Operating Plan for McIntyre Flowback Pits #1 (#423372) and #2 (#418421)

First Annual Revision – December 31, 2013

Includes Updated Operating Plan and Facility Modification Checklist

SG Interests I Ltd. (77330)

SG INTERESTS I, LTD.

Operating Plan for McIntyre Flowback Pits #1 and #2 (908.B.8)
Revised December 31, 2013

Project Introduction

SG Interests has planned two facilities at which they will store water, including flowback water, for use in frac'ing wells in their Bull Mountain Unit and at nearby wells outside the unit. McIntyre Flowback Pits 1 and 2 are located at one of these facilities and are the subject of this Operating Plan. Both facilities will be located on Rock Creek Ranch, a property owned by an affiliate of SG Interests, Rock Creek Ranch I Ltd. The Construction Layout drawings included in this application depict the planned general arrangement of the facility. At the time of this revision, the facility had not been constructed. The purpose of this Operating Plan is to provide a basis for developing and implementing the processes and procedures that will be used at the facility. This plan will be updated at regular intervals beginning prior to project construction and annually after that. This facility will have a Spill Prevention, Containment and Countermeasure Plan prepared within six months of project construction. The SPCC plan will include a Facility Response Plan due to the volume of water stored at the facility.

The basic plan for use of the facilities is to transport water to be stored in the pits via poly pipeline on the ground surface. These pipelines can be laid on the ground without creating ground disturbance (see example photo below from http://www.wpandd.com/photoGallery.html). Wherever possible, these pipelines will be laid alongside or over existing disturbance such as along an access road. Before the pipelines are moved to a new location, they will be dried using a foam pig pushed by compressed air. The pig will be pushed back toward the pits allowing the fluid to drain into the pits. The pipeline can then either be dragged with a rubber tired vehicle to the new location.

Photo 1. Example of surface poly pipeline in use.

Most produced water that will be stored in the pits will be piped through SG Interests' existing buried water pipeline gathering system to the Federal #24-2 WDW (05-051-06084, water disposal well) and from there via surface poly pipelines to the pits. Surface poly pipelines that cross sensitive areas will have secondary containment to prevent a leak in a poly line from contaminating surface waters. These temporary surface poly water pipes can be moved as needed to connect the pits with gas well sites or injection well sites for disposal.

Trailer-mounted pumps will be located near the edge of each pit to pump water into and out of the pits (see photo 2). Water pumps will have built-in secondary containment systems known as ecology rails (see photo 3). Ecology rails are built-in sump systems that are part of the skids of these pumps.

Photo 2. Example of water pumps with stinger pipes reaching down into a pit.

Photo 3. Ecology rails are secondary containment systems that surround the pumps and prevent pump fuel and fluids from reaching the ground.

Booster pumps will be needed at certain points along some of the poly pipeline routes to keep the water flowing at the desired pressure. These points will be determined by field conditions such as topography between the facility and the well location. Although none of these locations have yet been identified, a map with their locations will be provided to COGCC with a Form 4, Sundry Notice whenever a booster pump is needed.

It will not be possible to connect all wells supplying produced water for storage in the pits via pipe. Some wells will have water trucked from tanks on these locations. Operators will use the permanent

manifold structures located next to each pit, to deliver or remove water from pits by truck. This will prevent water hoses from being dropped into the pits and dragged over the liner, which could lead to liner damage. The manifold structure uses a hose that is left in place in each pit throughout the season to reach water stored in the pits. This hose will lay on an additional piece of 60 mil liner from its first contact with the pit liner to the bottom of the pit. Operators will only use the manifold structure to access the pit from the staging area. No operators will be allowed to approach the pit any closer than the manifold structure. Prior to disconnecting the hose from the manifold, equipment operators will reverse pump to clear fluid from the hose. Each manifold will have a galvanized or graded catch basin in case a leak does occurs while operators are connecting or disconnecting hoses. Fluid will not be allowed to build up within any secondary containment system.

Photo 4. Hose manifold with containment system beneath connections.

