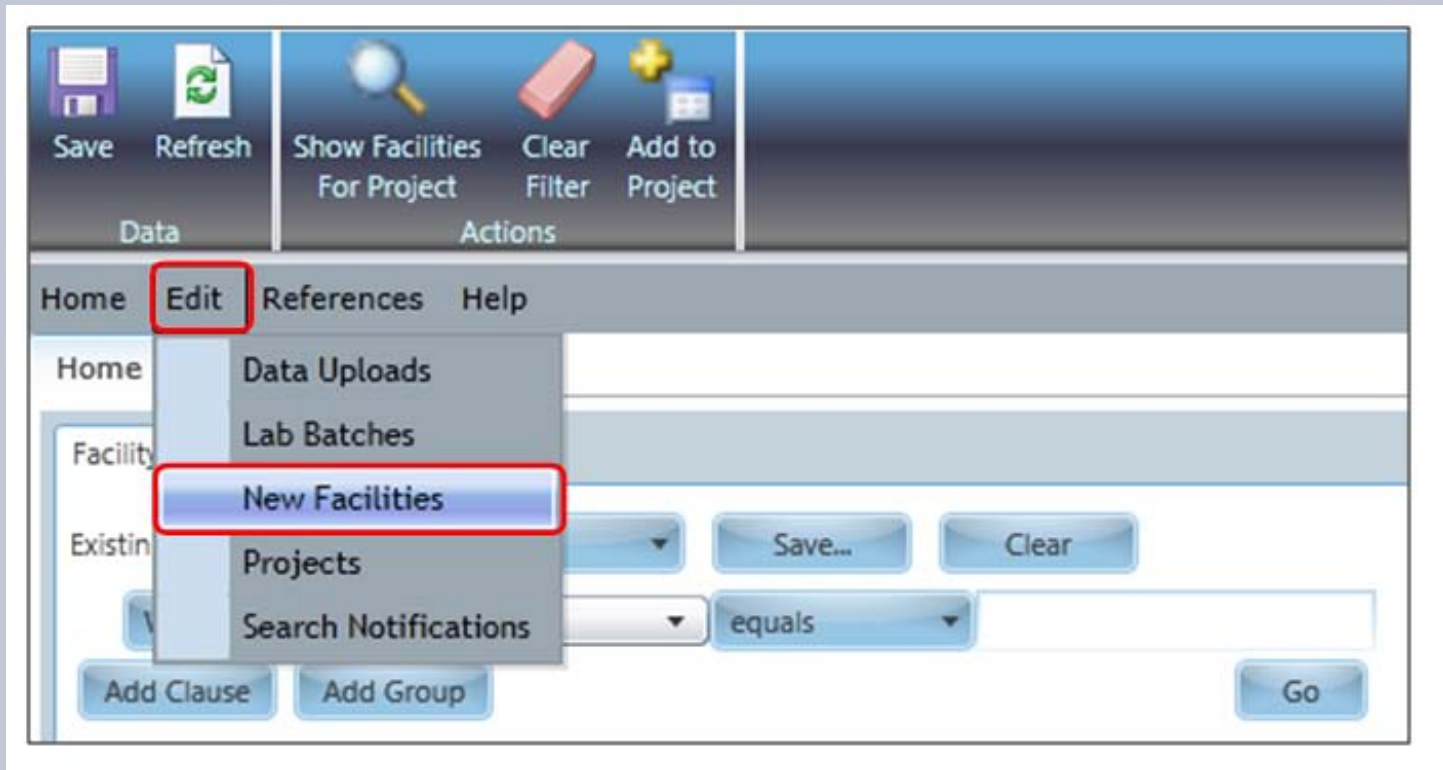


Creating Locations

The facility editor page can be accessed from the home page.

Hover mouse pointer over **EDIT**

Scroll down to **New Facilities** and click on it.



Creating Locations

Click or **green arrow** to create a new record.

Enter **Facility Name**.

