# Module 10: Operational Information [§§77.452/77.456/77.563/77.564]

## *10.1 Equipment and Operation Plan*

For each phase of mining, identify the type and method of mining; engineering techniques; major equipment to be used; starting point; and the anticipated sequence in which the phases are to be mined.

This surface mining portion of this operation will be completed in one phase. The site will be divided into two sub-phases (Pit #1 Area and Pit #2 Area). The underground mining portion of this operation will also be completed in one Phase, however, there may be "Sub-Phases" within the underground mine itself. One of these sub phases would be the installation of openings on the southern side of the operation as shown on the maps. This is labeled as surface mining pit #3. It is not a part of the initial bonding. The surface mining is ongoing, as of April 2023, the work at Pit#2 is almost complete while the work at Pit #1 is ongoing. The Clyde holding addition to the mining permit added area extending northwest from pit#1 and work in this area is to continue until the underground permit is to go active. Once the underground permit is active and the Clyde holding addition is completed the surface mining will be completed.

Access to the site will be gained from the existing access road for SMP No. 63100401 (Maggie Lynn Quarry) located off the west side of SR 2041 (Morey Road) approximately 700 feet north of the intersection of Morey Road and Pump Station Road.

**SURFACE MINING PIT #1 AREA**. The Pit#1 Benwood Limestone mining area is located at the Northwest end of the surface site boundary. The maximum distance of the additional mining will be 500 feet and will be achieved by a continuation of the existing pit/highwall via a block-cut method to approximately 170 feet of cover. The layout will continue into the Clyde Holdings addition area. Collection Ditch CD-1 and Diversion Ditch D-1 will each be extended to cover the Clyde Holdings Inc. addition area and Pond P-1 will be enlarged to handle the expanded area from the Pit #1 additional mining area.

The potential for flooding impacts from Tenmile Creek on the Pit #1 area is minimal. The base of the Benwood Limestone is 825.4 msl at Hole #1 while Monitoring Point MP-1 on Tenmile Creek is 815 msl. The ongoing mining plan has left 5 feet of solid limestone so the actual lowest pit floor elevation will be approximately 830 msl at the northwestern end of Pit #1 area, more than 10 feet above MP-1 and the normal level of Tenmile Creek. The 100-year flood limit has been obtained from the FEMA Flood map for this area and has been added to the Exhibit 9: Operations map. The 100-year flood elevation at the upstream end of the permit is 829 msl and within the underground mine area is 826 msl, 4 feet below the expected lowest pit floor elevation. Also, as evidenced by the progression of mining over the last 2 years, the trend of the actual mining footprint has been further away from Tenmile Creek, thereby resulting in reduced potential of flooding on the mine site due to the presence of a substantial competent low wall between mining and Tenmile Creek. However, if any flooding appears imminent, it would be temporary in nature. If this were to occur, all mining activities in the potential flood area of the pit will cease until flooding subsides.

Regarding the Benwood limestone removal. There will be no removal below the normal pool elevation of Tenmile Creek. There will be a solid fifteen-foot-thick section of the Benwood Limestone left intact above the underground mined section. There will be a solid five-foot-thick section of the Benwood Limestone left intact below the underground mine section. There will be a one-hundred-and-fifty-foot barrier between Tenmile Creek and the underground mining section in the area indicated on the Module 15.2 mapping.

As per the September 6, 2017, inspection report, a seepage event occurred in the area where Tenmile Creek was at the closest point to the mining activities. It is believed that the seepage occurred mostly as a result of weathering effects and water infiltration through incompetent Benwood Limestone in low cover just outside the 100-foot barrier of Tenmile Creek. The issue was temporary in nature and has not occurred since. Subsequent mining activities have moved further away from Tenmile Creek.

In regard to the Pit #1 area, the topography is such that there will be a considerable lowwall (ranging from 20 feet in height at its lowest point up to 60 feet at its highest) along Tenmile Creek and, as such, it is probable that the Benwood limestone will be more competent within the pit area. This should help reduce the potential for seepage through the lowwall.

To minimize any adverse impacts to Tenmile Creek from the Pit #1 area, Neiswonger Construction, Inc. will inspect the lowwall area periodically for incompetent areas and will place clay along the lowwall if needed. Please also note that Neiswonger Construction, Inc. proposes a Super Silt Fence along the outcrop of the Benwood Limestone. This feature will prevent any sediment problems to Tenmile Creek.