The pits will not be used during the winter season. Winterization of the pits will consist of removal of stationary equipment from the staging area and removal of poly pipelines from unit. Equipment that would be removed from the staging area includes the pumps and most poly pipes. The volume of water stored in the pits over winter will be reduced to accommodate snow fall. The highest recorded annual total snowfall measured in Meredith, Colorado (similar in elevation to this site) was 192" in 1964 (≈ 16') (Western Regional Climate Center data). In order to accommodate this snow if it were all to melt in one event, the pit water would be drawn down 16" in both pits 1 and 2. This draw down would accommodate all of the snow melt resulting from 16' of snow, which would approximately equal 16" of water. Pit 1 would be drawn down by 5,237 bbl and Pit 2 by 5,049 bbl each year if the pits were filled to capacity prior to draw down (capacity calculated with two feet of freeboard). This water would be disposed of either at a commercial facility or at SG's water disposal well each year. The volume in the pits would be monitored daily during the winter. The facility access road will be kept plowed and accessible during the winter. In the event that plowing does not occur in time for daily facility monitoring, the location is accessible with a snowmobile. If problems are noted during a snowmobile site visit, the road will be plowed immediately and the problem addressed.

Following fall bird migration, the nets at the pits will be removed to prevent snow damage to the nets. SG will submit a Sundry Notice to COGCC prior to removing the nets from the pits in the fall. During the time the netting is off the pits, colored bird-deterrent flagging will remain in place. Prior to spring

migration, the bird netting will be returned to the pits. A Sundry Notice will also be used to notify COGCC that the netting is back in place. The goal of stringing and removing the netting on a seasonal basis is to have the netting in place when the fluid in the pits is in liquid form and to remove the netting in order to preserve it during periods when the fluid is frozen. The colored flagging will help deter birds in the case of unseasonal warm weather in fall.

Photo 5. Colored flags in use at Pits 3 and 4 following fall bird migration and removal of netting.

This operating plan will be updated prior to start-up of the facility, whenever a significant change in operations occurs, and annually thereafter. See Appendix A to this plan for the Facility Modification Checklist (FMC) to be used when updating this plan. Changes that should be recorded on the FMC include facility modifications, updates to the Operating Plan, permit reporting information. Whenever the FMC is filled out, it will be forwarded to COGCC with a Form 4, Sundry Notice, for approval.

An Annual Review of operations will be provided to COGCC by December 31st each year that the facility is in operation. This review will summarize operations for the year and will include the volume of produced water handled at the facility, volume of produced water disposed of, and any results from surface and groundwater monitoring.

A. Method of Treatment and Loading Rates

The water to be stored in the McIntyre Pits will initially be comprised of a mixture of fresh water from the Bainard Reservoir No. 1 Augmentation Plan and produced water from several of SG Interests' wells in the area. A list of these wells and water analysis reports for the listed wells is attached to this application. Fresh water will be added as necessary utilizing the Bainard Reservoir No. 1

Augmentation Plan. SG re-built the existing Bainard Reservoir No. 1 and obtained an Augmentation Plan through State Water Court to use this water for commercial/industrial purposes.

When water is drawn from a pit to be used for completing a well, it will be filtered (filter model # SWD10R29.50P or similar) before use in completing the well. The resulting flowback water will also be filtered. These filters are designed to remove solids, coal, hydrocarbons, and sediments. The filters have a polypropylene core and yarn. The filter sock measures 7.5"W X 32"L and the cartridge measures 2.0"W X 29"L. Filtration will be with a two stage filter system. In the first stage, the water is filtered through twelve 20-micron filters. In the second stage, it passes through twelve 10-micron filters. The micron sizes of the filters were selected to capture a wide range of particles from bacterial body mass to hydrocarbons and fines. The effectiveness of the filter sizes is evaluated periodically by water sampling and testing. The 20 and 10 micron filters are contained at a filter pod. SG will have two filter pods for the pit water. A gauge measures the water pressure at each side of the filters (before filtration and after) within a pod. When the pressure differential reaches 12 pounds, the flow of water is switched to the second filter pod. At this point the filters in the first pod are changed. SG anticipates changing the filters daily during loading periods. Used filters are disposed of at a landfill. The MSDS sheets for these filters are attached to this plan. Water is then piped back into the pits for storage until it is reused. Filter systems may be located on individual well locations or at the pit facility. If it is necessary to change the filter type or size, SG Interests will notify GOGCC via Form 4, Sundry Notice. When the pits are being filled, water will flow into them at the rate of about 3,000 barrels per day. Water in the pits will be treated as necessary to prevent bacteria buildup using biocide developed for that purpose. Dead bacteria are filtered out of the water when the water is drawn from the pits for reuse. Bacteria treatment will prevent odor from emanating from the pits.