Home Edit References Help

Home New Facilities *

Facility Names

+ X Accept Facility(ies) Search

Facility ID	Facility Name
0	

Facility ID: 0

Facility Name:

O&G Facility:

Sidetrack: 00

Client ID:

Blm ID:

Choose Address: Unknown

Display Address: Unknown

Enter Address



Creating Locations

The Facility Name field is made up of the last name of the homeowner followed by the permit number assigned by DWR.

Example: “Jane and John Doe Domestic Well” should be entered as “Doe 24562”.

It is possible that the sampled well is a livestock well, other type of well or surface location. If that is the case, the well does not have an assigned permit number. In that event, create the Facility Name by entering the homeowner’s last name followed by QQ, Section, Township, etc. Example: “Doe NESE S9 8N 62W”



Creating Locations

Click on **Enter Address** button (shown on figure below).

Click on **green arrow**

Home Edit References Help

Home New Facilities *

Facility Names

+ X Accept Facility(ies) Search

Facility ID	Facility Name
0	

Facility ID: 0

Facility Name:

O&G Facility:

Sidetrack: 00

Client ID:

Blm ID:

Choose Address: Unknown

Display Address: Unknown

Enter Address



Creating Locations

Click on **green +**

Enter **Address1**, **City**, **State** (as CO), and **Postal Code** data.
Click on **Save and Set Actions** button. This tab will close and
New Facilities tab is now visible.

The screenshot shows a web application interface for creating locations. The interface includes a 'Data' toolbar with buttons for 'Save', 'Refresh', and 'Save And Set Actions'. The 'Save And Set Actions' button is circled in red. Below the toolbar is a menu bar with 'Home', 'Edit', 'References', and 'Help'. The main content area has tabs for 'Home', 'New Facilities *', and 'Addresses *'. The 'Addresses' tab is active, showing a list of addresses with a search bar and a 'Sort' dropdown. A green plus sign icon is circled in red in the top left of the list. To the right of the list is a form with fields for 'PKey: 0', 'Address1:', 'Address2:', 'City:', 'State:', 'Postal Code:', and 'Country:'.



Creating Locations

Enter **Facility Type** information, Wells/Springs Ground Water *lakes ponds and streams are entered as surface water.*

Enter Latitude and Longitude points in boxes labeled **Latitude 83** and **Longitude 83**.

County:	WELD
Proj Number:	
Facility Type:	Ground Water
Media Type:	
Crit ID:	
Active:	
X:	
Y:	
Z:	
Latitude 83:	40.7830336
Longitude 83:	-104.83833295

Datum:	
Section:	1
Township:	9
Township Dir:	N
Range:	67
Range Dir:	W
Quarter Quarter:	Lot 2
Meridian:	



Creating Locations

Enter operator name for the COORD Source.
DWR Permit #, Receipt # and Well Depth if available

Range Dir:	<input type="text"/>	Agency:	<input type="text"/>
Quarter Quarter:	<input type="text"/>	USGS ID:	<input type="text"/>
Meridian:	<input type="text"/>	Horiz Acc Meas:	<input type="text"/>
dist n s:	<input type="text"/>	Source Map Scale:	<input type="text"/>
N/S Direction:	<input type="text"/>	Horiz Coll Meth:	<input type="text"/>
dist e w:	<input type="text"/>	Horiz Ref Datum:	<input type="text"/>
E/W Direction:	<input type="text"/>	Ref Point:	<input type="text"/>
Elevation:	<input type="text"/>	Ver Coll Meth:	<input type="text"/>
Coord Source:	<input type="text"/>	Ver Ref Datum:	<input type="text"/>
Coord Date:	<input type="text"/>	Ver Meas:	<input type="text"/>
Legal:	<input type="text"/>	Population:	<input type="text"/>
Facility Description:	<input type="text"/>	Export ID:	<input type="text"/>
Comments:	<input type="text"/>	Permit Number:	<input type="text"/>
Tag:	<input type="text"/>	Receipt Number:	<input type="text"/>
Status:	New	Well Depth:	<input type="text"/>
Status Date:	9/10/2012 10:00 AM	Formation:	<input type="text"/>
Aquifer:	<input type="text"/>	Modify Date:	<input type="text"/>
Source:	<input type="text"/>	Modify User:	<input type="text"/>



Uploading Data

Data is required to be submitted to the database by formatted Electronic Data Deliverable (EDD). Two versions of the EDD are accepted an Excel Version and an XML version. The XML is the preferred version.

