

**Year in Review 2009**  
**Utah Oil & Gas Program**  
Presented to the Board of Oil, Gas and Mining

**Overview:**

The calendar year 2009 although drilling activity was reduced significantly from the prior year, proved to be another busy one for our oil and gas program. Although drilling activity was down, continued production, disposal and Board hearing activity kept staff busy. Utah's production again increased for the year resulting in another high oil producing year and another record breaking gas production year. Utah's oil and gas industry continued to do their part in supplying oil and natural gas to the State and the nation.

The state of Utah is currently ranked 13th in the country in crude oil production and 8th in natural gas production (2008 production; Energy Information Administration; not including Federal Offshore production areas). In 2009, there were approximately 8,950 producing wells in Utah, up 4% from 2008 and up 58% from 2004. Oil production totaled 22,926,795 barrels, up about 4% from 2008 and up 55% from 5 years ago. Natural gas production is also up about 1.6% from a year ago and 53% since 2004 with a volume of 449,509,853 mcf (thousand cubic feet). This makes 2009 the highest oil producing year in Utah since 1992 and the highest natural gas producing year on record.

Although drilling activity was slower further development of waterfloods continued in the Monument Butte area, also drilling at Brundage Canyon, Lake Canyon and surrounding area. Altamont-Bluebell and especially west-Altamont/Cedar Rim area was active after Board approval of increased density drilling. Interest continued in the hingeline play in south central Utah with several wildcats and additional wells added to the Covenant Field. Additional deep gas drilling continued throughout much of the Uinta Basin, with Mesozoic Formations continuing to be targets southward in the east and west Tavaputs areas. Many of these deeper wells are targeting the Mesa Verde, Mancos, and Dakota formations in addition to the Wasatch formation. The Book Cliffs area near the borders of Uintah and Grand counties and Duchesne and Carbon counties has seen continued some activity in deep gas plays. Interest continued in shale gas in Mancos and Mississippian Manning Canyon Formations.

Step-out, Infill and Horizontal Oil Well Developments are occurring in the Uinta Basin. The Greater Monument Butte area was unitized with consolidation of previous waterflood units/projects which brings promise of continued development on denser well pattern. Advancements in directional drilling technology are allowing companies to drill from fewer pads with less environmental impact.

A seismic survey was completed in the Randolph area of Rich County and wildcat wells permitted there. This area has not seen activity for quite a few years.

Drilling activity is of course followed by increased Division workload in record keeping, compliance and all the other aspects of our program that follow as our well inventory increases. Both oil and gas production in the state has steadily risen since 2003. The production sales value of crude oil and natural gas in Utah for 2009 was about \$2.4 billion, a decrease of almost 50% from 2008 in response to lower prices.

**Administration:**

A few staff changes occurred during the year. We hired Mark Reinbold as a geologist in the permitting section, Randy Thackeray as lead auditor and Zeke Clements as auditor. Joshua Payne, engineering technician returned to his military duties as a helicopter pilot. Major efforts continued in data management.

**Permitting:**

Although down some 2009 was another fairly busy year for oil and gas permitting. 2009 ranked sixth for APD approvals and eighth in the number of well spuds. Permits were issued for drilling, waste disposal facilities, underground injection wells and seismic operations. Many additions/modifications were issued for existing facilities. Our permitting staff continues to coordinate with other State, Federal and local agencies on a regular basis.

Drilling permits issued: 1,170  
UIC permits issued: 25  
Permits to construct disposal facilities: 26  
Permits to operate disposal facilities: 24

The Division issued a total of 4 geophysical permits during 2009. The 3D permit mileage totaled 383 square miles. One 3D project was completed in 2009 totaling 21 square miles. The total 3D permitted mileage for the year was the most since seismic record keeping began. Three of the remaining 3D projects are waiting on federal approval before they are completed. There were no 2D seismic permits issued in 2009.

