

Interim Reclamation and the Regulatory Framework for Oil and Gas Development on Fort Berthold Indian Reservation

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WPX Energy

A Brief Introduction



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Who We Are



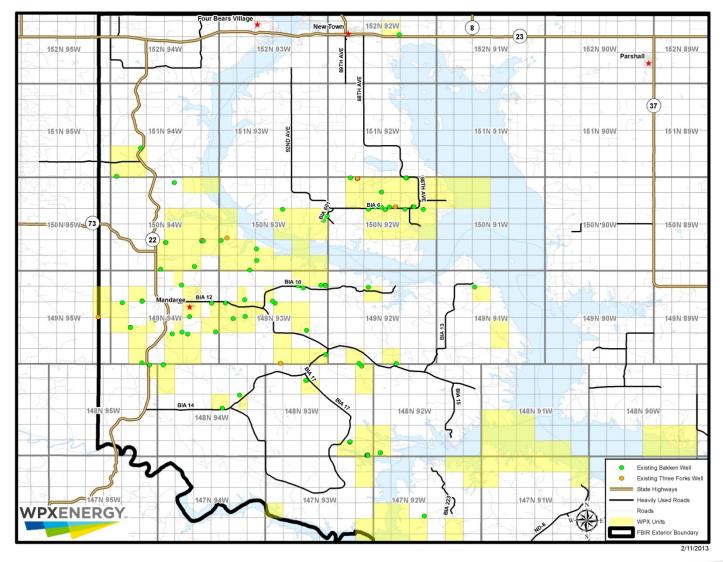
- •WPX Energy; Spun off from Williams Exploration & Production at year-end of 2011 to become an independent company
- Primarily involved in upstream, exploration & production of oil and natural gas
- A top 10 natural gas producer in the United States

• The Williston Basin:

- WPX's North Dakota operations are currently primarily located within the Fort Berthold Indian Reservation (FBIR).
 - Provides for multiple interim reclamation triggers at the federal, state, and local levels.



Where We Work



Agencies Involved in Interim Reclamation on FBIR

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Agencies



BIA

BLM

NDIC

MHA Energy Department

The "Split Estate" of FBIR and what it means for interim reclamation

- BIA: Manages the surface within FBIR that is held in trust.
- BLM: Manages the minerals within FBIR that are held in trust.
 - Creates the need for inter-agency and industry collaboration to achieve reclamation goals.





Environmental Assessment (EA) On-Sites

- Collaborative in-field meeting between BIA, MHA Energy, industry representatives, and consultants. A "soft staking" of a well pad designed to anticipate and minimize impacts related to the proposed development.
- A trigger to begin drafting an EA document.

Right-of-Way (ROW) On-Sites

- Collaborative in-field meeting between BIA, MHA Energy, BLM, industry representatives, and consultants.
 - Prospective well pad is staked again, showing working surface, extent of overall surface disturbance, center line and ROW extent for linear facilities (access roads and pipelines).
 - Plans for interim reclamation take shape at this point; a draft plat package is reviewed which includes reclamation plans.

BIA- Continued



Environmental Assessment (EA)

- Prepared any time a proposed project will break new ground.
- Provides interim reclamation language that an operator must commit to, including a specific portion of the EA devoted to interim reclamation.
 - "Interim reclamation would be required 6 months after construction, if environmentally feasible."
 - "Top soil piles would be covered to eliminate the potential for rill erosion and subsequent loss of soil during spring snow melt and precipitation events."
 - Commitment to control noxious weeds within our ROW.
 - Commitment to utilize weed-free hay to cover disturbed portions of the ROW if interim reclamation is deferred due to weather conditions.
 - The BIA considers interim reclamation successful if seeded areas become established, adjacent vegetative communities spread back into disturbed areas, and noxious weeds are under control. If the seeding is unsuccessful after two years, the BIA may require additional action on behalf of the operator.
 - Operator will utilize woody vegetation lost to construction by grinding and adding to topsoil piles.

BLM



Gold Book*

- Provides guidance on the construction, drilling, operation, and final abandonment of a location.
- "Interim reclamation consists of minimizing the footprint of disturbance by reclaiming all portions of the well site not needed for production operations." (United States; pg.45)
- "Sufficient level area remains for setup of a workover rig and to park equipment." (United States; pg.45)

ROW On-Site

 ^{*}United States Department of the Interior and United States Department of Agriculture. 2007. Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development. BLM/WO/ST-06/021+3071/REV 07. Bureau of Land Management. Denver, Colorado. 84pp.

BLM Continued...



- Application for Permit to Drill (APD) and Approved Permit Conditions of Approval (COAs)
 - Surface Use Plans (SUPs) are part of the APD package; typical commitments by WPX are listed below:
 - Interim reclamation will begin as soon as practical, but no later than six months after the installation of production facilities.
 - Stripped topsoil piles will be seeded and covered in fiber matting immediately after being stripped.
 - Prior to seeding, areas of high compaction will be ripped on the contour to a depth of up to 18".
 - The operator will monitor the pad for the life of the project and will remove all noxious and invasive plants using methods approved by the BLM and BIA.

BLM continued...