Information regarding the COGCC formatted EDD can be found at:

http://rbdmsonline.org/RbdmsEnv/Help/CO_ExampleLabDataSpreadsheet.xls

<http://www.rbdmsonline.org/xml/COEnvEDD/COEnvEDD.html>



OIL & GAS CONSERVATION COMMISSION

Uploading Data

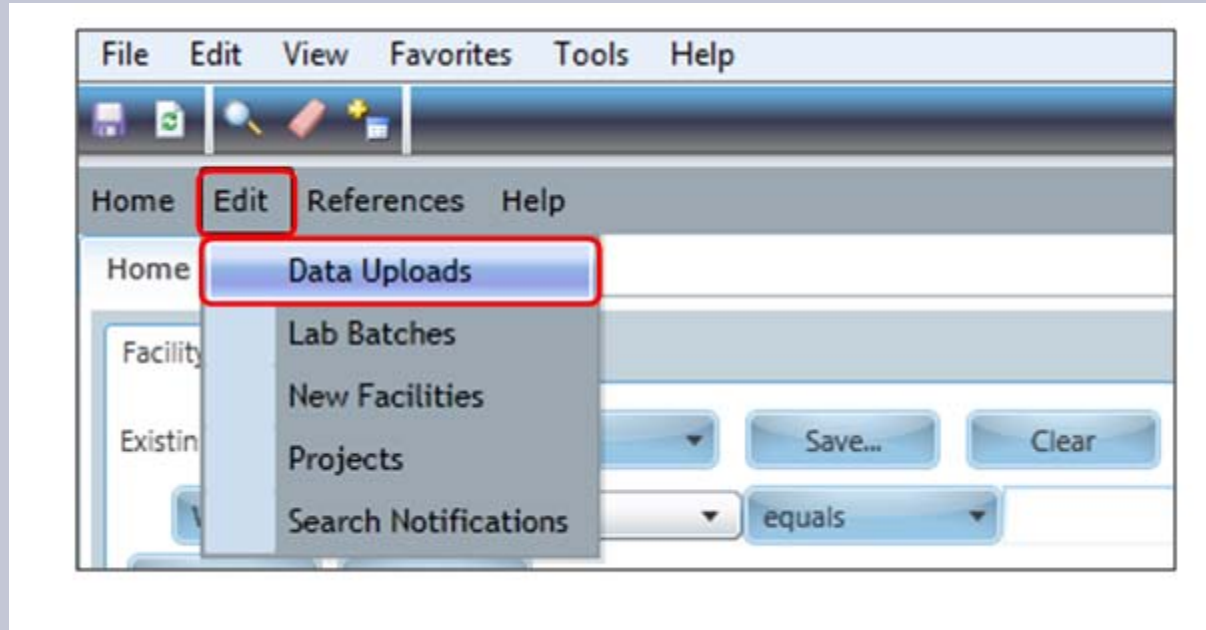
The EDD must include the Facility_ ID number to be accepted into the database.