B. Dust and Moisture Control

The facility is not required to obtain a land disturbance permit from CDPHE since it is below the acreage threshold of 25 acres and construction will not last six months or more. Dust on the staging area adjacent to the pits and pit access roads will be controlled by application of fresh water as needed to keep dust down. SG expects dust treatment to be needed infrequently because trucks will not ordinarily be used to transport this water. There will be no dust or moisture control needed for the pits themselves.

C. Sampling

As new wells begin producing and are included in the list of wells contributing produced water to the pits, they will be added to the list of wells by Sundry Notice. Water analyses for this produced water will be included with this form. As new wells are completed and contribute flowback water to the pits, these new wells will also be added to the list of wells through a Sundry Notice. Once flowback water has been added to the pits, analytical water testing will be conducted of the pit water (as per Linda Spry-O'Rourke's email dated October 7, 2010 and attached to this plan). Analytical testing will be conducted four times per year of the pit water. The results of this testing will be included with the Sundry Notice within three months of testing. The current list of wells and analytical test results for this produced water are in Attachment H of the permit application.

There are no water wells used by members of the public for drinking water within one mile of the flowback pits. The State Engineer's Office shows one water well about one mile to the northeast of Flowback Pit #1 (Permit #263115). This well was not located in the field when water well sampling was conducted in 2010. Instead the landowners allowed access to the spigot from which they draw water. The source of this water is a spring box located off their property. This water (from spigot, not from water well) was sampled and tested (WQ 11-90-13 #2, in Attachment H of the permit application). The second spring box that was tested is WQ 11-90-27 #1 as depicted on the map of shallow groundwater test locations in Attachment H of the permit application. Surface water in the vicinity of the pits has also been collected and tested (see attached map and test results in Attachment H of the permit application). Shallow groundwater and surface water has been tested and analyzed according to the parameters listed in Table 910-1. Shallow groundwater and surface water

test points are indicated on the maps attached to this application (Attachment H of the permit application). This water testing provides a baseline of water quality in the area prior to construction and filling of the pits. The complete water sampling and testing database is maintained at SG Interests' Durango office (1485 Florida Road, C202, Durango, CO 81301). Once the pits are operational, testing of the shallow groundwater and surface water will be conducted during the season following initial filling of the pits, on the third year of use, and on the sixth year of use. The following analytes will be tested for:

GC/MS

ANALYTE	CAS
Benzene	71-43-2
Ethylbenzene	100-41-4
Toluene	108-88-3
Xylenes, Total	1330-20-7

All EPA 8260.

Metals Analysis

ANALYTE	CAS
Calcium	7440-70-2
Iron	7439-89-6
Magnesium	7439-95-4
Manganese	7439-96-5
Potassium	7440-09-7
Selenium	7782-49-2
Sodium	7440-23-5

Wet Chemistry

ANALYTE	CAS
Bromide	7726-95-6
Chloride	16887-00-6
Conductivity @25C	
Fluoride	16984-48-8
Nitrate as N, dissolved	14797-55-8
Nitrate/Nitrite as N, dissolved	10034
Nitrite as N, dissolved	
pH	10034
Residue Filterable (TDS) @180C	
Sodium Absorption Ratio in Water	
Sulfate	14808-79-8

Sampling of surface water and shallow groundwater sites for TDS will be conducted twice per operating season annually while the pits are in use. If the leak detection system shows there has been a leak in the primary liner or if TDS levels in the water test locations are elevated, additional analytical testing of the surface and shallow groundwater sites will be conducted as per COGCC requirements. All test results will be provided to the COGCC within three months of sampling. SG Interests will report confirmed leaks in pit liners to COGCC immediately.

