

**STORM WATER MANAGEMENT PLAN  
FOR S.G. INTERESTS I, LTD.  
  
COVERING OIL AND GAS OPERATIONS  
LOCATED IN GUNNISON  
AND DELTA COUNTIES, COLORADO**

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March 2006

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## **EXHIBITS**

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- Exhibit A Construction Sites
- Exhibit B General Site Map
- Exhibit C Surface Acreage Disturbance at each Construction Site
- Exhibit D Placement of Sediment Control Device at the Construction Site
- Exhibit E Stormwater Fact Sheet Issued by the CWQCD in February 2006

## **APPENDICES**

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- Appendix A Construction Site Storm Water Inspection Report
- Appendix B Corrective Action Report

# STORM WATER MANAGEMENT PLAN FOR LANDS LOCATED IN GUNNISON AND DELTA COUNTY, COLORADO

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## 1.0 INTRODUCTION

This Storm Water Management Plan (SWMP) identifies standards and best management practices (BMPs) for implementing erosion and sediment control measures for S.G. Interests I, Ltd.'s oil and gas operations covering lands located in Gunnison and Delta County, Colorado. S.G. Interests I, Ltd. plans to drill oil and gas wells in Gunnison and Delta County in 2006. This SWMP was prepared to comply with regulations imposed by the Colorado Water Quality Control Division (CWQCD) for obtaining a storm water discharge permit covering S.G. Interests I, Ltd.'s oil and gas operations in Gunnison and Delta County.

Greystone Environmental Consultants, Inc. (Greystone), acting on behalf of S.G. Interests I, Ltd., has simultaneously with the completion of this SWMP, submitted an application for a storm water discharge permit with the CWQCD. To comply with CWQCD regulations, this SWMP must: i) exist at the time the application for a storm water discharge permit is submitted to CWQCD, and ii) be available at the drill site during all oil and gas operations that S.G. Interests I, Ltd. conducts in Gunnison and Delta County, Colorado after the effective date of this SWMP.

This SWMP was prepared in accordance with good engineering, hydrologic, and pollution control practices, and is designed to constitute compliance with best available technology and best conventional technology, as mandated by the Federal Clean Water Act and the Federal Water Pollution Control Act as well as applicable regulations promulgated by CWQCD.

This SWMP is designed to provide general information about:

- S.G. Interests I, Ltd.'s planned oil and gas operations in Gunnison and Delta County.
- The term "Construction Site" and how that term is defined for purposes of this SWMP.
- BMPs for implementing effective storm water erosion control at each Construction Site.
- The necessary inspection work that needs to be performed on a regular basis to ensure the efficient operation of the Sediment Control Devices placed at each Construction Site.
- The process for removing a Construction Site from coverage under this SWMP when S.G. Interests I, Ltd. has fully stabilized the land at that particular Construction Site.
- The procedure for making minor changes to this SWMP that generally impact only one Construction Site subject to this SWMP.

Effective June 30, 2005, CWQCD implemented a rule change requiring that certain oil and gas operations must be covered by a SWMP. CWQCD views oil and gas operations as similar to a "construction activity" that occurs at a "construction site". To avoid confusion in determining S.G. Interests I, Ltd.'s intent under the terms of this SWMP, the term, "Construction Site" is defined below in Article 2.

CWCQD has stated in its guidance material for oil and gas operations that a single storm water discharge permit may cover all of a company's oil and gas operations within a single county, or all oil and gas wells that are drilled under a "Common Plan of Development". Based on CWQCD's guidelines, S.G. Interests I, Ltd.'s oil and gas operations in Gunnison and Delta County constitute a Common Plan of Development.

After the effective date noted in Article 17 of this SWMP, S.G. Interests I, Ltd. plans to drill oil and gas wells identified in the attached Exhibit A from drill sites located in Gunnison and Delta County, Colorado. The mere fact that the oil and gas wells are identified in Exhibit "A" does not impose any requirement on S.G. Interests I, Ltd. that it drill any of the oil and gas wells listed in Exhibit "A".

The oil and gas wells that S.G. Interests I, Ltd. plans to drill under the terms of this SWMP will be drilled on oil and gas leases that it owns or has a right to drill on pursuant to an operating agreement that is, or will be, in effect at the time the oil and gas well in question is spudded.

In most instances, S.G. Interests I, Ltd. will need to construct an access road to each drill site location. If the oil and gas wells covered by this SWMP are productive, then S.G. Interests I, Ltd. may need to construct additional facilities (such as a tank battery or a natural gas gathering line to store crude oil production or gather natural gas from the productive wells) or add to its existing crude oil storage facility located within the Common Plan of Development. S.G. Interests I, Ltd. plans to drill two water disposal wells to handle produced water from the oil and gas wells that it plans to drill in conjunction with this SWMP.

As soon as S.G. Interests I, Ltd. fully stabilizes the land at a particular Construction Site covered by this SWMP, it intends to drop that drill site location from further coverage by this SWMP. S.G. Interests I, Ltd. intends to periodically update (on an annual basis, or more frequently if it determines it is expedient to do so) the Construction Site locations identified in the attached Exhibit A, by: i) potentially adding new Construction Sites to this SWMP, ii) deleting old Construction Sites when the land for that Construction Site has been fully stabilized, or iii) S.G. Interests I, Ltd.'s management deciding not to drill a particular well included in the attached Exhibit A.

S.G. Interests I, Ltd. understands that any new Construction Site it constructs as part of this Common Plan of Development in Gunnison and Delta County will need to be separately identified in Exhibits A, B, C, and D of this SWMP when data for the Construction Sites is periodically updated.

## **2.0 DEFINITIONS**

**2.1 Active Construction Site.** The term, Active Construction Site, as used in Article 10 of this SWMP, identifies a Construction Site, from the point in time when the surface location is initially disturbed until the point in time when 1) the oil and gas well drilled at the Construction Site has been determined to be a dry hole and the surface casing has been properly plugged and abandoned, and the Construction Site has been reseeded, or 2) the oil and gas well drilled at the drill site has been completed as a producing well and the areas that will be revegetated for interim reclamation have been reseeded, or 3) an oil and gas facility used in conjunction with one or more oil and gas wells has been constructed and the areas that will be revegetated for interim reclamation has been reseeded.

**2.2 Common Plan of Development.** The term, "Common Plan of Development", as used in Article 10 of this SWMP, identifies all of S.G. Interests I, Ltd.'s oil and gas exploration and production operations in Gunnison and Delta County, Colorado that are located within the geographic area covered by the General Site Map, attached hereto as Exhibit B to this SWMP. S.G. Interests I, Ltd.

understands that it may expand the size of the Common Plan of Development by increasing the amount of land identified in Exhibit B of this SWMP.

**2.3 Completed Construction Site.** The term, “Completed Construction Site”, as used in Article 10 of this SWMP, identifies a Construction Site that has been completed and the necessary preparation and seeding of areas that will be revegetated has occurred; however the Construction Site does not yet satisfy CWQCD’s land stabilization requirements highlighted in Article 12 of this SWMP and therefore the surface land is not yet considered fully stabilized.

**2.4 Construction Site.** The term, “Construction Site”, as used in this SWMP, identifies surface land disturbed to construct: 1) a new access road to a drill site location or other oil and gas facility, 2) a new oil and gas drill site location, 3) a gas gathering line to transport natural gas, and 4) any additional oil and gas related facility that S.G. Interests I, Ltd. deems necessary for its oil and gas operations in Gunnison and Delta County that are covered by this SWMP. A more detailed description of each type of Construction Site is located in Articles 6.3, 6.4, and 6.5 of this SWMP. Each new Construction Site will be designed and constructed to prevent the surface flow of storm water from entering or leaving the boundary of the Construction Site.

**2.5 Runoff Coefficient.** The term, “Runoff Coefficient”, as used in this SWMP, identifies the percentage of precipitation that will not typically be absorbed by the surface land, assuming a moderate rainfall of less than one inch of rain within a 24 hour period. The Runoff Coefficient is identified in Article of 8 of this SWMP.

**2.6 Sediment Control Device.** The term, “Sediment Control Device”, as used in this SWMP, identifies a barrier or structure used to block storm waters or reduce the velocity of the storm water to control and/or minimize sediment or other pollutants from crossing outside the boundary of the Construction Site. A list of different Sediment Control Devices is identified below in Article 5 of this SWMP. The Sediment Control Devices are also referred to in this SWMP as “Best Management Practices,” or merely as “BMPs”.

**2.7 Vegetative Ground Cover.** The term, “Vegetative Ground Cover”, as used in Article 8 of this SWMP, refers to the percentage of existing ground cover that is present at each Construction Site identified in this SWMP.

### **3.0 EXHIBITS ATTACHED TO THIS SWMP**

Exhibit A consists of a list of the oil and gas wells, or an oil and gas facility, each identified by name, with the corresponding location, that are subject to this SWMP.

When S.G. Interests I, Ltd. has fully stabilized the land at a Construction Site, it may proceed to delete coverage of the Construction Site (i.e. for any oil and gas well, access road, pipeline corridor, and/or oil and gas facility, etc.) from Exhibit A by following the procedures set forth below in Article 12 of this SWMP.