**SURFACE MINING PIT #2 AREA.** The Pit #2 area is located northeast of the Equitrans H-103 16" gas line and just northwest of the existing haul road as shown on the exhibit maps. The People 4" gas line will be relocated as per the signed agreement between Neiswonger and Peoples Gas as depicted on the exhibit 9: Operations Map. The Benwood Limestone will be mined in this area. The mining will enter from the haul road near the bottom of the existing hill between the current gas lines and the unnamed Tributary "E" shown on the exhibit maps. Neither the gas lines nor the stream will be disturbed as isolation distances to both will be maintained. The mining will move in a northern direction as the isolation distance between Tributary "E" and the gas lines allows for a maximum earth disturbance of 110' from east to west. As the mining advances to the northwest a low wall will be developed due to mining downward almost 60' to the elevation of the final pit floor. The pit will be developed toward the northwest until reaching the final highwall height of approx. 170 feet. A 35' wide bench will be installed immediately above the top of the Benwood Limestone.

The gas line barriers, the UNT "E" and associated wetland barrier and the 25-foot highwall setback will be marked in the field by utilizing wooden stakes with ribbon and/or marking paint, as field conditions warrant.

The width of the initial pit will be a little under 100 feet which will expand to approximately 140 feet at the highwall on the northwest section of the proposed revision area. While care will be needed to ensure safety for all personnel during the opening of the pit, the width of the pit (i.e. 100 feet wide) is comparable to the width of sections of the existing pit on the northwest side of the active quarry as it was being developed and, as such, it is feasible to mine the Benwood Limestone in the proposed revision area. The equipment that will be utilized with mining is listed below.

Once mining is completed in the pit #2 area it may be used for soil storage prior to backfilling. This is shown on the exhibits. Collection Channel CD-2 will be installed to carry all site runoff from the Pit #2 Area to sediment pond P-1.

**POTENTIAL MINE OPENING PIT #3 AREA.** This area is to be set aside for mine portal openings numbered five through seven. The openings are considered part of a second phase on the mining and are shown on the exhibits directly east of pit area #2. These openings are planned as they may help to alleviate possible ventilation issues while granting additional access to the mine. Its installation would include a maximum of 225' of earth removal to get to the level of the Benwood limestone at this location.

The controls for all the earth disturbance including all the surface pits both currently planned or as areas set aside for possible future addition will be accommodated with collection channels and the upsizing of the existing sedimentation pond P-1 as shown in module 13.

**UNDERGROUND MINING AREA.** The type of mining will be room and pillar as described in Module 15, however, there will also be some preparatory surface mining work to establish the underground mine portals and stabilize the highwall. All necessary erosion and sedimentation controls will already be in place since the portals to the underground mine will be in the surface mining Pit #1 Area. Initial mining will be along the strike of the limestone. The existing lack of groundwater/pit water at the Maggie Lynn quarry suggests there should be either no or minimal discharges from the underground portals, however, if

this were to occur, the water would be directed to sedimentation pond P-1 as necessary.

There will be two sets of mine portals. The main mine portals, number one through four on the exhibits are to be opened to initiate the underground mining operation will be located on the southwestern section of the site along the highwall created by surface mining in the Pit #1 Area. There will be three portal openings to initiate the mining as portal opening number four may not be installed. The owner may wish to install three other openings depending on variables such as access and air ventilation. Openings five through seven may be opened as mining progresses. These underground mine openings are to be southwest of the main haul road across from the surface mining Pit #2 area. If the installation of portals beyond the initial four installed in mining pit #1 occurs, then it is a part of the phase II mining and additional bonding will become necessary to install portal openings numbered five through seven.

The proposed thickness of the Benwood Limestone to be removed is 25 feet. This is done with the assurance that there will be 5 feet of limestone cover below the removal area. Based on boreholes the minimum limestone depth is 41.2’ at B-1. With the thickness of the minable limestone ranging from 41.2’ to 55’ based on boreholes, the thickness of the roof will typically vary from 15’ to 25’ in depth. The exception is the area near the entries where the roof is to be glued and bolted. The only two boreholes in the underground mine area that show a depth under 45’, which creates the minimum roof thickness of 15’ are at B-1 and BH-3 (44.6’). These areas are near the glued and bolted mine openings. This will ensure taking the lowest and strongest area of the limestone There will be no removal of limestone below the normal level of Tenmile Creek. The normal flow level of the stream is 816 feet msl. There is to be no removal of any limestone below an elevation of 820 msl. Please see Module 15 for further details concerning all aspects of underground mining. Currently, the proposed initial annual production will be 250,000 tons. The tonnage will gradually increase up to 900,000 tons due to the anticipated increase in demand. At this rate, the anticipated life of this operation will be 30 to 35 years. See Exhibit 9 and 15.2 maps for site layout, work direction and details.