Organization	Reporting Organization	Reporting Organization Name	Order Number	Entity Requesting Analysis	F
	10007	Accutest (Wheat Ridge)	D34667		
Sample	COGCC Facility No	Sample Date and Time	API #	Lab Sample ID	S
	750012	05/18/2012 10:50		D34667-1	S
Batch	Lab ID	Lab Batch Identifier	Leach Date	Extract Date and Time	E
	10007	13931		05/19/2012 04:18	
Result	CAS Number	Analysis Name	Analysis Method	Analytical Method Modifier	U
	100-41-4	Ethylbenzene	SW8260		u
	108-88-3	Toluene	SW8260		u
	1330-20-7	Xylene (total)	SW8260		u
	71-43-2	Benzene	SW8260		u
QC	Lab QC ID	QC Type	CAS Number	Analysis Method	A
	D34641-1MS	MS	100-41-4	SW8260	
	D34641-1MS	MS	108-88-3	SW8260	
	D34641-1MS	MS	1330-20-7	SW8260	
	D34641-1MS	MS	71-43-2	SW8260	
	D34669-1DUP	DUP	100-41-4	SW8260	
	D34669-1DUP	DUP	108-88-3	SW8260	



Uploading Data

The upload utility can be found under the Edit menu.



Uploading Data

Click on **Import an EDD file and import to the database with a pending status** button (see picture below).

In your computer, locate the EDD to be uploaded. Click **Open**.

The selected EDD will now appear on the screen. Click on the arrow to the left of the record to select the row to validate.

Click on **Parse and validate the EDD batch** button.

Under **Sort**, on the left side of the screen, click on **Accepted**. The uploaded EDD should appear on that list of records.

The screenshot shows a web interface for managing uploaded files. On the left, there is a 'Sort' dropdown menu with options: Pending, Accepted, Rejected, and Verified. The main area is titled 'Uploaded Files By Status' and contains a toolbar with several icons. Three red boxes with arrows point to specific icons: 'Import an EDD file' points to the first icon (a document with a plus sign), 'Parse and validate the EDD' points to the second icon (a document with a pencil), and 'Verify EDD file and upload' points to the third icon (a document with a checkmark). Below the toolbar is a table with the following data:

Key	File Name	File Type	File Description
▶ 2514	aaaa.xml	XML	Size of file in bytes: 1424
4514	zt66c.xml	XML	Size of file in bytes: 1444
32	ztH.xml	XML	Size of file in bytes: 75822



Uploading Data

To review the analytical data in the EDD or complete the sample record select the review EDD in the accepted screen.