S.G. Interests I, Ltd. contemplates that additional Construction Sites will be added to Exhibit A as it decides to drill additional oil and gas wells, lay or replace pipelines, construct or replace additional facilities located within the Common Plan of Development.

Exhibit B is a general site map that shows the locations of:

- Initial oil and gas wells that are a part of S.G. Interests I, Ltd.'s Common Plan of Development for Gunnison and Delta County.
- New access road(s) that S.G. Interests I, Ltd. intends to construct to the initial oil and gas wells identified in Exhibit A.
- Pipelines that may eventually be constructed to the oil and gas wells identified in Exhibit A.
- Oil and gas facilities within the Common Plan of Development.
- The location of any major erosion control facilities.
- The location of all springs, streams, wetlands, and other surface water areas within the Common Plan of Development.
- The boundary of any 100-year flood plains, if the Federal Emergency Management Administration (FEMA) has mapped the flood plain area.

Exhibit B shall be printed over a U.S. Geological Survey quadrangle map showing the area within the Common Plan of Development.

Exhibit C. S.G. Interests I, Ltd. may, from time to time, decide to drill additional oil and gas wells, construct additional access roads, construct pipelines, and/or facilities within the Common Plan of Development. CWQCD requires that S.G. Interests I, Ltd. identify the area of surface land that will be disturbed at each Construction Site. To comply with this requirement, S.G. Interests I, Ltd. has included, as part of Exhibit C, a separate plat of each drill site location, pipeline, and/or oil and gas facility included within its Common Plan of Development.

The first Construction Site (i.e. drill site location, access road, pipeline, and/or oil and gas facility) that is included in this SWMP will be identified as C-1, the second such Construction Site will be identified as C-2, the third such Construction Site shall be identified as C-3, etc. in sequential order for each Construction Site included in this SWMP. To maintain continuity, the plat covering each separate Construction Site listed in Exhibit C will be retained as part of the SWMP. The plat prepared for each Construction Site will highlight the outside boundary of each Construction Site.

Exhibit D identifies the physical location where Sediment Control Devices have been placed at a Construction Site to minimize sediment discharge from the Construction Site. The operator's field employees or contract help will make notes on the Exhibit D for the specific Construction Site in question if the operator changes the location or type of Sediment Control Device used at the Construction Site.

Exhibit E. On February 3, 2006, the CWQCD issued a Stormwater Fact Sheet for use in conjunction with oil and gas operations. A copy of the Stormwater Fact Sheet is attached hereto as Exhibit E; however it is not intended to be a part of the SWMP. It is attached as an exhibit to this SWMP for two reasons, 1) it highlights certain requirements imposed by the Water Quality Control Division that are addressed in this SWMP, and 2) it is attached as a reference document so that the operator may review language contained in the Stormwater Fact Sheet. As an example, language found on page 5 of the Stormwater Fact Sheet discusses one instance when this SWMP needs to be revised.

Article 15 of this SWMP identifies a procedure for making minor revisions to this SMWP that generally pertain to only one Construction Site. S.G. Interests I, Ltd. wants a procedure for implementing minor changes to this SWMP that will be: 1) easy to implement, and 2) can be used to implement a change at a specific Construction Site without requiring any modification to the main text of this SWMP. S.G. Interests plans to use the Corrective Action Report, a sample form of which is attached hereto as **Appendix B**, to implement minor changes generally impacting only one Construction Site.

Exhibits A, B, C, D, and E are attached hereto and made a part hereof for all purposes until a replacement exhibit is prepared and added to this SWMP. When Exhibits A and B are periodically updated, the effective date of the revised exhibit will be noted on the exhibit.

#### **4.0 DESCRIPTION OF OIL AND GAS OPERATIONS AND SEQUENCE OF MAJOR SOIL DISTURBANCE ACTIVITIES**

Oil and gas operations are conducted in a fairly consistent pattern. Before drilling an oil and gas well, the oil and gas operator acquires oil and gas leases over a prospective area. A second option available to the operator is to acquire oil and gas leases in an existing oil and gas field that is producing oil and gas.

After acquiring the oil and gas leases, the operator may decide to obtain geophysical data for the prospect by: i) purchasing existing data if it is available, or by ii) conducting a “seismic shoot” over the prospect. If the geophysical data indicate a probability that oil and gas deposits are located underneath the prospect area, then the oil and gas operator will generally drill one or more oil and gas wells to determine if oil and gas reserves are located underneath the prospect area.

If one or more of the oil and gas wells are completed as a producing well, then the operator will generally need to construct a gas gathering system, and/or install one or more tank batteries to transport the natural gas, or temporarily store oil that is produced from each successfully completed well. If multiple oil and gas wells are completed and placed “on production”, then the operator will construct additional facilities as they are needed to facilitate the production, temporary storage, and/or transportation of the oil and/or gas from the oil and gas leases. During each of the actions identified above, the operator will frequently disturb soil at an existing or new Construction Site to complete the planned production activity.

The drilling of oil and gas wells covered by this SWMP will generally include the following surface disturbing activities:

- Constructing an access road to the planned oil and gas drill site location.
- The drilling of an oil and gas well (unless multiple wells are drilled from the same drill site location).
- The construction of a pipeline for transporting fluids or gases (e.g. water, natural gas, or some other substance).
- The construction of additional oil and gas facilities, such as a tank battery, compressor station for a gas gathering line, or a gas plant, where separate constituent liquids are stripped from the gas stream and used at the plant or separately sold.

For its operations in Gunnison and Delta County, S.G. Interests I, Ltd. plans to drill oil and gas wells and then, if the wells are productive, it will construct pipelines or other facilities as they are needed.

## 5.0 BEST MANAGEMENT PRACTICES - STORM WATER POLLUTION PREVENTION, EROSION AND SEDIMENT CONTROL

BMPs will be used to minimize erosion and sediment transport during construction activities at each Construction Site. BMPs and Sediment Control Devices will be used as temporary actions during construction to control erosion and as permanent measures after construction to stabilize disturbed areas. It is important that the Sediment Control Devices are selected based on site-specific characteristics. Topography plays a key role in determining what Sediment Control Devices will work best at each Construction Site.

The potential for erosion and sediment transport is greatest in areas where ground surfaces have been disturbed and soil is exposed to physical agents such as wind and water. To protect existing water quality, both temporary and permanent BMPs and other Sediment Control Devices have been designed to minimize soil erosion due to storm water runoff. In most cases, the operator will utilize a combination of vegetative and structural BMPs to control erosion and sediment transport.

The CWCQD takes a broad view of BMPs and considers training, inspections, maintenance schedules, and good house keeping rules to be “non-structural” BMPs. The following BMPs are examples of structural Sediment Control Devices that are all designed to minimize or eliminate sediment discharge outside of the Construction Site.

- Straw or hay bale barrier. This type of barrier is designed to reduce the speed of the water flow and to trap sediment, while allowing the water to flow through the straw bale. It is generally used to protect slopes or depressed land areas from incurring water based erosion.
- Silt Fence. This fence type design is used to trap or reduce sediment from being discharged outside of a surface disturbed area. The fence is attached to wooden stakes that are driven into the soil.
- Temporary seeding. Generally a quick growing grass planted to slow the discharge of water flowing across the seeded area. This barrier type is almost always used in combination with another Sediment Control Device to control sediment discharge.
- Fiber-filled barrier. This barrier generally consists of wood or other fiber that is placed in a sock like barrier designed to reduce the water flow and filter sediment from the water as it flows through the fiber filled barrier.
- Rock riprap. Generally placed along the sides of a stream, rock riprap is primarily used to control erosion during or immediately following a rain storm.
- Biofiltration swale. The biofiltration swale is an open and gently sloping vegetated channel that promotes pollutant removal by filtration through the use of properly selected vegetation and settling. It presents a relatively low cost means of controlling storm water runoff for sites less than five acres.
- Gravel. Gravel is often placed at an entrance or exit area adjacent to a paved road to act as an abrasive agent to remove mud or sediment from vehicles that are crossing onto a paved surface.

- Culverts. The most effective method to control erosion on roads is to keep water from accumulating on the road surface. Fast-moving water can easily erode soil from road surfaces and ditches, and can be controlled by installing culverts that allow water from roadside ditches to move from one side of the road to the other.
- Bridges constructed over a flowing stream. If the stream maintains a relatively constant flow of water on a year round basis, an effective way to control erosion and runoff is to minimize the disturbance of the stream channel by avoiding a stream crossing whenever possible. This can usually be accomplished by constructing a bridge over the flowing stream.
- Grade stabilization structure. These structures are installed to stabilize the channel grade and control erosion to prevent the formation or advance of gullies and headcuts. They come in many designs including concrete, metal and soil.
- Erosion control mats. The purpose of the mat is to reduce the effect of erosion and to assist in the establishment of permanent vegetation. The basic types include the permanent turf reinforcement mat, the 100% biodegradable mat or blanket, the extended or long-term degradable mat, and the short-term photodegradable mat. Mat selection depends on site conditions (slope, runoff speed, project duration), and the area where the mat will be installed.
- Water bar. A water bar is a shallow trench with a mound (or berm) which provides cross drainage and intercepts runoff from trails, firebreaks, or inactive roads. Constructing a water bar will minimize erosion and provide conditions for natural or artificial revegetation.