There are several items included in the operations plan to minimize any adverse environmental impacts from the proposed underground mining of the Benwood limestone. They include, but are not limited to, the following:

- There will be no removal of the Benwood Limestone below the level of Ten Mile Creek.
- There will be a solid fifteen (15) foot thick section of the Benwood Limestone left intact above the underground mined section of the mine.
- There will be a solid five (5) foot thick section of the Benwood Limestone left intact below the underground mined section of the mine.
- There will be a one hundred fifty (150) foot barrier between Tenmile Creek and the underground mining section of the mine, as shown on the Exhibit 15.2 mapping.

Please see Module 15 for a detailed explanation of the above referenced operational items to be employed at this proposed mine site. Electricity to the site was installed with overhead powerline owned by Neiswonger Construction Inc.

**EQUIPMENT LIST FOR SURFACE AND UNDERGROUND MINING.** The equipment to be utilized in the surface mine operation include 2 rock drills, 2 rock trucks, 2 track hoes, a D-10 dozer and 2 loaders.

The typical major pieces of equipment anticipated to be utilized in the underground operation include a jumbo drill, rock trucks, scaler, and front—end loader.

The typical major pieces of equipment anticipated to be utilized in the processing operations include an impact crusher, a jaw crusher, vibratory screens and a radial stacker.

### *10.2 Pit Configuration*

a) Identify the maximum depth of mining and the elevation of the pit floor at the maximum depth of mining for each mining phase.

**PIT #1 AREA.** The lowest elevation of the pit floor will be approximately 830 msl and the maximum highwall will be approximately 170 feet in the eastern section of the Pit #1 Area. The maximum low-wall in the western section will range from 20 feet in height at its lowest point up to 60 feet at its highest due to the topography and the configuration of the mining area.

**PIT #2 AREA.** The maximum depth of mining in the Pit #2 Area will be approximately 160' near the northern-most area of the mining. The elevation of the pit floor will be ~842 on the southeastern side of the pit and ~835 at the northwestern section near the highwall.

**POTENTIAL MINE OPENING PIT #3.** This may be created for the potential installation of portals numbers five, six and seven. The maximum depth of Pit #3 Area will be approximately 225' near the northeastern side. The elevation of the pit floor will be 850 msl. Initial bonding does not include this portal opening.

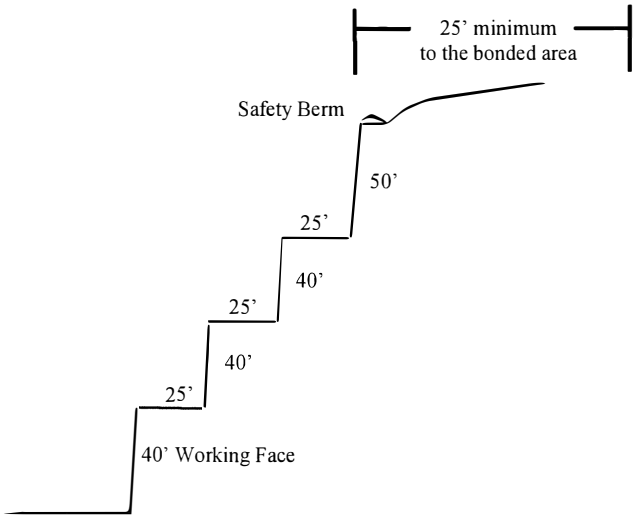
**UNDERGROUND MINING AREA.** A maximum thickness of 25 feet of the Benwood limestone will be removed from the underground section of the mine. The maximum cut height of the highwall above the underground mine portals will be approximately 140 feet. The elevation of the pit floor will be approximately 840 msl at the mine portals.

b) If mining consolidated rock, identify the maximum highwall height and the benching interval to include the distance between the benches measured vertically (i.e. height of the working face of the bench) and the width of the benches.

**PIT #1 AREA.** The maximum highwall height in the Pit #1 area will be approximately 170 feet. See the drawing below depicting configuration of the highwall for is area.

High Wall Configuration

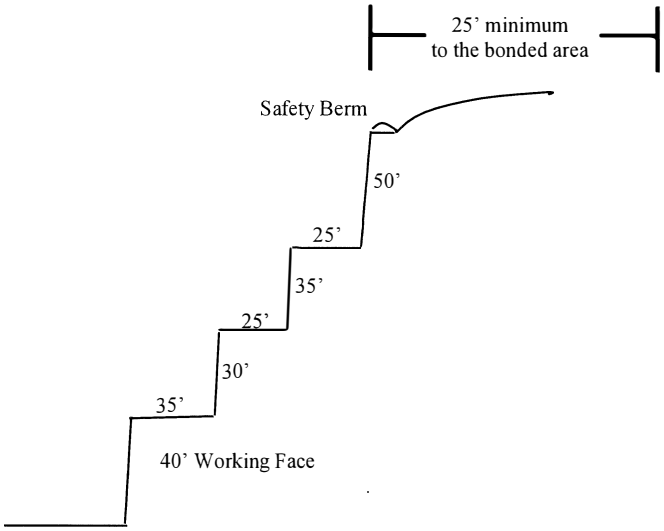
Step elevations and depths are shown'



**PIT #2 AREA.** The maximum highwall height in the Pit #2 area will be approximately 160′ at the northern-most point. A 25′ wide bench will be installed immediately above the top of the Benwood limestone. See the drawing below depicting configuration of the highwall for is area.

High Wall Configuration

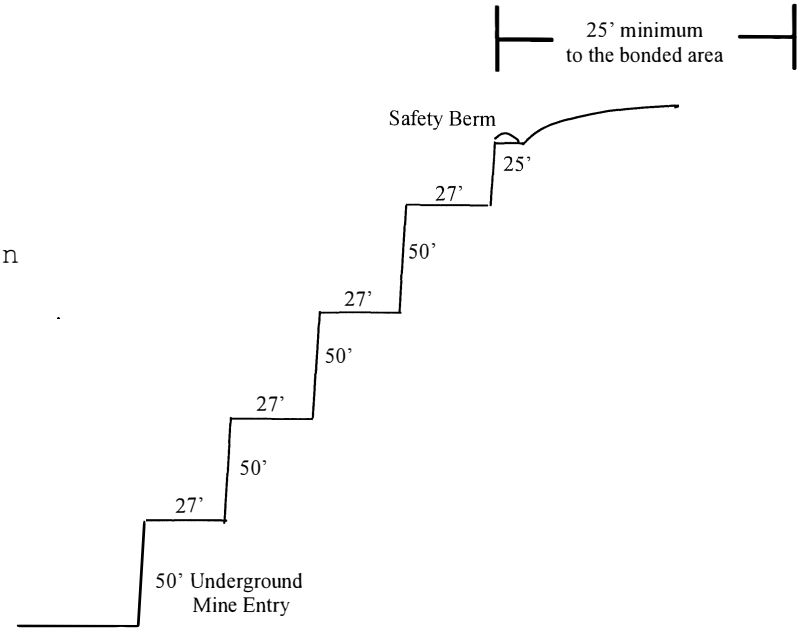
Step elevations and depths are shown′




**POTENTIAL MINE OPENING PIT #3.** This may be created for the potential installation of portals numbers five, six and seven, which are considered phase II of the mining project. The maximum depth of Pit #3 Area will be approximately 225′ near the northeastern side. The elevation of the pit floor will be 850 msl.

High Wall Configuration To pit entry floor

Step elevations and depths are shown′



**UNDERGROUND MINING AREA.** The maximum thickness of limestone to be removed during the underground mining portion will be 25 feet as described in Module 10.1. A 25-foot wide bench will be maintained at the interface between the Benwood limestone and the overlying shale/siltstone (approximately 45 feet above the final pit floor). A 25-foot wide bench will be maintained at the rock/soil interface.

c) If mining consolidated rock and the reclamation plan is an alternative to approximate original contour involving restoration of the pit floor and final working face, identify the total acreage of pit floor and final graded slopes.

The alternative reclamation contours are shown on Exhibit 18. The final highwall will be achieved via highwall blasting during final reclamation activities once the underground mining is completed. The pit floor will have a final reclaimed slope of 1% in a general southern direction to maintain positive drainage. The total acreage of the pit floor on the exhibits is 14.5 acres.

### *10.3 Existing Structures*

Identify and describe the intended use of all existing structures or facilities to be used in connection with or to facilitate mineral removal activities. (Common existing structures include impoundments, stream crossing facilities, water obstructions and processing waste dams.)

Several structures designed, constructed, and used for SMP No. 63100401 (Maggie Lynn Quarry) will continue to be used for this permit. These include Sediment Pond P-1 and corresponding collection ditches CD-1, CD-2, diversion ditch DD-1, the stream crossing for the haul road and the haul road erosion and sedimentation control structures this includes road ditches RD-1, RD-3, RD-4 RD-6, RD-7, as well as culvert crossings C-1, C-2 and C-3, , a scale house, a job trailer, and fuel tanks.

### *10.4 Overburden Piles*

Provide a narrative plan for reclamation of overburden piles specifying the timing and extent of overburden piles returned to the pit and final grading of the overburden pile areas for blending into existing contours.

Due to the nature of the site (limestone quarry transitioning into a limestone underground mine with a large processing area,) a significant portion of the site cannot be reclaimed until all underground mining is completed. However, reclamation of all other areas will be accomplished as much as possible during surface mining activities. This will surely include mining pit #2 and any area of pit #1 not used for limestone storage.

### *10.5 Final Grade and Drainage*

Identify the final grading and drainage pattern, including topographic contours on Exhibit 18 and a description of compaction and stabilization techniques. Provide cross-sections or a contour map showing permit line setback(s), final postmining slopes, postmining watertable and safety benches.

**PIT #1 AREA.** The final grade proposed for the Pit #1 Area is a straightforward one, common to stone removal sites. The final contours presented on Exhibit 18 indicate a 3:1 slope will be established along the eastern final highwall transitioning into a much gentler slope across the pit floor with positive drainage toward the southwest. The 3:1 slope will be stable and will not require any safety benches.

**PIT #2 AREA.** As presented on Exhibit 18 final reclamation of the Pit #2 Area will replace an existing knoll on the southeast side of the hill with a new constant

slope of approximately 20% that will steadily fall toward unnamed tributary "E". The projected post-mining water table is depicted on the Geologic Cross Sections.

Compaction of the site prior to topsoil redistribution will be accomplished by making repeated passes over the backfilled material with the heavy equipment on-site until the desired compaction is achieved. Stabilization will be achieved by revegetating the site in accordance with Module 23.

**PIT #3 AREA.** This is presented as a potential additional future entry way into the underground mine. It is deemed as a phase II part of the underground mining and will not be bonded initially.

### *10.6 Reclamation Timetable*

Provide a sequence of operations for the accomplishment of major stages in the reclamation plan demonstrating compliance with the concurrent reclamation requirements in 25 Pa Code 77.595. Include an estimated timetable for reclamation which is tied to the mining phases and the termination of mineral extraction.

The expected remaining life of the surface mining operation is less than five years depending on market conditions. The operation will begin transitioning to underground mining as soon as this permit is issued. Reclamation of the site is an on-going process and is staying concurrent with mining as much as feasibly possible. The face-up area for the underground mine cannot be reclaimed until the underground mining is completed which, expected to last at least 30 years. The general reclamation timetable for this site is as follows:

Final Regrading – After the final limestone product has been removed from the pit, backfilling of the pit will commence. Final regrading should take 1 to 2 months.

Replacing Top Strata – After backfilling is completed, the top strata material will be spread over the backfill. Top strata materials are those that make up the subsoil and topsoil which typically make up the A and B soil horizons. Replacement of the top strata should take approximately one week to complete.

Revegetation – Application of suitable amounts of soil supplements, seed and mulch will occur immediately following replacement of top strata. Revegetation should take approximately one week to complete, during the planting season.

Tree Seedlings – Planting of tree seedlings will be accomplished in this area, designated to be reclaimed as forestland, during the first spring planting season following the establishment of a satisfactory stand of grasses. Seedlings will not be planted after May 20 of any year. Planting of seedlings should take approximately one week to complete.

Reclamation of the face-up area will take place after the underground mining of limestone has been completed. It will take approximately 6 to 12 months after the underground mine is closed to complete reclamation. The underground mine openings will be sealed, and spoil placed against the seals. The general reclamation timetable presented above will also apply to the face-up area.

Included with this application are the originals of notarized landowner statements to: 1) Request Erosion/Sedimentation (E&S) controls to remain after mining completion on Property 1; 2) Request other than approximate original contour backfilling on Property 1; 3) Request to keep the haul road and associated E&S after mining completion on Property 5; 4) Request to allow electric poles and lines to remain on Property 2; 5) Request to allow electric poles and line to remain on Property 1; 6) Request to keep the haul road (Property 5); 7) Request to keep the haul road (apply to Properties 4, 3, and 1)

### *10.7 Identification of Toxic Materials*

When applicable (e.g., noncoal operation in coal measures) provide a detailed description of the methods used in the identification of potentially acid and toxic forming materials (boney, rooster, blossom or other inferior coal and noncoal strata) which will be encountered and separately handled. Correlate and identify these strata in the test hole data.

Not Applicable. Although the Waynesburg and Waynesburg "A" coal seams were encountered in some of the drill holes, they are both located above the maximum highwall height associated with the face-up area and will not be encountered. The Sewickley Coal found below the Benwood Limestone will not be mined. As a result, no special handling plan is needed. The Waynesburg coal seam around potential pit #3 was mined out with the "Bugger No 1" SMP 63110101 between the fall of 2013 and the summer of 2016.

### *10.8 Special Handling of Toxic Material*

When applicable (e.g. noncoal operation in coal measures) provide a detailed description of the methods to be used in the separation and handling of acid and toxic forming materials. Include transportation, storage, treatment and return of the material to the backfill. Identify the amount and source of clean fill to be placed above and below the material and the compaction and other methods to preclude combustion of the material and prevent groundwater contamination. Indicate all disposal areas on Exhibits 9 and 18.

Not Applicable. Although the Waynesburg and Waynesburg "A" coal seams were encountered in some of the drill holes, they are both located above the maximum highwall height associated with the face-up area and will not be encountered. The Sewickley Coal found below the Benwood Limestone will not be mined. As a result, no special handling plan is needed. The Waynesburg coal seam around of potential pit #3 was mined out with the "Bugger No 1" SMP 63110101 between the fall of 2013 and the summer of 2016. If material that is dark in nature (coal, dark shale, etc.) is encountered care will be taken to isolate that material as it is uncovered

### *10.9 Oil and Gas Wells*

Where mining activities are proposed to be conducted within 125 feet of any oil or gas well, identify the location on Exhibits 6, 9 and 18 and provide a description of the activity. Provide a demonstration that the well has been sealed; or describe the measures to be taken to insure the integrity of the well, access to the well at all times and the well operator's consent to the proposed activity.

All existing and proposed gas wells, including two wells that were permitted but not drilled, based on a search of emapPA and on-site reconnaissance, have been identified and are shown on the table of the following pages. The wells drilled are shown on exhibits 6.2, 9, 15.2, 16 and 18.

No gas wells currently exist within 125 feet of either the Pit #1, Pit #2 or the potential Pit #3 areas. The nearest gas well to the Pit #1 Area and the Pit #2 Area is Diversified Oil & Gas, LLC's Fitzwater #4 well, permit #125-22693, located approximately 960' northeast of the Pit #1 Area and approximately 1,260' north-northwest of the Pit #2 Area. The Kriebel Well, permit #125-23187 is located approximately 610' east of the potential mine openings of pit #3

Twenty gas wells are located within the limits of the underground mining. Prior to underground mining within 150 feet of any of the following gas wells, the well will be surveyed, and applicable barriers will be established.

| Operator / Well Name | Permit No. or ID No. | Coordinates | Map Status |
|---|---|---|---|
| Abandoned Gas Well | ID #9627 | 40° 00' 27.4" 80° 02' 50.2" Surveyed | Shown on the exhibits |
| Diversified Oil & Gas LLC / Fitzwater 1 | 125-22690 | 40° 00' 29.7" 80° 02' 04.9" Exhibit | Shown on the exhibits |
| Diversified Oil & Gas LLC / Fitzwater 2 | 125-22691 | 40° 00' 28.2" 80° 02' 18.8" Exhibit | Shown on the exhibits |
| Diversified Oil & Gas LLC / Fitzwater 3 | 125-22692 | 40° 00' 19.7" 80° 02' 06.7" Exhibit | Shown on the exhibits |
| Diversified Oil & Gas LLC / Fitzwater 4 | 125-22693 | 40° 00' 24.8" 80° 02' 36.5" Surveyed | Shown on the exhibits |
| Farmline Gas Well | ID #FM-2224 | 40° 00' 35.2" 80° 02' 20.3" eMap | Shown on the exhibits |
| Farmline Gas Well | ID #FM-2227 | 40° 00' 21.1" 80° 02' 00.0" eMap | Shown on the exhibits |
| Farmline Abandoned Gas Well | ID #FM-2572 | 40° 00' 22.1" 80° 02' 19.5" eMap | Shown on the exhibits |
| Farmline Gas Well | ID #FM-2573 | 40° 00' 22.4" 80° 02' 34.2" eMap | Shown on the exhibits |
| Farmline Abandoned Gas Well | ID #FM-2577 | 40° 00' 28.1" 80° 02' 04.8" eMap | Shown on the exhibits |
| Historic Gas Well | ID #538 | 40° 00' 25.3" 80° 02' 23.5" Surveyed | Shown on the exhibits |
| Historic Gas Well, No Record | ID #539 | 40° 00' 19.8" 80° 02' 07.5" eMap | Shown on the exhibits |
| Plugged Gas Well Emap Historic Well #617 | ID #R-88 436-B-WAS | 40° 00' 33.9" 80° 02' 20.3" Exhibit | Shown on the exhibits |
| Historic Gas Well | ID #R-89 443-B-WAS | 40° 00' 24.8" 80° 02' 02.4" Exhibit | Shown on the exhibits |
| Plugged Gas Well | ID #M-142 330-B-GRE | 40° 00' 18.5" 80° 01' 57.2" Exhibit | Shown on the exhibits |
| Plugged Gas Well | ID #M-176 446-B-WAS | 40° 00' 18.1" 80° 02' 09.1" Exhibit | Shown on the exhibits |
| Historic Gas Well, No Record | ID #625 | 40° 00' 18.7" 80° 01' 55.0" eMap | Shown on the exhibits |

| Operator / Well Name | Permit No. or ID No. | Coordinates | Map Status |
|---|---|---|---|
| Abandoned Gas Well | | 40° 00' 11.3" 80° 01' 43.0" Exhibit | Shown on the exhibits |
| Kriebel Wells Dissolution Co. LLC / J. Kosky Contracting 001 | 125-23187 | 40° 00' 08.1" 80° 02' 06.5" Exhibit | Shown on the exhibits |
| Kriebel Wells Dissolution Co. LLC / Kosky J & S 001 | 125-23818 | 40° 00' 07.4" 80° 01' 52.6" Exhibit | Shown on the exhibits |
| Kriebel Minerals, Inc. / Kosky J & S 002 | 125-23819 Not drilled | 40° 00' 17.5" 80° 01' 45.1" eMap | Not shown on the exhibits |
| Kriebel Minerals, Inc. / J. Kosky Contracting 002 | 125-23201 Not drilled | 40° 00' 13.8" 80° 02' 16.9" eMap | Not shown on the exhibits |

### *10.10 Wells, Exploration Holes and Bore Holes*

Identify the type and location of wells, exploration holes, bore holes and monitoring wells and provide a description of the manner in which each will be cased, sealed or otherwise managed.

All exploration holes and boreholes were drilled using an air rotary drill and were sealed by backfilling the entire depth of the hole with drill cuttings. Any holes that are drilled in the future will be sealed in accordance with regulation. The exception is the monitoring well NW-1, as it was buried and is no longer accessible. Four additional monitoring wells have been added and are shown on the exhibit 6.2. Three are MW-TH-2, MW-TH-4, and MW-TH-6. Also, MW-WPW has been added. It is the wash plant well located on the Hawkins permit. This well will monitor the water level in the Clyde Mine.

Any bore hole that intercepts the Clyde Mine or the proposed mining area will be backfilled with portland cement-based grouts, "bentonite" clay or a combination of these substances. It is known that MW-WPW does intercept the Pittsburgh mine void and would also be sealed with one of these grout combinations.

### *10.11 Underground Mines*

Where proposed surface mining activities will be conducted within 500 feet of any point of either an active or abandoned underground mine (coal or noncoal), provide a description of the nature, timing, and sequence of the operation. Identify the location of each underground mine opening and the manner in which the opening will be sealed or otherwise managed including appropriate cross sections and design specifications for mine seals. Provide a description of the potential hydrologic impacts of the proposed activities, the effects on the existing groundwater system, and the effect the proposed activities will have upon abatement of pollution or the elimination of hazards to the health and safety of the public.

The Benwood Limestone is stratigraphically located in the middle of the Pittsburgh Formation, closely overlying the Sewickley coal seam. The base of the Benwood Limestone lies approximately one hundred thirty (130') feet above the Pittsburgh coal seam which was room and pillar mined under the entire permit area (MonValley Steel – Clyde Mine). The Waynesburg coal seam lies approximately one hundred seventy (170') feet above the top of the Benwood Limestone. The Waynesburg coal seam appears to have a few very small country

bank mines in it, but it has not been extensively underground mined in this area. There is an entry into the country bank mine near sample point 9 on the eastern branch of Unnamed Tributary "D". A second entry is located just upstream from sample point 5 on the eastern branch of Unnamed Tributary "E". The third Waynesburg entry is located in the northwestern corner of the proposed permit area and is identified as sample point 72. This entry is in association with Unnamed Ephemeral Tributary "H". No existing or abandoned underground mines will be encountered at his operation so no mine seals are proposed.

The proposed activities should have little if any effect on the hydrology of the region due to the relatively small area of the job. Likewise, the effects on groundwater should be minimal since no potentially acidic or toxic producing materials will be encountered.

Please also see Module 8 and Module 15.6 for a more thorough discussion on the hydrology and potential impact to the "Clyde" Pittsburgh coal seam underground mine.

