

Wyoming Advisory January 28, 2015 Conference Call Summary of Presentations

I. CALL SPONSORED BY

Drake Hill served as the moderator for today's **Wyoming Advisory** call. These calls are sponsored by the Hill Law Firm and the Rocky Mountain Energy Reporter. The Energy Reporter has been providing cutting edge reporting for over a decade, with an understanding of the oil and gas industry. We are grateful for our partner in the **Wyoming Advisory**—the Rocky Mountain Energy Reporter.

II. PURPOSE OF CALL

The call is intended to provide awareness of emerging issues. We intend to inform you about things to be watching for in Wyoming, rather than simply telling you what has been reported in the newspapers. As with today's call, our calls bring industry leaders to you on topics of interest to assist you in keeping ahead of the issues. The format of the **Wyoming Advisory** takes account of your busy work schedules, and each topic will run no more than ten to twelve minutes so that you can get back to your work.

III. NEXT CALL ALERT

The next **Wyoming Advisory** call will be on March 25, 2015 at 10:00 a.m. mountain time. The call will be dedicated to "Low Price Environment" issues and scenarios.

IV. INTRODUCTIONS.

Today's **Wyoming Advisory** is organized into three parts.

Part I by Drake D. Hill. As I said, my name is Drake Hill of the Hill Law Firm, bringing nearly 30 years of oil and gas legal and regulatory experience. I will present the first segment of the call. The first topic will focus on the task force organized by the Laramie County Commissioners at the request of the Wyoming State Engineer to examine water drawdown in Laramie County, Wyoming.

Part II by Bob King. The second segment of the call today will be presented by Bob King and will focus on the 3,800 orphan wells that the State of Wyoming has recently taken control over, exploring what has happened leading to where we are today and what it means going forward. Bob King's name is familiar to many if not most of you. Bob is a petroleum engineer. Over the course of his career, Bob has worked for Exxon, Esso Middle East, Arabian American Oil, Monsanto, and was vice president and part owner of Wold Oil Properties. Most of you will know Bob from his years of service on and to the Wyoming Oil and Gas Commission. Bob was a Commissioner on the Oil and Gas Commission from 2000 to 2008. When Wyoming occasionally has lost supervisors of the Oil and Gas Commission, two governors have asked Bob to step over and ensure smooth operations of the Commission. He

served as the interim Supervisor of the Oil and Gas Commission in 2009 and in 2012 and 2013. It is our great privilege to have Bob join us today.

Part III by Jay Christopher. Next, what a great treat it is to be joined by Jay Christopher of TriHydro Corporation. I worked with TriHydro nearly 20 years ago in representing the DEQ in Wyoming—and we hired Jack Bedessem (the President of TriHydro) as our expert. At that time, TriHydro had about 12 employees and located in Laramie, Wyoming. Today, TriHydro has nearly 400 employees in 16 offices nationwide. They have offices in Cincinnati, Bismarck, Helena, three offices in California including Bakersfield, Concord and Signal Hill, Jacksonville, Florida, two offices in Colorado—Golden and Ft. Collins, Lockport, Illinois, El Dorado, Kansas, and four offices in Wyoming—in Laramie—which is the TriHydro headquarters--Cheyenne, Lander, Sheridan and Casper.

Jay Christopher has over 35 years of energy industry environmental experience. He specializes in air quality issues and permitting affecting complex facility operations. Jay oversees TriHydro's air regulatory compliance, air permitting, and greenhouse gas services teams, representing clients throughout the energy industry. Mr. Christopher will present the third segment of today's call focusing on EPA's proposed changes to the ozone standard and what that could mean for you.

V. QUESTIONS

While the presentations are happening, if you have a question, please email that question to me at ddhill@hilllawfirm.net. We will do our best to address your question at the end of the presentations. If we are unable to address your question in the time we have today, we will follow up and answer your question after the call.

VI. PART ONE—WATER DRAW DOWN IN LARAMIE COUNTY, WYOMING

By Drake D. Hill

Drake D. Hill, Hill Law Firm (ddhill@hilllawfirm.net; 307-638-9334, www.hilllawfirm.net).