- Typical Approved Permit Interim Reclamation COAs: Planting Guidelines
 - Utilize a seed mixture of Western Wheatgrass (2lbs per acre), Green Needle Grass (6.5lbs per acre), Slender Wheatgrass (2.5lbs per acre), Side Oats Gramma (2.5lbs per acre). Seed must meet North Dakota State Seed Law requirements.
 - Seed beds must be free of competing vegetation and firm enough so that adult footprints are hardly visible.
 - Spring plantings are encouraged; Fall plantings must be covered with a weed free straw or mulch.
 - Drill seeding needs to be $\frac{1}{4}$ " $\frac{3}{4}$ " deep with 4"-6" row spacing, utilizing exiting contours to avoid rill erosion.

NDIC- North Dakota Century Code



43-02-03-07. United States Government Leases (Amended May 1, 1994)

- Provides the state of North Dakota concurrent jurisdiction with federal agencies over the regulation of oil and gas activities on surface and minerals held in trust by the United States Government.
- "The commission recognizes that all persons drilling and producing on United States government land shall comply with the United State government regulations. Such persons shall also comply with all applicable state rules and regulations."

43-02-03-19. SITE CONSTRUCTION (Amended April 1, 2012)

- "...topsoil shall be removed, stockpiled, and stabilized or otherwise reserved for use when the area is reclaimed."
- "Topsoil means suitable plant growth material on the surface; however, in no event shall this be deemed to be more than the top eight inches (20.32 centimeters) of soil."
- "Within six months after the completion of a well, the portion of the well site not used for well operations shall be reclaimed, unless waived by the director. Well sites and all associated facilities shall be stabilized to prevent erosion."





EA On-Site

ROW On-Site

Typical Interim Reclamation for Oil and Gas Well Pads on FBIR

Different Phases of Oil and Gas Exploration and Production



Plat Packages



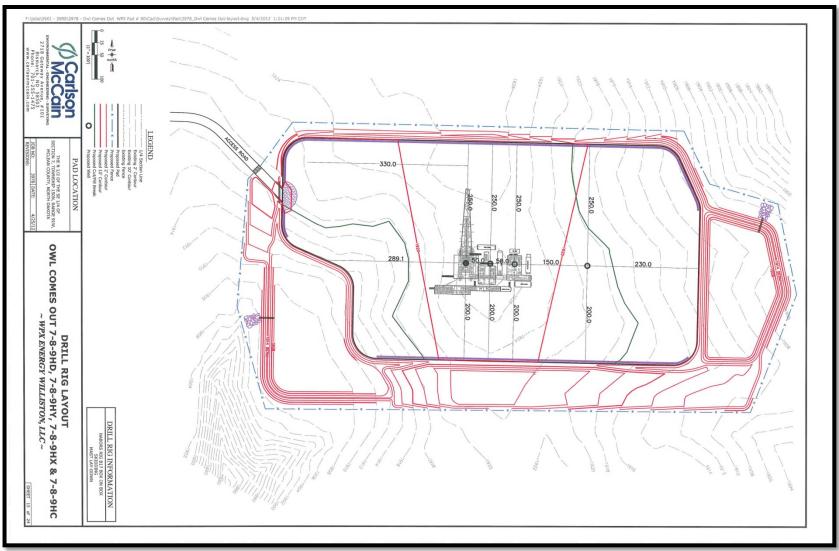
The "back bone" of planning and interim reclamation

•WPX strives to "balance" a pad:

- Utilizing the majority of the excavated subsoil into working components of the pad, including:
 - Leveling the working surface of the pad.
 - Constructing perimeter berms around the pad.
- Minimizes the stockpiling of subsoil and the overall size of the pad's footprint- allowing more overall acreage to remain undisturbed.

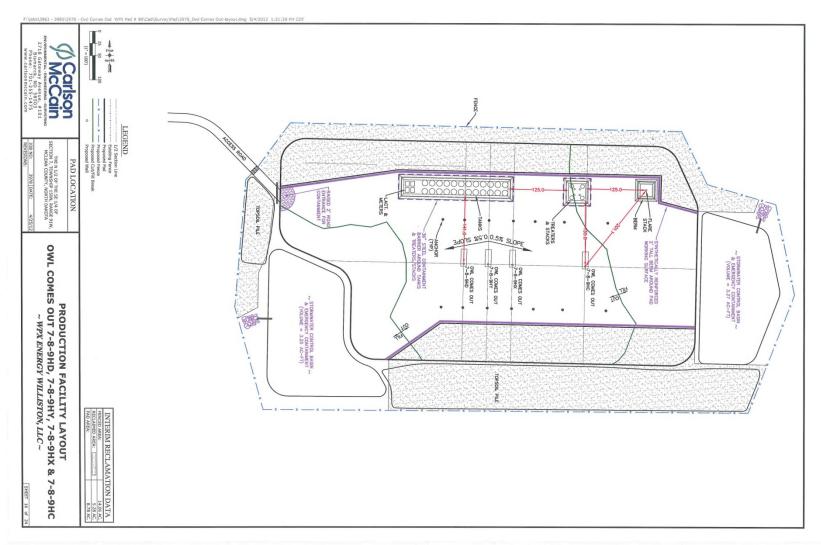
Well Pad Layout for Drilling





Well Pad Layout for Production





Selected Examples



WPX Olson #1-12 Drilling Phase





WPX Olson #1-12 Post Interim Reclamation





WPX Olson #1-12 After Seeding





WPX Olson #1-12 Key Reclamation Metrics



12.532 acres

- Total surface area of the pad while in the drilling phase.

• 3.803 acres

- Total surface area of the pad after interim reclamation.

8.729 acres

- Number of acres reclaimed.

Questions?