File Description: Size of file in bytes: 4871039

Uploaded Files By Status

Key	File Name	File Type	File Description	Date Update	User Update	Date Created	Status
48725	L599220_COGCC.xml	XML	Size of file in bytes: 4871039	11/30/2012 10:37 AM	McDowellJo	11/30/2012 10:32 AM	Accepted
48717	Job19862COG.xls	Excel	Size of file in bytes: 23040	11/29/2012 4:09 PM	chessonr	11/29/2012 4:09 PM	Accepted
48714	Job19862COG.xls	Excel	Size of file in bytes: 23040	11/29/2012 3:51 PM	chessonr	11/29/2012 3:51 PM	Accepted
48693	1210126-01 COGCC 07 Nov 12 1208 IGW 125.xlsx	Excel	Size of file in bytes: 20299	11/27/2012 3:21 PM	koepspear	11/27/2012 3:21 PM	Accepted
48692	1210126-01 COGCC 07 Nov 12 1208 IGW 125.xlsx	Excel	Size of file in bytes: 20313	11/27/2012 3:19 PM	koepspear	11/27/2012 3:19 PM	Accepted
48691	1210126-01 COGCC 07 Nov 12 1208 IGW 125.xlsx	Excel	Size of file in bytes: 20279	11/27/2012 3:17 PM	koepspear	11/27/2012 3:15 PM	Accepted
48614	Player.xls	Excel	Size of file in bytes: 49664	11/27/2012 2:38 PM	koepspear	11/08/2012 10:56 AM	Accepted
48686	280-29321-1COGCCPivot.xlsx	Excel	Size of file in bytes: 62216	11/20/2012 9:25 AM	chessonr	11/20/2012 9:25 AM	Accepted
48640	280-32975-1COGCCPivot.xlsx	Excel	Size of file in bytes: 34196	11/19/2012 12:24 PM	lily	11/13/2012 3:23 PM	Accepted
48631	_QC.xls	Excel	Size of file in bytes: 30430	11/09/2012 10:40 AM	lily	11/09/2012 10:40 AM	Accepted
48570	1210080-01 COGCC 25 Oct 12 1043.xls	Excel	Size of file in bytes: 50688	10/29/2012 12:51 PM	lily	10/29/2012 12:48 PM	Accepted
48559	1210073rev2.xml	XML	Size of file in bytes: 607384	10/29/2012 11:37 AM	koepspear	10/29/2012 11:36 AM	Accepted
48558	1210073rev1.xml	XML	Size of file in bytes: 607384	10/29/2012 11:27 AM	koepspear	10/29/2012 11:27 AM	Accepted
48556	_upload_EDD.xls	Excel	Size of file in bytes: 58880	10/29/2012 10:09 AM	TestUser	10/29/2012 10:09 AM	Accepted
48553	_upload_EDD.xls	Excel	Size of file in bytes: 58880	10/29/2012 9:38 AM	TestUser	10/29/2012 8:37 AM	Accepted
48530	490-5073-1COGCCPivot (1).xlsx	Excel	Size of file in bytes: 55579	10/26/2012 2:01 PM	TestUser	10/26/2012 10:46 AM	Accepted
4526	Test-750042.xlsx	Excel	Size of file in bytes: 23494	10/25/2012 3:00 PM	TestUser	10/09/2012 12:32 PM	Accepted
48525	490-5073-1COGCCPivot (1).xlsx	Excel	Size of file in bytes: 55579	10/25/2012 2:51 PM	TestUser	10/25/2012 1:59 PM	Accepted
48526	_upload_EDD.xls	Excel	Size of file in bytes: 58880	10/25/2012 2:11 PM	Lily	10/25/2012 2:10 PM	Accepted
48514	490-5073-1COGCCPivot (1).xlsx	Excel	Size of file in bytes: 55579	10/24/2012 3:55 PM	lily	10/24/2012 3:54 PM	Accepted
48513	490-5073-1COGCCPivot (1).xlsx	Excel	Size of file in bytes: 55579	10/24/2012 3:44 PM	TestUser	10/24/2012 3:43 PM	Accepted
4550	test1.xls	Excel	Size of file in bytes: 41984	10/18/2012 9:21 AM	lily	10/18/2012 9:20 AM	Accepted
4520	Test-750042.xlsx	Excel	Size of file in bytes: 23494	10/08/2012 11:06 AM	gretchenkohler	10/08/2012 11:06 AM	Accepted
4519	Test-750042.xls	Excel	Size of file in bytes: 63488	09/10/2012 11:58 AM	gretchenkohler	09/10/2012 11:57 AM	Accepted
4518	Test-750042.xls	Excel	Size of file in bytes: 63488	09/10/2012 11:46 AM	gretchenkohler	09/10/2012 11:46 AM	Accepted



Uploading Data

To edit the sample information highlight the sampleID to be edited .

Home Edit References Administration Help User Setting

Home Data Uploads EDD Review X

Samples Batch QC

Samples

Search

Sample ID	Facility ID	Sample Date
530558	705381	10/04/2012 11:15 AM
530559	705381	10/04/2012 11:05 AM
530560	705385	10/04/2012 12:45 PM
530561	705382	10/04/2012 1:15 PM

Sample ID: 530558 **Pre Post:** Complaint Investigation Tag:

Facility ID: 705381 Latitude:

Water Key: Longitude:

Sample Date: 10/04/2012 11:15 AM Upper:

Sample Date Creator: Lower:

Confidential: **Matrix:** AQUEOUS SAMPLES

Date Sam: Date Last Precip:

Sample Group: **Sample Type:** MIX

Sample Name: Parent ID:

Data Flag: Comments:

Sample End Date:

Collection Point: Spring

Tag: Spill Number:

Source ID: MITNNumber:

Source Description: COCID:

Rating: Export ID:

QA: **Laboratory:** ESC Lab Sciences

Collect Meth: Lab Sample ID: L599220-01

Sampler: Verified:

Complaint Number: Date Received: 10/05/2012 9:00 AM

Remediation Number: Received By:

Inspection Number: Modify Date:

NOAVNumber: Modify User:

Project Number:

14 Page 1 of 1

Results

Search

Result ID	Parameter Name	Param ID	Parameter	Method Code	Method ID	Units	Fraction Type	Value	Qualifier	Date
132948	10-29-7	144	pH	SW9040	205	pH Units	TOTAL	7.7		
132949	14280-30-9	10910	HYDROXIDE ALKALINITY AS CaCO3	SM23208	150	mg/L	TOTAL	20	U	



Uploading Data

Information regarding the sample is located on the right of the screen..

Home Edit References Administration Help User Setting

Home Data Uploads EDD Review X

Samples Batch QC

Samples

Sample ID	Facility ID	Sample Date
530558	705381	10/04/2012 11:15 AM
530559	705381	10/04/2012 12:05 PM
530560	705385	10/04/2012 12:45 PM
530561	705382	10/04/2012 1:15 PM

Sample ID: 530558 Pre Post: Complaint Investigation

Facility ID: 705381 Latitude: Longitude: Source ID: Spill Number: MITNNumber: COCID: Export ID: Laboratory: ESC Lab Sciences

Water Key: Sample Date: 10/04/2012 11:15 AM Upper: Lower: QA: Collect Meth: Lab Sample ID: L599220-01

Sample Date Creator: Confidential: Matrix: AQUEOUS SAMPLES Date Sam: Date Last Precip: Sampler: Verified: Date Received: 10/05/2012 9:00 AM

Sample Group: Sample Type: MIX Complaint Number: Remediation Number: Received By: Modify Date: Modify User:

Sample Name: Parent ID: Comments: NOAVNNumber: Project Number:

Data Flag: Collection Point: Spring

Sample End Date:

Page 1 of 1

Results

Result ID	Parameter Name	Param ID	Parameter	Method Code	Method ID	Units	Fraction Type	Value	Qualifier	Date
132948	10-29-7	144	pH	SW9040	205	pH Units	TOTAL	7.7		
132949	14280-30-9	10910	HYDROXIDE ALKALINITY AS CaCO3	SM23208	150	mg/L	TOTAL	20	U	



Uploading Data

Information regarding the associated Oil and Gas well can now be added to sample before verification. This creates a relationship between an oil and gas well and the water sample. Multiple wells can be associated with one sample water sample.

Home | Data Uploads | EDD Review X

Samples | Batch QC

Sample ID	Facility ID	Sample Date
531884	750053	01/07/2013 3:47 PM

Sample ID: 531884 **Pre Post:** COGA Post Drill Tag: Spill Number:

Facility ID: 750053 Latitude: Source ID: MITNumber:

Water Key: Longitude: Source Description: COCID:

Sample Date: 01/07/2013 3:47 PM Upper: Rating: Export ID:

Sample Date Create: Lower: QA: **Laboratory:**

Confidential: **Matrix:** AQUEOUS SAMPLES Collect Meth: Lab Sample ID:

Date Sam: Date Last Precip: Sampler: Encana Verified:

Sample Group: **Sample Type:** DOM Complaint Number: Date Received:

Sample Name: Parent ID: Remediation Number: Received By:

Data Flag: Comments: Post Drill Canyon Creek PUGH 28361 Inspection Number: Modify Date:

Sample End Date: NOAVNumber: Modify User:

Project Number:

Collection Point: Domestic well

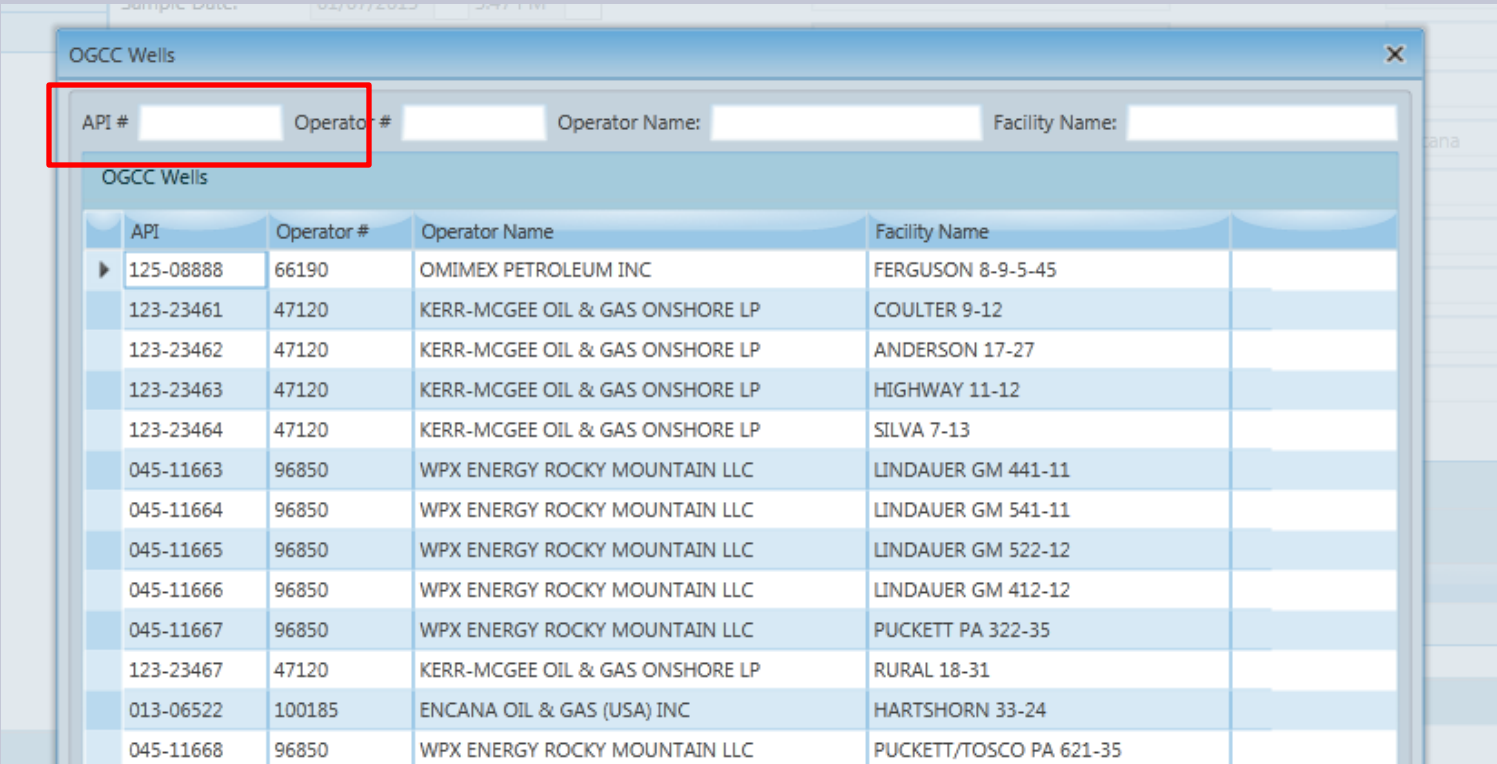
Sample-OGCC Wells Related

Operator Name	API #	Well Name	Sample Reason
ENCANA OIL & GAS (USA) INC	013-06667	CANYON CREEK 4-13	COGA Post Drill



Uploading Data

The Oil and Gas well can be found by entering the county code and sequence number . Once selected the operator number , operator name and facility Name auto-populate.