**Inspection:**

A total of 6,338 well/site inspections were conducted. There were 371 compliance issues recorded in 2009. The majority of the violations were reporting issues. 237 of these were resolved and the remainder are still ongoing issues. Staff also provided oversight for several ongoing contamination cleanup operations at gas plants, compressor sites, or other major spill sites. The majority of field time is spent on witnessing of plugging operations, pre-site inspections and waste facility inspections, which all require a lot of man-hours. A breakdown of inspections is as follows:

Audit 97  
Casing and cement operations 135  
Complaint 22  
Compliance verification 382  
Drilling 219  
Emergency Response 4  
Final Restoration/Bond Release 410  
MIT's 85  
Plugging 287  
Presite 360  
Production/Environmental (general inspections) 3537  
Workover/Recompletion 83  
Seismic 33  
Facility (gas plants, waste disposal, compressors) 684  
  
Total 6,338

**Enforcement:**

During 2009 the Division issued 76 NOV's. 25 of these are yet to be resolved. Therefore, 67% of the violations written were addressed in the same year they were issued.

The Division will continue to closely monitor wells shut-in over 5 years and not in compliance with division rules. In 2009 enforcement and engineering issued Division plugging orders to some operators with long-term shut-in wells leading to the plugging and abandonment of 5 high-risk wells.

**Data Management:**

Endeavors to collect, process, and disseminate oil and gas information continued to grow during 2009 despite a slowdown in the oil and gas industry. Programming and web application development were driven by an ever-expanding demand for electronic services and the goal to create a "paperless" environment within the Oil and Gas Program. These objectives have grown into a very labor-intensive and time-consuming effort, relying heavily on a small number of employees for development, implementation, and maintenance.

The Division of Oil, Gas and Mining's web program for filing and processing electronic oil and gas permits and reports, called "ePermit," continued to meet more and more of the needs of companies operating within Utah. Approximately 65% of all applications for permit to drill that were approved during 2009 were submitted electronically. More than 4,000 paperless "sundry" reports were filed and processed via ePermit. Additional operators registered to use the system each month as news spread about the program and as it evolved to meet the needs of its users. A large training session was held in February by staff members for all

interested operators and agents. Internally, the system has enhanced the ability of Division employees to do their work with greater accuracy and efficiency.

Enhancements to the ePermit system were added throughout the year. The highlight was the addition of an option to submit electronic sundry notices. This feature was introduced to oil and gas operators the last week of April and proved to be very popular. It greatly reduced the volume of paper reports being received by the Oil and Gas Program. Sundry notices are the mechanism by which operators request approval to perform day to day work on their wells and then report the results of that work. Once data is submitted by operators, pdf versions of the sundry form are automatically created and added to existing scanned well files. A web-based tracking page allows staff employees to see what reports have been received and where they are in the review and approval process. Once an approval is given on proposed work, an electronic signature is stamped on the pdf and an email message is automatically generated and sent back to the operator.

Numerous growth pains were experienced by the Oil and Gas Program throughout the year as the ePermit applications grew and became more complex. Much time and effort was expended in the process of refining the often-behind-the-scenes operations of this electronic tool. The internal and external handling of data for multiple lateral wells and the development of a method for operators to retrieve existing well data for re-entries were two very time-consuming projects that were successfully handled. Progress ended for the year in October when our web developer left for another assignment within the state's Department of Technology Services.

Efforts will continue during 2010 to expand and enhance the Oil and Gas Program's electronic capabilities. Promoting the efficient development of Utah's oil and gas resources and collecting the data necessary for making that happen will continue to be a high priority for the Oil and Gas Program.

#### **Auditing & Bonding:**

The following summarizes the Audit Section activities for the 2009 calendar year.

##### Auditing Activity

- 3 completed production/Disposition audits
- 1 completed gas plant audit
- 11 field inspection reviews
- 3 production/disposition audits in process
- 2 gas plant audits in process

##### Bonding Activity

- 27 new bonds were established
- 13 operator bonds were released

2 operator bonds were reduced

11 new operator numbers issued

**Operator Change Activity**

112 wells changed operators

**Entity Change Activity**

184 new wells assigned separate entity numbers

1,168 unit PA entity changes assigned

1,857 wells moved to the new Greater Monument Butte Unit (from 29 existing units)