## 6.0 INITIAL SURFACE DISTURBANCE AREA

S.G. Interests I, Ltd. estimates that it will disturb approximately 15 acres of land to build the initial nine Construction Sites, including the necessary new access roads, subject to this SWMP. The initial nine Construction Sites are identified in Exhibit A of this SWMP and the amount of surface acreage that will be disturbed at each Construction Site can be determined by examining Exhibit C of this SWMP. If S.G. Interests I, Ltd. drills additional oil and gas wells within the Common Plan of Development in subsequent years, then additional surface land will be disturbed.

If the proposed oil and gas wells are productive, then a gathering system or an oil and gas facility will likely need to be constructed to transport the natural gas produced or temporarily store condensate, and/or crude oil produced from the oil and gas wells.

Surface disturbance and/or routine maintenance should only be performed when the soil can adequately support construction equipment. If the equipment creates ruts more than six inches deep, the soil is too wet to adequately support construction equipment.

### 6.1 Clearing and Grading Operations

The removal of vegetation at each Construction Site will be limited to the smallest area possible to provide safe and efficient work areas for all phases of the construction project.

During project construction, surface disturbance and vehicle travel will be limited to each access road, each drill site location and along each pipeline corridor. Travel within the pipeline corridor will be minimized to the extent possible to avoid unnecessary surface disturbance. In some cases, extra workspace may be necessary for special construction activities at various areas within the Common Plan of Development. Disturbance activities within these extra work areas may include removal of surface vegetation, clearing and grading areas for safe equipment operation, excavating larger trenches, or stockpiling topsoil, construction materials and/or spoils.

Grading will be required within the pipeline corridor to achieve a relatively level working area to provide adequate access to the pipeline corridor, and a safe working condition for the operation of equipment, and vehicles.

Vegetation removal will be confined to the limits of the actual Construction Site (i.e. the access road, the drill site location, new facility location and/or the pipeline corridor).

Cuts into a hill side will be kept to a minimum to protect existing vegetation while providing a safe and stable plane for the efficient and safe use of equipment. Sediment Control Devices, such as water bars, diversion channels, and terraces, will be constructed to divert water and to reduce soil erosion in disturbed areas.

Topsoil will be separately removed and segregated from other material. Topsoil will be windrowed at the drill site location and within the pipeline corridor along the uphill side of the road or stored in an approved manner. When the pipeline corridor is rehabilitated, the topsoil will then be used as a top coating for the seedbed.

Spoil (subsoil) obtained from grading and clearing operations will be stockpiled adjacent to the segregated topsoil in a manner to prevent the topsoil from mixing with the spoil. In some cases, additional storage space may be necessary for excessive amounts of spoil. In areas containing very steep slopes, grading will be minimized by detouring non-essential equipment around these areas by using a temporary access road or bypass. Two-toning may also be implemented to minimize grading for steep cuts. Two-toning involves grading two small cuts where the working side is higher than the spoil side.

## **6.2 Access Roads and Pipeline Corridors – Special Construction Methods in Sensitive Areas**

S.G. Interests I, Ltd. will use special construction methods whenever it encounters a sensitive area, such as wetlands, ponds, dry creeks or washes, gullies, drainages, or flowing creeks. The BMP to minimize the potential impact to a sensitive area is to avoid disturbing these areas. Every effort will be made to avoid routing an access road or pipeline near or through sensitive areas such as wetlands, ponds, and dry or flowing creeks, as well as steep slopes. All of these areas are prone to erosion. If one of these areas cannot be avoided, the operator shall implement the following practices to minimize the impact to the sensitive area: i) during construction near streams, lakes or wetlands, sedimentation (detention) basins, straw bales, or fabric filters should be used to prevent suspended sediments from reaching downstream watercourses or lakes, ii) the construction of access roads and pipeline corridors will use silt fences, straw bale dikes or equivalent Sediment Control Devices installed to protect adjacent down slope surface waters, wetlands and roads from sediment flow due to runoff from a storm event.

## **6.3 Access Roads**

In most instances, S.G. Interests I, Ltd. will need to construct a new segment of access road to each Construction Site. This is especially true for most drill site locations. Clearing vegetation and soil

materials will be limited to the required road alignment. Vegetation clearing and removal of topsoil should be limited to the road footprint and segregated from other material.

Access roads should be constructed with good drainage patterns. Sediment Control Devices, such as water bars and diversion channels, should be used to minimize erosion during construction of any new access road.

All new access roads will have water dispersal controls placed at all changes of slope. When the road is rehabilitated, the segregated topsoil will be used as a top coating for the seedbed.

## **6.4 Drill Site Locations**

After each access road is constructed to the planned drill site location, the drill site will be constructed. This process involves leveling the location by using cut and fill construction techniques. The topography of each drill site location will dictate the amount of cut and fill needed. S.G. Interests I, Ltd. will attempt to spot each drill site location so that the cut and fill procedure and the associated surface disturbance are minimized.

Drill site locations will be designed to prevent water from entering or leaving the site. The pad will be sloped to drain spills and water into the reserve pit. The drill pad will be designed to disperse diverted overland flow and to regulate flow velocity so as to prevent or minimize erosion. Drill site diversion outlets will be equipped with rock energy brakes and gravel-bedded dispersion fans. Spills and leaks will be cleaned up to prevent pollution of surface or groundwater.

After each oil and gas well, or other Construction Site is completed, any disturbed area that is not needed for continuing operations will be reclaimed. Disturbed work areas will be graded to avoid creating a smooth, compacted surface.

## **6.5 Pipeline Corridor**

Depending on the circumstances, S.G. Interests I, Ltd. may construct a gas gathering line or other pipeline for each oil and gas well it completes within the Common Plan of Development. A gas gathering line will generally be constructed along one side of the new access road constructed to the drill site location. Construction of a gas gathering line will generally require a 20 to 30-foot wide easement (pipeline corridor) that will generally parallel the existing access road.

Topsoil will be separately removed and segregated from other material within the pipeline corridor. Topsoil from the pipeline and/or utility easement will be windrowed along the uphill side of the road or stored in an approved manner. The pipeline trench will be dug to a sufficient depth below frost line to maintain sufficient cover over the pipeline.

Following installation of the pipeline, the soil within the pipeline corridor will be shaped to the pre-disturbance contour of the land. The windrowed topsoil will be distributed over the top of the pipeline corridor. The pipeline corridor will be re-vegetated based on a seed-mix recommended by the applicable governmental agency.

### **6.5.1 Pipeline Construction – Trenching and Laying the Pipe**

Pipeline trenching techniques will be used to reduce erosion and sediment transport and to protect topsoil resources. In areas that do not require grading, a double-trenching procedure may be utilized and will

require segregation of topsoil from trench spoils. Topsoil will be removed and stored separately. Whenever possible, trench spoils will be stockpiled on the non-working side of the pipeline corridor. The trench spoils will be stockpiled adjacent to, but separately from the topsoil. During construction, gaps will be spaced at suitable intervals in the spoil and topsoil piles to avoid soil being discharged into streams and waterways.

Spoil materials excavated from the trench will be stored next to the trench where feasible, to facilitate using a minimum amount of the corridor, and to protect the material from vehicular and equipment traffic. Typically spoil materials will be placed on the upslope side of the trench to prevent surface water run-off from entering the trench.

S.G. Interests I, Ltd. will use BMPs for laying and burying all pipeline projects. Removal of solid rock from the pipeline trench may require the use of a hydraulic chisel or a rock saw. Where these procedures do not prove affective in rock removal, controlled blasting may be implemented. All blasting operations shall comply with all state and federal regulations.

Trench plugs will be placed within the ditch on steep slopes to control the movement of water along trench line.

### **6.5.2 Pipeline Construction – Backfilling the Trench**

Backfilling procedures will incorporate techniques to protect the pipeline and coating from damage, to salvage topsoil, and to prevent erosion of backfill material. After the pipeline has been installed, the pipeline will be covered with spoil. After the trench has been backfilled to ground level, the backfill will be compacted using BMPs. Excess spoils from the pipeline trench will be spread evenly across graded portions of the pipeline corridor or transported to other areas needing additional fill.

Topsoil will not be used for padding or backfill. Topsoil will remain segregated during backfilling operations. Topsoil will be spread across the surface of the pipeline corridor as the final step of the backfilling procedure. The topsoil will facilitate the regeneration of grasses and plants as part of the final stabilization of the pipeline corridor.

## **6.6 Stream Crossings – Access Road or Pipeline Construction**

The following special construction techniques will be followed in the event an access road or pipeline corridor needs to cross a stream.

All attempts will be made to avoid wetland and riparian areas. If disturbance to these areas is unavoidable, the clearing and installation operations will be limited to as narrow a disturbance as possible to minimize the effects. Approaches to streams will involve selective clearing of vegetation. Any trees cleared during construction will be reestablished as part of reclamation.

Extra workspace areas used for crossing creeks and highways and other special sites will be restored to approximate pre-construction conditions.

### **6.6.1 Dry or Flowing Stream Bed Crossing Procedure**

In the event that a dry or flowing stream must be crossed for pipeline installation, the stream and any adjacent riparian zones will be subject to a trenched crossing.