The screenshot shows a software window titled "OGCC Wells". At the top, there is a search form with four input fields: "API #", "Operator #", "Operator Name:", and "Facility Name:". The "API #" field is highlighted with a red rectangle. Below the search form is a table with the following columns: "API", "Operator #", "Operator Name", and "Facility Name". The table contains 15 rows of data.

API	Operator #	Operator Name	Facility Name
▶ 125-08888	66190	OMIMEX PETROLEUM INC	FERGUSON 8-9-5-45
123-23461	47120	KERR-MCGEE OIL & GAS ONSHORE LP	COULTER 9-12
123-23462	47120	KERR-MCGEE OIL & GAS ONSHORE LP	ANDERSON 17-27
123-23463	47120	KERR-MCGEE OIL & GAS ONSHORE LP	HIGHWAY 11-12
123-23464	47120	KERR-MCGEE OIL & GAS ONSHORE LP	SILVA 7-13
045-11663	96850	WPX ENERGY ROCKY MOUNTAIN LLC	LINDAUER GM 441-11
045-11664	96850	WPX ENERGY ROCKY MOUNTAIN LLC	LINDAUER GM 541-11
045-11665	96850	WPX ENERGY ROCKY MOUNTAIN LLC	LINDAUER GM 522-12
045-11666	96850	WPX ENERGY ROCKY MOUNTAIN LLC	LINDAUER GM 412-12
045-11667	96850	WPX ENERGY ROCKY MOUNTAIN LLC	PUCKETT PA 322-35
123-23467	47120	KERR-MCGEE OIL & GAS ONSHORE LP	RURAL 18-31
013-06522	100185	ENCANA OIL & GAS (USA) INC	HARTSHORN 33-24
045-11668	96850	WPX ENERGY ROCKY MOUNTAIN LLC	PUCKETT/TOSCO PA 621-35



Uploading Data

The sample reason is then added by a drop down list. One sample could be utilized to meet the sample requirements of more than one oil and gas well. For example a post drilling sample from one well could be used as the pre drilling sample for a different well.

Date Sam: Date Last Precip:

Sample Group: **Sample Type:**

Sample Name: Parent ID:

Data Flag: Comments:

Sample End Date:

Collection Point:

Sample-OGCC Wells Related

+ X

Operator Name	API #	Well Name
ENCANA OIL & GAS (USA) INC	013-06667	CANYON CREEK 4-13

Encana

COA Baseline
COA Post Drill
COA 1 Year Post Drill
COA 3 Year Post Drill
COA 6 Year Post Drill
COA 9 Year Post Drill
317 B initial Sample
317 B Subsequent sample
Rule 608 Pre drill
Rule 608 1 year post drill
Rule 608 3 year post drill
Refresh
COGA Post Drill



Uploading Data

Once the changes have been made to the sample information the changes can be saved by clicking the save button in the upper left of the screen. Final Acceptance and verification is done by COGCC staff.

Convert Select

Home Edit References Administration Help

Home Data Uploads EDD Review

Samples Batch QC

Samples

Search

Sample ID	Facility ID	Sample Date
530558	705381	10/04/2012 11:15 AM
530559	705395	10/04/2012 12:05 PM
530560	705385	10/04/2012 12:45 PM
530561	705382	10/04/2012 1:15 PM

Sample ID: 530558
Facility ID: 705381
Water Key:
Sample Date: 10/04/2012 11:15 AM
Sample Date Create:
Confidential:
Date Sam:
Sample Group:
Sample Name:
Data Flag:
Sample End Date:
Collection Point: Spring

Page 1 of 1

Results

Result ID	Parameter Name	Param ID	Parameter	Method Code
132948	10-29-7	144	pH	SW9040
132949	14280-30-9	10910	HYDROXIDE ALKALINITY AS CaCO3	SM2320B



Web Access:

<https://cogcc.state.co.us/RbdmsEnv/>

Contact information:

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OIL & GAS CONSERVATION COMMISSION