**Miscellaneous and Administrative Activity**

Ongoing revision of production/disposition, water disposal, and gas plant audit programs

Ongoing template and audit file working paper standardizing project

Ongoing analysis of in-house audit projects for budget savings

Miscellaneous involvement in Board hearing matters

Natural Buttes Unit conversion to dual operator reporting

Chapita Gas Plant reporting coordination and implementation

River Bend Gas Plant reporting coordination and implementation

Pleasant Valley Gas Plant reporting coordination and implementation

Greater monument Butte Unit conversion from 29 operated units to one single field unit

Three new gas plants continue to get significant attention. The Chapita Gas Plant, River Bend plant and Pleasant Valley plant are still in the process of bringing data current from startup dates in January 2007. These plants are continuing to be followed.

**Engineering:**

No wells were plugged as part of the Orphan Well Program in 2009. The engineering group is gearing up for another contract this spring 2010. The contract will focus on 20 wells in the Greater Cisco field. Anticipated cost of the project is around \$350,000.

The 2008 SI/TA program brought 138 of the 364 State or Fee wells in long term SI/TA status (>1 yr SI/TA) into compliance with R649-3-36. The operator either: provided integrity information (22 wells), plugged the wells (68 wells) or returned the wells to production (47 wells). 292 of the 364 wells were carryovers from previous years meaning 72 new wells were added to the list in 2009. Of these 364 wells, 40 were operation suspended (OPS) wells. OPS wells are wells that drilling was commenced, but the well was never completed for one reason or another. Many of these have just conductor casings set or surface casing set awaiting the big rig to finish drilling the wells. The Division is currently working to bring one operator into compliance that had 56 of the 364 State

or Fee SI/TA wells on the list. This operator successfully removed 19 of their wells from the list. In addition, the Division is working on getting updated plans, information and subsequent reports from several other operators. We expect the number of SI/TA wells to be significantly lower once all the proposed work is done and the paperwork is in. We are still awaiting the results of approximately 75 wells proposed by the operators to plug and abandon or return to production. Several of these we are just waiting for the paperwork as the work has already been done.

The engineering staff reviews field designation at the end of each calendar year. The last review, conducted as the result of drilling activity in 2009 was completed in February of 2010. The drilling of 30 productive wells outside of active Field boundaries in 2009, led to the expansion of 12 existing Fields and the creation of 1 new Field (the Providence Field ). The number of wells drilled outside active field boundaries in 2009 was down considerably from recent years.

In 2009, the engineering staff reviewed 362 WO tax credits. Of these 362 tax credits, 320 were approved. The total of the approved submitted expenses was \$45,524,065.45. This is not the actual amount of the tax credit, just the amount of the qualifying costs of qualifying work of the workovers. Operators are allowed to take 20% of the qualifying work up to a maximum of \$30,000/year for each well. The majority of the workover tax credit applications were received for workovers done in Natural Buttes Field (113), followed by Monument Butte Field (81), 8 Mile Flat North Field (45), Altamont/Bluebell Fields (31) and Nine Mile Canyon Field (15). Tax credit submittals and amounts are up considerably from last year. We worked on getting the WO tax credit process all electronic in 2009. We are very close in this process and should have this accomplished in 2010.

The Engineering group processed hundreds of sundry notices and other miscellaneous requests such as wildcat well determination, flaring approvals, plugging requests, drilling program changes, recompletions and commingling applications. Also we provided engineering review of all State and Fee APD's.

**Public Outreach:**

Work continues with the National Energy Foundation (NEF) and others to develop an education program for schools. In 2009 the Division, Trust Lands, UPA and NEF hosted a Super Tour attracting dozens of educators. The Division presented an oil and gas talk at Citations Chalk Creek office.

The Division attended both the Richfield and Salt Lake Sportsman expositions. The division enhanced its oil and gas exhibits with better hands on opportunity for the public.