SG Interests has designed the flowback pit facilities to protect water resources. This project includes a liner system that consists of two synthetic liners separated by geonet, which are set on a protective geomat set over a smooth, compacted ground surface. This liner system has a leak detection system, which SG will use to discover any leak that has occurred in the primary liner before it can reach the ground surface below the pit. This liner and leak detection system will be installed in pits

that will be constructed entirely in cut soils, therefore the risk of pit failure is minimized. The facility includes appropriately designed drainage features to prevent water from overflowing the pits due to a precipitation event or snow build up (see Attachment D of the permit application, Drainage Plan and Item 12, Drainage Calculations for details). The drainage plan for the facility includes all relevant details, but some of these features are a 12" liner lip around each pit, an 8' high berm or cut soil face surrounding the facility to prevent water flow onto or off from the facility, and secondary containment for the water pumps and hose manifold structures. These features are designed to prevent leaks from the facility, but shallow groundwater and surface water monitoring sites have been identified in this permit application to verify that these waters are not being contaminated by any fluids stored at the facility. The water collected at these sites has been analytically tested. Over the life of the pits, the monitoring test results can be compared to their baseline test results as well as to analytical test results for the flowback pit water in order to verify that contamination of ground and surface waters has not occurred.

D. Inspection and Maintenance

Daily inspection at the facility will include visual inspection of the entire facility for any readily apparent problems. This will include watching for leaks in any equipment, damage to any fencing or netting, and checking the integrity and capacity of secondary containment systems. All equipment will be inspected weekly in greater detail. This weekly inspection will include checking fluid levels, safety features, etc. for all motorized equipment on site. Inspection of the pit liners will occur on a quarterly basis and after any object has contacted the liner (Appendix D).

The pits have been designed with leak detection systems between the primary and secondary liners. The leak detection system will be monitored regularly for water accumulation between these two liners. The leak detection system will be inspected in the spring prior to refilling of the pits, weekly through the active use season, and monthly during the winter shut down period. Prior to putting the pits into use, SG will fill each pit to eight feet with fresh water (as measured from the base of the pit) in order to test the liners and liner welds. The pits will then be monitored for 72 hours to determine whether or not there are leaks in the liner. If low volumes of water accumulate between the primary and secondary liners, the rate at which it is accumulating will be noted. This water could be the result of condensation or precipitation flow between the liners via the liner vents. If a leak is confirmed between the primary and secondary liners (through recorded water accumulation between the liners and through testing of that fluid), SG Interests will draw down the fluid in that pit. The water in the subject pit will be removed to a non-leaking pit through steel or poly pipe, a commercial disposal well or facility by truck, or a deep water disposal well through steel or poly pipe. SG Interests will refrain from using that pit until the liner has been repaired by a certified liner technician. The pit will be refilled and tested for leaks before using. Hydrostatic testing of the pits prior to use each spring (following the initial test for first year) will be accomplished using a combination of fresh water, flowback water, and produced water to make up the eight feet of water required for the test.

Water level in the pits will be monitored daily. At least two feet of freeboard will be maintained in the pits at all times. The pit liner will be marked at the two foot depth line so that the inspector can easily verify that the water is being maintained at the correct depth. The pits will be covered with bird netting. This netting will be monitored daily and maintained in proper working condition at all times. This netting will also be monitored throughout the winter months when the pits are not operational. The fence surrounding the pits will be inspected visually daily and repaired as needed to keep livestock, wildlife, and unauthorized persons from entering the pit site.

Any abnormalities that are noticed during any inspection will be reported to the Field Superintendent immediately so that any necessary follow-up can be scheduled.

E. Emergency Response (908.b.11)

SG Interests has a 24-hour emergency answering service that will allow the Field Superintendent to be notified of any emergency situation related to the McIntyre Flowback Pits. Table 1 below lists the

personnel, positions, duties, and contact information for all relevant personnel associated with the flowback pits.