Construction machinery will be properly cleaned and fueled outside of the streambed area prior to construction. If possible, construction will be accomplished during a seasonal period when there is generally low flow.

Sediment barriers will be installed across the pipeline corridor on either side of a stream bank, approximately 50 feet upland to the waterway. A 50-foot vegetative buffer will be maintained until actual stream-crossing construction begins, except where a crossing for vehicles and construction equipment is placed. The degree of grading and the width of corridor disturbance will be minimized along the stream bank.

Stream bank topsoil (sod) will be removed and stockpiled behind an earthen berm (or similar structure) in the adjacent upland area within the pipeline corridor or at an expanded staging area. Additional workspace may be needed adjacent to the waterway for staging equipment and materials. Channel contours and configuration will not be changed except in the case of bank contouring for stabilization purposes.

Excavated material and construction debris will not be placed in any stream channel or in flowing waters. Excess materials will be placed at an upland site well away from any stream channel. Materials used for or derived from construction, bedding, and/or excavation will not be stockpiled in a riparian or stream channel area.

### **6.6.2 Restoration for a Stream Crossing**

Construction equipment and debris will be removed from the streambed and banks. Streambeds and banks will be restored to approximate pre-construction contours. Stream bank topsoil will be replaced. Stream banks will be seeded and mulched, as needed. Suitable erosion control materials such as riprap will be utilized to anchor stream bank areas with unstable soils.

If an access road or pipeline corridor crosses a stream, the banks of the stream will be stabilized to prevent erosion. Riprap or similar type material will be installed along stream banks subject to stream-flow erosion and generally where stream banks have a slope steeper than 2:1. Riprap will be placed from the streambed to the top of the stream bank. The riprap will be of sufficient size to prevent transport by the stream flow.

Loose earth and debris will be removed from drainages and floodplains. Earth and debris will not be stockpiled on drainage banks.

## **6.7 Reseeding and Seed Mixture**

Whenever possible, seed should be planted using a drill equipped with a depth regulator to facilitate planting the seed at the optimum depth. If seed drilling is not possible, seed should be broadcast and the area raked or chained to cover the seed. When broadcasting the seed, the rate of seed application in pounds per acre should be increased by 50 percent.

Prior to reseeding, all disturbed areas, including access roads will be scarified and left with a rough surface. Seedbed preparation will be considered complete when the soil surface is completely rough.

Broadcast seeding will occur on steep terrain and on areas that are impracticable for drilling. Where broadcast seeding occurs, it will be harrowed or raked following application.

The recommended seed mixture should be planted in the fall (September to November) immediately after the topsoil is replaced.

Seed mixture(s) will be planted in the amount specified in pounds of pure live seed per acre, where necessary. There will be no noxious weed seed in the seed mixture. Commercial seed will be either certified or registered seed.

## **6.8 Post Construction Controls**

Sediment Control Devices placed at each Construction Site during construction activities will remain in place until full stabilization is achieved at each Construction Site. Drainage structures (e.g. culverts, drainage dips, and water bars) constructed along an access road will remain in place for storm water management control until S.G. Interests I, Ltd. no longer needs to use the Construction Site.

All disturbed areas will be re-contoured to replicate the natural slope. When a disturbed area is being recontoured, care should be taken to avoid disturbing additional vegetation. Drainage control will be implemented as necessary to avoid soil erosion.

All vegetation and Sediment Control Devices and other protective devices will be maintained, repaired, or restored as necessary while the Construction Site is subject to this SWMP.

## **7.0 RECEIVING WATERS**

Numerous small creeks (Little Henderson Creek, Baldy Creek, Gooseberry Creek, Deadhorse Creek, Coal Creek, Henderson Creek, Spring Creek, and Drift Creek) flow from the northwest and the northern portion of the Common Plan of Development into East Muddy Creek. Several smaller creeks flow from the east central portion of the Common Plan of Development into Lee Creek, which in turn empties into East Muddy Creek toward the southern end of the land area included in the Common Plan of Development. At a point roughly six miles south of the Common Plan of Development, East Muddy Creek flows into Paonia Reservoir.

Paonia Reservoir is located roughly 15 miles northeast of Paonia, Colorado in the northern portion of Gunnison County.

## **8.0 EXISTING VEGETATIVE GROUND COVER AND RUNOFF COEFFICIENT**

The climate in the Common Plan of Development is generally dry, with an average annual precipitation of 15 inches. Winter precipitation is mostly in the form of snowfall. Existing vegetative ground cover at the different Construction Sites subject to this SWMP ranges from a low of approximately 20% to a high of roughly 45% to 55%. These percentages generally indicate marginal ground cover due to fairly low and sporadic rainfall. In the case of the Construction Sites identified in this SWMP, the limited vegetative ground cover is also commonly associated with dry climate zones typical of the southwestern United States.

The percentage of existing vegetative ground cover is important for determining when East Resources, Inc. has fully satisfied land stabilization requirements imposed by CWQCD at each Construction Site so that the site may be deemed fully stabilized and may thus be removed from the list of Construction Sites subject to this SWMP. The various methods for determining full stabilization of the disturbed surface area at each Construction Site are highlighted in Article 12 of this SWMP.

The relatively low runoff coefficient (less than 0.15) that exists at the Construction Sites identified in this SWMP is typical of generally flat or average sloping lands with 20% - 55% ground cover.

## **9.0 NOTICE TO CONTRACTORS THAT WILL DISTURB THE SURFACE AREA AT A CONSTRUCTION SITE**

S.G. Interests I, Ltd. will provide a copy of this SWMP to each contractor or sub-contractor that will disturb surface lands (such as the contractor hired to construct any access road, a pipeline contractor, etc.) at any Construction Site covered by this SWMP. During drilling operations, S.G. Interests I, Ltd. will also post a copy of this SWMP at the drill site location for each oil and gas well covered by this SWMP. S.G. Interests I, Ltd. will review this SWMP with each contractor that will disturb surface lands at a Construction Site, and it will advise each contractor that the work it performs at the Construction Site must be consistent with the procedures listed in this SWMP. The contractors shall agree to follow the BMPs and procedures listed in this SWMP to minimize erosion and implement effective storm water control measures at each Construction Site.

## **10.0 INSPECTION AND MAINTENANCE**

S.G. Interests I, Ltd. shall be responsible for implementing and maintaining compliance with this SWMP. Maintenance of the Sediment Control Devices will be performed based on periodic inspections conducted at each Construction Site.

Sediment Control Devices are designed to retain sediment within the Construction Site to the maximum extent possible. All Sediment Control Devices installed at each Construction Site subject to this SWMP will be maintained in proper working order until the Construction Site is fully stabilized. If site inspections indicate that BMPs are not operating effectively, maintenance will be performed promptly to ensure effective erosion control. Sediment will be removed from any sediment traps when capacity is reduced to fifty percent of the original volume.

### **10.1 Inspection Procedures**

Visual inspection will be used to ensure that the Sediment Control Devices installed at each Construction Site are maintained in good and effective operating condition. If, during an inspection, it is determined that any measurable quantity of sediment has been blown or washed from the Construction Site, S.G. Interests I, Ltd. shall re-claim the sediment that was blown or washed from the Construction Site. Corrective action shall be taken within 24 hours of the discovery, or as soon as weather and/or ground surface conditions will allow.

#### **10.1.1 Active Construction Site**

The term, Active Construction Site is defined in Article 2.1 of this SWMP. In February, 2006, the Colorado Water Quality Control Division issued a "Stormwater Fact Sheet" (attached hereto as Exhibit E)

for review and use by oil and gas operators drilling oil and gas wells in Colorado. The Water Quality Control Division stated in the Stormwater Fact Sheet that the Sediment Control Devices installed at any Active Constructive Site need to be inspected at least “once every 14 days and after any precipitation or snowmelt event that causes surface erosion”.

### **10.1.2 Completed Construction Site**

The term, Completed Construction Site is defined in Article 2.3 of this SWMP. The Water Quality Control Division stated in the Stormwater Fact Sheet (attached hereto as Exhibit E) that the Sediment Control Devices installed at any Completed Constructive Site need to be inspected “at least once every month”. A critical component of a Completed Construction Site is that it has been reseeded, but not been fully stabilized as described in Article 12 of this SWMP. Until such time as the surface land has been fully stabilized, a Completed Construction Site needs to be inspected once every month.

## **10.2 Inspection Requirements - Severe Weather Exception**

If any inspection is not possible due to severe weather or other dangerous conditions, the inspection report must document why the inspection did not occur, and the inspection must be conducted as soon as improved weather conditions will allow.

## **10.3 Inspection Requirements – Sustained Snow Cover**

The Water Quality Control Division stated in the Stormwater Fact Sheet (attached hereto as Exhibit E) that inspections of Sediment Control Devices are not required at Construction Sites if snow cover exists over the entire Construction Site for an extended period and melting conditions do not exist. This relaxed inspection requirement shall only apply when the snow cover is not melting. The fact that the surface area of a Construction Site has sustained snow cover should be noted in the inspection report filed for that particular Construction Site so that the inspection report will reflect that an attempt was made to inspect each such Construction Site in a timely manner.