- As many of you know, under the Wyoming Constitution, waters of the State belong to the State of Wyoming. The State Engineer is vested with the responsibility for regulating the usage and the quantity of water utilized in Wyoming.
- Part of Laramie County, due to concerns over water draw down, falls within a statutorily created and defined Control Area—governed by a Control Board. This body has existed for many years.
- In 2014, the State Engineer approached the Laramie County Commissioners on forming a task force to study water draw down in Laramie County and to make recommendations on what could be done about it.

- The Laramie County Commissioners agreed and formed a 26 person task force. The intent was to get all stakeholders represented at the table.
- Who makes up the task force? Mostly irrigators, some building industry, two oil and gas representatives (Anadarko and EOG).
- The task force is moderated by a man from the Ruckleshaus Institute of the University of Wyoming using an old book called “Getting to Yes.”
- The State Engineer has set an April 1st deadline for the committee to make its recommendations.
- Why is it important for us to be talking about this today?
 - (a) It is important in its own right for the oil and gas industry. Water is important in drilling operations and for fracking.
 - (b) Does it represent a trend towards local regulation such as what has occurred in other states—the closest being Colorado?
 - (c) There is a lack of awareness within the oil and gas industry that this is happening. We hope that this call will help in building that awareness and to allow the oil and gas industry to participate to a greater degree.
- The advantage to you all is that you get to hear the highlights of the past meetings without sitting through the many, many hours of committee meetings. Here are the highlights so far:
 - (a) The first meeting in the fall of 2014 was largely getting organized.
 - (b) December 1, 2014: presentation by Bern Hinckley, the recognized expert hydro-geologist. The point of his presentation: the evidence shows that declining water levels in eastern Laramie County, in the Burns and Carpenter areas, are mostly attributable to agriculture and irrigation. More lands being irrigated and crops demanding more water. The other significant data point is that the City of Cheyenne is doing long range planning on developing a well field north of Cheyenne. One committee member said: “the plan we come up with could affect all of Laramie County and could serve as the model for the nation.”
 - (c) December 12, 2014 meeting: Discussion of alternatives: (i) recovery; (ii) stabilization; (iii) allow the water resource to be used up. Mayor Kaysen asked “what does stabilization mean” and how do we define that. One subcommittee reported that “stabilization” cannot be framed as a static number and must be fluid—no pun intended.
 - (d) January 5, 2015 meeting: who is using and how much and where; discussion of offsets and recycling of water; time line for use—temporary versus permanent; strategies

for stabilizing water use—with no resolution on strategies. Good deal of discussion about what this committee has the statutory authority to do or not to do.

(e) January 19, 2015 meeting: presentation by State Engineer presented on the authority of the committee—what they can and cannot do. He hopes for recommendations from what he sees as an advisory body. That will then be taken to the Control Board ultimately decided by the State Engineer.

- What recommendation may come from the task force? Three options: stabilize the water resource; re-charge the water resource; or allow continued depletion of the water resource until it is exhausted.
 - No one argues that allowing the resource to be fully exhausted is a good idea.
 - The question is how to stabilize the water resource or how to re-charge the water resource, and a basic question with a resource that moves in geological terms and at geologic speed, how do you even define the term “stabilization.”
- In the end, the range of management options will vary from bans on water use to curtailment to some alternative that forces coordination among users. Ultimately, that will be the call of the State Engineer, who may seek the assistance of the Legislature where he feels he needs to augment his authority.
- Currently oil and gas usage has occurred through temporary use permits from water given up by irrigators.
- This task force is an example of local regulation, and not the only example:
 - (a) In the 2014 elections, there was a great deal of discussion from the public about the Laramie County Commissioners taking a regulating hand over oil and gas.
 - (b) For many years, the land use regulations in Laramie County have sought to permit energy pipelines, even going so far as purporting to regulate interstate natural gas pipelines falling under FERC jurisdiction as a function of the Natural Gas Act at the federal level.
 - (c) Current discussions over regulating well pads, oil and gas production and transportation facilities, and the like.
 - (d) I am told that county commissioners in other counties are keeping an eye on this, as is the Wyoming County Commissioners Association.
- So, are we seeing an emerging trend towards local regulation in Wyoming? Yes.
- What is the answer to local regulation? --The answer is **balance**: in the balance of responsibility that historically has been in place in Wyoming, and for everyone to stick to their areas of responsibility. For example, the Wyoming Oil and Gas Commission has permitting authority and related authority over oil and gas production; the Public Service

