

APPENDIX B

SURFACE USE PLAN

Pinnacle Gas Resources, Inc. Sweetwater South Federal POD Sweetwater County, Wyoming

Plan of Development (POD) – Interim Coalbed Methane Wells

The Pinnacle Gas Resources, Inc. Sweetwater South Coalbed Methane Federal Plan of Development Project is located in Sweetwater County, Wyoming. This POD includes Sections 26 and 35 of Township 23N, Range 97W. There are eight (8) federal wells proposed in this project on eight (8) different well locations in addition to the eight (8) previously approved, drilled, and shut-in CBNG wells.

One may access the Sweetwater South Federal POD exiting Interstate 80 at Sweetwater County Road 67 (Tipton Road), approximately 56 miles west of Rawlins, Wyoming. Travel 22.5 miles north and then travel west 2.75 miles to the northeast corner of Section 35. The Sweetwater South Federal POD development proposal consists of 8 wells at 8 locations with attendant developments and facilities as shown on the Project Map (see Project Map in Section 5). These eight (8) wells, identified in Appendix 3.1 *Proposed Well List*, are coalbed methane (CBNG) exploration/development wells. The listed wells and corresponding leases are located within the Sweetwater South Coalbed Methane Federal Plan of Development Project area.

The primary targeted reservoir in the Sweetwater South Federal area is coalbed methane (CBNG) from the coal seams within the Big Red zone. All unproductive wells will be plugged and abandoned as soon as practical after the conclusion of production testing. Productive wells may be shut-in temporarily for gas pipeline connections and/or Sundry Notices by the Bureau of Land Management (BLM) for production activities and facilities.

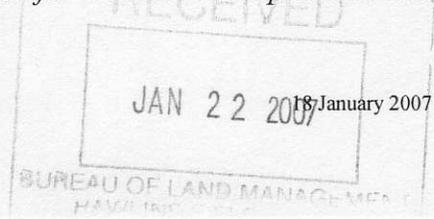
1. EXISTING ROADS

The existing roads will be maintained in the same or better condition as existed prior to the start of operations. Maintenance of existing roads used to access the drill locations will continue until final abandonment and reclamation of the well locations occurs. Roads will not be flat bladed. Excessive rutting or other surface disturbances will be avoided. Vehicle traffic will be restricted to well pads and access roads following construction. Operations will be suspended temporarily during adverse weather conditions if ruts exceed 4" when access routes are wet, soft, or partially frozen.

Refer to the Project Map, located in Section 5 of this POD submission, for the location of the well, access route, and for the location of existing roads nearby.

2. PROPOSED ACCESS ROADS

Location, design and construction of all new roads in the Sweetwater South POD project area will be constructed in accordance with road guidelines contained in the joint BLM/USFS publication: *Surface Operating Standards for Oil and Gas Exploration and*



<u>SWEETWATER SOUTH FEDERAL POD</u> Pinnacle Gas Resources, Inc.	Rev	Date
	SURFACE USE PLAN – Section 4 Surface Use Plan	A
B		21-Oct-2006
C		26-Oct-2006
D		11-Dec-2006

Development, Third Edition and/or BLM Manual Section 9113 concerning road construction standards on projects subject to federal jurisdiction. It is the responsibility of Pinnacle Gas Resources, Inc., or its representative, to determine the appropriate design classification for the roads in the Sweetwater South POD. Any area that may exceed the BLM Gold Book standards will be designed by a licensed professional engineer for construction purposes. Plans for construction of roads requiring Engineering Road Design Plans will be submitted to the BLM for review and acceptance by the BLM civil engineer. This review will ensure the design plans meet or exceed BLM minimum standards as presented in the guidebooks.

Improved crowned and ditched roads will provide access to the individual well sites per the BLM's request. Please see Appendix 4.4 for the mandatory road design template. Intermittent spot upgrades, by applying scoria or gravel to the tracks, may be necessary in unsafe areas and are depicted on the project map "A" and Table 1-1. Main access routes will also be improved crowned and ditched roads. Because they will be used infrequently for the purposes of maintenance and sampling, the access roads to the containment ponds will be two-track. The access roads will follow existing terrain and the travelway will be approximately 14 to 16 feet wide with the exception of the two-track access roads, which will be 12 wide. All access roads will be surfaced with gravel prior to drilling. All equipment and vehicles will be confined to this travel corridor and other areas specific in the plan of development. All disturbances related to the access routes will be confined within the travel corridor. Where feasible, gas and water pipelines and electrical cables will be installed in disturbance corridors.

Where needed, a Pinnacle Gas Resources, Inc. representative will conduct a "Plans in Hand" review with contractors to review the access routes to well locations and directional markers will be temporarily placed to mark access routes. The centerline and locations of the roads, pipelines and structures will be staked, color-coded and clearly marked. All markers will be removed as soon as they are no longer needed.

Alternate routes of ingress and egress were inspected for the Sweetwater South project well sites. The chosen access routes avoid unnecessary resource or wildlife impacts and allow safe, year-round, environmentally sound access. Proper planning has resulted in minimal number of roads and special attention was given to meeting or exceeding the minimum vertical and horizontal curves. Proper signage will be installed to ensure safe travel along the routes that do not meet BLM specifications.

After wells are completed and equipment is installed, travel to wells will generally be limited to one visit every other day. A light truck or utility vehicles would be used to check on operations, read meters, and provide light service during the life of the project. Well service trips may be rescheduled or postponed during periods of wet weather when vehicle traffic could cause ruts in excess of 4".

2.1 The proposed resource roads will adhere to the following specifications:

2.1.1 Width

A fourteen (14) to sixteen (16) foot running surface will be used for all roads in the



<u>SWEETWATER SOUTH FEDERAL POD</u> Pinnacle Gas Resources, Inc.	Rev	Date
	A	11-Sept-2006
	B	21-Oct-2006
	C	26-Oct-2006
	D	11-Dec-2006
SURFACE USE PLAN – Section 4 Surface Use Plan		

project area except for the containment pond access roads, which will be twelve (12) feet wide. Short term ROW disturbance will be up to 80 feet; ROW width will be approximately 40 feet.

2.1.2 Construction Standards

These resource access roads will be designed and constructed to meet the standards of the anticipated traffic flow and all-weather requirements. Construction will include ditching, draining, graveling, crowning, and capping the roadbed as necessary to provide a well-constructed and safe roadway. The BLM Authorized Officer will approve any changes, which may become necessary during construction.

If soils along the primary access road routes are dry during construction, water will be applied to the road surface to facilitate soil compaction and minimize soil loss as a result of wind erosion. Pinnacle Gas Resources, Inc. may utilize dust abatement measures such as watering or chemical treatment of travel ways. Dust abatement for roads on BLM public lands will be considered on a temporary, case-by-case basis with prior approval from the BLM Authorized Officer.

To minimize surface disturbance, only equipment that is appropriate to the scope and scale of the required work will be used. For resource roads that require no dirt work, brush hogging will be implemented to mitigate fire danger prior to any surfacing material application. Access and other construction work will be suspended when ruts in excess of 4" or other resource damage would occur.

The roads depicted on the project map will serve as corridors for the installation of pipelines for a majority of the POD. This infrastructure has been clearly labeled on the project map.

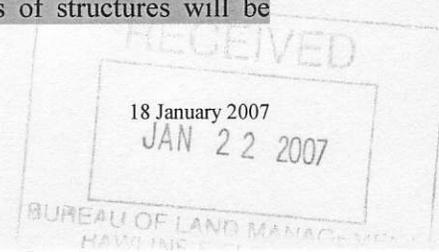
2.2 Engineered Road Design Staking

The minimum required staking for the pre-approval onsite shall be 100 foot centerline staking. The minimum staking for engineered sections of spot upgrade sections requiring cut and fill shall be the following:

Cut/Fill (ft)	Minimum Staking Required
0-2	Centerline Staking on 100 foot intervals
2-5	Centerline Staking on 50 foot Intervals Showing Limits of Disturbance
>5	Slope Staking on 50 foot intervals

2.2.1 Staking will be completed on 100-foot intervals on tangent sections for through-cuts and/or fills less than five (5) feet. Staking will be completed on 50-foot intervals for horizontal and vertical curves, balanced tangent sections, and road sections requiring more than five (5) feet of cut and/or fill.

2.2.2 **Additional staking requirements.** The centerline and locations of structures will be



<u>SWEETWATER SOUTH FEDERAL POD</u> Pinnacle Gas Resources, Inc.	Rev	Date
	A	11-Sept-2006
	B	21-Oct-2006
	C	26-Oct-2006
	D	11-Dec-2006
SURFACE USE PLAN – Section 4 Surface Use Plan		

staked, color-coded and clearly marked for all new roads, including those designed and constructed on steep, broken or mountainous terrain. All roads will have, at a minimum, the centerline staked at a maximum of 300-foot stations or within line of sight. The location for all structures including culverts, cattleguards, and low water crossings, etc., will be staked.

Routes were selected that avoid unnecessary resource impacts and allow for safe, year-round, and environmentally sound access.

2.3 Turnouts

There are no turnouts planned for this project.

2.4 Drainage Design

The access roads will be upgraded and maintained as necessary to prevent soil erosion and accommodate all-weather traffic. These roads will be constructed with water turnouts installed as necessary to provide for proper drainage along the access road route. Every effort will be made to retain natural vegetation on steep slopes around construction areas to mitigate erosion.

2.5 Culverts, Cuts and Fills

Culverts will be a minimum of 18" and will be installed on/along all access roads as necessary or required by the Authorized Officer. The inlet and outlet will be set flush with existing ground and lined up in the center of the draw. The bottom of the pipe will be bedded on good material before backfilling. Backfill with unfrozen material and no rocks larger than two (2) inches in diameter. Pinnacle shall furnish and install culverts of the gauge, diameters, lengths, and materials required in BLM Manual Section 9113 or as approved by the BLM Authorized Officer. Culverts shall be free from corrosion, dents, or other deleterious conditions. Culverts shall be placed on channel bottoms on firm, uniform beds that have been shaped to accept them and will be aligned to minimize corrosion. Backfill shall be thoroughly compacted. No equipment shall be routed over a culvert until backfill depth is adequate to protect the culverts. Care shall be taken to thoroughly compact the backfill under the haunches of the culvert. Corrugated sections will be wacker packed and the backfill shall be brought up evenly in 6" layers on both sides of the culvert. Each layer will be wacker packed. Please see Section 5 *Project Maps*.

Each culvert, road design, etc., is identified by a number, which refers to the quarter/quarter it lies in.



<u>SWEETWATER SOUTH FEDERAL POD</u> Pinnacle Gas Resources, Inc.	Rev	Date
	A	11-Sept-2006
	B	21- Oct-2006
	C	26-Oct-2006
	D	11-Dec-2006
SURFACE USE PLAN – Section 4 Surface Use Plan		

The following table depicts the methodology of naming the culverts:

4 NW/NW	3 NE/NW	2 NW/NE	1 NE/NE
5 SW/NW	6 SE/NW	7 SW/NE	8 SE/NE
12 NW/SW	11 NE/SW	10 NW/SE	9 NE/SE
13 SW/SW	14 SE/SW	15 SW/SE	16 SE/SE

For example, a culvert located in the NE/SE of Section 11 will be named the 9-11. If two or more culverts are present in the same quarter/quarter, then an alphabetical suffix will be added to the culvert name. The well names and low water crossings are named in a similar manner.

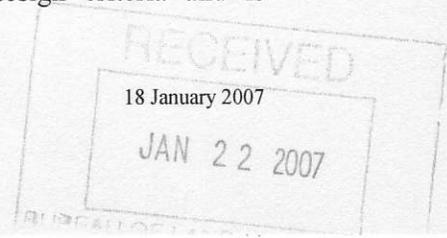
2.6 Surfacing Material

All access roads, constructed according to the mandatory road design in Appendix 4.4, will be surfaced with gravel, prior to drilling, to an average minimum depth (after compaction) of four (4) inches with grid run scoria or crushed rock. The permitted gravel source is owned by Harmel Jolley and is located in Section 27, Township 24 North, Range 97 West. These surfacing materials will be installed at the discretion of the Authorized Officer.

2.7 Gates, Cattle guards or Fence Cuts – None are required for this project.

2.8 Road Maintenance – primary access road surface(s) and shoulders will be kept in a safe and useable condition and will be maintained in accordance with the original construction standards. All drainage ditches and culverts will be kept clear and free flowing, and will also be maintained in accordance with the original construction standards. The access road right-of-way will be kept free of trash during all operations.

2.9 Construction/Quality Control – All roads constructed or reconstructed by Pinnacle Gas Resources, Inc. will be built to the approved plans, and will comply with all other applicable requirements, stipulations, Conditions of Approval, and referenced standards. The BLM Authorized Officer will approve any changes that may become necessary during construction. Pinnacle is responsible for having a licensed professional engineer certify that the actual construction of the roads meets the design criteria and is



<u>SWEETWATER SOUTH FEDERAL POD</u> Pinnacle Gas Resources, Inc.	Rev	Date
	SURFACE USE PLAN – Section 4 Surface Use Plan	A
B		21-Oct-2006
C		26-Oct-2006
D		11-Dec-2006

constructed to BLM standards. During the construction phase of the project, an adequate level of inspection by an engineer or a qualified inspector should be available to certify that the road was constructed as designed.

2.10 Paleontological Resources – If any paleontological resources are discovered during construction, construction will cease and the Rawlins Field Manager will be notified immediately.

2.11 Low Water Road Crossings – No low water road crossings are proposed for the Sweetwater South Federal POD.

2.12 Disturbance Corridors – Where feasible, gas and water pipelines and electrical cables will be installed in disturbance corridors to minimize surface disturbance and create less impact on the landscape.

2.13 Compressor Site Access – There will be no compressor facilities within the Sweetwater South Federal POD boundary. At a later date however, a compressor may be located at the 1-26-23-97 locations. Also, multiple generators may be located at the 1-35-23-97 location.

3. LOCATION OF EXISTING WELLS

A listing of permitted water wells, and their locations, within one mile of the Sweetwater South Coalbed Methane Federal Plan of Development Project is shown in the Water Management Plan. This listing was obtained from the Wyoming State Engineer's Office (WSEO).

Also shown on the Project Map are the locations of proposed, disposal, drilling, producing, shut-in, monitoring, injection, and abandoned oil and gas wells within one mile of the Sweetwater South Coalbed Methane Federal Plan of Development project.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

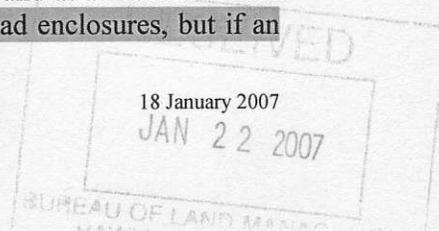
4.1 Existing Facilities

- Tank Batteries - None known
- Production Facilities - See Project Map
- Oil gathering Lines - None known
- Gas gathering Lines - See Project Map

4.2 Proposed Facilities

4.2.1 Production Facilities

Production facilities on each individual well location will be placed on a well pad that will be built to the minimum size required to complete the work and at a maximum size of approximately 200' x 250'. All wells will likely have wellhead enclosures, but if an



<u>SWEETWATER SOUTH FEDERAL POD</u> Pinnacle Gas Resources, Inc.		
	Rev	Date
SURFACE USE PLAN – Section 4 Surface Use Plan	A	11-Sept-2006
	B	21- Oct-2006
	C	26-Oct-2006
	D	11-Dec-2006

enclosure is not used, heat trace and insulation would be used for freeze protection. Pinnacle will be powering its Sweetwater South Federal POD with diesel generators for approximately the first six (6) months of operation. The generators will be on trailers and will result in approximately 0.01 acres of disturbance per trailer. One trailer is needed for the parallel switch gear. Pinnacle currently plans to use up to four (4) trailer/generators for this development and will all be located at the SWS FED 01-35BR-23-97 well. A 350 kW generator will be needed to handle the initial 285 HP start-up load. Once the well has been properly evaluated, it will be configured for production. Pinnacle plans to set up 60 HP motors on each wellhead as they are brought into production. There is, however, a 75HP motor already installed at 01BR-36-23-97. Permanent production facilities for each individual well will consist of the wellhead assembly and a small structure (enclosure) to be erected (placed) over the wellhead for security purposes. Pinnacle may elect to use pump jacks or PC pumps to pull the produced water. The wellhead will be approximately 20'x20' in size but will be increased to 20'x40' if pump jacks are used. Appendix 3.6 *Figures & Diagrams* of the Master Drilling Plan shows a conceptual diagram of a drill rig site layout.

For ease of gas measurement and to lessen the frequency of visits to the wellhead, Pinnacle Gas Resources, Inc. will install telemetry stations at each wellhead when possible (it may not be possible if there is no radio signal at that location). A pumper will still be required to visit each well at least once a week but most of the down-hole information will be transmitted to a central location via the telemetry station.

No Central Delivery Points (CDPs) for gas gathering/metering have been proposed for this POD. It is anticipated that the gas will be measured at each wellhead location utilizing EFM processor gas metering devices.

Construction materials needed for installation of the production facilities will be obtained from the site; any additional materials needed, will be purchased from a local supplier having a permitted source of material in the area.

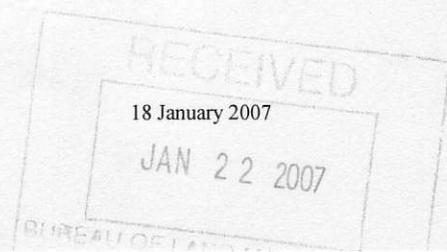
4.2.2 Central Processing/Metering Facilities

There are no processing facilities planned for the Sweetwater South Federal POD. Produced gas will free flow from the well site to a WGR reciprocating compressor northeast of the POD boundary.

4.2.3 Water Gathering and Discharge

Free water produced from each well will be transported from the wellhead via flow line to a permitted injection well for disposal. Pinnacle is also proposing the use of off-channel ponds. Pearl Development Company has prepared a Permanent Water Management Plan (See Water Management Plan in Section 6 of the POD).

The outfall of each discharge will be lined with rock (rip-rap) or some other suitable material in order to prevent erosion. Entrained water, which is separated from the gas stream at each central production facility, will generally be routed to the closest discharge point.



<u>SWEETWATER SOUTH FEDERAL POD</u> Pinnacle Gas Resources, Inc.	Rev	Date
	A	11-Sept-2006
	B	21-Oct-2006
	C	26-Oct-2006
	D	11-Dec-2006
SURFACE USE PLAN – Section 4 Surface Use Plan		

Map “C” displays the proposed water gathering system and identifies the discharge points for those wells proposed within the Sweetwater South Federal POD.

4.2.4 Gas Gathering and Sales

Gas produced from each well will be transported from the wellhead via buried flow line to the MGR compressor site, located four (4) miles northeast of the POD boundary in the NWNW of Section 17 T23N R96W, where any remaining (entrained) water will be separated from the gas stream via a gas/water separator. The gas will then be compressed and transported via a gas pipeline system to a remote second stage compression facility and then on to sales. Gas from each well will be metered electronically by an EFM system and transported to the initial transportation related compressor site via a flow line. The gas pipelines and accompanying electrical lines (required for supplying power to the pumps at each well bore) will be buried in adjacent trenches directly next to existing access roads to the greatest extent possible to minimize surface disturbances within the field. Locator tape will be buried with underground facilities to aid future location.

Map "A" shows the proposed location of the gas pipeline system within the Pinnacle Gas Resources, Inc.'s Sweetwater South Federal POD.

4.2.5 Pipeline and Flow Line Right-of-Ways

Grader use will be avoided whenever possible when constructing or clearing individual pipeline ROWs. Brush hogs will be used, if necessary, to remove sagebrush and other vegetation to ground level. Ditch Witches or wheeled trenchers will be used whenever possible to reduce surface disturbance. Each ROW will be less than 50 feet wide except in very rough topography where it may be necessary to construct a ROW wider than 50 feet for safety and reclamation purposes.

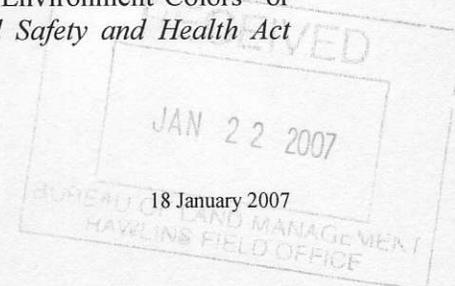
Bladed materials will be replaced in the cleared route once construction is complete. Pipeline construction will not block or change the natural course of any drainage.

For the Sweetwater South Federal POD, all proposed underground facilities will be installed in corridors wherever possible and will be buried a minimum of six (6) feet. When the trench is backfilled, the fill dirt will be wheel-packed (where necessary) and heaped to mitigate settling. Pipeline channel crossings will be constructed so that the pipe is buried at least four (4) feet below the channel bottom.

Map “A” shows the proposed location of pipeline/flow line ROW within the Sweetwater South Federal POD.

4.2.6 Permanent Structures

All permanent (on-site for six (6) months or longer) above-the-ground structures constructed or installed on the well location (including pumping units, tank batteries, etc.) will be painted “Shale Green”, color 5Y 4/2, of the “Standard Environment Colors” or another BLM approved color, except where the *Occupational Safety and Health Act* Rules and Regulations specify the use of special safety colors.



<u>SWEETWATER SOUTH FEDERAL POD</u> Pinnacle Gas Resources, Inc.	Rev	Date
	SURFACE USE PLAN – Section 4 Surface Use Plan	A
B		21- Oct-2006
C		26-Oct-2006
D		11-Dec-2006

4.2.7 Overhead Electric (Electrical)

Generators will be installed initially. Overhead electric is not proposed until approximately 2009. The BLM will be notified with a sundry when placement decisions are finalized. Overhead electric lines may be located so that they parallel existing corridors to distribute power throughout the field.

4.2.8 Mitigation of Proposed Facilities on Federal Lands

Pinnacle Gas Resources, Inc. will protect the biological and hydrologic features of riparian areas, woody draw, wetland, and floodplains by locating all well pads, compressors, and other non-linear facilities outside of these areas.

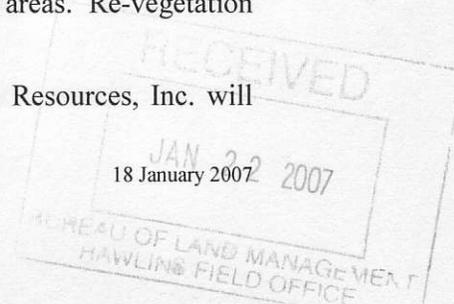
Crossings of wetland/riparian areas by linear features, such as pipelines, roads, and power lines will be avoided to the extent practicable. Where crossings cannot be avoided, impacts will be minimized through use of the following measures:

- Site-specific mitigation plans will be developed during the APD, POD or Sundry Notice approval process for all proposed disturbance to wetland/riparian areas.
- Crossings will be constructed perpendicular to wetland/riparian areas, where practical.
- For power lines, the minimum number of poles necessary to cross the areas will be used.
- Wetland areas will be disturbed only during dry conditions if possible.
- No waste material will be deposited below high water lines in riparian areas, flood plains, or in natural drainage ways.
- The lower edge of soil or other material stockpiles will be located outside the active floodplain.
- Drilling mud pits will be located outside of riparian areas, wetlands, and floodplains, where practical. If this cannot be avoided, drill pit liners will be utilized.
- Disturbed channels will be re-shaped to their approximate original configuration or other geomorphologic configuration and properly stabilized where applicable.
- Reclamation of disturbed wetland/riparian areas will begin immediately after project activities are complete.

Prairie Dog colonies will be avoided wherever possible. If any black-footed ferrets are located, the USFWS will be consulted. Absolutely no disturbance will be allowed within prairie dog colonies inhabited by black-footed ferrets.

Moist soils near wetlands, streams, lakes, or springs in the project area will be promptly re-vegetated if construction activities impact the vegetation in these areas. Re-vegetation will be designed to avoid the establishment of noxious weeds.

To mitigate the danger that West Nile Virus poses, Pinnacle Gas Resources, Inc. will



<u>SWEETWATER SOUTH FEDERAL POD</u> Pinnacle Gas Resources, Inc.	Rev	Date
	SURFACE USE PLAN – Section 4 Surface Use Plan	A
B		21- Oct-2006
C		26-Oct-2006
D		11-Dec-2006

implement a pest management strategy. Pinnacle Gas Resources, Inc. will coordinate its efforts with the recommended procedures of the Rawlins Weed and Pest Division. This will include placing environmentally safe, mosquito insecticide into each water containment facility within the Sweetwater South Federal POD if applicable.

During construction, emissions of particulate matter from well pad and resource road construction will be minimized by applying water, or other dust suppressants, with at least 50 percent control efficiency. Roads and well locations constructed on soils susceptible to and erosion could be appropriately surfaced, or otherwise stabilized, to reduce the amount of fugitive dust generated by traffic or other activities, and dust inhibitors (surfacing materials, non-saline dust suppressants, and water) could be used as necessary on unpaved collector, local and resource roads that present a fugitive dust problem. Please note that, due to its poor quality, produced water from the Sweetwater South project area is not a candidate for dust abatement.

4.3 Pinnacle Gas Resources, Inc. does not anticipate the need to construct a production (emergency) pit on any of the individual well locations. However, Pinnacle would like to leave the 01BR-35-23-97 reserve pit open to be used as an emergency overflow during water injection testing.

4.4 During drilling and subsequent operations, all equipment and vehicles will be confined to the access road and any additional areas that may be specified in the approved Application for Permit to Drill.

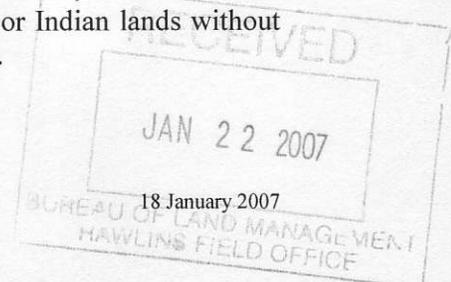
5. LOCATION AND TYPE OF DRILLING WATER SUPPLY

Water for drilling the wells will be provided by a nearby existing CBNG well and transported to the drill site by truck. Water volume used in drilling operations is dependent upon the depth of the well and any losses that might occur during drilling. Water for drilling may be taken from a private water well in the NWNE of Section 11 (TR45), T23N R97W (SEO #P156174W) near Hay Reservoir and from SWS State 01BR-36-23-97. A sample analysis report of this water can be found in Appendix 6.2.

No new construction will be required on/along the proposed water haul route(s). Water transfer facilities will be located near proposed areas of disturbance and will not be located within known cultural resource sites or sensitive wildlife areas.

6. CONSTRUCTION MATERIALS

Gravel and/or rock will be purchased from a local supplier having a permitted source of materials of the area. This material will be used for road construction to access the wells, compressor and miscellaneous facilities. Gravel or scoria material will be used in necessary areas such as spot upgrades, crowned and ditched roads, and low water crossings. No construction materials will be taken from Federal or Indian lands without prior approval from the appropriate Surface Management Agency.



<u>SWEETWATER SOUTH FEDERAL POD</u> Pinnacle Gas Resources, Inc.	Rev	Date
	A	11-Sept-2006
	B	21- Oct-2006
	C	26-Oct-2006
	D	11-Dec-2006
SURFACE USE PLAN – Section 4 Surface Use Plan		

7. METHODS FOR HANDLING WASTE DISPOSAL

7.1 Cuttings – the drilled cuttings will be deposited into a small earthen reserve pit to be constructed on, or adjacent to, each individual drill pad. The total surface area of impact for the reserve pits will be approximately 70 feet wide by 110 feet long. The reserve pit will be constructed by dozer.

7.2 Drilling Fluids – reserve pits will be designed to prevent the collection of surface runoff and will be constructed entirely in cut material. The reserve pit will be on the downhill side of the well bore for non-constructed pads. The reserve pits will be fenced on three non-working sides during drilling, and on the fourth side at the time the rig is removed. The reserve pit and flare pit will be fenced using T-posts and wire panels approximately 50 inches tall. Reserve pits will not be squeezed. Individual reserve pits will be closed as soon as they are dry, but no later than 90 days from the time drilling and completion operations cease. If unforeseen circumstances prevent the closing of the pits within the 90-day time frame, an extension will be requested from the BLM Authorized Officer.

7.3 Produced Fluids – water produced from wells within the Sweetwater South Federal POD project area will be reinjected into approved water injection wells or will be discharged into approved ponds. Please see section 6, *Water Management Plan*. Map “C” shows the proposed discharge point.

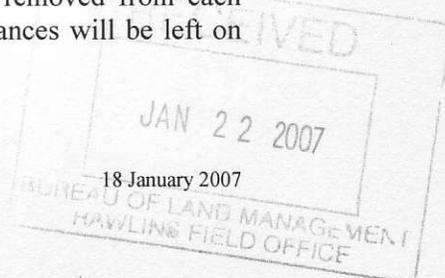
Any spills of oil, gas, produced water or any other potentially hazardous substance will be cleaned up and immediately removed to an approved disposal site. The BLM Authorized Officer will be contacted about any hazardous substance, oil, or produced water spills.

7.4 Sewage – portable, self-contained chemical toilets will be provided at each drilling location for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents thereof disposed of in an approved sewage disposal facility. Sewage disposal will be in strict accordance with WDEQ rules and regulations regarding sewage treatment and disposal.

7.5 Chemicals/Oil – any chemical substances or used motor oil (change oil) will be placed in closed containers and disposed of at an authorized disposal site. The reserve pits will not be used as disposal locations.

7.6 Garbage and Other Waste Material – all garbage and non-flammable waste materials will be contained in a self-contained, portable dumpster or trash cage to be located at one or two central locations. Upon completion of operations (or as needed), the accumulated trash will be hauled off-site to a WDEQ approved sanitary landfill. No trash will be placed in the reserve pit(s).

7.7 Drilling Rig – immediately after removal of the drilling rig, all debris and other waste materials not contained in the trash cage will be cleaned up and removed from each individual well location. No potentially adverse materials or substances will be left on these locations.



<u>SWEETWATER SOUTH FEDERAL POD</u>	
Pinnacle Gas Resources, Inc.	
Rev	Date
A	11-Sept-2006
B	21-Oct-2006
C	26-Oct-2006
D	11-Dec-2006

7.8 Open Pits – any open pits remaining upon conclusion of drilling operations will be promptly fenced with said fencing maintained until such time as the pits have been backfilled.

7.9 Hazardous Materials – Pinnacle Gas Resources, Inc. maintains a file, per 29 CFR 1910.1200 (g), containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds, and/or substances which are used during the course of construction, drilling, completion, and production operations for this project. Hazardous materials which may be found at the site include drilling mud and cementing products which are primarily inhalation hazards, fuels (flammable and/or combustible), materials that may be necessary for well completion/stimulation activities, such as flammable or combustible substances and acids/gels (corrosives). Any spills of oil, gas, produced water, or any other potentially hazardous substance will be reported immediately to the BLM and to the responsible parties and will be mitigated immediately through cleanup or removal to an approved disposal site.

The opportunity for *Superfund Amendments and Reauthorization Act* (SARA) listed Extremely Hazardous Substances (EHS) at the site is generally limited to proprietary treating chemicals. All hazardous, EHS, and commercial preparation will be handled in an appropriate manner to minimize the potential for leaks or spills to the environment. The operator and its contractors ensure that all use, production, storage, transport and disposal of hazardous and extremely hazardous materials associated with the drilling, completion and production of wells, and project operations will be in accordance with all applicable existing or hereafter promulgated federal, state and local government rules, regulations and guidelines. All project-related activities involving hazardous materials will be conducted in a manner to minimize potential environmental impacts. A file containing current MSDS for all chemicals, compounds and/or substances which are used in the course of construction, drilling, completion, and production operations is located at the Pinnacle Gas Resources, Inc. field office and on each drilling rig.

8. ANCILLARY FACILITIES

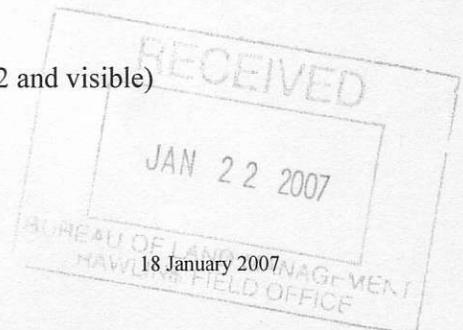
Pinnacle Gas Resources, Inc. does not anticipate the need for any ancillary facilities within the Sweetwater South Federal POD.

9. WELL SITE LAYOUT

9.1 In Appendix 3.6 of the Master Drilling Plan, a conceptual diagram of the well site layout is depicted. The following information describes the field layout staking for a constructed and non-constructed well site:

9.1.1 Constructed pad staking procedure:

- 200' reference stakes on cardinal direction (Minimum of 2 and visible)
- Reserve pit corners marked adjacent to well bore
- Well pad catch points marked



<u>SWEETWATER SOUTH FEDERAL POD</u> Pinnacle Gas Resources, Inc.		
	Rev	Date
	A	11-Sept-2006
	B	21- Oct-2006
	C	26-Oct-2006
SURFACE USE PLAN – Section 4 Surface Use Plan	D	11-Dec-2006

9.1.2 Non-constructed pad staking procedure:

- 100' reference stakes on cardinal direction (Minimum of 2 and visible)
- Corners of drill pit staked adjacent to well bore.

9.1.3 Well stake markings to include:

- Well name
- Well number
- Legal location
- Well footages

9.2 No permanent living facilities are planned on those individual well locations to be included within the Sweetwater South Federal POD. There may be a need for a temporary trailer to be on location during drilling, completion, and start-up operations.

9.3 All equipment and vehicles will be confined to the approved areas in each individual Applications for Permit to Drill (i.e. access roads, well pad areas, pipeline ROW, etc.)

9.4 Production facilities will be installed on each individual well location as described in item 4.2 (Proposed Facilities).

9.5 Pinnacle Gas Resources, Inc. will use a single 20 mil pit liner in each individual reserve pit.

9.6 Prior to the commencement of drilling operations, the reserve pit(s) will be fenced on three (3) sides according to the following minimum standards:

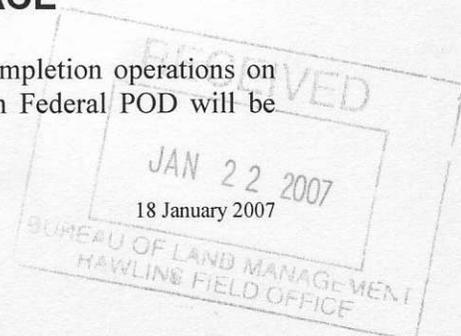
- 1) T-posts and wire panels approximately 50 inches tall.
- 2) Standard steel line posts shall be used between the corner braces. The maximum distance between any two (2) posts shall be no greater than sixteen (16) feet.
- 3) The fourth side of the reserve pit will be fenced immediately upon removal of the drilling rig and the fencing will be maintained until the pit has been backfilled.

9.7 As indicated in 4.2 *Proposed Facilities*, the production facilities will be fenced during the initial evaluation phase of operations to prevent potential damage to the equipment or injury to domestic livestock and/or wildlife. Said fencing will be installed according to the fencing specifications provided in item 9.6 above.

9.8 Any hydrocarbons on the pit will be removed as soon as possible after drilling operations are completed.

10. PLANS FOR RECLAMATION OF THE SURFACE

10.1 The primary surface disturbance associated with drilling and completion operations on those wells proposed in conjunction with the Sweetwater South Federal POD will be



<u>SWEETWATER SOUTH FEDERAL POD</u> Pinnacle Gas Resources, Inc.	Rev	Date
	A	11-Sept-2006
	B	21-Oct-2006
	C	26-Oct-2006
	D	11-Dec-2006
SURFACE USE PLAN – Section 4 Surface Use Plan		

limited to the excavation of the reserve pit, flare pit, construction of the central processing/metering facilities, construction of the 250' x 170' well pad, construction of access routes, construction of water containment facilities, and the installation of the buried flow lines/pipelines necessary for the transportation of produced fluids and gases within the project area. Backfilling, leveling, re-contouring, and reseeding (using the recommended seed mixtures) of these disturbed areas is planned as soon as possible after cessation of drilling and completion operations on the individual well locations. The water containment facility reclamation will begin when the facilities are no longer needed.

- 10.2** Once the reserve pit has been backfilled, all compacted surfaces on federal lands (including the access road and the well pad areas) will be disked to a depth of 18 to 24 inches in order to break-up the compacted soils and re-establish percolation in these soils.
- 10.3** All disked surfaces will be reseeded using the recommended seed mixture or a different mixture to be recommended by either the BLM Authorized Officer or the private surface owner(s) as appropriate. No introduced species will be used for the reclamation of disturbed areas on federal surface.

The following seed mixture is recommended on Federal lands.

Seed Mixture Recommended for Use on Disturbed Areas Within the Sweetwater South Federal POD	
Species	Pounds PLS/Acre
Grasses	
Slender wheatgrass	2.0
Thickspike wheatgrass-Critana	4.0
Western wheatgrass	2.0
Indian ricegrass	1.0
Bottlebrush squirreltail	1.0
Needle-and-thread	1.0
Shrubs	
Gardner's saltbush	1.0
TOTAL	12.0

* Pinnacle Gas Resources, Inc. will use the recommended seed mixture for federal lands as described in the Site Specific Conditions of Approval if they vary from the table above.

- 10.4** Seed will be drilled on the contour with a seed drill equipped with a depth regulator in order to ensure even depths of planting. Seed will be planted between one-quarter (1/4) to one-half (1/2) inches deep. Where drilling is not possible (too steep or rocky), Pinnacle Gas Resources, Inc. will hand broadcast the seed at double the rate indicated above and rake or chain the area to cover the broadcast seed. Areas with high erosion potential will have special measures applied, as necessary, to ensure successful

RECEIVED
JAN 22 2007
18 January 2007
BUREAU OF LAND MANAGEMENT
HAWLINS FIELD OFFICE

<u>SWEETWATER SOUTH FEDERAL POD</u> Pinnacle Gas Resources, Inc.	Rev	Date
	SURFACE USE PLAN – Section 4 Surface Use Plan	A
B		21-Oct-2006
C		26-Oct-2006
D		11-Dec-2006

reclamation. This will include erosion fabric, hydro seeding, water barring, or other such measure required by the BLM.

- 10.5** Fall seeding will be completed after September 15th and prior to ground frost. If applicable, spring seeding will be completed after the frost has left the ground and prior to May 15th. The seeding will be repeated until a satisfactory stand, as determined by the Authorized Officer, is achieved. The first evaluation of growth will be made following the completion of the first growing season. No reclamation work will be conducted when soils are frozen or overly wet.
- 10.6** Scarification and re-seeding activities are considered best in the fall, unless requested otherwise by the BLM Authorized Officer or the private surface owner(s).
- 10.7** Pipelines and utility lines will be installed parallel, and adjacent, to access roads. The trenches will be placed within the adjacent flat-bottom ditches.
- 10.8** Pipeline and flow line ROW trenches will be compacted during backfilling and said trenches would be maintained in order to correct settlement and erosion. The trenches will also be heaped above the cut to ensure proper settling. All disturbed surfaces along the pipeline/flow ROW will be reseeded as recommended above.
- 10.9** Upon final abandonment of each well location and/or central processing facility in conjunction with the Sweetwater South Federal POD, water diversion measures will be installed and both the access roads and well locations will be restored to approximately the original ground contour(s) by pushing the fill material back into the cut and up over the back slope (where applicable and at the landowner(s) request).
- 10.10** No unnatural depressions will be left that would trap water or form ponds. All disturbed surfaces (including access roads, well pads, water containment facilities and central processing facilities) will be reseeded as recommended above.

11. SURFACE OWNERSHIP

Surface ownership within the POD boundary is federal. The surface ownership of the development project area is depicted on the Project Map. Contact information is provided in Appendix 4.8 *Contact Information*.

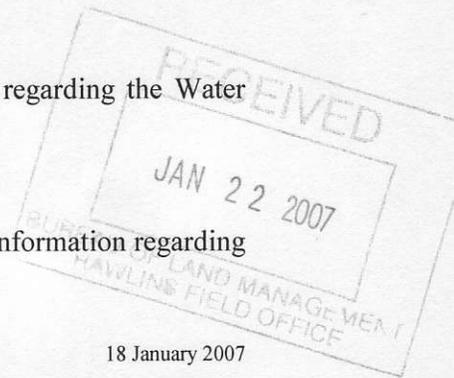
12. OTHER INFORMATION

12.1 Water Management Plan

Please see Section 6 of the Plan of Development for information regarding the Water Management Plan.

12.2 Water Well Agreement/Certification

Please see Section 4, Appendix 4.1 of the Plan of Development for information regarding the Water Well Agreement/Certification.



<u>SWEETWATER SOUTH FEDERAL POD</u> Pinnacle Gas Resources, Inc.	Rev	Date
	SURFACE USE PLAN – Section 4 Surface Use Plan	A
B		21- Oct-2006
C		26-Oct-2006
D		11-Dec-2006

12.3 Cultural Clearance Report

A Class III Cultural Resource Inventory of the proposed drill sites and access roads and other facilities has been completed by Foothills Archaeological Consultants. The necessary reports have been filed with the Bureau of Land Management Rawlins Field Office.

Pinnacle Gas Resources, Inc. will be responsible for informing all persons associated with this project that they will be subject to prosecution for damaging, altering, excavating or removing any archaeological, historical, or vertebrate fossil objects or site(s). If archaeological, historical, or vertebrate fossil materials are discovered, Pinnacle Gas Resources, Inc. will suspend all operations that further disturb such materials and immediately contact the Authorized Officer. Operations will not resume until written authorization to proceed is issued by the Authorized Officer. Within five (5) working days, the Authorized Officer will evaluate the discovery and inform Pinnacle Gas Resources, Inc. of actions that will be necessary to prevent loss of significant cultural or scientific values. Pinnacle Gas Resources, Inc. will not be held accountable for costs associated with evaluating any findings and permission will be granted by the Authorized Officer to go around the found site or sundry new operations that will allow development.

Pinnacle Gas Resources, Inc. will be responsible for the cost of any necessary mitigation required by the Authorized Officer. The Authorized Officer will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the Authorized Officer that the required mitigation has been completed, Pinnacle Gas Resources, Inc. will be allowed to resume operations.

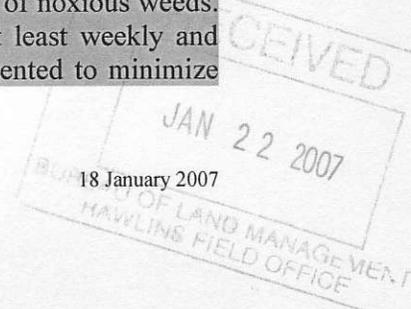
12.4 Wildlife Habitat Report

Please see Section 7 of the Plan of Development for information regarding the Wildlife Habitat Report.

12.5 Integrated Pest Management Plan for Noxious and Invasive Weeds

Pinnacle Gas Resources, Inc. will be responsible for weed control on disturbed areas within the exterior limits of this permit. Per the Sweetwater County Weed and Pest Control office, noxious and invasive weeds observed within the Sweetwater South Project area include *Canada thistle*, *Russian knapweed*, *Halogeton*, *Black henbane*, and *Hoary cress*. Pinnacle Gas Resources, Inc. is proposing to develop CBM reserves in the same vicinity as some of the aforementioned infestations. The program for weed control will be implemented when Pinnacle Gas Resources, Inc. disturbs the soil surface. The noxious weed control program developed by Pinnacle Gas Resources, Inc. will adhere to BLM requirements.

To minimize the introduction, infestation and spread of noxious weeds and other weeds of concern found within the limits of this permit, Pinnacle Gas Resources, Inc. will educate field personnel and other contractors to identify and be aware of noxious weeds. Precautionary measures, such as washing vehicles and equipment at least weekly and when traveling into and out of the project area, will also be implemented to minimize



<u>SWEETWATER SOUTH FEDERAL POD</u>	
Pinnacle Gas Resources, Inc.	
Rev	Date
A	11-Sept-2006
B	21- Oct-2006
C	26-Oct-2006
D	11-Dec-2006

SURFACE USE PLAN – Section 4
Surface Use Plan

seed transportation and dispersal. Noxious weed control measures will be incorporated into the construction of all facilities within the exterior limits of this permit to prevent the introduction or spread of any noxious weeds. Special consideration will be given to areas where noxious weeds are most likely to invade and flourish.

A weed spraying program designed by, and agreed to, by the BLM and Pinnacle Gas Resources, Inc. will be administered on all of the disturbed areas. The program involves monitoring for spring and fall growth of noxious weeds, due to the operations of Pinnacle Gas Resources, Inc., along the roadways, dam sites, well locations, all Right-of-Ways, and any other disturbed areas. The Sweetwater County Weed and Pest Control office has indicated that *Canada thistle*, *Russian knapweed*, *Halogeton*, *Black henbane*, and *Hoary cress* have been noted in the areas of concern. Following weed spraying, the designed seed mixture will be applied to the disturbed area. Weed control shall be conducted in a timely manner in cooperation with all agencies, operators and landowners.

A “*Pesticide Use Proposal*”, or PUP (form #WY-04-9222-1), and pesticide label will be submitted by Pinnacle Gas Resources, Inc. to the Authorized Officer prior to the treatment of the noxious weeds found and upon discovery of any new infestations along surfaces Pinnacle Gas Resources, Inc. operates on. Pinnacle Gas Resources, Inc. will confer with the BLM to complete the “*Pesticide Use Proposal*” (form #WY-04-9222-1). A blank example PUP is located in Section 9 *IPM*.

Pinnacle Gas Resources, Inc. will be responsible for the prevention and control of all noxious weeds on all areas of disturbance due to surface operations by Pinnacle Gas Resources, Inc.

12.6 Additional Environmental Information

12.6.1 Right-of-way applications for water lines, gas lines, access roads to well locations, compressor station, water injection wells, and transfer facilities have been applied for at the BLM Rawlins Field Office. Reference Section **10** of this POD book for documentation.

12.6.2 Current land use on the site includes open range livestock grazing and use of the area by wildlife.

12.6.3 The closest occupied dwelling to the federal activities is Harmel Jolley’s home, located about 4 miles away from the closest federal CBNG well within the Sweetwater South Federal POD.

12.6.4 The project area is located in Sections 26 and 35 of Township 23 North, Range 97 West in Sweetwater County, Wyoming.

12.6.5 Pinnacle Gas Resources, Inc.’s BLM Bond number is WYB000093.



<u>SWEETWATER SOUTH FEDERAL POD</u> Pinnacle Gas Resources, Inc.		
	Rev	Date
	A	11-Sept-2006
	B	21- Oct-2006
	C	26-Oct-2006
SURFACE USE PLAN – Section 4 Surface Use Plan	D	11-Dec-2006

13. LESSEE'S OR OPERATOR'S REPRESENTATIVE AND CERTIFICATION

Please see Section 4, Appendix 4.1 of the Plan of Development for information regarding the Lessee's or Operator's Representative and Certification.

14. FORMS REQUIRED FOR SURFACE USE PLAN

- 14.1 Please see Section 6 of the Plan of Development for information regarding the Hydrologic Watershed Field Analysis Summary Sheet.
- 14.2 Please see Section 4, Appendix 4.2 of the Plan of Development for information regarding the Surface Use Data Summary Form.
- 14.3 Please see Section 4, Appendix 4.1 of the Plan of Development for information regarding the Self-Certification Statement From Lessee/Operator.



<u>SWEETWATER SOUTH FEDERAL POD</u>	
Pinnacle Gas Resources, Inc.	
Rev	Date
A	11-Sept-2006
B	21-Oct-2006
C	26-Oct-2006
D	11-Dec-2006

15. CERTIFICATION

I hereby certify that Pinnacle Gas Resources, Inc. will comply with the provisions of the law or the regulation governing the Federal or Indian right of reentry to the surface under 43 CFR 3814.

I also certify that shall use its best efforts to conduct its approved operations in a manner that avoid adverse effects on any properties which are listed, or may be eligible for listing, in the National Register of Historic Places (NRHP). If historic or archaeological materials are uncovered during construction, the operator will immediately stop work that might further disturb such materials, and contact the AO (or his/her representative) at the BLM Rawlins Field Office. Any paleontological resources or fossils discovered as a result of operations associated with these wells will be brought to the attention of the AO or his/her representative immediately. All activities in the vicinity of such discoveries will be suspended until notified to proceed by the AO.

Further, hereby certified that:

- A. All potentially affected landowners having properly permitted water wells with the WSEO within each proposed well's Circle of Influence (one-half mile radius) were offered a Water Well Agreement;
- B. If a Water Well Agreement is not reached with the landowner, agrees to mitigate the impacts of its CBNG wells in accordance with State of Wyoming water laws; and
- C. Has applied for a Permit to Appropriate Groundwater from the WSEO, concurrently with this APD.

Brian Deurloo

Printed Name

Signature

Wyoming Project Manager

Title

Date



<u>SWEETWATER SOUTH FEDERAL POD</u>	
Pinnacle Gas Resources, Inc.	
Rev	Date
A	11-Sept-2006
B	21- Oct-2006
C	26-Oct-2006
D	11-Dec-2006

16. APPENDICES

- 1) Appendix 4.1 – Certificates and Statements
- 2) Appendix 4.2 – Surface Use Data
- 3) Appendix 4.3 – Road Design
- 4) Appendix 4.5 – Well Pad Cut & Fill
- 5) Appendix 4.6 – Surrounding Wells
- 6) Appendix 4.7 – Best Management Practices
- 7) Appendix 4.8 – Contact Information
- 8) Appendix 4.9 – Post Construction Inspection Report



INTEGRATED PEST MANAGEMENT PLAN FOR NOXIOUS AND INVASIVE WEEDS

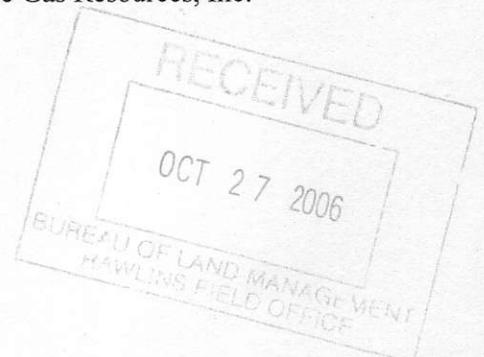
Pinnacle Gas Resources, Inc. will be responsible for weed control on disturbed areas within the exterior limits of this permit. Noxious weeds observed within the Sweetwater South Project area included *Canada thistle*, *Russian knapweed*, *Halogeton*, *Black henbane*, and *Hoary cress*. Pinnacle Gas Resources, Inc. is proposing to develop CBM reserves in the same vicinity as some of the aforementioned infestations. The program for weed control mentioned in the surface use plan will be implemented when Pinnacle Gas Resources, Inc. disturbs the soil surface. The noxious weed control program developed by Pinnacle Gas Resources, Inc. will adhere to BLM requirements.

To minimize the introduction, infestation and spread of noxious weeds and other weeds of concern found within the limits of this permit, Pinnacle Gas Resources, Inc. will educate field personnel and other contractors to identify and be aware of noxious weeds. Precautionary measures - such as washing vehicles - may also be implemented to minimize seed transportation and dispersal. Noxious weed control measures will be incorporated into the construction of all facilities within the exterior limits of this permit to prevent the introduction or spread of any noxious weeds. Special consideration will be given to areas where noxious weeds are most likely to invade and flourish.

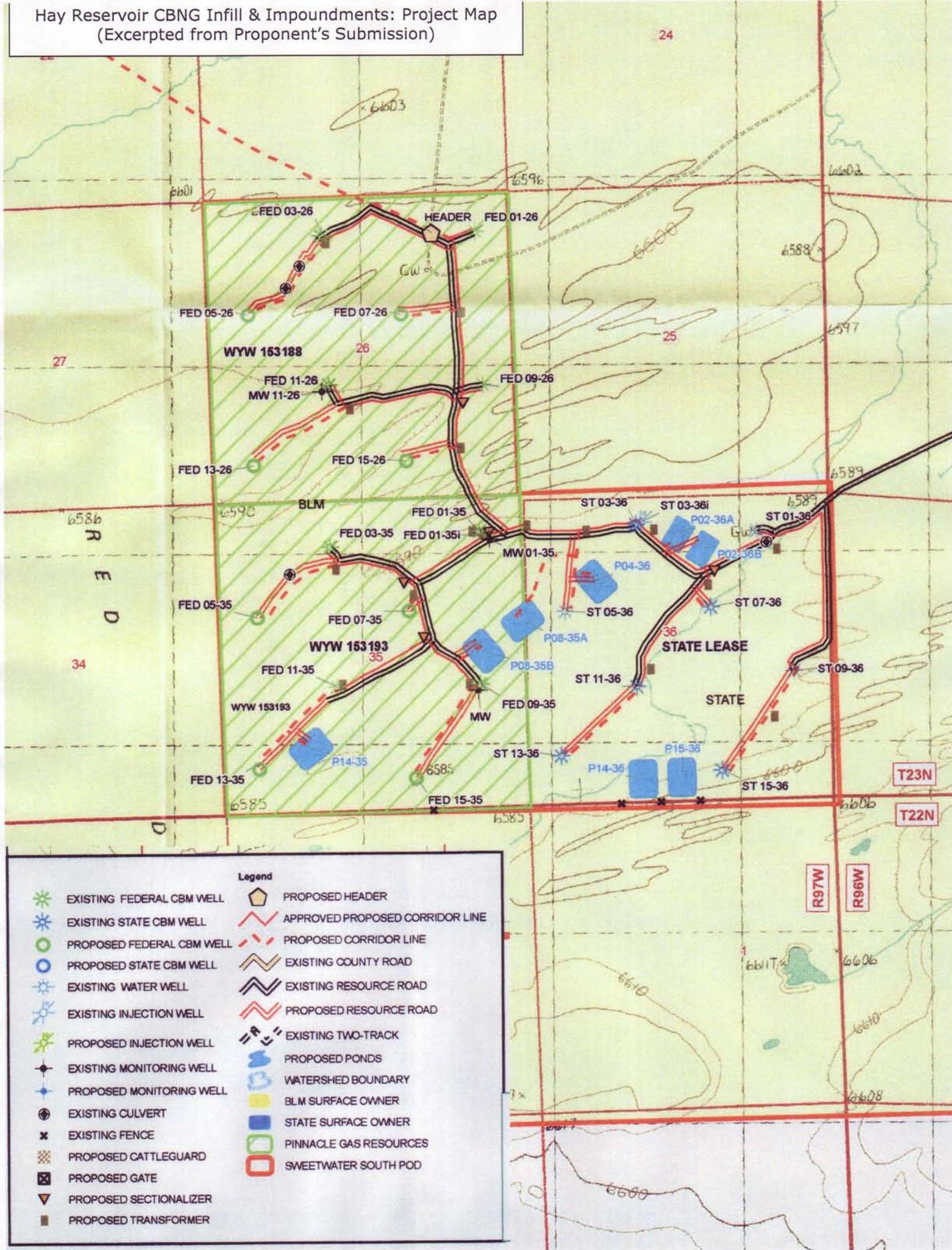
A weed spraying program designed by, and agreed to, by the BLM and Pinnacle Gas Resources, Inc. will be administered on all of the disturbed areas. The program involves watching for spring and fall growth of noxious weeds, due to the operations of Pinnacle Gas Resources, Inc., along the roadways, dam sites, well locations, all Right-of-Ways, and any other disturbed areas. The Sweetwater County Weed and Pest Control office has indicated that *Canada thistle*, *Russian knapweed*, *Halogeton*, *Black henbane*, and *Hoary cress* have been noted in the areas of concern. Once the area is deemed clear of noxious weeds, the designed seed mixture will be applied to the disturbed area. Weed control shall be conducted in a timely manner in cooperation with all agencies, operators and landowners.

A "Pesticide Use Proposal", or PUP (form #WY-04-9222-1), and pesticide label will be submitted by Pinnacle Gas Resources, Inc. to the Authorized Officer prior to the treatment of the noxious weeds found and upon discovery of any new infestations along surfaces Pinnacle Gas Resources, Inc. operates on. We will confer with the BLM to complete the "Pesticide Use Proposal" (form #WY-04-9222-1). A blank example PUP is located following this page.

Pinnacle Gas Resources, Inc. will be responsible for the prevention and control of all noxious weeds on all areas of disturbance due to surface operations by Pinnacle Gas Resources, Inc.



Hay Reservoir CBNG Infill & Impoundments: Project Map
 (Excerpted from Proponent's Submission)



Legend			
	EXISTING FEDERAL CBM WELL		PROPOSED HEADER
	EXISTING STATE CBM WELL		APPROVED PROPOSED CORRIDOR LINE
	PROPOSED FEDERAL CBM WELL		PROPOSED CORRIDOR LINE
	PROPOSED STATE CBM WELL		EXISTING COUNTY ROAD
	EXISTING WATER WELL		EXISTING RESOURCE ROAD
	EXISTING INJECTION WELL		PROPOSED RESOURCE ROAD
	PROPOSED INJECTION WELL		EXISTING TWO-TRACK
	EXISTING MONITORING WELL		PROPOSED PONDS
	PROPOSED MONITORING WELL		WATERSHED BOUNDARY
	EXISTING CULVERT		BLM SURFACE OWNER
	EXISTING FENCE		STATE SURFACE OWNER
	PROPOSED CATTLEGUARD		PINNACLE GAS RESOURCES
	PROPOSED GATE		SWEETWATER SOUTH POD
	PROPOSED SECTIONALIZER		
	PROPOSED TRANSFORMER		

B. CBNG Project Surface Use Data Summary Form

Company Name: Pinnacle Gas Resources, Inc. **Date:** 1/18/2007

Project Name: Sweetwater South Federal POD **County:** Sweetwater

Number of Wells: 8 **Leases Involved:** WYW153188, WYW153193

Township(s) Involved: T 23 N R 97 W **Sections:** 26 and 35

T N R W **Sections:**

Sections:

PROPOSED ACTION

	#	Length (mi.)	Width (ft.)	Acres of Disturbance
Proposed Improved Roads – Not within Corridor (including spot upgrade areas):		NA	40	0
List by road segments where construction width varies				
Proposed Improved Roads / Utilities Corridor (define utilities):		2.91	80	28.2
List by road segments where construction width varies				
Proposed 2-Track Roads – Not within Corridor:		NA	30	0
Proposed 2 –Track / Utilities Corridor (define utilities): Gas, Water, Electric		NA	40	0
Proposed 2-Track with Proposed Utility Corridor (define utilities):Gas, Water, Electric		NA	40	0
Proposed Corridor not within Access (define utilities): Water, Gas		2.46	50	14.9 (Proposed ROW)
Proposed Pipeline not within a Corridor:		0.14	50	0.85
Proposed Buried Power Cable not within a Corridor:		NA	20	0
Proposed Overhead Power (within POD boundary):		NA	30	0
Number of Proposed Central Gathering/Metering Facilities:		0		0
Number of Proposed Compressors:	0	0		0
Number of Proposed Impoundments (define whether Off-channel Pits and/or On-channel Reservoirs)	0	8		75.2
Number of Proposed Discharge Points:	0	8		Disturbance included in pit disturbance.

Other (Specify):



DESCRIPTION OF AFFECTED ENVIRONMENT (within POD boundary)				
	#	Length	Width	Acres of Disturbance
Existing Improved Roads:		5.99	45	32.7
Existing 2-Track Roads not within Corridor:		NA	14	0
Existing 2-Track / Utilities Corridor (define utilities):		NA	40	0
Existing Corridor not within Access (define utilities):		NA	30	0
Existing Pipeline not within a Corridor:		NA	30	0
Existing Buried Power Cable not within a Corridor:		NA		0
Existing Overhead Power:		NA	30	0
Number of Existing Central Gathering/Metering Facilities:		0		
Number of Existing Compressors:	0	0		0
Number of Existing Impoundments (define whether Off-channel Pits and/or On-channel Reservoirs)	0	0		0
Number of Existing Discharge Points:	0	0		Included in pit disturbance.
Prepared By:	Pearl Development Company			
Telephone:	(307)672-8090			

* **Disturbance Corridor:** Where feasible, gas and water pipelines and electrical cables will be installed in disturbance corridors. Disturbance corridors combine 2 or more utility lines (water, gas, electric) in common trenches, ideally within access roadways.



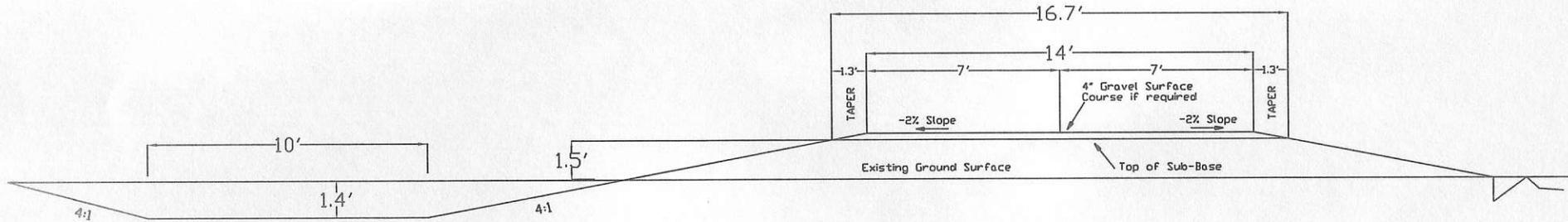
GEOMETRIC STANDARDS FOR BUREAU ROADS

EXHIBIT '2'

FUNCTIONAL CLASSIFICATION	EST 20 YR. ADT	TERRAIN	DESIGN SPEED		TRAVELWAY WIDTH		MAXIMUM GRADE	
			PREF.	MIN.	PREF.	MIN.	PREF.	MIN.
Resource	Less than 20	LEVEL & ROLLING	30		14		8	10
		TERRAIN	15		14		8	16

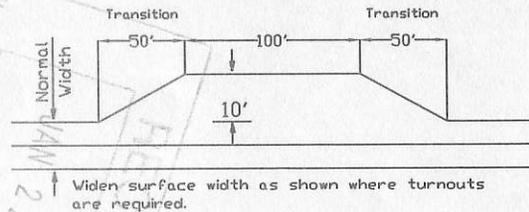
GRAVEL SPECIFICATION:
 3" minus pit run gravel
 (AASHTO M145-49 A-1-a Soil)
 Do not place gravel on road until Inspector/Engineer has approved the sub-grade.
 Place gravel to full widened width on turnouts, curve widening, and intersection flares.

TYPICAL CROSS SECTIONS (for Proposed Access Roads)

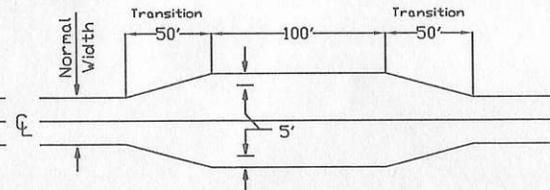


SUB-GRADE TO BE COMPACTED TO APPROPRIATE DENSITY AS SPECIFIED BY ENGINEER

FLAT BOTTOM DITCH (BOTH SIDES)
 TURNOUTS REQUIRED



PLAN
 TURNOUT - WIDENING ON ONE SIDE
 (DETAIL)



PLAN
 TURNOUT - WIDENING ON BOTH SIDE
 (DETAIL)

BUREAU OF LAND MANAGEMENT
 HAYLUM FIELD OFFICE
 2 2 2007
 RECEIVED

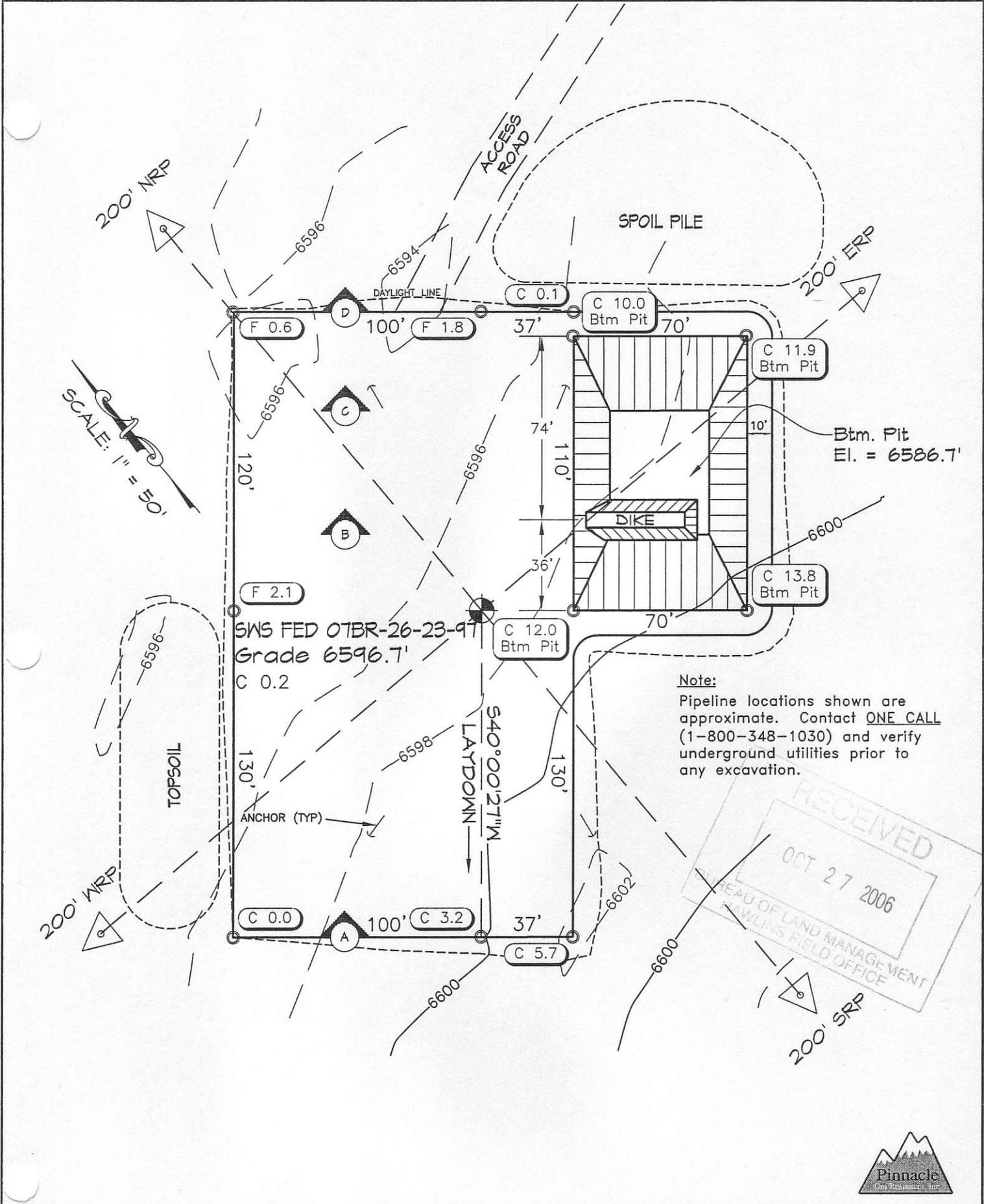
PREPARED BY:
PEARL DEVELOPMENT COMPANY
 1082 East Brundage Lane
 PO Box 783
 Sheridan, Wyoming 82801
 307-672-8090
 www.pearldev.com

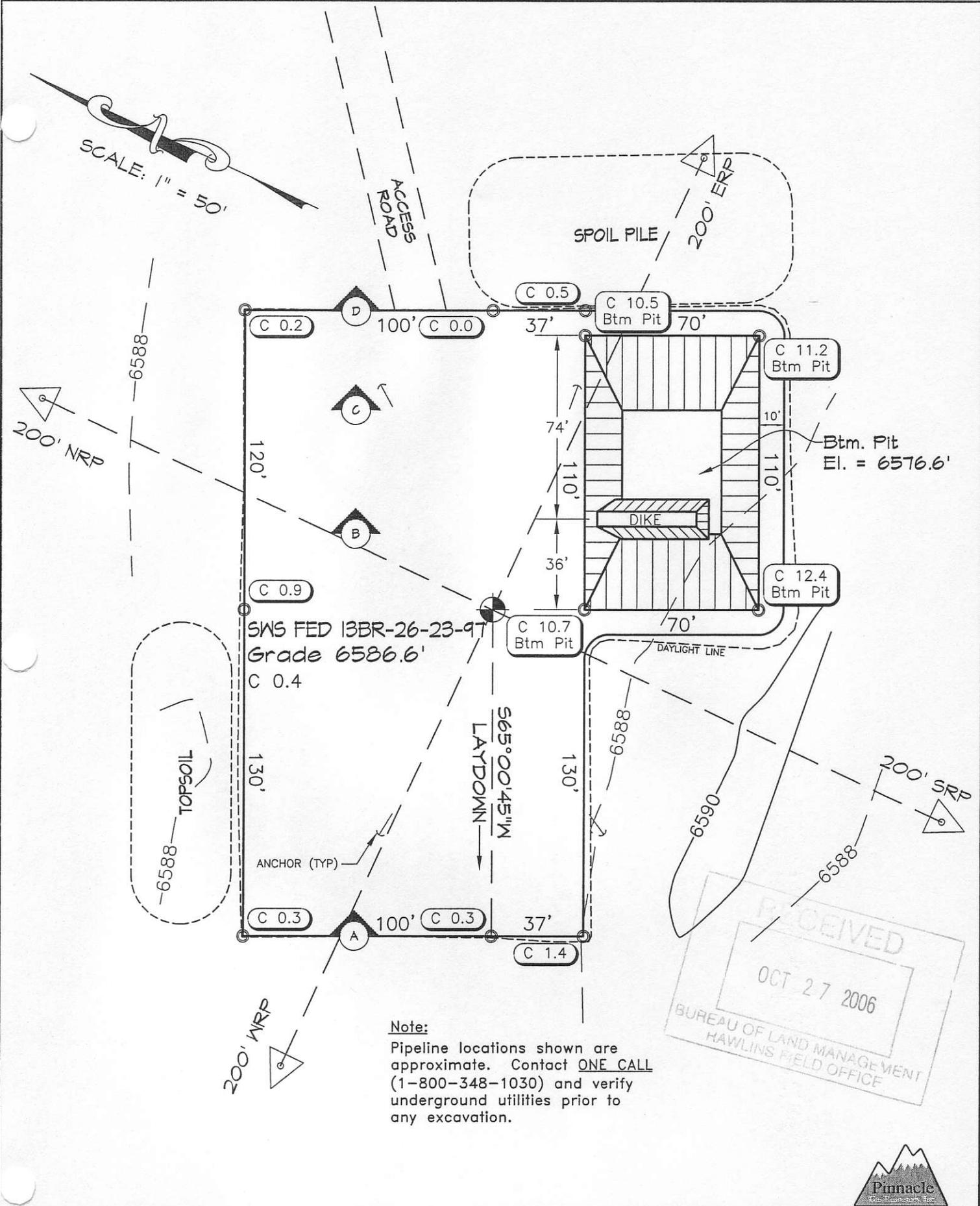
"FROM PROJECT CONCEPTION TO OPERATING REALITY"

OWNER / OPERATOR:
PINNACLE GAS RESOURCES, INC.



1 EAST ALGER STREET
 SUITE 206
 SHERIDAN, WY 82801

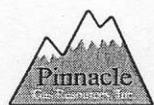




SWS FED 13BR-26-23-97
 Grade 6586.6'
 C 0.4

RECEIVED
 OCT 27 2006
 BUREAU OF LAND MANAGEMENT
 HAWLINS FIELD OFFICE

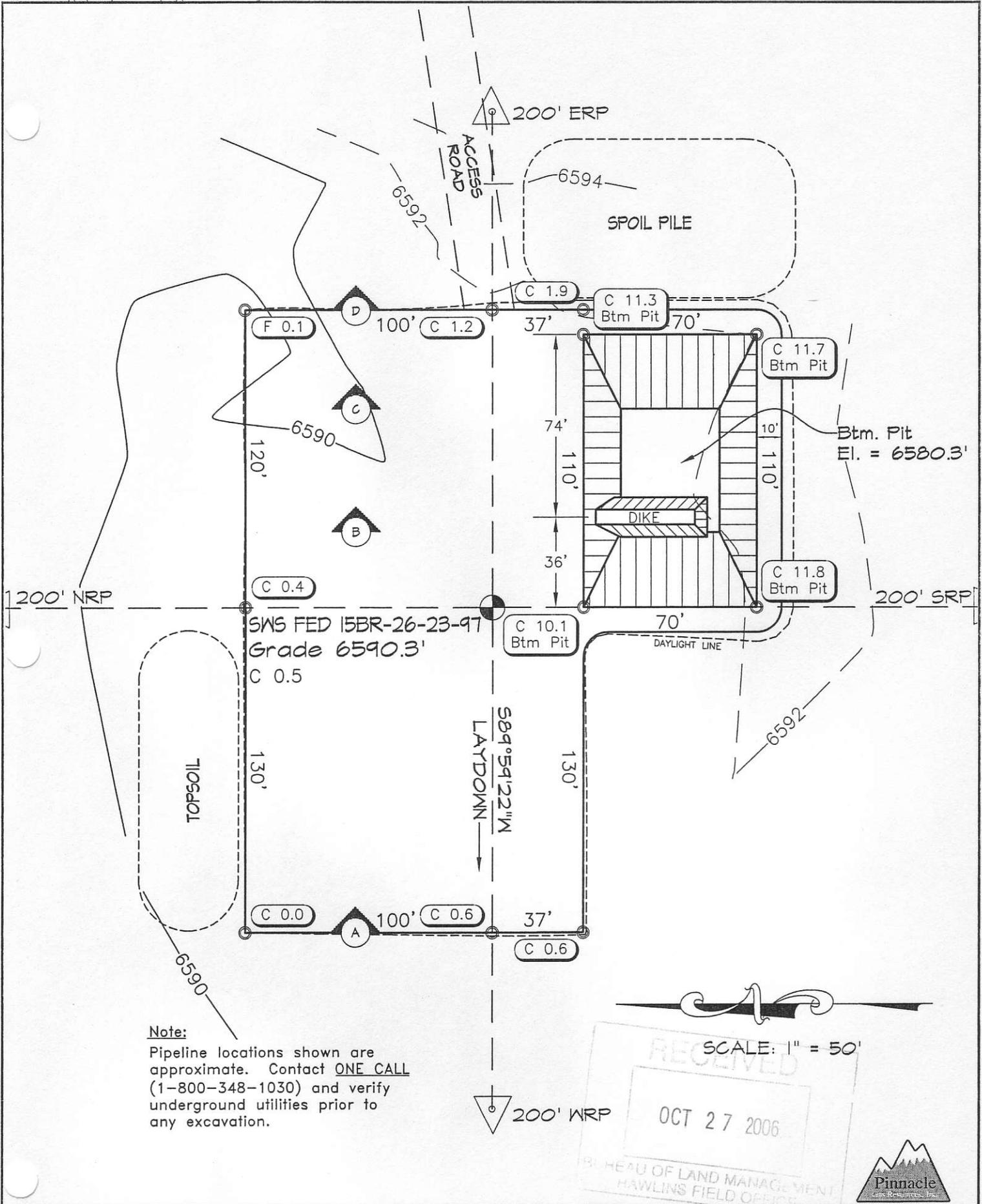
Note:
 Pipeline locations shown are approximate. Contact **ONE CALL** (1-800-348-1030) and verify underground utilities prior to any excavation.

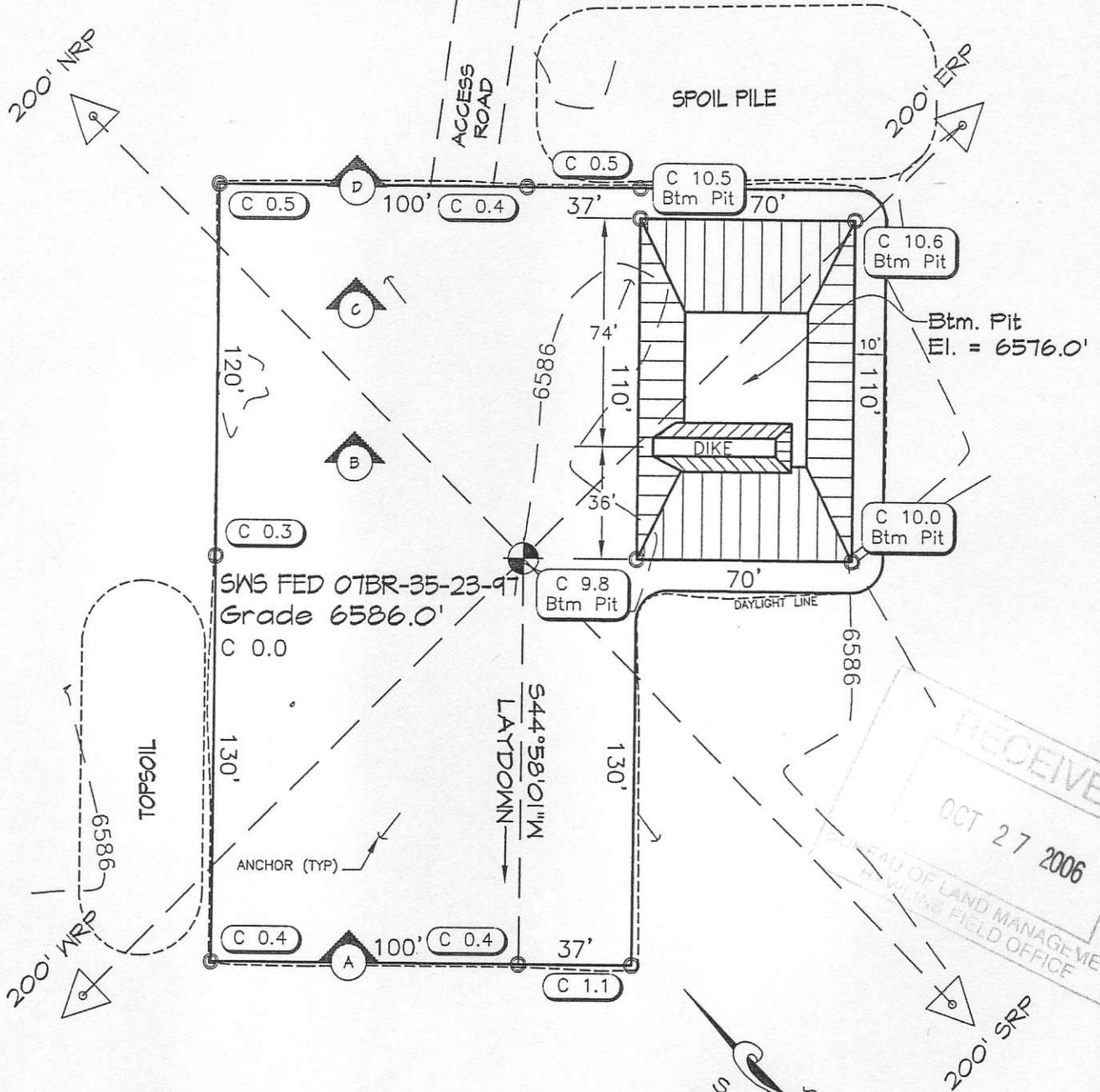


JFC ENGINEERS SURVEYORS
 1515 NINTH STREET
 ROCK SPRINGS, WY 82901
 PHONE (307) 362-7519
 FAX (307) 362-7569
<http://www.jfc-wyo.com>

SWS FED 13BR-26-23-97
 SW 1/4, SW 1/4, SEC 26, T23N, R97W
 783' F.S.L. - 660' F.W.L.
 SWEETWATER COUNTY, WYOMING

DWN BY: zcf
DATE: 6/20/06
SCALE: 1" = 50'
FIGURE 1





RECEIVED
 OCT 27 2006
 BUREAU OF LAND MANAGEMENT
 F. WALLACE FIELD OFFICE

SCALE: 1" = 50'

Note:
 Pipeline locations shown are approximate. Contact **ONE CALL** (1-800-348-1030) and verify underground utilities prior to any excavation.

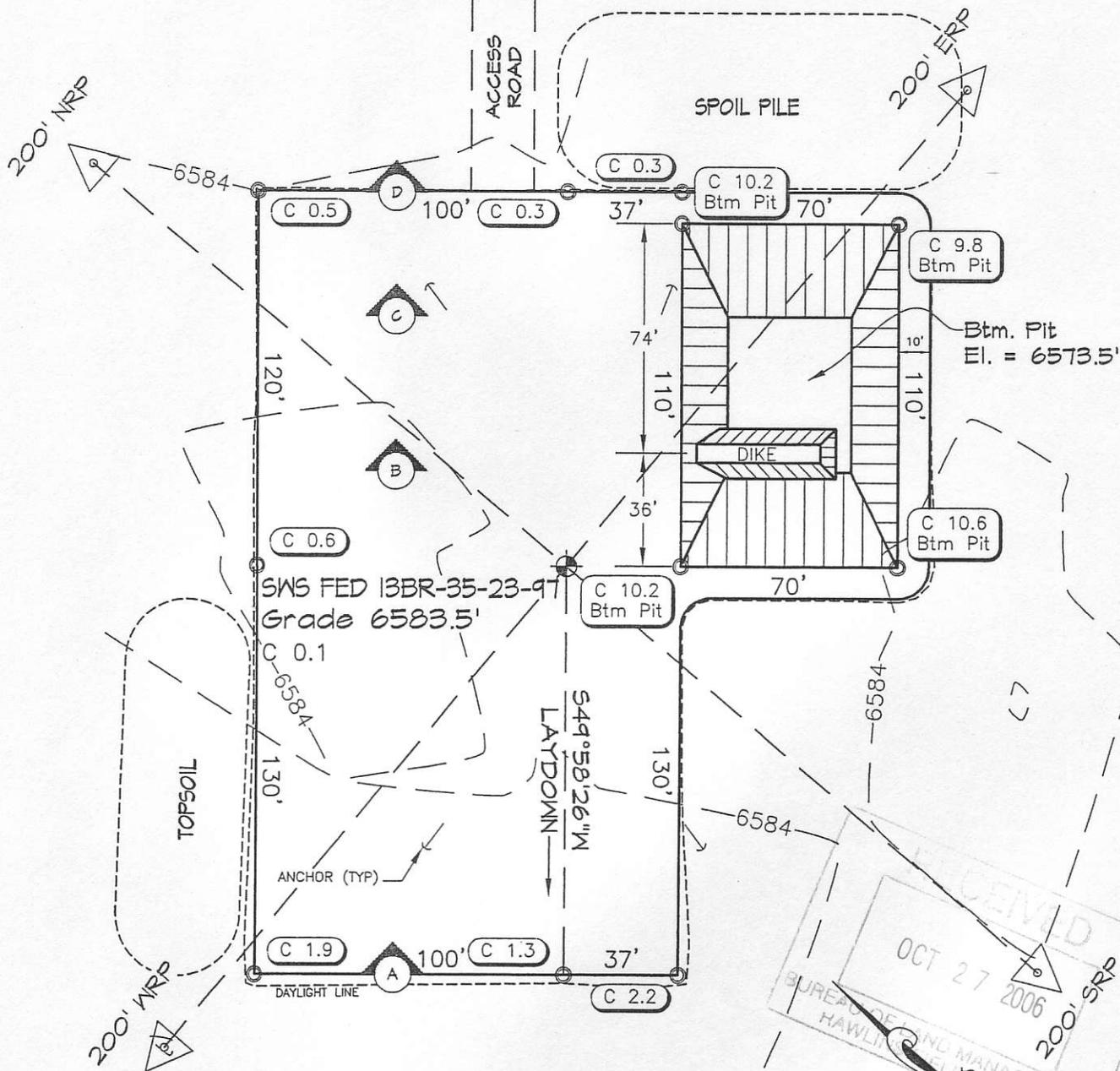


JFC ENGINEERS SURVEYORS
 1515 NINTH STREET
 ROCK SPRINGS, WY 82901
 PHONE: (307) 362-7519
 FAX: (307) 362-7569
<http://www.jfc-wyo.com>

SWS FED 07BR-35-23-97
 SW 1/4, NE 1/4, SEC 35, T23N, R97W
 1980' F.N.L. - 1980' F.E.L.
 SWEETWATER COUNTY, WYOMING

DWN BY: zcf
 DATE: 7/13/06
 SCALE: 1" = 50'

FIGURE 1



RECEIVED
 OCT 27 2006
 BUREAU OF LAND MANAGEMENT
 HAWKINSVILLE OFFICE
 SCALE: 1" = 50'

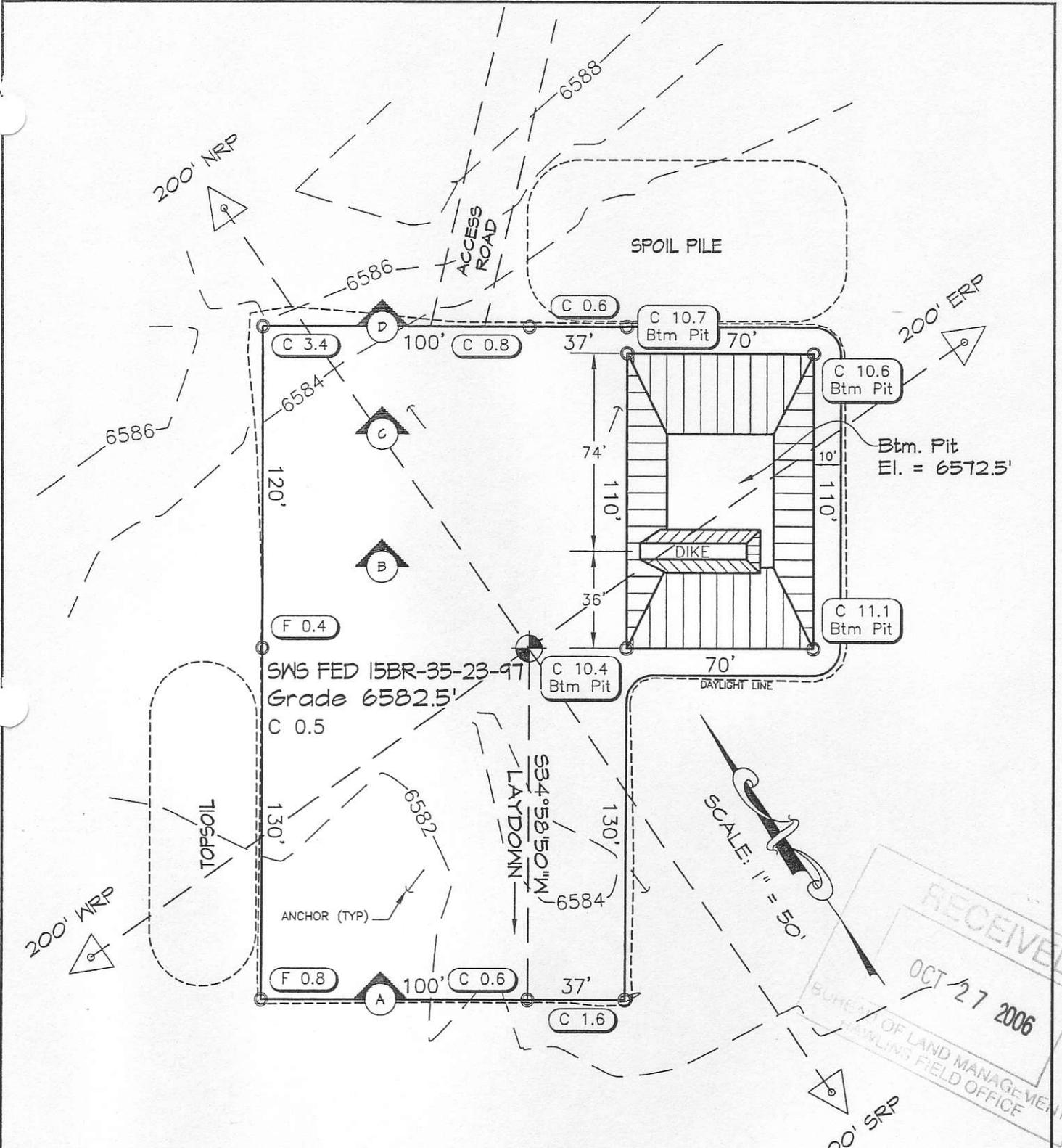
Note:
 Pipeline locations shown are approximate. Contact ONE CALL (1-800-348-1030) and verify underground utilities prior to any excavation.



JFC ENGINEERS SURVEYORS
 1515 NINTH STREET
 ROCK SPRINGS, WY 82901
 PHONE (307) 362-7519
 FAX (307) 362-7569
 http://www.jfc-srp.com

SWS FED 13BR-35-23-97
 SW 1/4, SW 1/4, SEC 35, T23N, R97W
 776' F.S.L. - 609' F.W.L.
 SWEETWATER COUNTY, WYOMING

DWN BY: zcf
 DATE: 7/13/06
 SCALE: 1" = 50'
FIGURE 1



RECEIVED
 OCT 27 2006
 BUREAU OF LAND MANAGEMENT
 TAWLINS FIELD OFFICE

Note:

Pipeline locations shown are approximate. Contact **ONE CALL** (1-800-348-1030) and verify underground utilities prior to any excavation.



JFC ENGINEERS SURVEYORS
 1515 NINTH STREET
 ROCK SPRINGS, WY 82901
 PHONE: (307) 362-7519
 FAX: (307) 362-7569
<http://www.jfc-wyo.com>

SWS FED 15BR-35-23-97
 SW 1/4, SE 1/4, SEC 35, T23N, R97W
 537' F.S.L. - 1963' F.E.L.
 SWEETWATER COUNTY, WYOMING

DWN BY: zcf
 DATE: 7/14/06
 SCALE: 1" = 50'

FIGURE 1

SWEETWATER SOUTH FEDERAL POD

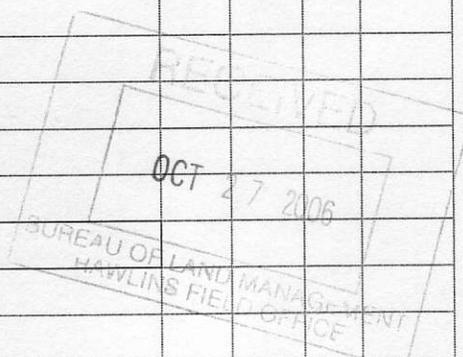
Pinnacle Gas Resources, Inc.

SURFACE USE PLAN - Appendix 4.6
Surrounding Wells

Rev	Date
A	6-Sep-06

**SURROUNDING WELLS AS OF 06 SEPTEMBER 2006
PINNACLE GAS RESOURCES, INC.
SWEETWATER SOUTH FEDERAL POD**

PERMIT #	STAT US	TWP	RAN GE	SE C.	QTR/ QTR	APPLICANT	FACILITY NAME	USES	WELL DEPTH	WEL L LOG	COUNTY
P48378W	PUW	23	97	23	SENE	DAVIS OIL COMPANY**USDI, BLM	J T FEDERAL #2	MIS	***	***	Sweetwater
P46937W	PUW	23	97	24	SENW	DAVIS OIL CO.**USDI, BLM	#1 C A T WATER	MIS	***	***	Sweetwater
P68343W	PU	23	97	25	SWSW	USDI, BLM**CO. ARMA GEO.	ENL FLOWING WELL 525T23R96	MIS	1160	***	Sweetwater
P41239W	PUW	23	97	26	SWNE	USDI, BLM** TEXAS OIL & GAS	TEXAS FED G #1	MIS	500	***	Sweetwater
P68343W	PU	23	97	26	SWSW	USDI, BLM**CO. ARMA GEO.	ENL FLOWING WELL 525T23R96	MIS	1160	***	Sweetwater
P68343W	PU	23	97	27	SWSW	USDI, BLM**CO. ARMA GEO.	ENL FLOWING WELL 525T23R96	MIS	1160	***	Sweetwater
39/8/59W	UNA	23	97	35	NENE	PINNACLE GAS RESOURCES, INC.	SWS FED 01BR-35-23-97	CBM,MIS	***	***	Sweetwater
39/9/59W	UNA	23	97	35	NENW	PINNACLE GAS RESOURCES, INC.	SWS FED 03BR-35-23-97	CBM,MIS	***	***	Sweetwater
39/3/61W	UNA	23	97	35	NESE	PINNACLE GAS RESOURCES, INC.	SWS FED 09BR-35-23-97	CBM,MIS	***	***	Sweetwater
39/4/61W	UNA	23	97	35	NESW	PINNACLE GAS RESOURCES, INC.	SWS FED 11BR-35-23-97	CBM,MIS	***	***	Sweetwater
39/1/114W	UNA	23	97	36	SWSW	PINNACLE GAS RESOURCES, INC	SWS STATE 13BR-36-23-97	CBM,MIS	***	***	Sweetwater
39/10/113W	UNA	23	97	36	SWSE	PINNACLE GAS RESOURCES, INC	SWS STATE 15BR-36-23-97	CBM,MIS	***	***	Sweetwater
39/10/59W	UNA	23	97	36	CNE	PINNACLE GAS RESOURCES, INC.	SWS STATE 01BR-36-23-97	CBM,MIS	***	***	Sweetwater
39/2/114W	UNA	23	97	36	SWNW	PINNACLE GAS RESOURCES, INC	SWS STATE 05BR-36-23-97	CBM,MIS	***	***	Sweetwater
39/3/114W	UNA	23	97	36	SWNE	PINNACLE GAS RESOURCES, INC	SWS STATE 07BR-36-23-97	CBM,MIS	***	***	Sweetwater
39/5/59W	UNA	23	97	36	NENW	PINNACLE GAS RESOURCES, INC.	SWS STATE 03BR-36-23-97	CBM,MIS	***	***	Sweetwater
39/6/59W	UNA	23	97	36	NESE	PINNACLE GAS RESOURCES, INC.	SWS STATE 09BR-36-23-97	CBM,MIS	***	***	Sweetwater
39/7/59W	UNA	23	97	36	NESW	PINNACLE GAS RESOURCES, INC.	SWS STATE 11BR-36-23-97	CBM,MIS	***	***	Sweetwater
P52346W	PUW	23	97	36	NENE	SANTA FE ENERGY COMPANY	1-36 WW	MIS	***	***	Sweetwater



STO = Stock Well
DOM = Domestic Well
CBM = Coal Bed Methane Well
MON = Monitoring Well