## **10.4 Record Keeping**

Qualified personnel responsible for the inspection and maintenance of the Sediment Control Devices shall keep records of the following items:

- An uncontrolled release of mud or muddy water or measurable quantities of sediment found off site. The inspector shall include a brief explanation identifying the action taken to prevent future releases as well as any clean up measures taken to re-claim sediment that has left the Construction Site.
- The Sediment Control Devices shall be examined to determine if they are functioning properly or in need of repair. Any deficiencies of structural controls or practices will be corrected promptly, before the next regular inspection. The inspector shall write a brief description of the action taken to correct any problems.

Following each inspection, the inspector shall complete an Inspection Report similar to the one attached to this SWMP as **Appendix A**.

S.G. Interests I, Ltd. shall retain a copy of each completed Inspection Report and a copy of each completed Corrective Action Report at the Construction Site or central field location for a minimum of three years after a Construction Site has been converted to a Completed Construction Site, as such term is defined in Article 2.3 of this SWMP.

## 10.5 Modification of an Existing Sediment Control Device

If the inspector determines that an existing Sediment Control Device is not working properly and needs to be modified in some way, then the inspector shall note the corrective action that is necessary on a form similar to the Corrective Action Report attached to this SWMP as **Appendix B**.

## 11.0 CONSTRUCTION SITES – GENERAL CONTROLS

The following controls focus on reducing the contact of storm water with lubrication oils, hydraulic fluids, cutting oils, paints, solvents, coolants, and other supplies commonly used in oil and gas operations. These control measures include material handling and spill prevention measures.

Petroleum products used at the Construction Site are most frequently associated with fueling and maintenance of construction equipment. Potential sources of pollution, such as chemicals and diesel vehicle fuel, should not be stored in large quantities at the Construction Site.

Fuel spills and leaks must be promptly cleaned up to prevent pollution of surface or groundwater. Spill control measures will be implemented in areas where potential spills can occur. The following controls shall be implemented during construction to minimize the potential for storm water to contact hazardous materials or wastes.

- Any salt or chemicals used in the mud system will be contained in the reserve pit.
- A trash container will be used for trash collection and containment. All garbage and non-flammable waste materials will be taken to an authorized county landfill area. All Construction Sites shall be kept litter free. No trash will be placed in the reserve pit.
- Sanitary sewage facilities (portable self-contained chemical toilets) will be located at appropriate work sites and at all drill site locations. Sanitary waste will be collected and disposed of at a licensed sewage disposal facility. No sewage will be buried, dumped or discharged to waters of the State or waters of the U.S.
- Storage areas, protected from storm water runoff, will be used to store minimum quantities of chemicals, paints, solvents, diesel fuel, lubricating oils, and other potentially toxic or hazardous materials. Good housekeeping practices will be used at each Construction Site. Chemical containers will be stored in areas having secondary containment to minimize the possibility of spills or leaks while accessing those materials.
- Any onsite contractor shall initiate additional environmental precautions if it lubricates equipment or fuels vehicles within 100 feet of any stream or wetland area. Chemicals, paints, solvents, fuels, lubricating oils, and other potentially toxic or hazardous materials shall be stored in secondary containment if located or temporarily stored within 100 feet of a stream or wetland area.

- All spills of liquid or dry materials will be promptly and safely removed from the Construction Site. Any spill of a toxic or hazardous material will be immediately reported to the appropriate company employee. A spill of a toxic or hazardous material will also be timely reported to the appropriate governmental agency if so required.
- Construction equipment and vehicles will be periodically inspected for leaks, and all repair work will be quickly handled before placing the equipment back in service. All equipment will be cleaned and inspected for leaks prior to entering a streambed, and no leaking equipment will be allowed within the streambed or within 100 feet of the streambed.
- Gravel areas will be installed, as needed, at access points connecting with a paved road, to minimize the tracking of mud, dirt or sediment onto the paved road.

## **12.0 FULL STABILIZATION OF A DISTURBED SURFACE AREA**

When S.G. Interests I, Ltd. has fully stabilized the surface land disturbed at any Construction Site, it may drop the Construction Site from the list identified in Exhibit “A” of this SWMP by implementing the following action:

- 1) After it has fully stabilized the land, S.G. Interests I, Ltd. shall submit an Inactivation Notice to the CWQCD. The Inactivation Notice shall include the following data: i) the General Permit certification number, ii) the permittee’s name, address, and telephone number, iii) the name, location, and county where the Construction Site is located, and iv) a statement certifying that the surface land at the Construction Site has been fully stabilized, along with a description of the final stabilization methods.
- 2) Unless CWQCD requests additional information regarding the stabilization of the Construction Site, the surface land covered by the Inactivation Notice may be deleted from the list of Construction Sites identified in Exhibit “A” of this SWMP.

CWQCD has identified the following factors that S.G. Interests I, Ltd. may use to determine when it has satisfied CWQCD’s land stabilization requirements: i) uniform vegetation has been established at the Construction Site with a vegetation density of at least 70% of pre-disturbance levels, or, ii) the establishment of a vegetative cover capable of providing erosion control equivalent to pre-existing conditions at the Construction Site (i.e. prior to the time S.G. Interests I, Ltd. made the surface disturbance).

## **13.0 GENERAL LIMITATIONS ON STORM WATER DISCHARGES MADE UNDER THIS SWMP**

The following limitations shall apply to all storm water discharges made under this SWMP:

- 1) Bulk storage structures for petroleum products and other chemicals shall have adequate protection so as to contain all spills and prevent any spilled material from entering waters of the State or waters of the U.S.
- 2) No chemicals shall be added to the water discharges under this SWMP unless CWQCD grants its permission to do so in writing.

- 3) During the construction of any facility used in conjunction with S.G. Interests I, Ltd.'s oil and gas operations under this SWMP, all building materials that are not completely used must be removed from the Construction Site for disposal in a licensed disposal operation. No building materials or supplies shall be buried, dumped or discharged at the Construction Site.
- 4) The off-site vehicle tracking of sediments shall be minimized whenever possible.
- 5) S.G. Interests I, Ltd. agrees to comply with the lawful requirements imposed by municipalities, County, drainage districts, and other local governmental agencies covering the discharge of storm water at each Construction Site, including erosion and sediment control regulations.

## 14.0 TRANSFER OF THIS SWMP

S.G. Interests I, Ltd. may transfer this SWMP along with a transfer of its Storm Water Discharge Permit issued by CWQCD by completing a required CWQCD transfer form and submitting the signed form to CWQCD for approval.

## 15.0 REVISIONS TO THIS SWMP

S.G. Interests I, Ltd. may revise this SWMP at any time it deems it necessary to do so. The Water Quality Control Division, in its Stormwater Fact Sheet (attached hereto as Exhibit E) states that the SWMP needs to be revised whenever a Sediment Control Device is not working effectively to minimize or eliminate sediment from being discharged off of the Construction Site. The specific language in question is found at the top of page 5 of Exhibit E and is quoted below:

“Any BMPs not operating in accordance with the SWMP must be fixed immediately. If modifications to the SWMP are deemed necessary, such as replacing an inadequate BMP with an alternate BMP, the SWMP must be revised and the BMPs modified as soon as practicable, but in no case more than 7 calendar days after the inspection”. [Emphasis added.]

Greystone does not believe that the main text of the SWMP needs to be modified if a BMP needs to be changed, added or replaced at a Construction Site. Greystone is therefore recommending that S.G. Interests I, Ltd. adopt the following simple procedure to address a change of a BMP at a specific Construction Site. S.G. Interests I, Ltd. shall implement the following procedure to modify this SWMP in the event a change needs to be made to one or more Sediment Control Devices (aka BMP) being used at a particular Construction Site:

- 1) S.G. Interests I, Ltd. will maintain a separate file folder for each Construction Site that is a part of this SWMP. The file will be identified by the name of the oil and gas well or other facility found at the site in question.
- 2) S.G. Interests I, Ltd. will comply with the periodic inspections that need to be conducted at each Construction Site. An inspection report (see **Appendix A**) shall be completed and signed by the party conducting the inspection. The inspection report shall be placed in the file folder for the specific Construction Site after the inspection is conducted.

- 3) If a Sediment Control Device needs to be changed at a Construction Site, S.G. Interests I, Ltd. will note on the Corrective Action Report (see Appendix B), the type of change that was made, the date it was made and the inspector or other party that made the change. The inspector will also note on a copy of the Exhibit D plat the change or changes that were made to the Sediment Control Devices at that Construction Site. The inspector will also state on the Exhibit D plat for that Construction Site, the specific date the change(s) were made to the Sediment Control Devices so that if the Water Quality Control Division (or its authorized representative) ever inspects the Construction Site, it can track the changes that were made to the Sediment Control Devices and it can verify the changes that were made to the SWMP for that specific Construction Site. The Corrective Action Report will be placed in the file folder for the Construction Site in question.
- 4) If S.G. Interests I, Ltd. follows this recommended procedure, there will be no need to modify the main text of this SWMP if the only change that needs to be made is specific to only one or a few of the Construction Sites subject to this SWMP. At the same time, the actual change made to this SWMP will be reflected in both the Inspection Report and the Corrective Action Report placed in the file folder for the specific Construction Site(s) in question.

## 16.0 FINAL WINDUP AND TERMINATION OF THIS STORM WATER MANAGEMENT PLAN

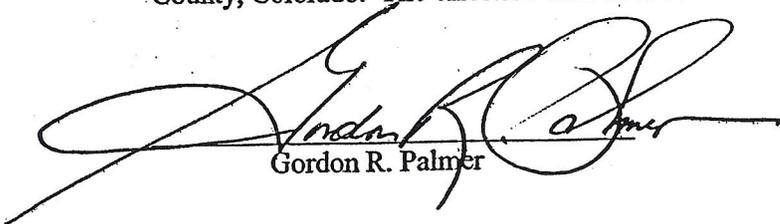
If S.G. Interests I, Ltd. reaches a point where there are no more Construction Sites subject to this SWMP, then S.G. Interests I, Ltd. may seek to terminate this SWMP, after first advising CWQCD, or its successor state agency, that S.G. Interests I, Ltd. has implemented full stabilization of the surface land at all Construction Sites and that it therefore intends to terminate this SWMP.

All facility structures and above ground equipment will be removed and the casing of all oil and gas wells shall be plugged and abandoned pursuant to requirements imposed by the Colorado Oil and Gas Conservation Commission (COGCC).

Access roads will be reclaimed in a manner consistent with state regulations imposed by the COGCC. Water bars and physical barricades may be used to facilitate reclamation. All pipelines and any underground utility lines will be abandoned in place.

## 17.0 VERIFICATION NOTICE AND EFFECTIVE DATE

This Storm Water Management Plan (Plan) was prepared by Greystone Environmental Consultants, Inc. (Greystone) and is signed by Gordon R. Palmer, as Project Manager for Greystone, to verify that the Plan was prepared prior to the date that Greystone submitted an application for a Storm Water Discharge Permit to the CWQCD covering S.G. Interests I, Ltd.'s oil and gas operations in Gunnison and Delta County, Colorado. The effective date of this Plan will be the date listed immediately below.

  
Gordon R. Palmer

Date: MARCH 6, 2006

## **EXHIBIT A - CONSTRUCTION SITES**

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# Exhibit A – Construction Sites

(Attached to and made a part of that certain Storm Water Management Plan covering S.G. Interests I, Ltd.'s oil and gas operations in Gunnison and Delta Counties, Colorado)

The Colorado Water Quality Control Division uses the term, "Construction Site" to identify oil and gas drill site locations as well as other facilities constructed in conjunction with the operator's oil and gas operations. This Exhibit A contains a list of oil and gas drill sites and any facility locations constructed by S.G. Interests, Inc. for its oil and gas operations in Gunnison and Delta Counties, Colorado.

This Exhibit A should be periodically updated to incorporate any changes to S.G. Interests I, Ltd.'s planned oil and gas development within the Common Plan of Development covered by this Storm Water Management Plan. New oil and gas wells that S.G. Interests, Inc. plans to drill should be added to this Exhibit A. If S.G. Interests, Inc., for whatever reason, decides not to drill a proposed oil and gas well that was added to this Exhibit A, then that oil and gas well location (aka Construction Site) should be deleted from this Exhibit A. After S.G. Interests, Inc. has fully stabilized the surface location at any Construction Site that is identified in this Exhibit A, and has submitted an Inactivation Notice to the Colorado Department of Public Health and Environment – Water Quality Control Division, it may delete that Construction Site from this Exhibit A.

This Exhibit A will be used to identify the location of: 1) drill site locations for oil and gas wells that have not yet been drilled by S.G. Interests I, Ltd., 2) drill site locations for oil and gas wells that have been drilled where S.G. Interests I, Ltd. has not yet fully stabilized the surface location of the Construction Site, 3) any oil and gas facilities that are constructed in conjunction with S.G. Interests I, Ltd.'s oil and gas operations.

1) **Construction Site #1:**

Name of the Construction Site: Federal 1-25-10-91R

Location of the Construction Site: Township 10 South, Range 91 West, 6<sup>th</sup> P.M.  
Section 25: 409' FSL, 903' FEL (SE/4SE/4)

Gunnison County, Colorado

Exhibit A – Construction Sites  
Operator: SG Interests I, Ltd

**Construction Site #: 25**

Name of Construction Site #: 25 McIntyre  
Flowback Pit #3 and McIntyre Flowback Pit #4

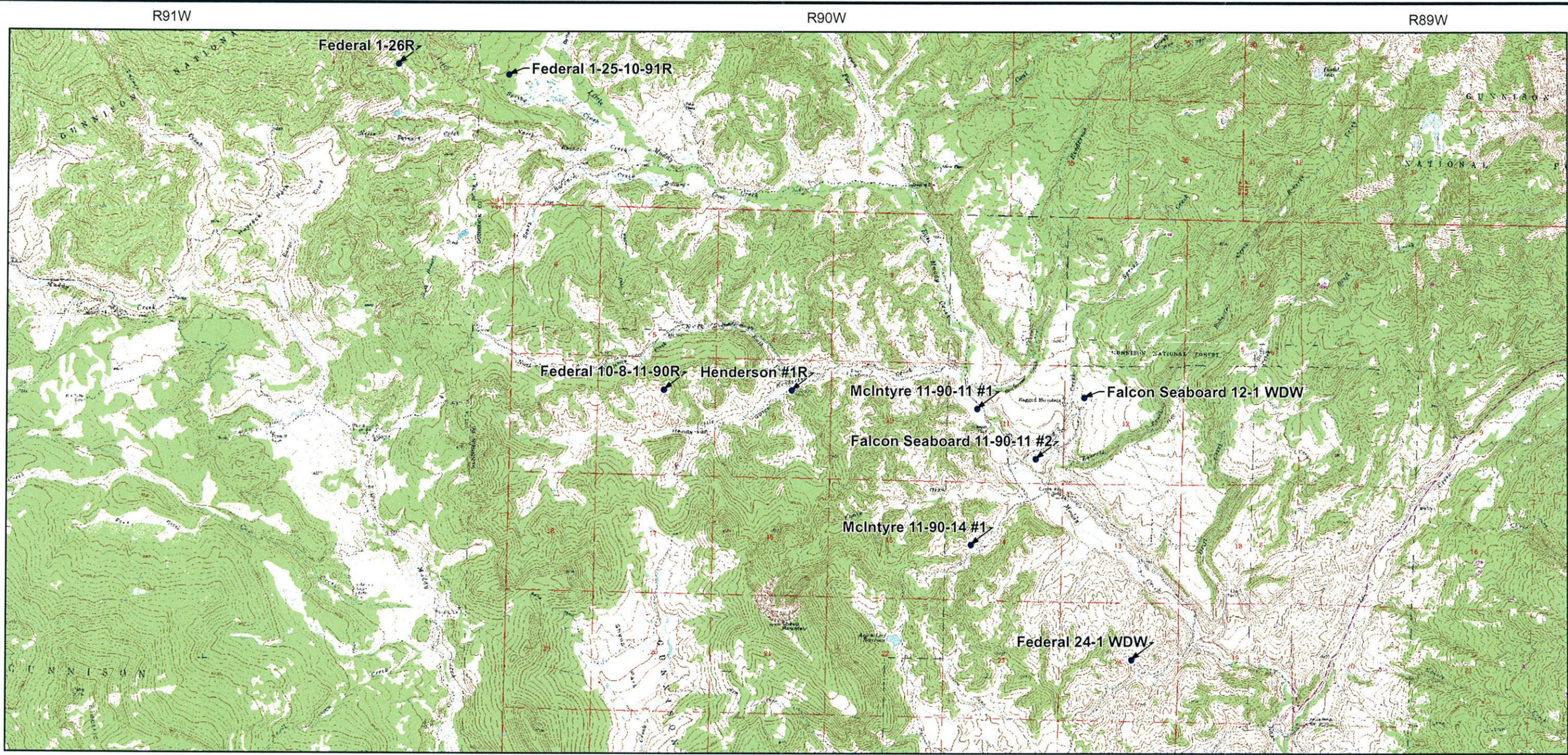
Location of Construction Site #: 24

Township 11 South, Range 90 West 6<sup>th</sup> P.M.  
Pit #3 NWNE Section 26; 723.2 FNL, 2208.8 FEL  
Pit #4 NWNE Section 26, 466.1 FNL, 2103.5 FEL

Gunnison County, Colorado

## **EXHIBIT B - GENERAL SITE MAP**

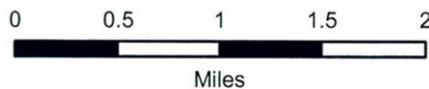
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● Proposed Drill Site Locations

Contour Interval: 20 feet

UTM Zone 13; 1927 North American Datum  
USGS 7.5 Minute Quadrangles:  
Spruce Mountain, Elk Knob, and Bull Mountain, Colorado



