



Earthtech, Inc.

CONSULTING SCIENTISTS & ENGINEERS

*Environmental, Mining &
Site Development Services
www.earthtechinc.net*

January 5, 2022

Commonwealth of Pennsylvania
Department of Environmental Protection
New Stanton District Office
P.O. Box 133
New Stanton, PA 15672

ATTN: Ms. Diane Roote

RE: Ligonier Stone & Lime Company
SMT East Surface Mine – SMP No. 65210301
Derry Township / Westmoreland County

Ms. Roote:

Enclosed please find the responses to the DEP application letter dated October 22, 2021. The comments are addressed in the order of your correspondence.

Should you have any questions regarding this submittal, please feel free to contact our Uniontown office.

Respectfully submitted,



Brian Verwelst

Attachments - 1 original, 3 copies & CD to DEP

cc: Ligonier Stone & Lime Company
Public Review – New Stanton DEP

Mailing Address: Uniontown Office
P. O. Box 4A
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1/5/2022

Ligonier Stone & Lime Company
SMT East Surface Mine
SMP Application No. 65210301 NPDES Application No. PA0278491
Derry Township / Westmoreland County

Responses to the DEP application letter dated October 22, 2021:

Module 1

1. The revised page numbered 6-8 (5-7) of the revised Module 1 has been completed and is included.
2. Section D, No. 1 on page 3-6 has been reviewed and revised to yes. See the attached page 3-6.
3. Page 4-6, Section G, No. 5 has been revised to yes. See attached page 4-6. A new notification was sent February 12, 2021 with the correct landowner information. See the attached copies of the notifications. Any responses received from the county or township will be forwarded to the Department.
4. The public notice has been revised and will re-publish in the paper after the Departments approval.

Module 2/NPDES

5.
 - a. The application has been revised to add treatment ponds.
 - b. The pending SMP and NPDES permit numbers have been added to Section A, No. 3.
 - c. Section A, No. 13 has been revised to include the new date of the Exhibit 9.
 - d. Section C, No.21 has been revised.
 - e. Outfall 003 has been redesigned and will be used for treatment ponds. See the attached design information. The previous owner of the ponds was Keyrock Energy LLC, see the attached letter in Module 10 from Keyrock Energy LLC releasing the ponds to the landowner.
 - f. A revised page 5 is included for specific conductivity, temperature, and waiver information.
 - g. The flow diagram has been revised.

Module 5

6. A new recorded Contractual Consent of Landowner is attached for tax map no. 45-17-142.
7. The landowner names for properties 15, 83, and 84 have been verified and corrected within the Module 5 and on the exhibit maps. The entire landowner list has been checked and corrected as of December 2021. See attached Module 5, as well as the exhibit maps.
8. It is believed that the applicable comment the Department is referring to is number 32. No changes to Module 5 are necessary as the correct property owner is listed.

9. See the attached documentation stating this township road (T-970) is a public road. The exhibit maps have been updated with the township road number, right-of-way lines, 100' barriers, and new drainage control structures. As per the discussion between Earthtech, Inc. and DEP staff on November 16, 2021, there is no need to include the township road in the mining permit boundary or to secure any further dwelling waivers. See the attached Resolution No. 604.2021. There is no final approved development within the surface mine permit area at this time. If something is chosen in the future, the mining permit will be updated through DEP mining at that time, as appropriate.

Module 6/Exhibit 6.1/Exhibit 6.2

10. The SMT Surface Mine, Jelley LNC, and proposed outfall locations have been added to the Exhibit 6.1 Map.
11. Exhibit 6.2 responses as follows.
 - a. The assigned SMP number has been added to the title block.
 - b. Updates per comment 9 are completed for the exhibit maps.
 - c. The building on property #22 has been labeled.
 - d. The landowner names for properties 15, 83, and 84 have been verified and corrected within the Module 5 and on the exhibit maps. See attached revised pages of Module 5, as well as the exhibit maps.
 - e. Contours have been updated to properly depict the terraced area. Module 10.3 has been updated to explain the terraced area.
 - f. Regarding Unnamed Tributary 4, the culvert beneath Torrance Road was added to the mapping in addition to size and type. The culvert beneath SR 217 information has been added.
 - g. The pipe near the water line on Unnamed Tributary #4A is now depicted on the map.
 - h. The Peoples Natural Gas meter station has been added to the exhibit maps.
 - i. The gas meter along the Enterprise Products pipeline has been added to the exhibit maps.
 - j. The existing or previously mined areas table has been updated based on the Module 7.4 comments.
 - k. A blue triangle now depicts all monitoring points. Sample point 1 Jelley is intended to be a background point as shown on the exhibit map. Module 8 text has been revised to correctly correlate the proposed monitoring points with the map. A table is added to the map depicting the past monitoring information as requested.
 - l. Monitoring points depicted on the map are revised per Module 8 comments. Missing background points have also been added to the exhibit map. The pipe at sample point 106 is believed to be an underdrain for the existing ponds.

- m. The stream barrier for Unnamed Tributary #1 is shown within the proposed permit boundary.
- n. Exhibit maps have been revised to more accurately depict tree lines and wooded areas.
- o. The 100-foot stream barrier has been added around the head of hollow pond for Unnamed Tributary #1B.
- p. The head of Unnamed Tributary 4B was determined during the wetland delineation and has been updated on the exhibit maps.
- q. Wetland areas have been investigated and are shown on the map exhibits.
- r. The exhibits have been revised to indicate the channel to be intermittent and is labeled as Unnamed Tributary #6. Additionally, a new monitoring point 117 has been added on this tributary downstream of the proposed NPDES point 004. Module 8 and the Exhibit 6.2 map have been revised to include this point.
- s. The line representing the stream at sample point 12 has been revised to clearly depict it as intermittent.
- t. Earthen berms and the pipe are now shown within the existing settling ponds.
- u. The exhibit maps have been updated to identify all known gas wells within 1,000 feet of the project boundary. All gas wells shown are keyed to an information chart on the maps that provides the requested information.
- v. The H.T. Barclay plugged gas well is depicted on the map exhibits. On November 17, 2021 PA DEP Oil & Gas was contacted and informed they would upload the information to the GIS mapping website. This information has not yet been uploaded and several attempts since have been made to obtain a copy of the plugging certificate for the Barclay well.
- w. The gas line is owned by Apollo Resources, LLC and has been labeled on the exhibit maps. The size and type of pipe is unknown.
- x. Names of utility owners have been added to the exhibit maps. Size and type of pipe is referenced where known.
- y. The water line between properties #11 and #13 is a private water line owned by properties #8 and #9. This line supplies public water to these residences. The size and type of pipe is unknown. An assumed 50-foot right-of-way (25-foot barrier) is shown on the map exhibit.
- z. The archaeological site identifiers have been corrected.

Module 7

- 12. Module 7.2 has been revised to state the dip and direction of limestone in the Phase 2 mining area.

13. Module 7.4 responses as follows.

- a. There is no indication that the area within 1,000 feet previously permitted by Western Pennsylvania Coal Co., Inc. was mined and therefore it is not applicable to include that area as previously mined.
- b. The exhibit maps and Module 7.4 indicate that the Pittsburgh Coal seam was deep mined beneath the site (Isabella Mine). Module 10.11 has been revised to indicate deep mining beneath the site.
- c. The previous mining chart and Module 7.4 have been updated to include Redstone Coal and Redstone Limestone. The mine name is corrected.

14. Cross-section A-A' has been revised to indicate the material encountered in DH-4. Note that this hole was drilled near the edge of the previously surface mined area.

15. Cross-section A-A' has been revised to include: the projected Redstone Coal cropline, crossing the overhead electric line, unused gas line, and cross-sections B-B' & C-C'. The SMP number is added to the title block.

16. Cross-section B-B' has been revised to include locations of crossing A-A' and the underground cable line. The coal seam identified is an unknown seam and has been labeled as such. The SMP number is added to the title block.

17. Cross-section C-C' is revised to include: crossing the Redstone Coal cropline, water lines, Cross-section A-A' and the three gas lines. The SMP number is added to the title block.

18. See the attached D-D' and E-E' cross-sections through the proposed processing area.

Module 8

19. Module 8.1f is revised to include referenced use of the 85% flow coefficient.

20. Module 8.2 number 4 has been revised to indicate impoundments are located within 1,000-feet of the site.

21. Module 8.2 number 5 has been revised to indicate impoundments are located on the adjacent SMT permit.

22. Module 8.2b is updated to explain why piezometers or monitoring wells are not necessary.

23. Module 8.2b and the Module 8.2b Addendum have been revised to indicate proposed monitoring points in common with adjacent permits. MP 1 has been added and included in the Phase 2 monitoring program. Sample point 1 Jelley is intended to be a background point as shown on the exhibit map.