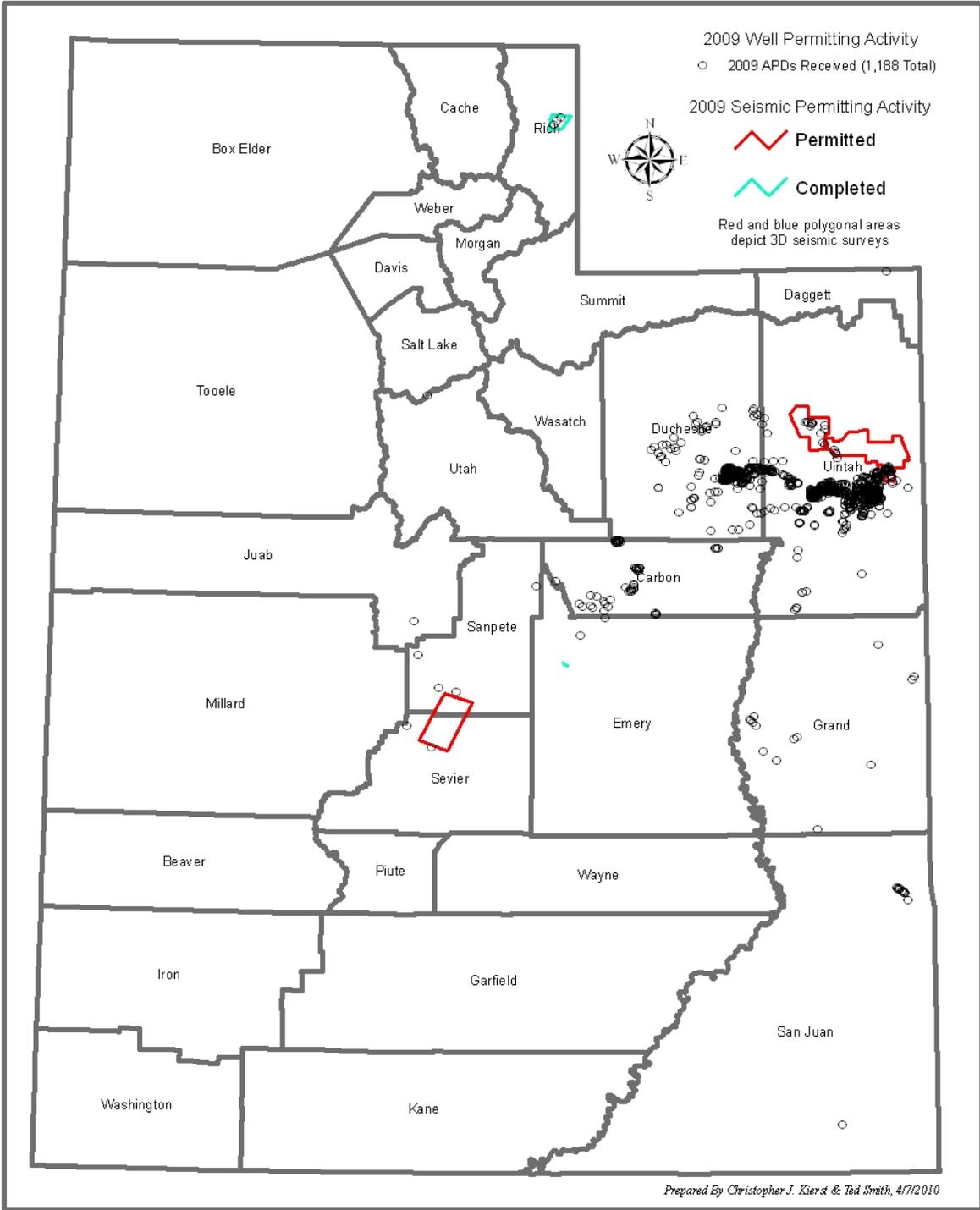
The Uinta Basin Oil and Gas Collaborative Group continues to meet quarterly in Vernal with high participation from agencies, industry and others.

This past year the division framed and hung several updated industry related posters in the Public Information Center.

**Board Support:**

Oil and gas staff provided support and recommendations to the Board. It was a fairly busy year for Board matters including spacing, pooling, increased density drilling, flaring, waste disposal facility cleanup and one of the largest waterflood unit consolidation and approvals ever with Greater Monument Butte.

5/2010



## Seismic Activity

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