Commission has its areas of regulation; federal and state DOT regulators focus on safety; DEQ has environmental authority and authority over water quality; the State Engineer has jurisdiction over water quantity. What is not needed are a maze of further regulatory entanglements and complications that do not serve to do anything more. There is also important case law in Wyoming talking about one regulatory body not encroaching upon the regulatory authority of an agency vested with jurisdiction. In the meantime, I hope that this is a matter of working with local regulators to make them aware that oil and gas activity is already regulated in every meaningful sense.

**VII. PART TWO—WYOMING OIL AND GAS COMMISSION ORPHAN
WELL PROGRAM REVIEW**
By Robert A. (Bob) King

Robert A. (Bob) King, P.E., King Consulting Petroleum Engineer (bobking06@qwestoffice.net; (307) 266-5464).

What is an Orphan Well?

- Orphan well definition – non-plugged well, operator not in good standing
- Operator in non-compliance with WOGCC Rules & Regulations
- Operator Bond(s) revoked by WOGCC after hearing in front of Commission
- Federal Wells – different conditions, not under WOGCC authority

How Did We Get Where Here?

- Powder River Basin Coalbed Methane development late 1990's – 2008
- Average about 700' deep
- WOGCC Bonding
 - operator's bond (statewide \$75,000)
 - idle well (\$10/ft)
 - off-channel reservoirs
- Changes of ownerships
- Gas price decline
 - June '08 - \$12.77/mmbtu
 - Aug '09 – \$3.31/mmbtu
- Orphan well list
 - 2010 – 62 wells added
 - 2011 – 63 wells added
 - 2012 – 721 wells added
 - 2013 – 356 wells added (Total about 1,200 wells)
- September 2013 – Joint Minerals Business and Economic Development Committee
 - Requested a plan from Governor's Office and WOGCC to resolve orphan well problem (primarily CBM) including timetable, process for conversion to water wells, and funding needs [1,220 wells on fee and State lands, 921 fed, mostly from six (6) operators].

- Goal was to reduce orphan wells to below 100 within four (4) years.

State's obligation

- Chapter 3, Section 16(f) – authority to plug orphan wells
- Initial funding - \$2.8 million orphan well account, \$1 million bond forfeiture, \$3 million supplemental
- Conservation Tax – four (4) mills (0.04%, 0.0004)
- No general funds
- Coordinate with sage grouse core areas

State's Plan

- December 2013 Plan
 - Project Manager
 - Work Group – Governor's Policy Office, WOGCC, DEQ, OSLI, SEO, Precorp (Power Co.)
 - 2004 – 2013 WOGCC plugged 183 wells (\$7,200/well, \$6.87/ft)
 - Target 300 wells/year
 - Estimated future cost \$7.40/ft (\$7.7 million to plug 1,220 wells)
 - Additional \$3 million be allocated to program
 - January 2014 – WOGCC & SEO developed plan for conversion to water wells
- Landowner data base
 - Accessibility
 - Accuracy
 - water wells
 - reservoirs
- Title work, liens
- Scheduling – geography
- Bid packages, multiple
- Salvageable equipment disposition

Additions to List

- Spring 2014 – added Federated, Dudley (31 wells)
- June 2014 – added Black Diamond (340 wells), revoked \$293,000 bonding
- November 2014 – added High Plains/Patriot (2,321 wells), revoked \$8.2 million bonding
- Total orphan well count 3,886

2014 Program

- 7 operators, Campbell & Sheridan Counties
- Ucross, Northern Campbell County, Belle Ayre Coal Mine area
- 343 wells removed (318 p&a, 14 water wells, 11 mined through – coal mines)
- \$1.7 million spent (average \$6.48/foot)
- 126 scheduled and bid out, carryover to 2015

2015 Plans - Tentative

- Schedule 660 wells to be plugged
- Dependent on WOGCC & contractor staffing and availability
- South Campbell County, south and west of Gillette

Future potential

- New operator conditions
 - Mineral lease rights
 - Surface use agreement
 - Satisfy liens
 - Back-taxes – negotiable with state, counties?