Table 1: Contact Information for key personnel

Name	Contact	Position	General Duties	Specific Duties Related to Flowback Pits
24-Hour Answering Service	866-261-9766			Will immediately notify the field superintendent or his replacement in the event of an emergency situation.
Shaun Gordy	Office: 713-333-6522	Vice President, Operations	Manager of company operations	Can commit resources to pit activities and can appoint new personnel duties under this emergency response plan
Dennis Beasley	Office: 970-929-5313 Mobile: 505-947-3564	Field Superintendent	Manager of field operations.	Authority to initiate emergency response actions, oversees all work done on the pits including maintenance, monitoring, and pit closure
Eric Sanford	Office: 970-385-0696 Mobile: 970-259-2759	Operations and Land Manager	Oversees operations and coordinates with landowners	Coordinate and communicate activities with agencies and landowners
Brian Kimball	Office: 970-929-5313 Mobile: 505-424-7664	Lease Operator	Responsible for daily operations of wells, water transportation, and water disposal facilities.	Will conduct the daily monitoring of the pits and associated facilities
Brent Bizer	Office: 970-929-5313 Mobile: 970-589-3187	Lease Operator	Responsible for daily operations of wells, water transportation, and water disposal facilities.	Will conduct the daily monitoring of the pits and associated facilities
Catherine Dickert	Office: 970-385-0696 Mobile: 970-209-6464	Environmental and Permitting Manager	Oversee environmental permitting and reporting requirements	Coordinate with agencies, environmental subcontractors for monitoring and compliance.
Eric Petterson, URS	Office: 970-384-4732 Mobile: 970-309-4454	Consulting environmental scientist	Performs water and soil testing and reporting.	Will conduct testing of surface and ground water in vicinity of pits. Will conduct stormwater compliance inspections.

Table 2: Emergency Personnel

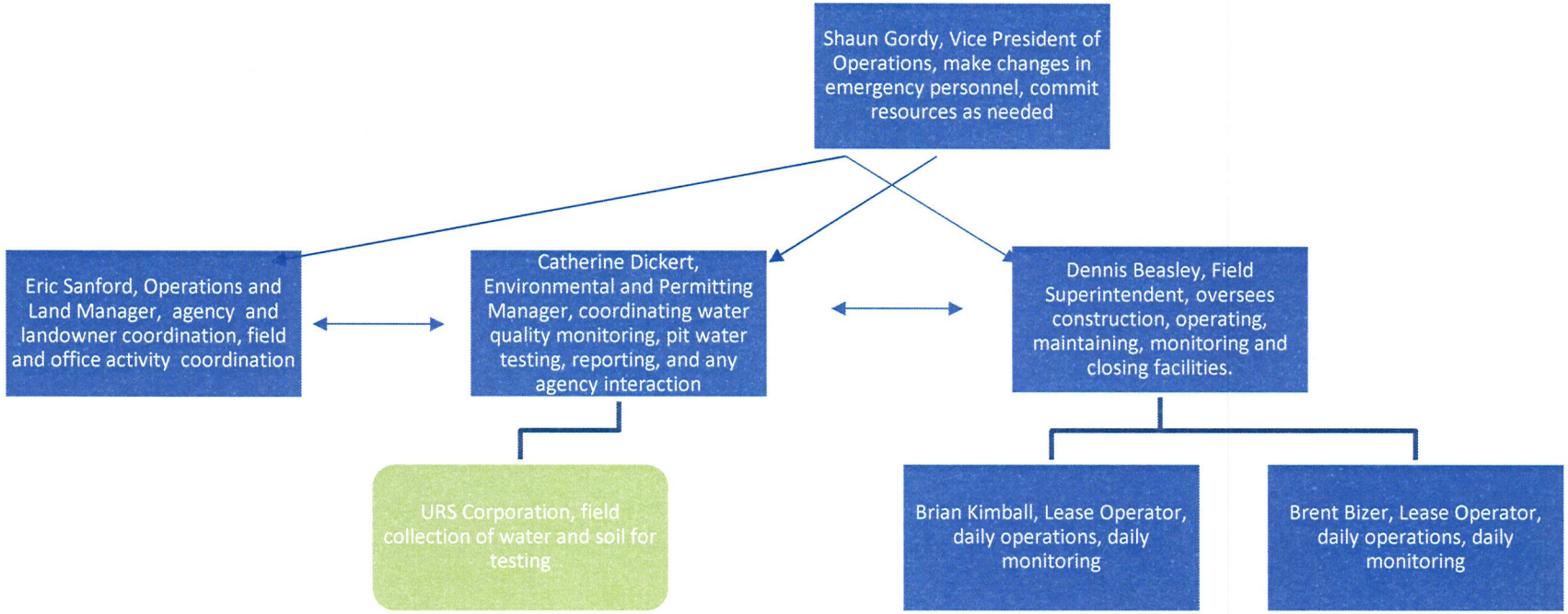
Responder	Contact
Gunnison County Emergency Dispatch	970-641-8000
Air Life @ St. Mary's Hospital	970-244-2551 800-332-4923
Colorado State Patrol	970-249-4392
Gunnison County Sheriff	970-641-1113