### *10.12 Public Highways*

Where opening or expansion of pits are proposed within 100 feet of the outside right-of-way of a public highway, or a relocation of a public highway is proposed, identify the name and section of the public highway involved, a description of the activities to be conducted and detailed plans and cross-sections of the proposed activities. Include the written approval of the government agency having jurisdiction over the highway.

(**Note:** If the initial public notice advertisement does not contain a notice of the variance request, attach the proof of publication for advertisement of the variance.)

No surface mining activities are proposed within 100 feet of any public highways.

PennDOT was contacted regarding the proposed underground mining under SR 2041 (Morey Road) in both 2018 and 2020. The materials submitted in 2020 include the PennDot reply of 2018. These materials are given as part of Appendix E. PennDot is awaiting approval by the Department prior to allowing mining beneath SR2041( Morey Road). A 100-foot non mining barrier from the ROW lines for all state-owned roadways (SR 2024(Buckingham Road) and SR2041 (Moery Road) is applicable until approved from PennDOT is secured.

### *10.13 Public Parks and Historic Places*

Where the proposed mining activities may affect any public park or historic place, provide a demonstration of the measures which will be taken to minimize or prevent adverse impacts.

Not Applicable

### *10.14 Utilities*

Where the proposed mining activities may adversely affect services provided by oil, gas, and water wells; oil and gas pipelines; railroads; utility lines; and water and sewage lines, provide a demonstration of the measures which will be taken to minimize or prevent these impacts. With regards to the surface mining portion of this permit:

- The (formerly Equitrans now Peoples) 2" line (WM 102) that was in the surface permit area has been relocated parallel to the Equitrans 16" line (H-103) that runs NW to SE. An abandoned portion was mined out by Neiswonger Construction,

Inc. as surface mining progressed through the abandoned 2" gas line. An Agreement with John Kosky granting permission to relocate the line is dated December 23, 2010. A pipeline Easement and Right of way agreement is dated January 2011, and transfer rights to Neiswonger Construction Inc. was completed on July 24, 2012. All agreements are shown in Appendix C. on pages C-1 to C-15, and the originals on file under SMP#63100401.

- The operator received agreements with (formerly Equitrans now Peoples), Equitable Gas (gas line since removed) for haul road crossings. The agreement to John Kosko January 5, 2011 and the transfer to Neiswonger Construction Inc are shown in Appendix C. on pages C-18 to C-25, and the originals on file under SMP#63100401.

- The (formerly Equitrans now Peoples) H-103 16" gas line will be protected by maintaining a 25' wide barrier between excavations and the pipeline. A 40' wide berm/topsoil storage area will be maintained. The variance agreement dated July 2, 2012 is included in Appendix C. on pages C-26 to C-34, and the originals on file under SMP#63100401.

- The operator has received a variance for haul road and relocation agreement with the Kreibel dated July 5, 2012. This is in Appendix C on pages C-35 to C-41. The Kreibel gas distribution line running west from the J. Kosky Contracting 001 gas well (permit #125-23187) has been abandoned. The documentation of this was given via Email and is on page C-42, and the original is on file under SMP#63100401.

With regards to the underground mining portion of this permit:

- There is no public sewage within the boundary of the underground permit.

- A certified letter was sent to the Southwestern Pennsylvania Water Authority given in Appendix C pages C-43 to C-45. The original copy of their response is on page C-46.

- A certified letter was sent to West Penn Power. That letter is in Appendix C on pages C-47 and C-48. There was no response to this inquiry.

- The pipeline agreements are given in appendix D. A summary of the agreements include an agreement from People Gas for a mining variance on pages D-2 to D-7; a crossing agreement with Equitrans L.P on pages D-8 to D-19

- A brief report that gives the sizing of the pillars and the depth to limestone requesting a waiver to take limestone under SR2041 has been sent to the Pennsylvania State Department of Transportation. As mentioned in section 10.12, copies of this documentation are given in Appendix E.

### *10.15 Bonding Calculations*

Attach a completed Bond Calculation Summary-Noncoal for consolidated (5600-FM-BMP0474) or unconsolidated (5600-FM-BMP0473) material (sand, gravel, shale, soil). Complete a Bonding Increment Application and Authorization To Conduct Noncoal Mining Activities (5600-FM-BMP0304).

Please see the completed Bond Calculation Summary-Noncoal for consolidated material (5600-FM-BMP0474) and the completed Bonding Increment Application and Authorization to Conduct Noncoal Mining Activities (5600-FM-BMP0304) in Appendix A.

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