24. Module 8.1A's for sample points 105 and 19 Jelley have been revised and are included. Sample point 106 description has been updated.

25. A new monitoring point (point 116) has been added at the downstream location for Unnamed Tributary #4A. See the attached Module 8.1A results and Exhibit 6.2 Map for the location. Module 8.2b has been revised to include this point.

26. The Module 8.2b Addendum is updated to indicate Phase 1 sampling will continue during Phase 2 sampling and that Phase 2 sampling will begin 6 months prior to beginning the phase. Proposed outfalls have been added to the phase charts.
27. The Departments comment is noted.
28. Sample points S13, S16 and S17 are now shown on the Exhibit 6.2 Map. The Module 8.1A sheets are also included.
29. Module 8.4b is revised to include additional information for Unnamed Tributary #1B.
30. Information regarding sample point 106 has been included in the Module 8.4c discussion as this point is associated with existing settling ponds from gas activities.
31. Module 8.6 has been revised to discuss groundwater presence and surface water runoff in the processing area.
32. Module 8.7 has been revised to indicate that Ligonier Stone & Lime is the owner of property 7 and that Oliver Smith is the current occupant. SMT has been added to the Sample Point 5 title.
33. Module 8.1As for revised and new sample points are included in addition to updated SMT quarterly water data.

Module 9/Exhibit 9/Exhibit 9A

34. A permit revision will be submitted for SMP# 65140101 in the future. A note has been added to the Exhibit 9 stating that the portion of the haul road on SMP# 65140101 will be bonded under SMP# 65140101.
35.
 - a. All applicable Exhibit 6.2 comments have been addressed on Exhibit 9/9A.
 - b. The existing flow path/drainage way has been depicted on Exhibit 6.2 and 9/9A. The source of water is surface runoff from the terraced fill area and is described in Module 8.
 - c. Outfalls 001, 003, and 004 have been depicted on Exhibit 9A.
 - d. CD-6 has been moved to start at the outlet of Culvert 5. (Many culverts and ditches have been renumbered for simplicity.)
 - e. Culvert 4 has been added under the driveway to the farmhouse.
 - f. The acreage of the Phase 2 mineral removal area has been added to the Exhibit 9.
 - g. The final highwall has been revised so that it is a minimum of 25 feet from the edge of the bonded limit.
 - h. All topsoil stockpiles have been relocated so that they are outside of the mineral extraction area.
 - i. All gas wells have been labeled on Exhibit 9A. The Redstone Coal crop line has been shown within the mapped area of Exhibit 9A.
 - j. A gas line variance has been obtained from Apollo Resources. See Module 10 for more information.
 - k. CD-5 is not needed and has been eliminated.
 - l. The Bond Legend has been updated to say Phase 1 Mining Area and Phase 1 Support Area.

Module 10/Bond Calculations

36. Module 10.1 has been revised to discuss the timing of pond construction.
37. Module 10.2c) has been revised to include the expected swell factor.
38. Module 10.3 has been revised to state that runoff will not cross permit boundaries.
39. Module 10.4 has been revised to better answer the question. The other information provided is pertinent to the timing of reclamation of the overburden piles.
40. Module 10.5 has been revised so that a topsoil depth is not specified so that there are no discrepancies in topsoil thickness. Applying topsoil and the permanent seed mixture is a stabilization technique that will be used, which answers part of the question posed.
41. Module 10.6 has been revised to include timeframes of the operation, mineral extraction duration, and reclamation time.
42. Modules 10.7 and 10.8 have been revised to include the possible encounter of coal and/or potential acid producing material during excavation. Module 13, Exhibit 9, and the NPDES application have also been updated.
43. A variance has been obtained from Apollo Resources and has been included in Module 10.
44. Module 10.11 has been updated to discuss depths to the Pittsburgh coal seam/abandoned underground complexes and explain why no impacts are anticipated.
45.
 - a. All utility crossings, relocations, and removals have been obtained and provided or will be obtained and will be provided upon approval of the utility company.
 - b. An agreement has been obtained from Apollo Resources, the owner of the gas line in question, and has been included in Module 10.14.
 - c. A right-of-way has been depicted on Exhibits 6.2 and 9. The proposed highwall has been moved to be approximately 100 feet away from the waterline.
 - d. The owner of the electric line has been identified on the Exhibit 9. Module 10.14 has been updated to include a discussion of safety measures taken to ensure there will be no impact to the electric line.
 - e. Module 10.14 has been updated to include how the underground cable line will be handled in the Phase 2 area.
46.
 - a. The equipment cost has been added to the demolition of the conveyors and belts.
 - b. The scale and footings removal has been added to the bond.
 - c. the grading volume has been revised and calculations are attached.
 - d. The grading unit cost to restore the processing area has been revised.
 - e. The permit number and Phase 1 Bond has been added to the Bond Calculation Summary.
 - f. Phase 1 Bond has been added to the executed form 5600-FM-BMP0304.

Module 12

Note: Some collection ditches, culverts, and compost filter sock identifiers have been renumbered for simplicity as many have been added, relocated, or deleted. All responses reference the new numbering systems.

47. The 12.1 Diversion/Collection Ditch Sheet has been updated to the 1/2014 version for all ditches. A spreadsheet that performs the calculations mirroring the form on the Department's eLibrary has been substituted for the actual form.
48. A drainage analysis has been performed on the existing pond and is included in Module 12.1.
49. The typical ditch detail has been updated along with Module 12.2 to include R-4 riprap placed at abrupt changes in direction of grass-lined ditches.
50. Ditch designs of all ditches discharging directly to a sediment pond have been updated so that the last section of a ditch represents the portion of the ditch that flows down the inslope of the pond, and riprap is sized for the inslope of the pond.
51. Collection ditch CD-6 has been moved to start at the outlet of culvert 5.

52. The compost filter sock that will be installed below the haul road will only receive sediment laden runoff during haul road construction. Once the haul road has been constructed, runoff from the haul road will be contained on the side(s) of the haul road by berms until it outlets to a collection ditch to a sediment pond.
53. All ditches with slopes over 10% utilized the 40% void space design method and all calculations have been provided. The ditch segment in question has been removed.
54. All ditches have been designed with adequate freeboard and have been updated with an adequate lining that passes velocity checks for velocity with freeboard.
55. The location of SP-1 has been revised as well as compost filter sock #2. Compost filter sock #2 has been configured so that it captures the disturbance area necessary to construct the emergency spillway.

Module 13

56. Module 13.1 has been updated to include treatment pond discussion and designs.
57. A flocculant usage procedure submittal was sent to PFBC and approved. See the attached submittal and approval correspondence. The flocculant information has been added to the PPC section of the NPDES permit application.
58. The SP-2 calculations have been updated to include the pumped pit water at a rate of 1.5 cfs. The pump rate, 1.5 cfs has been added as a base flow to the pond, which is conservative since the pump will not always be running.
59. The sediment pond certification forms for SP-1 and SP-2 have been updated to indicate that pond dewatering will be valve dependent. The dewatering type/size has been revised to indicate a 6" perforated PVC with capped top will be used.
60. Standard Construction Detail #7-12 has been added to add an earthen plug to the rock-lined spillways.
61. Two feet of best available on-site clay material will be used for SP-1, SP-3, and TP-1. A clay borrow area has been identified on Exhibits 9/9A. The certification sheets have been updated and calculations for the amount of clay needed and amount of available clay have been attached.
62. The existing ponds will now be upgraded to be used as treatment pond TP-1. See module 13.1 and TP-1 design information.
 - a. The underdrain will be capped and a new liner installed.
 - b. An 8" PVC will be installed per the TP-1 designs as the final outlet.
 - c. The current property owner, Ligonier Stone & Lime Company, owns the ponds. See attached proof of ownership signed by Keyrock.
63. Module 13.3f) has been updated to include a justification on why subsidence is not applicable for the sediment ponds.
64.
 - a. The inside and outside slopes of the constructed embankment have been revised so that both are 3:1.
 - b. The intended use of the postmining Sediment Pond 1 has been included in Module 13.3c) as an industrial stormwater pond.
 - c. The postmining use of Sediment Pond 1 will still require regular dewatering, so no further upgrades to the pond will be needed.
65. The lifespan of SP-2 is expected to be less than 10 years, so it will not qualify as a permanent structure.