Prior to moving equipment to the project site all equipment will be checked for leaks and drips and any necessary repairs will be completed prior to removal from the contractor yard. In addition, all vehicles will be inspected for leaks regularly throughout their use. In the event that a leak is found, equipment will not be allowed to operate until all leaks have been repaired. Construction equipment requiring maintenance that might result in the draining or leaking of fluids will be serviced only after a 12 mil plastic liner has been installed between the equipment and the soil. This liner must be placed in such a manner that all fluid is contained.

Personnel associated with this project will receive training in spill prevention and response according the SG Interests' spill plan for the facility. The plans will be kept on file at SG Interests' Somerset field office.

Responsibilities Flow Chart

The following flow chart illustrates the responsibilities of the various personnel associated with this facility. These activities include operating, maintaining, monitoring, and closing the facility.



Chemicals Stored and/or Used on Site

In the case of a spill of any chemical at the McIntyre Pit site, the Spill Prevention, Containment, and Countermeasure Plan should be consulted. There are two chemicals that SG expects to use on site; a biocide (Tolcide PS20A) and an anticorrosive agent (Enercept EC1317A). The Material Safety Data Sheets (MSDS) for these two chemicals are attached to this plan. The Emergency Overview sections of these two sheets should be reviewed prior to facility start up by all employees who will work on site. As new employees begin work at the site, they too should familiarize themselves with the safety information in these data sheets.

The two chemicals that may be used in the pits will not be stored at the facility. If small quantities of chemical are required for treatment, they will be brought to the facility in approved containers that are properly placarded and marked with MSDS. Larger quantities of these chemicals will be delivered to the facility by truck. These trucks will be permitted and placarded for hazardous materials as necessary.

If it is necessary to store fuel on site, it will be contained in an approved container and will have secondary containment in the event of a spill or leak. Fuel for the equipment at the facility will be transported to the location by fuel truck. The connection between the equipment fuel tank and the fuel truck hose will be within the area covered by the secondary containment system for that equipment.

Water that cannot be used for frac'ing wells and cannot be stored at the pits, will be transferred to the water disposal well via pipeline or truck for disposal.

In the event that evacuation of the site is required, all personnel should immediately leave the pit site and report to the Federal 24-2 well pad. At this point, a head count of all personnel will be conducted to make sure everyone has left the facility. Under normal circumstances, only one or two truck drivers or personnel monitoring the pits will be on site at the same time.

F. Record-keeping

Record-keeping will be composed of the following elements: date water was transported, method of transportation (truck or pipeline), approximate volume of water, source of water, and number of the pit to which the water was transported. If the water is transported by truck, the name of the trucking company will be included in the records (checklist in Appendix D). SG will also maintain records to support the FMC and Annual Reports described at the beginning of this plan. These records will be kept by SG Interests for five years following final closure of the facility. All records will be made available to COGCC upon request.