VIII. PART THREE—EPA’S PROPOSED CHANGES TO THE OZONE STANDARDS

By Jay Christopher

Jay Christopher, Trihydro Corporation, Business Unit Manager, Air & Process Services
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- Today I am going to provide some background about a recent EPA proposal regarding ground level ozone that could have a major impact on the ability to permit and operate a variety of industrial facilities nationwide, but particularly in the Rocky Mountain West.
- This past December, EPA proposed to lower the ozone national ambient air quality standard from the current 75 ppb (established in 2008) to a range from 65 – 70 ppb, and take comments to go as low as 60 ppb. [see <http://www.gpo.gov/fdsys/pkg/FR-2014-12-17/pdf/2014-28674.pdf>].
- Public comment deadline is March 17, 2015, and there are public hearings scheduled in DC, TX, and CA.
- This proposed change is part of a statutory review requirement, and has been expected. But it kicks off a series of steps, and once finalized will undoubtedly make permitting significant new facilities more difficult in many areas of the county, including Wyoming and Colorado.
- In addition, the new rule will result in more stringent controls on smaller facilities, such as oil and gas production operations.
- Situation today – in our region, the current ozone non-attainment areas are the Pinedale/Jonah region in Sublette County, and the Denver metro area plus the majority of the DJ Basin in Colorado.

- If the limit goes to 65 ppb, most of the Green River Basin, the Niobrara plays in SE Wyoming and N Colorado, major portions of the Piceance Basin in Colorado and Uinta Basin in Utah will likely become non-attainment.
- The Western US in general has higher baseline ozone levels due to long range transport from Western US and overseas. Some researchers have placed the background levels in the 30 – 50 ppb range. A relatively high background level will make it more difficult to meet the new standards, whatever limit is ultimately selected.
- How does this affect business? Permitting becomes much more difficult. Depending on the severity of the non-attainment status, permitting thresholds for major projects may decrease from 100 tons per year of volatile organic compounds and nitrogen oxides to 50 or 25 tons per year, and major air permitting triggers for modifications of existing facilities could drop 40 tons per year to 25 tons per year. In addition, emission offsets will be required (ranging from a minimum of 1.1:1 to up to 1.3:1). We do not have time today to teach an air permitting class, but these changes are very significant.
- When does this all play out? These dates are a little crystal ball gazing, but if the current EPA schedule holds, here is what may happen.
 - o Possible date for new final ozone standards – October 2015
 - o State recommendations for non-attainment areas October 2016
 - o EPA finalizes the ozone designations – October 2017
 - o The states must then develop State Implementation Plans, or SIPs, which are the plans that States submit to EPA about what changes the State will implement to bring the nonattainment areas back into attainment, or clean air quality – The timing depends on severity of non-attainment classification, but these SIP plans will be due between 2020 and 2021. These plans will have a schedule and additional regulatory controls necessary to achieve attainment in 3 – 15 years (depending on severity of non-attainment). I realize that 2020 might sound like a long way off, but it will be here before we know it.
 - o What types of changes and controls will we see? The controls will most likely be more aggressive than what we are seeing in Pinedale/Jonah (those controls have not yet achieved attainment of the existing rule) or in Colorado under Reg 7.
 - o Many of these controls will also be tightening up as a result of EPA’s recently announced methane control strategies, which will affect new and existing facilities much sooner, possibly in the 2016 timeframe.

**NEXT CALL REMINDER: MARCH 25, 2015, 10:00 a.m. MOUNTAIN TIME:
“CHALLENGES AND OPPORTUNITIES IN A LOW PRICE ENVIRONMENT”**