Module 14

66. A wetland determination has been performed for the entire site, including the areas listed in a-e. Exhibits 6.2, 9, and 18 have been updated with the delineated wetland locations. No

- impacts to wetlands are proposed. See the included "Wetland Delineation Report" of 12/20/2021.
67. SP-1 has been relocated so that it is outside of the 100-foot stream barrier.
 68. Module 14.1c) and i) have been updated to describe the resident aquatic community, assess probable hydrologic consequences, and discuss the impact of the removal of riparian vegetation for all variances.
 69. Module 14.1a) has been updated to include a distance for CULV-2 and CD-4.
 70. The start of UNT 4B has been revised to reflect actual conditions. A wetland has been delineated at the head of the stream and has been depicted on all the relevant exhibits. The variance has been removed from UNT 4B, as the haul road and all other disturbances have been moved outside of the 100-foot stream barrier. Stream Variance #2 is now for UNT 6 per comment 11s.
 71. The title of Exhibit 14.1(2) has been changed to Stream Variance #2 Map.

Exhibit 16.17

72. The updated Exhibit 16.17 will be submitted with the complete blast plan.

Module 17

73. It is noted that no mineral processing can occur until Air Quality Permits are issued through DEP Southwest Region Office.
74. The speed limit was added the narrative in Module 17.2b.
75. A Noise Assessment Module 17.3 Attachment has been included to document background ambient noise, estimated noise generated on site, mitigation options, etc. Operational noise sources are identified in Module 17.3.

Module 18/Exhibit 18

76. Exhibit 18 responses as follows.
 - a. Exhibit 18 has been updated with comments from Exhibits 6.2 and 9/9A as applicable.
 - b. The Exhibit 18 reflects the ditches, ponds, and haul roads that are requested to remain permanently. Note #3 has been updated to include that DEP evaluation and approval for permanent impoundments under §77.530 and §77.533 is necessary prior to bond release.
 - c. The disturbance area has been shown to clearly designate which areas are proposed for disturbance and will require reclamation.
 - d. The "Land Uses" table has been revised to provide the acres of each existing land use and the acres that are proposed for conversion post-mining.
 - e. The forestland land use has been reviewed and update as necessary. The area requested to change to unmanaged natural habitat is now clearly shown.
 - f. The area inside the 100' stream barrier has been shown as forestland pre-mining and post-mining.

- g. The land uses have been reviewed and updated as necessary. The areas requested to change the post mining land uses are now clearly shown.
- h. The Exhibit 18 has been updated to show that these existing settling ponds will only be used until bonds are released.
- i. The vegetative cover has been revised with Module 23 comments/revisions.

Module 19

- 77. The Module 19.1 has been revised to include land occasionally cut for hay and cropland.
- 78. Some soils within the permit are mapped as being prime farmland soil. They are classified as Primary Agricultural Land per definition under §7.303a, however the following rankings listed in §7.303b requiring state agency protection do not apply. Prime farmland soils will be stockpiled and replaced after mining activities are complete.
- 79. The forestland areas inside the 100-foot stream barrier will remain forestland post-mining. The Module 19 has been updated.
- 80. Module 19.2 has been updated to indicate the pre-mining and post-mining land uses.

Module 20

- 81. Module 20.1 has been revised to include disturbance of cropland.

Module 21

- 82. The soil stockpile areas on the Exhibit 9 have been revised to show A,B,C soils within prime farmland soils and non-prime farmland soils.

Module 23

- 83. The Module 23.2 b has been revised to state that the temporary seeding mixture will only be used in areas that will be re-disturbed or sprayed with herbicide. The Perennial and Annual Ryegrass has been removed from seed mixture #2 under permanent cover.
- 84. The Module 23.3 c) and e) have been revised to clarify seeding methods and when mulching will or will not be utilized.
- 85. The Perennial and Annual Ryegrass has been removed from the permanent seeding mix and additional species have been listed.
- 86. The post-mining land use within the 100' stream barrier will be forestland. The Module 23.4 and Exhibit 18 have been updated to include woody plants.



VIA EMAIL

October 22, 2021

Ligonier Stone & Lime Company
117 Marcia Street
Latrobe, PA 15650

Re: Noncoal SMP and NPDES Application
SMT East Surface Mine
SMP No. 65210301
NPDES Permit No. PA0278491
Derry Township
Westmoreland County

Dear Applicant:

In order to continue processing the above-referenced large noncoal surface mine permit (SMP) application and National Pollutant Discharge Elimination System (NPDES) permit application, the following additions, corrections, and clarifications must be addressed. All regulatory references below are from Pennsylvania Code Title 25. Environmental Protection unless noted.

Module 1

1. The Department issued a revised version of Module 1 in July 2021, with the most significant change being the addition of Page 5-7 in Section H. Please complete and submit a Page 5-7 from the revised Module 1. There is no need to resubmit any other pages. (§77.104)
2. Review Section D, No. 1 on Page 3-6 and revise to "Yes" as appropriate. Module 17 indicates crushing and screening will take place. (§77.104)
3. Revise page 4-6 to indicate "Yes" as appropriate, for Section G, No. 5 as it appears the General Information Form was sent to county and township officials February 24, 2020, although it appears the project description indicated incorrect landowners for mineral removal. Please submit any responses received to the Department. (§77.104)
4. The public notice includes reference to stream variances for UNT #4A and #4B but must also indicate which named stream they are tributary to per the large noncoal permit application instructions. In addition, the stream variance description of work does not accurately include how close to the stream a waiver of §77.504 is being requested. UNT #4A contains no offset distance and UNT #4B specifies that work will be 200' from the head of the stream in conflict with the activity depicted on the Exhibit 9. Add variances requested per Comments 11.r and 11.s below if needed. Revise the publication and re-publish the public notice. (§77.121)

Module 2/NPDES Application

5. Please revise the NPDES application according to the comments below and resubmit appropriate pages. (§92a, §93.7, §77.457, §77.459, §77.526, §77.527, §77.531)
 - a. Revise the application and flow chart to add treatment ponds due to the potential for acidic material to be present in the area of the processing pad per Comment 42. This will avoid the potential for work interruption and the need for a major revision to the NPDES permit should water treatment become necessary.
 - b. In Section A, No. 3, please include the pending SMP and NPDES permit numbers.
 - c. In Section A, No. 13, since revisions are requested for the Exhibit 9, please revise the page to indicate the new date of the exhibit that will be submitted.
 - d. For Section C, No. 21, please provide the source of the average and design rates for the Settling Ponds and provide the combined drainage area of the two Settling Ponds. Update design flows based on updates to pond designs made in response to other comments in this letter.
 - e. Section D includes Outfall 003, the outfall from the existing Settling Ponds. Please provide existing permitting information and actual data for these outfalls from the owner of the ponds. Provide some explanation as to current use of the ponds and documentation that the current owner will allow the ponds to function as settling basins for Phase 1 activities.
 - f. In Section D, No. 24, please provide specific conductivity estimates and indicate units. Re-evaluate the temperatures provided considering all outfalls will be to CWF streams, where the temperature limits range from 3.3 °C in January and February to 18.9 °C in July and August. The COD, BOD, NH₃, and TOC waiver request incorrectly references Hanson as the permittee. Revise and resubmit Page 5.
 - g. The flow diagram for the ponds does not depict the pumped flow from the pit sump into SP-2. All contributing flows should be accounted for when sizing the water control structures to ensure they are of proper capacity. Revise the NPDES flow diagram and the appropriate pond designs and NPDES application to account for all incoming flows in the sizing calculations.

Module 5

6. A new contractual consent of landowner is necessary for Property #1 (Tax Map #45-17-00-0-142). The submitted, previously recorded consent form is from the adjacent coal permit (Property #7 (Tax Map #45-17-00-138)) and contains language about the Surface Mining Conservation and Reclamation Act, which the proposed SMT East permit is not regulated under. Complete and record a noncoal landowner consent for Property #1 at the county courthouse using Department form# 5600-FM-BMP0050. (§77.104, §77.163)
7. Please recheck the landowner names for Properties 15, 83, and 84, which appear to differ between Module 5 and the exhibits. Revise as needed. (§77.104, §77.162)
8. See Comment 33 and update Module 5 as necessary. (§77.104, §77.162)

9. A proposed township road is discussed in the Module 12.3c) narrative and in various places in the application. Construction necessary to upgrade an existing driveway was observed in early 2021 and is within 300' of an occupied dwelling. The Department had discussions with officials from the Derry Township office and PennDOT staff regarding the highway occupancy permit (HOP) and proposed roadway. The HOP application indicates a use of "Industrial/Agricultural" with an anticipated average daily traffic of 100 cars and 400 trucks. Revise the application to address if Limestone Drive is a public road and provide copies of all final documentation documenting this road as a public road. Depict the right-of-way lines, 100' barriers, new drainage control structures, etc. on the exhibits. In addition, indicate what other land development is pending within the proposed permit area that generated the need for the "Developer Agreement" dated December 1, 2020 to be secured with Derry Township. This vehicular pathway provides direct access to PA Route 217 and benefits Ligonier Stone and Lime Co. in the operation of the SMT Property Surface Mine (SMP #65140101) and proposed SMT East Surface Mine permit. Therefore, this activity constitutes a mining activity under §77.1 definitions, "haul road" and "noncoal surface mining activities". Include this entire access road within the proposed SMT East permit boundary and secure an occupied dwelling waiver for Property #23. (§77.1, §77.104, §77.504)

Module 6/Exhibit 6.1/Exhibit 6.2

10. On the Exhibit 6.1, please depict/label the SMT Property Surface Mine and Jelley LNC (SMP #65110401) permit lines and please show the proposed outfalls per the instructions. (§77.104, §77.410)
11. Please revise the Exhibit 6.2 per the following comments. (§77.104, §77.410, §77.504)
 - a. Add the assigned SMP number to the title block.
 - b. Include any needed revisions per Comment 9.
 - c. Label the use of the third building depicted on Property #22.
 - d. Revise landowner names if needed, per the Module 5 comments.
 - e. The area upslope of sample points 109 and 110 is terraced and does not match the surface contours depicted on the exhibits. In addition, investigate and discuss in the appropriate module of the application what activity occurred in this area to create this landform.
 - f. A culvert is not shown to carry UNT 4 beneath Torrance Road, and the culvert that carries UNT 4 beneath SR 217 is not labeled. Please label diameter and culvert type for both culverts.
 - g. On UNT #4A, there is a missing pipe near where the waterline crossing is located. Add this pipe to the exhibit.
 - h. On the north side of the proposed cul-de-sac, adjacent to Route 217, depict the gas meter station present within a chain-link fence and is labeled Peoples Natural Gas.
 - i. Depict the gas meter with fence enclosure located along the Enterprise Products 6" pipeline between the garage and unnamed building on Property #22.
 - j. Please update the table of existing or previously mined areas based on the Module 7.4 comments.
 - k. Please use the blue triangle to depict all monitoring points (MP) for the proposed SMT East permit application on the exhibit. Currently, SMT East 1 is shown as a

blue square since it is part of the SMT Property Surface Mine monitoring program, but it will also be a MP for the proposed SMT East Surface Mine per Module 8, so please change to blue triangle. Also, MP 1 Jelley is depicted as a yellow circle instead of a blue triangle although it is proposed for SMT East monitoring. Please include a table on the exhibit to list the SMT East Surface Mine MPs and for any that are also background or MPs for other permits, indicate this on the table rather than by various symbols. Indicate on the table which are Phase 1 and which are Phase 2 monitoring points. Add notes that Phase 2 monitoring will begin six months prior to any Phase 2 earth disturbance and that Phase 1 monitoring will also continue once Phase 2 monitoring begins. SMT East background points need not be listed on this table and can continue to use the different yellow symbol shapes.

- l. See the Module 8 comments regarding establishing additional MPs and ensure they are depicted on the exhibit and in the MP table. Also ensure all background monitoring points discussed in Module 8 and/or for which 8.1(A)s are provided, are shown on the exhibit per Module 8 comments. Depict/explain the pipe sampled as background point 106.
- m. Show the stream barrier for UNT #1 that would fall within the proposed SMP boundary.
- n. The area between the eastern side of the proposed processing area, SP-1, and along the Enterprise Products pipeline corridor contain woody plant species and should be depicted on the Exhibits with a tree line symbol. In addition, perform an aerial imagery review or site visit and revise the areas of existing forestland present sitewide. Revise on all exhibits.
- o. Depict the 100-foot stream barrier around the existing pond located between NPDES monitoring point 102 and NPDES outfall 002. This "head-of-hollow" pond appears to have been previously constructed in the stream and appears to be the headwaters of UNT #1B to Stony Run.
- p. During a field review, the Department observed that UNT 4B is not depicted far enough upslope and extends another 125+/- feet to the south from background sample point 110. This area also contains vegetation and soils which indicate the presence of a potential wetland.
- q. See the Module 8 and 14 comments regarding additional surface drainage and/or potential wetland areas and depict as appropriate.
- r. An ephemeral channel is depicted beginning west of property #22, passing through a 12" CMP and paralleling the access road towards SR 217. Water was observed flowing in the 12" CMP during the Department's field reviews. Background sample point 112 was collected at the source of this stream and Module 8 indicates Sample 112 is a spring with documented flows in February and March 2020. Revise the exhibits to designate this as an intermittent stream as it is sourced from groundwater at least part of the year based on Module 8. Provide a 100-foot stream barrier on the exhibits, revised module narratives, and other information regarding encroachments or a variance request.
- s. An ephemeral channel is depicted on the northern edge of the permit boundary which emanates from background sample point 12. This point has documented flows in all five samples presented in Module 8. Change this channel to an

- intermittent stream and provide a 100-foot stream barrier and a request variance if needed.
- t. Depict the earthen berms within the existing settling ponds as well as the type and diameter of all piping between and from the settling ponds.
 - u. For each gas well within the proposed SMP area or within 125 feet of the proposed SMP area, depict these on the exhibit and include name of well, name of operator, permit number, and status (active or date plugged), and show the 125 foot barrier. Currently at least two gas wells are documented as being present on the Department's eMapPA program do not appear to be shown, including one in the proposed Phase 2 mining area. Some wells shown on the exhibit are not labeled and at least one well outside the SMP is not shown, but its identifying information and pointer is printed. Some printed well information appears to differ from eMapPA program and data other than the permit number is printed in some cases. Wells more than 125 feet from the proposed SMP boundary need not be shown, but if left on map, should be identified.
 - v. The gas well located within the Phase 2 mineral extraction area, HT Barclay 1 J&J Enterprises, is indicated as a Plugged OG on eMapPA but not shown on the exhibit. In addition to depicting the presence of this gas well, provide the well plugging certificate.
 - w. Provide owner and type/diameter of gas line extending to the northwest from the Apollo Resources, LLC gas well.
 - x. Include the name of the utility line owners for all utilities within 1,000 feet of the proposed permit boundary and the size and pipe material for water and gas lines.
 - y. The owner and the assumed or legal right-of-way for the waterline between properties #11 and #3 must be shown.
 - z. Since other changes are requested, revise the known archaeological sites names on the exhibit and the legend to 36WM314, etc., instead of MW.

Module 7

- 12. In Module 7.2, local structure section, please specifically describe the dip (direction and slope) of the Benwood Limestone across the proposed Phase 2 mining area. (§77.104, §77.404)
- 13. In Module 7.4, please review the following and make any necessary changes. Ensure any revisions are also made to the exhibit table that is keyed to Module 7.4. (§77.104, §77.404)
 - a. It appears that an additional surface mining permit was historically issued within the 1,000-foot offset line, based on the Pennsylvania Historic Surface Mine Permit Locator. Please add Western Pennsylvania Coal Co., Inc. Latrobe Brewing Bairdstown SMP 65793037 (Pittsburgh Coal and Redstone Coal) and 6579111 (Pittsburgh Coal and Redstone Coal) if applicable.
 - b. The Pennsylvania Mine Map Atlas (BMSB_UMM_1320_2993-001) appears to show some underground mining activity beneath the proposed SMP, rather than only adjacent to it, as mentioned in the application. Please review and revise if needed.

- c. SMP 65140101 also authorizes extraction of the Redstone Coal and Redstone Limestone in addition to the Pittsburgh Coal/Pittsburgh Sandstone. Please add these minerals. Also, instead of stating the mine name as “SMT Family Partnership”, revise to “SMT Property Surface Mine”, the operation name of record.
14. SMT East Drillhole DH-4 on Geologic Cross-section A-A’ does not appear to be drawn as reflected in the boring log. The DH-4 boring log appears to show only a 2.5-foot thickness of the Benwood Limestone and also shows a shale unit within the sandstone underlying the Benwood Limestone. Please explain/revise as needed. (§77.104, §77.404, §77.410)
15. Geologic Cross-section A-A’ appears to be crossing the Redstone Coal cropline in an unmined area. Please represent the Redstone Coal cropline on the cross-section, even if data will not allow it to be extended. Also point to the locations where this cross-section crosses the overhead electric line and unused gas line within the proposed mining area. Point to where this cross-section crossed Cross-sections B-B’ and C-C’. Insert the SMP number in the title block. (§77.104, §77.404, §77.410)
16. On Geologic Cross-section B-B’, identify the coal seam shown on the Jelley LNC that pinches out prior to the proposed SMT East Surface Mine permit, if known. Point to the locations where this cross-section crosses Cross-section A-A’ and the underground cable line within the proposed mining area. Insert the SMP number in the title block. (§77.104, §77.404, §77.410)
17. Geologic Cross-section C-C’ appears to be crossing the Redstone Coal cropline in an unmined area as UNT #4 is approached. Please represent the Redstone Coal cropline on the cross-section. Also, please point to the water line adjacent to the proposed SMP boundary. Point to the locations where this cross-section crosses Cross-section A-A’. Point to three, rather than two, gas lines that Cross-section C-C’ crosses northwest of the proposed mining area. Insert the SMP number in the title block. (§77.104, §77.404, §77.410)
18. Please provide at least two cross-sections across the proposed processing area since excavation of existing ground will occur. Depict current and proposed ground surface and the water table surface as possible. (§77.104, §77.404, §77.410)

Module 8

19. Module 8.1 f) states that the cfs to gpm conversion includes multiplication by a factor of 85%. Please provide the reference used and document the applicability of this conversion factor. (§77.104, §77.521, §77.532)
20. Module 8.2, No. 4 states that there are no impoundments within 1,000 feet of the proposed SMP, however, there appears to be a pond located to the southeast and sampled as monitoring point SMT East 100. Please revise as necessary. (§77.104, §77.521, §77.532)

21. Module 8.2, No. 5 must be revised to acknowledge the impoundments located on the adjacent SMT Property Surface Mine. (§77.104, §77.521, §77.532)
22. Per Module 8.2b instructions, provide an explanation as to why cased boreholes / piezometers or monitoring wells are deemed not necessary. (§77.104, §77.521, §77.532)
23. In Module 8.2b, please see Comment 11.k and make appropriate changes, including a table to show SMT East Surface Mine MPs in common with other permits. Add MP 1 Jelley as a monitoring point to No. 2 on page 8-4, in addition to the MP 1 listed for the proposed SMT East Surface Mine. Also add MP 1 to the Phase 2 monitoring program on the Module 8.2b) Addendum. (§77.104, §77.521, §77.532)
24. On the 8.1(A)s provided, the coordinates do not appear to be correct for monitoring point 105 and the longitude was not provided for MP 19 Jelley. Explain the pipe sampled as background point 106 on the 8.1(A). Please revise and provide replacement 8.1(A)s as necessary. (§77.104, §77.521, §77.532)
25. For Module 8.2b, and Module 8.2b Addendum, please add a new downstream Phase 1 MP on UNT 4A, just prior to its confluence with UNT 4 and provide water quality data as it is the receiving stream for Outfall 001. This point needs to be added to No. 2 on page 8-4 and to the Phase 1 monitoring program on Page 8-5. (§77.104, §77.521, §77.532)
26. In the Module 8.2b Addendum, add statements to explain that Phase 1 sampling will also continue when Phase 2 sampling begins, and that Phase 2 sampling will begin six months prior to any Phase 2 earth disturbance. Include Outfalls 001 and 003 in the Phase 1 program and Outfall 002 in the Phase 2 program. (§77.104, §77.521, §77.532)
27. Along with the SMT East Surface Mine MPs, please ensure 1 Jelley, 19 Jelley, and 4A SMT are included in SMT East Surface Mine Hydrologic Monitoring Report (HMR) submittals once Phase 2 monitoring begins. Since portions of the proposed SMP have been historically mined for the Sewickley Coal, please include the additional parameters listed on Page 8.1 e) for the Phase 1 and Phase 2 quarterly monitoring programs, as has been done for the background sampling. (§77.104, §77.521, §77.532)
28. Please ensure if a sampling point is discussed in Module 8.3 that the 8.1(A)s are provided and the points are depicted on the Exhibit 6.2. For example, it does not appear that S16 and S17 appear on the exhibit nor were 8.1(A)s provided for S13, S16, and S17. Please revise the exhibit to depict all three and provide the 8.1(A)s. (§77.104, §77.521, §77.532)
29. Please provide background 8.1(A)s for SMT Property 4A and elaborate on potential historical mining impacts specifically to length of UNT 1B in Module 8.4 b) based on SMT East 102 and SMT Property 4A, since this UNT will be the receiving stream for Outfall 002. (§77.104, §77.521, §77.532)

30. In Module 8.4 b), please explain the source/purpose of the pipe sampled as background MP 106. (§77.104, §77.521, §77.532)
31. Revise Module 8.6 to specifically describe the impact of excavation and earthwork within the proposed process area on the hydrologic balance in that area, and on UNTs 4A, 4B, and 4 to the Conemaugh River. Note that UNTs 4A and 4B are sourced by groundwater (see MP 104, elevation 1034' with documented flow up to 91 gpm, and background MP 110, elevation 1020' respectively). Discuss groundwater presence near the processing area (elevation 1070-1072' in nearby drillholes) in relation to proposed grading work below this elevation. In addition, address the impact to UNTs 4A, 4B, and 4 of diverting surface water runoff to sediment ponds. (§77.104, §77.404, §77.457, §77.521, §77.532)
32. Module 8.7 on Pages 8-11 and 8-12 indicate that Property 7 is owned by SMT Family Partnership, while the exhibits and Module 5 indicate the Property 7 landowner is Ligonier Stone & Lime Company. Please revise Module 8.7 (or the exhibits/Module 5) to indicate the correct landowner. Indicate "Sample Point 5" as "Sample Point 5 SMT" in Module 8.7 and on Table 8.2(A)(8) as appropriate. Update the Sample Point 5 (SMT) and 20 Jelley narratives as needed and clarify whether Oliver Smith (or other person) still resides on the property as a tenant and still may utilize the springs. (§77.104, §77.521, §77.532)
33. Provide 8.1(A)s from samples newly collected or to be provided from other permits as a result above Module 8 comments and Module 14 comments below, and updated 8.1(A)s if additional sampling has occurred for any sampling points since the application was submitted. (§77.104, §77.521, §77.532)

Module 9/Exhibit 9/Exhibit 9A

34. A new access road (6% grade) is shown within the SMT Property Surface Mine permit boundary. Submit a permit revision to SMP# 65140101 to include the proposed roadway that is outside the proposed SMT East boundary. Revise the SMT East Surface Mine exhibit to note that this roadway will be permitted and bonded under SMP #65140101. (§77.466, §77.631)
35. During the Department's review of the application and field evaluation of the proposed permit area, the following items were noted. Please revise the Exhibit 9 and/or 9A for the following comments and discuss in the appropriate modules if required. (§77.104, §77.410, §77.454)
 - a. Many Exhibit 6.2 comments must also be addressed on Exhibits 9/9A. Review the individual comments for Exhibit 6.2 and make the same revisions to Exhibits 9/9A as applicable.
 - b. In the area of CD-7, CD-8, CD-9 intersection, an existing flow path/drainage way is present that contained flowing water. Depict this conveyance on Exhibit 6.2 and 9/9A and describe the source of water in the appropriate application module.
 - c. On Exhibit 9A, depict Outfalls 001 and 003.
 - d. CD-11 is depicted ending at Culvert 6 and then is not tied into any other collection ditches. Revise.

- e. CD-13/CD-14 is shown crossing the driveway to the farmhouse in the Phase 2 area, but no culvert is proposed. Verify that access will be maintained for emergency responders and include a culvert on the Exhibit 9 and in Module 12 as needed.
- f. Provide the acreage for the proposed Phase 2 mineral removal area on the exhibit.
- g. The final highwall is proposed within the minimum 25-foot buffer from the bonded limit specified in §77.572 on the southeastern edge (near the farmhouse driveway) of Phase 2. Revise the proposed highwall limits.
- h. Several topsoil stockpiles are depicted within the mineral extraction area of the Phase 2 area. Relocate these stockpiles outside areas of mineral extraction or revise the operations narrative to clearly explain how the stockpiles will function within the active mining areas.
- i. On Exhibit 9A, please label the gas well (name of well, name of operator, permit number, and status (active or date plugged)) to the south of the proposed mining area. Show the Redstone Coal cropline within the mapped area.
- j. A gas line variance is not depicted on the exhibit nor requested in the Module 10 narratives for the gas line between the southeastern edge of the processing area and the Phase 1/2 transition line. Earthwork is proposed encroaching and crossing the undescribed gas line. Revise.
- k. CD-5 passes through the existing gas well road near the proposed Phase 1/2 haul road and DH-4-18 but no culvert is depicted. Verify that this existing roadway is no longer needed.
- l. Under the Bond Legend, relabel as Phase 1 Mining Area and Phase 1 Support Area since only Phase 1 is being bonded at this time.

Module 10/Bond Calculations

36. In Module 10.1, include discussion of timing of pond construction associated with Phase 1 and Phase 2. (§77.104, §77.452)
37. The Module 10.2c) response indicates that swell of the overburden will compensate for the removal of the 20-foot thick Benwood Limestone. No quantitative swell factor is discussed anywhere in the application. Revise to include the expected swell factor and be aware that supporting volume calculations of both the spoil and mineral removal will be necessary in the bond calculations prior to the mining of Phase 2. (§77.104, §77.456)
38. The narrative response in 10.3 discusses that some areas of the proposed SMT East Surface Mine have overlapping drainage with the adjacent SMT Property Surface Mine. Revise and provide an evaluation to ensure that water from the disturbed area on SMT East Surface Mine is not comingled with water from the SMT Property Surface Mine. (§77.104, §77.452, §77.457)
39. The 10.4 narrative includes several discussions that are not related to the overburden piles such as backfilling the pit, overburden swell factor and restorations of the highwall to safe slopes. Revise the narrative to answer the question. (§77.104, §77.452, §77.456)

40. It is indicated in the 10.5 narrative that 6 inches of topsoil will be spread evenly across the site. However, the information requested in the application does not ask for this. Module 21 indicates that the average topsoil thickness across the site is 8.5 inches. Revise the 10.5 narrative to provide the answer posed in the application. (§77.104, §77.456)
41. The 10.6 question requests that an estimated timeframe for reclamation activities be included. Please indicate the anticipated longevity of the operation, estimated mineral extraction duration, and time required to reclaim the mineral extraction area as well as the processing area. (§77.104, §77.456)
42. The Module 10.7 narrative does not discuss that earthwork will occur for the processing pad and erosion and sediment (E&S) controls within areas where the Sewickley and Redstone coal seams may be present. Historic mining practices included leaving a crop barrier in place. Drillhole series DH-1-18 through DH-4-18 indicate the presence of backfill to approximately 20-40 foot depths with coal shown as present at 1107' elevation in DH-4-18. The Department believes there may be potential for intact coal at the Sewickley crop if a barrier was left, or if not, still some potential to encounter coal or acidic mine spoil in/near the previously mined area. Perform additional field investigation within the area to be excavated or assume that a crop barrier or coal/acidic spoil are present. Revise the Module 10.7 and 10.8 narratives to discuss the identification, segregation, temporary storage, disposal, and water handling plan for potentially acidic material. Also revise Module 13, the Exhibit 9, and the NPDES application to include treatment ponds in the event that coal or potentially acidic material will be encountered and stored on-site. (§77.457, §77.526)
43. It is indicated in the 10.9 response that if a future encroachment within a 125-foot gas well barrier becomes necessary, coordination with the well owner will occur. Provide the necessary information and request a gas well variance during the current application review; or revise the narrative to include that a mining permit revision will be necessary to secure a variance of the 125-foot barrier. (§77.104, §77.504)
44. Revise the 10.11 narrative to discuss the depth to the Pittsburgh Coal Seam/abandoned underground mine complexes beneath the proposed surface mine/Phase 2 mining area. Provide justifications why no impacts from the proposed permit operations are anticipated as required in the 10.11 question. Refer to Module 7.4 comments. (§77.104, §77.452, §77.463)
45. The following comments pertain to Module 10.14. (§77.104, §77.452)
 - a. The narrative indicates that agreements for gas line crossings, electric line relocation and removal of an inactive Equitrans gas line will be secured and submitted in the Phase 2 bond increment. The necessary agreements are required for permit issuance as the Department cannot condition a permit for variances necessary for the operations depicted on the exhibits and discussed in the narratives. The mining plan is reviewed and approved for all activities included in the application regardless of if phasing of bond will occur.

- b. Grading, ditch excavation and a haul road crossing are proposed near/over an unnamed gas line between the proposed processing area and the Phase 1/2 boundary. Secure a crossing and/or variance agreement and describe how the gas line will be protected during mining activities.
 - c. Within the Phase 2 area, a waterline is present between properties #11 and #3 and the highwall is proposed to be within approximately 33 feet. No right-of-way is depicted for this waterline on the Exhibits 6.2/9. In addition, no discussion on the measure(s) that will be employed to protect this line nor description (owner/size/material) of the waterline is included in the Module 10.14 response. Revise.
 - d. The owner of the overhead electric line paralleling the eastern edge of the processing plant is not identified on the Exhibit 9. Discuss in the 10.14 narrative if any impacts to this utility expected and what safety measures will be observed to protect this utility during operations.
 - e. Include discussion on how the underground cable line will be handled in the proposed Phase 2 mining area.
46. Revise bond calculations using the current rates and by addressing the following comments. (§77.193, §77.195, §77.202)
- a. The demolition costs provided for the conveyor and belts includes personnel rates and hours but makes no mention of equipment used for demolition. Please include the costs of the equipment necessary for the demolition/removal operations.
 - b. The mobile equipment line item does not contain the removal of the scale; only the scale house is included. Add an additional cost for the removal of the scale and footings.
 - c. The grading volume is not supported by calculations or software printouts. In addition, no cross-section or operation and reclamation narratives sufficiently depict or describe the earthmoving necessary to allow the Department to verify the 135,000 cy volume indicated. No discussion on swelling/shrinkage factors are provided. Revise to address, however, do not use the swell factor estimated from in-situ volume to excavated volume as shrinkage will occur which should provide a final swell factor of approximately of 5%-10%.
 - d. The unit cost provided for grading to restore the processing area is not sufficient based upon the scaled distances on the Exhibit 9/9A. Utilize the Department's coal bond guidelines for material haulage over 500 feet (\$1.40/cy) or provide costs from Walker Building Estimator / RS Means cost estimating references.
 - e. On the Bond Calculation Summary – Noncoal Consolidated, add the permit number and indicate Phase 1 Bond after the Mine Name.
 - f. Provide the executed form 5600-FM-BMP0304 and indicate Phase 1 Bond on the form.

Module 12

47. The 12.1 Diversion/Collection Ditch Data Sheet was submitted on the 2002 form and not the 1/2014 version. The most recent form (#5600-PM-BMP0315-12) available on the Department's eLibrary must be provided. (§77.104)

48. The diversion controls discussed in the 12.1 narrative indicate that diversion ditch DD-1 outlets to an existing pond. In addition, as depicted on the Exhibit 9, Sediment Pond 2 also discharges to this existing pond. Provide a drainage analysis that confirms no impacts to the hydrologic regime of the existing "head-of-stream" pond which currently receives surface runoff from approximately 45 acres based on the USGS StreamStats data. (§77.104, §77.457)
49. Rock protection should be utilized at abrupt changes in ditch direction or ditch intersections of grass lined channels to dissipate energy and minimize erosion as described in Chapter 6 of the Department's Erosion and Sediment Pollution Control Program (E&SPCP) Manual. Revise. (§77.458, §77.525)
50. Rock lining of ditches should continue down the inslope of the sediment ponds SP-1 (CD-4 and CD-10), SP-2 (CD-13/14, CD-17, CD-18). Revise. (§77.458)
51. Collection ditch CD-11 collects runoff water along the haul road between the pit and the processing plant and then flows into CULV-6. Discuss where the water goes or add a collection ditch to show where this water will be directed. (§77.104, §77.457, §77.458)
52. The operator has proposed the use of compost filter sock to control the sediment and runoff water from the haul road fill slope. It is not clear from the exhibits if the haul road between the processing area and the adjacent SMT Property Surface Mine permit will also contribute drainage to these controls. As proposed in the 12.3 (b) narrative, the operator should clearly show that this haul road runoff water will be intercepted by a collection ditch and directed to sediment pond SP-1 on SMT East via a collection ditch. (§77.104, §77.457, §77.458)
53. Collection ditch CD-5(4) has a slope of 12.56% necessitating that ditch lining must be evaluated using the shear stress method. The applicant applied the assumed 40% void space method recommended by Chapter 6 of the E&SPCP Manual but did not supply the calculations used to determine the new flow depth or provide a narrative explaining the method used for verification by department personnel. Revise (§77.104, §77.458, §77.525)
54. Collection ditches(segments) CD-5(2), CD-7, CD-11(2), CD-12(2), CD-13(2), CD-15, CD-18(1), DD-1(1), and DD-1(4) pass velocity check, but not velocity with freeboard check. According to the E&SPCP Manual, page 139, to achieve stable flow conditions, all channels must have a minimum freeboard of 25% of the flow depth or 6-inches, whichever is greater. Adjust the ditch design and/or provide the appropriate lining and provide the adjusted calculations. (§77.458, §77.525, §77.527)
55. Compost filter sock #2 should be extended or tiered upslope to fully capture the disturbance area necessary to construct the emergency spillway. Revise the E&S plan and show on the exhibits. (§77.458, §77.525, §77.527)

Module 13

56. Discuss treatment pond in Module 13.1. Include treatment pond designs in Module 13 and revise the exhibits to account for water treatment while performing earthmoving activities in the processing area with the removal of potentially acid-bearing materials, (§77.457, §77.526)
57. The Module 13.1 narrative discusses possible use of flocculants or gel logs in Sediment Pond SP-2 if necessary. If the use of flocculants or gel logs are a possibility, they must be approved by the Pennsylvania Fish and Boat Commission (PFBC) prior to use, due to the potential toxicity and impact to aquatic life. Please provide information to Daniel Ryan, PFBC Fisheries Biologist (814.359.5140; daniryan@pa.gov) regarding planned or potential usage of flocculant/gel logs. PFBC requires a written site-specific plan to review how and where the flocculants will be applied. The submittal should include the following.
- Safety Data Sheets (SDSs) for each flocculant (or type of gel log) that will potentially be used.
 - Location of each type of flocculant application and distance from the discharge. The flocculant application should be as far removed from pond outlet as possible.
 - Quantity of flocculant to be applied and demonstration to adherence to the manufacturer's recommendations.
 - Provisions to prevent flocculant from being washed into waterways (i.e. applicant may propose to close pond outlet while flocculant is being dispensed, etc.).
- Provide the Department a copy of the approved flocculant usage plan, as well as the correspondence with/approval of PFBC and a copy of the PPC plan that accounts for onsite storage and use of flocculant, as an attachment to Section F. (§92a, 29 CFR 1910.1200(g))
58. The narrative in Module 13.2 indicates that the SP-2 will receive pumped water from the pit sump at a rate of 1.5 cfs. If separate treatment ponds for pumped pit water will not be proposed in the Phase 2 area, revise the design of SP-2 and all narratives so this flowrate is clearly incorporated in the storm storage and sediment storage design. The pond at maximum 10-yr 24-hr storage should be utilized as the starting point and then the pit sump volume should be added while accounting for the higher volume of fine sediment that will be present from the pit. (§77.459, §77.527, §77.531)
59. The sediment pond certification form for SP-1 and SP-2 indicate that the ponds are self-draining, but the designs indicate that pond dewatering will be valve dependent. In addition, the dewatering type/size should indicate that the 6" PVC is perforated riser with capped top, per the designs. Revise the certification forms and the narratives in 13.2, and 13.5 to include valved dewatering. (§77.461)
60. The sediment pond designs should include Standard Construction Detail #7-12 from the E&SPCP Manual to document the required use of an earthen plug for rock-lined emergency spillways. (§77.461)

61. From the Exhibit 9, aerial imagery, historic mining boundaries, and field reviews, it is evident that previous mining or other surface disturbances have occurred in the location of SP-1. Include an impermeable liner in the designs of SP-1 and specify the material and source. If proposing the use of in-situ clays, include calculations of the volume necessary and field verified quantities available within the proposed bonded area. Revise the certification form and design sheets accordingly. (§77.461, §91.34, §91.35)
62. The 13.3 narrative discusses that the existing (settling) ponds north of SP-1 may be used as part of the operation and the NPDES permit application contains an outfall identifier (003) for these ponds. If use of these ponds is desired, provide designs, details, pond certification forms, and specifications in the application. The original use of these ponds is not specified in the application. These impoundments may have been oil and gas related based on the signs posted on the fencing indicating Keyrock Energy, LLC as the owner. In addition, a Department field review in April 2021 generated the following concerns with these impoundments: (§77.461, §91.34, §91.35)
 - a. The synthetic liner that had been utilized for the pond's original use has been removed which allows the underdrain to discharge water through the bottom of the pond.
 - b. No principle spillway was observed to allow a discharge from the final pond.
 - c. Ownership documentation of these ponds must be secured and provided to the Department as part of the design review for the mining permit.
63. Provide a justification in the 13.3f) narrative or reference the required response in Module 10.11 narrative on why subsidence from underground mining is not applicable for the sediment ponds. (§77.104, §77.461)
64. SP-1 is requested to remain as a permanent structure. Please note, that even though a landowner request has been provided, compliance with §77.530 can't be determined until mining is complete and will be reviewed upon submission of a Stage 1 Completion Report. For SP-1 to remain, it must be designed as a permanent structure including embankment slopes, spillway capacities, etc. Current design of SP-1 indicates that several aspects will not meet permanent requirements. (§77.104, §77.458)
 - a. Both inside and outside constructed embankment slopes must be 3:1. The inside slopes are currently 2:1 in the designs.
 - b. An intended use of the postmining impoundment must be specified to allow the requisite review.
 - c. If the postmining use of the impoundment will no longer include automatic or scheduled manual dewatering, then the principle and emergency spillways will require redesign to carry a larger storm event since there will be minimal storm storage capacity.
65. SP-2 is proposed with in-slopes of the constructed embankment at 2:1. If the lifespan of SP-2 is greater than 10 years, 3:1 slopes should be utilized as the pond would then qualify as permanent structure for design purposes. (§77.104, §77.458)

Module 14

66. The Exhibit 6.2, 9, and 18 depict “potential” wetlands within the permit boundary that have not been delineated. A wetland is present along the existing gas well road near where the proposed access road crosses onto the existing SMT Property Surface Mine permit. It was observed during the Department’s field review that the existing gas well road corridor has been substantially cleared and what appears to be a ditch installed perpendicular to the former grass roadway passing through this wetland. Perform a standard wetland determination investigation in the following areas and submit the required documentation in Module 14 in accordance with §105.18a if wetland impacts are proposed. (§77.104, §77.403, §105.18a, §105.20a)
- All areas within the permit boundary currently depicted as “potential” wetland.
 - The topographically depressed wet areas along the SP-1 eastern embankment.
 - In the Phase 2 area near the farmhouse and CD-14/DD-1.
 - East of the proposed outfall 002 in the general vicinity of DH-11.
 - At the head of UNT #4B and background sample point 110.
67. The Module 14.1 response for Stream Variance #1 discusses that a variance is necessary for access road upgrades and for SP-1 to be constructed. Based upon the Exhibit 9, it appears that the SP-1 dimensions can be modified, or the footprint shifted slightly to remain outside the 100-foot prohibited area. Discuss what site features require the pond to be cited in the proposed location. Shifting SP-1 approximately 50 feet or slight modifications in the length/width will allow protection of the existing riparian stream buffer. The riparian area should remain as forestland and in an undisturbed condition a minimum 100-foot (150-feet preferred) from all streams in accordance with the Department’s Riparian Forest Guidance TGD#394-5600-001. Riparian buffers should be maintained when possible or restored within the 100-foot stream barrier area. (§77.457, §102.11, §102.14)
68. The narrative response for stream variance #1 and #2 under Module 14.1 c) and i) do not describe the resident aquatic community, assessment of probable hydrologic consequences, the impact that removal of riparian vegetation will have on the streams, or who collected the data and made the determinations. The request for variances to be within 100 feet of the head of streams will not be approved without clear justification that impact to the hydrologic flow regime will be avoided. This includes diversion of surface water runoff emanating from either groundwater or storm events and changes to riparian cover. The Exhibit 14.1 (1) and (2) both indicate the drainage areas contributory to the streams prior to installation of E&S controls. Include discussion on interruption to surface water flows and sitewide impacts to infiltration. Revise. (§77.104, §77.457, §77.504)
69. Section 14.1 (a) of the narrative mentions the SP-1 emergency spillway and collection ditch CD-1 construction will not occur within 30-feet and 50-feet respectively, CULV-2 and CD-4 should also be included in the narrative with the appropriate distances. Revise. (§77.104, §77.504)

70. During a field investigation, the Department observed that UNT 4B is not depicted far enough upslope and extends another 125+/- feet to the south from background sample point 110. This area also contains vegetation and soils which may qualify as a wetland. Module 14 regarding stream variance #2 needs revised to reflect field conditions. Revisions to the proposed haul road and all exhibits will also be necessary. (§77.457 §77.504)
71. Correct the title of Exhibit 14.1(2) to "Stream Variance #2 Map". (§77.104)

Exhibit 16.17

72. Please see the above comments for Exhibits 6.2 and 9/9A and make the same revisions to Exhibit 16.17 as applicable. (§77.104, §77.410, §77.454)

Module 17

73. If issued, the mine permit will be conditioned that no mineral processing can occur until the operator secures the necessary air quality permit(s) through the DEP Southwest Region Office. (§77.575)
74. Revise the Module 17.2b) narrative to indicate the speed limit that will be utilized onsite to limit the generation of fugitive emissions. (§77.575)
75. The Module 17.3 narrative response does not sufficiently address why the proposed operations will not become a public nuisance. The following should be provided to allow the Department to evaluate the proposed noise pollution of the mining operation. (§77.104, §77.575)
- a. Background ambient noise should be documented (base level).
 - b. An estimation of the noise generated by the proposed operation that will contribute to the base level.
 - c. An assessment of the effect the operation will have upon the closest sensitive receptor(s). (i.e. residences, daycares, schools, outdoor recreation areas, etc.)
 - d. Proposed noise mitigation strategy to isolate sensitive receptors and ensure the operation does not become a public nuisance.
 - e. The above items should contain numeric data to support the narrative plans to a reasonable extent. Substantive reasoning and foundation must be provided for the characterization of noise and the proposed mitigation efforts. General estimations and guesses are not adequate.
 - f. The application requires identification of operational noise sources. Examples of noise sources include:
 - i. Mobile Equipment (i.e. construction equipment, mine equipment, yard equipment, trucking to and from the site entrance, etc.)
 - ii. Stationary Equipment (i.e. crushers, pumps, screening tower, conveyors etc.)
 - iii. Mining Activity (i.e. spoil dumping)

Module 18/Exhibit 18

76. Please revise the Exhibit 18 per the following comments. (§77.104, §77.410, §77.454)
- a. See the above comments for Exhibits 6.2 and 9/9A and make the same revisions to Exhibit 18 as applicable.
 - b. Ensure the exhibit reflects the ditches, ponds, and haul roads that are requested to remain permanently. Revise note #3 to include that Department evaluation and approval for permanent impoundments under §77.530 and §77.533 is necessary prior to bond release.
 - c. Include the 95-acre disturbance limit to the Exhibit 18 to clearly designate which areas are proposed for disturbance and will require reclamation.
 - d. In the “Land Uses” table, provide the acres of each existing land use and the acres that are proposed for conversion post-mining.
 - e. Currently, there are areas on the permit that are not depicted with a tree line and therefore are not classified as forestland. However, based on a field review and aerial imagery, forestland does exist outside the areas currently indicated. Revise the exhibit to include all existing forestland and clearly distinguish the areas that are requested to change to unmanaged natural habitat.
 - f. The area within 100 feet of UNT #4A is depicted as unmanaged natural habitat. Revise, as this area must remain as forestland per a previous comment in this letter under Module 14.
 - g. There are areas adjacent to the Enterprise Products gas line corridor which have trees present and will not be impacted during mining operations but are depicted as unmanaged natural habitat. Revise to reflect existing land uses within the permit and clearly depict the areas of requested land use change.
 - h. The existing settling ponds that may be used for the proposed operations are depicted on the exhibit as remaining. If these ponds will be utilized for mining and therefore redesigned for that purpose, they should be removed from the Exhibit 18 as they will not be approved to remain postmining. Revise.
 - i. Revise vegetative cover section in accordance with Module 23 comments / revisions.

Module 19

77. The Module 19.1 narrative should be revised to include land occasionally cut for hay and cropland as two additional land uses that have occurred on several areas within the permit boundary. Therefore, include productivity rates for corn as two separate areas of the permit area along the western edge of Phase II and the existing field at the processing pad area have previously been planted in corn. (§77.104, §77.462)
78. Several areas within the permit contains soils that are classified as Primary Agricultural Land (prime farmland). In addition, prime farmland soil stockpiles are depicted on the Exhibit 9. Revise the 19.1 narrative and elsewhere in the permit application to ensure that prime farmland is preserved in accordance with the Commonwealth’s Agricultural Land Preservation Policy. (§77.104, §77.462)

79. Existing forestland that is proposed to be disturbed within 100 feet of the banks of a stream should be returned to forestland to protect and conserve the riparian areas. If this is not done, an impact to the hydrologic balance is possible. Include that forestland within the 100-foot stream barriers will remain forestland post-mining. (§77.104, §77.457, §77.504)
80. The 19.2 narrative indicates that the affected surface area will be reclaimed to the pre-mining land use on the property. This statement conflicts with those provided elsewhere in the application. Revise. (§77.104, §77.462)

Module 20

81. Cropland is present within the permit boundary with two areas of prime farmland soils with previous crop usage that will be affected by mining. Revise the 20.1 narrative to include disturbance of cropland. (§77.104, §77.462)

Module 21

82. The Module 21 narratives discuss that soil horizons will be segregated and utilized during reclamation as topsoil and subsoil respectively. Provide distinct topsoil stockpile areas on the Exhibit 9 for prime farmland soils (A, B, C) and non-prime farmland soils (A, B-C). Ensure that the stockpiles are clearly marked in the field until their redistribution. (§77.454, §77.513, §77.502)

Module 23

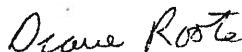
83. Perennial Ryegrass and Annual (Italian) Ryegrass are proposed for use in the temporary cover specified in Module 23.2 and on Exhibit 18. Both species are known to act in an invasive manner in certain conditions according to USDA and PA DCNR publications. Revise the narrative to reinforce that the temporary seeding mixture will only be used in areas that will be re-disturbed or sprayed with herbicide. They should also not be utilized as a nurse crop for permanent seeding. (§77.613)
84. The 23.3c) and e) response should be revised to clarify the seeding methods (conventional agricultural drill/hydroseeding) and when mulching will be utilized. Revise the narrative to conform with §77.617 which specifies the exact conditions when mulching is not required. (§77.456)
85. The permanent cover species listed in 23.3 should be revised to minimize the use of Annual Ryegrass (Italian Ryegrass) and Perennial Ryegrass or be removed from the permanent seeding mix for the reasons stated above. Revise the planting list to include additional species such as Partridge Pea, Autumn Bentgrass, Deer Tongue, or other combination of species that will provide a benefit to wildlife, have not shown tendencies of becoming invasive, and are compatible with the long-term success of the desired unmanage natural habitat land use. (§77.456, §77.613, §77.615)

86. Prior comments discuss that reforestation should be performed in any areas that are to be approved to be disturbed within 100 feet of a stream. Revise the Module 23.4, Exhibit 18 and elsewhere as needed to include wood plants in the reclamation plan. Utilize a variety of tree and shrub species that thrive within and provide habitat for riparian areas. (§77.104, §77.456)

The revisions and additions you submit must satisfy the provisions of Title 25, PA Code Section 77.126 by providing an affirmative demonstration of compliance with all existing laws, rules and regulations of the Department. All revised plan drawings must bear the date of revision and the seal or signature of the engineer or person who prepared the revision. All revised pages of the revision and renewal applications, including the narrative, must indicate page number and date of revision. If revisions extend beyond the original page, each additional sheet should bear the original page number and a sequential letter of the alphabet.

Please submit the original, three hard copies and one compact disk (CD) of all information within 21 business days or by November 22, 2021. If you have any questions regarding this matter, please contact me at 724.591.0937.

Sincerely,



Diane Roote
Licensed Professional Geologist
Bureau of District Mining Operations

cc: Earthtech, Inc. Uniontown – email
Application File – hard copy
K. Speelman, Acting Permitting Chief – email
C. Meyer, Environmental Group Manager - email
M. Evans, MCI – email and hard copy
M. Somogyi, MCIS – email
C. Vought, Sr. Engineer – email
M. Rudnik, Engineer – email
D. Roote, Lead Reviewer – email
e-FACTS – email