G. Site security

The site will be secured with an 8' high field style fence. The fence is designed to keep livestock and wildlife out of the facility. It is made of woven wire with a t-post every 10 feet and a wooden post every 50'. A string of barbed wire along the top of the fence will deter humans from climbing over the fence. The fence will completely surround the pits. The gate at the access road/staging area entrance will also be 8' high. This gate will be kept closed when not in use. There is currently a gate on the access road to the Narrows Road (a private gas well access and ranch road) where it intersects County Road 265. Two additional gates will be added to the route to the pits; one at the entrance to the Federal 11-90-26 #1 well pad and the other on the pit access road at the Aspen Leaf Ranch/Rock Creek Ranch property line. These gates will be locked with combination locks. The gates are steel. There are no cattle guards planned for this project. The gate to the facility will be kept closed to prevent livestock access. The facility will be manned during all pumping operations.

H. Hours of Operation

The pits could be in use 24-hours per day during the warm weather months in which they are operational. Normal operating hours will be approximately 0630 to 1730 each day. During the winter season, the pits will not be used, but will be inspected daily for any problems with bird netting, liner integrity, fluid level, etc. Winter daily visits will be made in all weather. Snow mobiles are available for access in the event the road has not been plowed. SG Interests plans to keep the road plowed to the facility throughout the winter.

I. Noise and Odor Mitigation

Most of the water stored in the pits will be delivered and removed for reuse via pipeline. Transportation of water to and from the pits by pipeline will be significantly quieter than transportation by truck. The facility will meet COGCC's Light Industrial noise standard (Rule 802.c) 350' from the source. Odor will be mitigated by use of biocide to keep the water clean and reduce populations of bacteria in the pits that would otherwise produce odors.

J. Final Disposition of Waste

When the water level is drawn down at the end of the operational season and when the pits are no longer needed, the water will be disposed of at one of SG Interests' water disposal wells. Currently, there is one disposal well permitted near the pit locations; Federal #24-2 WDW (05-051-06084). SG Interests plans to permit and construct additional water disposal wells in the Bull Mountain Unit. These wells will be submitted for pre-approved use by this facility on a Form 4, Sundry Notice. This change will also be noted on a FMC (FMC change provided to COGCC by Form 4, Sundry Notice.

When bottom sediment must be removed from the liner in the pits, it will be suctioned off using a SuperVac or similar vacuum hose system to remove the sediment without damaging the liner. Sediment is not expected to build up to the point where removal is necessary often during the lifetime of the pits, because most solids will be removed from the fluid by filtering the water as it is added to the pits. Sediment removed from the pit bottom will be taken to a certified disposal site. A contracted company will come to the facility and remove and bale the liner for transport. Liners will either be taken to a cogeneration plant for incineration (as would be the case with the geoliner) or transported to a recycling company that uses the recycled liner material to make pallets and other objects. The liner removal company will keep transport and disposal records for COGCC.

Appendix A

Facility Modification Checklist

This checklist must be filled out and submitted to COGCC whenever a change to the facility, operating plan, or permit compliance has occurred. An example of such a change is provided in the checklist below. Because the facility has not been constructed yet, there are no modifications to record for 2012 or 2013.

Facility Modifications

Facility Modification	Modification Description or Justification	Date of Modification	Comments	Permit Changes Triggered by Modification?
Example = modification to design of hose manifold	Use of existing manifold led to idea for better design	11/22/2010	None	No

Operating Plan Updates

Reason for Update	**Date changed**	**Pages changed**	**Is revised plan attached?**
Removed the standard manifold catchment basin size because there is no standard for this equipment.	12/18/2013	3	Yes
Removed text that said pipes and manifold would be removed from the site for winter shut-down.	12/18/2013	3	Yes
Replaced bird nets with bird deterrent flags for winter. Text in plan was changed to reflect this practice and a photo was included.	12/10/2013	4	Yes
Updated water sampling and testing information.	12/20/2013	6	Yes
Edited spill response detail so that text refers to the Facility Response Plan and Spill Plan to be written for this project. 12/20/2013	12/20/2013	8	Yes
Initial hydrostatic test of the pit liner systems to be conducted with fresh water. Subsequent hydrostatic tests of the pit liner systems will be conducted with fresh water, produced water, flowback water, or a combination of these.	12/10/2013	8	Yes