Effective Date: March 1, 2006

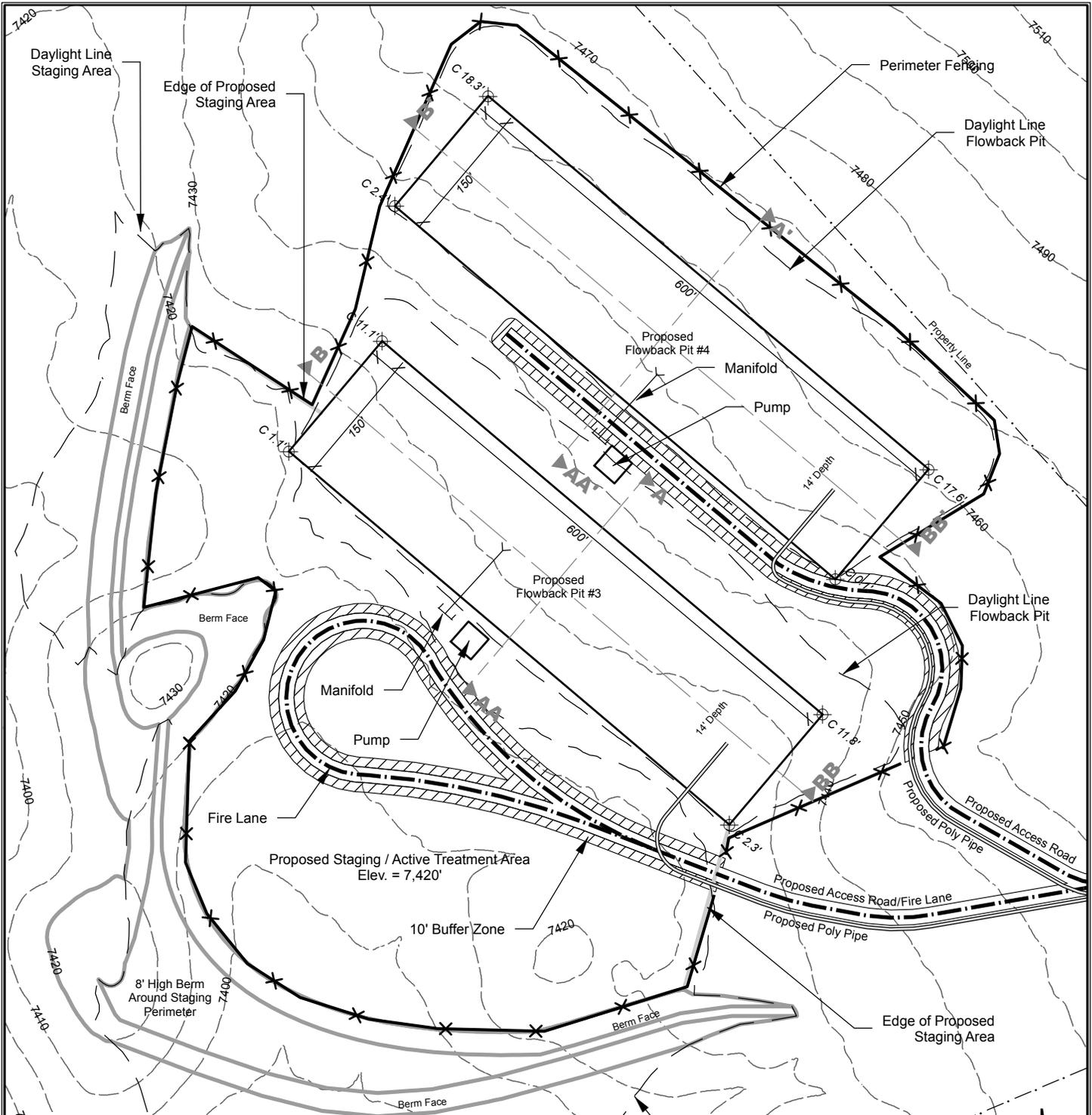


<b>EXHIBIT "B"</b> <b>STORM WATER MANAGEMENT PLAN</b>	
GENERAL SITE MAP OPERATOR: S.G. INTERESTS I, LTD. COMMON PLAN OF DEVELOPMENT GUNNISON AND DELTA COUNTIES, COLORADO	
Analysis Area: Gunnison and Delta Counties, CO T10-11S, R90-91W	
Date Completed: 03/08/06	File: SGInterests_B_11x17.mxd
Map/Data: KW - Review: GP	Print: SGInterests_B_11x17.pdf



**EXHIBIT C – SURFACE ACREAGE DISTURBANCE AT EACH  
CONSTRUCTION SITE**

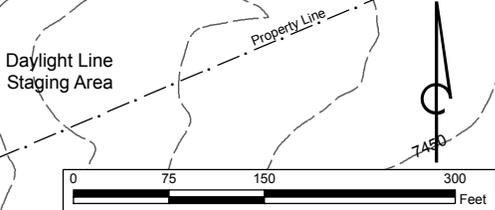
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Pit 3: 150'x600'x14'  
 (36,320 cy. / 174,659 bbls.)  
 Pit 4: 150'x600'x14'  
 (36,320 cy. / 174,659 bbls.)

Note: No wells located on staging pad. Meter houses are located on the individual well pads.

**Exhibit C- Surface Acreage Disturbance at Construction Site #25**  
 (Attached to and made part of that certain Storm Water Management Plan covering S.G. Interests I, Ltd.'s oil and gas operation in Gunnison and Delta counties, Colorado)



ITEM	Estimated Dirt Quantities (cy)		
	CUT	FILL	EXCESS
	<i>SUBSOIL</i>	<i>TOPSOIL</i>	
Pit 3	69,549	3,908	73,457 (C)
Pit 4	80,802	4,245	85,047 (C)
Staging		10,737	139,614 (F)
<b>TOTAL</b>	<b>150,351</b>	<b>18,890</b>	<b>18,890 (C)</b>

Notes:  
 1. Subsoil from pits cuts (150,351cy.) used to create staging area.  
 2. Topsoil (18,890 cy.) stored in separate pile from staging area.  
 3. Topsoil volumes based on 8" soil depth.  
 4. Total Disturbed Area = +/- 12.1 Ac.

SCALE: 1" = 150'  
 DATE: 10.22.2010

 **SG Interests**  
 PO Box 26  
 Montrose, CO 81402  
 970-252-0696

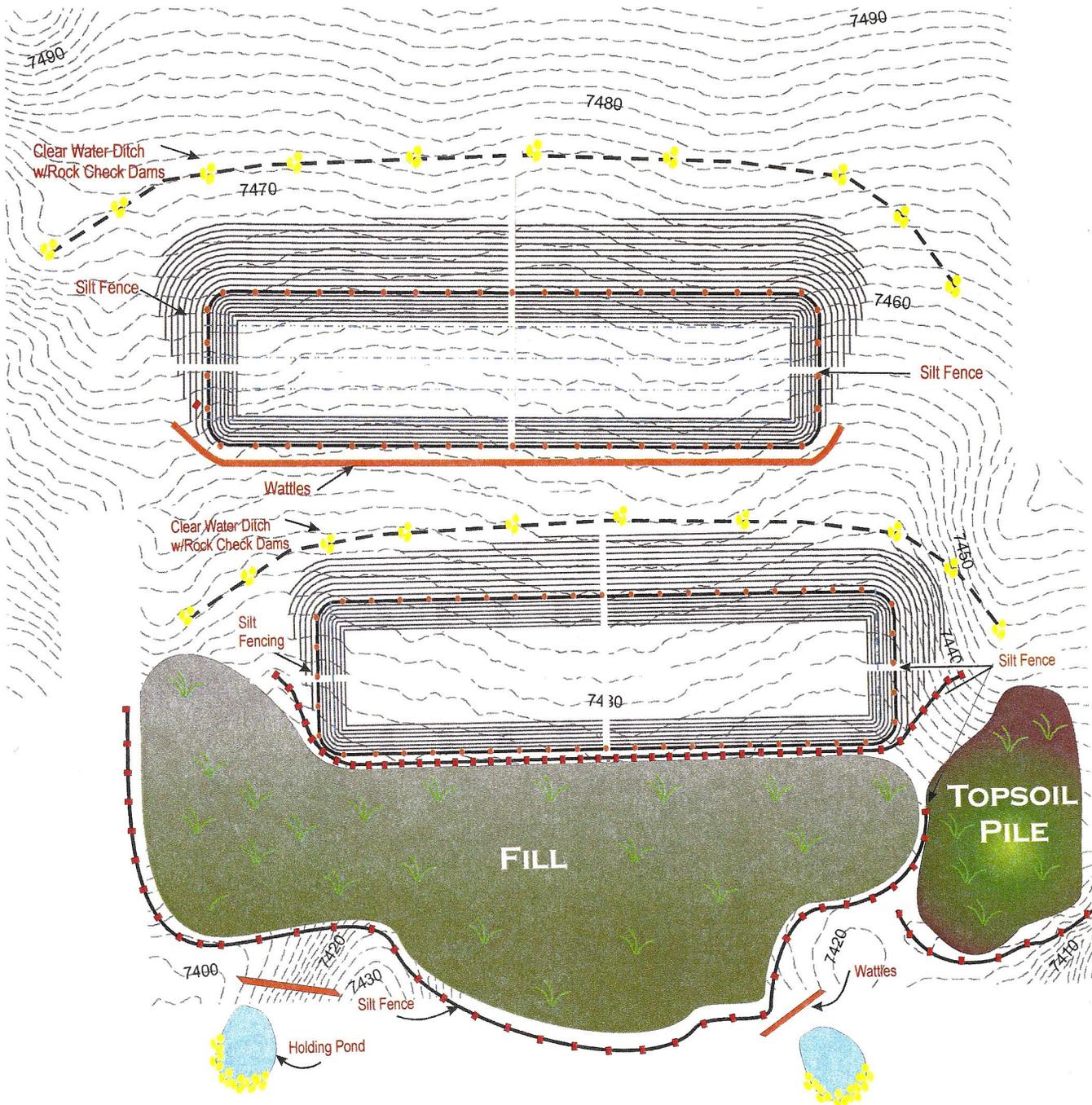
**Bull Mountain Unit**  
 T. 11 S, R. 90 W, Section 26

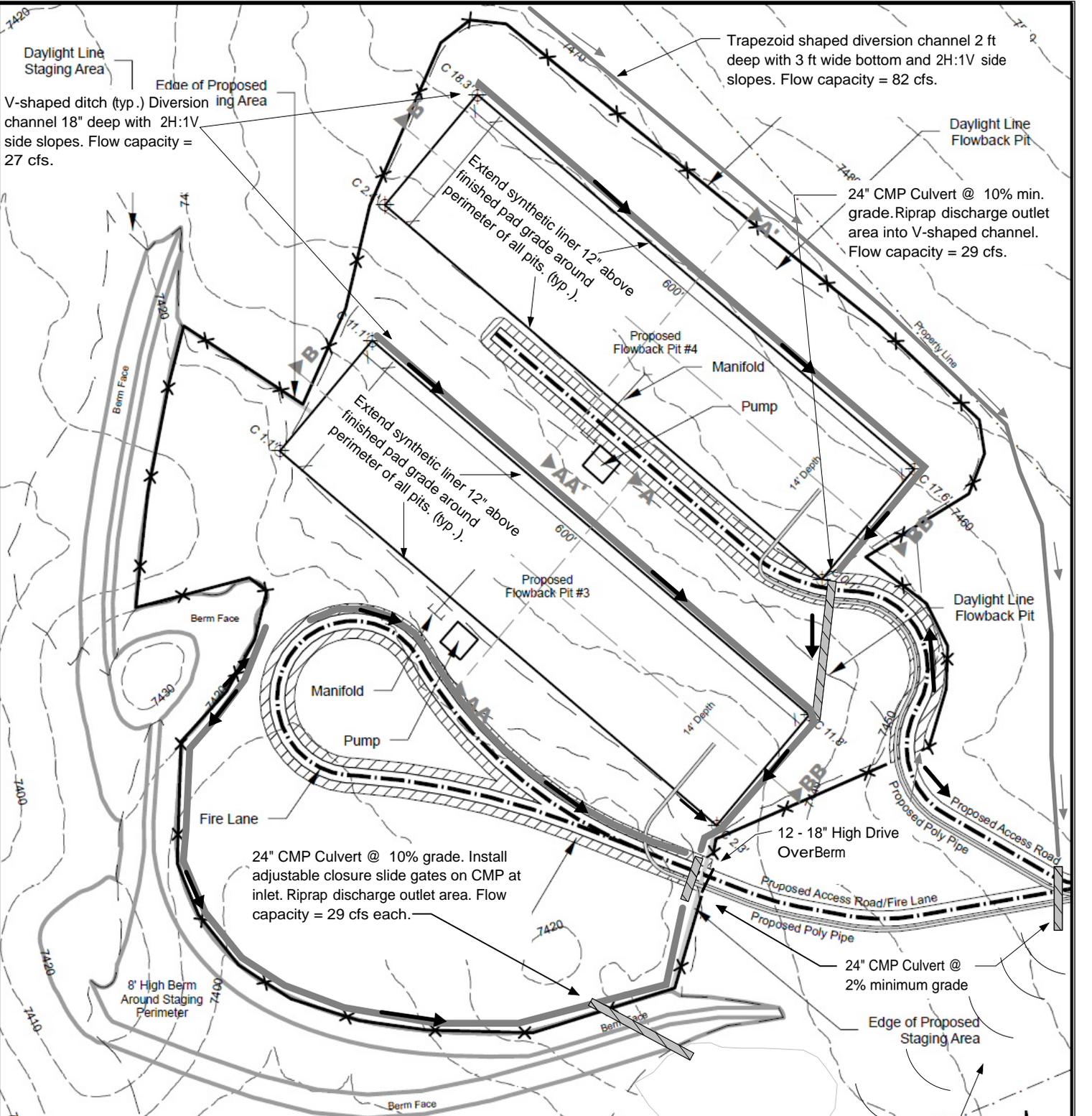
**McIntyre Flowback Pits 3 & 4**  
**CONSTRUCTION LAYOUT**

**EXHIBIT D – PLAT SHOWING LOCATION OF THE SEDIMENT  
CONTROL DEVICES AT THE CONSTRUCTION SITE**

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# McIntyre Flowback Pit #3 & 4 Proposed Stormwater Management Layout



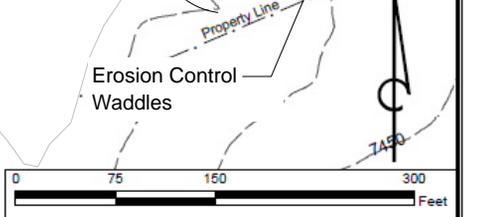


Pit 3: 150'x600'x14'  
(36,320 cy. / 174,659 bbls.)  
Pit 4: 150'x600'x14'  
(36,320 cy. / 174,659 bbls.)

Note: No wells located on staging pad. Meter houses are located on the individual well pads.

Sedimentation Basin with two - 24" CMP outlets. Daylight to natural channel

Tributary Drainage Area = 13.26 acres  
Pit 1 & 2 Surface Area = 4.13 acres  
Net Drainage Area = 9.13 Acres



Estimated Dirt Quantities (cy)			
ITEM	CUT		EXCESS
	SUBSOIL	TOPSOIL	
Pit 3	69,549	3,908	73,457 (C)
Pit 4	80,802	4,245	85,047 (C)
Staging		10,737	139,614 (F)
<b>TOTAL</b>	<b>150,351</b>	<b>18,890</b>	<b>18,890 (C)</b>

Notes:

- Subsoil from pits cuts (150,351cy.) used to create staging area.
- Topsoil (18,890 cy.) stored in separate pile from staging area.
- Topsoil volumes based on 8" soil depth.
- Total Disturbed Area = +/- 12.1 Ac.

SCALE: 1" = 150'  
DATE: 10.22.2010

**SG Interests**  
PO Box 26  
Montrose, CO 81402  
970-252-0696

**Bull Mountain Unit**  
T. 11 S, R. 90 W, Section 26

**McIntyre Flowback Pits 3 & 4**  
**CONSTRUCTION LAYOUT**

Exhibit E – [0214-099] Attached to the SWMP for S.G. Interests I, Ltd.

**7) Obtaining Forms and Guidance**

The application, SWMP guidance, and other information may be obtained from the Division's web site at [www.cdphe.state.co.us/wq/permitsunit](http://www.cdphe.state.co.us/wq/permitsunit), or by calling (303) 692-3517. For other questions about the Stormwater Program, please call (303) 692-3517.

**APPENDIX A - CONSTRUCTION SITE STORM WATER  
INSPECTION REPORT**

---

**Appendix A**

**COLORADO STORM WATER DISCHARGE PERMIT  
INSPECTION REPORT**

Construction Site Name and Location:	Date:	Page 1 of ____
	WQCD Permit #	
County:	Entry Time:	Exit Time:
On-site Representative(s): Phone Number:	Weather Conditions:	
Name and Address of Permittee/Title/Phone/Fax Numbers:	Contacted Yes <input type="checkbox"/> No <input type="checkbox"/>	

**INSPECTION CHECKLIST**

**Permit Issues**

Yes No N/A

- Is a signed copy of the SWMP located at the Construction Site?
- Is a copy of the Storm Water Discharge Permit located at the Construction Site?

**Recordkeeping**

Yes No N/A

- Are inspections being performed as required by the permit every 14 days and after significant precipitation events?
- Are the site inspections being performed by a trained professional?
- Are all required reports signed/certified by the permittee?

**Visual Observations**

Yes No N/A

- Have all erosion and sediment control measures been installed/constructed?
- Are all erosion and sediment control measures being maintained properly?
- Have stabilization measures been initiated in inactive areas?
- Was there a discharge off site on the day of inspection?
- Is there evidence of sedimentation, or oil residue off site?

<b>Overall Inspection Rating:</b>	Satisfactory <input type="checkbox"/>	Marginal <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>
<b>Name Of Lead Inspector:</b>	<b>Signature of Lead Inspector:</b>		
<b>Names Of Any Other Inspectors:</b>			

**Observations:**

Describe the discharge(s) [source(s), impact on receiving water(s), etc.]

Identify water quality or permit issues.



**Additional Comments:**

Photographs attached: Yes  No

## **APPENDIX B - CORRECTIVE ACTION REPORT**

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## Appendix B

### CORRECTIVE ACTION REPORT CONSTRUCTION SITE STORM WATER DISCHARGE PERMIT INSPECTION

Construction Site Name and Location:		Date:	
		Permit #	
Client:	County:	Inspector(s) name:	
Inspection conducted by:	Inspector's phone number:		

**Items identified for Corrective Action**

Construction Site	Description of Deficiency	Corrective Action Need	Date Correction Action Implemented