Reason for Update	Date changed	Pages changed	Is revised plan attached?
Removed mention of Action Leak Rate from text because no leakage was detected through the primary liner during the initial hydrostatic test of pits 3 and 4.	12/10/2013	8	Yes
Added inspection forms and checklists.	12/18/2013	8, 12	Yes
Updated contact information.	12/18/2013	9	Yes
Responsibility flow chart updated to reflect current staff.	12/13/2013	11	Yes
General edits and updates throughout document to reflect current status and planned operations.	12/20/2013	Through-out	Yes
Updated biocide to be used	12/26/2013	11	Yes

Permit Compliance

There were no permit compliance documents submitted for this facility in 2013.

Permit	Agency	Change/Amendment/Report
Example = stormwater management inspection reports for active construction period	CDPHE	Reports attached.

Additional Comments:

Appendix B

Annual Review Template

Because the facility has not been constructed, there are no items to include in an annual review. The following template will be used to create the annual review narrative to be submitted to COGCC when the facility is constructed and is operational.

Write a narrative report to be submitted to COGCC that contains at least the following elements:

- a summary of the operations conducted at the facility in the past year
- a list of any FMOCs that were submitted to the COGCC that year
- revised list of wells that contribute water to the pits
- pit water monitoring results for that year
- the volume of water that was recycled into the pits
- the volume and source of fresh water added to the pits
- the volume of produced water injected that year and the disposal well(s) API
- the total volume of water injected that year and disposal well(s) API
- any other waste associated with the pits that was disposed of that year (description of waste, reason it was generated, method of disposal)
- monitoring results from surface water testing from that year
- monitoring results from shallow groundwater testing from that year

This narrative will be submitted to COGCC by December 31st for each year the facility is in operation.

Appendix C

Daily Surface Poly Inspection Form

Surface Poly Inspection Log

Time, Date	Inspector	Result (inc. station)	Outcome
0730, 7/26/11	CD	Walked route during pumping	No problems detected

Appendix D

Facility Inspection Forms

McIntyre Flowback Pits 1 & 2 Summer Maintenance Checklist

FREQUENCY
LOCATION
TASK **ACTIVITY TYPE**

DAILY

Facility	Inspection
☐	Check Secondary Containment of Equipment On Site for Fluid
☐	Check Volume of Water in Pits (2' freeboard) - Record Volume
☐	Check Condition of Bird Netting / Flags
☐	Check Condition of Water Filters
☐	Check Dust Generated On Site - Need for watering staging area?
☐	Check Drainage Features for Maintenance
☐	Check Equipment for Leaks
☐	Check Damage to Fencing & Gates

NOTES

DATE: _____ **INSPECTOR:** _____

McIntyre Flowback Pits 1 & 2 Summer Maintenance Checklist

FREQUENCY
LOCATION
TASK ACTIVITY TYPE

WEEKLY

Facility	Inspection
☐	Check Equipment Fluid Levels
☐	Check Equipment Safety Features
☐	Check Leak Detection System - Check Sump
☐	Check for Fluid Between Liners - If Present, Record and Report TDS

NOTES

BIWEEKLY

Facility	Inspection
☐	Inspect On Site Berms

NOTES

MONTHLY

Facility	Inspection
☐	Downgradient Hillsides below Pits for Fluids
☐	Monitoring Wells for Change in Water Level Or Elevated TDS

NOTES

QUARTERLY

Facility	Inspection
☐	Inspect Liners More thoroughly
☐	Inspect Spill Kit Materials Quarterly OR after use
☐	Check TDS of mapped surface water and groundwater monitoring sites. (Warm Weather Only)

NOTES

DATE: INSPECTOR:

McIntyre Impoundment Transfer Ticket

Date:

Water Source:

To Pit #:

Transfer Method: PIPELINE TRUCK Circle One

Truck Company:

Amount:

Note

Employee: